Applying to host an IAU Office of Astronomy Education Center or Node

The present text provides more specific information for institutions interested in hosting an OAE Center or OAE Node, following the open call of the IAU OAE.

Background information on the OAE

The International Astronomical Union (IAU) is the worldwide organisation of professional astronomers. It is responsible for fixing naming, coordinate and other conventions for astronomy, it organises major scientific meetings, and within the past 15 years, it has become more and more active in areas such as public outreach, using astronomy to stimulate development, and education, as well. You can find the specifics in the <u>IAU's Strategic Plan 2020–2030</u>.

That strategic plan mandated the creation of a dedicated "IAU Office of Astronomy for Education". IAU Offices are the "service units" within the organisation. Most of what the IAU does is done as volunteer work – both the officers (IAU president, general secretary, assistant general secretary etc.) and the organisers of IAU events (general assembly, symposia) are working scientists, who work on IAU matters as volunteers. But for some tasks, instead of (or in addition to) volunteers, you need actual, dedicated staff, who can devote the needed amounts of time and effort. That is what the IAU Offices provide, for different areas of activity: the central Paris office for matters of membership and other administrative tasks, the Office of Astronomy for Development (OAD), based in Cape Town, for leveraging astronomy for development, the Office for Astronomy Outreach (OAO) based in Tokyo for outreach, and the Office of Astronomy for Education (OAE) for education.

The Office of Astronomy for Education was founded in late 2019 as a joint venture of the IAU with the Max Planck Institute for Astronomy (MPIA) in Heidelberg, specifically with Haus der Astronomie (HdA), the Center for Astronomy Education and Outreach operated by MPIA. It is dedicated to using astronomy to further education – both in astronomy itself and in the STEM subjects (science, technology, engineering, mathematics) in general.

The OAE's mission is to support and coordinate astronomy education by astronomy researchers and educators, aimed at primary or secondary schools worldwide. The OAE has a network of over 300 <u>National Astronomy Education Coordinators</u> (NAECs) in over 100 countries and territories. These NAECs form the interface between the OAE and the astronomy education community in its country or territory. In particular, they act as liaisons between the IAU and teachers interested in astronomy, and in using astronomy as a tool for teaching science in primary and secondary school. The OAE also works to build excellent educational resources

through programs like their <u>Multilingual Glossary</u>, the <u>Big Ideas in Astronomy</u> project, <u>astroEDU</u> and the OAE's astrophotography contest. Additional information can be found on the <u>OAE's website</u>.

OAE Centers and OAE Nodes

The OAE mission is ambitious and work-intensive, so from the beginning, OAE has been open to establishing "branch offices." There are the OAE Centers and OAE Nodes. The current <u>OAE Centers and Nodes</u> are: the OAE Center China–Nanjing, hosted by the Beijing Planetarium (BJP); the OAE Center Egypt, hosted by the National Research Institute of Astronomy and Geophysics (NRIAG); the OAE Center India, hosted by the Inter-University Centre for Astronomy and Astrophysics (IUCAA); the OAE Center Italy, hosted by the National Institute for Astronomical Society (KAS); the OAE Node Republic of Korea, hosted by the Korean Astronomical Society (KAS); the OAE Node France at CY Cergy Paris University hosted by CY Cergy Paris University; and the OAE Node Nepal, hosted by the Nepal Astronomical Society (NASO).

These branch offices are semi-autonomous: Their funding and administration are local, provided by the host institution of the Center or Node. Each Center or Node contributes to the central tasks of the OAE mission, as coordinated by the OAE Heidelberg. Specifically, selected staff members of the Center or Node are part of "OAE Working Groups" that are assigned specific areas of responsibility (e.g. for managing the volunteer community of the NAECs, and for supporting the creation/curation of astronomy education resources). There is also the "OAE Organisational Support Group" that supports organisational tasks, such as the annual online workshop. A number of Centers and Nodes contribute generous funding to the OAE's Teacher Training Program, which provides grants for teacher training events world-wide.

In addition to these contributions to the centrally-coordinated OAE activities/resources, each Center and Node defines their own specific focus areas. This could be a focus on working with a particular region, or a particular language community, or focussing on specific topics within astronomy education.

While many OAE Centers or Nodes have a regional focus, and most work particularly closely with the National Astronomy Education Coordinators (NAECs) of the country in which they are based, OAE Centers and Notes are emphatically not "regional offices". All are part of an international peer network, and all contribute to the overall mission of the OAE. We value the specific expertise to be found at each OAE Center/Node, and want the international astronomy education community to benefit from what you bring to the table. All Centers and Nodes are represented on the <u>OAE web pages</u>. They regularly inform the OAE about their activities, and in particular they contribute <u>news items</u> to the OAE website.

What is the difference between an OAE Center and an OAE Node?

In short: the level of resources that the host institution is able and willing to contribute to the OAE. Centers typically contribute three or more FTEs (full-time equivalent staff = "one person working full-time") to OAE work, while Nodes typically contribute between one and two FTE.

A prototypical OAE Center should have at least three FTE science/education staff, 0.5 FTE administrative support staff, travel funding that allows staff to travel to several international meetings per year (including the IAU General Assembly, held every 3 years), an appropriate budget for web activities, software, hardware, and educational materials. Its budget should include funding for a yearly Regional School for Astronomy Education (both the event costs and travel/accommodation costs of the participating teachers). Typical funding provided for such a regional school is in the area of 15000 EUR per year. OAE Centers are also expected to make a financial contribution to joint OAE projects, notably the Teacher Training Program (TTP). TTP contributions have so far varied between 2000 EUR and 10000 EUR per year.

OAE Nodes are more flexible, but their staff contribution should be no less than one FTE.

The difference in the amount of resources committed by the host institution naturally provides boundary conditions for how active an OAE Center or OAE Node can be. An OAE Center will work similarly to the OAE itself, providing resources for fulfilling different elements of the OAE mission as the need arises, and collaborating in a number of different OAE projects at a time. OAE Nodes will typically be more limited in scope, e.g. by choosing a particular part of the OAE mission that the OAE Node, with its existing staff, is particularly well-suited for supporting.

As specified in the memorandum of understanding, each OAE Center and OAE Nodes provides two times 0.1 FTE to work in the OAE's *Infrastructure Working Groups*. In other words: two of the OAE Center's or OAE Node's staff will spend 10% of their time working as part of one of the OAE's Infrastructure Working Groups on the central OAE mission. These working groups meet regularly on Zoom. The current infrastructure working groups are the group dedicated to NAEC Networking and the one to creating and managing resources. OAE Centers (but not OAE Nodes) additionally contribute 0.1 FTE to the OAE's organisational working group – a group that supports the basic organisational tasks within the OAE, which is organised and supervised by the OAE Organisational Assistant, Gwen Sanderson.

Applying to host a Center or Node

If you are interested in submitting a Letter of Intent to host an OAE Center or OAE Node, please consider the following:

- The purpose of your letter of intent is to get the conversation started! So it's OK (and even encouraged) to keep things brief, say: write one to two pages.
- The most important thing: Tell us about the host institution, or host institutions in cases where a consortium is applying to host! Both OAE Nodes and Centers should be hosted by institutions with substantial previous experience and a good track record in astronomy education and/or more general STEM education (STEM=Science, Technology, Engineering, Mathematics).
- Please tell us about any previous experience that your institution, and in particular the group that would make up the Center or Node, have with international collaboration.
- Please give us a basic idea of the resources you can commit to an OAE Center or Node. How many FTE would your Center/Node have, and would they be scientists, educators, or administrative staff? What do you plan your budget to be, and what amount of funding could you contribute to central projects like the Teacher Training Program?
- Note that, at this stage, you do not need to commit to whether what you would be hosting should be a Center or a Node that is something we can determine together in the conversation that follows.
- Showcase the specific expertise you can offer! If you can, it would be great to link that expertise to the various areas of work of the OAE.
- Hosting a Center or Node is a commitment to international work. If you see your institution's scope as more local, that is, more focussed on the education communities in your immediate neighbourhood, this is probably not a good fit

 but please consider other ways of collaborating with the OAE.
- Hosting a Center or Node is emphatically not a prerequisite for collaborating with the OAE. There are alternative opportunities for collaboration and cooperation, and we are grateful to institutions that inform us of their willingness to collaborate even while not applying to host an OAE Center or OAE Node.
- We will follow up any letter of intent with a direct contact (probably a Zoom meeting) to discuss your plans, and possible next steps.