



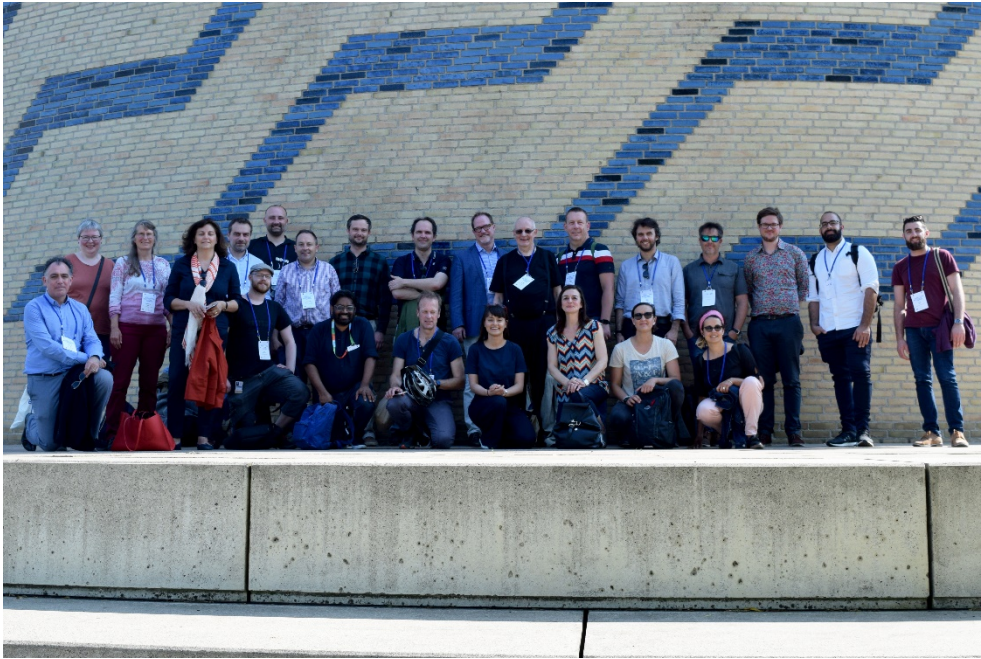
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**The Ecsite Space Group
Pre-Conference Workshop
“Space for All, Space for Earth”
Ecsite Annual Conference 2019
“Pushing boundaries”
Report**

4-5 June 2019 – Experimentarium and Planetarium, Copenhagen, Denmark

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Pre-conference workshop participants at the Planetarium Copenhagen

1. About the Ecsite Space Group

The Ecsite Space Group offers a platform for science centres and museums to improve and extend communication about ESA and European space activities by sharing experiences, expertise, knowledge, tools, resources and best practices.

The group is chaired by Marc Moutin, Director of Exhibitions at Cité de l'Espace, France, Ana Noronha, Executive Director of Ciência Viva, Portugal, and Maria Menendez, Head of ESA Corporate Exhibitions and Events, France.

Joining the Ecsite Space Group is an opportunity to get closer to space professionals and science centres willing to communicate about space. It also allows participants to be better informed about space news, programs, achievements and next launches.

For European Space Agency (ESA), national space agencies, industries, research institutions, and academia, the Space Group offers the possibility to build close collaborations with science communication professionals. The group benefits from the already established European networks of Ecsite and the European Space network of ESA and its member states.

2. Workshop summary

In 2019, the Ecsite Space Group continued to consider the current theme for collaboration of the group – 'Space for life' - with a particular focus on Earth Observation captured by the motto 'Space for Earth'. Space is a vantage point for monitoring our ever-

changing planet – from floods and forest fires to changes in ice cover and rising sea levels. Europe plays a leading role in this field; its Earth Explorer missions address pressing scientific and societal challenges and push the boundaries of our understanding of how Earth works. Bringing Space ‘down to Earth’ is a priority for the Space sector.

Moreover, in the use of space technologies and Earth Observation data for new purposes and applications for the Earth, citizen engagement is increasingly a sought-after component via consultations, debates, contributions to citizen science, data validation or hackathons. This raises several questions relevant for the Space Group community: ‘What role is there for the science centres and museums in these developments and how can we take advantage of the opportunities opened up to engage audiences with Space and topical issues such as innovation, smart cities and sustainable development challenges? How can our community make sure that all citizens – no matter their gender and learning style – are welcome to Space?’

According to decisions taken by the Space Group during the Annual Meeting in Columbus earth center, Kerkrade, 30-31 January 2018, the two-day workshop focused on:

- Gaining an overview of Europe’s leading role in Earth Observation and the latest developments in the field of citizen engagement with Earth Observation data and space technology applications
- Interactive discussions drawing on the experience of the Ecsite Space Group community and external experts
- Getting to know Danish space science research and science engagement and building connections with their researchers and science communicators
- Sharing resources and activities with peers

A total of **38 participants representing 16 countries** took part in the pre-conference workshop over the two days.¹

The **first day of the workshop** took place at the Experimentarium and started with a welcome from Ecsite President **Herbert Munder**. The co-chairs of the Space Group **Ana Noronha**, **Maria Menendez** and **Marc Moutin** also welcomed the participants and reaffirmed their support for collaborative work within the science centres and museums community.

The tour de table was followed by a series of inspirational addresses from **Maria Menendez** and **Rosita Suenson** on the European Space Agency’s highlights for the year ahead and an exciting resource celebrating the 50th anniversary of the first humans landing on

¹ For a detailed list of participants, see Annex 2.

the moon, the ESA Moon Media kit. **Hugo Simoes** also took the floor to present the online ESAspace.

Jolanda van Eijndthoven brought the institutional perspective of the European Commission by highlighting the Earth Observation programme Galileo and potential collaborations on reaching the general public, while **Fátima Pinto** presented the latest developments in terms of ESA education school projects with an Earth Observation component. These presentations set the scene for an inspiration session regarding 'Earth Observation and Citizen Engagement' where four speakers brought different perspectives on the topic and launched questions and challenges that were taken up after lunch in a World Café format. Before settling down for group discussions, **Ana Noronha** presented an update on the Space Group's Pilot Project 3 "Climate Change: Monitoring the Atmosphere and Oceans from Space". The rest of the afternoon was dedicated to sharing resources brought in by participants and discussing the next steps of the Space Group.



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The **second day of the workshop** took place at **Planetarium Copenhagen** and included a behind-the-scenes visit to Alchemist, a holistic gastronomy restaurant whose head chef and owner, Rasmus Munk, was fascinated as a child by the Planetarium dome theatre. Other sessions zoomed into various aspects connected to the Planetarium's work: the Made in Space exhibition, using space industry products in outreach activities and learning under the dome. Participants also had the chance to network with attendees of the EUROMAX (European Association for Giant Screen Documentary and Educational Cinema) conference at an evening reception.

All presentations made available by the participants can be downloaded via [this link](#).

3. Day 1 speaker presentations

This year's workshop programme was built around presentations and exchanges between the participants. The summaries of all the speaker presentations given on the first day of the workshop can be found below.

3.1 ESA Highlights of the Exploration Programme and Resources (Maria Menendez, Head of Corporate Exhibitions and Strategic Events, ESA)

Maria Menendez previewed an exciting year for the European Space Agency, ESA, looking ahead to Space19Plus, the ESA Council at Ministerial Level, scheduled to take place between 27-28 November 2019. In light of the 50th Anniversary of the first manned moon landing, she presented ESA's future for human spaceflight and exploration as a sustainable and international endeavour with the help of [a video](#). To find out more about ESA's image and video productions and how to access resources, consult Maria's presentation [here](#).

3.2 'Forward to the Moon' - ESA Moon Media Kit (Rosita Suenson, Communication Officer, ESA)

Rosita Suenson presented a new resource, the ESA Moon Media Kit, its graphic design and components (posters, photographs, videos, animations), highlighting in particular the adaptability of the resources in terms of resolution and the possibility that the ESA team place translations into the existing files. She also outlined events in Europe linked to the Moon anniversary that might be of relevance to participants. Rosita's [presentation](#) and the [Moon Media kit](#) are available for download.

During the exchanges that followed, the possibility of establishing a planetarium subgroup within the Ecsite Space Group was discussed. It was considered that a critical mass of such organisations exists within the group and could support ESA in understanding the requirements of content aimed at planetariums.

3.3 Presentation of the online ESAshop (Hugo Simoes, Head of Print Media&Prom.Merch&Prod.Unit, ESA)

Hugo Simoes presented the offer of the online ESAshop, including a special link that provides a welcome discount for museum partners, enabling them to test the products at an advantageous price (bit.ly/ess-museums). He also shared several insights based on the activity of the shop so far: patches related to the countries of origin of ESA astronauts

sells very well in those countries, and clothing related to astronauts and space food remain very interesting for visitors. He pointed out that space-related merchandise has great potential to trigger reactions on social media and continue people's engagement with the content after their visit.



Hugo Simoes presents the online ESAshop and insights into space merchandising © Ecsite/Experimentarium

3.4 Space for Earth: reaching the general public on Galileo (Jolanda van Eijndthoven, European Commission)

Jolanda van Eijndthoven introduced the European Commission's work on space, its Earth Observation programmes, the working relationship with ESA and the infrastructure that ensures market uptake of the programmes' services. She stressed the importance of engagement programmes that make a link between space and people's daily lives (e.g. space's contribution to the United Nation's Sustainable Development Goals, autonomous driving, navigating via one's smartphone). Among interesting developments, she listed the awards granted during the European Space Week and new applications generated with the data provided by the services.

The exchanges that followed touched upon the difficulties of organising hackathons using Earth Observation data for non-commercial purposes. Another suggestion made by participants was to co-define challenges (together with a young public) for the science centres and museums to work on (e.g. the SpaceApps Challenge, NASA's incubator innovation programme).

3.5 Climate Detectives School Project (Fátima Pinto, ESA Education Office)

After first introducing the objectives of the ESA Education Programme, **Fátima Pinto** zoomed in on two projects of interest: the results of the [Moon Camp Challenge](#) pilot edition 2018-2019 and resources available from this campaign, and the ESA/ESERO Earth Observation Working Group activities. The latter developed both classroom resources and the Climate Detectives school project that asks students to identify a local problem, investigate and collect data (satellite or in situ measurements), and identify an action to help reduce it and tools such as the [EO Browser](#), ESA Climate from Space application, and interactive webinars support students and teachers in the project. For more information, consult Fátima's presentation [here](#).

3.6 The Online Observatory (Michael Lindholm Nielsen, Brorfelde Observatory)

Michael Lindholm Nielsen brought to the participants' attention an Erasmus+ funded project taking place in Denmark at Brorfelde Observatory and at four other locations across Europe and aiming to translate the history of local observatories and telescope facilities into resource packages available online. Users will be able to access educational classroom resources, free software, and data archives and make use of robotic and remotely controlled telescopes located around the world. Participants interested in collaborating with Brorfelde Observatory and the project are invited to get in touch with Michael – for a sneak peak of the resources being developed, have a look at his presentation [here](#).

3.7 Ecsite Space Group resources: Climate change: Monitoring the Atmosphere and Oceans from Space (Ana Noronha, Pavilion of Knowledge, Ciência Viva)

Ana Noronha revealed the angle chosen for the development of the third Pilot Project of the Ecsite Space Group: the oceans, space and the colour of life. Her presentation showed the complex connections (e.g. the impact of marine life on the climate) that can be explored with ocean colour as a starting characteristic. Moreover, the creatures that lead to changes in ocean colour can be 3D-printed for a tactile experience. This resource is being developed by Ciência Viva in collaboration with [MARE – Marine and Environmental Sciences Centre](#) and builds on the work done by the [Ocean Colour-CCI project](#) team at ESA. Learn more about the new resource from Ana's [presentation](#).



Ana Noronha presents progress on the third Pilot Project of the Ecsite Space Group.

3.8 Resource share

For more information, consult Section 6.

4. Earth Observation and Citizen Engagement

Four speakers were invited to present their perspective on Earth Observation and citizen engagement and pose participants challenges to be discussed in a world café format.

4.1 Inspiration session

Four speakers provided additional inspiration and launched several challenges to be discussed further.

- ESA resources on Earth Observation (**Maria Menendez**, Head of Corporate Exhibitions and Strategic Events, ESA) - [presentation](#)
- ESA Contracted Ambassadors Experience at ESRIN, ESA's European Space Research Institute (**Fulvio Marelli**, Scientific Communicators leader)
- Earth Observation & Citizen Engagement: The Exhibition Perspective (**Marc Moutin**, Head of Exhibitions, Cité de l'Espace) – [presentation](#)
- Stakeholder Engagement on Marine & Climate Issues using Earth Observation (**Manuel Cira**, Director of International Relations, Nausicaá)



Manuel Cira addresses the link between Ocean Literacy efforts and Earth Observation.

4.2 World Café discussion tables

This section presents the key points that emerged during table discussions on four different challenges linked to Earth Observation and Citizen Engagement.

4.2.1 User-friendly Earth Observation data

Moderated by: Ana Noronha, Fátima Pinto

- Engagement should be based on local aspects, whenever possible, approached from a storytelling angle and potentially user-generated.
- Tools should be organised by topic, not by satellites or products.
- Inclusivity: Earth Observation should be for everybody and resources should be dedicated to training teachers on using EO resources, which is essential for reaching inclusive audiences.

4.2.2. Key pre-conditions for restoring the link between the ocean and space

Challenge: There is space blindness in the area of #BlueSociety. All stages towards greater public awareness and action towards Ocean Literacy need and benefit from Earth Observation. What can be learned from Ocean Literacy projects and how can Earth Observation be brought on board?

Moderated by: Manuel Cira

- More disciplinary discernment is necessary to make connections.
- An inventory and sharing of existing good practices should be established.
- Interactivity and learning by doing are key also in this area.

4.2.3. Designing an exhibition: What if satellites were to fail?

Challenge: 'Just imagine: we cut off all signal from all satellites – what would happen in a world with no satellites? How would you pass the message to your visitors?'

Moderated by Marc Moutin

- Broad impact (travel, weather, jobs...) should be conveyed.
- Some impacts or situations where there is a lack of impact will be surprising and can be explored further; for example, withdrawing money needs satellites but wi-fi and communications will still work.
- Participants agreed that while people might feel freer without satellites, this sentiment will only last for a few minutes.

4.2.4. Dealing with the politics

Challenge: How to do Earth Observation in a time of climate skepticism among policy makers, sensationalist media messages in the style of Hollywood films etc.?

Moderated by: Fulvio Marelli

- Start with the overlap between interesting daily life and space science to reach audiences.
- Fuel curiosity and key implicit messages about science.
- Deal with helplessness: Earth Observation discussions should take things further and focus on providing solutions.
- The connection between politicians and young people can be reestablished around Earth Observation.



World Café discussion tables

5. Day 2 speaker presentations

The **second day of the workshop** took place at **Planetarium Copenhagen**, where participants were welcomed by Mette Broksø Thygesen, Chief Executive Officer of the Planetarium. The visit included two behind-the-scenes visits: the 'Made in Space' exhibition and the 'Alchemist', a holistic gastronomy restaurant whose head chef and owner, Rasmus Munk, was fascinated as a child by the Planetarium dome theatre. Other sessions zoomed into various aspects connected to the Planetarium's work such as using space industry products in outreach activities and learning under the dome. Participants also had the chance to network with participants of the EUROMAX conference (European Association for Giant Screen Documentary and Educational Cinema) at an evening reception.



Planetarium CEO Mette Broksø Thygesen welcomes participants to Day 2 activities.

5.1 The 'Made in Space' exhibition (Line Nicolaisen, University of Copenhagen)

Line Nicolaisen took participants behind the scenes of the 'Made in Space' permanent exhibition of the Planetarium by presenting how design-based research and post-modern feminism theory were used to inform the exhibition development process. Line's presentation was followed by an animated exploration of and discussion about the exhibition.



Participants explore the 'Made in Space' exhibition area

5.2 Using space-industry and products in outreach activities

Two initial presentations by **Mads Kring**, Head of Education at Planetarium ([presentation](#)) and **Mads Friis**, R&D Engineer at the Danish company and ESA contractor Aquaporin ([presentation](#)), gave a concrete example of a technological product, Aquaporin, and its use in one outreach activity, a science show about what it is like to live as an astronaut in space. This was followed by group work for a reflection on what the benefits for collaborations between science engagement organisations and industry, which technologies and formats are suitable, and what type of storylines can be developed. Each group presented their concrete idea in the plenary.

5.3 Telling stories of food, art and science through holistic gastronomy (Rasmus Munk, Head chef and co-owner, Alchemist restaurant)

Gastronomical research, educational materials, technological innovation and experiences for all senses come together in a holistic food experience at the Alchemist. Already expected to be a Michelin-standard restaurant, Alchemist was inspired by Rasmus' childhood fascination with the dome theatre at the Planetarium Copenhagen. The main dining area includes a dome and features projections of the night sky and immersive natural environments. Participants visited the 'Alchemist' ahead of its official launch.



Alchemist head chef and co-owner Rasmus Munk welcomes participants.

5.4 Zooming in on the dome: enhancing learning (Timothy F. Slater, School of Education, University of Wyoming, United States)

Timothy F. Slater took the floor inside the Planetarium's dome to discuss which teaching modifications enhance learning in the planetarium and what the next generation of highly impactful planetarium education programs might look like. Timothy stressed the importance of multiple modalities in an immersive digital theatre and their potential to improve post-test results. More than two learning modalities lead to as much as 59% improvement. Panel reactions came from **Urban Eriksson**, Researcher, National Resource Centre for Physics Education, Lund University, **Alessandra Pavan Bernacchi**, Senior Manager of Theater Development for Europe at IMAX, **Mads Kring**, Head of Education, Planetarium. The discussion was moderated by **Marianne Achiam**, Assistant Professor, Department of Science Education, University of Copenhagen.



Session 'Zooming in on the dome: enhancing learning'

6. Resource share participant presentations

As a long-standing tradition, participants were able to share during Day 1 their innovative projects and ideas with fellow attendees. This year, the project showcase was titled 'Resource share' and consisted of short pitches from 5 participants followed by networking. Summaries of their pitches and links to their presentations, where available, can be found below.

- [European Space Talks 2019](#)

Barbara Budassi presented the new edition of ESA's initiative European Space Talks bringing insights from her own experience as event organiser in 2018. The Space Talks platform is open to all those who want to share their passion for space and will stay open between 21 June and 31 October. A variety of tools and products are available to support organisers. Barbara's presentation is available [here](#).

- [Destination Space!](#)

Shaaron Leverment presented the work ASDC is doing with the UK Space Agency to create and deliver a new National Space Education and Engagement Programme about the wider UK Space Sector in terms of UK space exploration, including UK Spaceports and space launchers, the new James Webb Space Telescope, the ExoMars mission and satellite applications. Hands-on activities, school workshops, a family show and other will be developed and Science Centres and Museums across the UK will be trained to deliver these to schools, families and communities nationally.

- [Our Space Our Future](#)

Shaaron Leverment shared an update about this EU-funded project which aims to bring the space to the classroom, boosting the interest of students in space-related careers.

- [Lune Épisode II - On y retourne!?](#) Exhibition

Marc Moutin presented a new temporary exhibition at Cité de l'espace, Toulouse, France. Lune Épisode II invites visitors to think up the return of humans to the moon, inside a Moon base where they can discover and experience themselves the characteristics of lunar environments. To discover more, access Marc's presentation [here](#).

- [World Space Week 2019](#)

Ines Prieto invited participants to join the international World Space Week 2019 taking place between 4 and 10 October and develop events on this edition's topic: 'The Moon: Gateway to the Stars'.

- [spaceEU project](#)

Cristina Paca presented the EU-funded project spaceEU which aims to foster a young, creative and inclusive European Space Community by inspiring all students to pursue STEAM and space-related careers. It is planning a variety of resources for the science engagement community (an open-source modular exhibition, toolkits of activities and evaluation instruments, and teacher training resources), which will be implemented on the ground in 10 locations across Europe.

- Ecsite's online science engagement magazine Spokes: ['Take me to the Moon' visual portfolio](#)

Cristina Paca invited participants to submit their events celebrating the 50th anniversary of the Moon landing for inclusion in a new, visual format being launched in Ecsite's online science engagement magazine, Spokes.

7. Other activities during the Ecsite Annual Conference – ESA at the Business Bistro

During the Ecsite Annual Conference 2019, ESA and the Ecsite Space Group were present at the Business Bistro. The stand represented a platform to promote existing resources and the upcoming pilot project "Alive! An Extra-terrestrial Game". Visitors could also learn about the opportunities offered by the Space Group to collaborate and develop new projects around the topic "Space for life".

This exhibit attracted a lot of interest from the conference participants and played an important role in improving and extending communication about European space activities.



An advanced prototype of 'Alive! An Extra-terrestrial Game' is tried out at Ecsite Annual Conference 2019 Business Bistro.

8. Next steps

The Space Group Annual Meeting 2019

The European Space Agency has invited the Space Group participants to hold its next Annual Meeting at ESRIN, ESA's European Space Research Institute towards the end of 2019. The goals of the meeting are to finalise work on the pilot project "Is there Life out there?", to discuss the topics of oceans, climate change and Earth Observation in preparation for Pilot Project 3: "Climate Change: Monitoring the Atmosphere and Oceans from Space" and to update participants on European space news from ESA, national space agencies and industry. As in previous meetings, there will be room for the

showcase of space projects and exchanges on space-related topics. Finally, a session will be dedicated to preparing the next Space Group pre-conference workshop at the Ecsite Annual Conference 2020 in Ljubljana, Slovenia.

The location of the meeting will be communicated in September 2019 and a preliminary programme will be available in October 2019.

Join the Space Group

All space-related institutions, as well as non-space science centres and museums are invited to join the Space Group to discuss collaborative projects, build partnerships, exchange ideas and best practices. For further information on how to join the Ecsite Space Group or if you are interested in participating in the Space Group activities, please contact: projects@ecsite.eu.

ANNEXES

ANNEX 1. PROGRAMME

Ecsite Annual Conference 2018
Pre-conference Workshop “Space for Life”
Focus: Is there life out there? Develop and share resources
5-6 June 2018

Programme – Tuesday 4 June

Location: Experimentarium, Tuborg Havnevej 7, 2900, Hellerup

Programme: B. Budassi, C. Paca

Time	Session	Speakers
09:00-09:05	Welcome to the pre-conference workshop	Herbert Munder, Ecsite President
09:05-09:15	Ecsite Space Group goals & achievements	Ecsite Space Group co-chairs
09:15-09:45	Tour de Table	All
	Moderator	Maria Menendez, Ecsite Space Group co-chair
09:45-10:15	ESA Highlights of the Exploration Programme and Resources	
	<ul style="list-style-type: none"> ESA preview Highlights 2019 	Maria Menendez, Head of Corporate Exhibitions and Strategic Events, ESA
	<ul style="list-style-type: none"> ESA's future for human space-flight and exploration as a sustainable and international endeavour (video) 2019: the 50th Anniversary of the first manned moon landing 'Forward to the Moon' - ESA Moon Media Kit 	Rosita Suenson, Communication Officer, ESA
10:15 - 10:45	Presentation of the online ESAspace	Hugo Simoes, Head of Print Media&Prom.Merch&Prod.Unit, ESA

10:45-11:05	Space for Earth: reaching the general public on Galileo	Jolanda van Eijndthoven , Deputy Head of Unit, Legal and Institutional Aspects for Galileo and EGNOS in the European Commission, Directorate General for Internal Market, Industry, Entrepreneurship and SMEs
11:05-11:30	Coffee break	
	Moderator	Ana Noronha , Ecsite Space Group co-chair
11:30-11:50	Climate Detectives School Project – First Edition Results	Fátima Pinto , ESA Education Office
11:50-12:10	The Online Observatory	Michael Lindholm Nielsen , Brorfelde Observatory
12:10-12:50	Earth Observation and Citizen Engagement – part I <i>Inspiration session – 10-minute presentations</i> ESA resources on Earth Observation ESA Contracted Ambassadors Experience Earth Observation & Citizen Engagement: The Exhibition Perspective Stakeholder Engagement on Marine & Climate Issues using Earth Observation	Maria Menendez , Head of Corporate Exhibitions and Strategic Events, ESA Fulvio Marelli , Scientific Communicators leader Marc Moutin , Head of Exhibitions, Cité de l'Espace Manuel Cira , Director of International Relations, Nau-sicaá
12:50-13:15	Ecsite Space Group resources: Climate change: Monitoring the Atmosphere and Oceans from Space <i>(in development during 2019)</i>	Ana Noronha , Pavilion of Knowledge, Ciência Viva
13:15-14:15	Lunch	
	Moderator	Cristina Paca , Ecsite

14:15-15:15	Earth Observation and Citizen Engagement – part II <i>Interactive session to explore in depth several challenges, World Café style.</i>	All; moderated by Space Group members and speakers from the inspiration session
15:15-15:45	Resource share – Part I <i>5-minute pitches followed by networking to further explore resources and activities</i> European SpaceTalks 2019 Destination Space! & Our Space Our Future project Lune Épisode II - On y retourne!? exhibition World Space Week 2019 spaceEU project & new Ecsite Spokes magazine visual portfolio on Moon landing anniversary	All Barbara Budassi , Communication Officer, ESA Shaaron Leverment Marc Moutin , Head of Exhibitions, Cité de l'Espace Ines Prieto , Head of International Affairs, Cité de l'Espace Cristina Paca , Project Manager, Ecsite
15:45-16:30	Coffee break	
16:30-17:00	Resource share – continued <i>5-minute pitches followed by networking to further explore resources and activities</i>	
	Moderators	Ecsite Space Group co-chair
17:00-17:35	Ecsite Space Group – Next steps <i>December 2019/January 2020 meeting in ESRIN</i>	All
17:35-17:45	Overview of the 2nd day	Cristina Paca , Ecsite Project Manager

Programme – Wednesday 5 June

Location: Planetarium

Gammel Kongevej 10, 1610 København, Denmark

Day 2 will take place on the premises of the Planetarium Copenhagen, affording participants a behind-the-scenes look at 'Made in Space', an engaging astrophysics exhibition shaped around gender-inclusive principles. They will be invited to reflect on how to make sure that all citizens – no matter their gender and learning style – are welcome to Space.

8:10 departure from Experimentarium main entrance (via train lines A, C, or E) to Planetarium, or **8:50** meeting at Planetarium main entrance.

Time	Session	Speakers	Location
	Moderator for the day: Mads Kring, Head of Education, Planetarium		
09:00-09:30	Welcome by Planetarium Copenhagen Welcome coffee	Mette Broksø Thygesen , Chief Executive Officer, Planetarium	'Made in Space' exhibition area
09:30-10:45	The ' Made in Space ' exhibition How gender-inclusive principles influenced its design & guided visit	Line Nicolaisen , Ph.D. fellow, Department of Science Education, University of Copenhagen	'Made in Space' exhibition area
10:45-12:00	Using space-industry and products in outreach activities <i>Initial presentations by science engagement professionals and industry representatives on the use of technology in outreach activities will be followed by group discussions.</i>	Mads Friis , R&D Engineer at Aquaporin Mette Broksø Thygesen , CEO at Planetarium Mads Kring , Head of Education at Planetarium	'Made in Space' exhibition area
12:00-13:00	Space-inspired lunch		Restaurant, Planetarium
13:00-16:00	Telling stories of food, art and science through holistic gastronomy <i>'Alchemist', a recently-opened Michelin-standard restaurant, was inspired by Rasmus' childhood fascination with the dome theatre at the Planetarium.</i>	Rasmus Munk , Head chef and co-owner	Alchemist

16:00-16:30	Coffee break 16:15-16:30 Our hosts, Planetarium, invite you to see trailers of space-related films in the dome theatre, which will be running during the coffee break. All interested are welcome to join!		Hallway outside dome theatre Dome theatre
16:30-17:30	Zooming in on the dome: enhancing learning <i>Since the advent of teachers teaching under the curved dome of the planetarium, educators have wondered how much students can learn in such a unique environment. Decades of repeated two-group comparison research studies consistently show that in and of itself, the planetarium on its own is rarely a measurably better learning environment than a traditional classroom. However, when specific modifications are made that leverage contemporary teaching techniques in the planetariums, planetariums can in fact produce higher education achievement gains than many classrooms. In this session, we will explore which teaching modifications enhance learning in the planetarium and which, perhaps surprisingly, do not and debate what the next generation of highly impactful planetarium education programs might look like.</i>	Presentation by Timothy F. Slater , School of Education, University of Wyoming, United States Panel reactions from Urban Eriksson , Researcher, National Resource Centre for Physics Education, Lund University Alessandra Pavan Bernacchi , Senior Manager of Theater Development for Europe at IMAX Mads Kring , Head of Education, Planetarium Discussion with the panel moderated by Marianne Achiam , Assistant Professor, Department of Science Education, University of Copenhagen	Dome theatre
17:30-17:45	Conclusion of Ecsite Space Group pre-conference workshop	Ecsite Space Group co-chairs	Auditorium (Lille sal)
17:45-18:15	Dry ice cocktail reception , together with EUROMAX conference participants		'Made in Space' exhibition area

18:15-18:45, Dome Theatre: Our hosts, Planetarium, invite everyone to view the new documentary film 'Apollo 11', which is premiering at the Planetarium at the end of May.

ANNEX 2: LIST OF PARTICIPANTS

No	First name	Family name	Job position	Organisation	Country
1	Leonardo	Alfonsi	Director	Psiquadro scarl	Italy
2	Mathieu	Beylard	Planetarium manager	Musée de l'Air et de l'Espace	France
3	Sylviane	Blum	Communication & Outreach	University of Bern / Center for Space and Habitability	Switzerland
4	Thierry	Botti	Head of communication and outreach	OSU Institut Pythéas	France
5	Anne	Bruvold	Science advisor	Nordnorsk Vitensenter	Norway
6	Barbara	Budassi		ESA European Space Agency	Int. org.
7	Des	Cini	Science Programme Development Executive	Esplora Interactive Science Centre	Malta
8	Manuel	Cira	Director of International Relations	Nausicaa - Centre National de la Mer	France
9	Urban	Erikkson	Associate Prof. in physics with specialisation in astronomy education research	Lund Univerisity, Kristianstad University	Sweden
10	Noel	Jackson	Head of Education	International centre for Life	United Kingdom
11	Chris	Kitzan	Director General	Canada Aviation and Space Museum	Canada
12	Dimitris	Kontopoulos	Curator/Project Manager	ArtScience Museum	Singapore
13	Mads	Kring	Head of Education	Planetarium Copenhagen	Denmark

14	Shaaron	Leverment	Deputy CEO	The Association for Science and Discovery Centres	United Kingdom
15	Fulvio	Marelli			Italy
16	Deepak	Mehta	Longterm Partnership Manager	Flanders Technology International vzw	Belgium
17	Tomas	Meiser		Techmania Science Center	Czech Republic
18	Maria	Menendez	Head of Corporate Exhibitions and Events	ESA European Space Agency	Int. org.
19	Simon	Meyer	CEO	Planetarium Vaux-en-Velin	France
20	Marc	Moutin	Head of Exhibitions	Cité de l'Espace	France
21	Ana	Noronha	Executive Director	Pavilhão do Conhecimento - Centro Ciência Viva	Portugal
22	Cristina	Paca	Project Manager	Ecsite	Belgium
23	Fátima	Pinto	ESA Education Office	ESA European Space Agency	Int. org.
24	Ines	Prieto	Head of International and Institutional Affairs	Cité de l'Espace	France
25	Manuel	Roca Rodríguez	Production Department Manager	Parque de las Ciencias	Spain
26	Hugo	Simoes	Head of Print Media&Prom.Merch&Prod.Unit, ESA	ESA European Space Agency	Int. org.
27	Rosita	Suenson	Human Spaceflight Communication Programme Officer	ESA European Space Agency	Int. org.
28	Kim	Svensson	PhD Student	Lund University, National Resource Centre for Physics Education	Sweden

29	Jolanda	van Eijndthoven	Deputy Head of Unit, Legal and Institutional Aspects for Galileo and EGNOS	Directorate General for Internal Market, Industry, Entrepreneurship and SMEs, European Commission	Belgium
30	Milene	Wendling	Planetarium manager	Université de Strasbourg / Jardin des Sciences	France
31	Tobias	Wolff		Universum Managementges GmbH	Germany
Additional speakers/participants at the Planetarium					
32	Mette	Broksø Thygesen	CEO	Planetarium Copenhagen	Denmark
33	Line	Nicolaisen	Ph.D. fellow, Department of Science Education	University of Copenhagen	Denmark
34	Mads	Friis	R&D Engineer	Aquaporin	Denmark
35	Rasmus	Munk	Head chef and co-owner	Alchemist	Denmark
36	Timothy	Slater	Physics and Astronomy	University of Wyoming	United States
37	Alessandra	Pavan Bernacchi	Senior Manager of Theater Development for Europe	IMAX	TBC
38	Marianne	Achiam	Assistant Professor, Department of Science Education	University of Copenhagen	Denmark