

# **The SEENoTC : A Frame for Improving Data Exchanges and Added Value within the European Space Environment Community**

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# SEENoTC

- “Space Environment and Effects Network of Technical Centers”
- ESA, National agencies + Eurospace
- One Steering Board, one Working group
- Purpose (extract from ToR)
  - *“to reinforce the coordination of both existing and planned activities related to space environments and effects in Europe, and*
  - *to strengthen Europe’s position in this field through the implementation of a coherent strategy developed by the participants of this Network”*

# SEENoTC

- *“The scope of the domain covered by the SEENoTC includes:*
  - *energetic particle radiation and its effects on systems, payloads and humans and*
  - *natural and induced plasma environments and their interactions with spacecraft, and resulting effects on systems and payloads”*
- *“The tasks for the SEENoTC are, at a programmatic level*
  - ....
  - *to coordinate a European **programme of in-orbit technological experiments**, ground facilities, and **analysis and modelling infrastructures”***
- → To start with, this workshop

# What is the situation ?

- European strengths :
  - Very good instrumental capability
  - Probably the better data repository worldwide
  - Very good data analysis and modelling capabilities
  - Upward stream to standards (particularly, ECSS)
  - Cooperation networks with USA, Japan, Russia,...
- The points we may wish to improve :
  - Few “in-house” data compared to others (USA, JP, R)
  - Few flight opportunities for instruments
  - Networking inside Europe
  - Federation, capitalisation, added value (valorisation)
  - Sustainability, long term stable activities

# Short term propositions

- Programmatic and sustainability issues :
  - Depends on agencies and member states
  - Will take some time
- Short term actions (in the field of this workshop)
  - Practical important actions within SEENoTC are achievable within short term, i.e.
    - to create conditions for better and easier data exchanges and usage,
    - to go toward the building of a European “common pot”
  - To set up a common data processing standard
    - Common language, Quality label
    - → Confidence in the quality of the data in the “pot”
  - To set up a data usage policy
    - Guarantees, usage code
    - → Confidence in the safety of the “pot”

# Data processing standard

- To ensure that the datasets labelled by the SEENoTC are clean, well calibrated and the limits and caveats of the data usage is fully understood and communicated to the users.
- It would be very useful at the end of this workshop to have a draft/defined procedure and set of requirements for a dataset such that they may be considered "certified".
- Such data processing requirements could be based upon the COSPAR PRBEM guidelines on the standard file format [http://www.onecert.fr/craterre/prbem/Standard\\_File\\_Format.pdf](http://www.onecert.fr/craterre/prbem/Standard_File_Format.pdf) and the data analysis procedure [http://www.onecert.fr/craterre/prbem/Data\\_analysis.pdf](http://www.onecert.fr/craterre/prbem/Data_analysis.pdf).

# Data usage policy

- To develop and discuss a draft “SEENoTC – labelled” agreement for data sharing and usage.
- As a starting point, it should include
  - the conditions under which the data may be used,
  - the availability, acknowledgments and/or requirements for co-authorship in publications,
  - instrument PIs/contact persons,
  - permissions of use, permissions to further distribute,
  - and a process for reporting problems/issues with the datasets.

# Conclusions - How to proceed ?

- A discussion item for this afternoon round table
- A work meeting with the main involved laboratories and “data providers” as soon as possible
- Write an agreement between agencies and laboratories for sharing, validating and using the data
- SEENoTC encourages the membership of countries/institutions who have data to share