

Coastal Resilience to Climate Change

European Space Agency

Webinar: 3 July 2025

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Welcome to the Webinar!

Before we start...

•Please keep your microphones muted during the webinar and make sure your webcam is switched off.

•You can use the chat function anytime to ask questions. We will answer questions during the Q&A session at the end of the webinar



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- ESA Welcome and Introduction
- About ESA's Coastal Resilience to Climate Change Funding Opportunity
- How to Apply to the Funding Opportunity
- Guest Speakers to present the 'Network of Centres of Excellence for Disaster Risk Reduction' (NoE) Project:
 - Marco Massabo United Nations Office for Disaster Risk Reduction (UNDRR)
 - James Nyaga Regional Centre for Mapping of Resources for Development (RCMRD)
- Q&A Session

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EUROPE'S GATEWAY TO SPACE

WHAT	23 Member States, 5000 employees	
WHY	Exploration and use of space for exclusively peaceful purposes	
WHERE	HQ in Paris, 7 sites across Europe and a spaceport in French Guiana	
HOW MUCH	€7.68 billion in 2025	

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What do you picture when you think of space?





But space can also be this...





How?

What we can 'see' from space





Space as a connectivity solution





Space as a positioning and tracking solution





See the second second



space solutions

Science and Exploration







Enabling and

Support

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Safety and









Applications





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European Space Agency

Space Improves Life on Earth

 European Space Agency

ESA BASS



A programme that funds and supports European companies to develop innovative services in any market sector using space asset(s)



What ESA BASS offers



Our aim is to work together to make your idea commercially viable, with:





Tailored Project Management Support

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Access to our Network and Partners Use of ESA Brand for Credibility

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Activity Implementation





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Coastal Resilience to Climate Change

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Coastal Resilience to Climate Change Funding Opportunity





Opening Date: 09 June 2025 Closing Date: 31 October 2025

Objective: ESA will support the development of innovative services that use satellite data to tackle climate change challenges in coastal areas.

Funding Range: €50,000 - € 3 million per activity, covering 50-80% of activity costs.

Eligible Activities: Feasibility Studies and Demonstration Projects lasting 6 months to 2 years

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The Challenge





Impact of Climate Change on Coastal Regions

- Vulnerable to rising sea levels, severe storms, flooding, and erosion
- Threatens ecosystems, tourism, trade, and fisheries
- Nearly 900 million people 10% of the world's population — live in coastal zones at low elevations
- Coastal regions contribute significantly to global
 GDP and handle the majority of international trade

Topics of Relevance



Early Warning Systems Track environmental changes for extreme weather alerts.	Coastal Erosion & Sea- Level Rise Monitor and plan defences.	<u>Water Management</u> Monitor rainfall, river flows, and droughts.	
<mark>Biodiversity</mark> Track changes to protect natural habitats.	Infrastructure Planning Use geospatial data for resilient designs.	<u>Coastal Agriculture</u> Protect crops from salinity, flooding, and extreme weather.	
<u>Disaster Response</u> Ensure reliable communication for emergencies.	Nature-Based Solutions Implement strategies like mangrove restoration.	Port Solutions Adapt ports with advanced systems.	
<u>Tourism</u> Protect infrastructure from climate impacts.	<u>Insurance</u> Use satellite data for risk assessment.	<u>CSRD</u> Help companies report climate risks and resilience.	

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Use Cases



<u>Source</u>	<u>Use Cases</u>	
Aon (Insurance)	 Understanding Tropical Cyclone Storm Surges Modelling Coastal Resilience Measures Assessing Climate Change on Ports 	
ESA's Maritime Sustainability Task Force	 Mitigating Flooding Risks Protecting Against Storm Surges Addressing Coastal Erosion Strengthening Port Infrastructure Managing High Winds and Navigation Safety Adapting to Environmental Changes 	
ESA's Task Force for Smart and Green Cities	 Planning, Implementing, and Maintaining Coastal Nature-Based Solutions 	

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For more details, the use cases can be found on the webpage. Please scroll to the bottom and check the downloads section.

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The Value of Space



Satellite Earth Observation (SatEO)

Global Navigation Satellite Systems (GNSS):

Provides data for monitoring environmental changes, tracking coastal erosion, sea-level rise, and biodiversity. Supports early warning systems for extreme weather and aids in water resource management.

Coordinates disaster response, tracks assets, and enhances risk assessment for insurance by accurately tracking insured assets.

Satellite Communication (SatCom):



Ensures reliable communication during and after disasters, especially in remote areas. Essential for transmitting early warning messages.



How to Apply

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Feasibility Study or Demonstration Project?



Entry point	Type of activity		Total cost/price of activity & funding
Direct	Feasibility studies		Max 500k Eur, 50-80% funded by ESA
Negotiation	Demonstration projects		No max amount, 50-80% funded by ESA (depending of wishes of the delegation)



Three Steps to Applying



Step 1	Submit an Activity Pitch Questionnaire (APQ) by 31 October 2025, 13:00 CEST. Submit your APQ any time before this date.	
Step 2	Submit an Outline Proposal within 2 months	
	Submit a Full Proposal with a Letter of Authorisation from your National Delegate	
Step 3	your National Delegate	

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Download an Activity Pitch Questionnaire here: https://business.esa.int/documents

Submit it here: https://business.esa.int/apq-submit

ESA reviews APQs weekly with three outcomes: invitation to prepare a proposal, discussion with ESA, or rejection.

You will receive feedback on your APQ within 2 weeks of submission.

You will be assigned someone in ESA to guide you through the rest of the process



Step 1: The APQ



- 1. (WHO) Company Background Information
- 2. (WHAT) do you want to offer your customers and what is the added-value?
- 3. (WHY) Who are the target beneficiaries addressed by your offer, and what is the expected impact?
- 4. (HOW) How do you intend to implement?
- 5. (APQ+) Further details

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ACTIVITY PITCH QUESTIONNAIRE (APQ) ESA-TIAA-PO-2017-1054 - V. 3.19

The Activity Pitch Questionnaire (APQ) allows you to present your business idea in a reduced, standardised pitch. It helps ESA to quickly take informed decisions on next steps, pointing you to the most appropriate activity stream in case the APQ is considered acceptable (e.g., additional preparatory work, training, teaming up with some other partners, go ahead targeting a Feasibility Study or a Demonstration Project).

Gated and incremental approach: The submission process is based on the following three stages: the Activity Pitch Questionnaire (this form), the Outline Proposal, and the Full Proposal. In case the APQ is accepted by ESA, the answers to the questions of this APQ will be directly integrated in the Outline Proposal and extended as needed. In a similar way, the elements of the Outline Proposal, if accepted by ESA, can be directly integrated in the Full Proposal.



Prepare your pitch:

- Make sure you use the LATEST VERSION of the <u>APQ template</u>.
- Explanations of terminology used here can be found in the document '<u>Terminology used in ESA Business</u> <u>Applications</u>'.
- Some explanations on how to prepare the APQ are available in the presentation '<u>ESA Business</u> <u>Applications</u> - <u>Guidelines for APQ Preparation</u>'.
- · Choose the appropriate Open or Thematic Call. For further details, visit 'ESA Opportunities for Open Calls'



Submit your pitch:

- Contact your National Delegation¹ as specific rules may apply depending on your country.
- Please note that for a given idea, ONLY ONE APQ submission is possible (no subsequent submission of revised APQ Form(s) is allowed!).
- The APQ has a validity of ONE YEAR: in case of no draft of Outline Proposal is submitted within one year from the date of the APQ submission, the APQ will be considered by ESA as withdrawn.
- Your APQ shall be submitted using the online web form submitter accessible at <u>APQ Submit</u> Please note that only PDF formats are accepted.

Activity Pitch Process:

Upon submission of your Activity Pitch Questionnaire

- ESA may provide this Activity Pitch Questionnaire to and discuss it with the National Delegations of the countries of your consortium.
- ESA will assess your pitch.
- ESA will provide written feedback typically within 10 working days from the date of the APQ submission.

¹ Contact details of the National Delegations can be found under:

https://business.esa.int/national-delegations

For Greek entities, please note that Greece does not support non-competitive bids, therefore Greek proposals are not admissible under in this call.

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Section A	P.1 Backgroun	d information	 latest version of <u>Acrobat Reader</u>, which is available for free. Click on " () " for more information. 		
AP.1.1	Idea name:				
Brand name	9:	Full	name:		
1 Thema	atic market area				
Primary 1:		- Sub	categories	t:	
Primary 2:		- Sub	categories :	2:	
Keywords 1:		Keywords 2	:	Keywords 3:	
AP.1.2	Basic compar	ny information			
Name:			Websit	e:	
Address:			Country	/: Phone:	
Contact poi	nt name:		Email:		
-	Have you had	any previous ac		thin Business Applications?	
1 AP.1.5	aracters (no spaces Are you apply are the other entiti	ing with sub-co	ntractors?	,	
Name:		Website:		Industry: Country:	
Name:		Website:		Industry: Country:	
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Roles in Activity:	Max 360 charact	ers (no spaces)			

Step 1: The APQ



1.	(WHO) Company Background Information		ACTIVITY PITCH QUESTIONNAIRE (APQ) ESA-TIAA-PO-2017-1054 - V. 3.19	3 A	on AP.1 Backg P.1.1 Idea nam name:	round information e: Full name:	 For optimal viewing the template, pleas latest version of Ac available for free, Click on " " " " for n 	
2.	(WHAT) do you want to offer your customers and what is the added-value?	pitch. It helps ES, activity stream in a up with some othe Gated and increm Pitch Questionnai ESA, the answer extended as need	h Questionnaire (APQ) allows you to present your business idea in a reduced, standars A to quickly take informed decisions on next steps, pointing you to the most appro- case the APQ is considered acceptable (e.g., additional preparatory work, training, tea er partners, go ahead targeting a Feasibility Study or a Demonstration Project). The submission process is based on the following three stages: the Ar ire (this form), the Outline Proposal, and the Full Proposal. In case the APQ is accept rs to the questions of this APQ will be directly integrated in the Outline Proposal ded. In a similar way, the elements of the Outline Proposal, if accepted by ESA, ca d in the Full Proposal.	priate O Ti ming Primar ctivity Primar ed by Primar l and Keywo an be	rds 1:	area Subcategories Subcategories Keywords 2: mpany information		is 3:
3.	(WHY) Who are the target beneficiaries addressed by your offer, and what is the expected impact?	Explanations of <u>Applications</u> . Some explanations	Activity Pitch Questionnaire (APQ) othin u use the LATEST VERSION of the <u>APQ template</u> . of terminology used here can be found in the document <u>"Terminology used in ESA Business</u> ations on how to prepare the APQ are available in the presentation <u>"ESA Business</u> Se the appropriate Open or Thematic C	siness Year o Numbe	ss: ct point name: P.1.3 Company of creation:yyyy er of employees: ails, visit	Revenues (Most recent figure ir	y:	Phone:
4.	(HOW) How do you intend to implement?	Call:	Thematic Call (under 1-10494) "Please be aware, it's important to ensure y		-	Coastal Resilience	To Climate C	hange 🔻
5.	(APQ+) Further details	Submit yo	Please describe ESA use cas	e addressed	-	t the APQ can be share the relevant use case.		the
		 ESA may pro- countries of yo ESA will asses ESA will provi 		of the Name sion.	 Max 360 cf	Website: Website: Website:	Industry: Industry: Industry:	Country: Country: Country:

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Tips



- 1. Engage Stakeholders: Reach out to potential users/customers to confirm their involvement. Obtain a letter of interest by full submission.
- 2. Read Use Cases: Check whether your service matches the use cases established by ESA's partners. This is optional, but successful teams can be introduced to the partners.
- Contact National Delegate: Inform them early about your APQ submission. Obtain a Letter of Authorisation by full proposal submission: https://business.esa.int/national-delegations





- 4. Check Eligibility: Ensure your company is based in an eligible ESA Member State. Refer to the webpage for details.
- 5. Use Any Satellite Data: Data can be sourced from any provider, not just ESA.
- 6. Target Any Market: Your service can operate in any vertical market sector and country, not limited to Europe.
- 7. Submit Early: Avoid last-minute APQ submissions.
- 8. Consult Ambassadors: If available, speak to your country's Ambassadors. <u>https://business.esa.int/ambassador-platforms</u>





Guest Speakers

Presenting the 'Network of Centres of Excellence for Disaster Risk Reduction' (NoE) Project:

Marco Massabo - United Nations Office for Disaster Risk Reduction (UNDRR)
 James Nyaga - Regional Centre for Mapping of Resources for Development (RCMRD)

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Africa Network of Centers of Excellence for Disaster Risk Reduction Forum





State of the climate in Africa

• 2-5% of GDP

- up to **9% of budgets for** responding to climate extremes
- cost of adaptation in Sub-Saharan Africa is estimated to range from
 US\$ 30-50 billion annually over the next decade
- up to 118 million extremely poor people will be exposed to drought, floods and extreme heat in Africa by 2030



- Mortality is decreasing
- More countries are reporting to have MHEWS
- Africa universities are stronger
 - 2012: 12 universities from only 1 country
 - 2025: 135 universities from 19 countries

Source: The Times Higher Education World University Rankings (WUR) The Africa Network of Centres of Excellence for DRR (NoE) **unites African scientific and operational expertise** to strengthen disaster risk reduction (DRR) across the continent. Through collaborative **knowledge sharing and capacity building** to address user-needs across the continent, by **enhancing disaster risk reduction, early warning systems, anticipatory action, and risk-informed decision-making** in Africa



Africa NoE for DRR: Activities of the Network

Advancing Disaster Risk Research, Data and Knowledge Generation

Specialized Advisory Services

Capacity Development

Engagement, Advocacy, and Partnerships

Africa Network of Centres of Excellence for Disaster Risk Reduction | PreventionWeb www.preventionweb.net/Africa-noe

AMHEWAS

Africa Multi-Hazard Early Warning and Action System for Disaster Risk Reduction







Training

© UNDRF

Audio

Video





Participants

Chat

Raise hand

Share

Q&A

More

Training

Tabletop Exercises:

Ghana, Uganda, Mozambique

MyDewetra Platform





Thanks

Thank You for Joining! Now we will begin the Q&A session



https://business.esa.int/funding/call-for-proposals-non-competitive/coastal-resilience-to-climate-change



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Liz Barrow: <u>liz.barrow@esa.int</u>

Authorisation of Funding



To qualify for funding, your team must be located in one of the following countries:

Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Hungary, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Sweden, Switzerland, United Kingdom, Lithuania, or Slovakia.

If your company is based in Greece, Spain, or Canada, eligibility for funding requires that your idea is related to 5G technologies or includes a significant element concerning Safety and Security.

Teams based outside these Member States are not eligible for this funding call.



More About Funding



Funding Scheme

Funded participation is open to any company and/or organisation, be it as group of users, public body or non-governmental organisation, residing in any of the ESA Member States that are participating to the programme as specified in the Letter of Invitation in esa-star.

The applicable funding level of the individual prime- or subcontractors is subject to authorisation by the involved National Delegation(s). Therefore, bidding teams are requested to obtain a Letter of Authorisation from all their national delegations before submitting a Full Proposal.

The funding level is summarised in the Table below.

	Feasibility Study	Demonstration Project		
Activity Cost	as a general guideline up to EUR 500'000 (limited to acceptable cost)	case by case assessment (limited to acceptable cost)		
ESA Co-Funding				
• Baseline	max. 50% of company's cost	max. 50% of company's cost		
Micro, Small and Medium Enterprises [1]	max. 80% ^[2] of enterprise's cost	max. 80% ^[2] of enterprise's cost		
Universities and Research Institutes with no commercial interest in product/service	max. 100% ^[2] of institute's cost and max. 30% of activity cost	max. 80% ^[2] of institute's cost and max. 30% of activity cost		
Industry Co-Funding	Remaining part of the cost to carry out t	he activity		

[1]Enterprises fulfilling the criteria defined in the European Commission Recommendation of 6 May 2003 (2003/361/EC) or as updated.

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[2]Depending on the funding level authorised by the related National Delegation(s).

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