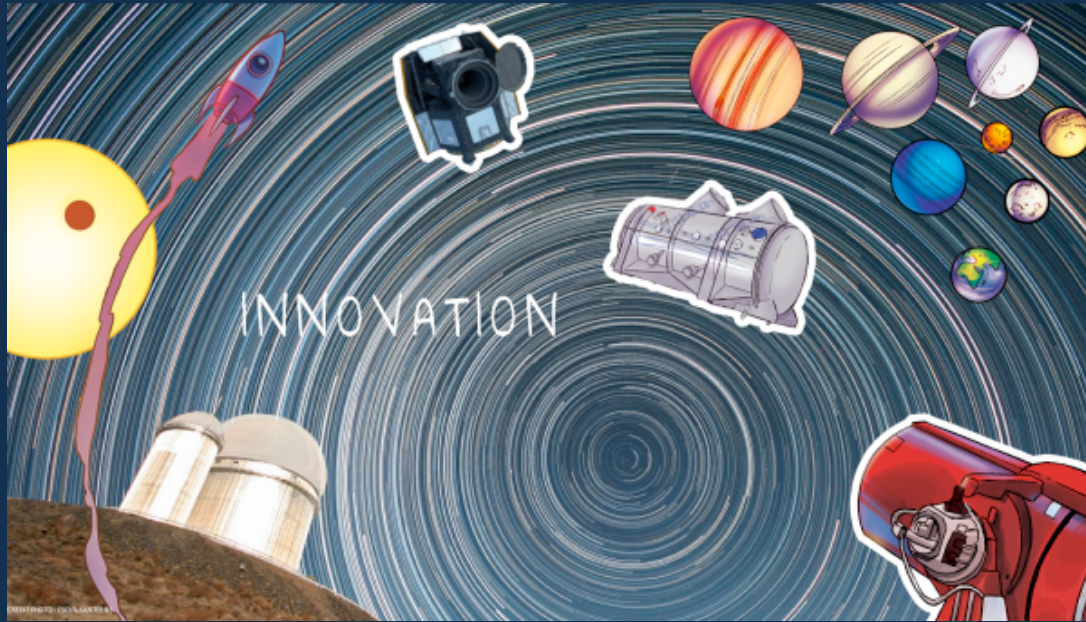# Astronomical Innovation

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

INNOVATION

PlanetS
National Centre of Competence in Research

UNIVERSITÉ DE GENÈVE
FACULTY OF SCIENCE

Science Innovation Hub
UNIGE

PlanetS Technology *and* Innovation Platform (TIP)

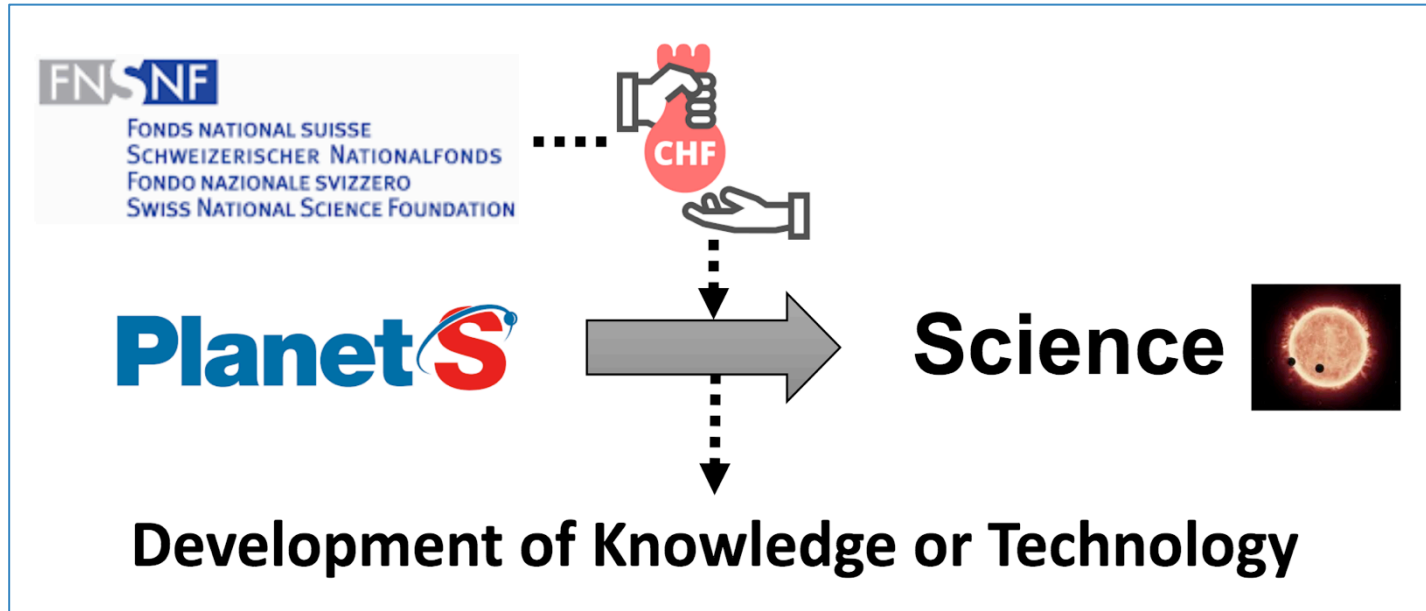## @ Astronomical Innovation, 2nd June 2022
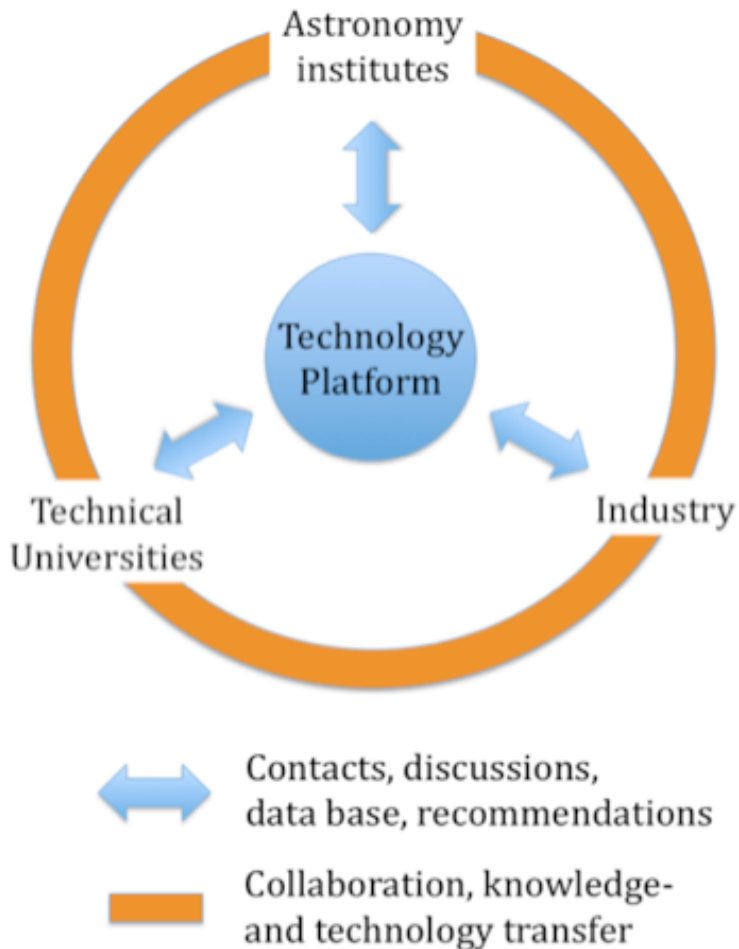
F. Pepe, Leader

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 'te-inventing the wheel'

infographcs by P. Pontelandolfo

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.

bench2biz

The Workshop   Our Network   Success stories   News   Alumni

Workshop for young and aspiring entrepreneurs

in science and technology

Apply

will be in November!

Next event: 2022, to be defined

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:

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

"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)

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.
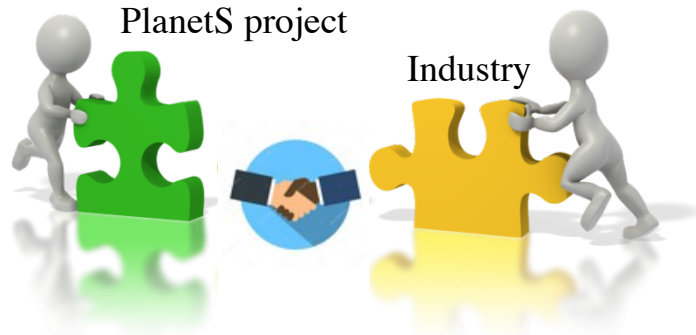Dr. Vivien Bonvin, NetGuardian

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)

Seed funding - Call for ideas!
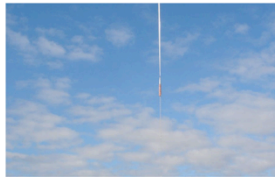
PlanetS project

Industry

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

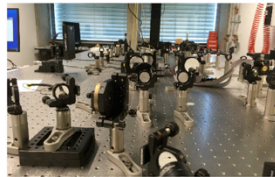❏ A transfer of knowledge or technology:
  ❏ To industry
  ❏ To direct benefit of PlanetS' projects

❏ A market opportunity / product

❏ A patent

CR) are a
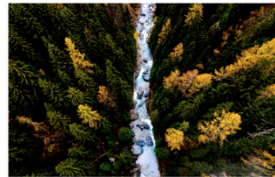research instrument of the Swiss National Science Foundation

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

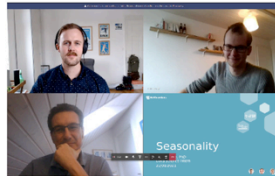SF7: Pre-study of transit recognition with machine learning

NO IMAGE

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

STP3: Externship within Micos Engineering GmbH

STP4: Externship within Micro-Cameras & Space Exploration SA
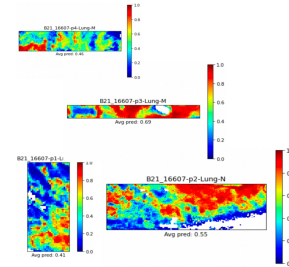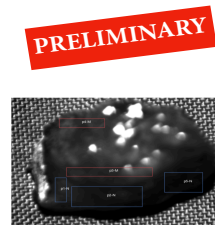
Example of seed-funding (2021)

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.

PRELIMINARY

BrainPol team

Thanks for your attention!

Questions?