INNORBIT

CAPACITY & SUPPORT FOR
SUSTAINABLE SPACE INNOVATION

Empowering

innovation intermediaries

to generate sustainable

initiatives to incentivise

and accelerate

the commercialisation

of space innovation

D3.4: Support initiative deployment plan for Romania

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

COORDINATION AND SUPPORT ACTION

D3.4: Support initiative deployment plan for Romania

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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)	

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Executive summary

This deliverable, **D3.4 Support initiative Deployment Plan for Romania**, focuses on the measures taken to generate local support activities and successfully deploy the business support programme of the InnORBIT project for its first pilot round. In its role as an innovation intermediary ROMSPACE will aim to create a supportive environment and contribute to the space business support in Romania by mapping and identifying the needs of the local stakeholders (potential entrepreneurs, entrepreneurs, start-ups and scale-ups) and recruit and enrol entities in using the InnORBIT's toolbox. Furthermore, ROMSPACE is committed to bring awareness to space activities and the great potential of the commercialisation of space by hosting two initiatives, a periodic Space Café (multiple events will be organised and collectively referred onwards as Space Café) and a Space Hackathon.

ROMSPACE will also contribute with its expertise gathered in this deployment by sharing good practices and suggesting tweaks to the first iteration of the InnORBIT business support programme.

This document is divided in seven sections:

- **Section 1** comprises the introduction to the Initiatives concept
- **Section 2** describes the ROMSPACE as an innovation intermediary
- **Section 3** depicts the Space Café Initiative
- **Section 4** illustrates the Space Hackathon Initiative
- **Section 5** presents the Management Team and the Local Stakeholders
- **Section 6** is focused on the monitoring methodology, KPIs and sustainability
- **Section 7** provides some concluding remarks.

1   Introduction

The goal of the InnORBIT project is to generate up sustainable local initiatives to foster and support space innovation in Eastern Europe (EE). This is achieved through a chain of programmes and actions, starting with the Capacity Building Programme (CBP), followed by the Initiative Deployment Plan (IDP) which is implemented during the Business Support Programme (BSP). The CBP consists of a roadmap of support and training, including training on the specific initiatives, implemented with the assistance of entrepreneurs, start-ups and scaleups.

The CBP actions of InnORBIT are crystallised in the IDP of each pilot country. This document blueprints the actions that ROMSPACE as an innovation intermediary will conduct to build space awareness, with the support of InnORBIT, and which describes in detail the plans for each initiative to be executed during the CBP.

The local **space initiatives** to be deployed in the 1ˢᵗ pilot round, centre on the initiative of a **Space Café**, comprising several periodic events and towards the end of the pilot round with the organisation of **a Space Hackathon**. These two initiatives support 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 on the market 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 perhaps even human space travel. 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.

For the following six months, ROMSPACE is 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 thus can help create a tailored parkour for them. The entities that will enrol in InnORBIT will be done so by accessing the dedicated InnORBIT toolbox, as ROMSPACE does not have such a digital infrastructure at the moment.

The planning, promotion and execution of the two initiatives selected by ROMSPACE, namely deploying a series of Space Café events and a Space Hackathon will constitute the main activities for the deployment of the first pilot round. In terms of sustainability, ROMSPACE will likely participate to the second pilot round with an improved deployment plan of activities.

In addition for 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.

Furthermore, a key component of the successful completion of the project is the dissemination of information

2 Innovation Intermediary – Romanian Association for Space Technology and Industry (ROMSPACE)

The Romanian Association for Space Technology and Industry (ROMSPACE) is a non-governmental organization based in Bucharest that seeks to encourage the participation of different national entities (academia, scientific research institutions and industry) in national and international space programs and enterprises.

One of the main missions of ROMSPACE is 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 promotes collaboration and encourages the exchange of scientific information between organizations participating and potentially participating in space and aerospace research programs, such as institutes, universities, industry and other relevant sectors with the ultimate goal to foster the transfer of scientific results to potential users in industry, applied research and SMEs.

ROMSPACE is also performing studies on national capacities in the field of science, space technology, telecommunications and space applications, provides consultancy on national space strategy and Romanian participation to ESA's optional programmes.

Some examples of ROMSPACE past projects and collaborations include:

- AGRI-BIS - Online service for agriculture business management (2013-2015). An online service for agriculture business management that makes use of Geographical Information System (GIS), Remote Sensing (RS), and web-mapping for centralized access and efficient processing of various heterogeneous agriculture-related data (e.g. cadastre information, agricultural production, satellite images and on-site observations)
- FARMSAT Earth observation satellite for smart farming applications. Mission Analysis, needs and requirements identification (2014-2016). A feasibility study in support of a future mission under ESA'S smart farming programme encompassing the capabilities and the national needs for precision farming.
- CIDSOFT - Software Application for Modelling Critical Infrastructure Dependency on Space Systems (2014-2016). A scalable and adaptable modelling tool for exploring critical dependencies between terrestrial critical infrastructures and space systems using existing software for critical infrastructure protection modelling and management.
- DSSA – A study of Space applications for Black Sea and Lower Danube in support of the Danube Strategy (2014-2016). An in-depth study of the challenges affecting the Danube region, the identification of the classic and integrated spatial applications in the region, combined with the identification of critical infrastructure serving the region and the development of the document: "Black Sea - Lower Danube Strategy for intensifying the use of space capabilities in the period 2015 - 2025".
- ERoSpace - Establishing a Romanian National Centre for Space Strategy fostering extensive capabilities among national stakeholders on space policy and technological transfer (2016-2019). The project envisaged the creation of a joint Romanian government, industry and academia initiative for dialogue and development in the field of outer space affairs in Romania.
- CapeMidias - Feasibility study for using the Cape Midia military firing range as a micro-launcher and sounding flight operational base (2017-2019). A high altitude UAV flight was performed in June, 2019 as demonstration.
- SoboDart - Feasibility Study for the Development of a Suborbital Boosted Dart Vehicle (2017-2018). A study for an architecture of a new class of sounding rocket vehicles which would serve as the mainspring for the development of the Romanian aerospace industry.

- Strategic study on Romanian Industry for key components developments in support of VEGA and SpaceRider programmes (2020-2021).

3 Detailed description of the Space Cafés initiative in Romania

ROMSPACE will develop 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 will have the opportunity to meet researchers from different fields, experts from the industry sector, 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.

The proposed events are to be held face to face in different venues across Bucharest. However, due to the Covid 19 pandemic situation, we are preparing also for the initiatives to be held in a hybrid or online format. Going in the hybrid or online scenario will most likely affect participation but at the same time might offer a different mix of attendees in the audience from across the country.

3.1 Application process and selection criteria

3.1.1 Application process

The application process for the Space Café events is simplified, attendees need to complete their contact data on Eventbrite platform (Name and email, LinkedIn link profile) and will be invited to also register on the InnORBIT toolbox. No geographical restrictions will be imposed, any space enthusiast will be welcome regardless of their experience or expertise.ROMSPACE will develop as part of the Space Café initiative a series of four events centred on informal networking opportunities and community building.

3.1.2 Selection Criteria

The participants will be mainly local space entrepreneurs, SMEs, entrepreneurs from fields different from aerospace, students in space-related subjects, professors from University and Science Research Institutes, members of space associations, public and private space organisations and space enthusiasts. Also financial institutions and venture capitals, business angels will be invited to participate.

Participants must be of legal adult age (18 years or older) at the moment of registration. All participants regardless of race, creed, colour, ethnicity, nationality, religion, sex, sexual orientation, gender expression, age, physical appearance, body size, disability, or marital status will be welcomed.

3.2 Terms of reference

The Romanian Space Café initiative aims to create a network of space enthusiasts, foster cooperation and create a nurturing medium for the development of potentially new business ideas and entrepreneurial space endeavours.

The events will have an informal setting. A typical event will have the following outline: the subject is introduced by a series of keynote speeches and led by a presenter, followed by a Q&A session in panel format and closes with an informal networking opportunity. Prizes are not applicable to the Space Café.

The proposed themes for this initial series of events are as follows:

- Life after Covid 19 and the impact of space ;
- Copernicus Data ;
- New Space opportunities;
- Current Space trends ;

3.3 Promotion

The Promotion plan includes a wide mix of approaches including: email campaigns, public relations, collaborations with the Romanian media leading to contributions as communication sponsors, community partners, and extensive usage of social media (Facebook, Instagram, Twitter and LinkedIn).

ROMSPACE will use its network of contacts created during our previous collaborations as well as branching out to interested parties in the wider educational and business sector (entrepreneurs, universities, SMEs, start-ups and scale-ups).

3.3.1 Email campaign

The promotional campaign will start with connecting with our existing network of space entities. A newsletter will be sent to them along with an invitation with a **Save the date** for the first event and inviting them to the InnORBIT website.

A different email will be sent to different stakeholders reaching out with the value proposition of InnORBIT containing the "why" they should attend the Space Café and the subsequent events.

A few days before the actual event an email will be sent with a confirmation

3.3.2 Social Media

Social media drives nearly 25% of views to ticketing pages according to a study performed by the platform Eventbrite.

ROMSPACE will use a mix of social platforms to spread the message:

- **Facebook** – Sharing event updates, engaging followers, and creating event pages. Target specific groups for entrepreneurs, academia and space industry
- **Instagram** – Sharing of images and stories related to the arching theme of the Space Café in order to engage the audience. New features enable direct linking to the registration site and InnORBIT.
- **LinkedIn** – Great for B2B and industry networking, this professional social media platform is a good choice for company news and event announcements.
- **Twitter** – Use posts and an event hashtag to build excitement before and during the events.

ROMSPACE at the moment has only an Instagram presence but accounts will be created for the roll-out of the InnORBIT initiatives and will contribute to an increase of our online presence and awareness.

In the weeks leading up to the event, a teaser will be posted on each event platform. Also, use of branded social media will be deployed and using an event hashtag.

Pre Event, short posts will be published to provide a look behind the scenes – by sharing information about the event theme and in-depth profiles of the speakers.

During the Event. – Posts from sessions, the show attendees, speakers, etc.

Post Event. Wrap up the event with a series of summary posts.

3.3.3 Press release

A press release will be sent to different publications for each event in order to drive awareness and event credibility with the industry press.

3.3.4 Online Advertising

The top social media platforms all offer advertising in the form of paid posts or sponsored content. If we are not seeing traction with the organic social media posts, we will have a budget small budget dedicated to paid

We've put together a sample timeline based on promotion for a mid-size conference.
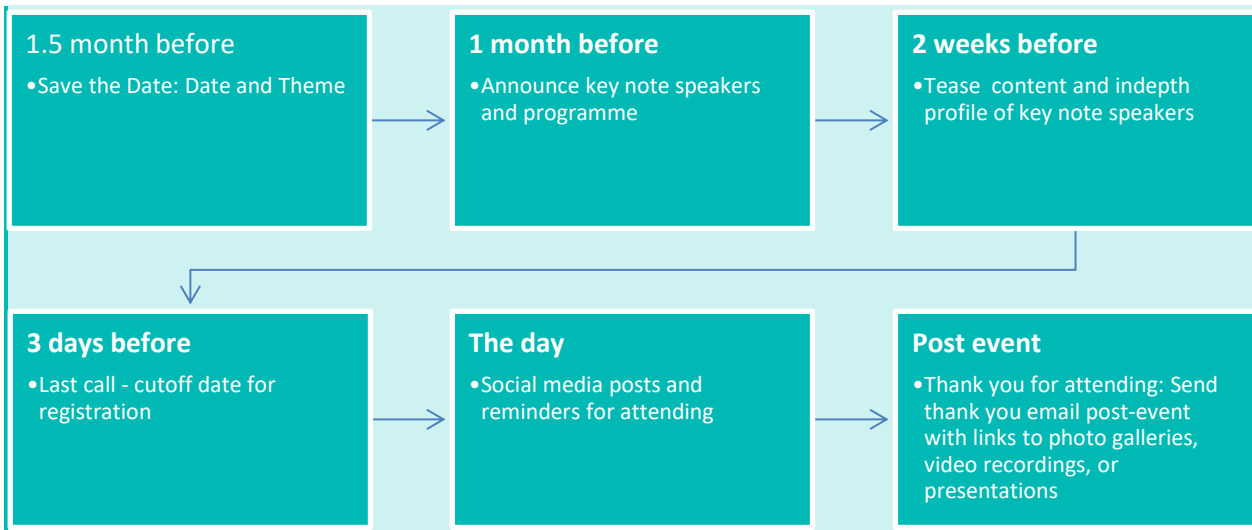

1.5 month before	1 month before	2 weeks before
•Save the Date: Date and Theme	•Announce key note speakers and programme	•Tease content and indepth profile of key note speakers

3 days before	The day	Post event
•Last call - cutoff date for registration	•Social media posts and reminders for attending	•Thank you for attending: Send thank you email post-event with links to photo galleries, video recordings, or presentations

Figure 1Timeline of promotion and communication for the Space Café initiative

After the Space Café, a satisfaction questionnaire is going to be sent to the attendees, immediate feedback is also collected during the event by ROMSPACE.

A typical application journey for a potential attendee is as follows:

- Attendee express interest by engaging with one of our communications methods;
- Attendee is redirected to Eventbrite;
- An invitation to the Event is sent after registration, reminders of the event are sent 3 days before the event, coinciding with the cut-off date for registration as outlined in Figure 1.
- After the event, a short satisfaction with the event survey is sent and potential start-up and entrepreneurs are invited to follow the on boarding InnORBIT process.

3.4   Execution of events

The planning and execution of events are set to start in January 2022 with the preparations stages of the first Space Café of the series.

ROMSPACE will start scouting for physical venues in Bucharest with free access to their facilities or asking for in-kind usage of space from their partners.

Because of the pandemic situation, the availability of spaces and number of attendees of an event shall be made in accordance with the local authorities' recommendations. In the eventuality that such an event could not take place in the physical form (face to face interaction), the decision will be taken according to the pandemic scenario to opt either for a hybrid event or a fully online event.

For the first Space Café of the series that is scheduled to take place in February (date pending on availability of speakers), an online scenario is being considered.

Access to the events is free of charge, during the physical events participants are asked to pay their own drinks.

Speakers and invited to attend the event on a pro-bono basis, certain exceptions are allowed to cover the speaker protocol of the event or in case of a higher tear speaker an honorary is to be negotiated beforehand.

Sponsorships or in-kind support for the events are going to be sought out doing the roll-out of the initiative.

The Agenda of the Space Café shall include at least a keynote speech, a Q&A session and an opportunity for networking. An external platform such as Mibo might be considered upon testing for the after event networking.

After the event, a small feedback survey shall be collected to express the level of satisfaction of the event and proposals for change or improvements to be made.

An indicative example for the organisation of the Space Café initiative includes the following milestones:

- MS1: Confirmation of possible dates, timeline of events
- MS2: Design of marketing plan
- MS3: Draft events agenda & topics for discussion (first two Space Café events)
- MS4: Marketing plan launch after confirmation, end of January
- MS5: Contributors/Speakers confirmation
- MS6: Implementation of the first Space Café.
- MS7: Draft events agenda & topics for discussion (next two Space Café events)
- MS8: Implementation of the second Space Café
- MS9: Implementation of the third Space Café
- MS10: Implementation of the fourth Space Café

Milestones	Jan 2022	Feb 2022	Mar- 2022	April 2022	May 2022
MS1	Confirmation of possible dates, timeline of events				
MS2	Design of marketing plan				
MS3	Draft events agenda & topics for discussion (first two Space Café events)				
MS4	Marketing plan launch after confirmation, end of January				
MS5		Contributors/Speakers confirmed			
MS6		Implementation of the first Space Café			
MS7			Draft events agenda & topics for discussion (next two Space Café events)		
MS8			Implementation of the second Space Café		
MS9				Implementation of the third Space Café	
MS10					Implementation of the fourth Space Café

Table 1 Milestones for the Romanian Space Café initiative

The **budget** for the implementation of the Romanian Space Café initiative series of events has been estimated to be approximately 500€ per event. The budget might suffer changes depending on sponsorships or in-kind support obtained from the local community. The budget will cover marketing and online support costs, including any personnel fees.

3.5 Risk assesment of deployment of the Space Café initiative

PROBLEM/RISK	DESCRIPTION	IMPACT	PREVENTATIVE ACTION
Budget and Time	Project evolves to include unforeseen cost elements and/or time	High	Revaluate the event components and take preventative actions where appropriate. Create a potential sponsor list and use connections to obtain in-kind support.
Compensation for key note speakers	Project costs for the Consultants/Experts /Keynote speaker ; invoice for unexpected project components	High	Document expectations for compensation beforehand and attract in-kind support;
Non-delivery of Space Café key note	Consultant/Expert fails to deliver the agreed upon Keynote speech	Medium	Plan for early warning signals in the communication for the event in order to secure an alternate lecturer in a timely manner;
Low participation numbers	Individuals fail to show in adequate numbers for the event	Medium	Consider doubling down on promotion efforts and include the possibility of recording the keynote speech. The events will depend of the venue capacity and we will proceed with an overbooking of 20% of capacity seating Covid 19 restrictions permitting.
Covid 19 – pandemic conditions	Restrictions for organising events	High	The events will go fully online.

Table 2 Risk assessment of deployment of a Space Café initiative

4 Detailed description of the Space Hackathon initiative in Romania

For the second initiative that ROMSPACE is going to develop in Romania we have chosen to organise a Space Hackathon.

A Space Hackathon is a race that seeks to solve a challenge with a specific theme that is relevant to space, the economy and society. It requires experts' advice to determine the challenge as well as what space data is to be made available and how, and it involves a number of participants that meet and work for a period of 2-3 days to complete and present their innovative solution.

Space has become more and more accessible in the past years and as such the Earth's orbit has become a limited resource that many more countries are looking to explore, along with international organisations and non-governmental entities.

Our hackathon will have a broad theme "New Space" – a concept that encompasses new innovation and business models for the space sector. We would like to convey the message that space is an accessible and inspiring new market that can be sustainable by design and solve humanity's recent challenges.

On the output side, there is an increased capability to elaborate the satellite data into a meaningful application and increase awareness of the potential this data is offering.

Our hackathon will bring together industry players, along with coders, entrepreneurs, scientists, designers, makers, builders and artists. During a period of 48 hours, participants can come together to create virtual teams and solve challenges using open-source data.

In the following months, together with a series of experts in Copernicus Data we will create a set of data challenges that are proposed to be solved by the participants. The ideation for this is set to start in January 2022.

4.1   Application process and selection criteria

4.1.1   Application process

The application process for the hackathon shall be fairly simplified, attendees need to complete their contact data on the mini website, an announcement of the hackathon will be launched also on the Eventbrite platform (Name and email, LinkedIn profile) and then further details shall be sent to the user with the participation details.

The registration questionnaire for the hackathon shall include more details about the potential attendee such as background, general interest and shall link also to his/her LinkedIn profile in order for us to be able to do preliminary matchmaking for the teams. InnORBIT toolbox will be used for on boarding participants.

4.1.2   Selection Criteria

The participants will be mainly space enthusiasts and entrepreneurs, SMEs,entrepreneurs from fields different from aerospace, students in space-related subjects, professors from University and Science Research Institutes, members of space associations, public and private space organisations and space enthusiasts. Also financial institutions and venture capitals, business angels will be invited to participate to the pitching.

The criteria for the selection are:

- Only individual, natural persons can participate in the hackathon.
- Participants must be residents of Greece (or an EU Member State) to be updated
- Participants must be of legal adult age (18 years or older) at the moment of registration.
- Participants can be students, professionals from industry or from academia, people working for governments, non-profits, etc.

- All participants must register to the hackathon before the start of the Hackathon Weekend
- Participation to the hackathon is free.
- We welcome all participants regardless of race, creed, colour, ethnicity, nationality, religion, sex, sexual orientation, gender expression, age, physical appearance, body size, disability, or marital status.

4.2 Terms of reference for the Space Hackathon

The Space Hackathon is the first event of its kind for ROMSPACE in terms of organising. We propose that our Hackathon take place at the end of May – beginning of June 2022 in order to attract more participants. The event should take place as a physical event but in light of the COVID-19 pandemic, we are preparing for a full online event. A mini website shall be created where participants will be able to meet teammates and create their teams; talk with other participants over the platform Discord, meet space agency experts in our online chat rooms set up for the event; and submit their projects.

The hackathon, and the preparation work to define the themes, will explore and create datasets, with the aim of generating service solutions, not just applications that will address specific citizens' needs.

Of course, we hope that at the end of the hackathon by fostering collaboration between people with different skills, attracting long term involvement of technical people in the development of the results of the hackathons, and the involvement of start-ups will possibly generate a viable operative solution that will turn into a future space business.

We estimate that a number between 50-70 participants are going to attend our hackathon, in section **4.4 Execution of Space Hackathon** we are detailing the preparation stages of the hackathon.

4.2.1 Stakeholders

Creating a successful event requires besides the dedication of the management team, a number of various stakeholders that will be involved such as: recruiting a scientific committee, jury, sponsors and community partners along with team mentors and possible backers, who help with the ideation of the challenges, datasets, and tools to be used.

4.2.2 Budget and Prizes

We considered two proposals for the budget of the Space Hackathon based on two scenarios: the Physical variant that will require a budget of approximately 12000€ and the Online variant that will require a budget of approximately half. To cover the budget for the space hackathon attracting sponsorships and in-kind support will be crucial. Prizes will differ based on the final sponsorships agreements.

4.3 Promotion

The Promotion plan includes a wide mix of approaches including: email campaigns, public relations, collaborations with the Romanian media leading to contributions as communication sponsors, community partners, and extensive usage of social media (Facebook, Instagram, Twitter and LinkedIn).

ROMSPACE will use its network of contacts created during our previous collaborations as well as branching out to interested parties in the wider educational and business sector (entrepreneurs, universities, SMEs, start-ups and scale-ups).

4.3.1 Email campaign

The promotional campaign will start with connecting with our existing network of space entities. A newsletter will be sent to them along with an invitation with a **Save the date** event card and inviting them to the InnORBIT website.

A different email will be sent to different stakeholders reaching out with the value proposition of InnORBIT in order to create potential partnerships for sponsorship and mentorship.

Different communications will follow along the timeline described below.

4.3.2   Social Media

ROMSPACE will use a mix of social platforms to spread the message:

- Facebook – Sharing event updates, engaging followers, and creating event pages. Target specific groups for entrepreneurs, academia and space industry
- Instagram – Sharing of images and stories related to the arching theme of the hackathon in order to engage the audience. New features enable direct linking to the registration site and InnORBIT as well as linking with the Space Café initiative in progress.
- LinkedIn – Great for B2B and industry networking, this professional social media platform is a good choice for company news and event announcements.
- Twitter – Use posts and an event hashtag to build excitement before and during the events.

In the weeks leading up to the event, a teaser will be posted on each event platform using branded social media.

Posters and branding specific to the challenges will be created as well.

The strategy for social media will include 3 stages: Pre-hackathon, Hackathon and Post-hackathon.

4.3.3   Press release

Several press releases will be sent to different publications in order to drive awareness and event credibility with the industry press and general public

4.3.4   Online Advertising

The top social media platforms all offer advertising in the form of paid posts or sponsored content. If we are not seeing traction with the organic social media posts, we will have a dedicated to paid advertising. This budget we hope to obtain it by selling promotional sponsor branding packs for the hackathon.

4.4   Execution of the Space Hackathon event

ROMSPACE proposes a time management plan that involves the following milestones:

- MS1 Confirmation of theme, internal draft agenda
- MS2 Scoping of possible venues possible dates
- MS3 Design of the marketing plan and social media
- MS4 Communication activities to attract participants
- MS5 Confirmation of stakeholders on-board
- MS6 Design of the Challenges and related content
- MS7 Website debut for the event
- MS8 Organisation of team formation events
- MS9 Implementation of the hackathon
- MS10 Hackathon wrap-up

The starting month will be February 2022 with an estimation of approximately 4 months before the Space Hackathon event. Detailed timeline of the activities included below.

MILESTONES	T-4 MONTH BEFORE HACKATHON	T-3 MONTH BEFORE HACKATHON	T-2 MONTH BEFORE HACKATHON	T-1 MONTH BEFORE HACKATHON	T-0 HACKATHON DAYS
MS1	Confirmation of theme, internal draft agenda				
MS2	Scoping of possible venues possible dates				
MS3	Design of the marketing plan and social media				
MS4		Communication activities to attract participants			
MS5		Confirmation of stakeholders on-board			
MS6		Design of the Challenges and related content			
MS7			Website debut for the event		
MS8				Organisation of team formation events	
MS9					Implementation of the hackathon
MS10					Hackathon wrap-up

Table 3 Milestones for the Romanian Space Hackathon initiative

4.4.1   T - 4 months before the hackathon

Establishing the Goal and Theme: Fostering the regional development of the start-up ecosystem related to the "New Space" theme and scouting potential participants to the hackathon from ROMSPACE portfolio.

Competition / cooperation: Decision for a competition style event. Teams can win prizes ranging from tech gadgets to start-up coaching and participation in accelerator programs.

Setting the Agenda of the hackathon: a tentative date for a 48-hour event starting in the afternoon of the first day and ending in the afternoon of the third day. Discussion about the decision for a tentative agenda that includes daily checkpoints, a final pitch presentation and an award ceremony.

Participant recruitment pool: Contacting local universities, start-up hubs, tech and space companies, accelerator programs and government agencies to spread the news about the event through their networks.

Start of the social-media campaign.

Scoping of possible venues.

Stakeholder involvement: Discuss with representatives of aforementioned groups about their interest in the event and invitation to participate as mentors, give thematic talks and provide sponsorship and prizes.

4.4.2　T- 3 months before the hackathon

Participant recruitment: Creation of an online form that covers participants' contact details, their current profession and their projected role during the hackathon. Registration requires a firm commitment of the participant. Investigating how to retain the participant and actually show up on the days.

Deciding on presenting Ideation: Participants can indicate if they have a project idea for the hackathon and provide a short description as part of the registration form. Initiate talks with the stakeholders to create a pool of idea to be explored during the hackathon.

Mentoring: Identification and invitation of a diverse group of individuals who can provide mentorship related to cyber security, satellite navigation and applications, Copernicus data, GIS, SST, various programming languages, design, entrepreneurship, marketing and financing Decision for a combination between mentor teams and individual on-demand support.

4.4.3　T- 2 months before the hackathon

Website debut for the event.

4.4.4　T- 1 month before the hackathon

Team formation: Teams will form around ideas developed earlier, teams should not have less than 2-3 members, have to be of similar size and include individuals with diverse expertise and interests including, programming, design and entrepreneurship.

Stakeholder involvement: Finalization of sponsor agreements including prizes and talks at the hackathon.

Participant recruitment: mini competitive ideation events online.

4.4.5　T- 1 week before the hackathon

Agenda: Adding final event agenda including keynote speeches, training and talks by sponsors during each day of the hackathon.

Info Manual: Adding all the details about the pitching event and criteria for the jury.

Mentoring: Introduction of mentors on the information hub.

4.4.6　T-0 Hackathon Day 0-1-2

Welcoming speech by the organizers, presentation of hackathon agenda including idea pitches, mandatory checkpoints for idea proposers, talks and trainings, expected outcome (pitch presentation) and jury. Reiteration of information manual and contact details for organizers and mentors.

Team formation: depending on the eventuality of organising a physical events, the teams are to be formed following the outlined procedure. . Ideas are written on large sheets of paper and projected in the venue. Participants that did not pitch ideas follow a speed-dating protocol by engaging with idea proposers, discussing their expertise and voice their interest. Idea proposers select suitable team members based on their interests and expertise. Ideas that do not gain sufficient interest from other participants are abandoned and the proposers of these ideas join other teams. In the eventuality that the event will go fully online, the team formation will follow a similar procedure but a social platforms such as Discord could be used for the event.

Teams start hacking.

Mentoring: Mentors meet and form teams with diverse expertise. Each mentoring team is assigned to a group of hackathon teams that they support during the hackathon. Mentors focus on their teams but also support others if necessary.

Final pitches of idea proposers in front of all participants, jury, organizers, mentors and online audience (live stream).

Competition / cooperation: Online voting for audience favourite, jury decision and award ceremony.

Duration / breaks: Group pictures, networking, end of the hackathon and departure.

After the hackathon – a thank you email and a collection of data and pictures shall be sent to the participants. Organizers share a summary of the hackathon on the mini site and connect interested teams with stakeholders and periodically contact winning teams about their progress. The winning teams should join InnORBIT as an added bonus.

4.5   Risk assesment for the Space Hackathon

PROBLEM/RISK	DESCRIPTION	IMPACT	PREVENTATIVE ACTION
Budget and Time	Project evolves to include unforeseen cost elements and/or time	High	Re-evaluate the event components and take preventative actions where appropriate. Create a potential sponsor list and use connections to obtain in-kind support.
Compensation for key note speakers	Project costs for the Consultants/Experts /Keynote speaker ; invoice for unexpected project components	High	Document expectations for compensation beforehand and attract in-kind support;
Low participation numbers	Individuals fail to show in adequate numbers for the event	Medium	Consider doubling down on promotion efforts and include the possibility of remote participation in case of a physical event.
Covid 19 – pandemic conditions	Restrictions for organising events	High	The event will go fully online.

Table 4 Risk assessment for the Space Hackathon

5 Team for the management of the initiatives and Local Stakeholders

5.1 Management team

The project team is led by ROMSPACE with the help of different Consultants/Expert teams that will join the organisation committee and act as mentors and facilitators:

MEMBER	COMPETENCIES
Cosmonaut Dumitru-Dorin Prunariu. (M)	Mr. Prunariu is the President of the Romanian Association for Space Technology and Industry – ROMSPACE. In May 1981 Prunariu accomplished an 8 days space flight on board Soyuz-40 spacecraft and Saliut-6 space station. Prunariu is one of the founding members of the Association of Space Explorers (ASE), a member of the ASE Committee on Near Earth Objects (NEO).Mr. Prunariu has acted as the President of the Romanian Space Agency until 2004 when he was appointed Ambassador Extraordinary and Plenipotentiary of Romania to the Russian Federation. Mr. Prunariu is currently a vice-chair of the United Nations Committee on the Peaceful Uses of Outer Space (UN COPUOS) Working Group on "Space Agenda 2030". For his work connected with Near Earth Objects and for the promotion of the Asteroid Day as an international day recognized by the UN General Assembly, in 2017 an asteroid was named with his name, the asteroid "10707 Prunariu". Mr. Prunariu is a co-author of several books regarding space technology and space flight and has presented/published numerous scientific papers.
Oana Neagu (F)	Oana is the Vice-president of ROMSPACE and hols a PhD in Economic Sciences and a Master's degree in Project Management. During 14 years of experience in the space sector she acquired a good knowledge of the Romanian entities active in the space sector, of the national capabilities in this area and also of the institutional landscape, developing long lasting collaboration with both space stakeholders and government officials. She also has a good knowledge of the international space policy and the global ambitions in this area.
Iulia-Elena JIVĂNESCU (F)	Iulia holds an MSc in Space Propulsion from Massachusetts Institute of Technology. In her current position acts as the European Space Agency (ESA) Coordination Officer in Romania, a liaison position between the Romanian space industry and the European Space Agency, under the aegis of the Romanian Space Agency (ROSA). She works closely in assessing and bringing forward ways for Romanian companies to increase their TRL, provide equipment to spacecraft and be affiliated with the European large system integrators. Iulia in her role has a deep understanding of the technologies, products and research of the space industry, as well as a new perspective on the science and engineering challenges, which are frequently accompanied by issues relating to intellectual property, dual use technology regimes, industrial development programs and policies.Iulia

	also acted as. Vice-president of the Space Working Party during the Romanian Presidency of the Council of the EU (January – June 2019), negotiating the EU Regulation for the Space Programme 2021-2027.
Cristina Stancu (F)	Cristina is currently working for ROMSPACE, where she leverages 5+ years' experience in working on educational ESA projects in partnership with the Romanian Space Agency (ROSA), planning, designing and developing high-quality and engaging trainings for STEM education using current, evidence-based pedagogical strategies. Cristina has managerial experience in organising project-based engineering hands-on Competitions both nationally and internationally. Moreover, Cristina has a good track record of success in disseminating challenging scientific data for the benefit and enjoyment of diverse technical and non-technical audiences as well as an easy communication style. Cristina holds a MEng in "Energy and Environment Policies" from the Polytechnic University of Bucharest, Romania, where her research focused on project management and feasibility studies for combined steam and gas power cycle power plants.

Table 5 Management team on behalf of ROMSPACE

5.2 Local stakeholders

MEMBER	COMPETENCIES
Ministry of Research, Innovation and Digitization	The main government body that fosters research and innovation in Romania.
Romanian Space Agency (ROSA)	ROSA is a public institution entirely self-funded which coordinates the main national research programmes and space applications and develops and coordinates the implementation of the National Space Program in line with the objectives defined by the National Research, Development, and And Innovation Strategy. Starting from 22 December 2011, Romania became the 19th Member State of the European Space Agency (ESA).
Polytechnic University Bucharest	The most prominent stakeholder in the space domain in Romania at an academic level. The Aeronautics and Space Research Centre at the Polytechnic University Bucharest is another important participant in the ecosystem that balances the theoretical and applied research in space technology. The Centre develops a close relationship with major companies in the field, start-ups, and research institutes, educational and industrial units for the exploitation of new space technologies, improving the human research potential in the field.
Scientific, research and academic centres	Centres that specialise in space technology such as: Engineering and Research Centre for Aeronautics and Space; INCAS – National Institute for Aerospace Research "Elie Carafoli" (under the aegis of The Romanian

	Academy), the Institute of Space Science (ISS) and CRUTA - Romanian Centre for Remote Sensing Use in Agriculture.
Hubs and Incubators and Accelerators in Romania	Synergies will be sought with Romanian entities that have the potential to be involved in InnORBIT.
Professional and Student Associations	European Association of Aerospace students, IEEE associations

Table 6 Local Stakeholders for Romania

6   Monitoring & tracking

6.1   Performance, success and quality indicators and assessment criteria

Monitoring shall be made in order to align and comply with the set KPI of InnORBIT described in the proposal of the project .On the table below, the relevant KPIS to the initiatives are presented.

KPI NUMBER	DESCRIPTION	TARGET OF THE PROJECT 1ST ROUND (FOR 3 PILOTS)	ROMSPACE TARGET 1ST ROUND (SPACE CAFÉ + SPACE HACKATHON)
KPI-O15	Local initiatives organised and run	3	2
KPI-O16	Entrepreneurs, start-ups, scaleups screened (registered)	>30	10
KPI-O17	Engaged SMEs not traditionally involved in space	>3	1
KPI-O18	Entrepreneurs, start-ups, scaleups supported (actual participants)	>10	20
KPI-O19	Bootcamps / networking and demo days organised	3	1
KPI-I1	Number of new initiatives generated at local level	3	2
KPI-I3	Number of new start-ups with applications in space or non-space areas created	2	1
KPI-I5	Initiatives established to facilitate knowledge transfer	3	2
KPI-I6	Number of new service-oriented solutions supported to be generated	5	1
KPI-I8	Number of start-ups supported to grow into scale-ups	8	0
KPI-I9	Number of jobs created in supported start-ups	11	1
KPI-I10	Increased revenue growth of scale-ups	N/A	N/A
KPI-I11	Start-ups and scale-ups supported to access finance and funding opportunities	3	1
KPI-I12	Applications made to national and EU level grant programmes	2	1
KPI-I13	Start-ups and scale-ups introduced to active private investors	2	0
KPI-I14	Total finance / funding raised by start- ups and scale-ups supported	N/A	N/A
KPI-I17	Commercialisation of scalable and cost- efficient solutions supported	8	0
KPI-D4	Number of applicants to InnORBIT's initiatives (by the end of the project)	30	70

Table 7 InnORBIT KPIs in relation with the IDP for Romania

Monitoring shall be made in order to align and comply with the set KPI of InnORBIT described in the proposal of the project.

For the selected initiatives an additional number of specific KPIs are to be considered, thus we shall monitor:

- Number of attendees – the number of attendees per Space Café as well as aggregated total.
- Number of participants per type of audience – industry, academia, public sector

- Number of speakers and domains.
- Relative satisfaction of attendees regarding the organisation and insight gathered during the event.
- Number of requests for on-boarding in the BSP after the completion of the Space Cafés deployment.
- Also, it would be interesting to measure the uptake of InnORBIT BSP programme and registration for the courses through the toolbox provided.

6.2 Procedures, and templates to monitor and collect feedback from participants

Feedback is encouraged in both initiative, an online satisfaction survey will be provided to all participants after the completion of an event. A different set of questions will apply to each initiative.

During the space hackathon, digital platforms will be used to facilitate networking and communication among the team members and the organiser as explained in the above sections.

6.3 Sustainability

ROMSPACE will envisage the sustainability of those two initiatives after the 1st round, and considers implementing the initiative of a Space Café once per trimester.

ROMSPACE plans to use the iterative development process for its initiatives and re-evaluate at the end of the 1st pilot the quality, feasibility and marketability of the initiatives deployed and hopes to contribute to the development of good practices for the future.

7 Conclusions

The present document describes the first iteration of the Support initiative deployment Plan for Romania for the 1st pilot round. Adjustments will be made during the deployment to account for the circumstances in the ecosystem. The programme will be executed in the months following the CBP deployment, from M13 to M19.

ROMSPACE will develop two initiatives a Space Café and a Space Hackathon, meant to create awareness for the possibilities of space commercialisation and space accessibility while promoting the development of cooperation and networking opportunities.