



esa

**business
applications**

→ Announcement of Opportunities Applications integrating space and 5G in the Groningen region

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business.esa.int

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European Space Agency

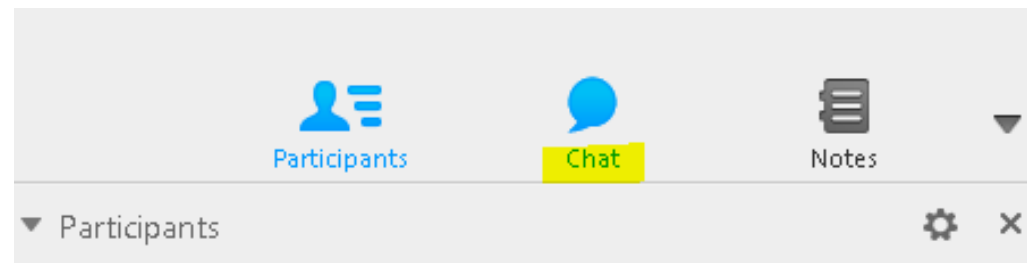
→ AGENDA

1. Introduction
2. About ESA Business Applications
3. About 5Groningen
4. Announcement of opportunity
5. How to apply
6. Q&A



→ GUIDELINES

1. Due to the number of attendees, [please keep your microphones muted at all times](#)
2. You can use the chat function anytime to [submit your questions to Olivier Becu](#). They will be addressed during the Q&A at the end of the Webinar



→ FUEL FOR YOUR BUSINESS

Could you be leveraging Space technology and data for the benefit of life on Earth?



→ OUR OFFER TO YOU

We'll work together to make your idea commercially viable, with:



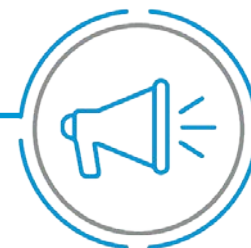
Zero-Equity
Funding
(€60k-€2M+)



Tailored Project
Management
Support



Access to
Our Network
& Partners



Use of the
ESA Brand for
Credibility

→ THE POWER OF SPACE



Satellite Navigation

- Global Positioning
- Navigation
- Timing



Satellite Communication

- Communication on the move
- Deployable connectivity
- Unprecedented speeds



Earth Observation

- Digital Mapping
- Global coverage
- Hi-res imagery
- Weather forecasting

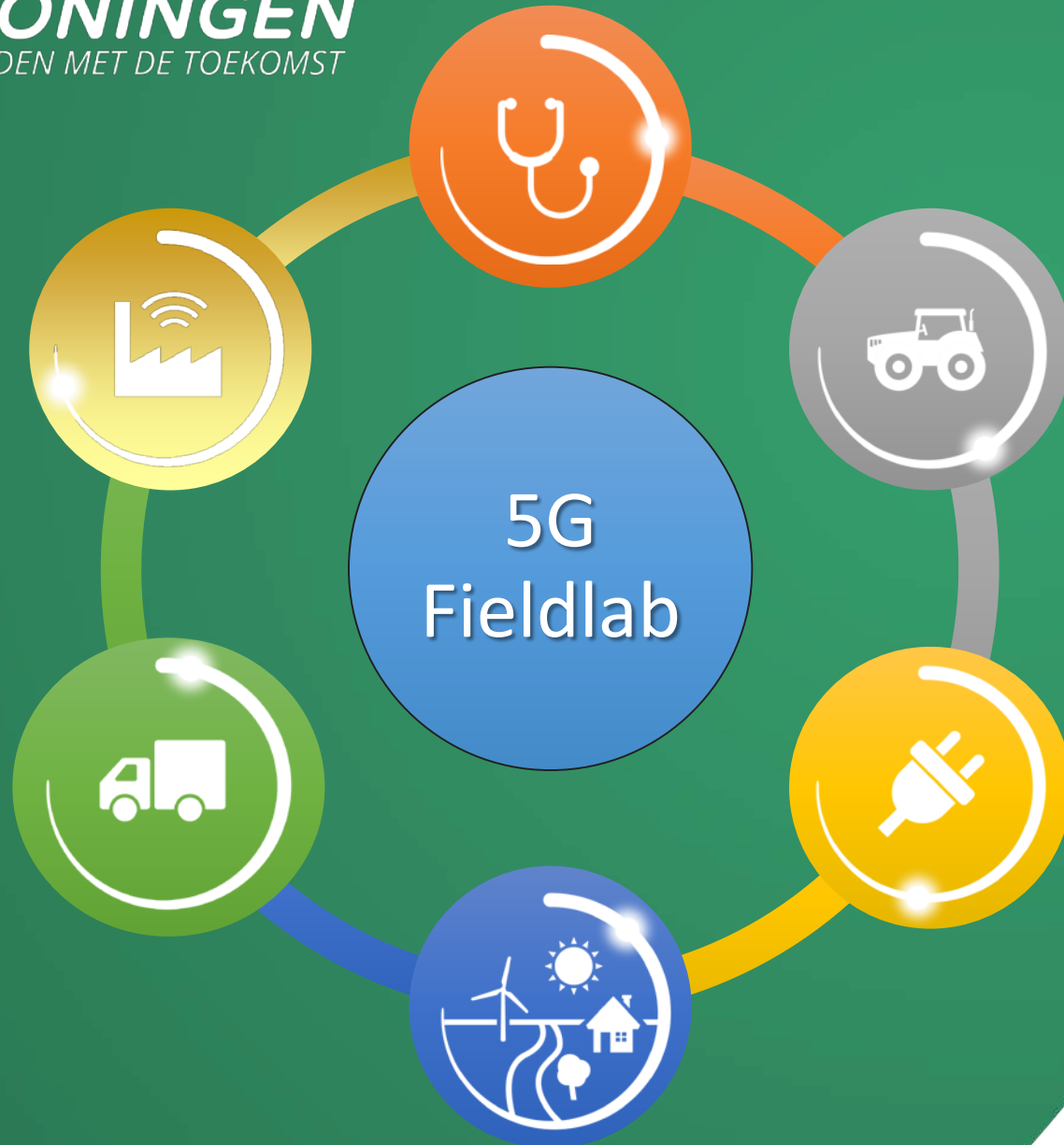


Spaceflight Technologies

- Technologies developed for weightless environment which can be used also on Earth

Founding Fathers 5Groningen

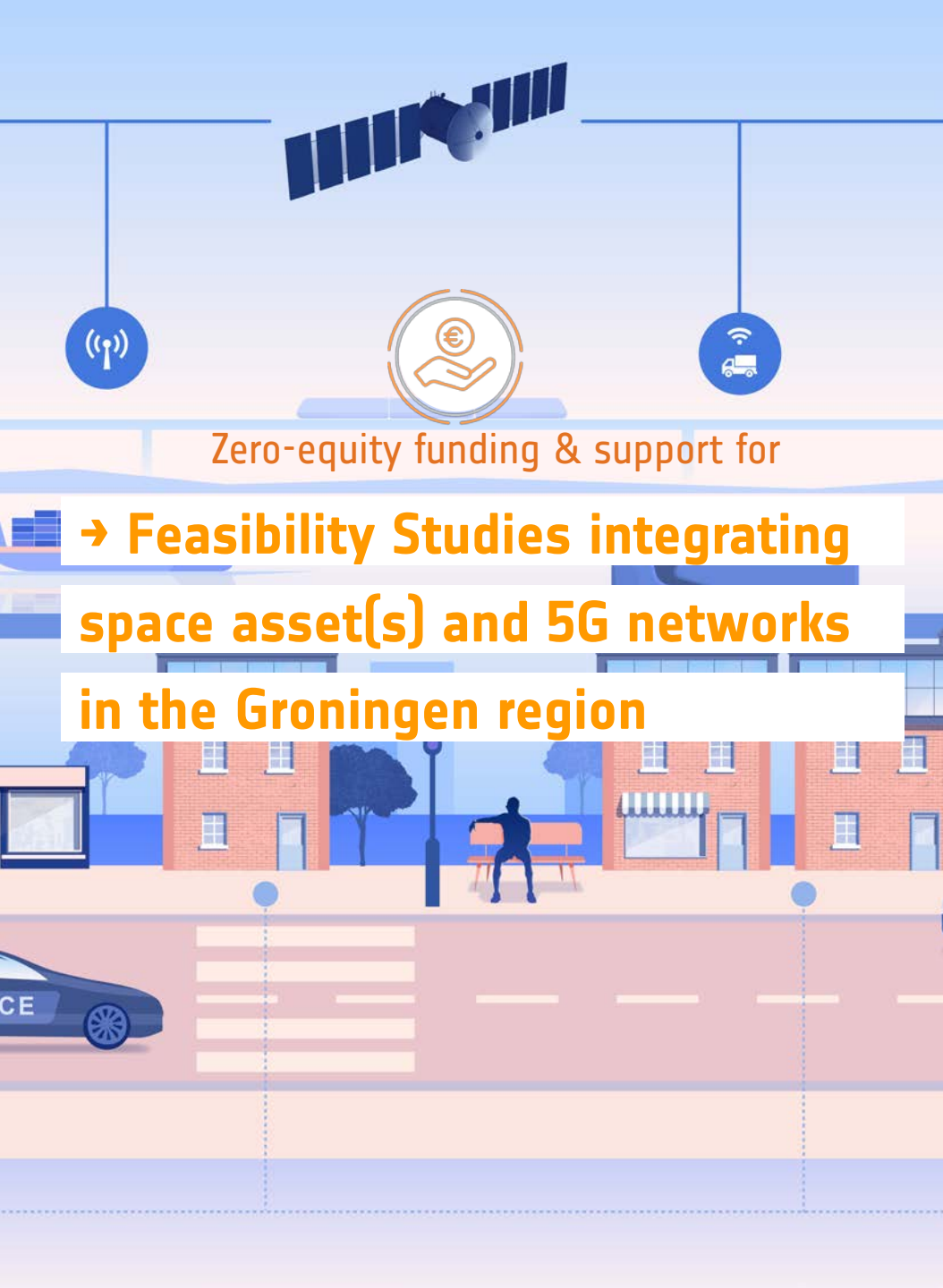




Six areas for uses cases:

1. Healthcare
2. Agriculture
3. Energy
4. Environment
5. Traffic & Logistics
6. Smart Industry

Our first pilots have already started in **2017**



→ KEY ELEMENTS

Objectives: study service(s) using 5G technologies and space asset(s) and perform a proof of concept of those services(s) in the Groningen (the Netherlands) rural region.

Budget: to be proposed by the Bidder (50%-75% funded by ESA)

Application dates: Call opening on 12th September

First deadline: 26th October

Project duration: 12 months

Eligibility: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Sweden, Switzerland and the United Kingdom

What happens after? The project can be further supported from

ESA BA. For more information visit [here](#).

European Space Agency



Zero-equity funding & support for

→ Feasibility Studies integrating space asset(s) and 5G networks in the Groningen region

esa business applications



→ OUTLINE PROPOSAL CONTENT

- 1) Project summary and rationale
- 2) Customers/Users and their needs
- 3) Application/Service viability
- 4) System and implementation aspects
 - Project team
 - Service architecture
 - Implementation approach (including the Proof of Concept)
 - Financial and Management

→ BACKGROUND

- **Space** has an invaluable role to play in the **5G** ecosystem.
- **Telecommunication** satellites can extend, enhance, and provide reliability and security to 5G, helping to deliver its promise of global, ubiquitous connectivity. Other space assets, such as **Earth Observation** and **Satellite Navigation** can be integrated with 5G technology to deliver innovative applications in a number of vertical sectors.
- The European Space Agency (ESA) has joined forces with the Economic Board Groningen (EBG) to support the development of **applications that integrate** space and 5G.

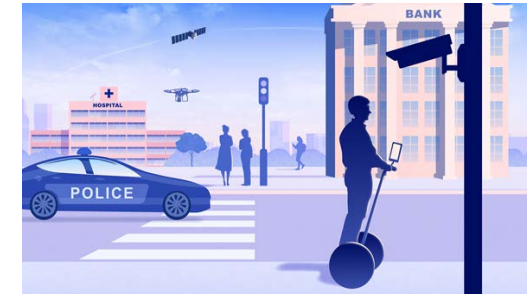


→ REQUIREMENTS FOR THE CALL

Feasibility studies that investigate the **technical viability and business potential** of services that use both 5G and satellite/space-based data.

Studies will include a proof of **concept (PoC) in the Groningen** region (the Netherlands), and must be user driven.

The proposed activity may utilize the **assets made available by 5Groningen Partners**, including main network components of 3GPP-standardised radio and core networks up to 3GPP Release 15 (see list in the Call).



→ USER SPECIFIC OR GENERIC

Applicants can respond to this opportunity in two ways:

- **Proposals addressing Element I “User Specific”** – Several stakeholders in the 5Groningen region have defined use cases. Applicants can submit proposals that aim to tackle those use cases, addressing the problems and needs expressed by the stakeholders. Four use cases have been published so far: two addressing **maritime navigation** and two addressing **building ventilation**.
- **Proposals addressing Element II “Generic”** – Applicants are welcome to submit their own proposals for space-enabled 5G applications. These can assess the technical and commercial feasibility of services in the **agriculture, healthcare, energy, transport, and the environment**.



→ HOW TO APPLY

1. **Register** by completing online questionnaire on [ESA-STAR Registration](#) (minimum 'light registration')
2. **Download** the official tender **documentation** (Invitation to Tender) and create 'Bidder Restricted Area' via [EMITS 'AO 9569'](#)
3. **Write your Outline Proposal** using the template provided **here** and email it at business@esa.int *before the 26 October 2018*.
4. ESA will inform you whether your proposal has been selected and will invite you to a **Match Making** session with the 5Groningen partners on the 21 November.
5. **Write your Full Proposal** and obtain **Letter of Support** from [National Delegation](#)
6. **Submit** your proposal via [ESA-STAR Tendering](#) by 15 January 2019

→ Q&A

→ **THANK YOU & APPLY AT**

[BUSINESS.ESA.INT/FUNDING/INTENDED-TENDER/ESA-5GRONINGEN-OPPORTUNITY](https://business.esa.int/funding/intended-tender/esa-5groningen-opportunity)

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