

Co-Design in Action: Developing Activities and Strengthening the Astronomy Community

Dunja Fabjan on behalf of the OAE Center Italy

Email: oea@inaf.it

Webpage: https://edu.inaf.it/oea_italia/home/



What is Mediterranean co-design?

- Person-centered learning
- Collaboration peer-to-peer
- Interculturality
- Astronomy as a tool for learning (also social skills)
- Enhancement-based process



What is codesign?

Codesign vs traditional design

Collaborative

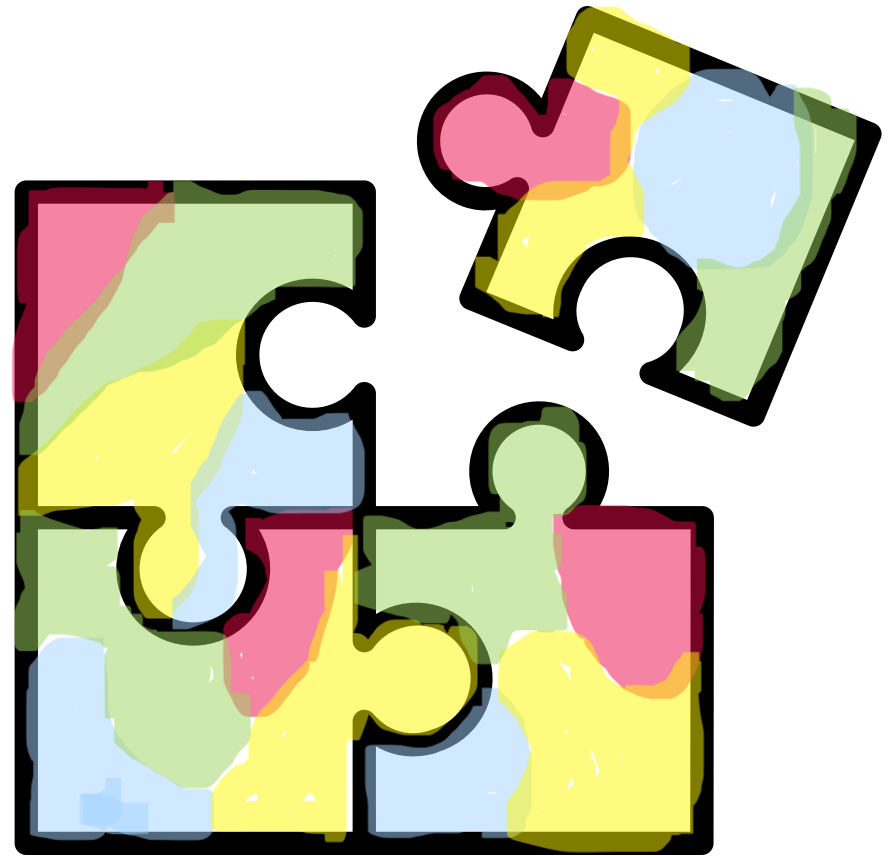
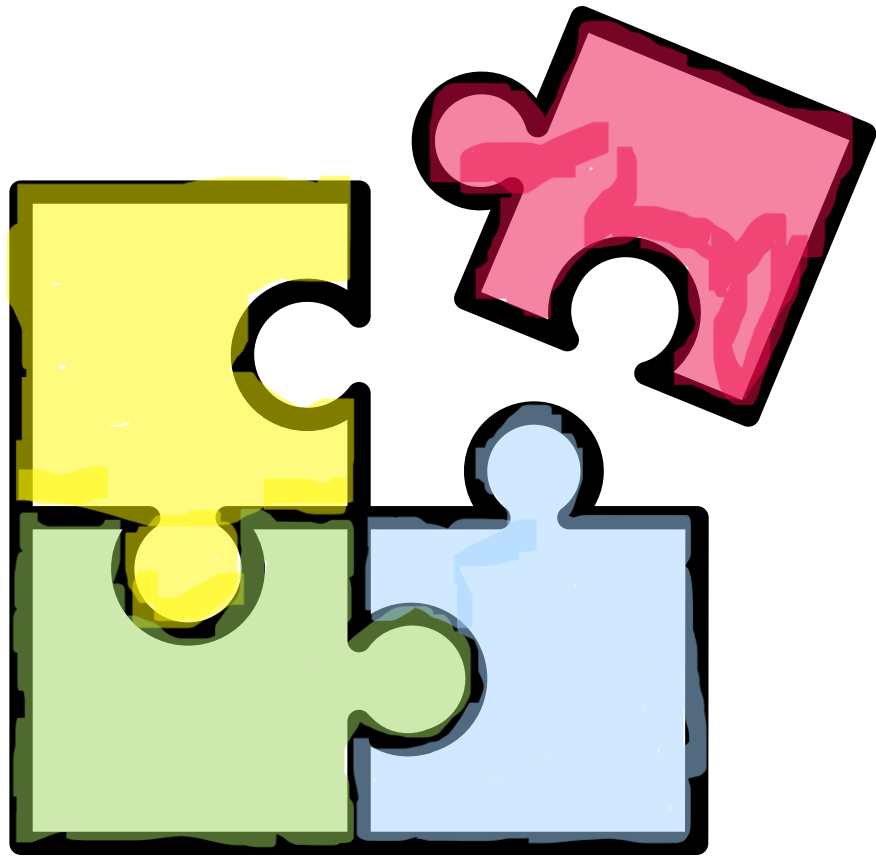
Fluid roles

Continuous
input

Top-down

Fixed roles

Limited
feedback



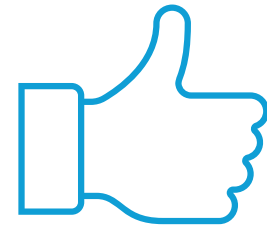
Why codesign?



Encourage agency



Building relationship



Improved engagement

Some of the core principles



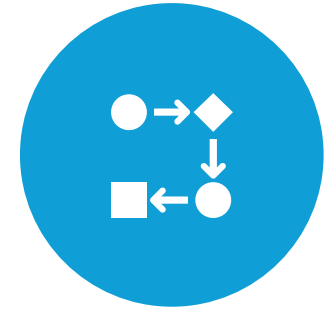
PARTICIPATION &
INCLUSION



COLLABORATION



TRANSPARENCY



ITERATION

Steps of the codesign process



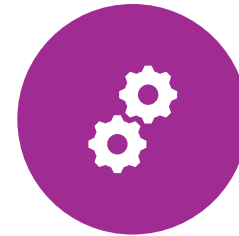
CONTEXT



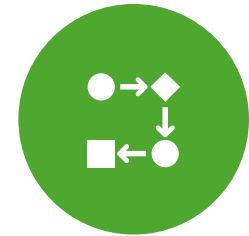
STAKEHOLDERS



CO-CREATION



PROTOTYPING



TESTING AND
ITERATION

Example:

MIRTO/STEAM-Med project



The *STEAM-Med Project*, including its *MIRTO* phase, focuses on creating a collaborative environment among Mediterranean countries. It involves establishing a network of NAECs, and hosting online round-tables. The project operates on a co-design, peer-to-peer approach, with participating NAECs designing and tailoring LIGHT-related activities. Several rounds of co-design were coordinated, involving representatives from different countries.

“ The most important part of this project is the process itself, because what we really want is to stimulate the Med community, nurture it and generate space where people from the Med Area can work together in Astronomy Education.

SARA RICCIARDI, I-OAE DEPUTY, INAF ”



STEAM-Med is a **collective process** coordinated by I-OAE aimed at **creating educational paths** in the Mediterranean area.

Each educational path is constituted by teaching activities co-planned by the NAECs of the countries which joined the project.

The 2022 Edition was devoted to **children aged 6-12 years**.



Example: the Sabir project

Sabir aims at promoting and encouraging innovative, open, critical learning by producing **Inquiry-Based Learning (IBL) activities** for **high school students**.

As a final product, we are publishing the IBL activities on the IAU educational platform astroEDU, together with the translations into all the languages of the participating NAECs and of the facilitators.

The general **social goals of the project** are:

- Sustaining the NAECs network in the Mediterranean;
- Exchanging best practices;
- Community building and reinforcement;
- Enhancing the co-design implementation process.

Some tools for codesign

Possible unifying theme about contents



Jamboard table with the main theme of the MIRTO/STEAM-Med project



Cocreators working together on the Sabir activities

NAEC networking: From Lampedusa to the IAU Shaw Regional School and Erasmus+ project

Lampedusa, Italy 2022



14 NAECs
9 countries

Spain, Portugal, Italy, Slovenia,
Croatia, Turkey, Syria, Lebanon,
Morocco

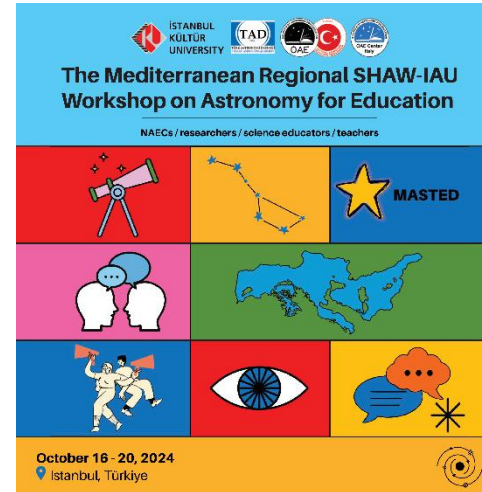
Ifrane, Morocco 2023



23 NAECs
13 countries

Spain, Portugal, Italy, Slovenia,
Bulgaria, Turkey, Syria, Lebanon,
Palestine, Israeli, Egypt, Morocco,
Mauritania

Istanbul, Turkey 2024



25 NAECs
17 countries

Spain, Portugal, Italy, Slovenia, Bulgaria,
Turkey, Lebanon, Egypt, Morocco,
Mauritania, Greece, Algeria, Pakistan,
India, Malta, France, Tunisia

Egypt 2025



NAEC networking: From Lampedusa to the IAU Shaw Regional School and Erasmus+ project

Lampedusa, Italy 2022



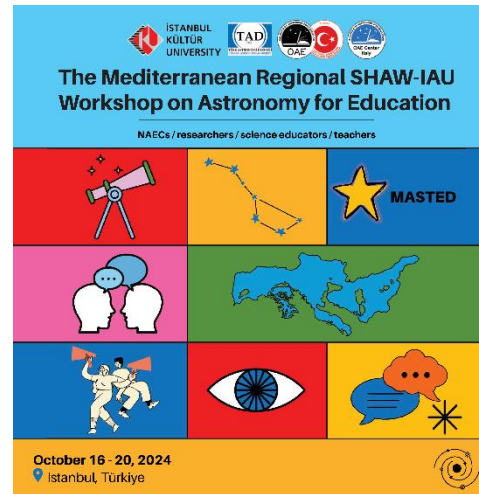
Grants from IAU OAE Center Italy (I-OAE)

Ifrane, Morocco 2023



Grants from IAU OAE Center Italy (I-OAE) Ifrane University

Istanbul, Turkey 2024



Grants from IAU OAE - Shaw Prize Foundation IAU OAE Center Italy (I-OAE) Istanbul Kültür University

Egypt 2025



Grants from IAU OAE - Shaw Prize Foundation IAU OAE Center Italy (I-OAE) National Research Institute of Astronomy and Geophysics



ASTRO-EDU: Empowering teachers as STEAM Communicators in Astronomy Education

Partners: Istanbul Kültür University, Istituto Nazionale di Astrofisica, Università ta' Malta, Osnovna škola Pantovčak, Global Hands-on Universe Association, Hellenic Physics Society

Challenges



Time constraints



Alignment

Benefits



DEEPER ENGAGEMENT



BUILDING COMMUNITY