INNORBIT

CAPACITY & SUPPORT FOR
SUSTAINABLE SPACE INNOVATION

Empowering
innovation intermediaries
to generate sustainable
initiatives to incentivise
and accelerate
the commercialisation
of space innovation

D3.6: Achievements of InnORBIT's **support initiatives – 1st round**

This project has received funding from the European Union's Horizon 2020 Framework Programme for Research and Innovation under Grant Agreement no 101004212.

Grant Agreement 101004212

Empowering innovation intermediaries to generate sustainable initiatives to incentivise and accelerate the commercialisation of space innovation

COORDINATION AND SUPPORT ACTION

D3.6: Achievements of InnORBIT's support initiatives – 1st round

Issued by:	SpaceTec Partners
Issue date:	09/08/2022
Due date:	31/08/2022
Work Package Leader:	SpaceTec Partners

Start date of project: 01 January 2021 **Duration:** 30 months

DOCUMENT HISTORY		
Version	**Date**	**Changes**
0.1	07/07/2022	First version for preliminary feedback
0.2	15/07/2022	Second reviewed version
0.2	05/08/2022	Second version for final quality review
1	31/08/2022	Final version
1.1	20/02/2023	1st revision

DISSEMINATION LEVEL		
PU	Public	X
PP	Restricted to other programme participants (including the EC Services)	
RE	Restricted to a group specified by the consortium (including the EC Services)	
CO	Confidential, only for members of the consortium (including the EC)	

MAIN AUTHORS	
Name	**Organisation**
Thomas Tanghe, Emilio Crespo	STP
Anita Kovacevic	ALG
Stellina Patelida, Nektaria Berikou	COR
Cristina Stancu, Oana Neagu	ROS

QUALITY REVIEWERS	
Name	**Organisation**
Apostolos Tsolakis, George Malliopoulos	QPL
Iasmina Cioroianu, Carolina Pascaru, Krisztina Toth	SEN

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Executive summary

This document covers the activities and achievements of Task 3.2, the implementation of the Business Support Programme (BSP), following the deployment of the Capacity Building Programme (CBP). It comprises the implementation of the Support Initiative Deployment Plan by InnORBIT's intermediaries: Algebra College University, (ALG, Croatia), Athena Research and Innovation Center in Information Communication & Knowledge Technologies (COR, Greece) and the Romanian Association for Space Technology and Industry (ROS, Romania), under the frame of the 1st pilot round of the InnORBIT methodology for deploying successful and self-sustainable local innovation support initiatives.

These activities, including the results from T4.1, evaluation and validation, provided a roadmap for fine-tuning InnORBIT procedures for the 2nd major pilot round that is currently underway. Therefore, the results of the initiatives deployed are described in detail and illustrate the corresponding KPIs for the time being. The KPI-logging methodology has been updated from the previous plan and is introduced in this document.

This document highlights the strengths and weaknesses of the space entrepreneurial ecosystems in Central and Central and Eastern Europe, as well as certain gaps in innovation support mechanisms. Most of the innovation intermediaries in the 1st pilot round preferred to deploy innovation awareness and community-building initiatives rather than more advanced support, such as fundraising or acceleration, to cover the later stages of the innovation spectrum.

Flexibility in both intermediary training and initiative implementation has been identified as another element of success for the deployment, as each ecosystem and intermediary require a tailor-made approach for the effective implementation of local initiatives. Details on challenges and achievements are included, and presented in each chapter for each innovation intermediary participating in the 1st pilot round.

1 Introduction

1.1 InnORBIT's programmes and support for intermediaries

The InnORBIT programmes, the Capacity Building Programme (CBP)[1] and the Business Support Programme (BSP)[2] **are the core instruments with which this project provides support to local innovators in Central and Eastern Europe**. The CBP is designed for empowering intermediaries to set up and run initiatives enabling them to deliver the BSP on their own. The InnORBIT programme is divided into two pilot rounds: the 1st pilot round with 3 intermediaries, to make a dry run and allow the fine-tuning for the 2nd pilot round, with 17 intermediaries. **This report deals with the activities carried out by the intermediaries of the 1st pilot round**:

- Algebra University College (ALG, Croatia)
- Athena Research and Innovation Center in Information Communication & Knowledge Technologies (COR, Greece)
- Romanian Association for Space Technology and Industry (ROS, Romania)

During the phase of deploying initiatives for local innovators, InnORBIT's role was to guide, mentor, advise and support partners in the implementation of their initiatives to foster their space ecosystems. InnORBIT's experts assessed the innovators' needs, from each intermediary's network, and then jointly defined a series of business support services, in the form of local space innovation support initiatives. A focus to grasp synergies with other EU initiatives was placed during the design of the programmes.

Hence, the support was structured in 2 stages: CBP and BSP. In the Capacity Building Programme stage, the intermediary's interests were assessed and thereafter they were trained in relevant initiatives, so they can implement the BSP itself. During the latter BSP stage, InnORBIT monitored and gave on-demand support. In other words, the CBP is the training and qualification plan for the innovation intermediaries so that they can support their entrepreneurs, start-ups and scale-ups, in the development of space applications, through the organisation and deployment of local space initiatives. The training of intermediaries normally comprises the support for understanding space dynamics and support to develop innovation initiatives, reflected in the structure of InnORBIT's on-demand training.

Built on the plan and training of the CBP, the **BSP is the stage in which innovation intermediaries deploy local business support initiatives on space innovation**, aiming to increase their number of local initiatives for start-ups, scale-ups and entrepreneurs in the space downstream and upstream sectors, attending to the European Space Programme and its components such as EGNOS, Galileo, Copernicus and GOVSATCOM.

1.2 The deployment process

The InnORBIT methodology to *train the trainer* (CBP) and provide support (BSP) is carried out through calls and meetings, called *check-in meetings* due to its periodicity. In these, potential space initiatives to implement are discussed in a *crescendo* fashion at each check-in meeting, starting with an exploration of the intermediary interest and ending with an ad hoc plan to implement a local space initiative. This methodology **ensures that the intermediary knows how to deliver the project's business support programme to entrepreneurs, start-ups and scale-ups**.

[1] D4.3 InnORBIT Capacity Building Programme - Interim version

[2] D4.4 InnORBIT Business Support Programme - Interim version

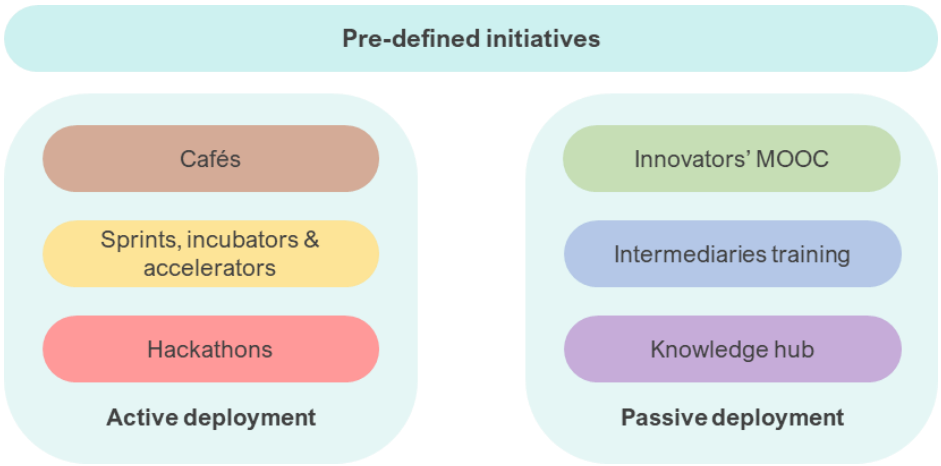
From the intermediary's perspective, there is no separation between the CBP and the BSP. During both stages, InnORBIT offers support and guidance. Nevertheless, **the support process consumes more resources during the CBP** where the plan is defined rather than in the BSP where minor checks are done and on-demand support is given. **The initiatives are fully tailored, but a starting point in our service portfolio includes common and predefined suggested initiatives** such as incubators, accelerators, cafés, hackathons, training, etc., that provide business services like innovation events, e-learning, mentoring, networking and access financing and funding opportunities, to stimulate and accelerate space innovation in Central and Eastern Europe.

2 Support initiatives deployment

2.1 Development of the business support

It was observed, during the first meetings with the intermediaries, that ALG and ROS had hardly developed their space entrepreneurship ecosystems, while COR was experienced but lagging on deal flow generation. When discussing what could be better to support their entrepreneurs, the three intermediaries acknowledged that there is little knowledge about what start-ups can do in the space sector. It was unanimously decided, even though COR has a strong background in entrepreneurship and ROS has a strong aerospace network, to start from scratch, creating awareness of the space sector to discover entrepreneurship and support niches. Among the battery of initiatives discussed, shown in Figure 1, **grassroots-type were the most appropriate ones to start building a community**. This rationale led to café events, conference cycles and facilitating awareness and outreach activities.

Figure 1. Common initiatives, non-tailored



A common finding for the whole Central and Eastern European region, also observed during the 2nd pilot round as will be reported in forthcoming reports, is a **certain level of awareness of the space opportunity but a lack of advanced space entrepreneurship innovation instruments**. Hence, planning fundraising activities, acceleration or even incubation initiatives do not seem to be a priority at the moment, as the **local intermediaries do not yet sufficiently identify space start-ups in certain countries**.

Cafés are a powerful way of fostering the generation of new communities and start-up niches. With an open, relaxed and welcoming format, the cafés are a series of informal meetings where experts in current topics, linked to the space topic to be developed, are invited to participate in a colloquium with interested parties. It creates community, and networking and fosters deal flow generation, allowing the fabric on which future start-ups will flourish.

2.2 Intermediary's support initiatives

2.2.1 Algebra University College's Space Cafes

Description and plan

The space cafés are part of the business support initiatives used by InnORBIT to contribute towards building the local Croatian space ecosystem. From the beginning of the project, sustainable development and growth of the ecosystem were identified as a priority that shall continue beyond the end of the project. In this regard, the cafes are excellent tools to construct a network of interested parties, helping to branch into the space. The informality of these events facilitates bringing together local players to spark discussions on current trends and opportunities in the sector. Thus, promoting networking and collaboration among the participants around specific themes, for example, Copernicus' open data might encourage local start-ups to find solutions to actual challenges.

The plan for Algebra is to continuously build a strong business support mechanism which might become a future basis for a deal flow generator integrated directly into both ALG university and the network and affiliates beyond. The Croatian Space Café is a series of events focused, planned 5, on the commercial space sector (New Space) aiming to popularise the space sector for the Croatian ecosystem and act as a single point of reference for easy networking and communication with the Croatian academic and professional communities. All the Croatian Space Café are planned for 2022 but an extension is being discussed, for 2023, displaying a long-term commitment to the growth of the initiative. The series of events focuses on one subject and keynote speeches will be delivered in the beginning to set the tone for and inspire the following discussions with participants. Details of the features are presented in the table below.

Table 1. Croatian Space Café features

Initiative duration (InnORBIT)	4-5 months
Initiative funding	InnORBIT up to June 2023. After the project funding may be acquired by asking the corporate participants if they have funding which could be delegated towards institutions of higher education and also to ask the Ministry and other embassies in Croatia if they have similar initiatives for funding higher education programs.
Topics / thematic areas to date	Location Based Services (LBS) and on-site services Data Processing and New Space Space and the financial sector New Space and its uses in agriculture
Topics in Sept and Oct	Use of IoT in communications with Satellites The transition of Agriculture with the use of New Space

Event format	The Space Café is fully online at the moment due to constantly changing COVID-19 requirements and restrictions and due to the convenience of participation for all registrants
Event location	Online
Core activities	• Identification of themes and speakers • Promo campaign and invitations • Identification, booking and set up of meeting place • Follow up campaign
Promotion	• Targeted social media campaigns (ALG and InnORBIT social media) • Email campaign (save-the-date, invitations) • Local community discussion group (It is ideal to keep these activities within the Algebra Lab community in general, rather than creating a stand-alone community, to keep reaching out to new participants.)
Participation fees	No participation fees foreseen

Deployment, evolution and lessons learned

The initiative started by setting up an SIDP (Support Initiative Deployment Plan) together with InnORBIT, so as learn how to design, format and execute a *space café* initiative. ALG decided on the series of topics and potential dates. After researching the themes and gathering the speakers, the advertising campaign started and communicated the opportunity through its network on social media. I.e., Facebook, Instagram, and ALG's website. A subpage was constructed within the main website to promote the initiative: *https://www.algebra.hr/lab/kampanje/space-cafe*

The marketing campaign included questions aiming to trigger the audience, such as *"Are you fascinated by the universe? Which satellites roam the earth? Want to know what has been achieved since the first moon landing? Did you know that the integration of space and ground systems, called Precision Farming, has proven to be very effective in creating efficient and sustainable agriculture that increases productivity while reducing costs, waste and environmental impacts? (…) Are you an online player, do you watch live sports or binge endlessly watch a television series?"*

Sessions and speakers

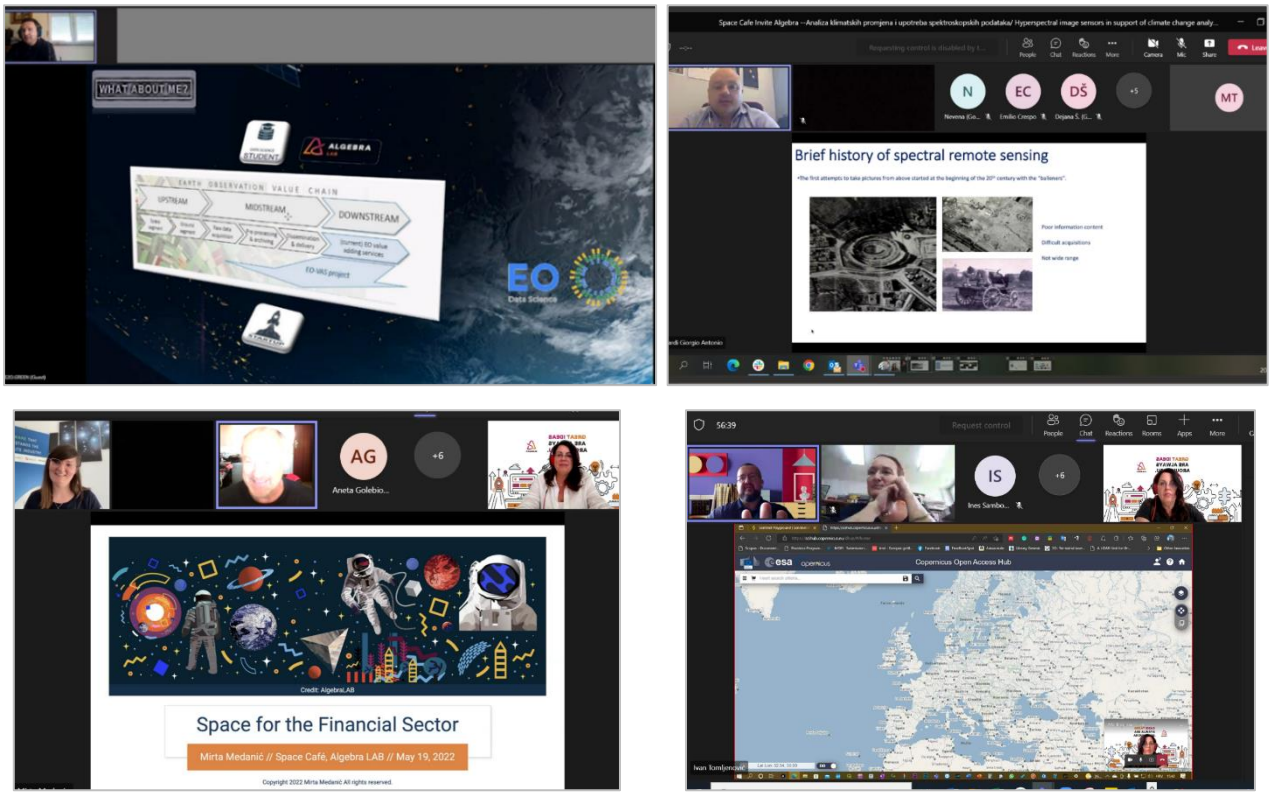
Space Café 1: Algebra LAB successfully held the first Space Café in collaboration with the InnORBIT Project in an online format on March 30th 2022. The online event featured Dario Vuljanko, who spoke on the topic: "E2O. Green - from Space Data to Energy Optimization". Green by 3D EMS is an AI-powered platform that enables golf courses and urban green space management companies to operate efficiently. The combination of satellite and unmanned vehicles, as well as the way they use in situ data enlightened the attendees. Finally, the topics of space entrepreneurship in Croatia and the current ecosystem were addressed with start-up advice to Space Cafe participants by relating the speaker's own business journey.

Space Café 2: "Data Processing and New Space", April 20, 2022, presented by Giorgio Licciardi from Agenzia Spaziale Italiana talked about *hyperspectral image sensors in support of climate change analysis*. The event comprised the first part of a presentation followed by a Q&A session and encouraged participants to continue their education on the topic, sharing InnORBIT's training toolbox.

Space Café 3: "Space in the financial sector - advantages, technologies and opportunities", May 19, 2022, with Mirta Medanic from Amphinicy Technologies, the world's leading software provider for companies operating in the satellite industry. The discussion comprised space technologies, data and services that can find application in the financial sector. The event consisted in two presentations giving time in between for discussion. Afterwards, there was a Q&A session.

Space Café 4: "New Space and its use in Agriculture", June 8, 2022, presented by Ivan Tomljenović from OIKON Ltd. – Institute of Applied Ecology, a leading licensed and accredited consulting company/research institute in the field of applied ecology in Croatia and the region. Followed the same format, as the previous cafés, but included instructions on the use of the Sentinel platform.

Figure 2.ALG's Space Cafés events (#1 to #4 respectively)



Evaluation of the events

Organiser self-evaluation

The event is promoted and disseminated in Croatian, as the audience is ALG's local ecosystem. The event was promoted some weeks before the event. All registrants are sent a link to the meeting a full week before the event, 3 days, 2 days and the day of the event, along with when the event is happening, to encourage any

latecomers or those who forget. The emails add all the information disseminated about the InnORBIT project and there is always an indication that a follow-up survey to the event will follow.

The speakers were coordinated to show up 15 minutes ahead of time to ensure their presentation worked properly. Questions were also very well answered, and there was an avid audience at the series of events, even representatives from local high schools interested in educating their own students about the advances that space technology has brought.

Consortium's observations for the organiser (verbatim)

Pre-event:

- *Local formats could lead to misinterpretation if the audience is extended to an international level. For example, the time was not formatted. It was a bit difficult to find the information, perhaps due to the Croatian.*
- *After registering, there is a follow-up email that could be improved. Literally: <<Two days before the event, we will send you a link to the online connection to this e-mail address. See you soon!>> -> 2 days before people may have forgotten about it. Maybe a calendar invite, an instant email and some reminders in between. For example, an email to confirm registration, email 1 week before, email 1 day before, email 10 minutes before. Although it is very intense, this helps to ensure that a large part of the audience is not lost.*
- *The registration portal, the webpage, and the environment are adequate and of good quality. The calendar is clear and participants may get an instant view of the full series.*

Minor observations:

- *The invite link was hard to find. The join link was at the bottom of a large email, not very intuitive.*
- *Since it is hosted in Teams, perhaps would be good to send a calendar invite by forwarding it to the registered people and adding them to the call. Also, maybe remove the "xx has joined" sound and therefore avoid the presenter from getting disturbed. In the same way, the lobby message is displayed in the centre of the screen of all the participants; removing the lobby shall be considered.*
- *Warning: open links can lead to unwanted people joining and potentially compromising the event! If the link is open, it is highly recommended to be published some minutes before the meeting at maximum*

About the event:

- *Promotion could be improved to increase attendance. It shall be 3 weeks before with an email including a simple infographic. As a suggestion, professional associations of engineers of Croatia, scientists and entrepreneurs could be reached by email for dissemination.*
- *The introduction and the presenter were of great quality. Very informative, level appropriate to the audience. The format was perceived as a lecture hall rather than a discussion forum. If the format is to be controlled, it is suggested to ask the presenter for the slides a few days in advance and give him feedback to guide him.*
- *The event had a good number of interventions at the end. This means the people who attended had a strong interest in participating. Well done!*

Unfortunately, the consortium partners could not attend all of the series due to the local language used and thus no observations have been made onwards.

2.2.2 Corallia's Greek Space Café

Description and plan

InnORBIT aims to generate sustainable local initiatives to foster and support spatial innovation in Central and Eastern Europe). Corallia (COR) is an incubator, a youth entrepreneurship accelerator and a multi-cluster facilitator with the vision to develop an environment with the right framework conditions to enable science, innovation and entrepreneurship. COR has experience in managing the European Space Agency's Business Incubation Centre in Greece, aiming to create and strengthen the community of space-related start-ups in Greece. Also, the si-Cluster (cluster of space technologies and applications) aiming to develop Greece as a leading region in space technologies and applications with high international visibility, capable of developing and attracting research and development activities.

A space café is a type of event where a group of space enthusiasts get together and discuss space-related topics related topics, with an emphasis on trends and the latest market news, taking into account their potential for start-up companies. It is a relaxed, informal and straightforward event with a strong focus on community building and networking. For COR, **a space café is a complementary tool to its space activities as it covers a spectrum of innovation activities that it does not currently cover**. In addition, a café is a new initiative that they have not done before and is a step towards **increasing COR's expertise and services as an innovation intermediary**.

Deployment, evolution and lessons learned

1st Greek Space Café

1st Greek Space Café was held on 25 February 2022 with the topic of "Space entrepreneurship in Greece". The format was hybrid, and it was delivered in the English language.

The event started with a welcome note to participants by Mr Jorge Sanchez, one of the co-founders of Corallia and Director of ESA BIC Greece. Ms Stellina Patelida briefly introduced InnORBIT's business support e-learning platform which contains valuable material for startups and innovators to build their skills in space entrepreneurship. Finally, Mr Orfeas Voutyras closed the introductory session with a presentation of the most recent headlines, achievements and news in the global space sector.

The core session of this space cafe was dedicated to the **keynote speeches of the three invited experts who then had the chance to answer questions and provided valuable tips for space innovators** to navigate the NewSpace market in Greece. The first keynote speaker was Mr Athanasios Potsis, Director of Business Development in EFA Ventures and vice president of the si-cluster (space cluster in Greece) made the second keynote speech and talked about his personal experience during the infancy stages of the development of the Greek space sector. Mr Potsis then discussed with attendants the key strategic entry points in the local space sector, explained its individualities and outlined a long-term roadmap on how to initiate a successful space venture and how to keep it evolving in a challenging market.

Mr Rainer Horn, Managing Partner of SpaceTec Partners in Munich, Germany. Mr Horn presented his more than two-decade-long experience in the space sector in Germany and Europe and also presented some of the greatest achievements and projects his firm has led over the years, including the Copernicus Accelerator. Then, Mr Horn discussed with participants about his experiences with the space sector in Greece and provided his insights on how space entrepreneurs could best strategize their ideas and successfully reach out to investors.

Finally, Mr Stellios Bollanos, the co-founder and Director of Planetek Hellas shared his experiences at the early stages of his career in Planetek Italia and the history of how the firm expanded its activities in Greece and the value it adds through space-enabled technologies and applications to the present day. Mr Bollanos focused on and highlighted the importance of mentoring and guidance in the space sector and how it contributed to a successful space company in Greece with a strong business model.

The 1st Greek space cafe was closed by the Corallia team, thanking participants and speakers for their contribution to a successful Greek Space Cafe.

2nd Greek Space Café

The 2nd Greek Space Café was held on at 29th of April 2022 with the topic "From space studies to the space market". The format was physical, and it was delivered in the Greek language.

The event started with a welcome note to participants by Ms Stellina Patellida. She explained the scope and the objectives of the Greek Space Cafes, and the topic of the specific Space Café and briefly introduced InnORBIT's business support e-learning platform that contains valuable material for startups and innovators to build their skills in space entrepreneurship. Finally, Mr Orfeas Voutyras closed the introductory session with a presentation of the most recent headlines, achievements and news in the global space sector.

The core session of this space cafe was dedicated to the latest projects and ideas of university teams and non-profit organizations related to space. Spin, BeyondOrbit and Spacedot presented to the audience their latest projects and answered questions related to updated news on the space sector, explaining in most cases the obstacles but also the opportunities that came up in the entry stages.

Beyond Orbit is a not-for-profit organization dedicated to providing opportunities to students (undergraduate, graduate, and Ph. D.) and young professionals in engineering projects that combine space with innovation. SpaceDot is a non-profit, volunteering and interdisciplinary student team, supported by the Aristotle University of Thessaloniki (AUTh). The team was founded in December 2020 and consists of more than 40 students from AUTh and other universities across Greece and Europe. Their goal is to pave the way for innovative research on space applications.

Participants and speakers shared their personal experiences on the space project's roadmap and shared tips on how to initiate and fund a space project.

The 2nd Greek space cafe was closed by the Corallia team, thanking participants and speakers for their contribution to a successful Greek Space Cafe. The discussion continued among the participants after the closure of the event.

3rd Greek Space Café

The 3rd Greek Space Café was held on the 8th of July with the topic "New era for Microsatellites in Greece". The format was hybrid and took place at Ianos Bookstores in Athens.

The event started with a welcome note to participants by Ms Stellina Patellida. She explained the scope and the objectives of the Greek Space Cafes, and the topic of the specific Space Café and briefly introduced InnORBIT's business support e-learning platform that contains valuable material for start-ups and innovators to build their skills in space entrepreneurship. Mr Orfeas Voutyras closed the introductory session with a presentation of the most recent headlines, achievements and news in the global space sector. In parallel upcoming interesting space events at the local and European levels were presented.

With a space program made in Greece and with resources exceeding 200 million euros, the country will create a network of microsatellites to exploit space technologies and applications and integrate them into the national economy.

This is the "Microsatellite Network Development" programme related to the provision of support to telecommunications services, mapping, spatial planning, shipping, agriculture as well as other sectors of the economy, providing critical support to investments in new technological solutions. It will support a wide range of applications, such as the provision of connectivity and telecommunication services, geo-surveillance and cartography, shipping, agriculture, urban planning, etc.

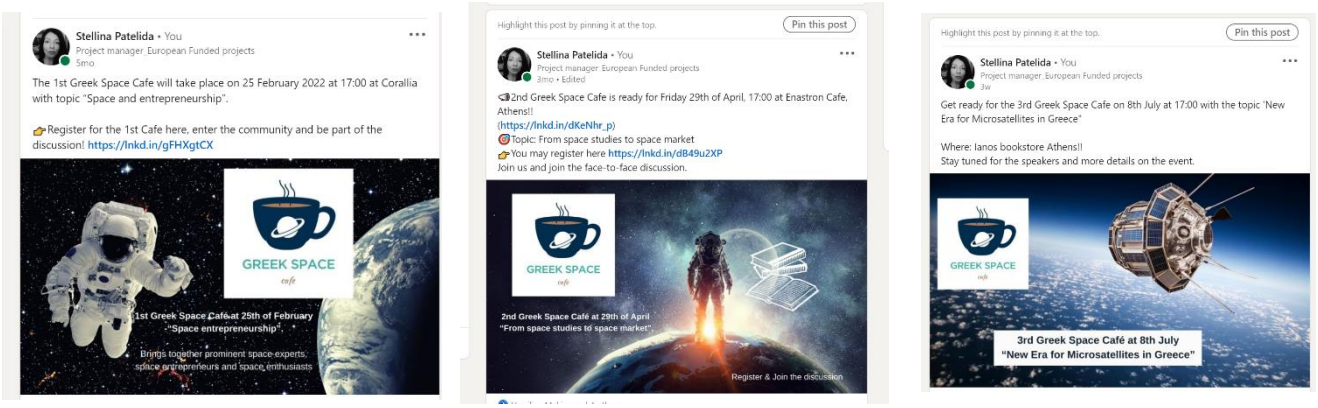
The core session of this space cafe was dedicated to the keynote panellists, invited to discuss the “Microsatellite Network Development" programme and answer a variety of questions, Prof Vaios Lappas and Dr Christos Kyriazoglou. Both panellists mentioned the significance of the expected results of the project for the Greek economy. Results such as:

a) The acquisition of national space infrastructure to support vital state functions (indicative civil protection, emergency services, border surveillance, etc.), but also sectors of the country's economy (secure telecommunications, smart cities, environmental protection, etc.) thread.
b) The control of space infrastructures and their exclusive use according to national needs
c) The development of cutting-edge technologies and modern products improves the competitiveness of the Greek economy.
d) The inclusion of Greece in the group of countries that produce, and utilize space infrastructures and products.

For the promotion of the Greek Space Café, a wide range of actions has been implemented, and all available communication media have been engaged among which: diffusion of announcements in targeted Greek media, collaboration with Greek media to contribute as communication sponsors, community partners, Facebook, but mainly LinkedIn campaigns to target audience and direct email campaigns. Corallia’s extensive network ensured that the event was broadly shared among interested parties. The event was promoted through Corallia, ESA BIC Greece and InnORBIT channels.

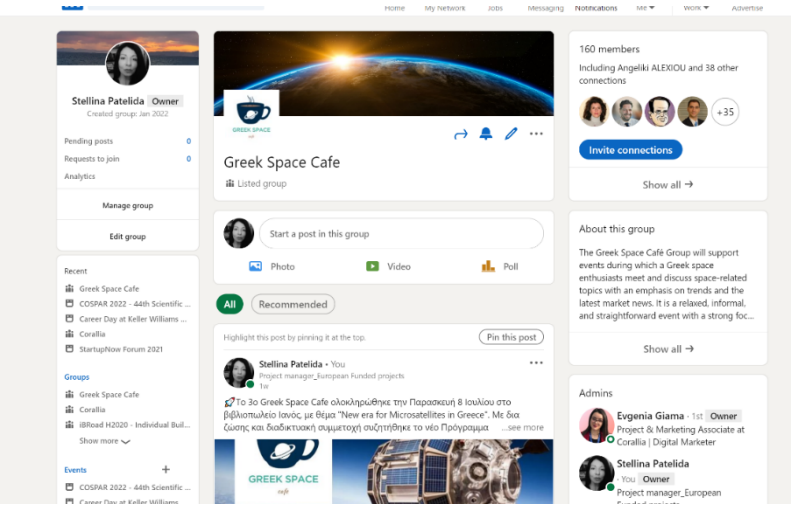
Participants registered as individual natural persons via an online form customized for each Space Café. No geographical restrictions were imposed, and any space-interested entrepreneur, individual, student or SME with a space connection or interest was welcome regardless of their experience or expertise.

Figure 3. Screencaps, Greek Space Café



A customised *LinkedIn Group* has been created with 160 members, a number that continuously grows

Figure 4. Screencaps, LinkedIn group



Lessons learned

The 1st Greek Space Café had more than 20 external participants in an informal atmosphere discussing space entrepreneurship. Its format was hybrid with less interaction by the online participants. It showed signs of tremendous potential for scaling up to a wider audience of space experts, non-space innovators and space enthusiasts in Greece in order to build a stronger space community.

The 2nd Greek Space Café had an informal atmosphere discussing the space market and ongoing space projects. Its format was physical with an absolute interaction between the speakers, the organisers and the participants. As a physical event, it showed signs of tremendous potential to build a stronger space community. However, the hybrid format is considered for the next edition of the Greek Space Café in order for participants out of Athens to join online.

The 3rd Greek Space Café was held in a hybrid format at Ianos Bookstores in Athens with more than 25 participants physically and online. The discussion was quite vivid with a lot of questions from the participants, which were students, SMEs, entrepreneurs and start-ups trying to understand the results of the programme in our everyday lives. Networking was fully accomplished, with all the participants and the panellists discussing after the closure of the session.

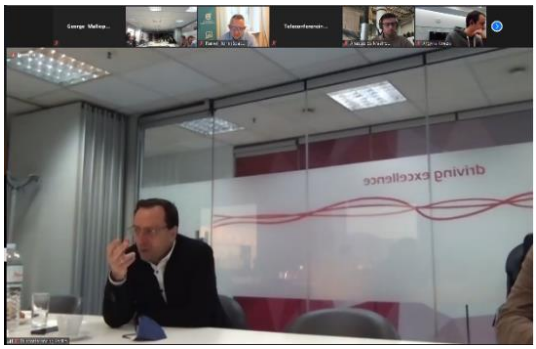
Greek Space Cafés are initiatives implemented by Corallia and ESA BIC Greece and supported by the InnORBIT project and si-cluster. Corallia will envisage the sustainability of that initiative after the 1st pilot round, by implementing the initiative of Space Café with a frequency of 2 months aiming to become a point of reference for networking and communication with the Greek space ecosystem.

Having already successfully organised numerous innovation events, Corallia understands the importance of engaging the whole innovation ecosystem in all stages (design, planning, implementation) and appreciates the help of the InnORBIT project and partners for the implementation of the Space Café, by attending the relative webinars on the InnORBIT toolbox and take part in customised meetings with SpaceTec Partners discussing the topics, the format and top tips for a successful Café.

Participation and interaction between the speakers and the audience were excellent. Entrepreneurs, start-ups, scale-ups and space enthusiasts asked questions and helped to a fruitful conversation. Participation and networking were completely successful.

Figure 5. Greek Space Café picture log

1st Café



2nd Café

3rd Café

2.2.3 The Romanian Association for Space Technology and Industry Space Café

Description and plan

The CBP actions of InnORBIT are crystallised in the SIDP (Support Initiative Deployment Plan) of each pilot country. This document summarises the actions that ROMSPACE as an innovation intermediary has taken in order to build spatial awareness, with the support of InnORBIT, and describes in detail the deployment of the initiatives selected to be executed during the CBP.

The local space initiatives are to be deployed in the 1st pilot round, centred on the initiative of a Space Café, comprising several periodic events. There are plans to host a Space Hackathon, during the 2nd pilot as it was postponed. The initiative complements the mission of ROMSPACE, which seeks to conduct scientific research and contribute to the advancement of national technological capabilities that derive from domains such as astronautics and aerospace with a focus on space science, space applications and technology. ROMSPACE also promotes collaboration between participating and potentially participating entities in space and aerospace research programs, such as institutes, universities, industry and other sectors. The local space initiatives along with the business models and plans for sustainability proposed by InnORBIT will foster the development of the Romanian space ecosystem and help position ROMSPACE as a key innovation intermediary.

Doing business in space has become more attractive and more accessible correlated with the privatisation of space and access to space, with potential opportunities in fields such as satellite broadband, Earth Observation, high-speed product delivery and even space tourism. The use of space infrastructure and data is an enabler for many applications on Earth such as environmental monitoring, mobility, logistics and precision agriculture. There is an enormous potential for opportunities in the upstream and downstream sectors for innovators, scientists and businesses to develop new solutions.

In the past six months, ROMSPACE, has been committed to bringing together different stakeholders, by scouting potential local entrepreneurs, start-ups or scale-ups which are looking to get a head start in the space domain and enlist them in using InnORBIT services. By following the Capacity Building Programme supplied by InnORBIT, ROMSPACE has gained a better understanding of the training needs of potential future entrepreneurs and contributed by creating a discussion and networking virtual space for associated stakeholders.

In addition to the first pilot round, ROMSPACE will seek opportunities to join other entrepreneurial entities and create synergies with local partners such as the Romanian Space Agency, members of academia, investors, sponsors and start-up hubs. ROMSPACE had planned as part of the Space Café initiative a series of four events centred on informal networking opportunities and community building. Through these Space Café event series, interested parties have and will have the opportunity to meet researchers from different fields, experts from the industry sector, and space entrepreneurs and discuss space-related topics with an emphasis on trends and the latest market news considering its potential for start-ups in a relaxed, informal manner. After the 1st Pilot Round, two virtual Space Café events have been deployed with promising results. The remainder of the events series will continue in the following months, with increased participation numbers and a face-to-face format.

The pandemic and the uncertainty created in the Central and Eastern European space generated an unforeseen contingency and altered the deployment timeline. Momentum has been created with two events spread out in the spring, after internal consulting we have concluded that a break during the summer months would prove beneficial and renewed efforts are to be made at the end of August and September and going forward in the second pilot round.

The deployment plan included a mix of approaches, including email invitations, public relations, social media, paid advertising, and networking.

Each Space Café had a set duration of 90 minutes, a theme, a short introductory presentation of the InnORBIT project, an invited space expert speaker section and an allocated portion of networking time. After the session ended, we sent a personalised "Thank you!" email to the participants, we included the InnORBIT presentation and introduced once again the Consortium feedback questionnaire of the events devised. The registration process was simplified, any potential participant that wanted to participate in the event had to register online via an online form. Participants were asked to give basic information such as name, organisation, role and informed consent of the GDPR used.

For each event, ROS has made an internal selection and invited more than 25 space entities and persons interested in space to participate in the meeting. The promotion used social media platforms such as Facebook and LinkedIn to attract potential participants to the events. Also, ROS has used alternative promotion tactics such as employing the use of different networks for young professionals and has posted on informal WhatsApp groups the social media links for potential participants to join.

Deployment, evolution and lessons learned

The 1st Romanian Space Café

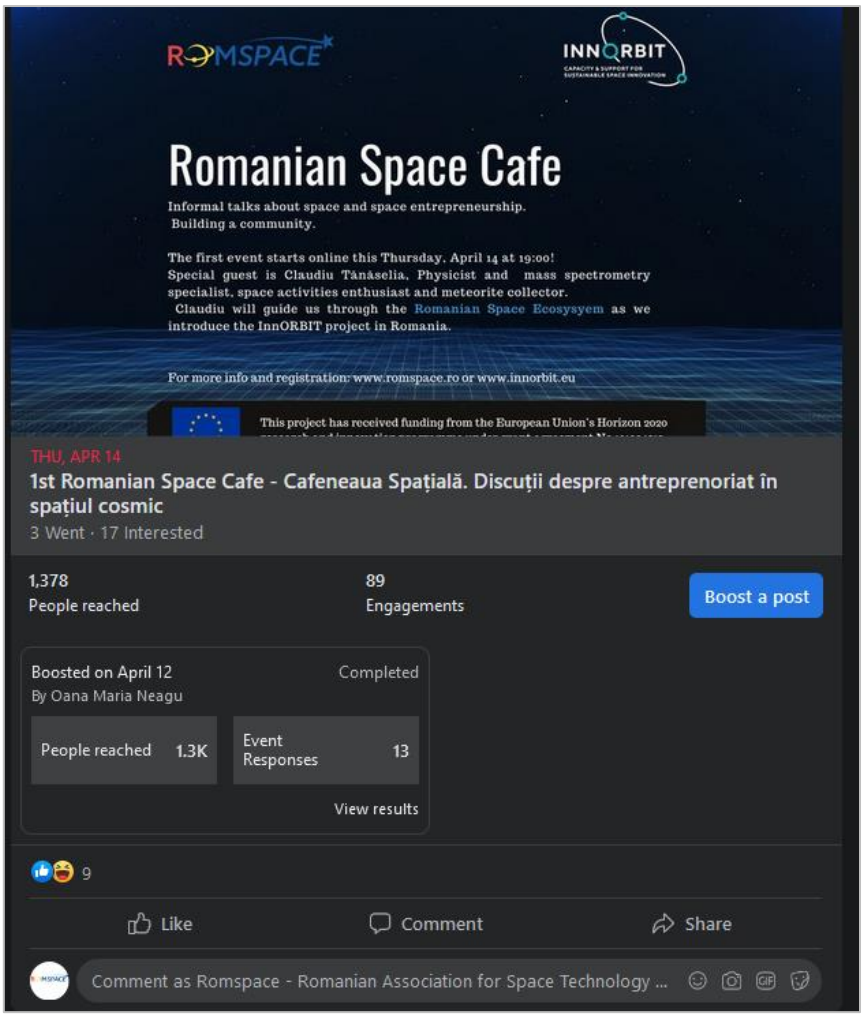
The 1st Romanian Space Café event took place on April 14th, 2022, at 19:00 CEST, in an online format, on the Webex platform and aimed to create an environment appropriate for making connections, sharing information, and creating an informal environment at the crossroads of space and business.

Our first edition explored the Romanian Space Ecosystem and upcoming space trends and opportunities. Questions such as "What exactly is the space ecosystem and who are the main actors?" or "How does developing launching capabilities promote new avenues for business in space?" were answered. Our invited speaker was Claudiu Tănăselia - Physicist, senior researcher at the Research Institute for Analytical Instrumentation (ICIA) Cluj-Napoca, founder of parsec.ro website and space editor for Știință &Tehnică magazine, mass spectrometry specialist, space activities enthusiast and meteorite collector.

A total number of 25 personalised invitations have been sent over email for the first event with an aggregated over 45 informal reach outs on WhatsApp. The total number of participants in the 1st Romanian Space Café event that registered on the participation form was 13. At the event 10 participants attended encompassing a diverse structure, as follows: we had participation from academia, research institutes, two space start-up, a non-space start-up, a member of the InnORBIT Advisory board attended, a representative for Romania of the Space Generation Advisory Council, that offered their full support for the accomplishment of the project objectives, a member of the project consortium to oversee the deployment and aid in the discussions. The numbers reached through our approach on Facebook can be seen in the pictures below.

Figure 6. First Romanian Space Cafe post in the consortium

Figure 7. Promotion of the event on Facebook on the ROS dedicated page

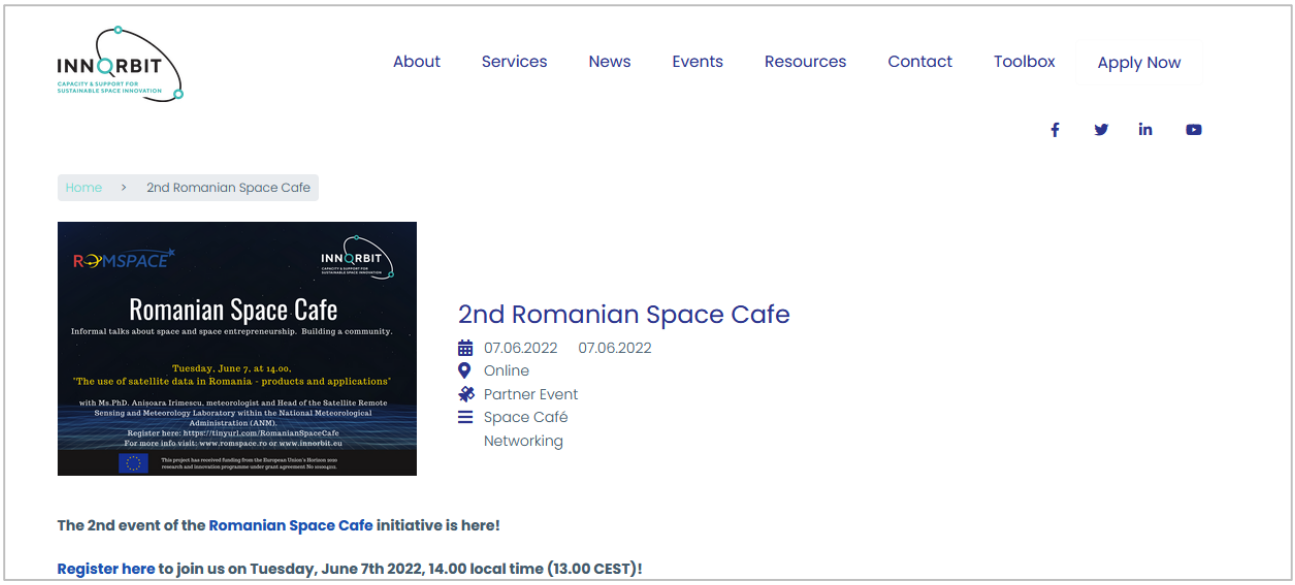


.

The 2nd Romanian Space Café

The 2nd Romanian Space Café took place, on the 7th of June, 2022, at 14:00 CEST, it was held in an online format, on the Webex platform and aimed to create an environment appropriate for making connections, sharing information, and creating an informal environment at the crossroads of space and business.

Figure 8. Promotion for the Second event in the Romanian Space Cafe series on the InnORBIT website



The second Romanian Space Café focused on "The use of satellite data in Romania - products and applications" in domains such as meteorology, agro-meteorology, forests, water management and environmental protection. The presentation and discussion took place in Romania.

An emphasis was put on Earth Observation, as it is used to monitor and assess the status and changes in the natural and manmade environment. Space-based technologies that deliver reliable and repeat-coverage datasets, contribute to the rise of multidisciplinary applications in various industries. Powerful examples of data obtained through the Copernicus Programme, the European Union's Earth observation programme, illustrated the possibilities of using space technologies in monitoring agricultural data, disaster management and meteorological events.

Ms. Anișoara Irimescu, Doctor in Geography since 2009, Meteorologist and Head of the Remote Sensing and Satellite Meteorology Laboratory within the National Meteorological Administration (ANM), was the invited speaker.

The promotion of the event included all the aforementioned avenues and has produced better results in engagement on social media, as shown below. The participants had to register via an online form and a link to the event was sent to them prior to the event. The total number of participants that registered on the participation form was 17 valid entries. At the event 16 participants attended encompassing a diverse structure, as follows: we had participation from academia, research institutes, five space start-ups, two non-space start-ups, a member of the InnORBIT Advisory board attended, a member of an innovation hub, financial and development manager, space enthusiasts and students.

Figure 9. Second Space Cafe promotion on the dedicated ROS Facebook page

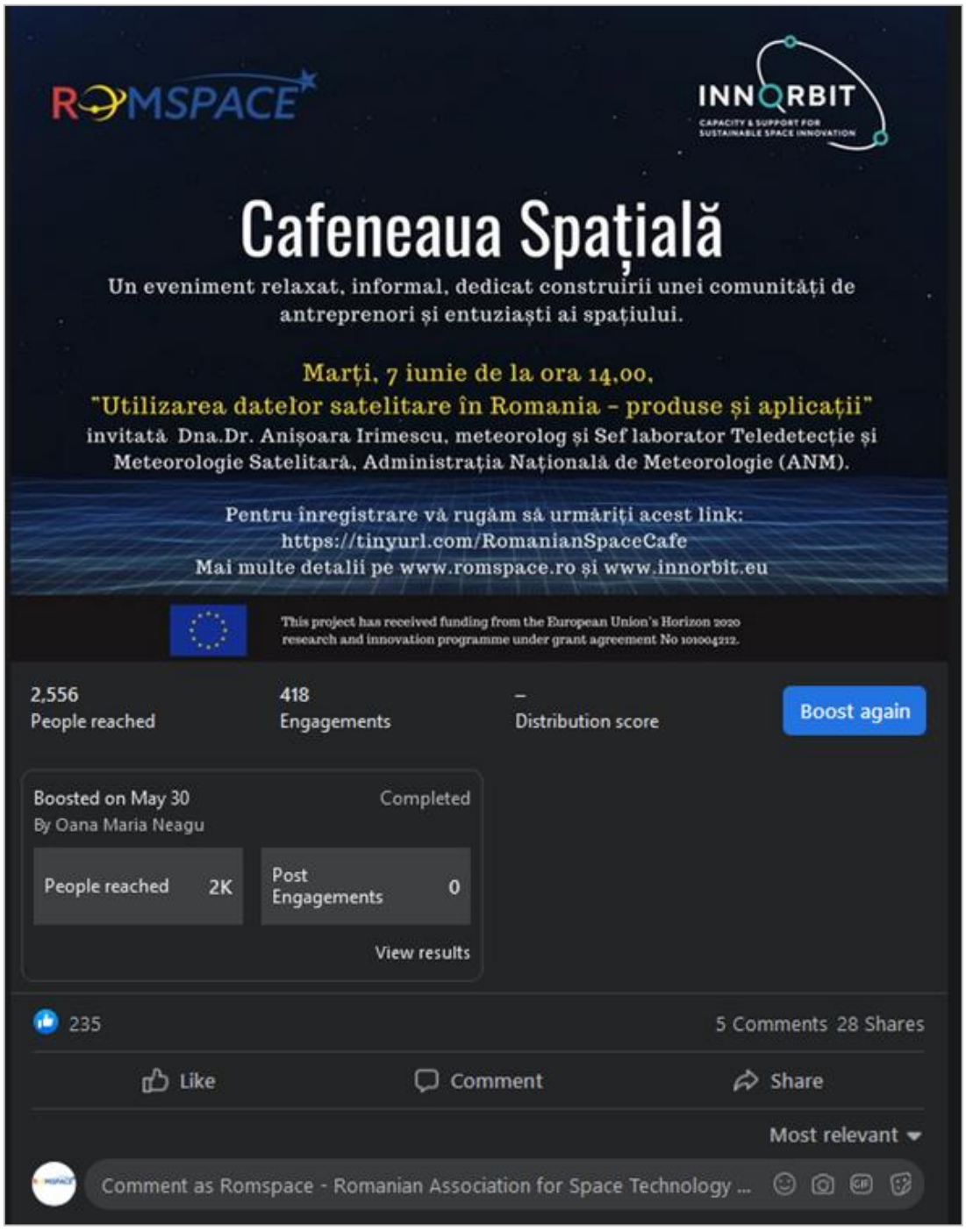
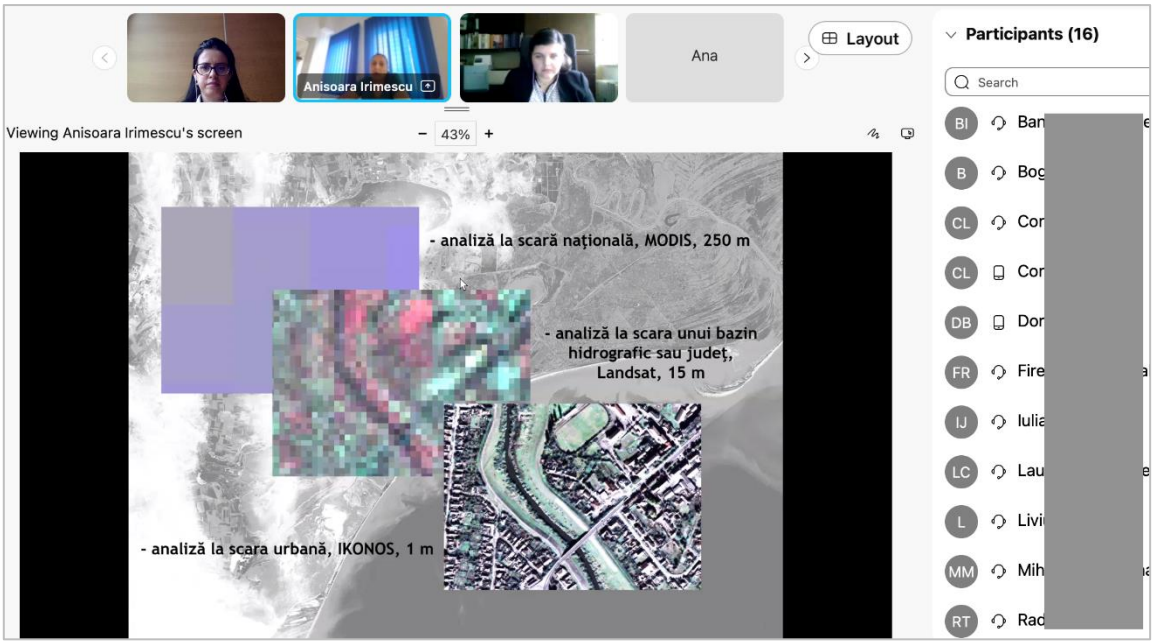


Figure 10. Screen shot during the second Space Café even showcasing an urban hydrographic analysis of a water basin using Landsat data as presented by keynote speaker Phd. Anisoara Irimescu from the National Meteorological Administration (ANM).



Evolution and lessons learned

The 1st Romanian Space Café event was a great learning experience in terms of how to structure the event, the flow and the potential invitees. Participation in a new project requires a much better communication strategy and an increased number of calls and invitations. 25 invitations were sent out as a start, then continued with an informal approach. Also, the roll-out strategy was refined by implementing a confirmation email with the link much sooner after the enrolment to the event. Furthermore, a list of potential topics and gamification to make the participants interact is necessary.

The InnORBIT consortium has also proved to come back with excellent feedback, which was integrated for the second event. The number of potential entrepreneurs from the ecosystem in Romania increased, attracting potential entrepreneurs with a younger demographic profile including a more business-oriented type. A list of tentative topics was prepared in advance, discussed and validated with experts contributing to generating more engagement.

After the second event, positive feedback was received from the participants to continue and organise a meet-up at the end of the summer. It is planned to concentrate more on networking opportunities and employ a speed-meeting technique at our next face-to-face event at the end of August 2022.

InnORBIT, provided an opportunity to branch out in a new domain for us, that of shifting from an organisation that mainly dealt with space entities to a more adaptable one. It adds the value proposition of transitioning from information diffusion and networking to a more structured role of host, by organising small to medium-scale events with a mixed public.

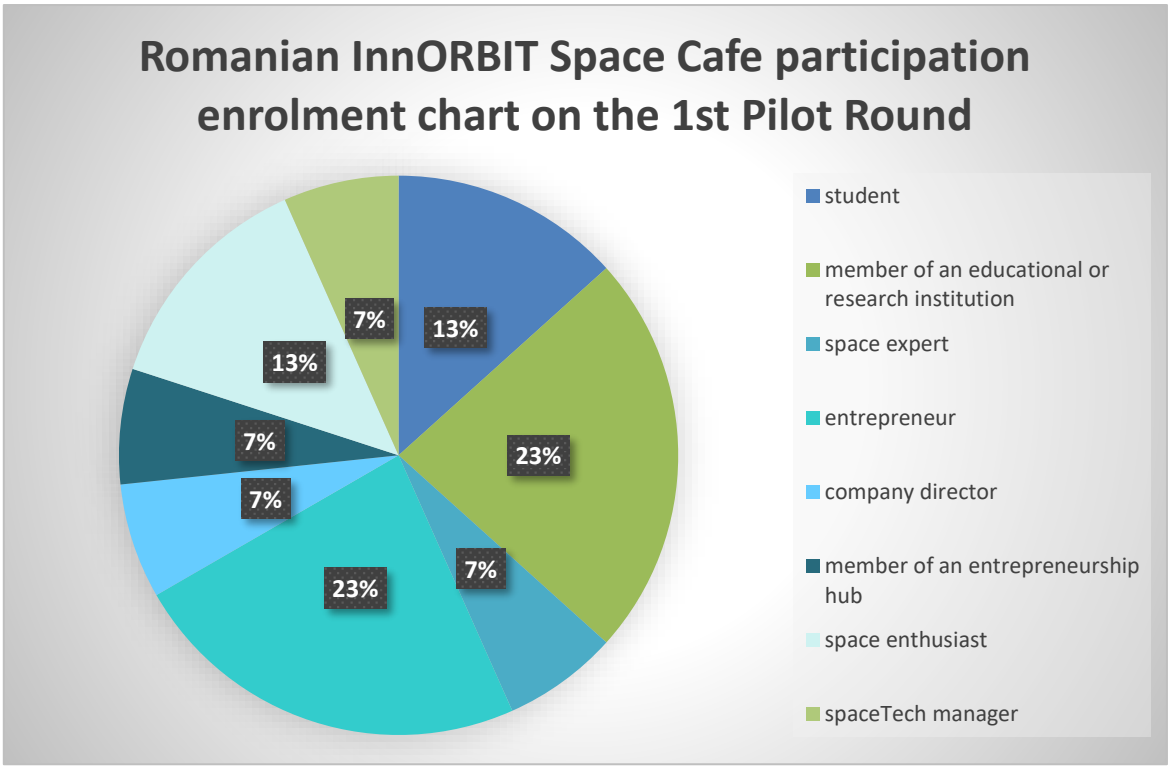
One of the lessons learned through this limited series is the importance of having a clear vision for the future of space and what it can do for the downstream sector, trying to bring entities and people to share experiences that speak and translate about real needs.

The portrait of the Romanian Space ecosystem remains incomplete, the planned cafés will give a more comprehensive picture of the experience in Romania, and it is desired to execute more under the umbrella of InnORBIT. So far, ROMSPACE has gathered a series of potential space enthusiasts that can benefit from the InnORBIT training and discover themselves on the road to space entrepreneurship.

During the deployment of the Space Cafés, ROMSPACE has directly reached 66 entities that are operating in the space sector, and more than 25 participants at our events have manifested that would like to participate in further events and discuss more space entrepreneurship.

The mix of registered participants for our events is as illustrated in the graph below, revealing interest in almost equal amounts from space entrepreneurs, academia and research institutions. It is planned to attract and increase the participation of the student sector, space enthusiasts and innovation hub specialists. Also, it is desired to attract more financing representatives that can shed light on different mechanisms on how it is possible to lift a space business from the scratch.

Figure 11. Enrolment for participation in the two deployed Space Café events.



3 Metrics and achievements

3.1 Monitoring framework

The first deployment stage of innovation initiatives raised **the need for a monitoring framework that is practical, comparable and whose Key Performance Indicators (KPIs) are easy to capture for each innovation initiative**. The KPIs in the Declaration of Action does not apply universally to all innovation initiatives and needed to be further refined. This refinement takes into account that **each innovation initiative has a different objective and hence a different impact** on its ecosystem. It is important to discern between the direct and indirect impacts of an innovation initiative, where most early-stage innovation instruments have many indirect impacts that take time to materialise. On the other hand, advanced or mature actions, such as fundraising, are easier and more direct to measure.

It is critical **to choose KPIs appropriate to the desired innovation objective**, as not all KPIs apply to every type of initiative. This is an important learning of InnORBIT and a checkpoint for innovation intermediaries when designing KPIs to measure the impact of their initiatives. **KPIs should avoid aiming at capturing indirect outcomes in the short term**, such as future revenues or collaboration results. KPIs should be also aimed at direct and simple actions that facilitate comparison between similar initiatives.

The methodology should also allow for collecting all information useful for monitoring in an **efficient way**. Simplicity is necessary due to the scarcity of resources of *pro bono* external intermediaries. Yet, **the best practice of InnORBIT is to collect KPIs during the monitoring calls**, dedicating a few minutes of the meeting to it.

Wrapping up, **InnORBIT refines the DoA KPIs to obtain a synthesis per initiative that is user-friendly for the intermediary**. The equivalence between source KPI and KPI collected in the intermediary is depicted in illustration Figure 12. This document reports only on the indicators related to the deployment and capacity building of the initiative. The remaining KPIs of the InnORBIT project are reported in WP4.

Figure 12. Monitoring and evaluation framework

KPI	Achievement indicators (KPIs)	Target	CBP	Ecosystem analysis	Start-up event	Café	Education entrep.	Hackathons	Sprints	Challenges	Incubator	Accelerator	Investor
KPI-O14	Innovation intermediaries trained	>20											
KPI-O15	Local initiatives organised and run	>20											
KPI-O16	Entrepreneurs, start-ups, scale-ups screened	>150			# registrants				# registered / contacted / screened				
KPI-O17	Engaged SMEs not traditionally involved in space	>15							# non-space SMEs supported				
KPI-O18	Entrepreneurs, start-ups, scale-ups supported	>50			# start-ups	# participants		# teams			# start-ups	# start-ups & scale-ups	
KPI-O19	Bootcamps / networking and demo days organised	3/ 3			# events	# cafés		# hackath.	# events				
KPI-O20	Synergies and joint actions with EU initiatives	>10											
KPI-O21	Space tracks in large matchmaking and pitching events	2											
KPI-I1	Number of new initiatives generated at local level	20											
KPI-I2	Synergies established with complementary EU level initiatives	10	Same as KPI-O20										
KPI-I3	Number of new start-ups with applications in space or non-space areas created	10				# new start-ups created following initiatives		# new start-ups created following initiatives					
KPI-I5	Initiatives established to facilitate knowledge transfer	20	Same as KPI-O15										
KPI-I6	Number of new service-oriented solutions generated	30				Same as KPI-I3		Same as KPI-O18	# new product/services created by teams / start-ups				
KPI-I17	Commercialisation of scalable and cost-efficient solutions supported	50							# product/services supported to commercialisation				
KPI-I8	Number of start-ups supported to grow into scale-ups	50							Same as KPI-O18				
KPI-I9	Number of jobs created in supported start-ups	75						# total jobs created in supported teams / start-ups (estimate)					
KPI-I10	Increased revenue growth of scale-ups	15%							# % growth of revenues in supported teams / start-ups (estimate)				# % growth of revenues in scale-ups
KPI-I11	Start-ups and scale-ups supported to access finance and funding opportunities	20											
KPI-I12	Applications made to national and EU level grant programmes	15							# applications to grant programmes by supported teams / start-ups				
KPI-I13	Start-ups and scale-ups introduced to active private investors	10							# start-ups supported with fundraising				
KPI-I14	Total finance / funding raised by start-ups and scale-ups supported	€2 million							# public or private funding raised by start-ups supported [EUR]				
KPI-I15	Enhanced financial sustainability	20%							# % of start-ups with increased financial sustainability after programme				
KPI-I16	Increased survival rate of supported start-ups	20%							# % of start-ups with increased survival chance after programme				
KPI-D2	Synergies with major initiatives and networks	10	Same as KPI-O20										
KPI-D4	Number of applicants to InnORBITs initiatives (by the end of the project)	150	Total # registrants to initiatives (e.g. for each initiative; innovators, start-ups, scale-ups, investors, academical, intermediaries and experts)										
TOTAL	Total number of questions per intermediary in survey		0	0	3	4	3	5	14	14	13	13	12

3.2 Monitoring results

As of the production date of this report, 31/08/2022, results have been collected:

Monitoring and achievements - ALG

Table 2: KPIs for the Croatian Space Café

KPI-O15	Local initiatives organised and run	1
KPI-O16	Total number of registrants	151
KPI-O18	Total number of participants	51
KPI-O19	Number of cafés hosted	4
KPI-O20	Synergies and joint actions with EU initiatives	1
KPI-I1	Number of new initiatives generated at local level	1
KPI-I2	Synergies established with complementary EU level initiatives	1
KPI-13	Number of start-ups born after	0
KPI-D2	Synergies with major initiatives and networks	1

Table 3: KPIs for jobs and business-related metrics

KPI-I9	Number of jobs created in supported start-ups	0
KPI-I10	Increased revenue growth of scale-ups	0
KPI-I14	Total finance / funding raised by start-ups and scale-ups supported	0

Monitoring and achievements - COR

Table 4: KPIs for the Greek Space Café

KPI-O15	Local initiatives organised and run	1
KPI-O16	Total number of registrants	78
KPI-O18	Total number of participants	61
KPI-O19	Number of cafés hosted	3
KPI-O20	Synergies and joint actions with EU initiatives	1
KPI-I1	Number of new initiatives generated at local level	1

KPI-I2	Synergies established with complementary EU level initiatives	1
KPI-I13	Number of start-ups born after	0
KPI-D2	Synergies with major initiatives and networks	1

Table 5: KPIs for jobs and business-related metrics[1]

KPI-I9	Number of jobs created in supported start-ups	0
KPI-I10	Increased revenue growth of scale-ups	0
KPI-I14	Total finance / funding raised by start-ups and scale-ups supported	0

Monitoring and achievements - ROS

Table 6: Monitoring KPIs for the Romanian Space Café

KPI-O15	Local initiatives organised and run	1
KPI-O16	Total number of registrants	30
KPI-O18	Total number of participants	26
KPI-O19	Number of cafés hosted	2
KPI-O20	Synergies and joint actions with EU initiatives	1
KPI-I1	Number of new initiatives generated at local level	1
KPI-I2	Synergies established with complementary EU level initiatives	1
KPI-I13	Number of start-ups born after	0
KPI-D2	Synergies with major initiatives and networks	2

Table 7: KPIs for jobs and business-related metrics

KPI-I9	Number of jobs created in supported start-ups	0
KPI-I10	Increased revenue growth of scale-ups	0
KPI-I14	Total finance / funding raised by start-ups and scale-ups supported	0

[1] This table will be updated after the end of the project

4 Conclusions

This document records the progress made from the intermediaries' perspective of the 1st pilot. **Although some initiatives are not finished yet, KPIs and progress so far have been captured**.

In terms of the overall progress of InnORBIT, the first pilot has served as an **in-depth test to determine the scope of support, and the needs of intermediaries in Croatia, Greece and Romania**, which, in short, have all been similar. The initiatives implemented are more grassroots than expected at the beginning of the project since the space ecosystems are lesser developed in Croatia and Romania, while Greece had a need for more pre-incubation support to amplify their deal flow for the existing advanced innovation instruments. The support provided to intermediaries during implementation varied depending on their experience in each type of innovation initiative or their degree of knowledge of the space sector.

Flexibility and tailor-made support are therefore the words that define InnORBIT's action in supporting innovation intermediaries. The assistance provided through a regular check-in schedule was also adapted to the query of each intermediary, ranging from topical help in the organisation to the conceptual definition of events and actions. Direct support to start-ups was limited to their inclusion in the InnORBIT's toolbox to provide access to the training material for start-ups.

The document **reflects a good track of the evolution of the activities of the 3 intermediaries ALG, COR and ROS** has allowed InnORBIT to adapt the plans and methods for the next pilot round which is currently under implementation. Some of the **activities of the intermediaries will continue beyond the timeframe of the first pilot and will therefore be extended** to the second pilot as well. The results of the upcoming initiatives scheduled after this deliverable will be compiled in the next achievements document of the 2nd pilot round[1] completing the information for the project.

[1] D3.8 Achievements of InnORBIT's support initiatives - 2nd round, May 2023