

# COORDINATION OF INTERNATIONAL SPACEBORNE SAR MISSIONS Working Group 2 – Future SAR Systems P. Rosen (JPL), M. Suess (ESA), M. Zink (DLR)

International SAR Coordination Workshop
ESA/ESRIN
28 September 2022

# <u>2018 Recommendation 3:</u> Take an optimized systems approach to the overall constellation of planned and proposed missions to explore the possible mutual benefit of the total constellation coverage and capabilities.

- Each organization, understandably, optimizes its system for its needs within its limitations. By evaluating the global constellation of missions as a coordinated system, there are opportunities for enhanced or new capabilities, while meeting individual agency requirements. Some examples:
  - ➤ Better filling of gaps and higher repeat coverage by slight adjustment of orbit, node crossings or local crossing time.
  - ➤ Quick response for time critical applications.
  - ➤ Better continuity of observations over a long period of time (multi decadal).
  - ➤ Enable new multiple system capabilities such as bistatic observations and multi-interferometric observations.
  - > Left / right imaging coordination to overcome shadowing



#### **2018-2022** Activities

- Martin Suess, Manfred Zink, Paul Rosen Working Group Co-chairs
- Working group members from ESA, DLR, JAXA, CSA, NASA, ASI, CONAE
- Regular working group meetings
  - Strategy for coordination
  - Surveys of missions and plans
  - Discussions on status of missions in planning to look for coordination opportunities
- Supported LPS'19, IGARSS'21, LPS'22, IGARSS'22

WG -2: Future imaging systems - Goals, plans,

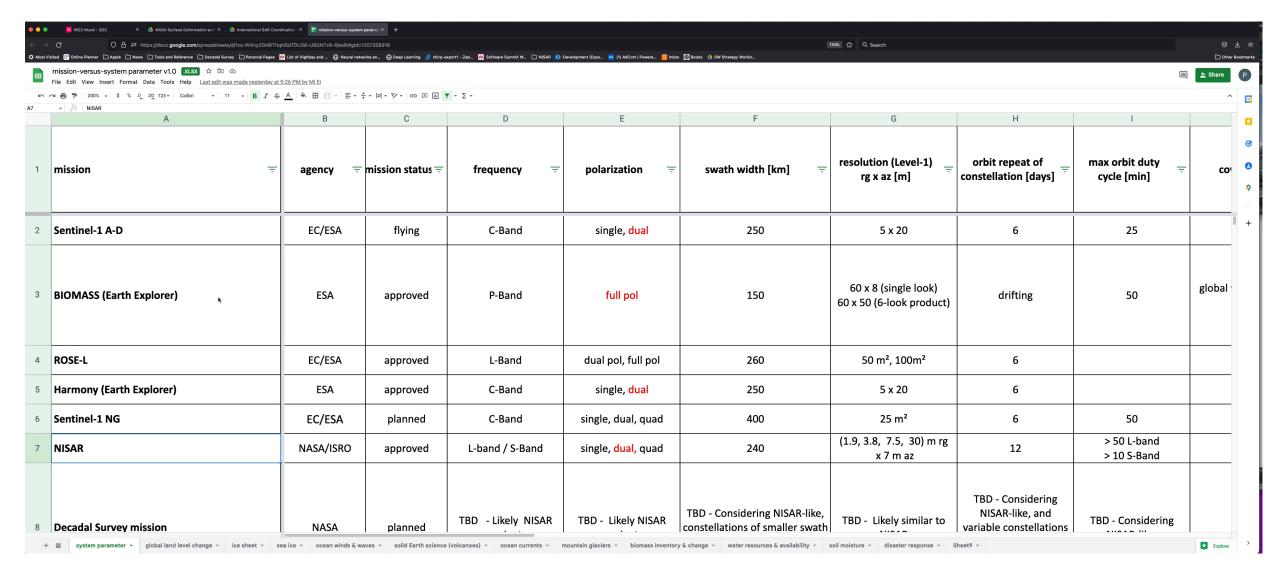
challenges and opportunities

#### • Workplan:

- Identify a set of global science measurements of interest to many/most countries with space agencies, which can be addressed by SAR (possibilities depicted at right)
- Consider specific inter Agency coordination scenarios
  - e.g. multi-lateral partnerships, federations,
     CEOS/GEO-centric initiatives
  - Identify potential opportunities and roadblocks
  - Factor in the role commercial SAR



#### WG -2: Table of Missions



## **WG-2: Table of Missions**

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# What we're trying to accomplish in the splinter

- Reach a common understanding of coordination in the space segment
- Survey the landscape of missions that have coordinated successfully
- Examine the parameters that promote and thwart coordination
- Begin a SWO<del>T</del> analysis for coordination
- Invent a future coordination scenario that seems feasible

### Mural invitation

- Some of the WG2 splinter will be interactive on the internet using a tool call mural (app.mural.co).
- If you want to participate, and are not already registered for WG2, please email us (<u>parosen@jpl.nasa.gov</u>, <u>martin.suess@esa.int</u>, <u>Manfred.zink@dlr.de</u>)
- You will need to set up a mural account with that email address.
- The interactive mural for WG2 is at:
- https://app.mural.co/invitation/mural/sdc5275/1663965751007?sender=u 5115bca1f7d13fb77d990234&key=4bffca82-3da8-4e1f-bad6-142b4539d62a

#### **WG2 Mural Event**

