

Galileo hackathon

by **GNSS.asia**

16-17 March www.gnss.asia

PES University **Bangalore**



GNSS.asia



European
Global Navigation
Satellite Systems
Agency

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1 Why participate?



Cash prizes

Cash prizes of 160k, 80k and 40k INR for the top-3 participants



Guidance and mentorship

Receive guidance and mentorship from experts in GNSS technology, Galileo and entrepreneurship



Meet GNSS leaders

Meet leading GNSS leaders from the European GNSS Agency, ISRO, PES university, Burdwan university and many more!



Certificate

Certificate of participation for each team

2 The Challenge

Challenge

Develop an innovative Urban Mobility/Smart City-solution, using Galileo, which provides the following:

1

A user-friendly, fast and cost-efficient A-to-Z transport solution for Bangalore (MaaS) OR

2

A smart city solution for citizens who are disadvantaged and/or with health issues OR

3

A smart city solution for the safety of vulnerable population groups OR

4

Other smart solutions for Bangalore, India or globally (sustainability, food distribution, new services...) using Galileo

Required solution

Your solution should at least fulfil the following requirements to be eligible:



Use of Galileo signal
+ clear explanation of **how these will be integrated and applied**



Address one of the above challenges



Innovative application that distinguishes itself from the existing market solutions

This Galileo Hackathon is an **idea competition**, requiring teams to develop an innovative concept of a GNSS-based solution, including a clear technical feasibility assessment. The application itself, however, does not need to be developed or programmed. However, although no handsets or technical support will be provided, **any additional demos or technological readiness of the presented solution can generate extra scoring points** by the jury.

In order to define the technical framework, all participants will attend a **training on the morning of 16 March** on the science behind and the application of GNSS technologies, or on business management and how to commercialise a GNSS-based application. In addition, everyone will be treated to a **session on Galileo differentiators** to explain what distinguishes Galileo from other constellations within a multi-GNSS context. In the weeks before the Hackathon, two webinars will also be hosted on the same topics to ensure that everyone receives the necessary training and information.

Template



Each team should present its solution in a pre-defined power point template which should be pitched in a 3-minute presentation on the morning of 17 March 2019.

The following elements should be addressed in the template:

Oneliner (1 slide) – describe your solution in one sentence

Solution and use case (2 slides) – present your solution, which problem it addresses and why it is unique

Use of GNSS (1 slide) – where and how does your solution use GNSS signals

Specific use of Galileo (1 slide) – which Galileo differentiators are used for your solution?

Market potential (2 slides) – explain the market potential of your solution, which customer base it may tap into and how it could generate revenue

Innovation factor (1 slide) – what is new and innovative about your solution? Where does it add value to the existing market offer in India?

Technical back-end (2 slides) – how do you plan to develop the technical back-end of your solution? How will you ensure that the GNSS-related requirements (e.g. accuracy) for your solution are achieved? Which technologies will you use? Have you developed any initial demo or technical solution?

Proof of concept (2 slides) – Demonstrate the technical and commercial feasibility of your solution.

Team (1 slide) – present your team members, their expertise and why your team composition is optimal to ensure the credibility and potential implementation of your solution

Award criteria

While defining your Galileo-based solution, keep the criteria in mind which the jury will use to score your applications:

Innovation:

Is this kind of solution already available on the market? (/20)

Market potential & social relevance:

Is this solution sellable after repackaging this idea into a real product? Is there a potential market demand/customer base for this product? Does this solution add value to society? (/20)

Galileo-relevance:

Is the application making optimal use of Galileo? (/20)

Completion level:

Is the solution completed or could feasibly be completed? (/20)

Progress made during hackathon:

Has the project advanced significantly during the hackathon (/20)

More information about the selection of winners can be found in [Chapter 3.3](#).

3 How to Register?

Registration form



If you haven't done so yet, click here to find the pre-registration form, where you need to fill in the following details for registration:

Institution name – name of your company, employer or university

Team name – name of your participating team (be creative!)

Team leader name – name of your team leader; this is the person who will be contacted for all practical purposes and who will represent his/her team for registration on the spot

Team leader e-mail

Phone number

Team size – please note that your team should consist of minimally two and maximally five team members

Brief competency profile of the team members – fill in the name, area of expertise, gender, t-shirt size and e-mail address of all your team members. Please note that we encourage teams with diverse backgrounds, such as GNSS experts, Information Technology, Programming, Design, Engineering, Business Management, Social Sciences or other area experts.

Teams and eligibility

As mentioned before, we encourage teams of three to five team members with a diverse background to join the Galileo Hackathon by GNSS.asia. To have a better idea of the possible profiles, we gladly provide you some inspiration below:

Field expert (Geography, biology, chemistry, physics, signal processing, navigation, geolocation, or any other Einsteins in their field)

Engineer (Mechanics, electronics, physics, aerospace, navigation and more!)

Designer (Graphical, interfaces, experiences or other creative minds)

Coder (Front-end, back-end, full-stack, Lisp, Haskell, Prolog, Ada, Java and so forth)

Data scientists (Machine learning, data analysis, GNSS raw measurements)

Business-minded (Presenting on stage, creating revenue, creating buzz...)

Any balanced team of three to five team members, of which all participants are of adult age, is eligible to participate to this Hackathon. As organisers, we reserve the right to close registrations when the capacity of this event is reached, and to deny the registration or participation of teams due to their ineligibility or any other reason.

Rules, regulations & conditions

We recommend you to read 9 Terms & Conditions for more details about the conditions for participation to this Hackathon, as well as the evaluation process and our data and privacy policies.

4 Selection of winners

Selection criteria

Candidates will present their application for a jury, who will evaluate these for different criteria.

Innovation:

Is this kind of solution already available on the market? (/20)

Market potential & social relevance:

Is this solution sellable after repackaging this idea into a real product? Is there a potential market demand/customer base for this product? Does this solution add value to society? (/20)

Galileo-relevance:

Is the application making optimal use of Galileo? (/20)

Completion level:

Is the solution completed or could feasibly be completed? (/20)

Progress made during hackathon:

Has the project advanced significantly during the hackathon (/20)

Total score /100 with prizes for the top-3 ranked participants.

Throughout the Hackathon, jury members may decide to combine teams, eliminate teams or intervene in teams' brainstorming if the required level of finalisation is not reached.

5 Prizes

The following prizes will be awarded to the top-3 participants:

1. 160k INR cash prize

2. 80k INR cash prize

3. 40k INR cash prize

6 Schedule

Day 1

Saturday 16 March 2019

8.30 – 10.30	Registration & set-up of laptops etc. Welcome breakfast + tea/coffee	
10.30 – 10.45	Welcome speech – logistical details	
10.45 – 11.45	Technical training session	
	Business training session	
11.45 - 12.00	Galileo Session	
12.00 – 13.00	Lunch	
13.00	Start of the Hackathon (continues throughout the afternoon & night)	Availability of experts GSA/EU-booth
18.30 – 19.30	Dinner	
20.30	Check-up with experts	
23:30 – 00:30	Midnight snack	

Day 2

Sunday 17 March 2019

8.30 – 10.30	Breakfast	
13.00 – 14.00	Lunch – End of the Hackathon	
14.00 – 15.30	Teams' presentations	
15.30 – 16.30	Evaluation of projects Afternoon tea	
16.30 – 17.00	Hackathon winners announced + prize ceremony	

7

Get Prepared

To bring



All you need to bring are **your laptop, your team members, a sharp mind and a plan** for your Galileo-based solution!



If you would like to take a power nap, you may bring a comfy outfit and/or toiletries to freshen up in the morning.



We provide food and beverages, a rest corner and sleeping bags!

Webinars & training sessions

In the weeks before the Hackathon, we will organise one technical webinar on the use of GNSS technologies in certain applications, and one business-related webinar. On the first day of the Hackathon, we will offer two parallel training sessions in the morning as a final briefing to get you started. At the same time, these briefings will serve as a technical guidance to set the framework within which you can brainstorm!

Throughout the Hackathon, our experts remain available for technical and managerial advice. In addition, MBA-students from PES University will offer mentorship to give your team that extra push!

8 Practical information

What is a Hackathon?

A Hackathon is a contest in which teams are challenged to develop solutions to a pre-defined set of problems in a limited time-span. To do so, participants are required to make use of one or more tools or platforms, as defined by the organiser. Hackathons can be technical in their nature (where participants need to present a finalised technical solution, e.g. by programming a software tool), or ideational (where participants need to develop and pitch a concept, before the stage of technical implementation).

The Galileo Hackathon by GNSS.asia challenges teams to address a set of problems, by developing a solution or ap-

plication making use of Galileo, the EU's Global Navigation Satellite System, in a multi-GNSS context. This is an ideational Hackathon. Every team will brainstorm for 24 hours about new and innovative concepts, guided by a clear template. The start is launched at noon on day one, and the competition will continue throughout the night until the day after. Throughout the brainstorming process, jury members may decide to combine teams, eliminate teams or provide advice, for solutions which do not reach the required standard. At the end of the weekend, each remaining team will need to pitch its Galileo-based solution, after which the jury will select the three winning teams.

When and where will this take place?

The Hackathon will take place in the weekend of Saturday 16 March and Sunday 17 March 2019, at PES University in Bangalore.

Transport

All transport to and from the venue, and within Bangalore, is at own cost and should be financed by participants. The organisers under no circumstances commit to support or reimburse travel costs to any participant.

Side-events

At this Hackathon, third players (universities, industry and institution) will be presented with a booth and goodies. Stop by to meet the people and to discover technologies and study opportunities in Europe!

Registration on the first day

Upon arrival, we invite you to register your team at our welcome desk, where you will receive a welcome package, a t-shirt for each team member and more information about your team desk and the programme of the rest of the day. We warmly welcome you to join us for some networking and to meet the other participants over a coffee or tea during breakfast.

Each participant is required to wear his/her T-shirt, as this is proof of your registration and participation to the Hackathon.

Accommodation

The organisers will provide a resting room with sleeping bags for participants who would like to take some rest or a power nap during the night. We will furthermore provide lockers to store your valuables.

Food & beverages

Food and beverages (breakfasts, lunches, dinner and drinks) are offered for free to each participant.

9 Terms and Conditions

Last updated: 18 February 2019

Please read these Terms of Service (“Terms”, “Terms of Service”) carefully before participating in the Galileo Hackathon by GNSS.asia (“the Hackathon”), implemented by GNSS.asia (“us”, “we”, “our”, or the “Organisers”).

Your access to the Hackathon is conditioned on your acceptance of and compliance with these Terms. These Terms apply to all visitors, applicants and others who access or use the Hackathon. You warrant that you are at least 18-years-old, and you are legally capable of entering into binding contracts. If you are under 18-years-old, you warrant that you have obtained consent from your parent or guardian and they agree to be bound by these Terms on your behalf.

By accessing the Hackathon you agree to be bound by these Terms. If you disagree with any part of the Terms, then you may not access the Programme.

Organisers, date and location of the Galileo Hackathon by GNSS.asia

The Galileo Hackathon is organised by GNSS.asia on 16-17 March 2019 and is supported by our partners (the “Partners”):

- The European GNSS Agency (GSA)
- PESIT University (Bangalore)
- Members of the Jury

The Hackathon will take place in the premises of PES University in Bangalore.

Objective of the Hackathon

The Galileo Hackathon by GNSS.asia is a competition organised by GNSS.asia with the objective to generate awareness of Galileo as a GNSS solution within a multi-GNSS context, and to foster exchanges in the fields of talent, science and technology related to GNSS applications between the EU and India.

The Programme will open an entry period for registrations between 20 December 2018 and 16 March 2019 at 9 AM IST. Participation is open and free of charge, on a first come first serve basis. Teams with a diverse background (e.g. GNSS experts, IT, engineering, business management, social sciences and other area experts), consisting of 2 to 5 team members, can apply to participate. The Organisers remain the right to close the registration period at any time when the maximal capacity of the Hackathon is reached, and to refuse or reject any participants who do not comply with the eligibility criteria or for any other reasons.

On 17 March, an evaluation will follow, in which the presented solutions will be evaluated by members of the jury. The top-3 participants will be notified about this on the same day.

Right to Participate

Enterprises, scientific institutions, and individuals of legal adult age are entitled to participate in the Hackathon. Applications will be accepted, if you comply with the eligibility criteria, namely if you have a team of 2 to 5 team members with a diverse background, with preferred expertise in the following fields: Global Navigation Satellite Systems, Information Technology, Computer Programming, Engineering, Business Management, Social Sciences and/or other area experts.

Conditions of Participation

All transport to and from the venue, and within Bangalore, is at own cost and should be financed by participants. The organisers under no circumstances commit to support or reimburse travel costs to any participant. Food and beverages (breakfasts, lunches, dinner and drinks) are offered for free to each participant. The organisers will provide a resting room with sleeping bags for participants who would like to take some rest or a power nap during the night. We will furthermore provide lockers to store your valuables.

The Organisers remain the right to close the registration period at any time when the maximal capacity of the Hackathon is reached, and to refuse or reject any participants who do not comply with the eligibility criteria or for any other reasons.

Upon participation, you commit to the intention to participate in the complete Hackathon from the morning of 16 March 2019 until the evening of 17 March 2019. If you are required to cancel your participation, you agree to inform the organisers of this cancellation before 9 March 2019.

Registration Period and Procedure

The Galileo Hackathon by GNSS.asia will open an entry period for applicants between 20 December 2018 and 16 March 2019. Interested applicants must apply during this time and follow the procedure below. The Organisers remain the right to close the registration period at any time when the maximal capacity of the Hackathon is reached, and to refuse or reject any participants who do not comply with the eligibility criteria or for any other reasons.

The Galileo Hackathon by GNSS.asia is organised and executed exclusively in English. Registrations happen via a Form provided by Google, of which a link is provided on Galileo Hackathon event page on the GNSS.asia website. When registering your team, we will require you to share personal data such as your name, e-mail, t-shirt size and academic background for the purposes of contacting you and for the organisation of the Hackathon. You agree to our Terms & Conditions when you register as a participant in the Hackathon.

The information you share in your Registration will be viewed by the GNSS.asia consortium in India, including SpaceTec Partners SPRL, IIRA and its Partners (such as the Jury Members) for the purpose of processing and evaluating your registration. The information regarding the Jury Members in this document, on the GNSS.asia website or in any other communication channels is tentative, and will be final on the morning of 16 March 2019. Participants can enquire about the Jury composition from that moment. If there is any disagreement with this composition, participants can cancel their participation to the Hackathon.

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The information you share in your Registration will be viewed by the GNSS.asia consortium in India, including SpaceTec Partners SPRL, IIRA and its Partners (such as the Jury Members) for the purpose of processing and evaluating your registration. The information regarding the Jury Members in this document, on the GNSS.asia website or in any other communication channels is tentative, and will be final on the morning of 16 March 2019. Participants can enquire about the Jury composition from that moment. If there is any disagreement with this composition, participants can cancel their participation to the Hackathon.

Personal data and company information shared through the application

The personal data you share during user registration will not be shared with any parties other than GNSS.asia and its Partners, including SpaceTec Partners SPRL, IIRA, PES University, the European GNSS Agency and the Members of the Jury.

During the Hackathon, from the moment of registration on the morning of 16 March 2019 until the prize ceremony and goodbye drinks, the organisers will provide a professional photographer and camera team to take photos and to record videotapes throughout the event. By participating to the Hackathon, you and your team give your consent to be on camera. These photographs and videotapes may be edited and assembled into a photo gallery or after movie, which may be distributed online through the website of GNSS.asia and the GSA, or through their social media channels. By participating to the Hackathon, you and your team give your consent to feature in such photo gallery or after movie.

If you wish to protest being filmed, photographed or recorded; or if you desire to have these images to be removed, please contact us on dekeyser@spacetecpartners.eu and we will get back to you within 15 working days.

The Jury

Members of our jury are carefully selected to represent a qualified group of judges with relevant and varying expertise. As a participant to the Hackathon, you may inquire about the identity of jury members on the morning of 16 March 2019, during which you may withdraw your application if you do not agree with the composition jury.

The information provided to the jury for evaluation will be based on the following fields from the registration form, and/or your performances during the Hackathon:

- Names of team members
- Team name
- Institution
- Team backgrounds
- Your filled-in template
- Your pitch (as presented on the second day)

During the evaluation process, the jury may contact you in order to provide further details about your application.

Judgement

Decisions made by members of the jury shall not be subject to dispute in a court of law. These decisions shall be final and binding for all applicants in the Hackathon. Applicants shall have no right to justification for the decisions made by the members of the jury.

Information

When you register your participation with us, you must provide us information that is accurate, complete, and current at all times. Failure to do so constitutes a breach of the Terms, which may result in immediate termination of your account on our Hackathon.

You may not use as a team name the name of another person or entity or that is not lawfully available for use, a name or trademark that is subject to any rights of another person or entity other than you without appropriate authorization, or a name that is otherwise offensive, vulgar or obscene.

Copyright policy

We respect the intellectual property rights of others. It is our policy to respond to any claim that Content posted on the Service infringes the copyright or other intellectual property infringement (“Infringement”) of any person.

If you are a copyright owner, or authorised on behalf of one, and you believe that the copyrighted work has been copied in a way that constitutes copyright infringement that is taking place through the Hackathon, you must submit your notice in writing to the attention of “Copyright Infringement” of dekeyser@spaceteccpartners.eu and include in your notice a detailed description of the alleged Infringement.

You may be held accountable for damages (including costs and attorneys’ fees) for misrepresenting that any Content is infringing your copyright.

Copyright infringement notice

In order to lodge a complaint with us, please contact using the details above with the following information:

- Your name and address;
- Details of the alleged breach of copyright; and
- URL link to the alleged breach of copyright (if applicable).

Please allow us 30 days to investigate your complaint, after which we will contact you immediately to resolve the issue.

Intellectual property

The Hackathon and its original content (excluding Content provided by users), features and functionality are and will remain the exclusive property of the Organisers. Our trademarks and trade dress may not be used in connection with any product or service without the prior written consent of the Organisers. Nothing in these Terms constitutes a transfer of any Intellectual Property rights from us to you.

You must not modify the physical or digital copies of any Content you print off or download in any way, and you must not use any illustrations, photographs, video or audio, or any graphics separately from any accompanying text.

Links to other sites

Our Programme may contain links to third-party websites or services that are not owned or controlled by the Organisers.

The Organisers have no control over, and assumes no responsibility for, the content, privacy policies, or practices of any third-party web sites or services. You further acknowledge and agree that the Organisers shall not be responsible or liable, directly or indirectly, for any damage or loss caused or alleged to be caused by or in connection with use of or reliance on any such content, goods or services available on or through any such websites or services.

We only provide links to external websites as a convenience, and the inclusion of such a link to external websites does not imply our endorsement of those websites. You acknowledge and agree that when you access other websites on the internet, you do so at your own risk.

We strongly advise you to read the terms and conditions and privacy policies of any third-party websites or services that you visit.

Termination

We may terminate or suspend your participation immediately, without prior notice or liability, for any reason whatsoever, including without limitation if you breach the Terms.

Upon termination, your right to attend the Hackathon will immediately cease.

All provisions of the Terms which by their nature should survive termination shall survive termination, including, without limitation, ownership provisions, warranty disclaimers, indemnity and limitations of liability.

We shall not be liable to you or any third party for any claims or damages arising out of any termination or suspension or any other actions taken by us in connection therewith.

If applicable law requires us to provide notice of termination or cancellation, we may give prior or subsequent notice by sending a communication to any address (email or otherwise) that we have for you in our records.

Indemnification

As a condition of your access to participation to the Hackathon, you agree to indemnify us and our successors and assigns for all damages, costs, expenses and other liabilities, including but not limited to legal fees and expenses, relating to any claim arising out of or related to your access and participation to the Hackathon or your breach of these Terms and any applicable law or the rights of another person or party.

This indemnification section survives the expiration of your registration and applies to claims arising both before and after the registration ends.

Limitation of liability

You agree that we shall not be liable for any damages suffered as a result of joining the Hackathon, copying, distributing, or downloading Content.

In no event shall we be liable for any indirect, punitive, special, incidental or consequential damage of your participation (including theft, loss of business, revenue, profits, use, privacy, data, goodwill or other economic advantage) however it arises, whether for breach of contract or in tort, even if it has been previously advised of the possibility of such damage.

You have sole responsibility for adequate personal security of your belongings and will not make a claim against for lost materials, data, work delays or lost profits resulting from your participation to the Hackathon.

Disclaimer

Your participation to the Hackathon is at your sole risk. This disclaimer of liability applies to any damages or injury caused by any failure of performance, error, omission, interruption, deletion, defect, delay in operation or transmission, computer virus, communication line failure, theft, or destruction or unauthorised access or, alteration of or use of record in connection the Hackathon, whether for breach of contract, tortious behaviour, negligence or any other cause of action.

We make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability or availability with respect to the content contained by the Hackathon for any purpose. Any reliance you place

on such information is therefore strictly at your own risk. We disclaim any express or implied warranty representation or guarantee as to the effectiveness of the Hackathon or that the operation of our Hackathon will be uninterrupted or error free.

Exclusions

Some jurisdictions do not allow the exclusion of certain warranties or the exclusion or limitation of liability for consequential or incidental damages, so the limitations above may not apply to you.

Governing law

These Terms shall be governed and construed in accordance with the laws of Belgium, without regard to its conflict of law provisions.

Our failure to enforce any right or provision of these Terms will not be considered a waiver of those rights. If any provision of these Terms is held to be invalid or unenforceable by a court, the remaining provisions of these Terms will remain in effect. These Terms constitute the entire agreement between us regarding the Hackathon and supersede and replace any prior agreements we might have between us regarding the Hackathon.

Changes

We reserve the right, at our sole discretion, to modify or replace these Terms at any time. If a revision is material we will try to provide at least 30 days' notice prior to any new terms taking effect. It is your sole responsibility to periodically check these Terms for any changes. If you do not agree with any of the changes to these Terms, it is your sole responsibility to abort your participation to the Hackathon. Your continued participation to the Hackathon will be deemed as your acceptance thereof.

Contact us

If you have any questions about these Terms, please contact us at dekeyser@spacetecpartners.eu.