1st MIDPREP Workshop

Arnold van Ardenne

(Coordinator MIDPREP)

Dwingeloo, Netherlands

31 March/1 April 2014

This research was supported by a Marie Curie International Research Staff Exchange Scheme Fellowship within the 7th European Community Framework Programme under Grant Agreement: PIRSES-GA-2013-612599

PROGRAMME 1st MIDPREP workshop – 31 March and 1 April

Van de Hulst Auditorium – ASTRON, Dwingeloo (NL)

12:30 Lunch and registration

0. Management, early view on the MIDPREP project

13:30 Welcome and opening

13:35	Overview of the MIDPREP programme	Arnold van Ardenne (MIDPREP Coordinator)
13:45	MIDPREP management; how are we faring	André van Es (MIDPREP Project Manager)

1. Evolution of Mid Aperture Arrays (Chair: Arnold van Ardenne)

14:10	Overview MFAA and role of MIDPREP	Jan Geralt bij de Vaate (ASTRON)
14:30	Feedback from AERAP workshop into the MIDPREP workshop, science and technology	Ilse van Bemmel (ASTRON)
14:50	Pulsars searching and timing	Jason Hessels (ASTRON/UvA)
15:10	Computational Electromagnetic modelling approaches for aperture arrays	Jacki Gilmore (Stellenbosch)

15:30 Break

2. Calibration and configuration of Large Telescopes (Chair: Tobia Carozzi)

16:00	Element and array beam pattern measurements by an UAV system	Giuseppe Pupillo (IRA-INAF)
16:20	SKA-lo array	Eloy de Lera Acedo (University of Cambridge)
16:40	All-sky, full polarization imaging with dipole arrays	Griffin Foster (Rhodes University)
17:00	Lessons from dipole arrays: what is relevant for dense aperture arrays?	Gianni Bernardi (SKA SA & Rhodes University)

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17:00	Lessons from dipole arrays: what is relevant for dense aperture arrays?	Gianni Bernardi (SKA SA & Rhodes University)
17:20	EMBRACE polarimetry	Benedetta Fiorelli (ASTRON)
17:30	Wrap up 1st day	

18:00 Drinks and informal dinner at "De Bospub" Bosrand 18, 7991PA Lhee/Dwingeloo

2. Calibration and configuration of Large Telescopes (continued) (Chair: Gianni Bernardi)

09:00	Calibration models (in collaboration with Andre Young, Rob Maaskant and Marianna Ivashina)	David Davidson (Stellenbosch)
09:20	LOFAR beam calibration modeling framework (in collaboration with Andre Young, Rob Maaskant, Marianna Ivashina and David Davidson)	Tobia Carozzi (Chalmers)
09:40	Designing for Calibratibility	Stefan Wijnholds (ASTRON)

3. Receivers Wide Band Single Pixel Feed and Aperture Array Feeds (Chair: tbc)

10:05	Design of ultra wideband compact QRFH feeds for reflector antennas (in collaboration with Carlo Bencivenni, Theunis Beukman , Petrie Meyer and Rob Maaskant)	Marianna Ivashina (Chalmers)

10:25 Break

10:55	Multi-modal active antennas for accurate polarimetric measurements over ultra-wide field-of-view (in collaboration with Rob Maaskant, Marianna Ivashina and Petrie Meyer)	David Prinsloo (Stellenbosch)
11:15	Array noise temperature measurements at the Parkes PAF Test-bed Facility (in collaboration with Aaron P. Chippendale, Robert A. Shaw and Stuart G. Hay)	Douglas Hayman (CSIRO)
11:35	Discussion and wrap up	Arnold van Ardenne (ASTRON/Chalmers)

12:00 Lunch

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What, Why and How

- Dissemination and Network activity sponsored by the EC/FP7

- Connecting MFAA and WBSPF AIP Consortia and S.A. Universities in preparing for SKA induced activities in (South)Africa
  - Mid-Frequency Aperture Arrays, Wide Band Single Pixel Feeds
  - ASTRON, OSO, UCT, Rhodes Univ., Univ. of Stellenbosch

- Exchange of early-stage and experienced researchers, workshops, views on possible involvement of industries, ensuring smooth transition to (next) engineering phase

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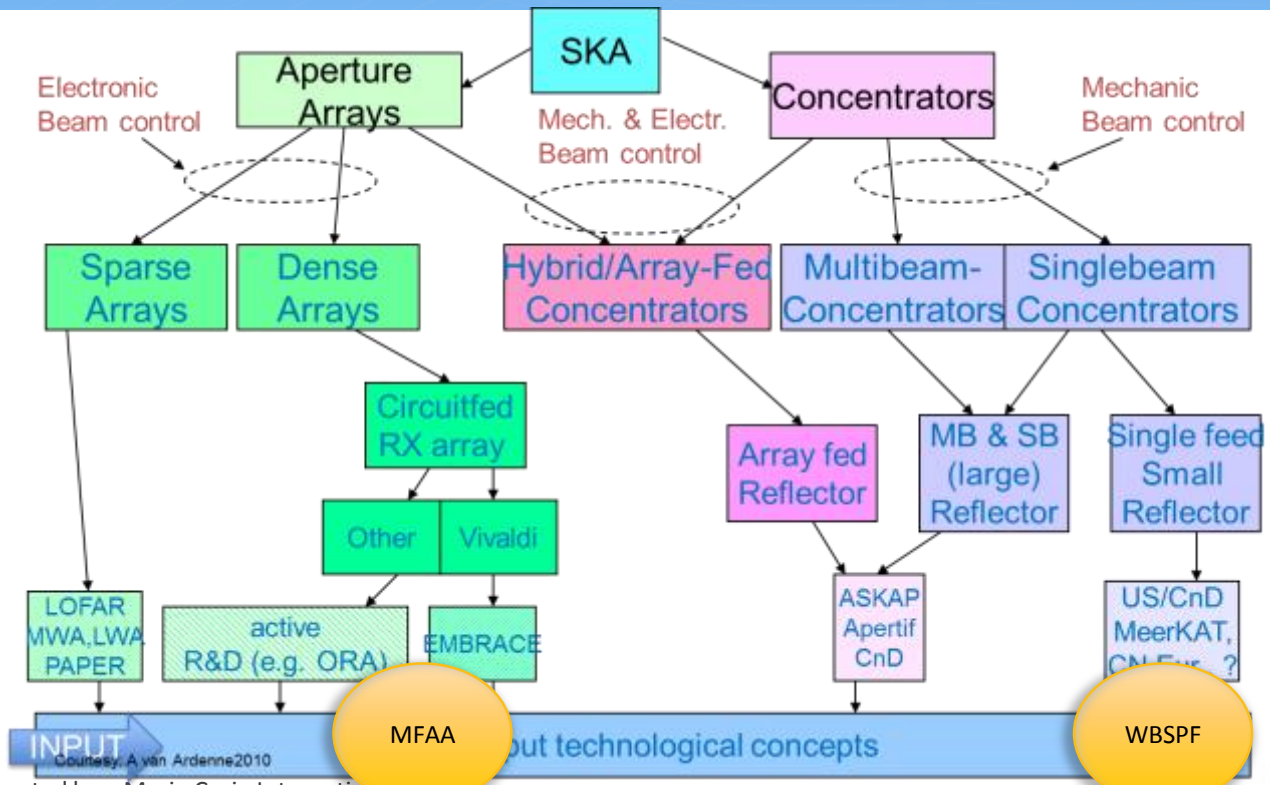
MIDPREP; dissimination and collaboration network for technology (concepts) and science



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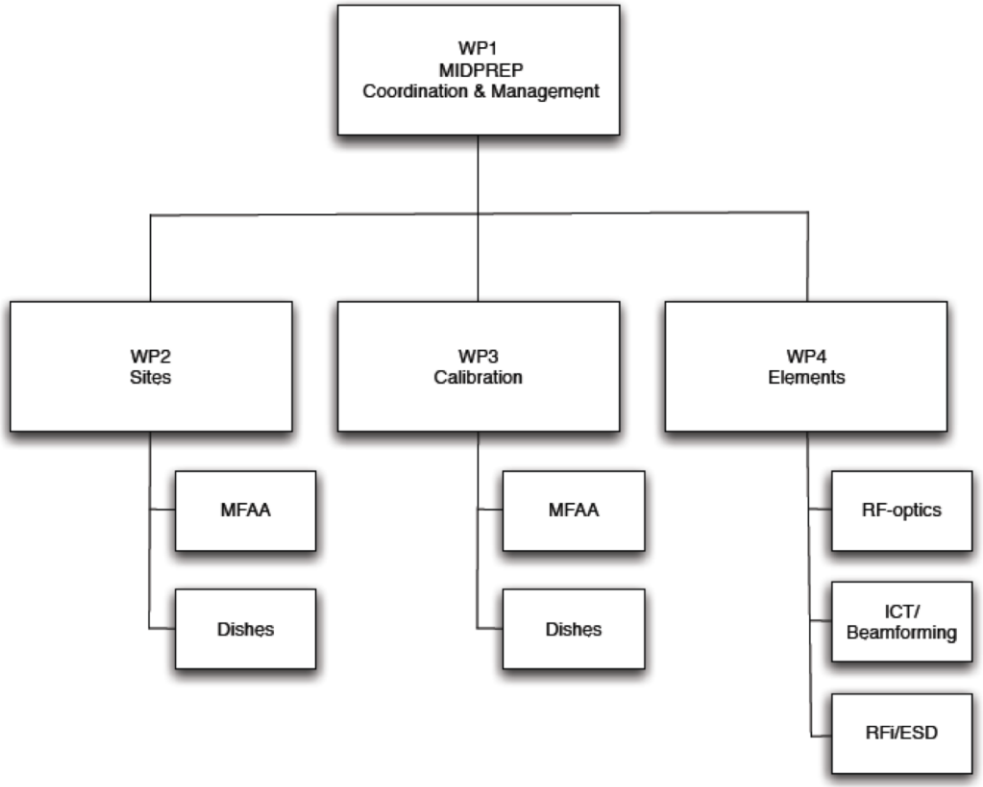
Organization



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Follow ups

- Want to establish a network for MIDPREP exchanges with “single point of contact” per institute/participant

- Wish to consider follow-up program (H2020) next year using MIDPREP coordinators as a base

- Wish to involve more participants in (South) Africa and Europe

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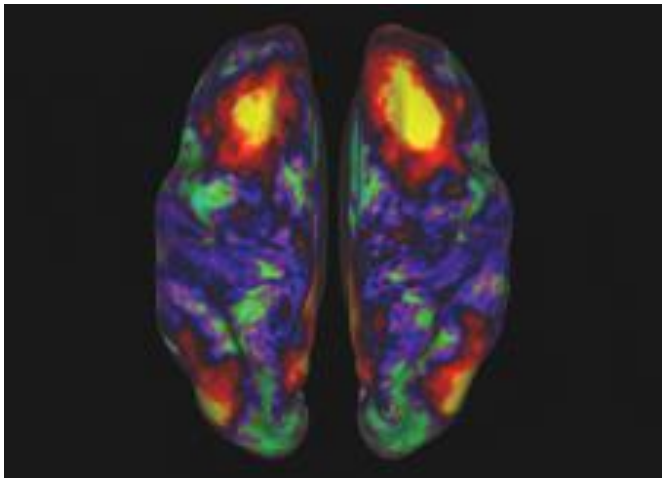
Have Fun!



Light areas: Human brain happily involved in MIDPREP

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