

Engage with Space Toolkit

Step into Space Exhibition and Open Space Lab Activity

This toolkit was developed by Ars Electronica with the support of Science Gallery at Trinity College Dublin, Ciencia Viva and Leiden University.

spaceEU project has received funding from the European Union's Horizon 2020 Framework Programme for Research and Innovation under grant agreement No. 821832



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Introduction

About the spaceEU Engage with Space Toolkit

Space science is a rich and powerful tool in science education, as the excitement of space can open doors to reach new audiences and engage young people in STEAM. Humankind shared fascination with space can encourage young people to follow STEAM related careers while inspiring and broadening their minds. Engage with Space toolkit is a ready-to-use digital collection of space centred activities with a specific focus on girls and underserved communities. These activities encourage and help schools, youth centers, museums, universities, NGOs and informal learning spaces to bring together students, families, space professionals, their communities and more to engage them with the wonders of space.

The spaceEU Engage with Space Toolkit is comprised by:

Step into Space Exhibition

Step into Space exhibition consists of three flexible modules which allow to build a regional connection and engagement. The exhibition looks into how space exploration has been an intrinsic part of our lives, contributing to new technologies we use here on Earth, assists us in thinking about how to protect our planet, and inspiring us to think outside the box and to cooperate.

The architectural design allows you to adjust the exhibition to your needs; space and content wise. You can find graphic templates and detailed handbook about how to build the exhibition here and in the download section of spaceEU. We encourage you to invite and collaborate with local artists who can contribute to the exhibition.

Modules

- What We Made from Space
- Through the Lens of Space
- A Creative Space

Engagement & Education

The Engage with Space Toolkit presents detailed instructions for implementing spaceEU engagement formats. The formats presented here are trialed and tested, which doesn't mean they can't be modified to best suit local contexts. Engage with Space offers in detail one way to implement spaceEU engagement formats and we highly encourage you to adapt and adjust these formats to your needs. You know your audience and local partners the best!

The formats aim to reach two main target groups and can partly be combined and integrated in the exhibition.

Children and Youth

- Space in the Classroom
- space4youth
- space4youth Open Call
- Open Space Lab (integrated in the exhibition)

General Public

- Space Café
- Citizen Space Debate
- Space Unconference

With the exhibition and the engagement programmes the spaceEU project address the following objectives:

- We aim to inspire young people with space topics and encourage them to consider careers in the space sector.
- We want to celebrate the accomplishments of European space science and demonstrate how European society benefits from the space sector.
- We plan to highlight past and present contributions by women and minorities to the advancement of the space field and promote a diverse and inclusive space sector.

Find the complete spaceEU Engage with Space Toolkit at www.space-eu.org/toolkit.

About spaceEU

spaceEU (www.space-eu.org) encourages young people to choose careers in science and technology on the one hand and stimulates a sense of European and global citizenship on the other. An exhibition and a wide range of engagement programmes use the excitement of space and the beauty of the Earth in order to convey these stories. Our main target audience are youth and families with a specific focus on girls and youth from underprivileged communities as well as professional stakeholders.

Step into Space Exhibition

The exhibition consists of three content modules. You can use the exhibition as it is and you can transform it and make your very own exhibition. If you see something not working in your local context, simply replace or even remove this part. With some exhibition experience it is easy to rearrange the individual elements on the ladders. Through the strong architectural and graphic language, the exhibitions will be visibly connected to each other, however, none will look exactly the same.

In this toolkit, we first list the individual modules and their elements. Then we will look at the parts you can adapt and adjust to your national, regional and local context. Your creativity has no limits here. The general answer to “Can I do it like this?” is “Yes”. You will find some helpful hints in the sections ‘Text and Translation’, ‘Graphic Design’, ‘Architecture’ and ‘Project Management’.

Step by Step

1. Take a look at the exhibition documentation and get an idea about how the exhibition could look like.
2. Get familiar with the content and the exhibition text. Feel free to add your translation, make changes to the handouts.
3. Think about what parts you would like to have in your exhibition, what to add and how to transform the content to make it your very own.
4. Check out translation, graphic design and architecture.
5. Check out the architecture handbook and see what you’ll need (tech, material, etc).

Exhibition Content

Module 1: Introduction and What we Made from Space

The first module presents the Step into Space theme and highlights the impact of space research in daily life on Earth, by emphasising innovations that space science has developed, and space careers.

This module also comes with the **Open Space Lab**. It is a table for interaction and engagement that allows visitors to explore the exhibition through a Space Agent game. On the table there are a minimum of six mission game cards. It comes with a ‘Space Agent Pass’, for each mission accomplished they get a stamp. With three stamps they are a ‘Space Cadet’ with six stamps they are a ‘Space Captain’. They’ll have to look for answers to questions like: “What happened in Europe in June 2018? Check out the Ladder with all the Satellite images and learn what had happened.” “Do you know how google maps works? Check out the ‘Where on Earth am I’ activity and find out...” Find more examples in the exhibition text.

Module Elements:

- Text
- Images
- Objects from space spinoffs
- Open Space Lab: Including 'Mission Game Cards' for interacting and engaging with the exhibition as well as the 'Space Agent Pass'
- Optional additional handouts

Make it your own

- Add your local PM team to the exhibition credits.
- Feel free to show other objects from space.

Module 2: Through the Lens of Space

This module presents the observations that space science provides, with a focus on observing climate change. It aims to highlight publicly available data from ESA, and provide pathways for visitors to get involved to tackle climate change.

Module Elements:

- Text
- Satellite images
- ESA Climate from Space App
- ESA Copernicus Sentinel App
- Sentinel EO Browser (guidance on cards to get to know the app)
 - Optional additional handouts for further exploration of the online application
- Text and images about activism and climate crisis

Make it your own

- We chose satellite images from all over the world for the intro. Almost every continent is represented. If you prefer to narrow it down you could use only European examples. [ESA offers a wide image archive online](#). You'd only have to adjust the text and the map on the images.
- ESA Climate from Space App and ESA Copernicus Sentinel App
 - The apps are only available in english. If you have the impression that there are more instructions needed feel free to add a translated version of a detailed app description
 - ESA Climate from Space App is only available on iPad. Feel free to either show the ESA Copernicus Sentinel App on two tablets, remove one tablet or use another suitable ESA app (we can recommend the ESA my vegetation app)
- The EO-Browser is a browser based tool for earth observation. Feel free to check out [this user guide](#) to get more familiar with it or [watch this video](#) to get to know the tool.

- Get ready: Set up an account [here](#) on the EO Browser with an email address that can be online during the exhibition.
- To set up before you get started
 - Go through the EO Handouts and save the examples there. With this step you are all set for the exhibition.
 - Test the game card examples and see if the instructions work for your context.
- Make it your local examples: Check out EO Handout 1 and change the city name.
- Text and images about Becoming Active and climate activism: This module is about activism and inspiring youth run movements. There is also room to plug in your own local activism group. In our case here in Austria we invited to Austrian Friday for Future youth group to contribute their protest signs for the exhibition.

Module 3: A Creative Space

This module looks at space as a source of creative inspiration. It is the Module that you can freely design and develop.

For inspiration, here are the artists that we presented in that Module

- Print – A TOUCH OF HOME by WE COLONISE THE MOON
- Installation – EARTH SEEN FROM SPACE by WE COLONISE THE MOON
- Short Film – Blue Moon by Blue Moon Collective
- Zine and Poster(s) – Chimponauts and Astrocats by Eva Rust
- Prints and Robot – Noodle Feet by Sarah Petkus
- Short Film – Afronauts by Nuotama Bodomo

Exhibition Production

Graphic Design

You find the inDesign files in the download section.

Formats:

- A1
- A2
- A3
- A4
- Postcards
- Customized prints for the Open Space Lab
- Print in house A4 handouts

Sidenote: Almost all of the prints also have green dots on them. These are the place holders for holes the prints need in order to be attached to the ladder. Ideally your print studio cuts the holes right away.

Architecture and Tech Equipment

About the architecture concept:

The ladder is the central architectural element in the exhibition. As an object from daily life we all know it, at the same time it is also the element that allows us humans to step down from an high tech space craft onto another planet. That is also the reference in the first image of the moon landing in the exhibition.

The concept can be applied universally. For example schools might have ladders already and can implement their own exhibition with printing the graphic design which are available for free on the space-eu.org website in the future. With the Architecture Handbook we aim to give as much information needed to build the exhibition, at the same time we set only the minimum of rules in order to give you space for interpretation.

Other materials can be used as long as you follow the colour patterns. That is why we highly recommend to use the metal ladders for the exhibition. Although every exhibition will look different we would like to have a strong visual component that shows that these exhibitions are from the same project. The same for graphic design.

You can find the following information in the Architecture Handbook

- Materials and Equipment
- Assembling
- Possible Layouts
- Ladder Elements

General Guidance

- BE SOLID - Make sure the exhibition modules are stable and fixed.
- BE TIDY - Make sure that the cable ties are cut neatly, that the power cables are neatly organised and attached to the architecture. An organised and clean appearance is important for the exhibition experience.
- BE CREATIVE - Take advantage of the creative leeway. Think about local partners for wood, ladders, objects, etc. (eg. we had a local hearing aid partner for one of the objects)
- SAFETY FIRST - Implement your local safety regulations for exhibitions. In case you have to change the design because of special regulations change the manual towards your aesthetic judgement.

Intellectual Property: Ownership of Toolkit

All contents relating to the spaceEU exhibition 'Step into Space' and educational program 'spaceEU Activities' developed by the parties under the terms of the spaceEU agreement shall be jointly owned by the spaceEU consortium, unless otherwise stated. Utilization of any Joint Ideas/Deliverable beyond the scope of this toolkit shall be negotiated reasonably and in good faith by the parties hereto and shall be subject of a separate written agreement.

Utilization by parties themselves beyond the time scope of the project is allowed. Utilization by parties for commercial contexts shall be negotiated separately in a written agreement.