



# SKACH Consortium Mid-Year Update

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[skach.org](https://skach.org)

#SKACH

# About SKACH



## Vision

Further Swiss leadership in the global radio astronomy community.

## Mission

Ensure meaningful contributions to the SKAO and SRCs through the development and delivery of cutting-edge Swiss solutions to key science goals, big data research, technology, and services.

- The SKA Switzerland is SKACH is a strong consortium of 10 research institutions tasked with managing the Swiss contribution to the SKAO.
- Current Consortium members include: Centro Svizzero di Calcolo Scientifico (CSCS), Ecole Polytechnique Fédérale de Lausanne (EPFL), Eidgenössische Technische Hochschule Zürich (ETHZ), Fachhochschule Nordwestschweiz (FHNW), Haute École spécialisée de Suisse Occidentale (HES-SO), International Space Science Institute Bern (ISSI-Bern) Universität Basel (UniBAS), Université de Genève (UniGE), Universität Zürich (UZH), and Zürcher Hochschule für Angewandte Wissenschaften (ZHAW). Membership discussions are currently taking place with University of Bern.
- SKACH is primarily funded by the State Secretariat for Education, Research and Innovation (SERI) and several competitive research grants: AstroSignals SINERGIA, SNF Bilateral, PASC, InnoSuisse, and Horizon Europe. SKACH reports to each of these grants as outlined in their funding agreement.
- SKACH, directly or indirectly, supports around 120 individuals conducting research in astrophysics, computer science and engineering.

# Progress of the SKACH Consortium



## Year 1:

We started to form as a consortium

- Submitted proposal for SERI to fund the consortium for the SKAO
- EPFL signed agreement and received funds from SERI
- First meetings of the consortium board
- Hiring of personnel began



## Year 2:

We continued to form as a consortium

- Switzerland officially joined the SKAO
- Monthly meetings of the consortium board
- Weekly meetings for the consortium
- Consortium branding
- Kick-off of SKACH programs and reporting
- Attendance to SKAO council
- International collaboration



## Year 3:

Reflection and adjustments of consortium structures. We are also using this information to plan for the next round of SERI Funding

- Continuing board and weekly meetings
- Increased regular meetings for work packages (simulations, SRCs)
- 2025 + consortium planning
- Increased participation in international groups
- Preliminary results

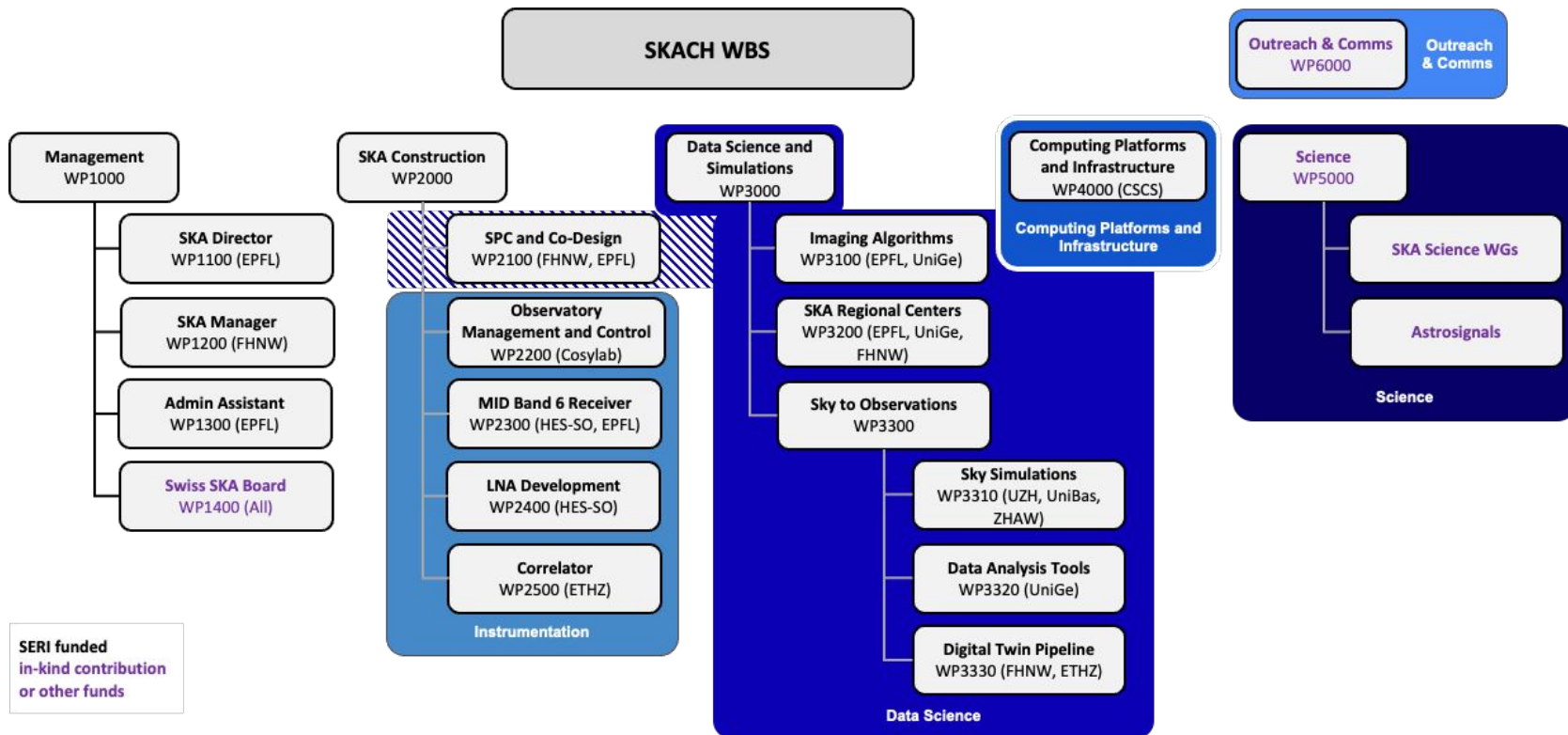


## Year 4:

We expect to see strongly formed collaborations and results from this first round of consortium funding.

- Continuation and adjustment of consortium structures
- Final results of the first round of consortium funding
- Reflection of SKACH Activities
- Preparation for next round of activities

# 2021 - 2024 Work Packages



# 2023 Program Progress



## Science Program

- 20% of the members are highly involved in the SKAO Science WGs,
- 10 publications related to Swiss SKA activities from 01/2023 to 04/2023

Chair: Miroslava Dessauges (UniGe)  
Co-Chairs: D. Crichton, M. Spinelli (ETHZ)

## Outreach & Comms

- Participation in SKACON
- Making Waves Podcast
- Hosting PARI 2024
- Develop Strategic Comms Plan

Chair: Tanya Peterson (EPFL)  
Co-Chair: Hamsa Padmanabhan (UniGe)

## Data Science Program

- Release of python libraries for high performance computational imaging and scalable synthesis/analysis of spherical sky maps
- Developing and deploying a data transfer interface at CSCS for a mini-SRC demonstrator
- Development of an analysis pipeline for cosmological simulations continues.
- Monthly software releases of Digital Twin

Chair: Emma Tolley (EPFL)  
Co-Chair: Simon Felix (FHNW)

## Computing Platforms and Infrastructure

- Development of SPH-EXA & Bluebild
- Connection to HPC at SKACH
- Participation in the SDC3
- SKAO SRC WG participation

Chair: Victor Holanda (CSCS)  
Co-Chair: Darren Reed (UZH)

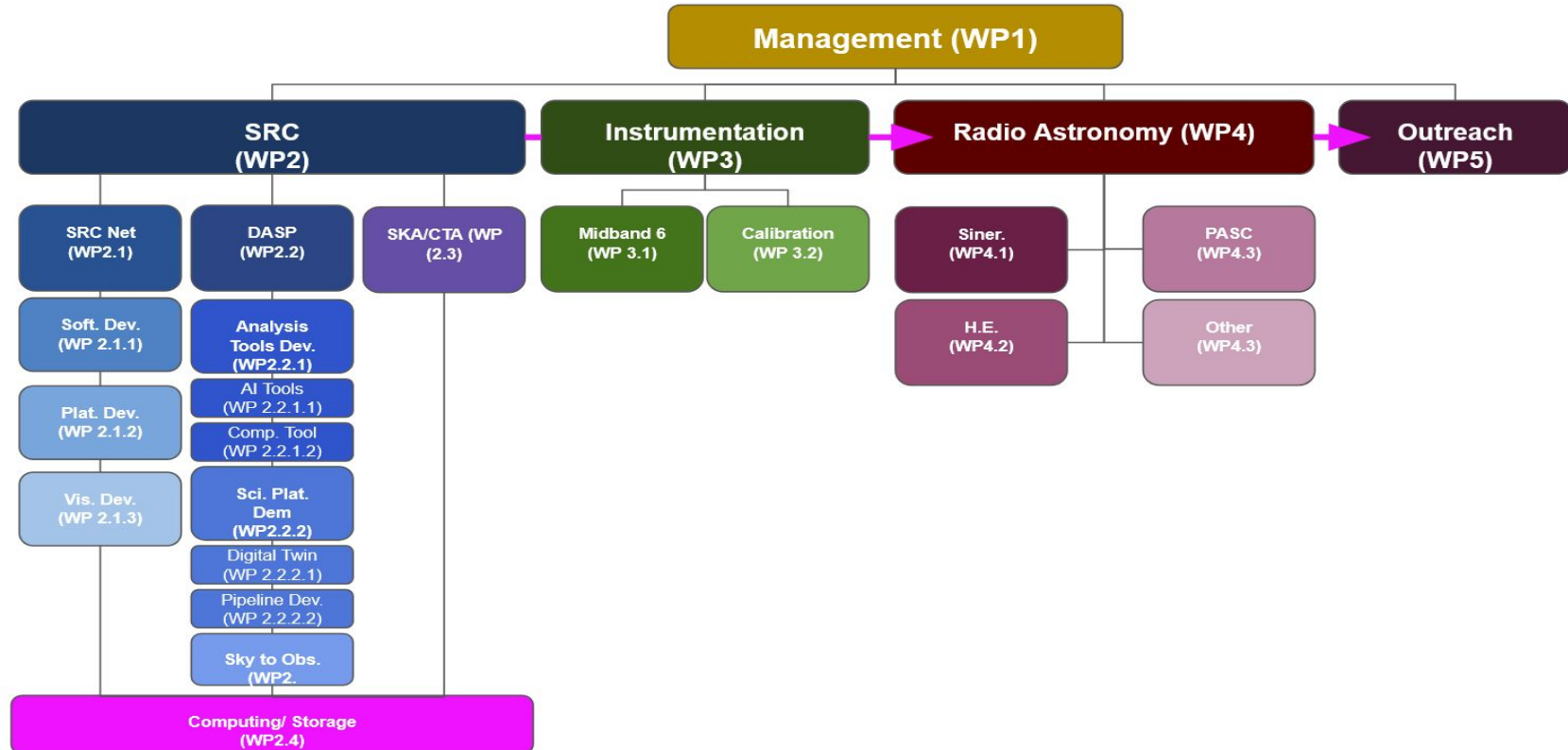
## Instrumentation

- Preliminary System Requirements Review
- International Collaboration
- Continued work on EBB

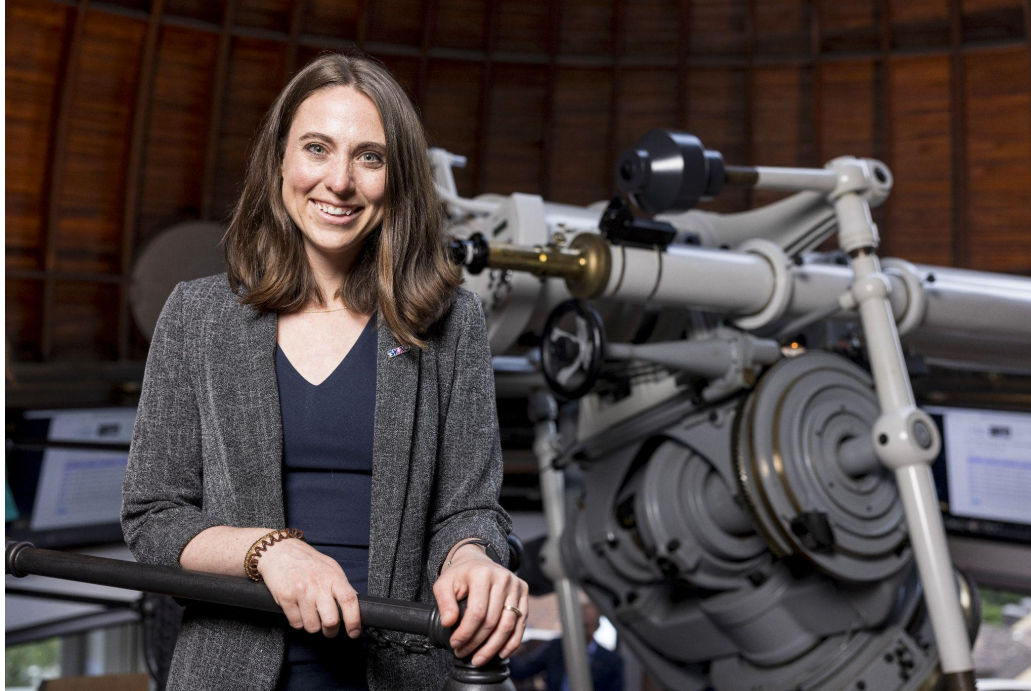
Chair: Dominique Bovey (HES-SO)  
Co-Chair: Gilles Feusier (EPFL)



# 2021 - 2024 Work Packages



# Contact Me:



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