



## ASTERICS - H2020 - 653477

# Collaboration Plan

### ASTERICS GA DELIVERABLE: D1.2

Document identifier:	ASTERICS-D1.2-final.docx
Date:	<b>01-10-2015</b>
Work Package:	<b>WP1</b>
Lead Partner:	<b>ASTRON</b>
Document Status:	<b>FINAL</b>
Dissemination level:	<b>PUBLIC</b>
Document Link:	TBD

#### Abstract

As described in the project plan, ASTERICS plans to widen the collaboration by seeking links and interactions with parties, outside the consortium, that can be of interest to the ASTERICS partners, or are interested in the results of the ASTERICS project. The Collaboration Plan describes the rolling wave plan for the execution of this search. This document is the first version that will be elaborated on in the course of the project as more details and options are explored and identified. Therefore the plan will be continuously updated during the execution.

## I. COPYRIGHT NOTICE

Copyright © Members of the ASTERICS Collaboration, 2015. See [www.asterics2020.eu](http://www.asterics2020.eu) for details of the ASTERICS project and the collaboration. ASTERICS (Astronomy ESFRI & Research Infrastructure Cluster) is a project funded by the European Commission as a Research and Innovation Actions (RIA) within the H2020 Framework Programme. ASTERICS began in May 2015 and will run for 4 years.

This work is licensed under the Creative Commons Attribution-Noncommercial 3.0 License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/3.0/> or send a letter to Creative Commons, 171 Second Street, Suite 300, San Francisco, California, 94105, and USA. The work must be attributed by attaching the following reference to the copied elements: “Copyright © Members of the ASTERICS Collaboration, 2015. See [www.asterics2020.eu](http://www.asterics2020.eu) for details of the ASTERICS project and the collaboration”. Using this document in a way and/or for purposes not foreseen in the license, requires the prior written permission of the copyright holders. The information contained in this document represents the views of the copyright holders as of the date such views are published.

## II. DELIVERY SLIP

	Name	Partner/WP	Date
From	Rob van der Meer	ASTRON / WP1	01-10-2015
author(s)	Rob van der Meer	ASTRON / WP1	30-09-2015
Reviewed by	Giuseppe Cimò	ASTRON / WP1	01-10-2015
Approved by	AEB		01-01-2015

## III. DOCUMENT LOG

Issue	Date	Comment	Author/Partner
1	27-08-2015	itemised list of steps	R. van der Meer/ASTRON
2	08-09-2015	first draft	R. van der Meer/ASTRON
3	25-09-2015	corrected draft	G. Cimò/ASTRON
4	01-01-2015	final version	R. van der Meer/ASTRON

## IV. APPLICATION AREA

This document is a formal deliverable for the GA of the project, applicable to all members of the ASTERICS project, beneficiaries and third parties, as well as its collaborating projects.

## V. TERMINOLOGY

ASTERICS	Astronomy ESFRI & Research Infrastructure Cluster
ESFRI	European Strategy Forum on Research Infrastructures
ASTRON	The Netherlands Institute for Radio Astronomy
WP	Work Package

## VI. EXECUTIVE SUMMARY

A central plank of the ASTERICS strategy will be to seek links and interactions with other projects (including other EC-funded projects), industries, research organisations etc. in order to broaden our knowledge base and to find opportunities to showcase our results and products. This document, hereinafter *plan*, describes the ambition, the boundaries, the means, resources, risks, to develop a collaboration strategy. The ASTERICS consortium is a collaboration of astronomy, astrophysics and astroparticle physics institutes, four ESFRI facilities and their pathfinders, and other linked projects. It is the first time that such a wide palette of researchers works together in an orchestrated way. The collaboration plan has the ambition to expand the ASTERICS collaboration beyond the consortium by establishing links to organisations outside the astro(particle)physics community and outside the research community. Since this is the first step into such an unexplored area, the plan starts with brainstorming sessions to survey the knowledge within the current collaboration. Such brainstorming will be the basis for further exploration by means of targeted questionnaires for the whole collaboration. The results of the questionnaires will be used to establish first contacts with external parties. To claim early success, we will start contacting the most obvious and easier to recognize external parties: i.e. those closely related to the collaboration and those who already have connections to ASTERICS though not described or not formally part of the project. They can act as examples and ambassadors helping us to continue promptly with the more uncertain possibilities. This approach requires a frequent scanning of the results and matching them with our ambition and intermediate goals.

This plan has overlap with the exploitation plan. Both plans are complete and can be studied and executed individually. The results of this plan will be published in the periodic report.

## Table of contents

I.	COPYRIGHT NOTICE .....	1
II.	DELIVERY SLIP.....	1
III.	DOCUMENT LOG .....	1
IV.	APPLICATON AREA .....	2
V.	TERMINOLOGY.....	2
VI.	EXECUTIVE SUMMARY .....	2
	Table of contents.....	3
1.	Objectives.....	4
2.	Introduction .....	4
3.	Links and interactions .....	5
4.	Ambition.....	6
5.	Knowledge base .....	7
6.	Communication.....	7
6.1.	Platform .....	7
6.2.	Forum.....	7
7.	Means.....	8
8.	Management.....	9
9.	Risks .....	10
10.	Resources .....	11
11.	Timeline.....	11
12.	Results .....	12

# 1. Objectives

The scope of the plan is to seek links and interactions with parties that can be of interest to the ASTERICS partners, or are interested in the results of the ASTERICS project. The possible parties that ASTERICS will seek links and interactions with can be divided in four categories:

1. other projects (including other EC-funded projects)
2. industries
3. research organisations
4. yet unidentified interested parties

# 2. Introduction

ASTERICS is a collaboration of 22 partners linked to four ESFRI facilities. The aim of ASTERICS is to find solutions for the Big Data challenges that these ESFRI facilities will face when they come online. ASTERICS will seek commonalities in data handling, data storage, etc. There might be many other communities and organisations that will face similar, or related, challenges. Some communities will be able to learn from the ASTERICS products and results, others might be ahead of us.

This plan has overlap with the exploitation plan. Both plans are complete and can be studied and executed individually. Some tasks will run in parallel or can be combined. Both plans will be managed from the same Work Package. Doubling of effort will be minimized. The results of this plan will be published in the periodic report. They will be used as input in the execution of both plans.

There is no direct indication where to find the interested parties to collaborate with, therefore the first task in the plan is to define where and how to look.

The first step in this process is:

1. identification of the possible parties in the four sectors mentioned in the Objectives section 1

After creating a list of possible organisations in the above categories it is necessary to define what interactions already exist and what interaction could be pursued.

Therefore the next step in the process is:

2. identification of:
  - a. existing and new links with recognized parties
  - b. possible interactions with recognized parties

### 3. Links and interactions

In order to set quantitative and verifiable goals, one needs to establish a measurable definition of links and interactions. The metrics identified to measure the interaction are:

1. What is the level in the organization that ASTERICS aims to link to? There is a big difference if directors talk to each other or if there is an exchange of students. Each level requires a different approach.  
A first identification of these levels can be described as:
  - a. management
  - b. scientists/engineers
  - c. developers
  - d. students
  - e. all
  
2. What actions are already part of the linking and what actions does ASTERICS aim to establish in its future linking.  
Initially the following actions are identified:
  - a. passive (conferences)
  - b. reserved active (meetings)
  - c. collaborative (working on common projects)
  - d. active (fully working together at a distance; exchange of ideas, processes, procedures, results, personnel)
  
3. What is the audience in the target organization? For each level identified under 1. one can define the number of people that should be involved in the action.  
Examples are:
  - a. single persons
  - b. small groups
  - c. big groups
  
4. What is the frequency of the planned actions?  
How often do the involved persons interact with each other?
  - a. occasionally
  - b. regularly
  - c. frequently
  - d. continuously

## 4. Ambition

The ASTERICS collaboration strongly supports the EC view of a collaborative EU at all levels and disciplines. In the ASTERICS project, we seek connections aimed at broadening the knowledge base within the partners by learning from the newly acquired links and by broadening their knowledge with the dissemination of the ASTERICS results.

The ambition at the start of the project is set to be a realistic one: an early success that can be extended further.

The minimum goals ASTERICS wants to achieve by the end of the project are:

1. to establish reserved active interactions with at least one group in each sector in listed in the Objectives section 1.
2. to establish at least one collaborative action in one sector.
3. to establish at least one link where ideas for a fully active collaboration will be progressively discussed.

The minimum goals are presented below in a matrix, which is easier for following progress.

action \ sector	passive	reserved active	collaborative	active
other projects (including other EC-funded projects)	with all identified	one project	at least one collaborative action established	at least one where ideas will be discussed
industries	with all identified	one industry		
research organisations	with all identified	one organisation		
yet unidentified interested parties	with all identified	one party		

*Table 1: Ambition matrix of the collaboration plan, showing the sectors that ASTERICS could find new collaborators versus the ambition in the level of interaction.*

## 5. Knowledge base

In order to broaden our knowledge, we first have to define what describes our knowledge base by establishing a status quo. The first aim of this collaboration plan is to compile a database of the current know-how, and to find a system to discover what we might need to learn.

	<b>known</b>	<b>unknown</b>
<b>known (knowledge)</b>	What is our knowledge base? How can it be described?	Is the picture complete or is there unknown or undescribed knowledge?
<b>unknown (gaps)</b>	Is it known what is missing? Do we actively search for the missing knowledge?	How do we recognise the unknown when we see it?

*Table 2: division of knowledge base in parts that are known and unknown. This is a tool to complete the knowledgebase database.*

The task of compiling the knowledge database can be divided in compiling a list of items and people in each of the boxes in Table 2.

This will require interaction with all researchers in the various fields of the ASTERICS consortium, through meetings and questionnaires and working groups to write the concise and complete texts for the database.

## 6. Communication

### 6.1. Platform

Once the database of our current knowledge has been assembled, it will be made available both to the ASTERICS partners and, in a limited way, to the public. For this purpose, a wiki approach will be used, where multiple users should be able to edit the content in a temporarily restricted access area, from where parts of the content will be published after being approved by a review committee. The platform will be connected to the ASTERICS website ([www.asterics2020.eu](http://www.asterics2020.eu)) and it will be easy to access and navigate.

### 6.2. Forum

To facilitate contacts between the project and the sectors, an online forum will be opened. Parts of the forum should be open to the public and their input will be solicited and contacts to the project will be stimulated. The form of the forum has to be decided. This tool will be updated by considering the input from early adopters and the suggestions from the project partners taking into particular account the way they contact their connections.

Furthermore, a platform to showcase the ASTERICS results and products will be created. There will also be a form that can be used during live events. For instance, we will organize ‘meet and greet’ gatherings during major conferences and corporate events. This will be a live version of the forum for a selected group. The conferences and corporate events will be identified through the planned questionnaires. This is part of the exploitation plan and will be detailed in that document.

## 7. Means

The information gathering at the beginning of the project will be a two-step process:

1. Brainstorming with small groups
2. Questionnaires for all project stakeholders
  - a. short term: targeted (email)
  - b. long term: open invitation (website, forum)

The information gathering will start with a brainstorming session with a small group of project participants by selecting participants that have extensive networks inside and outside the project. A single large brainstorming session could be split into several ones involving smaller groups, which can focus on a number of targeted subjects.

Based on the results of the brainstorming sessions, a questionnaire for all project stakeholders will be created. A targeted questionnaire will aim for quick reactions (via email). Parallel to that, we will set up a longer list of issues to be addressed through the website and the forum. If the return is too low, people will be actively interviewed.

Through the brainstorming sessions and the questionnaires, it will be possible to identify all possible connections for each sector of interest. For each connection, we will identify the current interaction as defined in Table 1. In particular:

- the level in the organisation
- the defining actions
- the number of people involved
- the frequency of the interaction

The foreseen necessary steps to collect this information are:

1. identification of contact person(s) per level
2. identification of ambition and chance(risk) of getting to that ambition
3. contacting the contact person and discuss ambitions
4. if a positive interest is encountered, then discuss next steps

5. identification of the steps to get to the ambitions
6. discussing those steps with the correct authority
7. identification of resources to get to the ambitions
8. implementation of the required steps

Some information cannot be collected through a questionnaire. It may be gathered in interactive sessions, such as interviews, or multiple contacts via email. This will probably differ per sector and per identified organisation.

Parallel to investigation of the interaction there will be an action to create the knowledge database. The brainstorming session and early questionnaires should identify knowledge areas that can be described and persons that can work on the description.

The detailed steps for this process will be defined at a later stage.

## 8. Management

To manage this task successfully, the plan is to:

1. include boundary conditions (goals, scopes at different times,...)  
The boundary conditions will be set to keep the focus. These boundary conditions will set limits on searches and efforts. With new information, these boundary conditions can be moved in a managed way. The WP1 management will monitor that they do not slip.
2. include deadlines  
Deadlines are included both to meet the goals in a timely manner, but also to limit the time spend on every step, as metric to keep the boundary conditions within limits.
3. include resources  
At the moment the amount of resources needed for this task is difficult to estimate and is not budgeted for explicitly in the project plan. During the elaboration of the plan, resources will be requested from all partners.
4. maintain a lessons learned register  
As the collaboration plan is set up to learn from new partners and make it possible for parties outside ASTERICS to learn from the project results, the same principle should be used during the whole process. It is important that one uses the knowledge within the various partners about connections and contacts and creating new ones in every step of the plan. Maintaining a lessons learned register will facilitate spreading good practice.
5. identify risks  
Risks should be monitored throughout the project. The initially identified risks are listed in the Risks section.

## 9. Risks

The risks identified within the definition of this plan are:

Risk	Mitigation plan
No useful results on the brainstorming sessions	Use a tight agenda for the brainstorming session and inviting committed persons.
Too many results from the brainstorming sessions, resulting in unfocused follow up	End the brainstorming session with a selection round to create a priority list.
No useful results on the first questionnaires	Create short clear questions that lead to short clear answers that can be completed with minimal effort.
Too many results from the questionnaires, resulting in unfocused follow up	Create focused questions, so the results should not be too diverse. Create a priority list and template that the answers should fit in.
People involved are not active enough, resulting in not enough progress	The task leader should follow the process closely, setting many small targets with nearby deadlines. Create an easy reporting mechanism for easy follow-up.
People involved are too active in certain areas, resulting in missing focus in follow up areas. This way the contacted organisations get frustrated by lack of progress	The task leader should follow the process closely, setting many small targets with nearby deadlines. Create an easy reporting mechanism for easy follow-up.
Focussing too long on one or few organisations that are not active enough to get to the expected interaction	The task leader should follow the process closely, setting many small targets with nearby deadlines. Create an easy reporting mechanism for easy follow-up.
Linking with too many organisations, diffusing the objectives and resulting in not enough added value.	Create a priority. The task leader should follow the process closely, setting many small targets with nearby deadlines. Create an easy reporting mechanism for easy follow-up.
People do not use the lessons learned register, resulting in repeated errors, less positive results, with too much effort or too many resources.	The task leader should follow the process closely, setting many small targets with nearby deadlines, describing the place where information on optimal task execution can be found. Create an easy reporting mechanism for easy follow-up that requires filling the lessons learned register with new information every time.

## 10. Resources

The collaboration plan will be managed from WP1 under supervision of the project coordinator. The work for the collaboration plan will be spread over all WPs and all partners. The partner with the best contacts to the new sectors to be explored will be asked to take up the work, as this will result in minimal effort and large impact. At the moment the amount of resources needed for this task is difficult to estimate and is not budgeted for explicitly in the project plan. During the elaboration of the plan, resources will be requested from all partners.

## 11. Timeline

The timeline is based on getting tangible results in the first year of the project.

Timeline for linking and interactions:

deadline	activity
Oct 2015	brainstorming with small group on possible links in sectors 1 – 4 in Objectives section 1 and how to approach the identified contacts
Oct 2015	define further steps (we expect a questionnaire to new links and existing partners, but other steps are not excluded)
Oct 2015	define resources for next steps
Oct – Dec 2015	activate or hire resources
Nov 2015	create the first round questionnaire
1 Dec 2015	distribute questionnaire
15 Dec 2015	deadline for answering to questionnaire
Jan 2016	analyse results of questionnaire
15 Jan 2016	publish results of questionnaire
1 Mar 2016	solicit feedback and additions on published results
March 2016	establish first steps (1-8 in section 7) with new link candidates based on questionnaire results
April – June 2016	establish next steps (1-8 in section 7) with new link candidates based on questionnaire results
Oct 2016	review interaction with new links and define new ambitions

## Timeline on knowledge base activities

deadline	activity
Oct 2015	solicit input to identify major conferences and corporate events
Nov 2015	plan “meet and greet” events
Nov 2015	create calendar of events
Nov 2015	collect content on knowledge base
Nov 2015	collect content for showcase of results
Dec 2015	design knowledge base presentation
Dec 2015	design showcase presentation
Jan 2016	create knowledge base presentation
Jan 2016	create showcase presentation
Feb 2016	distribute presentation
Mar – Sep 2016	collect feedback on presentation
Mar 2016	design open forum for contact with sectors
Apr 2016	create open forum for contact with sectors
June 2016	solicit and attract users to open forum

## Longer term timeline

period or deadline	activity
2017	repeat all steps and identify and act on higher ambitions
1 April 2017	deliverable D1.4 Collaboration plan update
2018	repeat all steps and identify and act on higher ambitions

## 12. Results

The results of the execution of this plan will be published on the ASTERICS website and in the periodic report.