



Minutes 3rd SKADS Board meeting

18-19 January, 2007

NH Hotel – The Hague/Den Haag

Distribution list:

Participants :	For information:
<p>Attendees at 13:00: A. van Ardenne, Project Coordinator (PC) A. van Es, Project Manager (PM) P. Patel (PP) D. Barbosa (DB) K. Kellermann (KK) R.T. Schilizzi (RTS) R. Dagkesamanskiy (RD) L. Gurvits (LG) H. Olofsson (HO) W. van Driel (WvD) R. Braun (RB) T. van den Brink-Havinga (minutes) H.J. Langevelde (HJvL) G. Miley (day 1) (GM) J.M. van der Hulst (day 1) (TvdH) S.A. Torchinsky, Project Scientist (PS)</p> <p>Arrived at 14:00: S. Rawlings (SR) P. Alexander (PA) C,M. de Vos (MdV) J. Jonas (JJ)</p> <p>15:30 arrival of: Peter Wilkinson, Chair Andrew Faulkner, Project Engineer (PE)</p> <p>Evening day 1 arrival of: R. Bachiller P. Colomer S Montebugnoli</p>	<p>B. Boyle (represented by R. Braun) P. Dewdney (apologies) S. Eales (apologies) G. Woan (represented by S. Rawlings) S. Tingay (apologies) R. Weber (represented by W. van Driel) B. Jarry (represented by W. van Driel) C. Cress (apologies) M.G. Hoare (represented by P. Wilkinson) J.C. Guirado (represented by R. Bachiller) D.H. Smith P. Diamond (apologies) P. Hall (apologies) H.R. Butcher (represented by C.M. de Vos)</p> <p>Last minute apologies A. Zensus (due to bad weather) (represented by A. van Ardenne)</p>



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Project

SKADS-07011819-
 Minutes SKADS Board
 3
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	Organisatie / Organization	Datum / Date
Auteur(s) / Author(s): T. van den Brink-Havinga/ S.A. Torchinsky	SKADS	January 19, 2007
Goedkeuring / Approval: SKADS Board	SKADS	

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1 Opening

Due to extremely bad weather conditions the flight of the Chair of the meeting is significantly delayed. Therefore PC decides to open the meeting at 14:30 and act as Chair for the time being. For this reason the sequence of the agenda items will be changed.

We received last-minute apologies from Anton Zensus due to the extremely bad weather. He appointed PC as his representative. Formally this is not possible since the PC is not a Board member. In view of the extraordinary situation, this is approved.

2 Minutes of the meeting dated June 29-30, 2006

Minutes are gone through page by page. P. Patel's name to be added to the list of attendees .

Action items:

Most actions are closed except for the following remarks:

- 1: Public version of minutes should be made available at the website after approval by the Board.
- 9: will be addressed in this meeting
- 11: available on the wiki pages
- 13: is on the agenda
- 16: Coordinator manpower PR Express is ongoing

There is a request to have the minutes publicly available. The Board is requested to consider this. This should be concluded at the end of the meeting. It is suggested to make two versions.

5. SKADS Consortium – Arnold van Ardenne

Three Australian participants will continue in the project, but they want to withdraw from the Consortium due to the administrative burden. This means that they would no longer be getting funds (travel money) from SKADS.

This is more practical for them and reduces the risk for SKADS.

RB adds that these participants want to continue to get funds, however, through CSIRO instead of directly from ASTRON. This has to be checked with the EC as it may give the impression of subcontracting. The mechanism to achieve is an action on the Coordinator/MT.

The Polish and Russian partners are in a 'simplified mode', remaining participants but ASTRON serving as a bank for the travel money they are entitled to receive. The result is that this saves these participants an administrative burden. This subject is to be continued later.

Representations/quorum in the Board

There is quorum when everybody who confirmed their attendance to this meeting shows up.

3 Coordinator's report – Arnold van Ardenne

The SKADS project is seen to deliver much of the knowledge for the next step of SKA. It is a technology driven program based on scientific demand.

The SKADS website is improving day by day thanks to PS and all attendees are requested to make as many links to the SKADS website as possible. Everybody whose logo is still missing is encouraged to send it to the SKADS Secretary as soon as possible.

DS2 leadership is suggested to be moved from JIVE to the Kapteyn Institute. This needs to be discussed in the Board after arrival of the Chair.

The Coordination Committee consists of all DS leaders plus Board members from Germany (MPIfR) and Spain (IGN-FG). The committee has telecons on a regular basis.

The first SKADS symposium took place in Paris and was really successful. The second one is planned to take place in Manchester in October this year.

Two very well organised meetings for the SKADS costing exercises took place in Cambridge.



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There have been a couple of personnel changes in the project for several reasons.

- DS2 leader: Mike Garrett is now ASTRON general director
- DS3T2: Kjeld van der Schaaf is leaving ASTRON

15:30 arrival of Peter Wilkinson (Chair) and Andrew Faulkner (PE).

5. Status Portugal –Domingos Barbaso

DB explains the potential there is in CENTRA IST and IT. Involvement in SKADS is very important for Portugal from a political point of view, as this is the first big infrastructure project that they could be involved in.

The Portuguese are already involved in DS2-T1. An overview of the work, projects and activities is presented.

The suggestion to have Portugal as a new consortium member in SKADS is strongly supported by SR. PC recommends to have Portugal enter as a single institute. The Board is unanimously in favour of this suggestion. This should be ratified when the missing participants arrive.

Leadership Changes

Franco Mantovani withdrew as Board member for INAF, and also as vice-chair of the SKADS Board. JIVE withdraws its leadership from DS2 as they are managing many projects. It is suggested that leadership is taken over by RuG Kapteyn Institute. PS supports this suggestion, as well as SR and HJvL.

4 Management report and annual financial report – André van Es

PM thanks all participants for their cooperation in getting the Annual Report complete. There was no delay in receipt of the reports and they came in with only a few mistakes. This year we delivered an incomplete Annual Report on the due date, with revisions submitted afterwards. The EC commented that the second Annual Report will have to be submitted in its final version. They do not want to receive multiple versions of the report.

The Mid Term Review will be mid or second half of October. The 2nd Annual Report serves also as input for the MTR, so no separate report is needed. Therefore we need to have all the reports as well as audit certificates in time so that we have the Annual Report ready before the MTR.

A list of deliverables for the MTR is shown, as described in the DoW.

AC members had to hire new personnel, this caused a late start-up for these participants.

2nd Advance payments: Money is expected to be transferred calendar week 4. PM proposes to keep 5% as contingency, this means 146k., for which an approval is needed from the Board. This is usual in FP6 projects, Radionet e.g. has a 10% contingency, however, the authorization to do this should be given by the Board.

Everybody just gets paid for the work done. Therefore this flexibility is considered a good mechanism.

The decision needs to be ratified later in the meeting.

The Board has to approve the way this 5% is spent. Chair compliments PM with the way he is managing the project.

5 SKADS Consortium

Discussed earlier:

6 Toward the MTR- Andrew Faulkner

MTR should take place in Manchester combined with the 2nd SKADS Symposium. The EC suggested 15-16-17 or 24-25-26 October, the first two days being the 2nd SKADS symposium and the third day the MTR. Everybody is in favour of the second option. As soon as we know the preference of Brussels we shall inform everybody involved.



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7 2nd SKADS workshop

PE presents a suggestion of the programme and items to be discussed in the Symposium. This should have a triple purpose: cohesion within SKADS, with International Community and lead up to the MTR. The referee wishes to attend the full symposium. RTS/PNW: for maximum effect the later date (24-25 October) is preferred – can take account of SKA specification review in SKA2007 in Manchester earlier in October.

PE suggests to start with an overall review on day 1 and work in teams on day 2 with considerations and conclusions, followed by a short coordination meeting prior to the MTR, which is to take place on third day.

The referee will also attend the symposium to get a good impression of what is going on, while the MTR is a formal action.

LG advises to first await further instructions from the EC, Radionet will be having a mid-term review this spring.

Intermediate remarks by the Chair

Election new Vice-chair: fairest way to do this is to accept nominations from the Board members and than have an email vote.

Mid Term Review is the responsibility of DS7. Therefore Wim van Driel will give a presentation on that item at the next Board meeting in June, 2007.

Due to delayed opening of the meeting the Marie Curie information meeting will be postponed till 2nd day 9:00 h.

8 SKADS and FP7 – Richard Schilizzi/Andrew Faulkner

AvA points out that if we want to build a larger Embrace and indeed to continue the SKADS R&D programme after 2009, we will have to find funds. So it has to be decided what will be the next step.

RTS gives a short overview of the scope of the FP7 proposal-now called PrepSKA. It is not only European—our global partners are fully participating in this proposal which will catalyze the international effort. The timeline is that PrepSKA will end in 2011

PrepSKA involves organisational and funding issues, with technical considerations in WP2, but WP2 is not intended for building a demonstrator.

Main WPs are:

1. Management
2. SKA System Design
3. Site selection/characterisation
4. Governance etc
5. Procurement
6. Financial Engineering
7. Impact on Radio Astronomy
8. Implementation strategy leading to MoU

It has not yet been formally decided what the deliverable of PrepSKA will be – although the current model calls for an MoU for implementation of strategy leading to SKA construction (or something like this) – not yet an MoU “for construction” .

Discussion

PE: The aim of PrepSKA WP2 is to make a final architectural design for construction under MoU – this has to encompass all system areas and has to be costed in detail. The present table of who might do what in support of WP2 is “ad hoc” and is at a level of “Expressions of Interest”. The initial breakdown has been sent to all institute leaders.



It was pointed out that JIVE did not receive that information yet. GM thinks it is essential that all board members get the list that is presented by the PE. This is agreed. Action item: PE.
PC asks if PE is confident to get all the information in time as he thinks the procedure to get there does not look as compelling an approach as that adopted to get the SKA built.
RTS: There will be a telecon on WP2 on Tuesday January 23 in which input from all over the world will be given.
SR emphasizes not to forget about the science simulations.

Matching funding requirement is expected to be 50% and existing EC projects cannot be considered as matching.

TvdH: It is announced that FP7 projects should not include more than 50% system design. RTS answers that this may be as much as 70%. The team is aware of this.

Chairman suggests to have the table circulated among the Board members this very evening. The writing team is aware of the qualities of all parties involved in SKADS. All reactions should be sent to PE, Andy Faulkner as soon as possible.

PC expresses concern that FP7 activities should be aligned with SKADS.

9 Marie Curie CT and SKADS

Will be discussed in a separate session.

10 Outreach

Items for the next SKADS Board meeting.

Chairman summarizes the first day of the meeting as follows:

- There was a decision in favour of participation by Portugal (CENTRA)
- Process of nominations vice-chair was agreed
- It was agreed that DS2 leadership will be taken over by RuG – Kapteyn Institute (Thijs van der Hulst)
- 5% of the 2nd advance payment will be held back by ASTRON to give the programme some flexibility
- SKADS prefers to have the MTR on the 2nd suggested date, 26 October
- Discussion of the MTR will be lead by Wim van Driel at the next Board meeting
- Expressions of Interest for the FP7 proposal should be sent to SKADS PE
- A draft table of some packages was presented and will be distributed to Board members
- There will be an FP7 proposal telecon next Tuesday, 23 January. Hard deadline is the 12 February Bonn meeting, writing teams will be working on the proposal the weekend before.

DAY 2 - 19 January, 2007

RB emphasizes that despite withdrawal from three Australian participants they will keep on working in the workpackages and report to CSIRO. This means it is not their intention to withdraw from the work and financing. This is 20k in total for the three groups. CSIRO is willing to take the administrative burden, however, this means a kind of sub-contracting. Action: PC will check the mechanism with the EC.

11 Technical progress – Andrew Faulkner

PE states that though the programme started a bit late, SKADS is still targeted to finish on time. Participants now moving on with design and costing.

A costing team has been put together. The SKADS Benchmark scenario together with costing will be described in a formal paper for the ISSC meeting in March 2007. 6m dishes were selected for this study



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since there is a worked example and are currently the easiest to cost. It is accepted that the final design may be different.

RTS comments that the overall picture is a larger picture than what SKADS is doing.

Chair answers that this will be discussed later in the meeting.

SKADS MT makes sure that the paper will be going to both the Chair of the ISSC and ISPO Director.

12 SKADS Scientific progress – Steve Torchinsky

PS encourages everybody to select Benchmark at the SKADS website and comment so that this leads to evolution of the Benchmark.

There have been some personnel changes:

- It was already decided in this meeting that DS2 leadership will change to Thijs van der Hulst.
- Matt Jarvis went to Hertfordshire and is no longer doing administrative tasks.

There is already significant input from Portugal in DS2T1 and now their formal participation in the project has been approved.

DS5T3 –evaluation of Embrace – this group is having regular meetings. PS mentions that this is a science activity as it will demonstrate EMBRACE as an astronomical instrument, and will carry out astronomy observations.

PS describes the inexpensive HI Galaxy Survey by Peterson, and mentions that there is now French involvement. RTS asks why this is brought up in the SKADS Board meeting. PC replies that it is good that PS informs the Board of another project that is going on. SR adds that he will also refer to this project in his presentation. PS feels that the Peterson proposal is serious, and could scoop the SKA for a very important scientific result.

The 2nd SKADS newsletter is scheduled to be issued in March.

PS is responsible for the SKADS website, and has taken over actual maintenance of the site since August 2006. The website has been updated with improved navigation. The top page has a list of meetings with SKADS related meetings on the left side and more generally SKA related meetings on the right side.

The SKADS wiki has a page with all people working on SKADS. Everybody is encouraged to update the page, as well as to comment on the webpage in general.

There is no link to the European SKA Consortium webpage as that page seems to be outdated.

MG suggests to expand the news in the SKADS newsletter with ESKAC news, like “Related activities in Europe”. This should be discussed within ESKAC.

PS evaluated the ToR for the SAG. It was decided that Board members should not be on the SAG. Chair will check if Luigina Ferretti, who is suggested to be SAG member, will be on the Board for INAF-IRA.

Domingos Barbosa (DB) will be Board member on behalf of Portugal.

HJvL will send suggestions on additional SAG members to PS.

13 Design Studies – Presentations by:

13.1 DS2 – Steve Rawlings

DS2-T1 is doing very well in total, it is well organized with reports through SKADS Wiki pages and there is good cooperation in general. The DS2-T2 report is based on information by Cormac Reynolds

There is a discussion going on with suggestions how to continue this science-based work after SKADS.

One suggestion is another Marie Curie Research Network. PC will check in Brussels what the possibilities are. RTS is thinking of the PrepSKA to bring this in.



13.2 DS3 - Paul Alexander

Is up to speed right now since there are few early milestones to meet - plenty of these to come!

- DS3-T1: communications etc
 - Technology options and costing completed
 - Phase transfer experiments already going on
- DS3-T2
 - Slow start
 - Significant overlap with DSP work in DS4 and overall system design
 - Much of work already being done
 - Need to refocus this task! → Plan a meeting soon
- DS3-T3: Element calibration
 - Needs a broad-band noise source above the AA
 - Functional simulator being developed
 - Station data rate – see the UK meeting - 12 tera-bits/sec
 - Need to reduce data rates on the long links
- DS3-T4: siting
 - Significant unforeseeable changes and covered by an agenda item later
- DS3-T5: SKA for user
 - Will start in 2007

13.3 Andy Faulkner - DS4: leading to 2-PAD as the demonstrator

- DS4-T1:
 - LNAs – are “low risk” with work being carried out at
 - Manchester
 - ASTRON
 - XLIM
 - Next DS4-T1 task meeting will be in Paris March 2007
 - ADC – are “high risk” within SKADS the only specific R&D is being carried out at Manchester using InP technology
- DS4-T4: Antennas: low risk
 - Reallocated Cambridge effort onto Calibration and Oxford and Cooling
 - ASTRON is developing differential Vivaldis, suitable for LNA integration with OMMIC devices and their finite array simulation software is to be made available to consortium
 - UK is up and running – initial contract also being let with industry to gather their experience
 - Overall station array geometries being studied
- DS4-T5: Digital beam forming
 - Recruitment is now almost complete at Manchester and Oxford and an industry consultant contract has been let.
 - Digital processor systems look promising via ASICs for the digital filters and multi-core processors for beam forming
 - Conclusion is that digital processing is viable by 2011
- DS4-T6: system design
 - Mechanical issues, cables, bunkers etc are being design – looking ahead to the full design as well as just 2-PAD

Conclusions:

- Aperture array is cost effective – the choices in beam forming technology have still to be made
- The biggest risk currently is the ADC



13.4 DS5 – EMBRACE Parbhu Patel

- There has been new thinking on hierarchy (element level to groups of elements) of phase and time delays for beam forming and on the antenna design.
 - The first prototype was evolved from THEA
 - Now looking at low cost dual-poln antenna using foam core – simulated performance is satisfactory – but there is a concern about moisture ingress.
 - Also looking at aluminium plate radiator with microstrip feed (Vivaldi as the basis but self-supporting) – looking for ways to reduce connector requirements
- Beamformer chip
 - ASTRON designed and tested – some oscillation problems but these have now been identified. OPAR has also designed a beam-former chip which may be used for a 10-tile prototype
- Analogue signal transportation
 - Cables being studied by MPIfR and the receiver unit by INAF
- DSP (France): is based on LOFAR and will be bench-tested in Nancy

Next milestone is a 10-tile prototype

PP confirms that there is a 2-3 month delay but this is not too bad and the MTR will be in October. PS comments that the MTR is based on the annual report and not on the October situation. RTS says that deliverable should also include the performance on VLBI baselines, taking the scan angle into account. PE replies that the people involved are thinking of that. After March other array configurations, like sparse arrays, will be taken into consideration. SR adds that the science simulation is also looking at that. PC says that Swedes are considering to submit a proposal on this subject. HO confirms that submission is expected mid April.

13.5 DS6 - BEST Stelio Montebugnoli

- DS6-T1
 - Deliverables are a new LNA and analogue links and reliability prediction methods
 - Optical link: all tech problems solved but cost (€800) too high – now working on VCSEL links
- DS6-T2: High DRange DAQ; polyphase filter bank
 - For first light by time of MTR: will use system based on BEE2 system from Berkeley although the Berkeley ADC board uses only 8-bits – a problem given the RFI environment in Medicina
 - For BEST3 will therefore develop a 10-bit board at 2 Gsamples per second (using an Atmel chip)
 - BEST2- digital receiver formally on target – the plan is to have FFT direct pixelling of the FOV
 - Damico (Cagliari) will use BEST to observe pulsars

13.6 DS7 – Wim van Driel

DS7 is responsible for the MTR as well as continuous assessment. Work is being done to get these things organized.

As far as Quarterly reports to SKADS are concerned: There are efforts per institute as well as efforts in DS's. There should be information of what is going on in both aspects.

It should not be too detailed and accurate. It is about an estimate so that we know where we are, as well as what the issues and the successes are. Full details come in the annual report. The impression is that for the quarterly report 1 page/task will do.



PC would also be in favour of getting more information than only at a yearly basis. PM distributed a format for quarterly reports and an update will follow later this month. PE suggests to make an electronic format available at the Wiki at Task level. The MT will work this out.

The PC will send the executive summary of the SKADS Annual report to the DS7 team, they will write the assessment of this summary what will be a public version of the annual report. It would be good to limit this report to 5 pages and to have it available at the upcoming ISSC meeting in Argentina.

14 SKA developments – Richard Schilizzi

RTS gives the recent status of the SKA.

The International SKA Forum, to be established at short notice, should soon decide on the legal entity and discuss the hosting of ISPO. This will also be discussed at the ISSC meeting in March.

The SKA phase 1 Science case is due to be finished in February 2007 and will also be presented to the ISSC in March

The FP7 proposal will be submitted, via the UK Funding Council (STFC) in May 2007.

SKADS involvement in SKA will remain through the ISSC.

15 Status US TDP – Kenneth Kellermann

Chair thanks KK for his attendance at the meeting, which is the first contribution from the US.

KK informs the SKADS Board that today, January 19, the last meeting of the US consortium takes place to finalize the proposal that is supposed to be submitted last week of January. This proposal is supposed to be complimentary to the European FP7 proposal.

Jim Cordes will be the project director. The project will be 19M\$ over 5 years.

The US budget for 2007 has not yet been approved. The situation of “continuing resolution” means that they are working at the same budget as over 2006.

US will mostly be working in WP1, viz. antenna feed and receivers. A number of the design people who were working on ALMA and the EVLA become available for working on that. The US and Canada could not find consensus on continuing in a consortium.

PC and PE will be going to NRAO in April to establish further connections. They intend to visit Penticton and Cornell.

16 Status of South African and Australian pathfinders – Justin Jonas / Robert Braun

ZA 's KAT will get significant additional funding, leading to MeerKAT which could become a few % SKA and may cover higher frequencies. One of the demands to get this funding is cooperation with other parties. Within SKADS DS2 and DS4 are particularly relevant. MeerKAT workshops will be held in Europe and the USA to establish the science goals.

SR was really impressed by the quality of the students he met when visiting South Africa, PW agreed.. JJ would like to have these students to visit institutions involved in SKADS. PC replies that the Marie Curie CT program for SKADS offers facilities for this purpose in the sense of scholarships.

ZA are developing low cost 15-m dishes in cooperation with industry. They came up with a design at a price of approx. 1000 \$/sq.m.

The xNTD project has been renamed MIRA (30 x 12-m dishes) and is concentrating on developing the techniques for HI surveys. Partnerships have been developed with South Africa on software (CONRAD) and an MoU has been signed with Canada on antennas,. Much work is going on for the development of focal plane phased arrays. There will be a workshop in March 2007 that is surely of interest for all working on pathfinders.



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17 SKADS Benchmark scenario – A. Faulkner

AF outlines the Benchmark Specification as it is on the SKADS website Wiki. Name of “EOR array” will be changed.

RTS asks why the dishes should be 6-m. The answer is that SKADS is working on an overall design which can be costed now. Finally we have to come up with a costed design for the SKA within the limited time scale of the SKADS project. Small dishes appear to be least expensive and provide a wide FoV automatically. The diameter may change in the final design.

18 Scope for further discussion on science programme planning/Year in the life of SKA - Steve Rawlings

SR gives a list of names to send in proposals for a virtual telescope before February 28, 2007 (now postponed to April 13 2007). This list will be put at Wiki pages. Everybody is encouraged to expand this list. PE suggests to make this list available at the public pages so that the SKA SWG also has access to it.

19 Report on Costing Exercise on Benchmark Scenario – Paul Alexander

Costing in SKADS will now be a continuous effort. The costing and system design are linked fundamentally in the SKADS approach which complements that being taken under the aegis of the ISPO – It is hoped that the two approaches will converge in Q4 2007? A first SKADS costing report will be submitted to the ISPO/ISSC in March 2007

Some points have become clear - the estimate is that the cost of fibre will be considerable for signal processing for the longer hauls. The cost of copper will also influence the total cost dramatically. Cost of labour is site specific, just like other site specific aspects. These are not taken into account for this costing exercise.

20 Request from ISPO Director: SKADS input on Site studies – A. van Ardenne/ R. Schilizzi

RTS requested a discussion in the context of WP3 (site studies) for the FP7 PrepSKA proposal – as SKADS DS3-T4 is also dealing with the siting issue. The report to ISSC on RFI monitoring, however, is not public. There are two (three?) “parties” involved: CSIRO, ASTRON and the South African Consortium although there is an asymmetry that ZA is not currently involved in SKADS DS3-T4. A further RFI monitoring programme will be included in the FP7 proposal and it may be that DS4-T3 has been “overtaken by events”. RTS stressed that all dealings with sites should go through the ISPO.

For the purpose of the SKADS Benchmark Scenario costing exercise the ISPO is willing to issue an NDA to the main people involved and to the PC (i.e. to A. Faulkner, P. Alexander and A. van Ardenne)

ZA and Australia have submitted siting cost. JJ adds that they are continuing their work and that the estimates are going to be more precise.



21 AOB and wrap up

In Portugal there is an IST group working on risk analysis for large projects in collaboration with MIT. This might be of interest for SKADS.

Chairman summarizes the main outcomes of the meeting (see Appendix)

PC raises the point that we have to find a new vice chair. This may result in the chair and vice-chair change at the same time, which is highly undesirable. Therefore he requests the Chair to stay for at least two more Board meetings. Everybody supports this proposal and Chair accepts. There will be an e-mail vote for a new vice-chair.

The meeting is closed at 16:45 h.

22 Action items

Action item	Actions	By	Term
1.	Add P. Patel's name to the list of attendees	TB	15/2/07
2.	Situation public version Board minutes to be decided	Board	
3.	All participants whose logo is missing to send it to SKADS secretary	Check!	1/3/07
4.	Breakdown FP7 proposal to be sent to every SKADS Board member	PE	18/1/07
5.	Check situation withdrawal 3 Australian universities at EC	PC	15/2/07
6.	Inform Brussels that SKADS is in favor of the 2 nd date for the MTR	PC	15/2/07
7.	Check if Luigina Ferretti will be representing INAF in the SKADS Board	PNW	15/2/07
8.	Send suggestions on additional SAG members to PS	HJvL	15/2/07
9.	Check in Brussels what possibilities to continue the work after SKADS	PC	1/3/07
10.	Send executive summary of annual report to WvD	PC	15/2/07
11.	Have the assessment of the summary of the SKADS annual report available at the ISSC meeting in Argentina	WvD	20/3/07
12.	Make the list to send in proposals for a virtual telescope available at public pages of the website	SR/PS	Asap
13.	ISPO to issue an NDA with regard to the RFI monitoring report on behalf of the costing exercise to the people involved + PC	RTS	Asap
14.	To send ISSC costing paper to both Chair of the ISSC and ISPO Director	PC	20/3/07

Item	Decision
1.	To have Portugal as a new consortium member
2.	DS2 leadership taken over by Thijs van der Hulst – Kapteyn Institute
3.	Accept representation A. Zensus by Coordinator due to extraordinary situation
4.	Approval to keep 5% from the 2 nd advance payment as contingency
5.	Accept nominations for a new vice-chair by Board members and have an email vote
6.	Have a discussion on the MTR lead by Wim van Driel at 4 th Board meeting



Acronyms

CA	Consortium Agreement
CC	Coordinating Committee
DoW	Description of Work
DS	Design Study
EC	European Commission
EWG	International SKA Engineering Working Group
ISPO	International SKA Project Office
ISSC	International SKA Steering Committee
MTR	Mid Term Review
NDA	Non Disclosure Agreement
PC	Project Coordinator
PE	Project Engineer
PM	Project Manager
PS	Project Scientist
RD	SKA Reference Design
SBD	SKADS Benchmark Design
SWG	International SKA Science Working Group
T	Task
WG	Working Group



Appendix: Chairman's Summary

23 Strategic Outcomes of Meeting

1. 2nd SKADS Symposium/Mid-Term review

The 2nd SKADS Symposium will be immediately prior to the MTR : the board prefers the dates of 25/26 October.

The Board deferred the final planning for the MTR until the next Board Meeting in summer 2007 – these plans to be organized by Wim van Driel (DS7 leader).

2. FP7 Participation – (especially WP2, Technology)

The FP7 process and scope was clarified during the meeting – in particular, WP2 the technology related WP. A first draft table of sub-packages and participants had constructed by Andy Faulkner from ad hoc discussions. This table has been circulated to “institute” leaders – and now will be circulated more widely. An important meeting will be held in Bonn 12th February to finalise the scope of the proposal

3. Design and Costing Activities

- It was agreed that the SKADS approach complements that of the ISPO and that both should converge in Q4 2007? A first SKADS report will be made to the ISPO Director and the ISSC in March 2007.
- The SKADS process explicitly integrates engineering via “Design&Costing Blocks” and leads to estimates of 2011/12 costs and uncertainties for the SKADS Benchmark Scenario.
- There are no numbers yet but some basic properties are becoming clear about the system as a whole for example:
 - 58% of cost in stations
 - 36% of cost in data transport – dominated by long-haul links >480km (for a private link model). The fibre installation costs are non-trivial and as a result we may not be able to afford spare “dark fibre” installed on day 1.
 - Aperture Array costs: the analogue and fully digital beam-forming costs look comparable.
 - Infrastructure costs are larger than expected (the low-tech stuff adds up)
- After March 2007 the plan is to iterate the design; make trade-offs; learn the ISPO Python software; integrate with other work outside SKADS especially on dishes.
- The IPSO director noted that part of WP2 of FP7 is a costing exercise and that an international consultant will be asked to provide independent validation.

4. SKADS and Site Surveys

- The ISPO would like input on
 - RFI investigations
 - Configuration optimization (mainly from existing SKADS work)
 - Influence of site characteristics on cost and operation
 - Influence of infrastructure on overall cost
 - It was agreed that everyone should take great care to go through the ISPO in all matters associated with siting
- RFI monitoring will be mainly via the FP7 Study
- To get siting/costing information into SKADS there will be an NDA involving Arnold van Ardenne; Andy Faulkner & Paul Alexander



5. Decisions on SKADS Science Advisory Group

- Agreed to constitute as per the published guidelines
- Board members should not be on the SAG
- Membership to be finalized via email – led by Proj. Sci. and Coordinator
- Luigina Ferretti (probably will be – PW to check) and Melvin Hoare are Board Members – and hence cannot be members of the SAG

6. “Year in the Life”: “Virtual proposal” process coordinated by S. Rawlings

- Details being circulated –as in minutes. Action is needed by the entire community!

Peter Wilkinson
SKADS Chairman
22 January 2007



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