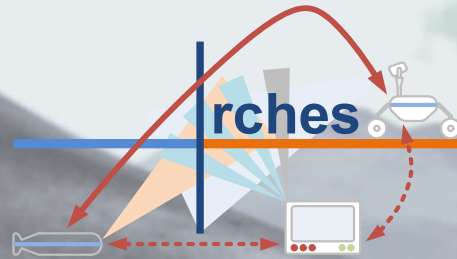


Local Support from:



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HELMHOLTZ
RESEARCH FOR GRAND CHALLENGES



ARCHES

Demomission 2022

13.06. – 09.07.2022

Symposium

28.06. – 01.07.2022

Catania, Italy – Hotel Baia Verde / Mt. Etna

ARCHES Project Partner:



Associated Partner :

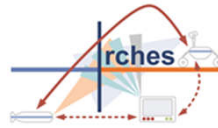




ARCHES Symposium in Catania Hotel Baia Verde / Mt. Etna

Tuesday 28.06	Wednesday 29.06.		Thursday 30.06		Friday 01.07		Saturday 02.07
<p>10:00 – 18:00</p> <p>ARCHES Symposium Hotel Baia Verde</p> <p>live view in the ARCHES Control rooms</p>	<p>Visit Mt. ETNA Demosite</p> <p>(Bus Shuttle from the Baia Verde Hotel)</p>	<p>8:30 -17:30</p> <p>Demonstration of the GEO I Demomission (ARCHES Mission Part I)</p>	<p>ARCHES Symposium Hotel Baia Verde</p> <p>live view in the ARCHES Control rooms.</p>	<p>8:30 – 18:00</p> <p>Demonstration of the GEO II Demomission (ARCHES Mission Part II)</p>	<p>ARCHES Symposium Hotel Baia Verde, live view in the ARCHES Control rooms.</p>	<p>8:30 – 16:00</p> <p>Demonstration of the LoFar Demomission (ARCHES Mission Part III)</p>	<p>Possibility for secondary visit to the mountain Demo Site, upon request</p>
<p>19:30 ~ 23:00</p> <p>Dinner (Shuttles from the hotel. Location Tbd.)</p>	<p>19:30 ~ 23:00</p> <p>Dinner (Shuttles from the hotel. Location Tbd.)</p>		<p>19:30 ~ 23:00</p> <p>Dinner (Shuttles from the hotel. Location Tbd.)</p>		<p>16:00</p> <p>End of Symposium</p>		

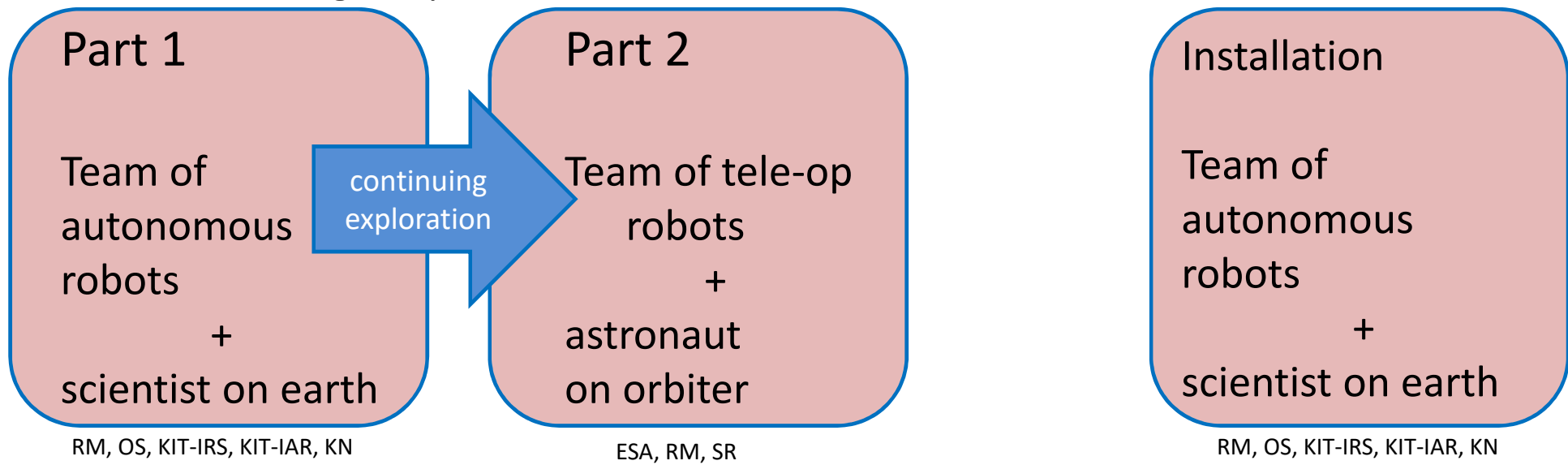




Overview Demomission Technical / Scientific Approach

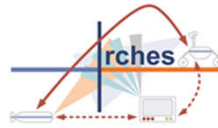
Geologic Exploration

Antenna Installation

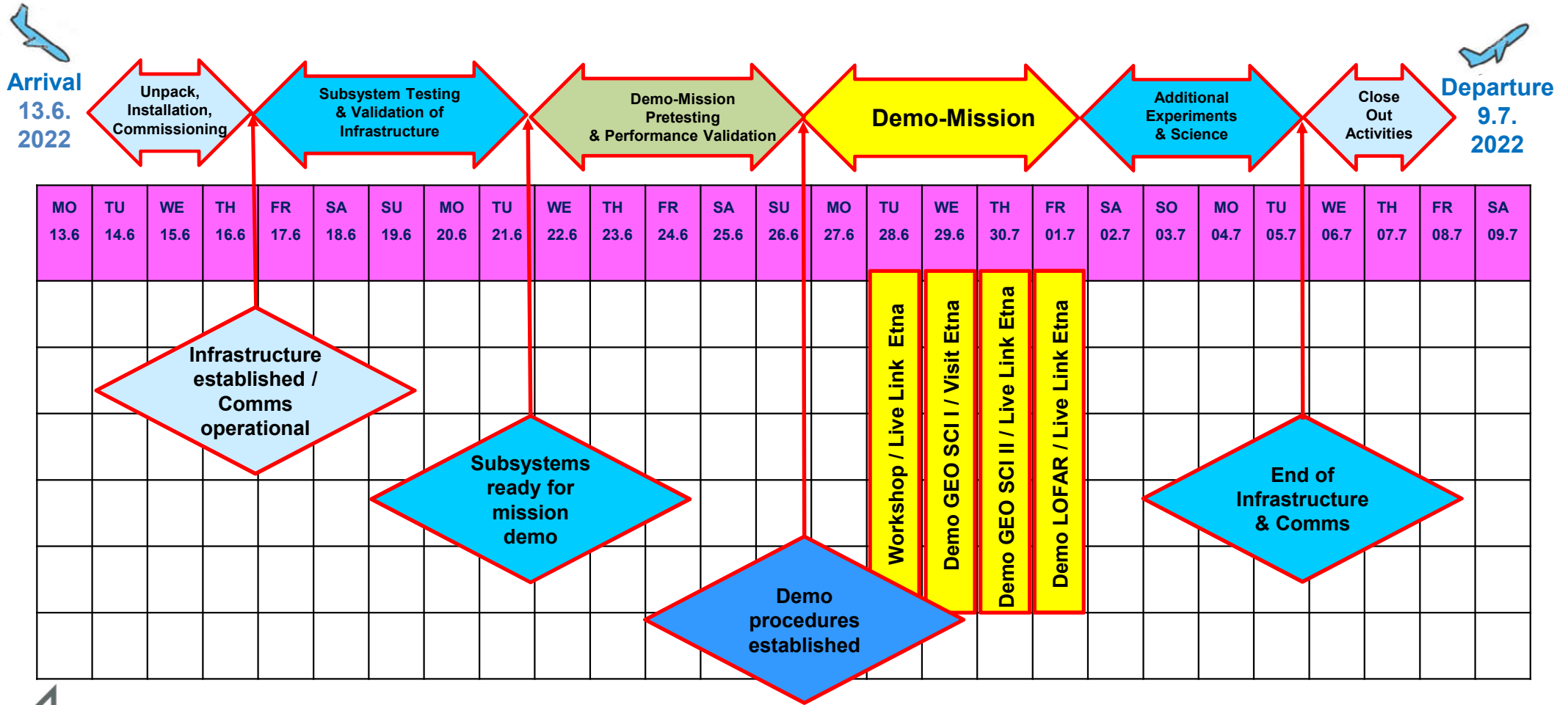


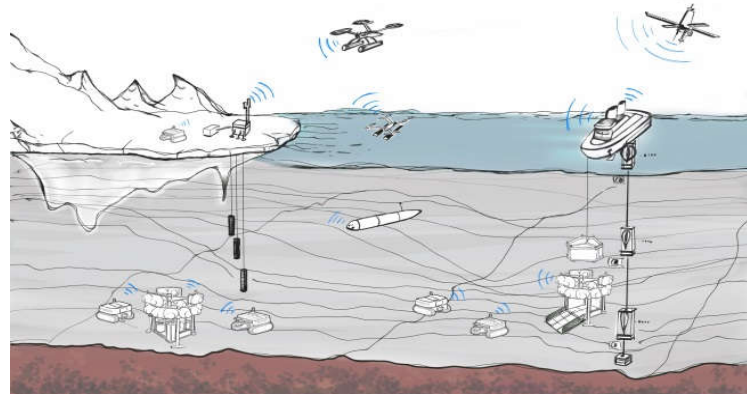
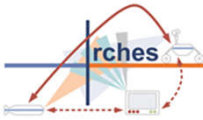
Scientific Advisors: Dr. William Carey (ESA) – Scientific Group Coordinator
Prof. Dr. Heike Rauer / Nicole Schmitz (DLR-Institute of Planetary Research)
Prof. Dr. Harald Hiesinger (WWU Münster)
Prof. Bernard Foing, (Leiden University)



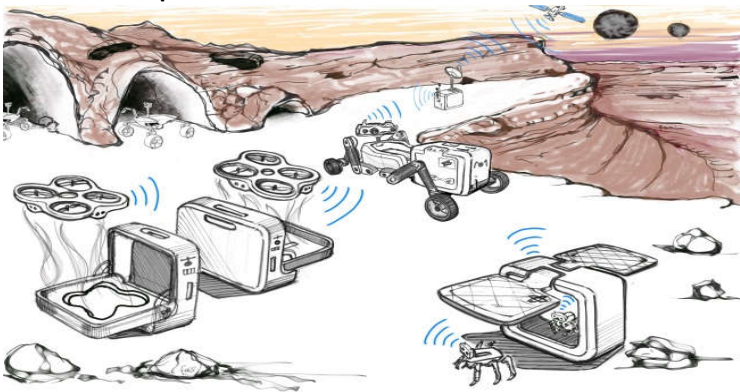


Day-by-Day Planning Demo-Mission





Ocean exploration



Sketch of an application scenario planetary exploration on Utopia Planitia

ARCHES - Autonomous Robotic Networks to Help Modern Societies

Goal

Cross-domain development of technologies and methods to build autonomous, networked robotic systems to address pressing societal challenges

- for ocean exploration
- for planetary exploration

Challenges

- new robotic methods and technologies
- concepts and algorithms for networked mission operations
- module based approaches for soft- and hardware
- fusion and interpretation of different sources of information, overcoming the system borders of individual robots
- drastically increase the „Technology Readiness Level“ for such mission via field test campaigns

