

Asclepios

Sponsoring Brochure

Space@yourService, EPFL

Student-led space analogue missions, 2021



Brought by



EPFL

nagra . GTS 

 eSpace
EPFL Space
Center

ASSOCIATION DES COMMUNES

CRANS MONTANA 

Absolutely

Start-up Friendly

Service de la promotion économique


SPACE
INNOVATION

Welcome Introduction

« Analogue space missions are a vital instrument to develop humankind's future in deep space. Through a holistic approach they enable us to explore a multitude of aspects involved in designing life in outer space. They can easily be used to simultaneously explore technological, ecological, medical, psychological, social and cultural components involved in expanding human civilization beyond Earth's atmosphere. After all, human space flight is more than just building rockets.

Analog space missions also enable us to be more inclusive in shaping our shared future in space. People from all walks of life - with all kinds of ages and from different cultural and professional backgrounds - can easily participate and contribute. And more importantly, analog space missions also serve a purpose to communicate space science to a broad audience and make it much more accessible. »

Dr. Angelo Vermeulen, Mentor of Mission Asclepios

Space systems researcher, biologist, artist, NASA HI-SEAS I Analogue Astronaut (Commander)



The Asclepios Project

The Asclepios project is a program of analogue missions designed by students for students, under the mentorship of trained professionals. This interdisciplinary project unites students and scientists from all around the globe to achieve a common goal: successfully perform « do-it-yourself » space missions. It seeks to simulate short-term space missions on another celestial body, such as the Moon or Mars, thus paving the way to the future space exploration of our solar system.



Education




Science



Communication



Space@yourService (S@yS) is a non-profit organization recognized by EPFL which aims at promoting and popularizing space sciences (astrophysics, space engineering, astronomy, etc.). S@yS, in collaboration with national and international institutions from science and industry, is working at the cutting edge of space promotion with the development of innovating means of communication (outreach events, SciComm escape game, school programs). In 2019, S@yS decided to launch the Asclepios analogue missions to contribute to the world of space exploration and train the space explorers of tomorrow. In 2021, Asclepios officially became an EPFL MAKE project.





Objectives



The Asclepios missions are human-sized analogue missions which can be performed only by students with the goal of training them for their future space endeavors as astronauts, space engineers or members of the Mission Control Center. It is for this reason that one of its main objectives is **Education**, which is carried out by the Asclepios team in terms of workshops and analogue missions training, and by EPFL centers and laboratories as part of semester projects.

In addition, the platform allows numerous laboratories across the world to test prototypes and develop experiments useful for the exploration of the Moon or Mars, making **Scientific Research** the second goal of Asclepios.



Finally, as part of S@yS commitments, **Communication**, i.e., inspiring young generations, through engaging media appearances and innovative science communication tools, remains one of the key aspects of the mission.

Asclepios I

Asclepios I is the first mission of the Asclepios project. It aims at simulating the Moon environment in underground tunnels in Switzerland. Six analogue astronauts will be in isolation in this base performing several scientific experiments helpful for the future of space exploration. The ground control will be simulated as well with the establishment of a Mission Control Center nearby with 24/7 monitoring.

Where?



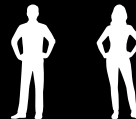
Grimsel Test
Site

When?



12-20/07/2021

Who?



6 analogue
astronauts

What?



Moon
exploration



The Grimsel Test Site, an underground laboratory in the Bernese Alps, will be used as our Lunar Base. It is a perfect location to simulate the lava tubes currently present on the Moon and study the impact of such an habitat on the psychology of astronauts.

Science

15 experiments were chosen through our call for project or student projects to be performed during the field test. During 9 days, the crew of analogue astronauts will have the task to complete these experiments, communicating with the Mission Control Center. Following the Flight Plan, they will perform other daily tasks such as repairs, sports and outreach.



In images



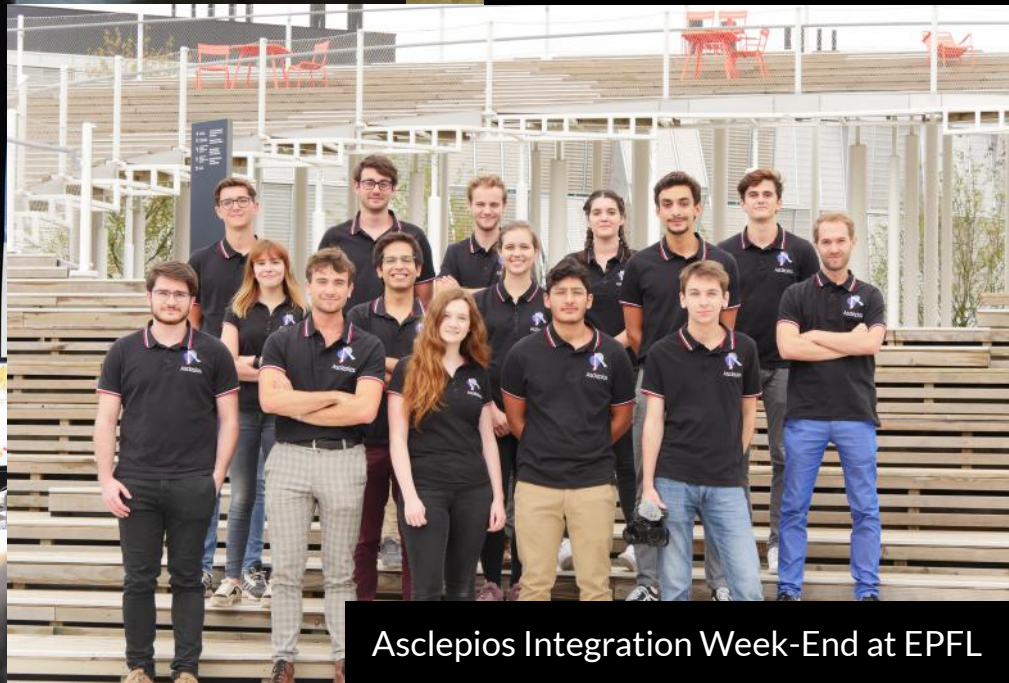
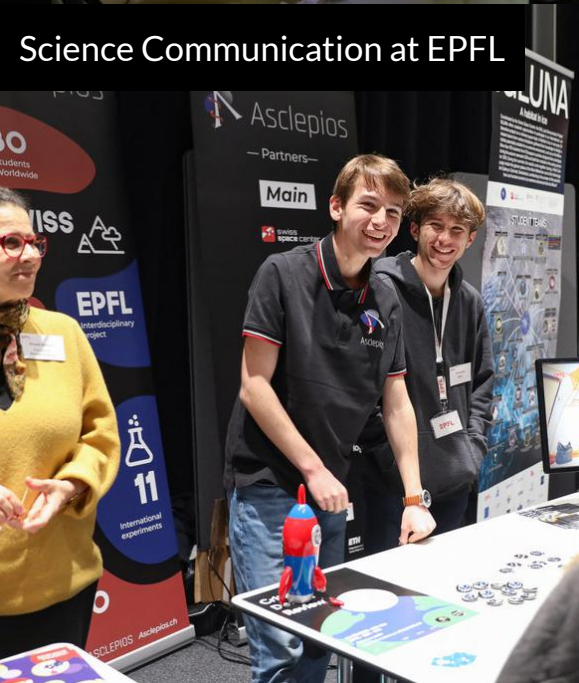
Survival Camp Crans-Montana

Ice diving in Crans-Montana



Visit underground tunnels

Science Communication at EPFL



Asclepios Integration Week-End at EPFL

The Teams

The Asclepios Missions are run by 50 international students from 18 countries across the world, working hand in hand with the common goal of successfully building a space analogue mission. More than 15 fields of expertise are represented. The fulfillment of the mission is guaranteed by four work packages:



0% 5% 10% 15% 20% 25% 30% 35% 40%

Science

Divided into Operations, Life Aboard and Systems, this team selects and coordinates Asclepios experiments to be tested in the field. Some experiments are run by the team itself such as the REDMARS experiment, the rover and the space suits.

Astronauts

This team selects and trains our analogue astronauts for the field tests. They take care of psychological tests and medical inquiries. Soon, the intergovernmental relations will be taken into account in their work.

Logistics

For the mission to be successful, this work package organizes workshops, transports, and the budget for the project. They also plan and design the base and consumables to be as realistic as possible.

Communication

One of the goals of Asclepios is space promotion. This team takes care of the project's public image, media and social networks. They trigger collaboration with innovative institutions and artists.

Mentors



Claude Nicollier is a former [ESA](#) (European Space Agency) Astronaut and currently a professor at [EPFL](#). He is a member of the Swiss Space Center in Lausanne, and has participated in the astronaut selection process at ESA. Claude is a mentor for the astronaut crew of Mission Asclepios.

Bernard Foing is a French scientist at ESA and executive director of the International Lunar Exploration Group (ILEWG). Through ESA, he will provide supervision and equipment to the Asclepios mission, as well as mentorship and advice to the team.



Prof. Jean-Paul Kneib and Prof. Julia Schmale are two EPFL professors supervising the Asclepios Project. Jean-Paul is the director of the EPFL Space Center and Julia the director of the Extreme Environments Research Laboratory.



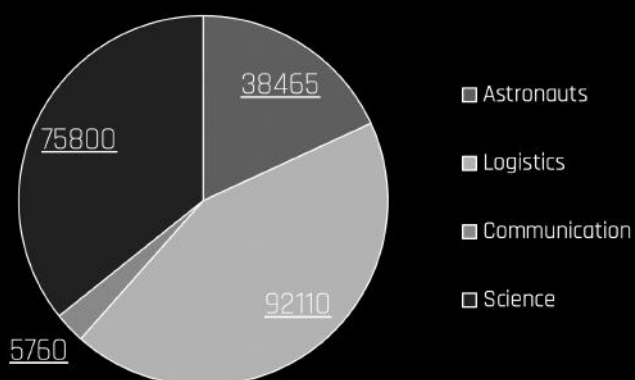


Budget

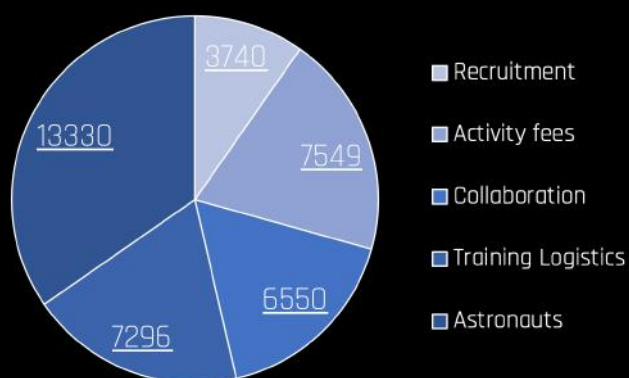
The budget cut-down shown below illustrates the cost of the Asclepios project for the year 2020/2021. Our budget takes into account both the « in-kind » and cash sponsorships. We are very thankful for the trust and contribution of our partners, which allow us to aim for the Moon.

Total

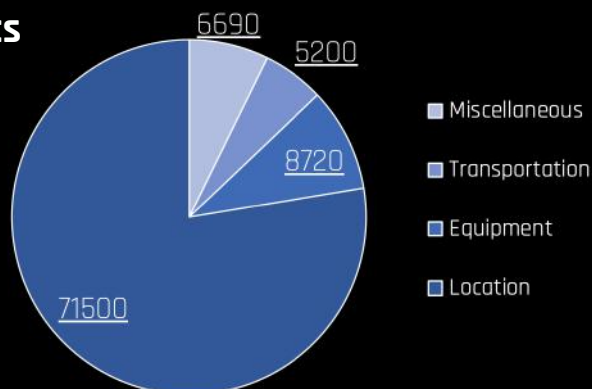
Total: CHF 212 135



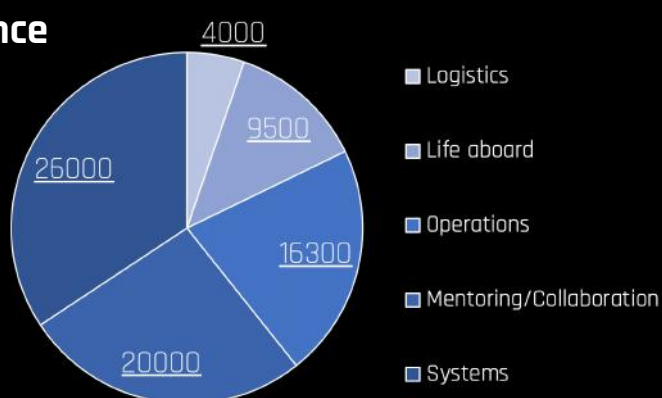
Astronauts



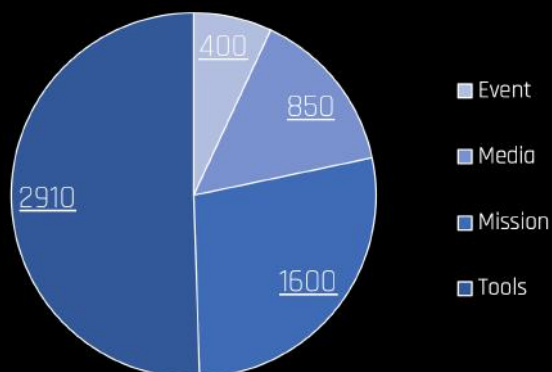
Logistics



Science



Communication



Why join the adventure?

The project has received the support and collaboration of numerous schools, institutions and companies across the world. Join them in helping us spreading the enthusiasm for space exploration!



Asclepios in the media



VISIBILITY IN THE SPACE FIELD

We work in collaboration with ESA, the Swiss Institute of Technology (EPFL) and many more which allows a great visibility for your company. Our specialty being Science Communication, the project's promotion goes from EPFL to worldwide conferences, artists and abroad universities (MIT, ETHZ, Cambridge University, etc.). Over 6 months, the preparation of the mission attracted more than 20 medias, among them the RTS journal, le Temps, Canal 9 and even Chilean media.

PROMOTE INNOVATION AND OUTREACH

You want to put your foot on the Moon? This is the project for you. Contribute to the scientific experiments that will one day bring human to the lunar surface!



SHAPE THE FUTURE

With Asclepios, we train the future space workforce. Invest in our team and make the future space missions even greater!

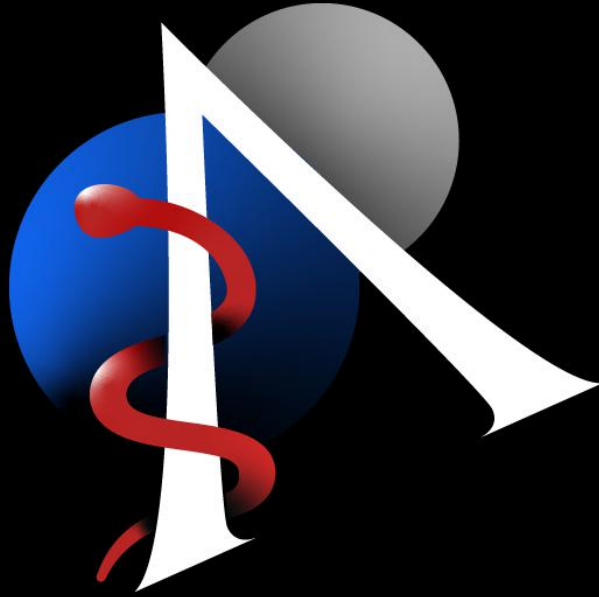
Sponsorship types

By contributing to the mission, you will be given the following advantages until the end of Asclepios I to take place in July 2021.

Platinum (above CHF 10 000) <i>Minimum of CHF 5 000 in cash or location partnership</i> <ul style="list-style-type: none">• Large logo and link on the website• Visibility on roll-ups and brochure• Large logo on astronauts' shirts• Received Monthly newsletter• One social media post• Invitation to Design Reviews• Logo on flyers and posters• Visit of the base	Gold (above CHF 5 000) <i>Minimum of CHF 2 500 in cash</i> <ul style="list-style-type: none">• Medium logo and link on the website• Visibility on roll-ups• Medium logo on astronauts' shirts• Received Monthly Newsletter• One social media post• Invitation to Design Reviews
Silver (above CHF 3 000) <ul style="list-style-type: none">• Small logo and link on the website• Visibility on roll-ups• Small logo on astronauts' shirts• Received Monthly newsletter• One social media post• Invitation to Design Reviews	Bronze (above CHF 1 000) <ul style="list-style-type: none">• Small logo and link on the website• Visibility on roll-ups• Small logo on astronauts' shirts• Received Monthly Newsletter• Invitation to Design Reviews

- **Universities and Laboratories:** Logo and link on the website, Invitation to Design Reviews, Logo on project's brochure, Monthly newsletter.
- **Donations:** It is also possible to donate a sum to the project philanthropically so that it is subject to tax exemption. However, for this to be possible, no sponsoring benefits other than the logo on the website can be expected by the donor. Minimum contribution of CHF 1 000.

Contact



Asclepios

Chloé Carrière

Project Leader

chloe.carriere@epfl.ch

+33 6 48 32 19 59

Elfie Roy

Project Leader

elfie.roy@epfl.ch

+33 6 51 58 75 20

asclepios.ch

asclepios@epfl.ch

