



OPEN CALL

# Guide for Applicants

## 5G-DiGITS Transnational Accelerator Programme

Challenge-Based Open Call for Student-Led Startups

Grant Agreement No. 101186590 | Erasmus+ Alliances for Innovation



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## 1. What is 5G-DiGITs?

5G-DiGITs — Cross-sectorial education and talent development for beyond 5G Digital and Green Industrial Technologies — is a 36-month Erasmus+ Alliances for Innovation project (Grant Agreement No. 101186590). It brings together 12 partner organisations from 8 European countries to bridge the gap between higher education, vocational training, and industry in the field of advanced 5G/B5G technologies and the green digital transition.

The project develops joint curricula, continuous education programmes, an accelerator and entrepreneurship programme, and a cross-sectorial knowledge exchange platform — all aligned with the EU's twin digital and green transition agenda.

### 12 Partner Organisations

- Envolve Entrepreneurship— Coordinator (GR)
- Universitat Politècnica de València — UPV (ES)
- University of Athens — UOA (GR)
- Infolysis (GR)
- Karlstads Universitet — KU (SE)
- Technische Universität Chemnitz — TUC (DE)
- Inercia Digital (ES)
- CNC Solutions (GR)
- Finnova (BE)
- Acceler8/DeepTechFoundry (MT)
- TECHIN (LT)
- F6S Network Ireland Limited— F6S IE (IE)

For more information about the project, please visit the 5G-DiGITs project website:

<https://5g-digits.eu/>.

## 2. What is the 5G-DiGITs Accelerator Open Call offer?

The 5G-DiGITs Accelerator is a transnational, digital-first accelerator programme built on a Challenge-Based Model. Real industry companies called “Challenge Owners” post specific 5G or green technology challenges at the start of the programme. Student-led startup teams apply to solve one of these challenges, and the entire programme journey such as workshops, mentoring, and pitch preparation is oriented around developing a concrete, impactful solution.

Challenge Owners engaged in the 5G-DiGITs Accelerator include Turk Telecom, Opticoms, Karlstadt Municipality, Tieto Tech Consulting R&D and Malta Communications Authority (see Annex 2). The Demo Day serves as a live pitch of solutions back to Challenge Owners and wider stakeholder panel.

### Open Call — At a Glance

- ▶ 25 student-led startups selected for the full programme
- ▶ ~50 hours of structured, challenge-oriented training and support per team
- ▶ 5 expert-led thematic workshops contextualised to the challenge domain
- ▶ Dedicated mentoring team per startup: Lead, Technical & Business Mentor
- ▶ Challenge Owners: Turkish Telecom, Opticoms, Karlstadt Municipality, Tieto Tech Consulting R&D and Malta Communications Authority
- ▶ 1 final Demo Day: live pitch of solutions to Challenge Owners and investor panel
- ▶ All programme activities delivered digitally — open to teams across all partner countries

The Open Call is the competitive process by which eligible applicants apply to have access to the 5G-DiGITs Accelerator Programme. Applications will be accepted for a period of three (3) months from the date of the open call launch. After selection, successful teams will be invited to sign a Participation Agreement and enter the programme.

### Open Call Timeline & Key Dates

|                                     |                                                                 |
|-------------------------------------|-----------------------------------------------------------------|
| <b>Open Call Launch</b>             | June 10, 17:00 CET                                              |
| <b>Digital Info Day</b>             | June 23, 11:00 CET                                              |
| <b>Application Deadline</b>         | September 10 — 17:00 CET                                        |
| <b>Eligibility &amp; Evaluation</b> | Approx. 2–3 weeks after deadline                                |
| <b>Results Notification</b>         | All applicants notified by email with Evaluation Summary Report |
| <b>Programme Start</b>              | October 2026                                                    |
| <b>Programme End / Demo Day</b>     | January 2027                                                    |

## Relevant Links and Contacts

- Project website: <https://5g-digits.eu/>
- Open Call application form: <https://www.f6s.com/5g-digits-open-call/>
- Contact: [michail.madamadiotis@envolveglobal.org](mailto:michail.madamadiotis@envolveglobal.org) or [gonca.kara@deeptechfoundy.com](mailto:gonca.kara@deeptechfoundy.com)
- F6S platform support (technical issues): [support@f6s.com](mailto:support@f6s.com)

## 3. Who can apply and how?

### 3.1 Types of Applicants

#### 3.1.1 Eligible Applicants

The 5G-DiGITs Accelerator Open Call is open to student-led startup teams from higher education institutions (HEIs) and vocational education and training (VET) organisations. Eligible applicants are teams (not necessarily officially established) that meet all of the following criteria:

| Criterion                | Requirement                                                                                                                                                                                                           |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Team Composition         | At least one active team member must be a current student or recent graduate of an HEI or VET institution.                                                                                                            |
| Challenge Alignment      | The startup's proposed solution do not need to address one of the challenges posted by Challenge Owners (listed in Annex 1). Teams can join the acceleration programme only for the business support services.        |
| Thematic Focus           | The solution must be relevant to one or more of the following domains: 5G/B5G technologies, Green digital innovation, IoT and edge computing, AI-enabled services, Digital manufacturing.                             |
| Sustainability Dimension | The proposed solution must have a clear environmental or social sustainability component aligned with the EU's twin digital and green transition goals.                                                               |
| Originality              | The solution must be the team's original work and not a copy or reproduction of an existing commercial product or service.                                                                                            |
| Language                 | Teams must be able to participate fully in English, which is the sole programme language.                                                                                                                             |
| Commitment               | All team members must commit to attending all workshops, mentoring sessions, and the Demo Day for the full programme duration (~4 months). Active engagement with the matched Challenge Owner is required throughout. |

#### **Transnational teams are strongly encouraged.**

Teams composed of members from different partner countries will receive additional consideration during the evaluation process, reflecting the transnational dimension of the 5G-DiGITs project.

#### 3.1.2 Eligible Countries

Eligible team members must be enrolled in or have recently graduated from institutions from European or HORIZON Europe Programme Associate countries.

#### 3.1.3 Multiple Submissions

Each team may submit a maximum of one (1) application per open call. If a team submits more than one application, only the most recently submitted application will be considered.

## 3.2 Application Process

The F6S platform is the single point of entry for all applications. All applications must be submitted via the 5G-DiGITs programme page on <https://www.f6s.com/5g-digits-open-call/>. Any application submitted by other means will not be accepted.

| Step | Action                                            | Details                                                                                                                                                                     |
|------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Register on F6S                                   | Create a team profile at <a href="http://www.f6s.com">www.f6s.com</a> and navigate to the 5G-DiGITs Accelerator programme page.                                             |
| 2    | Review the challenges in the Guide for Applicants | Review the Challenge Owner challenges in Annex 2 and identify the one your team wishes (if wishes) to address.                                                              |
| 3    | Submit application                                | Submit your application form through the F6S platform.                                                                                                                      |
| 4    | Attend the Info Day                               | Strongly recommended. F6S organises a pre-launch online event with all consortium partners to walk through the programme, challenges, eligibility, and application process. |

## 3.3 Other Application Requirements and Considerations

- **Submission:** Applications must be submitted exclusively via the F6S platform. Any other method will not be accepted.
- **Complete application:** All mandatory questions must be answered and all required documents uploaded. Incomplete applications will be disqualified.
- **English only:** All applications and all programme communication must be in English.
- **Document format:** All uploaded documents must be in PDF format without printing restrictions, unless otherwise agreed.
- **Deadline:** Failure to submit by the deadline, regardless of cause (network issues, browser problems, etc.), is not an acceptable reason for late submission. Apply well in advance.
- **Resubmissions:** Allowed before the deadline.
- **Deadline extension:** May only occur in case of unforeseen F6S platform technical issues. All applicants will be notified of any new deadline.
- **F6S notifications:** Enable F6S notifications in your profile settings to ensure you receive all communications related to your application.
- **Binding information:** In the event of any contradiction between information provided via other channels (email, webinars) and this Guide for Applicants, this document is binding.

## 4. How will applications be evaluated and selected?

All applications will be reviewed and evaluated by the 5G-DiGITs Selection Committee. The process is structured in two stages: an eligibility check followed by expert evaluation. The 5G-DiGITs Consortium reserves the right to request additional information or documentation at any point to clarify doubts regarding eligibility or application content.

| Stage          | Process                    | Outcome                                                                                                                                                                                                  |
|----------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stage 1        | Eligibility Check          | Applications screened against formal criteria. Non-eligible applications are excluded and receive a written rejection with justification.                                                                |
| Stage 2        | Expert Evaluation          | Eligible applications scored by the Selection Committee, which consist of representatives of the 3 Acceleration programme managing partners (Envolve, A8 and F6S). Applications ranked; top 25 selected. |
| Post-Selection | Notification & Contracting | All applicants notified by email with an Evaluation Summary Report. Selected teams invited to sign a Participation Agreement.                                                                            |

### 4.1 Eligibility Check

An initial eligibility check will be conducted to filter out non-eligible applications. An application is only considered eligible if it meets all the criteria and requirements listed in Section 3.1. Applications marked as non-eligible will receive a written rejection letter with justification.

### 4.2 Expert Evaluation

#### Evaluation Criteria & Scoring

Each eligible application will be reviewed by a minimum of two members of the Selection Committee. Applications are scored against the following criteria:

| Criterion                                 | Description                                                                                                                                          | Weight |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Innovation Potential                      | Novelty and originality of the proposed solution; degree of differentiation from existing products or services in the 5G/B5G domain.                 | 25%    |
| Challenge Fit (if opted for a challenge)* | Clarity and strength of the match between the proposed solution and the selected Challenge Owner challenge; depth of understanding of the challenge. | 20%    |
| Sustainability Impact                     | Measurable environmental or social benefit; alignment with EU twin digital and green transition goals.                                               | 20%    |
| Market Potential                          | Viability and scalability of the business idea; clarity of target market and realistic growth potential.                                             | 15%    |
| Team Capacity                             | Complementarity of skills; commitment to the full programme; transnational composition (bonus consideration).                                        | 10%    |

| Criterion                                                                                                     | Description                                                                                                     | Weight |
|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------|
| Resilience & Adaptability                                                                                     | Problem-solving approach; ability to adapt the solution to technical and market feedback from Challenge Owners. | 10%    |
| *If the applying team does not opt for a challenge, the 20% weight is spread by 4% to the other 5 categories. |                                                                                                                 |        |

## Scoring Scale

Unless otherwise stated, each criterion is scored on a scale of 0 to 5:

| Score | Assessment                                                                                          |
|-------|-----------------------------------------------------------------------------------------------------|
| 0     | Fail — The criterion is not addressed, or cannot be assessed due to missing/incomplete information. |
| 1     | Very Poor — The criterion is addressed in an unsatisfactory manner.                                 |
| 2     | Poor — There are serious inherent weaknesses.                                                       |
| 3     | Good — The criterion is broadly addressed, but significant weaknesses remain.                       |
| 4     | Very Good — The criterion is well addressed; minor improvements possible.                           |
| 5     | Excellent — All relevant aspects successfully addressed; any shortcomings are minor.                |

## Ranking & Selection

All applications are ranked in a single list based on their overall weighted score. In the event of tied scores, the following tie-breaking criteria apply in order:

1. Score on Innovation Potential
2. Score on Challenge Fit
3. Date and time of submission (earlier submissions ranked higher)

## 4.3 Appeals

Within three (3) working days of receiving a rejection letter (for ineligibility) or an Evaluation Summary Report (for non-selection), an applicant may submit an appeal if they believe the eligibility criteria have not been correctly applied, or that there has been a procedural shortcoming in the evaluation.

### Appeals must:

- Be sent to [michail.mandamadiotis@envolveglobal.org](mailto:michail.mandamadiotis@envolveglobal.org), with specific subject: 5G DiGITs Acceleration Programme APPEAL within the 3 working day limit
- Focus on procedural matters (admissibility, eligibility checks, evaluation procedure) not on the merits or content of the evaluation scores
- Clearly describe the grounds for the appeal
- Be submitted by the team representative who submitted the original application

Note: The 5G-DiGITs Consortium will not question or interfere with the substantive evaluation judgements of the Selection Committee. Mere disagreement with the score or reasoning will not constitute grounds for appeal.

## 5. What happens after selection?

Selected teams will be contacted by the 5G-DiGITs team to proceed through the following steps:

1. Evaluation Summary Report — Selected teams receive their ESR, which may include recommendations or comments to be considered during the programme.
2. Participation Agreement — Each selected team signs a Participation Agreement with the 5G-DiGITs Consortium, confirming their commitment to the full programme requirements.
3. Challenge Matching Confirmation — Teams are formally matched to their Challenge Owner.
4. Onboarding — Teams participate in the programme kick-off session, meet their Challenge Owner and mentors, and receive access to all programme resources and scheduling.

Important: Deadlines for documentation submission will be provided after selection. Failure to complete the onboarding process within the stipulated timeframe may result in the team's place being offered to the next-ranked team on the reserve list.

A Reserve List of eligible, evaluated, non-selected applications will be maintained. Teams on the reserve list may be invited to join the programme if selected teams withdraw or fail to complete the onboarding process.

## 6. What is the 5G-DiGITs Accelerator Programme and its requirements?

The 5G-DiGITs Transnational Accelerator Programme runs from October 2026 to January 2027 (approximately 4 months). All 25 selected startup teams participate in the full programme. Activities are delivered digitally.

### 6.1 Programme Phases

| Phase   | Activity                        | Duration / Load     |
|---------|---------------------------------|---------------------|
| Phase 0 | Challenge Posting & Open Call   | June-September 2026 |
| Phase 1 | Onboarding & Challenge Matching | October - January   |
| Phase 2 | Core Workshop Programme (×5)    |                     |
| Phase 3 | Mentoring Scheme                |                     |
| Phase 4 | Demo Day                        | January 2027        |

## 7. What else is important to know?

### 7.1 Intellectual Property Rights (IPR)

Solutions developed and results achieved by participating teams belong entirely to the teams. Participants retain full ownership of their respective IPRs and all solutions developed during the programme. The 5G-DiGITs Consortium and Challenge Owners do not claim any rights over solutions developed by participating teams.

Challenge Owners may sign separate non-disclosure or collaboration agreements with teams on a voluntary basis, but this is entirely outside the scope of this Open Call and the Participation Agreement.

All evaluators sign a confidentiality agreement before receiving access to applications, protecting applicants' intellectual property and sensitive non-disclosed information.

### 7.2 On Conflicts of Interest

Applicants must not have any actual or potential conflict of interest with the 5G-DiGITs selection process or with any Challenge Owner that would compromise the impartiality of the evaluation. All declared conflicts of interest will be assessed on a case-by-case basis. Applicants with a direct financial or organisational relationship with a consortium partner should disclose this at the time of application.

### 7.3 Ethical Issues

5G-DiGITs complies with fundamental ethical principles, in particular those outlined in the European Code of Conduct for Research Integrity. All applicants must complete a self-assessment ethics questionnaire as part of the application process. If potential ethical issues are identified, applicants must contact the programme team for guidance. Applications that fail to adequately address ethical issues will be rejected.

### 7.4 Data Protection

In order to process and evaluate applications, and manage project implementation, the 5G-DiGITs consortium will need to collect Personal and Industrial Data.

- F6S Network Ireland Limited, will act as Data Controller for data submitted through the F6S platform. Please see our privacy policy [here](#).
- A Data Protection Officer (DPO) has been appointed by F6S generally, to ensure compliance with data protection regulations, such as the General Data Protection Regulation (GDPR), and that personal data is collected, processed, and stored in a secure manner.
- The F6S platform's system design and operational procedures ensure that data is managed in compliance with the General Data Protection Regulation (EU) 2016/679 (GDPR).
- Each applicant will accept the F6S terms to ensure compliance. Please refer to <https://www.f6s.com/privacy-policy> to review the F6S platform's privacy policy and data security policy.

- Apart from the F6S platform, data will also be stored in the F6S Google Drive, and in the project repository on Sharepoint managed by the project coordinator Envolve Entrepreneurship
- Note that the 5G-DiGITs consortium must retain generated data until five years after the balance of the 5G-DiGITs project is paid or longer if there are ongoing procedures (such as audits, investigations or litigation). In this case, the data must be kept until their conclusion.

### 7.4.1 Ethical issues

5G-DiGITs complies with the fundamental ethical issues particularly those outlined in the “European Code of Conduct for Research Integrity”.

- If the applicant confirms the existence of potential ethical issues, they must contact the 5G-DiGITs Helpdesk for guidance, as required.
- 5G-DiGITs will verify the declaration's consistency with the application contents and may contact applicants to resolve any ethical issues.
- Applications that fail to properly address ethical issues or inadequately deal with privacy aspects will be rejected.

## 7.5 Confidentiality

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- Any information shared during the application stage will be treated as confidential.

## 7.6 Promotion of the Action and EU Funding Visibility

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Selected teams must promote their participation in the 5G-DiGITs Accelerator and acknowledge EU funding in all communication and dissemination activities related to the programme outcomes. This includes references on team websites, social media, and any publications or presentations.

The 5G-DiGITs Communication team (WP6) will provide guidance and templates for communication activities. The required EU funding acknowledgement text is: "This project has received funding under the Erasmus+ Programme of the European Union, Grant Agreement No. 101186590."

## 7.7 Checks and Reviews

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The European Commission may at any time during programme implementation and up to five years after its conclusion arrange for checks, reviews, or audits, carried out by external auditors or by EC services including the European Anti-Fraud Office (OLAF). Checks will focus on the technical implementation of the programme; there are no financial cost-reporting obligations for participating teams.

## 8. Relevant Links and Contacts

The 5G-DiGITs Consortium will provide information to applicants primarily via the F6S platform, so that all questions and answers are visible to all participants and ensure equal access to information.

| Resource                   | Link / Contact                                                                                                                                                                 |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Project Website            | <a href="https://5g-digits.eu/">https://5g-digits.eu/</a>                                                                                                                      |
| Open Call Application Form | <a href="https://www.f6s.com/5g-digits-open-call/">https://www.f6s.com/5g-digits-open-call/</a>                                                                                |
| Contact Email (Open Call)  | <a href="mailto:michail.madamadiotis@envolveglobal.org">michail.madamadiotis@envolveglobal.org</a> or <a href="mailto:gonca@deeptechfoundry.com">gonca@deeptechfoundry.com</a> |
| F6S Platform Support       | support@f6s.com (for platform issues: submission, resubmission, access)                                                                                                        |

## Annex 1 — Glossary of Terms and Definitions

### Acronyms

| Acronym | Explanation / Definition                                                        |
|---------|---------------------------------------------------------------------------------|
| 5G/B5G  | Fifth Generation / Beyond 5G mobile network technology                          |
| EACEA   | European Education and Culture Executive Agency                                 |
| ECVET   | European Credit System for Vocational Education and Training                    |
| ESR     | Evaluation Summary Report                                                       |
| EU      | European Union                                                                  |
| F6S     | F6S Network Ireland — the open call management and application platform partner |
| GA      | Grant Agreement                                                                 |
| GDPR    | General Data Protection Regulation (EU) 2016/679                                |
| HEI     | Higher Education Institution                                                    |
| IoT     | Internet of Things                                                              |
| IPR     | Intellectual Property Rights                                                    |
| KYC     | Know Your Customer                                                              |
| MVP     | Minimum Viable Product                                                          |
| OLAF    | European Anti-Fraud Office                                                      |
| VET     | Vocational Education and Training                                               |
| WP      | Work Package                                                                    |

### Terms and Definitions

| Term                             | Definition                                                                                                                                                                                                                                                               |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant(s)                     | The team of individuals that intends to submit or has submitted an application to the Open Call.                                                                                                                                                                         |
| Application Timestamp            | Timestamp of the final submission of an application. If an application is resubmitted, the last submission date applies.                                                                                                                                                 |
| Beneficiary / Participating Team | A team whose application was accepted and which has signed, or is in the process of signing, a Participation Agreement.                                                                                                                                                  |
| Challenge Owner                  | An industry company (e.g. Turkish Telecom, Opticon, Melita) that posts a specific 5G or green technology challenge at the start of the programme. Startups are matched to a Challenge Owner challenge and develop their solution in direct engagement with that company. |
| Demo Day                         | The final pitching event at the end of the programme, at which all 25 teams present their challenge solutions to Challenge Owners, investors, and a wider stakeholder panel.                                                                                             |

| Term                            | Definition                                                                                                                                                                            |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eligibility Criteria            | Criteria used to assess whether an application can be considered for the Open Call. All criteria must be met (Yes/No assessment).                                                     |
| ESR — Evaluation Summary Report | A report provided to all applicants summarising the outcome of the evaluation of their application. May include recommendations to be addressed during the programme.                 |
| F6S Platform                    | The online application and programme management platform provided by F6S Network Ireland, used as the single point of entry for all applications.                                     |
| Guide for Applicants (GfA)      | This document. In the event of any contradiction between this document and information provided via other channels, this document is binding.                                         |
| Mentor                          | An expert assigned to each participating team to support their progress through the programme. Each team has three mentors: a Lead Mentor, a Technical Mentor, and a Business Mentor. |
| Open Call                       | The competitive process through which eligible teams apply to access the 5G-DiGITs Accelerator Programme.                                                                             |
| Participation Agreement         | The agreement signed between the 5G-DiGITs Consortium and each selected team, confirming the terms and requirements of participation in the programme.                                |
| Reserve List                    | A ranked list of eligible, evaluated, non-selected applications that may be invited to join the programme if selected teams withdraw or fail to complete the onboarding process.      |
| Selection Committee             | The body responsible for evaluating applications, composed of members of the 5G-DiGITs Project Steering Board with relevant expertise.                                                |

## Annex 2 — Challenges

### 1. Karlstad Municipality — Safer Public Spaces with 5G, Sensors & Digital Twins

Karlstad Municipality invites applicants to design and prototype a digital twin of a public space that uses real-time data from 5G-enabled sensors to improve urban safety. Cities already use cameras, sensors, and communication systems, but these tools often work separately, creating fragmented situational awareness and slower responses. This challenge asks teams to demonstrate how 5G connectivity, IoT sensing, analytics, and digital twin technology can operate together as one integrated safety management system.

Applicants should focus on one defined public space in Karlstad and address two to three realistic safety scenarios. The solution should be able to detect emerging risks or anomalies, provide a shared operational picture for municipal teams, and support faster, data-driven incident response. The expected outcome is a working prototype covering data ingestion, analytics, and visualisation, together with a concept for wider deployment that considers governance, data ownership, privacy, and scalability.

This challenge is relevant for teams working on smart cities, public safety, IoT, digital twins, urban analytics, and real-time decision-support systems. A validated solution could be replicated by other municipalities seeking safer and more responsive public spaces.

## **2. Tieto Tech Consulting R&D — 5G/6G ISAC & Digital Twin Sensing: Bridges, Safety & Beyond**

Tieto Tech Consulting R&D challenges applicants to explore the use of Integrated Sensing and Communication, known as ISAC, in a digital twin environment. ISAC is an emerging 5G/6G capability where wireless networks do not only transmit data, but also sense the physical environment through radio signals. The main focus of this challenge is bridge structural health monitoring, with an optional advanced extension into fire detection.

Applicants should use a simulation environment such as Sionna RT or an equivalent framework to model how 5G/6G radio signals interact with a physical structure. In the core track, teams should simulate a vibrating bridge and analyse reflected radio signals to estimate vibration frequency and amplitude. This would demonstrate how wireless infrastructure could support non-intrusive monitoring of critical infrastructure. Advanced teams may also model a fire scenario and explore how environmental changes could be detected through ISAC sensing.

The expected output is a proof of concept showing that digital twins and radio-channel simulation can support future infrastructure monitoring applications. This challenge is especially suitable for teams with interests in 5G/6G, digital twins, signal processing, channel modelling, critical infrastructure, smart cities, and applied research.

## **3. Malta Communications Authority — AI-Driven EMF Exposure Mapping & Hotspot Identification**

The Malta Communications Authority invites applicants to develop an AI-driven platform for analysing, predicting, and visualising RF-EMF exposure in urban environments. As 5G and future networks increasingly use adaptive antennas and beamforming, exposure patterns become more dynamic and difficult to assess using traditional measurement approaches alone. MCA is therefore seeking innovative solutions that combine real-world RF-EMF measurements, GIS/geospatial datasets, and network topology information to improve evidence-based regulatory oversight.

Applicants should create an AI-centric methodology and toolset capable of modelling RF-EMF exposure across Malta, with a particular focus on identifying potential hotspots in locations that are difficult or impractical to measure directly, such as rooftops, elevated sites, and under-measured urban areas. The solution should account for the dynamic behaviour of 5G and beyond antenna systems, including changes in beamforming and antenna pattern characteristics. It should also include a validation framework comparing model outputs against available reference measurements, while documenting accuracy, limitations, confidence levels, and explainability where relevant.

The expected outcome is a scalable proof of concept that can support MCA's ongoing compliance monitoring activities. Teams should deliver hotspot maps, an AI-based prediction model, a technical report, recommendations for operational deployment, and an AI-risk assessment. This challenge is especially relevant for applicants working in AI, wireless communications, geospatial analytics, regulatory technology, RF-EMF monitoring, public health assurance, and 5G/6G network analysis.

## **4. Opticoms GmbH — AI-Driven Situational Awareness for Emergency Response on Private 5G Networks**

Opticoms GmbH challenges applicants to build a prototype AI-driven situational awareness module for emergency response operations using Private 5G networks. First responders often work in environments where communication infrastructure is unreliable, fragmented, or unavailable. Opticoms is developing SARP, a deployable Private 5G system for emergency response, and

OTAG, a network and operations management platform that transforms field data into operational intelligence.

Applicants should design a module that helps incident commanders maintain a real-time operational picture. The solution should integrate live telemetry from personnel, equipment, IoT devices, environmental sensors, and 5G network nodes. It should include a map-based dashboard, AI-driven predictive alerts, and at least one automated workflow that responds to changing field conditions, such as a device going offline, personnel entering a hazard zone, or the need to reroute a rescue team.

The expected outcome is a working prototype and technical concept showing how Private 5G can support safer, faster, and more coordinated emergency response. This challenge is well suited to teams working on AI, emergency services, private networks, IoT, real-time dashboards, predictive analytics, workflow automation, and mission-critical communications.

## 5. TürkTelekom — 5G Network Slicing & Telco API Platform for Dynamic, Demand-Based Premium Services

TürkTelekom challenges applicants to design and prototype a platform that enables applications and services to dynamically access mobile network capabilities through 5G network slicing and global telco APIs. 5G allows operators to offer differentiated connectivity based on requirements such as bandwidth, latency, reliability, and security. However, to unlock this commercial potential, applications need a way to detect when premium connectivity is needed and request it from the network in real time.

Applicants should develop a platform that connects the application layer with mobile network operator capabilities, using CAMARA-standard telco APIs or simulated equivalents. The platform should detect user context, such as location, application needs, past usage patterns, and available network capabilities. It should then request, activate, manage, and release premium connectivity services dynamically. Teams should also define and demonstrate two to three use cases, such as gaming, video streaming, remote work, AR/VR, healthcare, or smart city services.

The expected output is a platform prototype, use case demonstrations, a technical specification, and an initial business model for commercial deployment. This challenge is particularly relevant for teams working on telecom APIs, 5G monetisation, network slicing, application-layer platforms, service orchestration, user experience, and Network-as-a-Service models.

## Annex 3 — Application form

**Start-up / Team Name \***

*e.g. SignalForge*

**Contact Person Name \***

*First and last name*

**Contact Person Role \***

*e.g. Co-founder / Team Lead*

**Contact Person Email \***

*name@university.edu*

**Residency country \***

*Country of your institution*

**Gender \***

**You are applying as \***

▼ Select: *Start-up / Individual Innovator / Researcher / Academic Team / Other*

**University / Institution \***

*Full name of your university, college or VET institution*

**Start-up Website (optional)**

*https://*

**Pitch Deck (optional)**

*https://*

**List all team members below (up to 5 total including the contact person above). \***

| <b>Full Name</b>             | <b>Role</b> |
|------------------------------|-------------|
| <i>Contact person (lead)</i> |             |
| <i>Team member 2</i>         |             |
| <i>Team member 3</i>         |             |
| <i>Team member 4</i>         |             |
| <i>Team member 5</i>         |             |

**Stage of your start-up / project \***

▼ Select: *Early idea or concept / Prototype or proof-of-concept / Ready for pilot / Research / Academic project*

**Your background \***

*Briefly describe your (or your team's) area of expertise and why it is relevant to 5G-DiGITs. Max 200 words.*

*e.g. Our team comprises MSc students in wireless communications and software engineering, with prior project work in IoT sensor networks and real-time data analytics...*

**The challenge you want to address \***

**C1***Karlstad Municipality · Sweden*

**Safer Public Spaces with 5G, Sensors & Digital Twins: Safer Public Spaces with 5G, Sensors & Digital Twins** Build a digital twin of a public space powered by real-time 5G-enabled sensor data. Your solution should detect safety risks in real time, create shared situational awareness, and enable coordinated incident response for municipal teams. Karlstad provides access to a live urban test environment within their Smart & Sustainable Karlstad initiative.

*Digital Twin · IoT Sensing · Smart City · Public Safety***C2***Tieto Tech Consulting R&D · Sweden*

**5G/6G ISAC & Digital Twin Sensing: Bridges, Safety & Beyond: 5G/6G ISAC & Digital Twin Sensing: Bridges, Safety & Beyond** Use a digital twin simulation environment (e.g. Sionna RT) to implement Integrated Sensing and Communication (ISAC) — a core 6G capability — for structural health monitoring of bridges. Analyse vibration frequency and amplitude from reflected radio signals. Advanced track: extend the simulation to demonstrate fire detection via ISAC sensing techniques.

*ISAC / 6G · Channel Simulation · Digital Twin · R&D***C3***Malta Communications Authority · Malta*

**AI-Driven EMF Exposure Mapping & Hotspot Identification: Develop an AI-centric methodology and toolset for improved modelling, mapping and prediction of RF-EMF exposure across a national territory, with a particular focus on identifying potential hotspots in locations that are difficult or impractical to measure directly.**

*EMF Mapping · Geospatial · Regulatory · 5G Antennas***C4***Opticom GmbH · Germany*

**AI-Driven Situational Awareness for Emergency Response on Private 5G: The solution should combine a real-time map-based dashboard tracking personnel and equipment, a predictive alerting engine processing IoT sensor telemetry, and automated incident workflow management that reacts dynamically to field changes — turning raw data into actionable decisions for incident commanders and first responder teams.**

*Private 5G · AI / Analytics · Emergency Response · IoT***C5***TürkTelekom (TT Mobil) · Turkey*

**5G Network Slicing & Telco API Platform for Dynamic Premium Services : Design and build a platform that enables applications and services to dynamically connect with mobile network operators via 5G network slicing and CAMARA global telco APIs. The platform should detect when a subscriber's application requires enhanced connectivity, request the appropriate network slice on demand, and deliver premium, context-aware services — taking into account user location, past behaviour, and real-time network availability.**

*Network Slicing · Telco APIs · NaaS · CAMARA*



Select

No specific challenge

**Open application — I am not applying to a specific challenge**

Describe your innovative 5G or digital concept in Section 05 below.

**If applying with an Open Application, write below your innovative 5G or digital concept. Max 150 words. (optional)**

**Project / Solution Title \***

Give your solution a working title

**How you want to address the challenge \***

Describe what your solution offers to the challenge owner. If no challenge selected, write N/A. Max 300 words.

e.g. We propose to build a lightweight open-source digital twin layer that ingests real-time 5G sensor streams and applies anomaly detection to flag public safety risks...




**What is the Innovation element you bring to the program? \***

What is distinctive or novel about your approach? What makes your solution different from existing tools or methods?  
Max 150 words.

e.g. Unlike existing solutions that rely on fixed sensor grids, our approach uses adaptive 5G-connected mesh sensors and edge AI to provide real-time, location-aware detection...


**What does success look like for your team at Demo Day?**

e.g. A working prototype that demonstrates X, validated against Y, with a clear roadmap for...


**What are you hoping to gain from the programme? (tick all that apply)**

**Technical skills** — deepening expertise in 5G, AI, or related domains

- Startup experience** — *building a real product with industry mentorship*
  - Employment & talent pipeline** — *connecting with potential employers or partners*
  - Entrepreneurship** — *exploring a path to founding or commercialising a venture*
  - European network** — *building connections across the EU innovation ecosystem*
  - Research impact** — *translating academic work into real-world application*
- 
- By clicking this button you accept to fully commit to the schedule (in total 50h) through the four months duration of the acceleration program of the 5G-DiGITs project. \***
  - By clicking, you ACCEPT the conditions of the programme and confirm that you have read the privacy policy (available at <https://www.f6s.com/privacy-policy-participants>) and agree to the processing of your personal data for these purposes. \***
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