

Future of RadioNet

Prof. Michael A. Garrett

Sir Bernard Lovell Chair of Astrophysics, University of Manchester

Director Jodrell Bank Centre for Astrophysics.

Also affiliated with U. of Leiden

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SPOOR – recommendations

The RadioNet collaboration is highly valued and should be continued beyond 2020.

The RadioNet partners should establish a new European Radio Astronomy Consortium (called RadioNet) based on a low-barrier, light-weight MoU.



RadioNet – now!

RadioNet partners have signed a Letter of Intent (drafted & circulated) - more to follow before the end of the year.

Light-weight MoU to be drafted and finalised in the new year.

RadioNet partners expected to sign the new MoU during the course of 2021.

Future of Radio Astronomy (RA)

RadioNet has played an important role in supporting some of the most important S&T developments over the last 20yr. (see talks by Motta et al. van Langevelde et al.) .

Many of the trends we have observed will continue:

- Empowerment of individual scientists e.g. ERC awards,
- Adoption of COTS technology will accelerate - light & nimble,
- Construction of niche instruments/telescopes will continue,
- Expectations w.r.t capability and data quality will soar,
- Increasingly large scientific collaborations will be established,
- Growing dependence on large-scale (distributed) compute capacity, Machine Learning and Data mining of large-area surveys
- ... etc.

Future of Radio Astronomy (RA)

New trends (next 10-20 years):

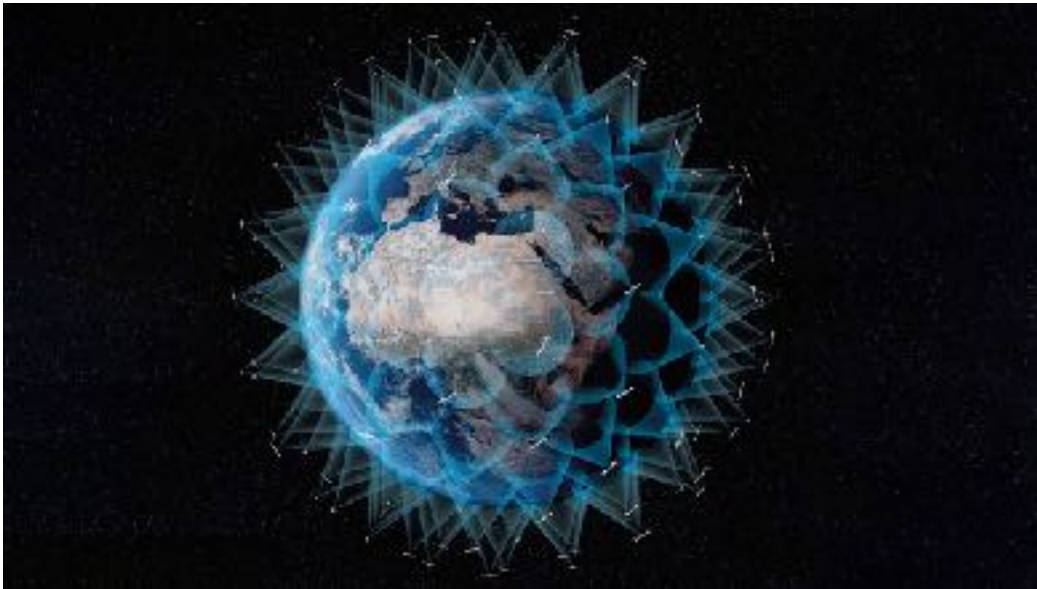
- SKA will begin construction in 2021 and become operational by the end of the decade,
- National RA programmes will continue to upgrade their facilities, in order to be complementary to new SKA, ngEHT, ALMA, JWST,, Simons Obs, Rubin Obs, EUCLID, ++ discoveries



Future of Radio Astronomy (RA)

New trends (next 10-20 years) cont:

- The Radio Frequency Interference (RFI) environment will become more challenging, on *all* fronts.



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Nov 2020



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Future of Radio Astronomy (RA)

New trends (next 10-20 years) cont:

- Radio Astronomy from the Lunar Farside will become a reality and new area of growth (solar physics, space weather, auroral planetary emissions, exoplanet magnetospheres, SM, cosmology, SETI)



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Future of Radio Astronomy (RA)

New trends (next 10-20 years) cont:

- For some countries, National Facility funding will be under pressure, requiring new roles to be adopted,
- SKA Regional Centres will play an important role in extending the role of some National Observatories,
- VLBI will continue to globalise and expand - also (hopefully) in terms of availability & access,
- ...

RadioNet - post 2020

Generic future role of RadioNet:

- Maintain the RadioNet collaboration beyond the current phase of EC funding (RA telescope facilities, R&D labs & end-users).
- Continue to champion and promote European Radio Astronomy.
- Represent the interests of European Radio Astronomy to other external parties.
- Engage with other stakeholders - funding agencies, EC, ESF, ESO, SKA, other astronomy partners around the world etc.
- Provide strategic input to ORP strategic discussions, incl. future transnational access funding.

RadioNet - post 2020

Specific roles:

- Oversight of collective RA community initiatives, incl. those previously funded by RadioNet.
- Making the Opticon RadioNet Pilot project a major success.
- ...

RadioNet - post 2020

Success requires:

- Engagement of the partners
- Strong leadership
- ...

A photograph of a railway track receding into a dense forest. The tracks are made of metal rails on wooden sleepers, and the surrounding area is filled with green trees and foliage. At the far end of the tracks, there is a bright, glowing light source, possibly the sun or a powerful light, creating a lens flare effect. A blue banner with the text "Thank you!" is overlaid in the center of the image.

Thank you !