

Towards a Global VLBI Alliance

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Why a Global VLBI Alliance?

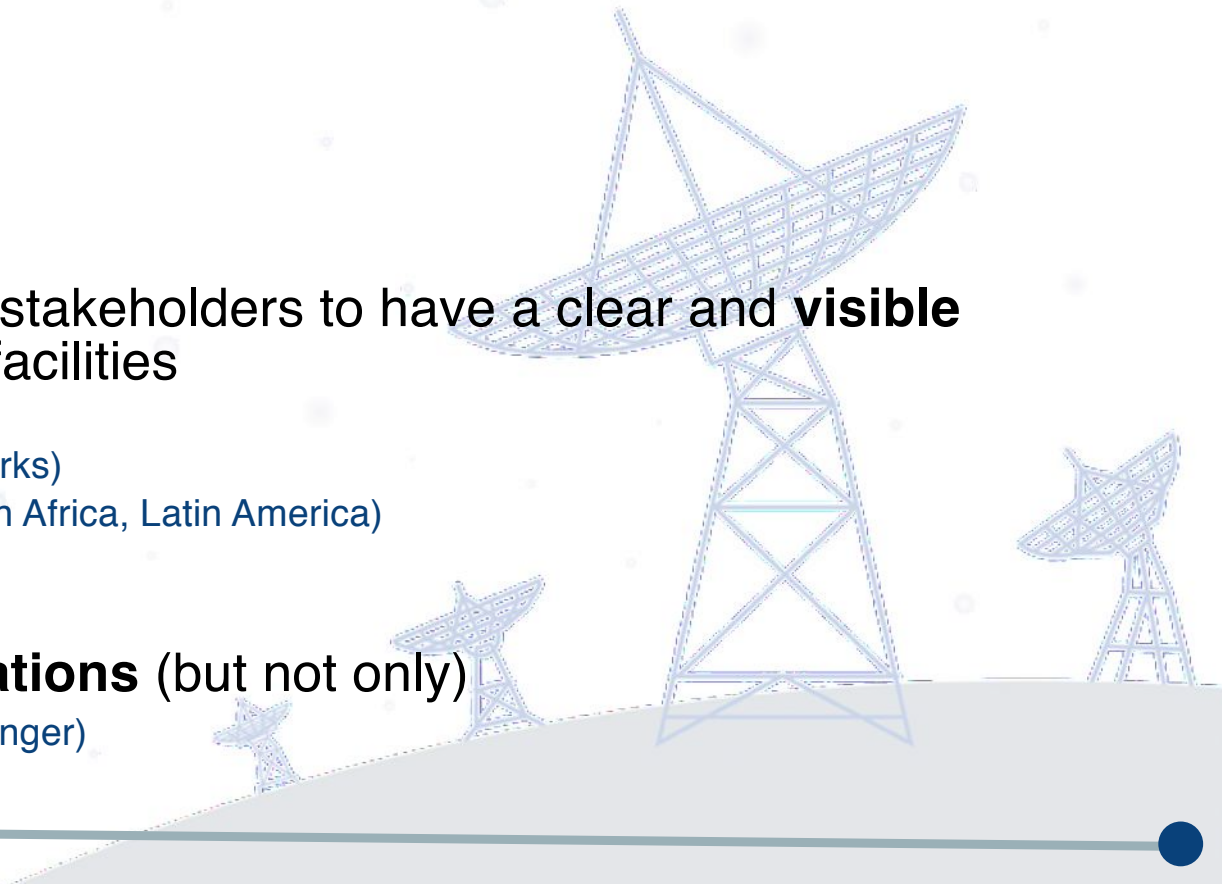


- VLBI is a truly collaborative effort
- There are now several VLBI networks established and running
 - With their own characteristics
 - Each is recognised under a unique brand: EVN, EAVN, VLBA, LBA, GMVA, LOFAR, EHT, IVS ...
- Often, VLBI networks cooperate, also observe together
- Some radio telescopes belong to more than one VLBI network
 - E.g. Chinese telescopes in EVN and EAVN, Eb(+Ar) in EVN and HSA, etc.
 - Also applicable to new instruments (e.g. Thailand 40m)
- It is convenient to have a permanent forum
 - where the network representatives can meet
 - where the VLBI users can discuss and present their current issues and future needs
 - also as point of contact for collaboration with third-party instruments

Why a Global VLBI Alliance? (II)



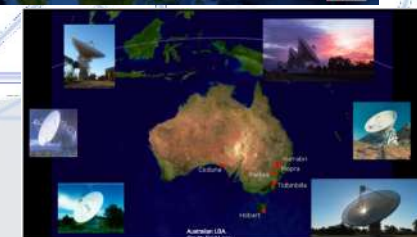
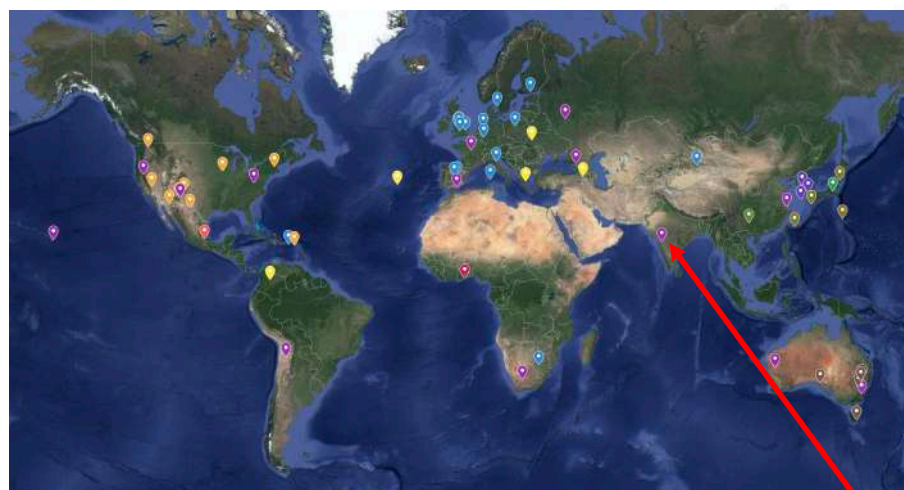
- To **share information** in a timely and structured way between VLBI networks
 - Strategic developments (also to exploit *complementarity*)
 - Science vision
 - Technology paths
 - Proposal types, deadlines and evaluation
 - Logistics
 - Scheduling
 - And keep inventory of the developments
- For (non-expert) users and other stakeholders to have a clear and **visible entry/contact point** to the VLBI facilities
 - GVA web
 - Extended user support (also among networks)
 - Support to new facilities and groups (e.g. in Africa, Latin America)
 - Education and outreach of VLBI
- Also to **coordinate joint observations** (but not only)
 - In particular with third parties (multi-messenger)



GVA participant networks



- Very Long Baseline Array (VLBA, USA)
- European VLBI Network (EVN/JIVE)
- East Asian VLBI Network (EAVN)
- Long Baseline Array (LBA, Australia)
- Global mm-VLBI Array (GMVA) - observer



GMRT

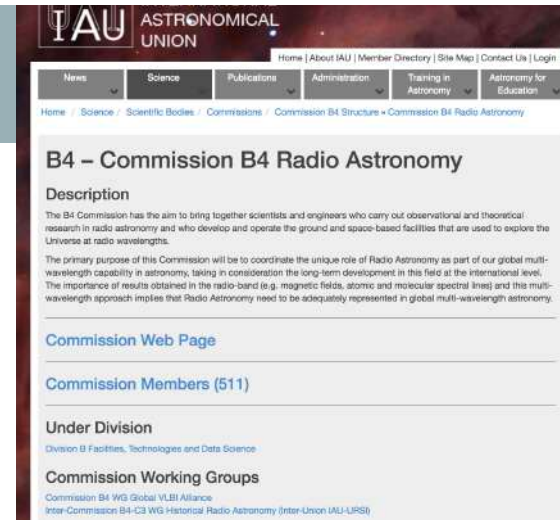
How to set a Global VLBI Alliance?

- As a Working Group in IAU B4

https://www.iau.org/science/scientific_bodies/commissions/B4/

- Proposed structure:

- GVA Director's Forum (GVAD): VLBI network directors or representatives (2 per network) to discuss any aspect of the global cooperation. By invitation.
- Science Forum (GVAS): evaluates and fosters the unique and complementary contribution of VLBI to astrophysical research. **Open to the whole IAU**, members are active scientists, not necessarily linked to any of the VLBI networks in the GVA.
- Technical R&D Forum (GVAT): discusses opportunities and coordinates the development of new instrumentation or procedures.
- Operations and Logistics Team (GVAO): facilitates and coordinates observations scheduled with several VLBI networks, or with participation of third-party instruments (e.g. multiwavelength/multimessenger). By invitation.
- Communication and outreach Team (GVAC): coordinates activities and tools to increase the scientific and societal impact of VLBI. By invitation.
- The GVAS, GVAT, GVAO and GVAC, all report to the GVAD.



Timelines



- The GVAD is currently in the process to establish the working group in IAU
- The GVA teams will be established asap (GVAO, GVAC)
- All astronomers will be invited to join the GVA science forum
- The GVA technical forum will start by invitation to VLBI network representatives, and then may be open to other interested parties
- Stay tuned! Please check: <http://www.gvlbi.org/>