The Square Kilometre Array
Intellectual Property Policy

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1 **The Purpose and Structure of this Document**

1.1 This document is a publicly accessible document which is intended to provide all potential contributors to the SKA Project with a clear understanding of:

(a) The IPR-related risks and opportunities which the SKA Project faces;

(b) How the SKA Organisation will seek to identify specific IPR-related risks and opportunities; and

(c) How the SKA Organisation will seek to manage IPR-related risks and opportunities via the careful management of all relevant Background IPR and Foreground IPR, and the careful allocation of Third Party IPR risk.

1.2 The principles set out in this policy, and the tools which the SKA Organisation envisages using to implement them, are designed primarily to ensure the maximum achievable freedom for the SKA Organisation and SKA Contributors to engage in the development, delivery, operation and maintenance of the SKA without concern that their activities may be blocked by the enforcement of intellectual property rights.

1.3 All potential SKA Contributors are required to accept the principles set out in this policy before engaging with the SKA Organisation or any of the other entities tasked with the delivery of the SKA. This is because whilst this document is not binding and will not, of itself, create any rights or obligations, the terms which will ultimately govern all SKA Contributors’ involvement in the SKA Project will give binding legal effect to those principles. Whilst it is conceivable that the SKA Organisation may need to permit some variation or relaxation of those terms in specific and SKA Project-critical contexts, such variations/relaxations will be permitted only where strictly necessary. Potential SKA Contributors should therefore plan their proposed involvement in the SKA Project accordingly.

1.4 This document is split into the following sections:

**Part 1** This introductory section.

**Part 2** A brief overview of the IPR related risks associated with the delivery of the SKA and IPR related opportunities which delivery of the SKA is likely to create.

**Part 3** An explanation of how the SKA Organisation will attempt to identify IPR related risks and opportunities.

**Part 4** An explanation of how the SKA Organisation will manage IPR related risks by the fair and prudent allocation, between the SKA Organisation and SKA Contributors, of rights and risks associated with Background IPR, Foreground IPR, and Third Party IPR.

**Part 5** An indication of the contracting structure within which it is intended that the principles set out in this policy will be made binding upon SKA Contributors.

**Part 6** A definitions section to explain the meaning of the capitalised terms used in this document.
2 Intellectual Property Rights and the SKA

2.1 As a large global cutting-edge science enterprise, the SKA Project will require the use of existing and new innovations to fulfil its mission of developing, constructing, and operating a ‘next-generation’ radio telescope. Through cooperation among the Work Package Consortia members and other SKA Contributors, the SKA Project will support and require worldwide cooperation in the development, deployment, and exploitation of existing and new technologies and applications, and their associated Intellectual Property Rights.

2.2 Those associated Intellectual Property Rights give rise to a number of risks and opportunities for the SKA Organisation and SKA Contributors, and each of them will need to be properly managed by the SKA Organisation with support from SKA Contributors.

2.3 The risks associated with IPR can be easily summarised. Whilst the protection afforded to IPR-owners under different legal systems throughout the world differs in certain respects, the basic principles of IPR are universal, i.e. IPR owners are entitled to extensive remedies granted by competent courts to:

(a) prevent the unauthorised exploitation of their protected innovations and work products via the grant of injunctions, and

(b) to compensate them for any such unauthorised exploitation by requiring unauthorised users to pay damages or an account of their profits associated with such unlawful use.

2.4 Intellectual Property Rights which already exist, and those which may come into existence as a result of the work undertaken on the SKA Project, therefore constitute a threat to the “freedom to operate” which SKA Contributors will need if the SKA is to be delivered successfully. The SKA Organisation and SKA Contributors will consequently need to identify and properly manage those IPR and their attendant risks, whether by obtaining the necessary authorisations for the use of protected innovations or work products, or by modifying their plans to avoid the need to use such innovations or work products.

2.5 The IPR-related opportunities which will arise from the delivery of the SKA Project are far more positive. It is inevitable that the work undertaken in relation to the SKA Project will create innovations and other work products which are protected or protectable (either automatically or pursuant to appropriate applications) by IPR. The right to control the exploitation of such innovations and work products for purposes outside the SKA Project via the enforcement and exploitation of related IPR may prove extremely valuable, and potential SKA Contributors should be mindful of the opportunities which their involvement in the SKA Project may bring in that respect.
3 Identification of Risks and Opportunities Relating to Intellectual Property Rights

3.1 Specific IPR risks relating to the delivery of the SKA Project cannot easily be identified with any precision, and measures and procedures will need to be put into place to maximise the prospects of identifying them at the earliest opportunity, which will in turn maximise the prospect of them being managed effectively.

3.2 These measures and procedures will or may include the following:

(a) SKA Contributors will be required to use all reasonable endeavours to notify the SKA Organisation of all Background IPR held by them, and all Third Party IPR known to them, which might be used to restrict the freedom of any SKA Contributor to operate for SKA Project purposes;

(b) SKA Contributors will be required to use all reasonable endeavours to notify the SKA Organisation of all Foreground IPR created by them (whether registered or unregistered), and of innovations and work products which may appropriately be the subject of applications for registered Foreground IPR, as soon as reasonably practicable after those innovations and work products are devised or created. In respect of innovations or work products which are potentially the subject of registered IPR protection, the SKA Organisation may require the innovating SKA Contributor to permit the SKA Organisation to pursue such registered IPR protection for that innovation or work product if that SKA Contributor does not propose to pursue appropriate protection for that innovation itself;

(c) SKA Contributors may be requested to conduct appropriate searches for existing Third Party IPR which may be enforced to prevent them from contributing to the SKA Project in the manner proposed by them;

(d) The SKA Organisation may also conduct searches for Third Party IPR which may prejudice the freedom of SKA Contributors to operate for SKA Project purposes; and

(e) The SKA Organisation will create and maintain an IPR Register, which will be accessible (without warranty or guarantee as to its accuracy or completeness) to SKA Contributors subject to certain terms of access, which will record appropriate information relating to all relevant IPR notified to it or of which it becomes aware. SKA Contributors will be in a position to consult that IPR Register to identify:

(i) Such Background IPR and Third Party IPR as has already been identified which may prevent or otherwise hinder their proposed contribution to the SKA Project; and

(ii) Foreground IPR for which they may see an application outside the scope of the SKA Project and for which they might seek a licence.

3.3 To the extent appropriate, that IPR register may be made publicly accessible. It is not realistic to expect that all relevant Third Party IPR which might prejudice the successful delivery of the SKA project will be identified sufficiently early (if at all) for the risks created by them to be managed in the optimum manner. Consequently, SKA
Contributors will be required to accept certain of the IPR risk associated with their contribution to the SKA Project. The SKA Organisation’s policy relating to the allocation of such risk is addressed in the next section of this document.

3.4 Mere association with the SKA Project may also provide opportunities for SKA Contributors, and it is to be expected that SKA Contributors will wish to benefit from the goodwill which the SKA Project creates. It is part of the SKA Organisation’s remit to ensure that the reputation and goodwill of the SKA Project is not abused or misappropriated by SKA Contributors. The SKA Organisation therefore intends to issue a binding SKA Brand Use policy, to supplement this policy, to which SKA Contributors will be required to adhere.
4 Allocation of IPR Related Rights and Risks

4.1 IPR risks cannot easily be allocated in a manner which will obtain universal approval among SKA Contributors. Consequently, SKA Contributors must accept that whilst some aspects of this policy will operate in their favour, other aspects may not.

4.2 The fundamental principles which will apply to all SKA Contributors are as follows:

(a) Background IPR:

(i) Ownership of all Background IPR will remain with its owner.

(ii) All SKA Contributors which contribute to the Design Work will be required to use all reasonable endeavours to identify, as part of any submissions, proposals or recommendations made by them which relate to the potential design, construction, installation, operation and maintenance of the SKA:

(A) Any Background IPR owned by them which might, if it is not made the subject of an appropriate licence, make it unlawful for:

(I) another SKA Contributor to implement those submissions, proposals or recommendations,

(II) another SKA Contributor to implement any other aspect of the SKA Project, or

(III) any user of the SKA to use the SKA and the outputs of such use.

(B) Any terms (including payment terms and associated payment mechanisms) under which they would be willing to grant licences under any Background IPR identified by them under (A) above for the purposes of the SKA Project. Potential SKA Contributors should be mindful in this respect that placing a high price on their Background IPR is likely to exclude them from consideration for involvement in the Construction Phase.

(C) Any Background IPR owned by other SKA Contributors of which they are aware which might, if it is not made the subject of an appropriate licence, make it unlawful for:

(I) another SKA Contributor to implement their submissions, proposals or recommendations;

(II) another SKA Contributor to implement any other aspect of the SKA Project, or

(III) any user of the SKA to use the SKA and the outputs of such use.
(D) Any terms (including payment terms and associated mechanisms) of which they are aware under which that other SKA Contributor may be willing to grant a licence under any Background IPR identified under (C) above for the purposes of the SKA Project.

(E) Any alternatives solutions to their primary submissions, proposals or recommendations, which would not require a licence under any Background IPR, together with details of the relative advantages and disadvantages of those proposals.

(iii) Any Background IPR owned by an SKA Contributor which is not identified by that SKA Contributor in accordance with the policy outlined at (ii) above, and any Background IPR owned by it which is identified by it but in respect of which no proposed licensing terms are specified, will be deemed to be the subject of a licence granted by that SKA Contributor to the SKA Organisation which is equivalent in scope to the compulsory licence of Foreground IPR which it outlined at (b) below.

(b) Foreground IPR:

(i) Subject to paragraph (ii) below, ownership and exploitation rights in respect of Foreground IPR will be governed by the governing local law of the country in which the exploitation of the protected innovation or work product is proposed (this will typically mean that the creator of the innovation or work product (or, if the creator is employed, its employer) will own and have exclusive exploitation rights in relation to any IPR created as a result of its work), as that position may be varied by agreement between Work Package Consortium members.

(ii) All Foreground IPR will be subject to a non-exclusive, worldwide, royalty-free, perpetual, and irrevocable licence, granted to the SKA Organisation, to use the innovations and work products protected by that Foreground IPR for SKA Project purposes, and to grant sub-licences on the same terms to other SKA Contributors to use those innovations and work products without restriction for those purposes.

(iii) The owners of Foreground IPR shall, without restriction, therefore be entitled to:

(A) exploit Foreground IPR for purposes outside the SKA Project without restriction wherever, for whatever purpose, and on whatever terms they deem appropriate, and/or

(B) reserve the use, for purposes outside the SKA Project, of the innovations or work products protected by that Foreground IPR for themselves;

in such manner and to such extent as their ownership rights and the terms of their Work Package Consortium agreements permit.
(iv) SKA Contributors will, however, be required to provide the SKA Organisation with high level details of the nature and extent of their commercial exploitation, if any, of Foreground IPR outside the scope of the SKA Project. This requirement will not extend to details of revenues or customers, but merely the applications to which Foreground IPR has been put, so that the SKA Organisation can assess and (where appropriate) publicise the wider social, commercial and economic significance of the work undertaken on the SKA Project.

(v) The SKA Organisation hopes and expects that this freedom to exploit Foreground IPR, which will typically have been generated with the assistance of SKA Project funds, will incentivise potential SKA Contributors to engage with the SKA Project.

(c) Third Party IPR:

(i) SKA Contributors which contribute to the Design Work will be required to use all reasonable endeavours to identify, as part of any submissions, proposals or recommendations made by them which relate to the potential design, construction, operation and maintenance of the SKA:

(A) Any Third Party IPR of which they are aware which might, if it is not made the subject of an appropriate licence, make it unlawful for:

(I) their submissions, proposals or recommendations to be implemented;

(II) any other aspect of the SKA Project to be implemented; or

(III) any user of the SKA to use the SKA and the outputs of such Use.

(B) Any terms (including payment terms and associated mechanisms) of which they are aware under which that third party may be willing to grant a licence under any Third Party IPR identified under (A) above for the purposes of the SKA Project.

(C) Any alternatives solutions to their primary submissions, proposals or recommendations, which would not require a licence under the identified Third Party IPR, together with details of the relative advantages and disadvantages of those proposals.

(ii) SKA Contributors which contribute to the Construction Phase will be required to accept any Third Party IPR risks associated with their delivery of those aspects of the SKA Project which they are contracted to deliver, and (where relevant) the ongoing use of those aspects in the ongoing operation of the SKA. Those risks will include, but not be limited to:
(A) The cost of procuring any licence under any Third Party IPR which may be required to make their delivery of those aspects of the SKA Project, and their future use in the operation of the SKA, lawful; or

(B) The cost of lawfully delivering those aspects of the SKA Project in a manner which does not require a licence under Third Party IPR.

SKA Contributors will, as indicated above, be provided with access to the IP register maintained by the SKA Organisation to help them identify and scope such Third Party IPR risks.

(d) Confidentiality

(i) As a global project intended to benefit the global community which will be funded from contributions from public funds across the world, it is important that as many aspects of the governance and delivery of the SKA Project as possible are transparent and open to public scrutiny. For that reason, an underlying principle governing the SKA Project is that all Project Information will be made publicly accessible unless there are compelling reasons why it should not be.

(ii) The SKA Organisation acknowledges that there are compelling reasons to maintain the confidentiality of, and control access to, certain types of Project Information. Such types of information will include but not be limited to:

(A) technical know-how which can properly be regarded as a trade secret (including but not limited to technical know-how which may be patentable);

(B) Design Work which is protected by Foreground IPR and which may realistically be licensable for purposes outside the SKA Project; and

(C) Project Information pertaining to the price at which SKA Contributors and potential SKA Contributors deliver or propose to deliver SKA Project requirements.

(iii) In order to ensure that access to Project Information is managed appropriately, and that the confidentiality of Project Information is maintained where it is appropriate to do so, the SKA Organisation will establish an access grading system, under which:

(A) all Project Information will be allocated a particular access grade; and

(B) the allocated grade will determine the mandatory rules of access, use/non-use and disclosure/non-disclosure which will apply to that information.
(iv) SKA Contributors will be notified of the access grade which will be allocated to Project Information which they are asked to submit before any such submissions are made. If SKA Contributors consider that a different access grade should apply to Project Information submitted by them, they will be required to notify the SKA Organisation and obtain the SKA Organisation’s agreement to allocate a different access grade to that Project Information before it is submitted.

4.3 The SKA Organisation will permit deviation from these principles on an exceptional basis only. Potential SKA Contributors who intend to negotiate the exclusion or limitation of any of these principles, particularly in relation to aspects of the SKA Project for which there is likely to be significant competition (whether in terms of technology or supplier), may adversely affect their prospects of being selected or approved by the SKA Organisation.
5 **Delivery of the SKA IPR Policy**

5.1 As indicated in section 1 above, this IP Policy does not have contractual effect and is not binding. However, the principles and requirements which are summarised in it will be captured and made binding within the terms of the agreements pursuant to which SKA Contributors will be engaged to contribute to the SKA Project.

5.2 The precise contractual framework within which different SKA Contributors will contribute to the SKA project is yet to be determined as at the date of this version of this document. It is also possible that the contractual framework, and the precise terms of the relevant agreements within that framework, will differ from country to country depending on differences between local laws and practices.

5.3 It is currently envisaged that the deliverables required under each of the Pre-Construction Phase and the Construction Phase of the SKA Project will be divided into various Work Packages, and that all deliverables within each Work Package will be contracted (by an appropriate funding agency appointed by the SKA Organisation) to a selected Work Package Consortium comprising a combination of research institutions and private sector companies.

5.4 Under the terms of the agreement pursuant to which a Work Package is contracted to a Work Package Consortium, each of the member parties of that Work Package Consortium will be required to accept provisions relating to IPR which capture and give binding effect to the principles set out in this document. It is currently envisaged that the SKA Organisation will appoint funding agencies to contract directly with Work Package Consortia for the delivery of Work Package deliverables.

5.5 It will also be open to members of Work Package Consortia to reach agreements between themselves in respect of the ownership and exploitation of Background IPR and Foreground IPR which they create, provided that any such terms agreed between them do not conflict with the IPR provisions governing their engagement by the funding agency.

5.6 The SKA Project is and will continue to be a dynamic enterprise, and its management and governance will need to be sufficiently flexible to meet new and developing challenges. It is therefore to be expected that new IPR related issues may emerge as work on the SKA Project progresses, and that it may be appropriate to modify this IP Policy to address them. Potential SKA Contributors should expect that to be the case. More details pertaining to the proposed contractual framework under which this IP Policy will be implemented will be disclosed in subsequent versions of this document.
6 Definitions

6.1 In this policy the following terms shall bear the following meanings:

“Background IPR” means IPR owned by a SKA Contributor which have not been created as a result of work done for, or in connection with, the SKA Project, or which were created before its creator was a SKA Contributor.

“Construction Phase” means the phase of the SKA Project concerned with the development and construction of the component parts of the Square Kilometre Array, its installation in situ at the selected sites, and all aspects of its commissioning to achieve full operational status.

“Design Work” means work undertaken throughout the full life-cycle of the SKA Project in connection with the design of any aspect of the Square Kilometre Array, including but not limited to the design of its component software and hardware, its construction, its installation, its operation and its maintenance.

“Foreground IPR” means IPR owned by an SKA Contributor which have been created as a result of work done for, or in connection with, the SKA Project after its creator became a SKA Contributor.

“Intellectual Property Rights” and “IPR” means intellectual property rights of any nature anywhere in the world and including but not limited to rights in patents, inventions, trade marks, designs, copyright works (including rights in computer software and moral rights), database rights, trade secrets and other confidential information, in each case whether registered or unregistered and including applications for the grant of any of the foregoing and all rights or forms of protection having equivalent or similar effect to any of the foregoing which may subsist anywhere in the world.

“Pre-Construction Phase” means the phase of the SKA Project concerned with all aspects of the SKA Project which it is necessary or appropriate to undertake before the commencement of the Construction Phase, including but not limited to much of the Design Work.

“Project Information” means information of any nature pertaining to the SKA Project, including but not limited to details of contributions made or proposed to be made by SKA Contributors.

“SKA” means the Square Kilometre Array.

“SKA Contributors” means entities which have contracted to provide funding, products or services in connection with the delivery of the SKA Project under the terms of an agreement to which the SKA Organisation is a party.

“SKA Organisation” means a company limited by guarantee and incorporated in England and Wales under company number 07881918.

“SKA Project” means all aspects of the design, construction, installation, operation and maintenance of the Square Kilometre Array.
“Square Kilometre Array” means a international radio telescope system, consisting of an array of dish receptors and mid frequency aperture arrays to be built and situated in Australia and South Africa with aggregate collecting area of approximately one square kilometre.

“Third Party IPR” means IPR owned by a party which is not an SKA Contributor.

“Work Package” means a particular sub-set of deliverables for the SKA Project.

“Work Package Consortium” means a group of SKA Contributors tasked with delivery of a particular Work Package.