











Supporting the Global Observing Systems Design and Evolution:

An Approach to Account for the Prioritization Concept in the WMO RRR Process

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- There is value in including the notion of prioritization in the RRR process
- Implicitly, if no priority is given, it means we are conveying all are equal
- The observations users community is more adept to estimate these priorities than the designers of the obs. systems and networks
- Knowing these priorities immensely help the obs. systems/networks designers by letting them know where emphasis should be put
- This could help the Coordinators of the new Earth System Application Categories in the new RRR process to develop their Statements of Guidance
- This could help the Application Area Points of Contact to do the gap analysis with focus on the critical variables to be observed
- This could contribute to identifying core and recommended WIGOS data in the WMO Unified Data Policy.
- The priorities are meant for (could be set to equal weight by default):
 - The observables weights themselves (does an application value more temp. than moisture for instance?)
 - Their observables attributes weights (When an application requires T, does it value more the spatial resolution than the precision/accuracy for instance?)









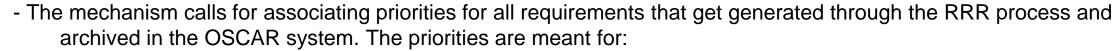






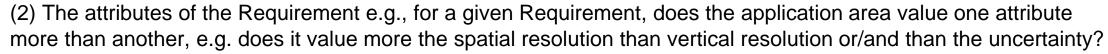
Mechanism to Prioritize the Requirements:







(1) The Requirement itself e.g., does an application value more the near surface temp. than moisture for instance?





We call these priorities the Application-dependent Technical Priorities (ATP) and should be defined to convey, for a given application area, the relative importance between the requirements and, for a given requirement, the relative importance between the attributes. These priorities (or weights) should be a numerical value between 0 and 1, that can be used for optimizing network design purposes. They should be defined with a minimum level of granularity i.e., enough to be useful but not too complex to assign.



We provide definitions for guiding these priorities (see concept paper for details) .









Example for Illustration: Prioritization of Requirements and Associated Attributes

