



KM3NeT INFRADEV – H2020 – 739560

KM3NeT report on establishing selection criteria and a selection committee for scientific exchanges

KM3NeT-INFRADEV GA DELIVERABLE: D6.2

Document identifier:	KM3NeT-INFRADEV-WP6-D6.2_final
Date:	05/09/2018
Work package:	WP6
Lead partner:	FAU
Document status:	Draft
Dissemination level:	Public
Document link:	

Abstract

The KM3NeT Research Infrastructure addresses scientific objectives, such as neutrino astronomy, neutrino physics and earth and sea sciences, which are closely linked to science communities outside the KM3NeT perimeter. Example fields are astronomy, astrophysics, cosmology, nuclear and particle physics, or marine sciences. The objective of WP6 is to establish a sustainable cooperation of KM3NeT with these communities, in particular through a scientific exchange program addressing experts outside the KM3NeT Collaboration and allowing KM3NeT scientists to spend guest researcher stays at non-KM3NeT institutions. This program is to be financed through the future legal entity representing KM3NeT. This requires setting up a corresponding legal framework, procedures for advertising the opportunities, as well as setting up selection criteria for the candidates and a selection committee. The selection criteria and the selection committee are described in this report.

I. Copyright notice

Copyright © KM3NeT Collaboration

II. Delivery slip

	Name	Partner/WP	Date
Author(s)	U. Katz, J. Zornoza	FAU+UVEC / WP6	31/08/2018
Approved by	PMB and KM3NeT IB		30/10/2018

III. Document log

Issue	Date	Comment	Author/Partner
1.0	25/05/2018	Initial draft	U. Katz / FAU
1.1	05/09/2018	Minor modifications	J.D. Zornoza / IFIC, R. van der Meer / NWO, U. Katz / FAU

IV. Application area

This document is a deliverable for the grant agreement of the project, applicable to all members of the KM3NeT-INFRADEV project, beneficiaries and third parties, as well as its collaborating projects.

V. Terminology

ARCA	=	Astroparticle Research with Cosmics in the Abyss (KM3NeT neutrino particle physics detector)
IB	=	Institutional Board (Governing body of the KM3NeT Collaboration)
MoU	=	Memorandum of Understanding
ORCA	=	Oscillation Research with Cosmics in the Abyss (KM3NeT neutrino particle physics detector)
PMB	=	Project Management Board



VI. List of figures

none

VII. List of tables

Table 1 Nominated members of the selection committee.

VIII. Project summary

KM3NeT-INFRADEV

KM3NeT is a large Research Infrastructure that will consist of a network of deep-sea neutrino telescopes in the Mediterranean Sea with user ports for Earth and Sea sciences. Following the appearance of KM3NeT 2.0 on the ESFRI roadmap 2016 and in line with the recommendations of the Assessment Expert Group in 2013, the KM3NeT-INFRADEV project addresses the Coordination and Support Actions (CSAs) to prepare a legal entity and appropriate services for KM3NeT, thereby providing a sustainable solution for the operation of the research infrastructure during ten (or more) years. The KM3NeT-INFRADEV is funded by the European Commission's Horizon 2020 framework and its objectives comprise, amongst others, the Work package *KM3NeT in the global science context*, with the objective to establish a sustainable cooperation of KM3NeT with adjacent science communities.

IX. Executive summary

The KM3NeT Research Infrastructure addresses scientific objectives, such as neutrino astronomy, neutrino physics and earth and sea sciences, which are closely linked to science communities outside the KM3NeT perimeter. Example fields are astronomy, astrophysics, cosmology, nuclear and particle physics, or marine sciences. The objective of WP6 is to establish a sustainable cooperation of KM3NeT with these communities, in particular through a scientific exchange program addressing experts outside the KM3NeT Collaboration and allowing KM3NeT scientists to spend guest researcher stays at non-KM3NeT institutions. This program is to be co-financed through the future legal entity representing KM3NeT, where it is expected that host and home institutions contribute a significant share, in particular to the exchange scientists' salaries. This requires setting up a corresponding legal framework, procedures for advertising the opportunities, as well as setting up selection criteria for the candidates and a selection committee. The selection criteria and the selection committee are described in this report.



Table of Contents

I.	Copyright notice	2
II.	Delivery slip	2
III.	Document log	2
IV.	Application area	2
V.	Terminology.....	2
VI.	List of figures	3
VII.	List of tables	3
VIII.	Project summary	3
IX.	Executive summary	3
	Table of Contents	4
1	Introduction.....	5
2	The selection criteria	5
3	The selection committee.....	6
3.1	The charge of the selection committee	6
3.2	Selection committee members	7
4	References.....	7



1 Introduction

KM3NeT is a large Research Infrastructure (RI) that will consist of a network of deep-sea neutrino detectors in the Mediterranean Sea with user ports for Earth and Sea sciences. The main science objectives, a description of the technology and a summary of the costs are presented in the KM3NeT 2.0 Letter of Intent (1).

KM3NeT will open a new window on our Universe, but also forward the research into the properties of neutrinos. With the ARCA telescope, KM3NeT scientists will search for neutrinos from distant astrophysical sources such as supernovae, gamma ray bursts or active galactic nuclei. Using the exact same technology, the ORCA detector will provide data of unprecedented quality on neutrino oscillations, exploiting neutrinos generated in the Earth's atmosphere. Arrays of thousands of optical sensors will detect the faint light generated in the deep sea from charged particles originating from collisions of the neutrinos with atomic nuclei. The facility will also house instrumentation for Earth and Sea sciences for long-term and on-line monitoring of the deep-sea environment and the sea bottom at depth of several kilometres (2).

A sustainable scientific exchange program addressing experts outside the KM3NeT Collaboration – such as astronomers, astrophysicists, cosmologists, nuclear and particle physicists and marine scientists – and allowing KM3NeT scientists to spend guest researcher stays at non-KM3NeT institutions is to be established. This program is to be financed through the future legal entity representing KM3NeT. The KM3NeT funding will have to be complemented by resources from the home and host institutes of the exchange scientist and possibly from additional sources, in particular with regard to the exchange scientists' salaries. Establishing this program requires setting up a corresponding legal framework, procedures for advertising the opportunities, and a selection procedure; these issues are subject of deliverable D6.1.

Even though funding for exchange visits is not yet available, the objective of this document is to define the criteria for selecting recipients of such funding once it becomes available, and to set up a selection committee in charge and its mandate. The endorsement of this document by the KM3NeT IB also establishes the primary election of the committee. It is expected that there will be two application cycles per year, announced to all KM3NeT members and to the wider scientific community. The applications are to describe the scientific purpose of the exchange, its relevance for KM3NeT, and the qualification of the applicant. The requested financial support needs to be specified and justified.

2 The selection criteria

The following criteria will be applied to select the best candidates from each of the applicant groups (students, PhD students, postdoctoral researchers, senior scientists):

1. Scientific quality: What is the expected benefit of the exchange? How will it further science and technology and/or the applicant's career?



2. Qualification of the applicant: Has she/he proven expertise and experience making a successful exchange likely?
3. Is the exchange relevant for KM3NeT? Is a sustainable cooperation expected? How will it add to, extend or further develop the scientific and executive objectives of KM3NeT?
4. Are the sending and receiving organisations appropriate and do they support the exchange?
5. Are the financial requests appropriate, well justified and necessary?

Please note that these criteria do not contain any elements referring to gender or origin of the exchange scientist or to the amount of funding requested. Securing a proper balance and a proper spending of the available funding is part of the selection committee's charge (see below).

3 The selection committee

3.1 The charge of the selection committee

The committee members are elected by the Institutional Board¹ for a 2-year term, where the first term ends 2 years after the exchange program was established. Re-election is possible.

The committee elects a chair from among its members, who is responsible for organising and steering the committee's work. She or he makes sure that appropriate ethical and quality standards are observed and that no conflicts of interest arise. She or he reports to the executive KM3NeT management.

The selection committee decides on the recipients of exchange support. It reviews the applications and ranks them according to the selection criteria given above. Within the budget allocated, the proposals ranked highest will be considered for endorsement. The committee has the mandate to approve funding requests only partially. It considers a fair balance between students, PhD students, postdoctoral researchers and senior scientists, and it is committed to gender equity in accordance with the guideline documents provided by Work Package 5 (*Societal role, societal impact*)

Further, the committee reviews on a regular basis the announcements of the exchange program and the selection criteria and suggests modifications if deemed appropriate. Such modifications must be approved by the Institutional Board.

Finally, during the phase of establishing the exchange program – e.g. as part of an ERIC – the committee will act as an advisory body.

¹ The current governance structure of KM3NeT (MoU) is assumed. The corresponding bodies will have to be adapted to the future KM3NeT governance scheme.



3.2 Selection committee members

The selection committee has been nominated by the WP6 leads. The nominees are selected amongst senior scientists with managerial experience and responsibilities, covering a wide range of fields of expertise and having excellent contacts to the science communities targeted by the exchange program. They represent the partner countries of KM3NeT in a balanced way. All committee members have been informed about the charge of the committee and the selection criteria and have explicitly agreed to serve on the so-defined committee. The final endorsement of the committee will be effected by the endorsement of this document by the KM3neT IB.

Name	Country	Science fields covered
Gisela Anton	D	Neutrino physics, ORCA
Damien Dornic	F	Multi-messenger astronomy
Miroslav Filipovic	AUS	High-energy astrophysics
Soebur Razzaque	ZA	Theory
Giorgio Riccobene	I	Calibration, instrumentation, earth and sea sciences
Dorothea Samtleben	NL	Neutrino astronomy
Katarina Tzamaroudaki	GR	Industry contacts, neutrino astronomy
Juan Zúñiga	E	Particle physics

Table 1 Nominated members of the selection committee.

4 References

1. *Letter of Intent for KM3NeT 2.0*. **Adrián-Martínez, S., et al.** 2016, Journal of Physics G: Nuclear and Particle Physics, Vol. 43 (8), p. 084001. arXiv:1601.07459 [astro-ph.IM]. DOI: 10.1088/0954-3899/43/8/084001.
2. **KM3NeT Collaboration**. KM3NeT Homepage. [Online] 2017. [Cited: 29th May 2017.] <https://www.km3net.org>.

