



BoF on “Weather, climate and air quality” interest group

7th RDA Plenary Meeting, Tokyo, 1-3 March 2016

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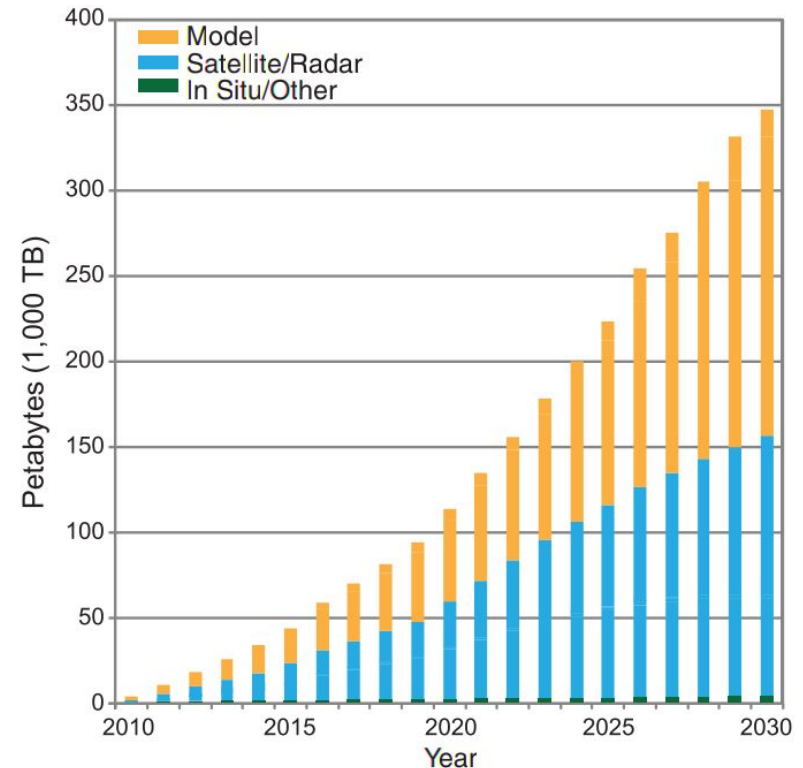
Pierre-Antoine Bretonnière, Barcelona Supercomputing Center

- 11.00 - 11.10: **Introduction of the IG objectives**
- 11.10 - 11.40: Summary of the first kick-off workshop
- 11.40 - 12.10: Data challenges for the weather, climate and air quality communities:
 - 11.40 - 11.55: Using weather, climate and air quality data in transportation and disaster management" (Manos Chaniotakis - Centre for Research and Technology Hellas)
 - 11.55 - 12.10: Climate sciences data publication: the example of Scientific Data (Khodiyar Varsha, Scientific Data)
- 12.10-13.00: Discussion and next steps:
 - Objectives of the IG
 - Link with other IG/WG
 - Link with industry
 - Next steps

Introduction of the IG objectives

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- Recent and exponential increase of data volume and diversity leads to new problems in the earth sciences community
- Need for new data solutions to avoid:
 - Having data “stuck” locally and difficult to share among institutions.
 - Too complex data indexing and discovery of big data repositories.
 - Undocumented datasets or lacking metadata.



Source: Overpeck et al. (2011), "Climate Data Challenges" in the 21st Century, Science

Introduction of the IG objectives

- Some of these problems are common to other communities (data transfers, metadata, pids,...) but some others (ontologies, data organization, dynamic datasets,...) are very **specific to the weather, climate and air quality community**.
- **Strong pressure** from a **large user community** (urban air quality, climate-change adaptation, industry sensitive to environmental pressures).

Introduction of the IG objectives

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- Use RDA infrastructure to gather people from our communities but also data specialists and try to find answers to these data challenges.
- RDA should be seen as a unique opportunity for sharing data knowledge with other communities and push for political decisions in terms of data standards.
- Foster collaboration with other RDA IG/WG.



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Introduction of the IG objectives

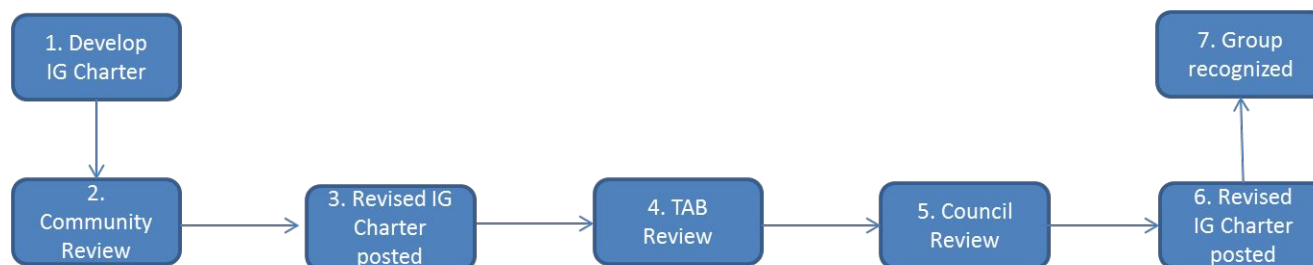
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- In this Research Data Alliance Interest Group, we want to explore and discuss the challenges for the use and **efficient analysis** of **large** and diverse **datasets** from the **climate, weather and air quality** communities.
- Based on a collaboration between several **research** meteorological and European climate institutes and taking into account input from the **private** (renewable energy, satellite and agriculture sectors for example) **and public sectors**, this IG will suggest **practical and applicable solutions** for Big Data issues encountered by these communities, both at **technological and policy** level.

Steps for the creation of the IG

| Membership | Duration | Outcomes | RDA liaisons | Review process |
|--------------------------|---------------------------------|--|--------------------------------------|--|
| All RDA members can join | As long as the group is active. | Possibly case statements for new WGs, coordination, communication. | 1 Tab member 1 Secretariat member | Community review (4+ weeks), then review by TAB (2 weeks) and Council (2 weeks). |

https://rd-alliance.org/sites/default/files/attachment/RDA%20Interest%20Group%20Template%202014%20April%202015_ksf.docx



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Discussion and next steps

- Are you aware of other RDA IG or WG we should/could collaborate with?
- Do you see any overlaps with other IG or WG?

<https://rd-alliance.org/groups>

- Apart from the one mentioned previously, do you think we should add **other objectives** to this IG?
- How do you see the **collaboration with the industries**/private sector?
- What added value could the **SMEs** bring to this IG?

Discussion and next steps

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- Should we consider involving **other entities or consortia** (IS-ENES, EUDAT, ESGF)?
- How do the **earth observations and satellites** communities deal with their data (ESA, EUMETSAT)?
- Ideas of **solutions**?
- Next steps