



# German Update

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## Involved partners

Max Planck Society, universities, universities of applied science, research infrastructures, industry



**Denkschrift 2017**

**Perspektiven der Astrophysik in  
Deutschland 2017-2030**

Von den Anfängen des Kosmos bis zu Lebensspuren  
auf extrasolaren Planeten

Hartmut Stenning, Marco Böttger, Andreas Bruckner, Eva Schinnerer, Jürgen Stadel,  
Lutz Stroebe, Joachim Winkler, Jan-Willem de Bruijn, Johannes Wimmer, Hans-Rainer Klöckner



# German SRC effort

## e-Pathfinding

- D – MeerKAT
- LOFAR
- MeerKAT extension
- Forschungszentrum Jülich (FZJ)
- SAP4PULSAR

## Dedicated SKA Regional Centre activities

- Verein für datenintensive Radioastronomie [VdR]
- Developing a national governance model of SRC
- Astro-NFDI [Nationale Forschungsdateninfrastruktur]
- D – MeerKAT II

Science extraction and data analytics

Long term archiving and data calibration

Survey science delivery & real time calibration

Exploit synergies with exascale high-throughput computing initiatives at FZJ and other national HPC centres

Analytic framework and scalability

Founded in July 2019 as legal structure and single point of reference to the SRC and the national HPC infrastructures

Emphasis of long term strategy and business model

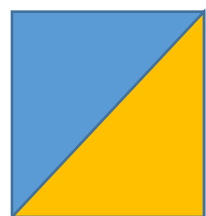
Proposal by astrophysics consortium in call for a national research data initiative with a specific emphasis for large-scale data management

Consortium Proposal for hardware exploration, science extraction, and data analytics



# The German SRC model (governance) R&D platform / Science Lab / Industry

European  
SKA Regional Centre



MoU / contracted



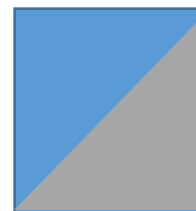
VdR



MoU / contracted



HPC Centers



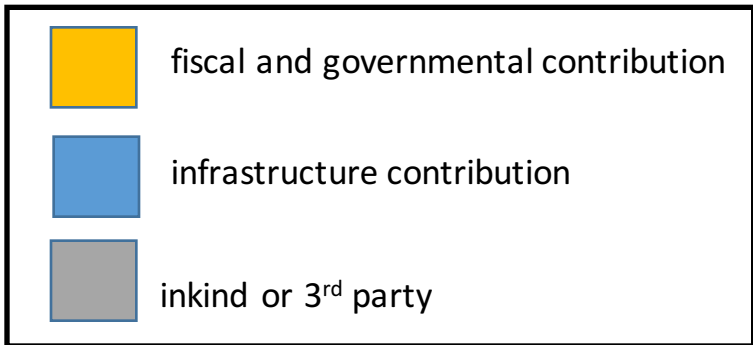
R&D platform / Science Lab / Industry

VdR responsibilities:

- Guarantees resources to the ESRC [annually defined]
- own funding model
- serve national community only

Need from ESRC:

- accounting and prioritizing of access
- Ian Bird's comment integrated global ticketing system was essential → feed into local ticketing system



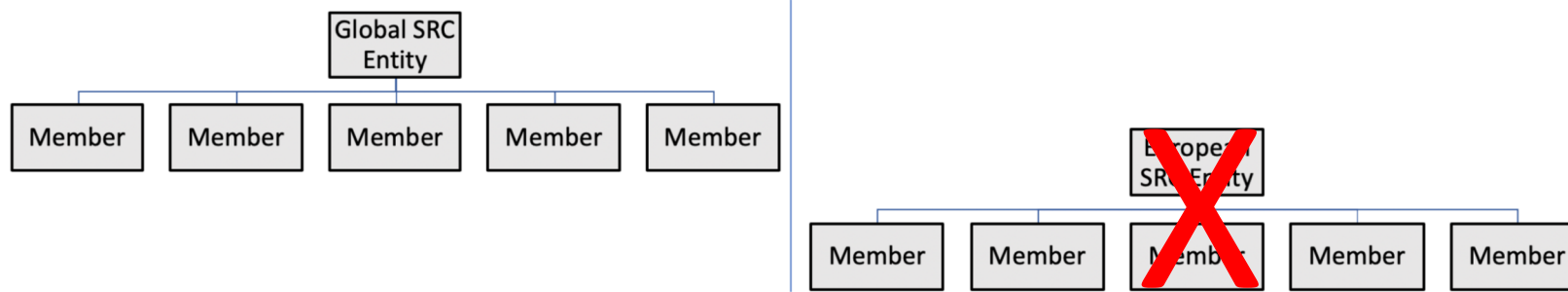
provide resource



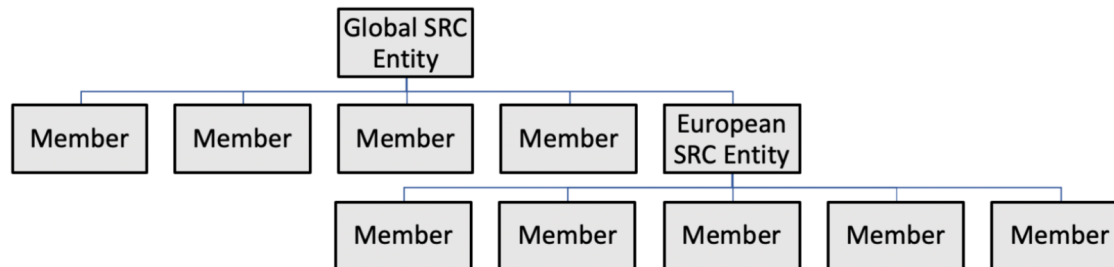
# Preferred German ESRC model



The full data challenge can not be addressed based on the German funding scheme only. Synergies between EU is needed.



MPG and the VdR can not participate in an ERIC or additional IGO



Preferred model in the development- and stable operational phase

- MoU / contracted could be a transition



How will the SRC effort be funded in your country, do you have sight of a long term sustainable funding scenario (>5-10 years). What does long term funding depend on.

- Long term contribution to the ESRC
  - level of long-term contribution via in-kind resource subject of current negotiations
  - Above that National and European funding instruments are needed (depend on lobbying, impact, e.g. national agenda)

What important SRC milestones have been identified in your country in the coming years

- Germany need to become a member in the SKA-IGO
- Developing a national governance model of SRC
  - Emphasis of long term strategy and business model

When do you think SRCs should become active

- Once 80 % of the SKA – MID infrastructure is built.
- Once 60 % of the SKA – LOW infrastructure is built.