

Dear colleagues,

you are reading the third edition of the German SKA Bulletin. This bulletin is very much a brief "policy" and "management" report, which can be taken as a good sign that both, at national and international level, structures are being created. We expect that these structures will allow us to access the world's largest physics and data machine and to do outstanding science with SKA in the not so distant future (Early Science should start in 2020).

The last few months have been extremely busy, cumulating in the submission of a SKA proposal to the German National Roadmap for Research Infrastructures.

On the international stage, the project is also moving fast, e.g. after the UK government, also the Australian government has announced the sum that they are going to invest into the SKA: AUS \$ 293M!

RDS "Eckpunktepapier":

In its "Eckpunktepapier" the RDS (Council of German Observatories) formulates priorities and principles for the future funding of German astronomy. The RDS confirmed, once again, that the E-ELT and the SKA are the two top priority research facilities for German astronomy for the coming decades in line with the European ASTRONET Roadmap.

New GLOW Webpage:

The GLOW Consortium has a new web page, which features both LOFAR and SKA. The web page is hosted by Bielefeld University, and can be reached at

<http://glowconsortium.de>.

It contains a News Blog, LOFAR, SKA and GLOW related information. Contributions from GLOW and non-GLOW members are welcome. If you would like to post or contribute SKA related items, please contact Hans-Rainer Klöckner or Dominik Schwarz.

GLOW Annual Assembly:

During its annual meeting in Bonn, November 26/27, 2015, the GLOW general assembly decided that GLOW is ready to take on the coordinating role in the German attempts to join the SKA. It is very likely that a formal consortium will be necessary to organize and coordinate the German SKA activities. In 2016 GLOW will study the possible organizational measures to be taken. The necessary decisions will be taken at the 2016 annual assembly. The precise dates will be fixed soon. We will keep you informed.

RdS Strategy Workshop:

During the workshop "Perspectives of Astrophysics in Germany 2015-2030", Potsdam December 7-9, 2015 the need for SKA and a German participation in the SKA once again became clear in many of the topical presentations and was also stressed in the session on radio facilities. A more detailed write up of the outcome of the workshop will be available during 2016.

National Road Map Process:

On January 15, 2016 the German community handed in the **SKA Proposal to the National Roadmap for Research Infrastructures**. The proposal has been submitted and supported by a total of 35 scientific institutions, two councils, one ministry, and 4 industrial companies. Of the 35 scientific institutions are 14 so called leading responsible institutions, including the Max Planck Institute for Radio Astronomy, which took on the coordinating role of the proposal. A list of all partners and supporters of the SKA proposal is appended at the end of this bulletin.

In the next months, the scientific, economic and socio-economic aspects of all proposals to the national roadmap will be evaluated by the "Wissenschaftsrat", the "PT DLR", and finally the BMBF.

Concept for a National SKA Data Centre:

The SKA proposal to the National Roadmap also contains a concept for a National Tier-1 SKA Data Centre. The idea is to guarantee a basic service to the German SKA community. Therefore only a fraction of the SKA data volume at a rate of 3 PB/yr, will be archived and will be made available for scientific processing. Generally, both the SKA-LOW and the SKA-MID will come with Tier-0-Data Centres at the two sites. Those Tier-0-Data Centres will prepare preprocessed and quality flagged data sets that have to be distributed to Tier-1-Data Centres for further scientific exploitation.

This is of the order of magnitude of what the FZ Jülich is currently doing for the LOFAR Long Term Archive, thus we already demonstrated that this is feasible.

Towards the SKA Inter-Governmental Organisation:

The SKA Organisation (currently a UK company limited by guarantee) worked out a governance model for the SKA project, which has been approved by the Board of Directors. The plan is to found an inter-governmental organization (IGO), like CERN, ESO or ESA. The negotiations for the text of the founding treaty started in October 2015 and have been continued in Rome in January. The third round of negotiations will take place in April 2016.

<https://www.skatelescope.org/news/further-progress-towards-ska-intergovernmental-organisation/>

The SKA in 2016:

There are two important milestones for the SKA to reach in 2016:

- Finalizing the founding documents for the SKA IGO in the first half of 2016
- Critical Design Review towards the end of 2016

Once the SKA IGO documents are signed and ratified by a minimum of five member states the SKA IGO will exist and construction of SKA can start. This is expected to happen in 2017. Currently, the 10 member states (without Germany) are expected to join the SKA IGO.

How can I contribute and get involved in the SKA:

The Science Working Groups and Focus Groups are becoming more structured. Pay special attention to the fact that there is now a difference between ordinary members and core members, see the terms of reference for the details:

<http://astronomers.skatelescope.org/wp-content/uploads/2014/06/SWG-ToR-12May2014.pdf>

To become a member or core member of a SWG or FG, just contact the responsible chair person (see the SKA web site) and let us know such that we can further improve on the coordination of the German SKA community.

In 2016 **important decisions** regarding e.g. band (re)definitions, gridding of visibilities etc. are to be taken. The way to influence those decisions is via your contribution in the SWGs and FGs.

Upcoming events:

International

MeerKAT Science Workshop

25-27 May 2016

Stellenbosch, South Africa

SKA Science

ASKAP 2016: The future of radio astronomy surveys

6-10 Jun 2016

Sydney, Australia

ASKAP conference

SKA Engineering Meeting 2016

2-6 Oct 2016

Stellenbosch, South Africa

Annual SKA engineering meeting

SKA 2016: Science for the SKA Generation

7-11 Nov 2016

Goa, India

Annual SKA science meeting

National

Visit of German Industry Representatives to the SKA Office

24 Mar 2016

German SKA meeting

03 June 2016

Karlsruhe

The many Facets of Astrophysics - Photons, Particles and Spacetime

12-16 Sep 2016

Ruhr-Universität Bochum

Herbsttagung 2016 der Astronomischen Gesellschaft

GLOW Annual Assembly 2016 (details will follow)

Best wishes,

Hans-Rainer Klöckner

Dominik Schwarz

Michael Kramer

(for the GLOW SKA Working Group)

Please continue to support the German participation in the SKA project. In order to get in touch with us, send an e-mail to ska@mpifr-bonn.mpg.de or contact one of us directly.

The distribution of the Bulletin is via the GLOW-SKA mailing list and please feel free to share it with colleagues.

To join the mailing list please send an e-mail to:

glowska-join@lists.mpifr-bonn.mpg.de

APPENDIX:

Antragsteller und Unterstützer des Antrags für eine deutsche Beteiligung am Square Kilometre Array

Federführende und weitere federführende Trägereinrichtungen

Stadt	Institution	Kontakt
Bonn	Max-Planck-Institut für Radioastronomie	Prof. Dr. Michael Kramer
Bonn	Max-Planck-Institut für Radioastronomie	Prof. Dr. Karl M. Menten
Bonn	Max-Planck-Institut für Radioastronomie	Prof. Dr. J. Anton Zensus
Bielefeld	Universität Bielefeld	Prof. Dr. Dominik Schwarz
Bochum	Ruhr-Universität Bochum	Prof. Dr. Ralf-Jürgen Dettmar
Bonn	Rheinische Friedrich-Wilhelms-Universität Bonn	Prof. Dr. Frank Bertoldi
Dortmund	Technische Universität Dortmund	Prof. Dr. Dr. Wolfgang Rhode
Garching	Max-Planck-Institut für Astrophysik	Prof. Dr. Eiichiro Komatsu
Garching	Max-Planck-Institut für extraterrestrische Physik	Prof. Dr. Paola Caselli
Hamburg	Universität Hamburg	Prof. Dr. Marcus Brüggen
Hannover	Max-Planck-Institut für Gravitationsphysik	Prof. Dr. Bruce Allen
Hannover	Max-Planck-Institut für Gravitationsphysik	Prof. Dr. Karsten Danzmann
Jülich	Forschungszentrum Jülich GmbH	Prof. Dr. Dr. Thomas Lippert
Köln	Universität zu Köln	Prof. Dr. Jürgen Stutzki
Potsdam	Max-Planck-Institut für Gravitationsphysik	Prof. Dr. Alessandra Buonanno
Sankt Augustin	Hochschule Bonn-Rhein-Sieg	Prof. Dr. Wolfgang Heiden
Tautenburg	Thüringer Landessternwarte Tautenburg	Prof. Dr. Matthias Hoelt
Würzburg	Universität Würzburg	Prof. Dr. Karl Mannheim

Kooperierende Einrichtungen

Stadt	Institution	Kontakt
Bremen	Universität Bremen	Prof. Dr. Claus Lämmerzahl
Frankfurt	Johann Wolfgang Goethe-Universität Frankfurt am Main	Prof. Dr. Luciano Rezzolla
Jena	Friedrich-Schiller-Universität Jena	Prof. Dr. Bernd Brügmann Prof. Dr. Ralph Neuhäuser
Oldenburg	Carl von Ossietzky Universität Oldenburg	Prof. Dr. Jutta Kunz-Drolshagen
Potsdam	Leibniz-Institut für Astrophysik Potsdam	Prof. Dr. Matthias Steinmetz

Unterstützende Einrichtungen

Stadt	Institution	Kontakt
Deutschland	Rat der deutschen Sternwarten	Prof. Dr. Steinmetz
Deutschland	GLOW	Prof. Dr. Ralf-Jürgen Dettmar
Nordrhein-Westfalen	Ministerium für Innovation, Wissenschaft und Forschung des Landes Nordrhein-Westfalen	Referatsleiter 314, RBr Hartmut Pausewang
Aachen	Rheinisch-Westfälische Technische Hochschule Aachen	Prof. Dr. Julien Lesgourgues
Berlin	Humboldt-Universität zu Berlin	Prof. Dr. Marek Kowalski
Duisburg	Universität Duisburg-Essen	Prof. Dr. Gerhard Wurm
Dresden	Technische Universität Dresden, Zentrum für Informationsdienste und Hochleistungsrechnen (ZIH)	Prof. Dr. Wolfgang E. Nagel
Erlangen	Dr. Karl Remeis-Sternwarte	Prof. Dr. Jörn Wilms
Freiburg	Kiepenheuer-Institut für Sonnenphysik Freiburg	Prof. Dr. Oskar von der Lühe
Garching	Leibniz Supercomputing Centre of Bavarian Academy of Science and Humanities, Garching	Prof. Dr. Arndt Bode
Göttingen	Georg-August Universität Göttingen	Prof. Dr. Jens Niemeyer
Göttingen	Max-Planck-Institut für Sonnensystemforschung	Prof. Dr. Sami K. Solanki
Heidelberg	Max-Planck-Institut für Astronomie	Prof. Dr. Thomas Henning
Heidelberg	Ruprecht-Karls-Universität Heidelberg	Prof. Dr. Cornelis Dullemond
Karlsruhe	Karlsruher Institut für Technologie	Prof. Dr. Achim Streit Dr. Ralph Engel
Kiel	Christian-Albrechts-Universität zu Kiel	Prof. Dr. Wolfgang J. Duschl
München	Ludwig-Maximilians-Universität München	Prof. Dr. Joseph Mohr Prof. Dr. Jochen Weller
Potsdam	Universität Potsdam	Prof. Dr. Philipp Richter
Tübingen	Eberhard Karls Universität Tübingen	Prof. Dr. Konstantinos Kokkotas

Unterstützende Industrieunternehmen

Stadt	Institution	Ansprechperson
Duisburg	VERTEX Antennentechnik	Herr Dr. Konrad Pausch / Herr Klaus Duespohl
Mainz	MT Mechatronics	Herr Dr. Jens Bormann / Herr Lutz Stenvers
Mülheim/Ruhr	Schauenburg International	Herr Florian G. Schauenburg
München	Coriant GmbH	Herr Uwe Fischer