

	<b>eROSITA</b> <b>Collaboration Policy</b>	<b>Ref.</b> : eRO-MPE-PO-70-1 <b>Date</b> : 2022-02-04 <b>Page</b> : 1
---	---	--

## Abstract

This document describes the collaboration policy of the German eROSITA Consortium


## Change Record

Issue	Date	Description of Change	Affected Pages
1	2012-07-24	New Document	All
2	2018-11-02	Revision of External Collaborators scheme, WG chairs	
3	2019-02-05	Include comments from AM, KN, PP	All
4	2019-03-15	Reviewed after StC meeting in Potsdam	All
5	2019-03-27	Included comments from Axel and Joern	
6	2019-04-02	Included final comments from StC	
7	2019-04-10	Final version for release	
8	2021-01-22	New Revised version 2021	
9	2021-10-14	Revised version including StC comments	All
10	2022-02-04	Revised including KN comments	

## Distribution List

Organisation	Name	Organisation	Name	Organisation	Name
MPE	eRO doc. server				

## Approvals

Function	Name	Date	Signature
Principal Investigator, Author	A. Merloni		

	<b>eROSITA</b> <b>Collaboration Policy</b>	<b>Ref.</b> : eRO-MPE-PO-70-1 <b>Date</b> : 2022-02-04 <b>Page</b> : 2
---	---	--

## CONTENTS

<b>1. SCOPE AND INTRODUCTION .....</b>	<b>3</b>
<b>2. REFERENCES .....</b>	<b>4</b>
2.1. APPLICABLE DOCUMENTS .....	4
2.2. REFERENCE DOCUMENTS .....	4
2.3. ACRONYMS .....	4
<b>3. MANAGEMENT STRUCTURE .....</b>	<b>5</b>
3.1. PRINCIPAL INVESTIGATOR .....	5
3.2. STEERING COMMITTEE .....	5
3.3. SPOKESPERSON .....	5
3.4. WORKING GROUPS AND THEIR CHAIRPERSONS .....	6
3.5. COLLABORATION COORDINATION BOARD .....	7
<b>4. PARTICIPATION IN THE EROSITA-DE CONSORTIUM .....</b>	<b>8</b>
4.1. PARTICIPATING INSTITUTES .....	8
4.2. CONSORTIUM MEMBERSHIP .....	9
4.3. GENERAL RIGHTS AND RESPONSIBILITIES OF EROSITA-DE CONSORTIUM MEMBERS .....	11
4.4. EXTERNAL PARTICIPANTS .....	12
<b>5. EROSITA-DE DATA RIGHTS AND PUBLICATION POLICY .....</b>	<b>15</b>
5.1. DATA RIGHTS .....	15
5.2. GRANT/FUNDING PROPOSALS .....	15
5.3. SOFTWARE DISTRIBUTION AND ACCESS .....	16
5.4. PUBLICATION POLICY .....	16
<b>6. APPENDIX A: EROSITA-DE MANAGEMENT .....</b>	<b>20</b>
<b>7. APPENDIX B: WORKING GROUPS AND CHAIRS .....</b>	<b>21</b>

	<p style="text-align: center;"><b>eROSITA</b></p> <p style="text-align: center;"><b>Collaboration Policy</b></p>	<p><b>Ref.</b> : eRO-MPE-PO-70-1</p> <p><b>Date</b> : 2022-02-04</p> <p><b>Page</b> : 3</p>
---	--	---

## 1. SCOPE AND INTRODUCTION

This document summarizes and defines the management structure and basic principles of operation of the German eROSITA Consortium (hereafter eROSITA-DE), including regulation of access to the 50% portion of eROSITA data whose proprietary rights lies with the Max Planck Institute for Extraterrestrial Physics (MPE). This document is accompanied by a Code of Conduct [RD1], which describes the principles of social and scientific good practice within the Consortium, the alert policy document (RD2) and the document describing the naming convention (RD3)

eROSITA-DE is the Consortium responsible for the definition, management, planning, implementation, operation and scientific exploitation of the eROSITA telescope. The purpose of this document is to guarantee an effective, fair and transparent working environment for all members of the Consortium working towards a common goal of the successful technical implementation and scientific exploitation of the eROSITA telescope onboard the SRG mission.

This should be considered a working document, which will be revised as required by future developments. Revisions to the eROSITA-DE Consortium Policy will be approved by the Principal Investigator (PI), based on the recommendation of the Steering Committee. Notwithstanding the opinion of the Steering Committee and the contents of this document, the PI's decision on matters of eROSITA policy shall be final.

	<p style="text-align: center;"><b>eROSITA</b></p> <p style="text-align: center;"><b>Collaboration Policy</b></p>	<p>Ref. : eRO-MPE-PO-70-1</p> <p>Date : 2022-02-04</p> <p>Page : 4</p>
---	--	--

## 2. REFERENCES

### 2.1. Applicable Documents

N/A

### 2.2. Reference Documents

- RD1. eROSITA-DE Code of Conduct; 2020-11-05
- RD2. Alert Policy (eRO-RSB-NRTA-Alerts\_1.0); 2020-02-04
- RD3. Naming Conventions (eRO-MPE-PO-70-2); 2020-09-30

### 2.3. Acronyms

Specific acronyms used in this document are defined below:

CCB	Collaboration Coordination Board
DLR	Deutsches Zentrum für Luft- und Raumfahrt
eROPUB	eROSITA Publication Archive
eSASS	eROSITA Science Analysis Software System
GEC	Group External Collaboration
(I)EC	(Individual) External Collaborator
MoU	Memorandum of Understanding
MPE	Max Planck Institute for Extraterrestrial Physics
MPG	Max-Planck Gesellschaft
PI	Principal Investigator
PS	Project Scientist
SRG	Spektrum-Roentgen-Gamma
StC	Steering Committee
WG	Working Group

	<p style="text-align: center;"><b>eROSITA</b> Collaboration Policy</p>	<p>Ref. : eRO-MPE-PO-70-1 Date : 2022-02-04 Page : 5</p>
---	--	--

### 3. MANAGEMENT STRUCTURE

#### 3.1. Principal Investigator

The Principal Investigator is appointed by the Director of the High Energy Astrophysics group at MPE, in consultation with DLR, to act as the lead scientist of the eROSITA project.

The PI takes ultimate responsibility for the completion and successful operation of the project and for reporting to external bodies (e.g. DLR, MPG). The PI oversees the implementation of the rules of collaboration within the eROSITA-DE Consortium.

The PI may:

- Appoint the members of the Steering Committee, and act as its Chair;
- Appoint the WG Chairpersons, in consultation with the Steering Committee;
- Accept new members into the Consortium;
- Terminate the Consortium membership of scientists who are deemed not to have acted in a manner consistent with this document, or with the Collaboration Code of Conduct, or otherwise undertaken actions detrimental to the project;
- Sign Memoranda of Understanding (MoU) with third parties who wish to collaborate with the eROSITA-DE Consortium for the scientific exploitation of the eROSITA data;
- Review the effectiveness of the Consortium regulations, and modify them as necessary, in consultation with the Steering Committee.

#### 3.2. Steering Committee

The Steering Committee (StC) provides recommendations to the PI on matters of eROSITA policy. These include, for example, ratification or expulsion of members of the consortium, resolution of conflicts within the consortium, negotiations with partners at project level, etc.

The StC also advises and assists the PI as required in all aspects of the management of the project, including negotiations with DLR.

The StC meets as required (in person or by telecon/videocon), but at minimum twice per year. StC meetings will generally be convened by the PI, but can also be called by request of two or more StC members.

Ideally, the Steering Committee makes decisions by consensus. If the StC fails to reach consensus, the ultimate decision will be made by the PI.

The StC is appointed by the PI, and consists ordinarily of the PI, the Director of the MPE High Energy Group, the eROSITA Program Manager of each of the Core Institutes, the DLR officer responsible for eROSITA, plus such other individuals as the PI deems appropriate.

#### 3.3. Spokesperson

The eROSITA-DE PI delegates to the eROSITA-DE Spokesperson the primary responsibility for fostering the scientific productivity of the Participants, for raising the visibility of eROSITA-DE within the astronomy and physics communities, for maintaining good morale, and for ensuring inclusiveness within the Collaboration.

	<p style="text-align: center;"><b>eROSITA</b> <b>Collaboration Policy</b></p>	<p><b>Ref.</b> : eRO-MPE-PO-70-1 <b>Date</b> : 2022-02-04 <b>Page</b> : 6</p>
---	---	---

The Spokesperson is appointed by PI upon recommendation from the entire Collaboration.

The Spokesperson, will act as connection between the PI and the Working Groups, and, in concert with the PI and the Collaboration Coordination Board (CCB; see section 3.5), may establish additional structures for the Collaboration science efforts, such as the formation of Specific Working Groups.

The Spokesperson will be responsible for maintaining up to date a common, electronic, WWW-based archive of all submitted and proposed projects and publications making use of eROSITA-DE data and preparatory works, as well as that of eROSITA-related presentations ('Publication Archive' or eROPUB; see Section 5.4 below).

The Spokesperson will be chair and member of the CCB ex officio.

The Spokesperson will also be responsible for overseeing the process of evaluation and acceptance of proposals for external collaborations (see Section 4.4), funding application proposals, as well as for the provision of support to the StC and PI in reviewing the eROSITA-DE membership.

### **3.4. Working Groups and their Chairpersons**

A "Working Group" (WG) is a team of scientific experts in a particular field (object classes, science tasks, etc.), which organizes and coordinates the work in this field. The goal is to have a streamlined and efficient way to exploit eROSITA's scientific potential.

Access to eROSITA-DE proprietary data products (see Section 5.1) is coordinated through the relevant Working Group(s), within the constraints of data rights policy outlined in this document.

WGs are responsible for identifying, approving and coordinating scientific projects (eventually leading to publications) that make use of eROSITA-DE proprietary data (see Section 5.4 below).

Overall coordination of the WGs is provided by the PI, who appoints the Chairs of the WGs, and by the Collaboration Coordination Board (see Section 3.5 below). Each WG will have one chairperson, and up to two deputies.

Chairs of the WGs shall be chosen from the group of Senior Scientists of the eROSITA collaboration. They will take responsibility for calling meetings and/or telecons at such intervals, as they deem necessary for the successful operation of the WG.

The Chairs act as the contact point between the WGs and the PI, and provide recommendations for new WG members. All changes in WG membership shall nonetheless be reviewed and approved by the StC and the PI at least twice per year.

WG chairs, in consultation with the WG, review Individual External Collaborator proposals (see 4.4) and funding/grant applications (see 5.2) that require access to eROSITA data for projects falling within the specific scientific domain of the WG. Once endorsed by at least one WG, the proposals are reviewed by the CCB (see 3.5) for further assessment of possible cross-WG conflicts, and finally approved by the PI.

Working Groups may organize into subgroups, as required.

	<p style="text-align: center;"><b>eROSITA</b></p> <p style="text-align: center;"><b>Collaboration Policy</b></p>	<p><b>Ref.</b> : eRO-MPE-PO-70-1</p> <p><b>Date</b> : 2022-02-04</p> <p><b>Page</b> : 7</p>
---	--	---

Senior Scientists of the eROSITA-DE Consortium (as defined in Section 4.2 below) have the right to join *any* eROSITA WG. It is, however, understood that WG membership is intended only for those individuals actively working on that specific science topic and/or technical task.

Member Scientists are expected to join at most *two* scientific and *two* infrastructure Working Groups. Exceptions to this rule are possible, and will be agreed upon by the PI in consultation with the relevant WGs, based on a written justification presented by the member scientist in question.

### 3.5. Collaboration Coordination Board

The Collaboration Coordination Board (CCB) advises and supports the PI (and the Spokesperson) concerning scientific matters and collaboration policies.

The CCB consists of the PI, the Spokesperson and one member for each Working Group (appointed by the chairs of the WGs). If not all institutes (Core and Associated) are represented in such a group, the respective institute Program Manager or Lead Scientist can name a CCB member “ex officio”.

The Spokesperson will be the Chair of the CCB.

The CCB has the following tasks:

- Draft and maintain updates to the Code of Conduct of the Consortium;
- Review, after WG endorsement, grant proposals that require access to eROSITA data, and check for possible cross-WG conflicts (see Section 5.2 below);
- Periodically evaluate Individual External Collaborator proposals and their renewal (see Section 4.4 below);
- Advise the PI on Key papers (see 5.4.3) and overall scientific matters;
- Organize the regular Consortium meetings, together with the PI and the Host institute Program Manager.

The CCB usually meets (remotely) every two weeks, or as needed.

	<p style="text-align: center;"><b>eROSITA</b> Collaboration Policy</p>	<p>Ref. : eRO-MPE-PO-70-1 Date : 2022-02-04 Page : 8</p>
---	--	--

## 4. PARTICIPATION IN THE EROSITA-DE CONSORTIUM

### 4.1. Participating Institutes

#### 4.1.1. LEAD INSTITUTE

The lead Institute for eROSITA is the Max Planck Institute for Extraterrestrial Physics. The lead institute provides the PI (and if applicable the PS), the project management, and co-ordinates the activities of the other participating Institutes with respect to instrument development (hardware and software) and scientific exploitation.

#### 4.1.2. CORE INSTITUTES

The following Institutes, listed in the original eROSITA proposal, and recipients of DLR funds allocated for developing, building, testing all necessary hardware, software and infrastructure needed for the eROSITA telescope, are designated as the “Core Institutes” of the eROSITA-DE Consortium:

- *Dr.Remeis Sternwarte Bamberg - Erlangen Centre for Astroparticle Physics (ECAP)*
- *Hamburger Sternwarte, Universität Hamburg (UHH)*
- *Institut für Astronomie und Astrophysik Tübingen (IAAT)*
- *Leibniz-Institut für Astrophysik Potsdam (AIP)*

The eROSITA Program Managers at Core Institutes shall represent their institute on the Steering Committee (see Section 3.2). They have the responsibility for the delivery of hardware, software or other products as agreed and required by the project and the PI.

Individual scientists that have one of the Core Institutes as their first affiliation will in general be offered membership of the eROSITA collaboration if proposed and supported by the Program Manager or by any other Senior Scientist at the Core Institute, unless the PI considers there to be a legitimate reason to exclude them. Members of a Core Institute who wish to become members of the Consortium, but do not have support of the local Program Manager or a local Senior Scientist, may request support from the chair of the Working Group they wish to work with. If such support is granted, their request will be evaluated by the PI for approval.

#### 4.1.3. ASSOCIATED INSTITUTES

The following institutes are “Associated Institutes” within the collaboration:

- *Argelander-Institut für Astronomie and University of Bonn (AlfA)*
- *Ludwig Maximilian Universität München (LMU)*

The eROSITA Lead Scientists at the Associated institute will report to the StC and PI all changes in membership. They will appoint a representative of the Institute in the CCB.

The Lead Scientists for AlfA and LMU are listed in Appendix A.

Individual scientists from the Associated Institutes may be appointed as members of the eROSITA consortium, if proposed by the lead scientist at that institute, and approved by the PI.



	<p style="text-align: center;"><b>eROSITA</b></p> <p style="text-align: center;"><b>Collaboration Policy</b></p>	<p>Ref. : eRO-MPE-PO-70-1</p> <p>Date : 2022-02-04</p> <p>Page : 9</p>
---	--	--

## 4.2. Consortium Membership

The eROSITA-DE consortium comprises the StC, and the members of the Working Groups, whether they are Senior Scientists or Member Scientists (see below).

The people (scientists and engineers) who contribute to the designing, manufacturing, testing and health monitoring of eROSITA constitute the “Instrument team”. Instrument team members are not automatically members of the Consortium, but they have the right to sign instrument papers, or “key” papers, following the PI’s recommendations (see 5.4). The PI, supported by the Spokesperson, maintains a list of all members of the Instrument team, which is made available to the whole collaboration in a dedicated Wiki page.

The eROSITA-DE Consortium membership list will be reviewed by the StC, at least twice per year. During such revisions the PI can appoint new members of the consortium, or revoke membership (for reasons such as prolonged inactivity, departure from a consortium Institute, violation of policy, scientific misconduct etc.). The StC is expected to deliberate and make recommendations to the PI in regard to changes in the consortium membership.

An active list of eROSITA-DE Consortium members will be made available electronically on the Wiki. The Spokesperson is responsible for keeping up to date the list of Consortium Members; changes to such a list do not constitute a formal modification of this policy document.

There are three kinds of memberships for the eROSITA-DE Consortium WGs:

### a) Senior Scientists:

Senior Scientists of the eROSITA-DE Consortium are scientists who spend a substantial amount of their time actively working towards the definition, implementation, operation and scientific exploitation of eROSITA. Senior Scientists are initially identified and appointed by the PI. Proposals for new Senior memberships must be presented formally to the StC and be sponsored by at least one member of the StC and at least one WG chair, provided they are not the same person.

Senior Scientists:

- *Share the scientific leadership of the Consortium.*
- *Join and participate in the WGs activities.*
- *Have access to eROSITA-DE validated data products, and the right to work on those data in an unrestricted manner.*
- *Propose and lead to completion scientific projects that make us of eROSITA-DE proprietary data, and publish the results in a manner consistent with the publication policy.*
- *Propose junior scientists (students or postdocs) working under their direct supervision for membership and appointment to the WGs, who can then also access the eROSITA data needed for their project, and lead papers. Responsibility for the proper conduct of these scientists lies with the Senior Scientists, and their membership shall in general be terminated if they cease to work under the supervision of the Senior Scientist (e.g. if they leave the Institution). Senior Scientists shall be responsible for keeping the Spokesperson informed of such changes.*
- *Promote eROSITA and its science outside the consortium.*

	<p style="text-align: center;"><b>eROSITA</b></p> <p style="text-align: center;"><b>Collaboration Policy</b></p>	<p><b>Ref.</b> : eRO-MPE-PO-70-1</p> <p><b>Date</b> : 2022-02-04</p> <p><b>Page</b> : 10</p>
---	--	--

- *Strive to bring resources (e.g. data, equipment, funding, personnel) into the consortium, which further the scientific aims of eROSITA.*
- *Assist the PI or the StC with project-related matters when called upon to do so.*
- *When requested, submit an activity report to the PI and the relevant WG chair, describing their eROSITA-related activities for the past year, and plans for the upcoming years, and ensure that such activity reports are also submitted for junior scientists they sponsor into the consortium.*

#### **b) Member Scientists:**

Scientists whose first affiliation is one of the *Participating Institutes* of the eROSITA-DE Consortium (as listed in Section 4.1 above) may be proposed by a Senior Scientist as Member Scientists of the eROSITA-DE Consortium.

Member Scientists:

- *Join and participate in the WGs.*
- *Propose projects to the WG and enjoy access to eROSITA-DE validated data products for those projects.*
- *Lead to completion those scientific projects and publish the results in a manner consistent with the publication policy.*
- *When requested, submit an activity report to the PI and the relevant WG chair, describing their eROSITA-related activities for the past year, and plans for the upcoming years.*

The rights and interests of Member Scientists within the collaboration shall in general be considered subordinate to that of Senior Scientists.

#### **c) Members at large (MaL):**

Scientists whose first affiliation is *not* one of the *Participating Institutes* of the eROSITA-DE Consortium (as listed in Section 4.1 above) may be granted by the PI “Member at Large” status, based on a written justification submitted to the StC via the relevant WG Chair, and with the approval of both.

Members at large will be scientists whose unique skills and resources are deemed valuable for the Consortium, or former members leaving the Consortium who have made an exceptional contribution to the eROSITA project during their time at a Consortium institution.

Consortium membership for Members at Large will be time limited, for a period of three years. After this period, MaL may be granted by the PI renewal of their membership with a written justification submitted to the StC via the relevant WG Chair, and with the approval of both.

Members at Large will:

- *Join and participate in the WGs.*
- *Propose projects to the WG and enjoy access to eROSITA-DE validated data products for those projects.*
- *Lead to completion those scientific projects and publish the results in a manner consistent with the publication policy.*

	<p style="text-align: center;"><b>eROSITA</b></p> <p style="text-align: center;"><b>Collaboration Policy</b></p>	<p><b>Ref.</b> : eRO-MPE-PO-70-1</p> <p><b>Date</b> : 2022-02-04</p> <p><b>Page</b> : 11</p>
---	--	--

- *Propose up to two junior scientists (students or junior postdocs) working under their direct supervision for membership and appointment to the WGs, who can then also access the eROSITA data needed for their project, and lead papers. Responsibility for the proper conduct of these scientists lies with the MaL.*
- *When requested, submit an activity report to the PI and the relevant WG chair, describing their eROSITA-related activities for the past year, and plans for the upcoming years.*

The rights and interests of Members at large within the collaboration shall in general be considered subordinate to that of both Senior Members and Member Scientists. Members at Large cannot be Senior Members of the Collaboration.

#### 4.3. General rights and responsibilities of eROSITA-DE Consortium Members

Members of the eROSITA-DE Consortium are expected to comply with the rules set up in this document, including the publication policy and the Code of Conduct. Any infringement of such rules, or other misconduct, may lead to cancelation of the eROSITA-DE Consortium membership.

eROSITA-DE Consortium members are able to access and publish eROSITA proprietary data. In addition, eROSITA-DE Consortium members will:

- have access to the eROSITA-DE restricted access web-pages (wiki pages, etc.);
- have access to the Publications Archive 'eROPUB' (see Section 5.4 below);
- be invited to eROSITA-DE Consortium meetings;
- have access to eROSITA simulated data;
- be authorized to make known their membership in the eROSITA-DE Consortium in any funding and/or research proposal; members shall nonetheless inform the CCB (via the Spokesperson) and the relevant WG chair(s) of any funding and/or research proposal based on the exploitation of proprietary eROSITA-DE data in the research area of competence of that WG;
- promote eROSITA and its science to the outside world;
- protect the integrity of the eROSITA data and, specifically, neither grant nor permit access to those data to unauthorized individuals;
- inform the relevant WG or WGs about their eROSITA-related scientific activities;
- announce any PhD thesis that make use of eROSITA-DE proprietary data, as well as any eROSITA preparatory work, to the Consortium in sufficient time to ensure adequate protection for the time period of the PhD;
- make proper acknowledgment and appropriate references to the eROSITA-DE Consortium in scientific papers, presentations, technical notes web sites and other publications.

Members of the eROSITA-DE Consortium may not participate in research projects that make use of proprietary eROSITA data outside the eROSITA-DE collaboration (i.e. work at the same time on Russian proprietary data), unless authorized to do so by the PI. The main criteria adopted by the PI in evaluating such request will be: (i) whether a project could also

	<p style="text-align: center;"><b>eROSITA</b></p> <p style="text-align: center;"><b>Collaboration Policy</b></p>	<p><b>Ref.</b> : eRO-MPE-PO-70-1</p> <p><b>Date</b> : 2022-02-04</p> <p><b>Page</b> : 12</p>
---	--	--

be done with eROSITA-DE data and (ii) whether there is a competing/similar project within eROSITA-DE that would be damaged by such a project.

Data products, tools, and codes produced or developed by consortium members for the purposes of an eROSITA project or under the auspices of collaboration shall be made available to the whole collaboration, with the understanding that any use of such material shall be appropriately rewarded (e.g., via paper authorship), and will not be distributed outside the collaboration.

Membership of the eROSITA-DE Consortium along with the rights listed in section 4.3 above will, under normal circumstances, terminate if a member moves away from a Participating Institute. Ex-consortium members will nonetheless be permitted to finish any project that has been approved and that has been started while at a Consortium institute, within a maximum period of one year. During this time, they continue to hold the above-mentioned rights and responsibilities of regular members.

Members leaving the Consortium, who have made an exceptional contribution to the eROSITA project during their time at a Consortium institution, or with unique expertise, may be considered for continued membership (as “Members at Large”, see 4.2) based on a written justification submitted to the StC via the relevant WG Chair, and with the approval of both. In the justification, both the quality and the quantity of the past contribution will be evaluated, together with the commitment to contribute to the activities of the consortium in the future.

This procedure also applies to former Consortium members who retire, or to long-term external collaborators and guests.

#### **4.4. External Participants**

External participants are not members of the eROSITA-DE Consortium, but may nonetheless access and work on eROSITA data in collaboration with Consortium Members. External participation may take three forms:

##### **a) Individual External Collaborators (IEC):**

Individual External Collaborators are scientists who are not Consortium members, but who are nonetheless permitted to work on eROSITA-DE proprietary data products, contribute to pre-launch activities, lead projects and author related papers. IECs are approved by the PI upon request and recommendation of the relevant Working Group chair(s) and in consultation with the CCB.

An IEC is typically an individual but is understood also to include an individual and a PhD student working under their direct supervision.

IEC requests are evaluated based on a written proposal. These should have defined aims, scope and duration, and specific outputs/deliverables, typically a scientific paper or papers. Proposals may also be submitted for projects initiated by the IEC.

All IECs must be sponsored by an existing consortium member, who presents the IEC proposal for consideration. The sponsoring member must be involved in the scientific work of the IEC and any resulting publication(s), and is responsible for ensuring the IEC and their project adhere to the consortium rules. IECs may also be submitted

	<p style="text-align: center;"><b>eROSITA</b></p> <p style="text-align: center;"><b>Collaboration Policy</b></p>	<p>Ref. : eRO-MPE-PO-70-1</p> <p>Date : 2022-02-04</p> <p>Page : 13</p>
---	--	---

without a sponsoring consortium member. In this case the WG chairs will assign an appropriate sponsor or sponsor(s) from within the consortium to work with the IEC. The rights and scientific interests of External Collaborators shall be subordinate to those of Consortium members. A specific form will be made available on the wiki for IEC proposals<sup>1</sup>.

IEC proposals will be evaluated by the relevant WG Chair(s), in consultation with the WG to ensure there is no conflict of interest. The WG chairs may suggest additional participants or collaborators in the project in addition to the sponsor(s). Other consortium members will be permitted to join the external collaboration project and become an author of any consequent publications should their contribution merit authorship, consistent with the publication policy. The PI grants IEC status upon recommendation of the WG chair(s) and in consultation with the CCB, to ensure there are no remaining conflicts with other Working Groups.

The CCB should review periodically the status of IEC and the progress of their activities. When requested to do so, IEC shall submit reports to the PI and the relevant WG chair(s) describing their activities related to the use of eROSITA-DE proprietary data.

IECs will typically be granted for a period of one year, with the possibility of renewal/extension. Renewal requests are the responsibility of the IEC and/or the sponsoring member and IEC status will lapse by default in the absence of such a renewal proposal. The sponsor may nonetheless apply for renewal of IEC status that has lapsed with the agreement the WG chair(s).

Research projects and publications led by IECs will be submitted to the Publication Archive by the sponsoring Consortium member. If he/she has left the Consortium, a new member will act as liaison for the External Collaborator, and will be responsible for uploading and updating EC-led publication in the Publication Archive.

As per general policy, IEC may not participate in research projects that make use of proprietary eROSITA data outside the eROSITA-DE collaboration (i.e. work at the same time on Russian proprietary data), unless authorized to do so by the PI.

Collaborative projects of scope greater than that described above will need special consideration (see point c) below).

#### **b) Co-Authorship requests (COA-IEC):**

As a special class, co-authorship requests for multiple IECs in eROSITA-DE papers can also be requested.

COA IEC are not, under normal circumstances, expected to work directly on eROSITA data.

---

<sup>1</sup> The template is available in the wiki under: <https://wiki.mpe.mpg.de/eRosita/EcProposalsInstructions>

	<p style="text-align: center;"><b>eROSITA</b> <b>Collaboration Policy</b></p>	<p><b>Ref.</b> : eRO-MPE-PO-70-1 <b>Date</b> : 2022-02-04 <b>Page</b> : 14</p>
---	---	--

Once the project leader has identified and defined a list of external collaborators who need to be co-authors of the paper (because of their contribution to the followup efforts, or interpretation or analysis), she/he should fill a specific proposal form (available on the Wiki) with all relevant information<sup>2</sup>.

There is no limit to the number of collaborators that can be included in a COA-IEC proposal, provided it is restricted to the collaborators that actually contributed to the paper to a sufficient degree to justify authorship, according to normal scientific practice.

For standard papers the request should be submitted as early as possible after eROPUB publication, and in any case before the submission of the paper for the 3 weeks internal review, at the latest.

For particularly urgent cases (Atel, ToOs, DDTs) the request can be submitted for a fast response directly to the PI who will discuss it with the relevant WG chair.

**c) Group External Collaborators:**

Members of large collaborations with broad synergies with eROSITA (e.g. very wide area follow-up etc.), as well as groups of scientists larger than those covered by the IEC policy interests may be able to collaborate with eROSITA-DE scientists for joint projects via Group External Collaborations (GEC). There must be a clear benefit to the eROSITA consortium for the GEC to be approved, typically access to or use of proprietary data from the complementary survey or for other tools and deliverables that are deemed useful by members of the eROSITA-DE collaboration (numerical simulations, analysis software, and techniques, source catalogues, multiwavelength data, etc.).

External Group Collaborations are regulated by a MoU between the eROSITA-DE project and the external project.

The PI, and/or any other members nominated by the PI, are responsible for carrying out negotiations, but can appoint other Consortium Members to aid in this task. CCB members should be informed at the earliest convenience about ongoing negotiations and will provide advice to the PI and PS on the matter. The PI ultimately signs the necessary MoU between the eROSITA-DE and any other scientific consortium/collaboration.

A typical working model would allow members of eROSITA-DE or the external collaboration to propose projects which utilize eROSITA data and data or products provided by the external project as a key element of the research. Such projects should be approved by the eROSITA WG chair and their counterparts in the external collaboration, or some other authority such as a collaboration committee, as specified in the MoU. Members of the external collaboration do not become members of the WG.

Exchange of data is not typically envisioned, but is possible if deemed useful or necessary. Any MoU should establish clearly the rights and obligations of the collaborating teams once the data from either side are published or become public.

---

<sup>2</sup> The template is available in the wiki under: <https://wiki.mpe.mpg.de/eRosita/EcProposalsInstructions>



	<p style="text-align: center;"><b>eROSITA</b> Collaboration Policy</p>	<p>Ref. : eRO-MPE-PO-70-1 Date : 2022-02-04 Page : 15</p>
---	--	---

## 5. EROSITA-DE DATA RIGHTS AND PUBLICATION POLICY

### 5.1. Data rights

According to the detailed agreement between the German and Russian Space agencies (DLR and Roscosmos, respectively) the right of access and scientific exploitation of 50% of the eROSITA all-sky survey data during its proprietary period lies with MPE. This is presently defined as the portion of the sky westwards of the great circle passing through Sgr A\* and the Galactic poles.

MPE takes responsibility for the provision of validated data products (e.g. event files) to the eROSITA-DE Consortium during the proprietary period.

Access to raw (non-validated, telemetry) data is *not* automatically granted to all Consortium members, but can be granted by the PI to any member of the Consortium if this is deemed useful for the advancement of the project.

Senior Scientists of the eROSITA-DE Consortium shall have unrestricted access to and use of the eROSITA-DE validated data products, for uses that are compliant with the rules described in this document.

Member Scientists of the eROSITA-DE Consortium (including Members at Large) shall have access to eROSITA-DE validated data products, for specific uses that are authorized by the Working Group in the context of well defined, approved projects.

All Consortium members must comply with the eROSITA publication policy when disseminating eROSITA data in journals, conference papers, press releases or other literature, and in talks and presentations, or web sites.

External collaborators, whether individuals or members of collaborating groups, typically do *not* have direct access to eROSITA data and work with those data via their eROSITA-DE sponsor(s) or collaborator(s). Data access may nonetheless be granted to these individuals by the relevant WG chair, if deemed necessary or desirable for the success of the project. Such access will apply only to those data that are necessary for the completion of the project that the external collaborator is actively working on, and based on which their project proposal was originally accepted, for the limited time necessary to complete that project.

### 5.2. Grant/funding proposals

Consortium members may submit grant and fellowship proposals to get funding to work on eROSITA-DE proprietary data. Working Groups should ensure coordination among Consortium members before grant proposals are submitted.

Non-eROSITA-DE members, including External Collaborators, wishing to submit a grant application to get funding to work on eROSITA-DE proprietary data must satisfy two conditions: (i) they should be authorized to carry out the science investigation they propose (i.e., no conflicts should emerge with members' projects), and (ii) they should be allowed to use eROSITA data that are necessary for the completion of the projects described in the proposal.

In order to secure this, proposers (either members or non-members) should contact the relevant WG chair(s) well in advance to proposal submission. This is especially true for those projects that have not already been approved by any WG. The WG(s) evaluate the scope of the proposal, and endorse it, or not. Endorsed proposals are forwarded to the CCB for information and potential conflict identification. If no conflict is identified, the proposal can be

	<p style="text-align: center;"><b>eROSITA</b> <b>Collaboration Policy</b></p>	<p><b>Ref.</b> : eRO-MPE-PO-70-1 <b>Date</b> : 2022-02-04 <b>Page</b> : 16</p>
---	---	--

submitted. If any conflict is identified, the CCB will request the relevant WG chairs to propose a solution before the proposal can be submitted. As a guideline, a period of 8 (eight) weeks before proposal deadline should be sufficient to guarantee the procedure can be brought to completion.

Scientists outside of the Consortium who are not External Collaborators, will first have to obtain External Collaborator status (either as individuals or groups), as described in Section 4.4. This may require an even longer lead-time than the aforementioned 8 weeks.

### 5.3. Software distribution and access

All project-funded software developed for the reduction, calibration and validation of eROSITA data as part of the eROSITA SASS (Science analysis Software System; eSASS), as well as access to the NRTA (Near Real Time Analysis) Interface will be available to all members of the collaboration as soon as it is verified. Regular updates and upgrades will be announced and distributed to all the Consortium members.

Consistent with 4.3 above, all other software developed within the Consortium for the benefit of scientific investigations based on eROSITA data shall be shared freely with Consortium members. Following standard scientific practice, such software should generally be made available publicly with the publication of the results obtained.

### 5.4. Publication policy

Unless specified otherwise, the rules contained in this Section apply to all publications, which use eROSITA-DE proprietary data, as well as on data taken with the eROSITA telescope during the commissioning, calibration and Performance Verification periods. This includes: papers submitted to electronic archives and refereed journals; scientific or technical books or book Sections; graphical or tabular materials or discussions of results, in electronic or hardcopy form, that are based on the analysis of eROSITA-DE proprietary data and are generally accessible to non-eROSITA-DE Consortium Members. Specific rules and procedures for the publication of public eROSITA data by Consortium members are described in 5.4.3 (e)

#### 5.4.1. Publication Coordination

All Scientific and Technical projects that may lead to publications need to be approved by the relevant Working Group (or Working Groups) Chairs before submission to the Publications Archive (see below). Each WG can choose the preferred method used to reach agreement on publications approval.

Working Groups should not unreasonably withhold permission for a project or a publication, but should check for conflicts and/or overlaps between groups working on the same or similar topics. Conflicts arising between working groups should be resolved by the Collaboration Coordination Board if possible, or, if not, by the Steering Committee. In case a consensus is not reached in the StC, the ultimate decision rests with the PI.

The project leader/lead author, or their sponsor in the case of an external lead, must ensure that publications follow the publication process outlined in Section 5.4.3 below. To aid in this process, the Spokesperson will maintain a common electronic WWW-based archive of all



	<p style="text-align: center;"><b>eROSITA</b> <b>Collaboration Policy</b></p>	<p><b>Ref.</b> : eRO-MPE-PO-70-1 <b>Date</b> : 2022-02-04 <b>Page</b> : 17</p>
---	---	--

scientific and technical publications of the eROSITA-DE Consortium ('eROPUB'). This archive shall be accessible to the members of the eROSITA-DE Consortium only.

Beyond what is stipulated in approved external collaboration agreements (see section 4.4), publication of proprietary eROSITA-DE data in non-eROSITA-DE papers (i.e. papers led by scientists outside the Consortium) will not be permitted, unless authorized by the PI. In this context, use of eROSITA data for samples of  $N$  sources (for  $N > 3$ ) will require an external collaboration proposal to be submitted to the collaboration, following the procedure highlighted in section 4.4. For data on individual sources, or small samples of up to 3 sources, the PI will evaluate the requests on a case-by-case basis. Papers resulting from such an approved request will have to be announced to eROPUB, to allow other members of the consortium to claim co-authorship (see below).

#### 5.4.2. Authorship

Co-author lists of scientific and technical papers are up to the project-leader (usually the first author of the paper) and follow normal scientific practice. It is understood that any scientific paper will include in its author's list any individual who has contributed to the scientific analysis presented.

In addition, any member of the eROSITA-DE Consortium who has access to the Publications Archive may, at any stage of a research project, request that her/his name be added to the list of authors, with the presumption that permission will be granted if she or he has made a sufficient contribution to the specific research project.

Anyone who has been placed on a paper's author list may make a request to the paper's team that her or his name be removed from the paper, and it shall be removed.

Any conflict regarding the co-authorship of scientific and technical papers should be resolved by the CCB, or, if the conflict cannot be resolved, may be referred to the StC, or, ultimately, by the PI, if no consensus is reached.

#### 5.4.3. Publication procedure

##### a) Scientific and Technical Papers:

As soon as a project that may lead to a publication has been identified and approved by a WG, the team of scientists carrying out the project should identify a project leader (usually the prospective first author of the proposed paper), who must then submit to the Publications Archive (eROPUB) a project title, a list of current project members, and a brief abstract of the intended project. An electronic announcement will be made to all members of the Collaboration, including all other WG chairs, who will have then the possibility of raising any issue of scientific conflict to the CCB.

When a draft of any paper written as a result of an approved project's work is ready, it should be posted to the Publications Archive as a "pending" paper, indicating the journal to which the paper will be submitted. An electronic announcement (email) will be sent automatically to all eROSITA-DE Consortium members. They have then three (3) weeks to read the pending paper, make comments, request co-authorship, etc. During this period, the PI should also

	<p style="text-align: center;"><b>eROSITA</b> Collaboration Policy</p>	<p>Ref. : eRO-MPE-PO-70-1 Date : 2022-02-04 Page : 18</p>
---	--	---

check that the authorship, list of references and acknowledgements fairly represent the contributions made to the publication.

The authors revise the paper according to the comments and suggestions of the Consortium. At the end of the three-week period, or at the end of the revision process (whichever is longer), the final version of the paper can be submitted to a journal and posted to the Publications Archive. As a rule, papers in refereed journals should be posted on the arXiv only upon acceptance by the journal.

As soon as the paper has been submitted to a journal, the leading scientist should upload it to the Publications Archive as “submitted”. Nonetheless, the paper is not considered public (and the results it contains cannot be disseminated outside the eROSITA-DE Consortium) until the project leader for that paper agrees it to be so by flagging it as “public” in the Publications Archive.

b) eROSITA Key papers:

Those papers that require a larger team effort and/or address key scientific questions that drive the eROSITA design (e.g. catalogues, major cosmology papers, etc.) will be classified as key papers. The PI, upon consultation with the CCB, reserves the right to identify those key papers at the appropriate moment in time, and in any case early enough before substantial amount of work has been made towards the completion of paper, as well as decide the authorship list thereof. At the discretion of the PI, the authorship of such papers is expected to be expanded to include those individuals who have made critical contributions to the overall success of eROSITA (e.g. via their work on the eROSITA hardware, software, operations etc.).

c) Colloquia, Conference Presentations and Conference proceedings

All oral or display presentations that make use of eROSITA-DE proprietary data, as well as technical notes, simulations, commissioning data and pre-launch activity reports, should be published as internal documents on internal web-pages (wiki, etc.) directly accessible to Consortium Members only.

In oral or display presentations, colloquium or conference speakers and presenters may, upon consultation with the PI and the PS, make use of unpublished eROSITA-DE results, provided they are authorized to do so by the leading author of a pending or submitted paper. This policy also covers digital presentation slides published on conference websites soon after speakers have delivered their presentations. In such cases, only material presented in public can be posted to conference websites (i.e. extra slides not shown in public and containing unpublished results must be removed).

d) Theses

All theses (BSc, Master and PhD) for which eROSITA-DE data play an essential role must be announced to the Consortium (see Section 4.3 above). It is a responsibility of the PI and of the relevant WG chair(s) to ensure adequate protection of the scientific projects, which are part of a PhD thesis. Protection of the interests of PhD students within the collaboration may override other aspects of the collaboration policy at their discretion.

e) Time-critical information

	<p style="text-align: center;"><b>eROSITA</b></p> <p style="text-align: center;"><b>Collaboration Policy</b></p>	<p><b>Ref.</b> : eRO-MPE-PO-70-1</p> <p><b>Date</b> : 2022-02-04</p> <p><b>Page</b> : 19</p>
---	--	--

eROSITA will detect time-variable events and/or objects for which timely dissemination to the broader astronomical community will pay big scientific dividends. Any time-critical event detected within the eROSITA-DE data will be reported to the collaboration as a whole, and if appropriate to the broader community through IAU Circulars, Astronomer's Telegrams, and the like. Relevant finding charts, positions, and photometry drawn from the eROSITA data set can be released. Authors aiming for the publication of time-critical results can also request the PI to grant a shorter internal review period, if the scientific dividends are high. Such cases will be dealt with on a case-by-case basis by the PI.

Collaboration members who wish to regularly release substantial amounts of time-critical data must request approval from the relevant WG chair and from the PI. Upon approval, the project must be posted to the Publications Archive under the category of "On-line Catalogue". At this point the project falls under the rules governing Scientific Publications (three week posting period, authorship rules).

Further details are specified in the 'Alert Policy' document.

f) Publications based on public eROSITA data for consortium members

Members of the consortium will be able to work on public eROSITA data (hereafter 'public data projects').

Projects that start *after* the data are in the public domain, and making use only of public information can be pursued without the necessity for approval by the WG chair. However, they must use public tools (i.e. publicly available software, calibration DB, etc.) as well; use of any tool developed by the consortium and not yet publicly available (including software, calibration DB, etc.) can only be possible if following the consortium policies (including project approval).

Consortium members should announce public data projects they are working on to the WG and on eROPUB as soon as the work starts, exactly as they would do within each WG for proprietary data. External collaborators can be brought into such projects without WG or PI approval. Similarly, eROSITA members may participate in works led by non-member scientists, provided again that they use exclusively public data and tools. This participation also needs to be announced to the consortium, in the form of a dedicated eROPUB entry submitted by the collaborating eROSITA-DE member.

	<p style="text-align: center;"><b>eROSITA</b> Collaboration Policy</p>	<p>Ref. : eRO-MPE-PO-70-1 Date : 2022-02-04 Page : 20</p>
---	--	---

## 6. APPENDIX A: EROSITA-DE MANAGEMENT

**Principal Investigator:** Andrea Merloni (MPE)

**Spokesperson:** Mara Salvato (MPE)

### **Steering Committee:**

- Peter Predehl (MPE, former PI)
- Axel Schwobe (AIP)
- Marcus Brüggen (UHH)
- Andrea Santangelo (IAAT)
- Jörn Wilms (FAU/Bamberg)
- Andrea Merloni (MPE, eROSITA PI)
- Kirpal Nandra (MPE, Head of High Energy Group)
- Thomas Mernik (DLR, ex officio)

**Alfa Lead eROSITA Scientist:** Thomas Reiprich

**LMU Lead eROSITA Scientist:** Jochen Weller

	<p style="text-align: center;"><b>eROSITA</b> Collaboration Policy</p>	<p>Ref. : eRO-MPE-PO-70-1 Date : 2022-02-04 Page : 21</p>
---	--	---

## 7. APPENDIX B: WORKING GROUPS AND CHAIRS

List of eROSITA-DE Working Groups and their respective Chairpersons (and co-chairpersons) as of January 2021.

a) Science Groups (chairpersons, in boldface; and their deputies):

- Solar System (**K. Dennerl**, MPE)
- Stars (**J. Robrade**, J. Schmitt (deputy), UHH)
- Galactic Compact Objects (**A. Schwobe**, AIP; V. Doroshenko (deputy), IAAT)
- SNR, ISM, Diffuse Galactic Background (M. Sasaki, FAU; **W. Becker**, MPE; M. Freyberg, MPE) [valid for 2022]
- Normal (non-active) Galaxies (**F. Haberl**, MPE)
- AGN (**K. Nandra**; MPE)
- Cluster of Galaxies and Cosmology (**E. Bulbul**, MPE)
- Time Domain Astrophysics (**J. Wilms**, FAU/Bamberg; A. Rau (deputy), MPE)

b) “Infrastructure” Groups (and chairpersons):

- Coordination of multi-wavelength follow-up (**M. Salvato**, MPE)
- Data analysis, source extraction, catalogs (**H. Brunner**, MPE)
- Calibration (**K. Dennerl**, MPE)
- Background (**M. Freyberg**, MPE)
- Operations (**D. Coutinho**, MPE; **Miriam-Ramos Ceja**, MPE)