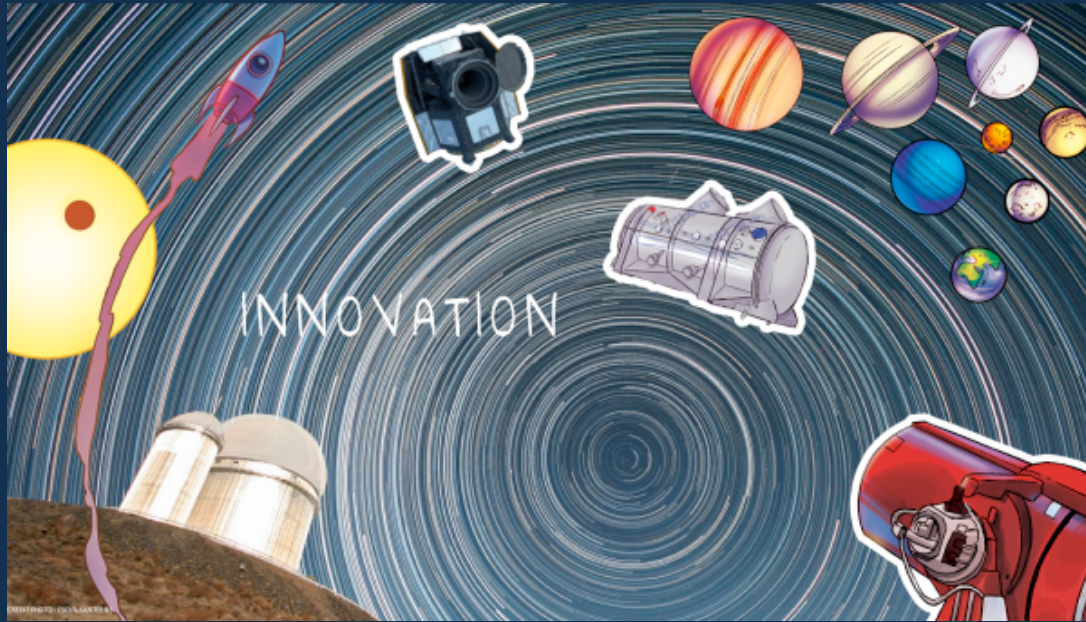


# Astronomical Innovation



Discover entrepreneurship and possibilities to develop your ideas @PlanetS. with the help of your Research Institution!

## Program:

- Welcome addresses
- PlanetS Tech & Innovation Platform
- UniGE Science Innovation Hub
- UniBE Innovation Office
- UZH Innovation and UZH Space Hub
- ESA BIC Switzerland
- Sednai SARL, example of a company

# PlanetS Technology *and* Innovation Platform (TIP)

@ Astronomical Innovation, 2<sup>nd</sup> June 2022



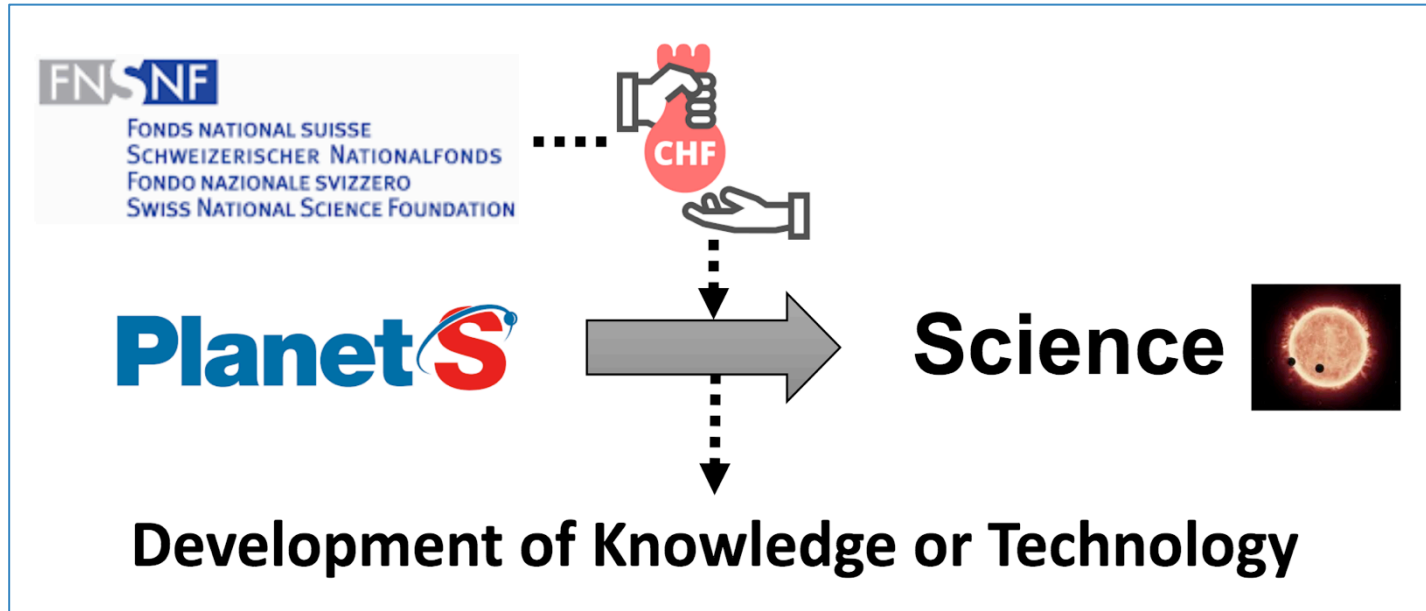
*F. Pepe, Leader*

*N. Thomas, Co-leader*

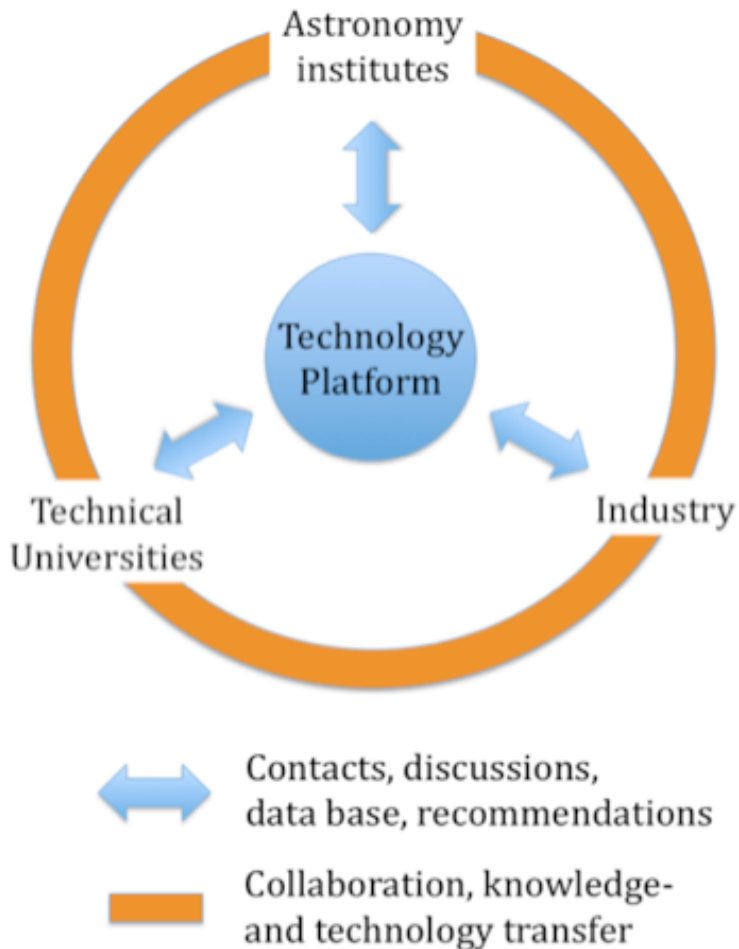
*E. Benedetto, Exec. Officer*

*C. Tacoy, Admin. Assistant*

# What & Why?



*infographcs by P. Pontelandolfo*



# Strategy

## 1. *Seed funding*

for new ideas: strengthen link with industry, foster innovation

## 2. *Networking*

with existing KTT entities and Innovation centers (Unitec, Unitectra, swiTT, SIH, ...)

## 3. *Training*

workshops, forums, meetings, competitions, externships, etc.

## 4. *Participating*

to initiatives that already exist (Bench2Biz, LTA, etc.) while avoiding 're-inventing the wheel'

# Co-organizers of **bench2biz** workshop

Consortium of NCCRs to organize a yearly workshop to support aspiring entrepreneurs to:

- determine rapidly the commercial value of their idea or intervention
- assess the team
- organize the idea to move ahead from a dream to a concept.

The screenshot shows the bench2biz website with a navigation bar containing 'The Workshop', 'Our Network', 'Success stories', 'News', and 'Alumni'. The main content area features a background image of a person rock climbing. Overlaid on this image are two white text boxes: 'Workshop for young and aspiring entrepreneurs in science and technology' and a blue 'Apply' button. At the bottom of the screenshot, a blue banner contains the text 'Next event: 2022, to be defined' and a red banner contains 'will be in November!'.



# Sponsor and LOC for **ELT Industry Day**, 7 Apr. 22 (Geneva)



To bring together EU- Industry with ESO  
and ELT Instruments representatives

**60** companies

**140** participants + **40** online



# On our website:

National Centre of Competence in Research PlanetS  
Gesellschaftsstrasse 6 | CH-3012 Bern | Switzerland  
Tel. +41 (0)31 631 32 39

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Home > Platforms > Technology Platform > Facilities and infrastructures available in PlanetS

## Facilities and infrastructures available in PlanetS

To receive further information about the one facility, contact either the contact mentioned for the infrastructure or one of the TP. We will be happy to reply to your questions.

Optical

Mechanical engineering

Vacuum technology

Other

All

[Add a facility or infrastructure with this form.](#)

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Home > Platforms > Technology Platform > List of contacts for technology item

## List of contacts for technology item

Search here...

Instrumentation

Models and simulations

Computation and data processing

Other

[Add yourself +](#)

**Adrian Glauser**

[Send email](#)

+41 44 632 71 29

**Competences**

- Infrared Instrumentation
- IFU Spectroscopy
- Instrument Calibration
- Cryogenics

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Home > Platforms > Technology Platform > PlanetS industry list

## PlanetS industry list

The PlanetS industry list would like to provide a source of information about the **enterprises related to technologies used in PlanetS projects**. The information included in the following list aims to support the people of PlanetS to find the right expertise at the right place.

Either *if you work in PlanetS* and you would like to suggest a company, or *if you are a company* and you would like to be in the list, please help us providing some details about it with this form.

### Industries

Optical

[Back to categories](#)

#### SLS Optics Ltd

SLS Optics Ltd is a leading manufacturer and supplier of precision laser optics. We specialise in Fabry-Perot etalons, high laser damage threshold optics and thin film coatings for the UV, visible and NIR spectral ranges.

**Key competences:**  
Fabry-Perot etalons and thin film coatings  
[enquiries@sloptics.com](mailto:enquiries@sloptics.com)

#### Thin Film Physics

TFP manufactures optical filters of any type and shape (with or without frames) for wavelengths between 190 nm (UV) up to 25'000 nm (IR) according to customers specifications.

**Key competences:**  
Optical filters, thin film coatings and glasswork.  
<http://www.tfpag.ch/contact.html>

# Externship - to industry

- **What?** A KT project in industry, research laboratory, etc.
- **How?** fund for up to 3 months salary of the PlanetS collaborators eager to test their transferrable skills outside academia



*Such initiatives are keys in my opinion to give academics a glimpse of what working in the industry looks like, and to give companies a display of how useful and efficient academics can be.*  
Dr. Vivien Bonvin, NetGuardian

microcameras.space

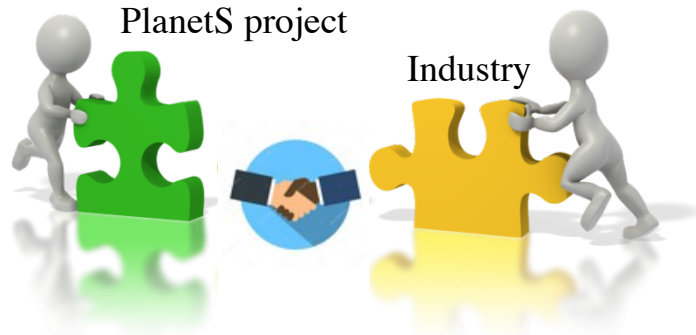
*My main contribution in terms of KT was **my experience** in the use and conception of instruments for space missions [...] **my scientific network**.*

*I have **learned a huge amount about project management; product and quality assurance**",*  
Dr. Patricio Becerra (PlanetS)

*"The externship project was extremely successful as a way for me to **learn what it is like to work the space industry. I was able to get a sense of the engineering process at a few different stages**",* Dr. Anna Boehle (PlanetS)



# Seed funding - Call for ideas!

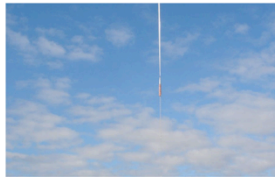


A high-risk technology item that could potentially add value to the project

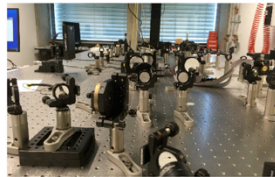
- A transfer of knowledge or technology:
  - To industry
  - To direct benefit of PlanetS' projects
- A market opportunity / product
- A patent



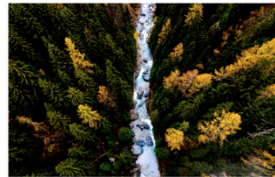
# Seed Funding & Short Term Projects



SF5: Spacetek  
(commercialization of disruptive mass spectrometers for terrestrial applications)



SF6: A Swiss Technology R&D Initiative Towards the Direct Detection of Nearby Exoplanets



SF7: Pre-study of transit recognition with machine learning

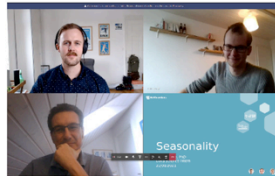


SF8: BrainPol: Diagnosis of brain tumors using in-vivo spectro-polarimetry

➤ 12 Seed Funding allocated  
➤ 4 Externships + 3 openings



STP1: Externship within Google Cloud



STP2: Externship within NetGuardians



Optical Systems for Space and Industry  
STP3: Externship within Micos Engineering GmbH



STP4: Externship within Micro-Cameras & Space Exploration SA

# Example of seed-funding (2021)

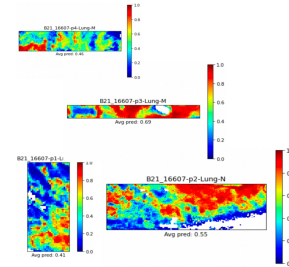
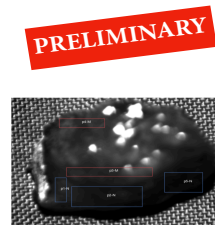
## *BrainPol: towards non-invasive, real-time detection of malignant tumours*

### Phase I *ex-vivo*

- Design of a dedicated polarimeter for tissue characterisation  
(funded by NCCR *PlanetS* TP)
- Coupled to histopathological analysis and fast-assessment algorithm trained on biopsy gold-standards  
(funded by UniBE)
- Application to multiple tumour types
- Goal: **clinical validation (ongoing)**

### Results on *lung*

Analysis on a lung sample (among 200 other samples):  
blue/green indicates healthy tissue, while red is high likelihood of a tumour.



*BrainPol team*

# Thanks for your attention!

## *Questions?*



**Subscribe to our newsletter!**  
(2-3 times per year)