

# space for inspiration



**BILBAO**  
29–31 October  
**2018**

Be part of the story

[Space4Inspiration website](#)

## Splinter sessions information



**call for ideas**

We call them **DIGITS** – Disruptive Ideas Growing Innovation Towards Sustainability. And we want to hear your story. Selected ideas will have an opportunity to participate in Space for Inspiration as part of a:

- presentation
- workshop
- exhibit
- snack-talks

You can choose one or more of the following topics:

- Disruptive for exploration**  
Revamp exploration scenarios by proposing disruptive technologies, mission concepts and operations
- Disruptive for Earth and society**  
Launch your idea to tackle sustainable development of our planet and help us solve the grand challenges
- Disruptive for business and transformation**  
Present your business model that will contribute to sustained growth of the economy, possibly also beyond Earth
- Disruptive for participation**  
How can we increase embedding space exploration in the centre of society, making all on Earth active stakeholders?

For more information please refer to the [Call for DIGITS](#) document and the [DIGITS Submission Form](#).

The splinter sessions will take place over the two days of the conference. Please note that in some sessions there will be pitching moments for the selected DIGITS.

day two **INNOVATION & TECHNOLOGY**

Wed, 31 October 2018

*Building safe pathways to implement innovative technologies for space exploration*

**All splinters start at 11:40 and last for 45 mins approx.**

## Innovative space propulsion and transportation technology

### Hosted by Ariane Group

**Chair:** Joost Van Tooren, Arianegroup and Marco Caporicci, ESA

Web-site: <https://www.ariane.group/en>

### Description

#### DIGITS presentations by

- Electric power generation for CubeSat – Deep Space mission - Patricia Revuelta
- Modular self-propelled platform - Serhii Yerofieiev, Yuzhnoye State Design Office
- Ultralight (aerostatic buoyant) launch vehicle - Thomas Zehetbauer, RiseFlyOrbit
- Space Debris techs as an enabler for further space exploration potentials - Frank Koch, Orbit Recycling Initiative
- Dream Chaser for Europe - Marco Berg, OHB

### Location: Splinter 1

## Robotics – open for partnerships

### Hosted by GMV Aerospace and Defence

**Moderator:** Mariella Graziano, GMV Aerospace and Defence

Web-site: <https://www.gmv.com/en>

### Description

#### DIGITS presentations by

- Robotic Autonomy for Space Exploration - Mariella Graziano, GMV Aerospace and Defence
- SIROM (Standard Interface for Robotic Manipulation of payloads in future space missions) - Javier Vinals -SENER
- Robotic tele-presence to assist scientific experiments - Sho Nakanose, GITAI Inc.

**Location:**

Health technology to innovate

**Hosted by Science and Technology Facilities Council**

**Chair:** Philip Carvil (STFC) and Mario Cypko (ESA)

Web-site: <https://stfc.ukri.org>

**Description**

The potential for space technology to transform the health industry and research sectors is significant and has already proved to be a disruptive influence. This session will aim to provide insight into the transformative synergy between the space and terrestrial healthcare disciplines, provide a platform for knowledge exchange and encourage further collaborations and partnerships between aligned space and non-space sectors.

The proposed healthcare topics to be covered are ageing, reconditioning, personalised medicine and remote healthcare

The objective is to raise awareness of existing collaborations between the space and health sectors during the Sforl 2018 conference, and facilitate partnering opportunities between R&D practitioners with research IP uses, with an associated knowledge exchange.

- Access to space for life science: An update on our recent collaboration with Uni of Oxford - Dani Sors , Open Cosmos
- Academic highlight: Space for Inspiration - Agrobox - application of space technology for Earth for food production – Thomas Bartzanas, University of Athens
- Robotic surgery innovation - Richard Trimlett , Royal Brompton Hospital  
A two-way street: in Space for research and from Space to terrestrial health care- David Zolesi , Kayser Space
- Human Research office: Where space and earth meet in health - Mario Cypko, ESA

**Location: Splinter 3**

## Scalable industrial lunar operations

### Hosted by SOM

**Chair:** Daniel Inocente from Skidmore, Owings & Merrill (SOM) will lead this session.

Web-site: [www.som.com](http://www.som.com)

### Description

The South Pole Aitken basin is one of the largest impact basins in the Solar System highly interesting for achieving scientific, industrial and exploration goals. Establishing a destination on the polar regions that is accessible to various activities will be fundamental to encouraging human lunar exploration.

The purpose of this working session will be to share and investigate scalable industrial lunar operations for surviving and conducting science on the polar regions. Energy production, life systems and characterization of resources will increasingly rely on large scale structures and enclosed systems for significant advancement. Some of these structures will include specialized facilities and automated technologies. Identifying the right architectures for foreseeable activities on a larger scale will be the focus of this splinter session.

### Location: Splinter 1

## Spaceship EAC- paving the way to the Moon: how you can get involved

### Hosted by ESA

**Chair:** ESA

Web-sites: [www.esa.int](http://www.esa.int)

### Description

Innovation team Spaceship EAC looks at technologies enabling future lunar exploration.

Participants get the chance to think along during an interactive session on five different lunar challenges:

- 3D printing and in-space manufacturing
- Energy systems
- Life support systems
- In-situ resource utilization
- Human-machine Interaction

**Location: Splinter 2**

### Key-enabling technologies for Small-Satellites

**Hosted by SSTL and Goonhilly ES**

**Chair: Matthew Cosby, GES**

Web-sites: <https://www.sstl.co.uk/>

<http://www.goonhilly.org/>

**Description**

**DIGITS presentations by**

- The structure of small satellites - Emanuele Alberto Slejko, PICOSATS
- Microsatellite Imagery for dark matter- Eider Ocerin, Satlantis SL
- LEO Small-Sat: user case - Dani Sors, Open Cosmos
- Small-Sat survives in lunar orbit - Valerio Di Tana, Argotec,

**Location: Splinter 3**