

Space For Sustainability in Sport and Mass Events

European Space Agency

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BASS Sports and Tourism Lead

30/04/2025

→ THE EUROPEAN SPACE AGENCY

Agenda



- ESA Welcome and Introduction
- About ESA Business Applications
- About the Opportunity: Space For Sustainability in Sports and Mass Events
- Our Guest Speakers:
 - Susanna Sieff FIS
 - Jana Janotova Sports for Nature
 - Debbie Van Dijck Love Tomorrow
- How to Apply to the call
- **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



European Space Agency's Four Main Pillars

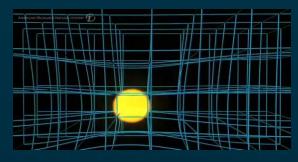


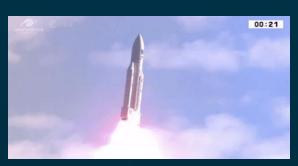
Science and Exploration



Safety and Security

Applications



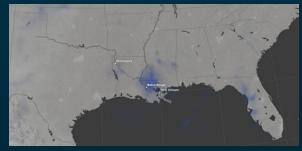


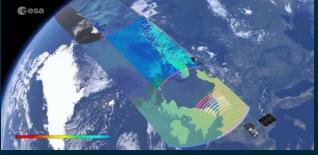




















Space Technology, Users Needs & Markets



Space Technology

Earth Observation

Satellite Navigation

Satellite Communication

Spaceflight Technologies

Space Weather



Big Data analytics

VR/AR

Artificial Intelligence

Mega-constellations

Crowdsourcing

IoT

Cybersecurity

Blockchain

5G



Users Needs & Market

Maritime



Agriculture



Environment



Healthcare



Education



Transport



Energy



Media



Financial



Smart Cities



What can BASS offer to companies?



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



Zero-Equity Funding (€50K-€2M+)



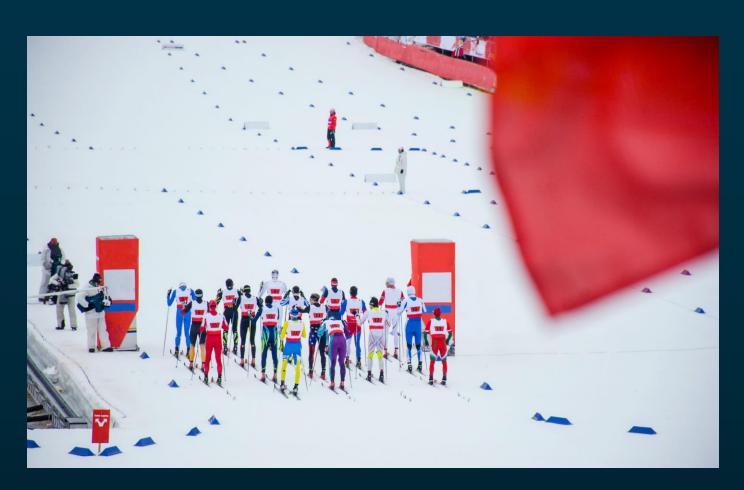
Tailored Project Management Support



Access to our Network and Partners



Use of ESA Brand for Credibility



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Sustainable applications with green impact

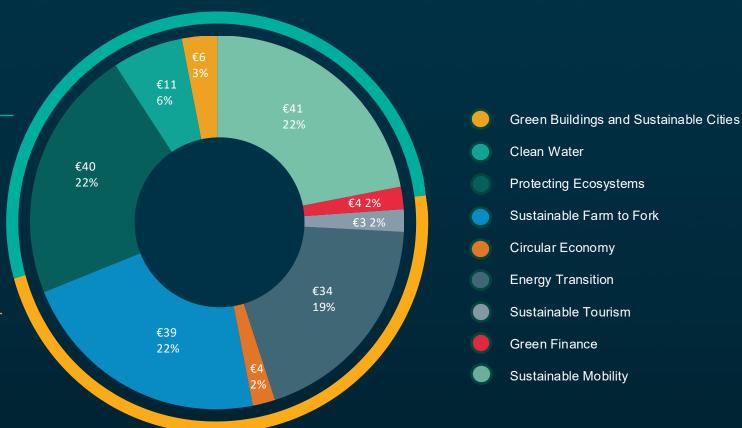


It is estimated that abandoning the current high-carbon pathway in favour of a low-carbon future will bring €26 trillion in economic benefit.

Investment in BASS Green Activities since 2010

Market demand for green solutions, new ESA BASS funding opportunities, and collaborations with industry partners will support future growth in sustainable development investment

With €183M invested into
300 ideas the green transition now drives
48% of all new ESA Space Solutions.



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Space For Sustainability in Sport and Mass Events Call



The opportunity

- Global events industry projected to grow from \$1.14 trillion in 2019 to \$2.05 trillion by 2032 at a 6.4% CAGR—and the sports segment alone expanding at 7.8%—there is a vast and rapidly growing market for sustainability solutions.
- Mounting pressure from fans, sponsors (who provide roughly 50% of event revenue), and regulators to adopt measurable environmental and social responsibility—combined with climate-driven operational risks such as extreme weather—has created urgent demand for tools and services that reduce carbon footprints, manage waste, and enhance event resilience.
- Existing frameworks like the Sport for Nature initiative and similar musicfestival programs highlight significant gaps in accurate emissions measurement, transparent reporting, and impact-assessment methodologies.



Space For Sustainability in Sport and Mass Events Call



Areas of interest (non exhaustive)

- Carbon Reduction
- Nature and Biodiversity protection
- Circular Economy
- Sustainable Infrastructure
- Event Resilience to Environmental Impact



Space For Sustainability in Sport and Mass Events Call



Important dates

- OPENING DATE: 5th May 2025
- CLOSING DATE: 10th October 2025



Value of Space





relays information across remote and

- Satellite Navigation
- provides autonomous geospatial positioning

Earth Observation

Provides information on the health of Earth

- Connectivity for remote areas with lack of terrestrial networks for example for IoT networks.
- Connection with local sensors or to provide alerts, such as emergency warnings for extreme weather events...

- Facilitates real-time tracking and tracing of vehicles and goods through precise positioning, navigation, and timing.
- For instance, GNSS can enable various route optimisation solutions by providing real-time location data as well as flow monitoring of fans, vehicles and goods
- SatEO data combined with advances in AI and machine learning, could be used to directly measure GHG emissions, measure traffic flow, movement of people, activities along points of the supply chain, identify infrastructure needs, and understand direct effects of the events in the surroundings like biodiversity.
- SatEO data can be used for the planning of the infrastructure and traffic flows. Additionally, weather forecasts can be used to anticipate adverse situations that can affect events

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BASS Funding Schemes



Entry point

Type of activity

Total cost of activity & funding

Max 500k EUR, 50-80% funded by ESA

(can be 100% for research institutions)

Direct Negotiation

Feasibility studies

(ick-Starts (KS)

lpto 60k EUR funding, 75% funded by ESA

Demonstration projects

No max cost, 50-80% funded by ESA (dependent on delegation decision)

Invitation To Tender

Feasibility studies

viax 200k LON, 30-100% fullued by LSA

(Open competition)

Kick-Starts (KS

Upto 60k EUR funding, 75% funded by ESA

Activity implementation







Guest speaker

Susanna Sieff

Sustainability Director

FIS - International Ski and Snowboard Federation



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FIS - about us

- The worldwide governing body of skiing and snowboarding and the widest-reaching international federation in winter sports, overseeing the disciplines that correspond to around 55% of all medals awarded at the Winter Olympic Games and 80% of all medals awarded at the Winter Paralympic Games.
- **Member Nations:** FIS consists of 137 member National Ski Associations.
- Number of World Cups Races: Approximately 330 annually in 180 events + free ride world tour
- 6 IOC Disciplines
- Number of World Championships: 5 biannually (Alpine, Nordic, Freestyle Snowboard, Freeski, Ski Flying, Freeride)





FIS // ESA Mol

 The European Space Agency (ESA) and the International Ski and Snowboard Federation (FIS) announced the 26th of November a collaboration that aims to put the technology of space applications at the service of sustainability in snow sports.

Target areas:

- Climate change mitigation
- Pollution and carbon emission reduction (Transport, Logistic, ...)
- Biodiversity protection
- Circular economy growth





FIS // ESA Mol

Upcoming ESA Thematic Call



- ESA to launch a thematic call for companies.
- Goal: Develop space-based services that improve sustainability in the sports sector.
- Focus on:
 - Reducing strain on local infrastructure
 - Minimizing environmental footprint of events
 - Delivering positive long-term legacies

Space for Sustainability in Sports and Mass Events



FIS // ESA Mol

- Our role in the MoI is to spread the call as much as possible among our suppliers and sponsors/partners (ours directly but also all those working with LOCs) so that the companies already working in the organisation of events can apply for ESA funding and use space technology to innovate their products/services
- Our role is also to push the development of some ideas such as:
 - FIS CO2 Calculator and Climate pattern
 - Landscape changes
 - Human Wildlife Initiative





Why Sports Need Space Tech

- Sports industry: a multi-billion-dollar, global cultural force.
- Space technologies already in use:
 - GNSS-enabled wearables (performance tracking)
 - Copernicus, Galileo, EGNOS (event safety, environmental monitoring)
- Extreme weather due to climate change threatens viability of outdoor sports.
- Space tech can monitor, adapt, and protect sports ecosystems.
- Space assets enable:
 - Real-time environmental monitoring
 - Data-driven decision-making
 - Resource optimization at sports events





Guest speaker

Jana Janotova

Engagement Officer

Sports for Nature - IUCN



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IUCN and its network

International Union for Conservation of nature = World's largest and most diverse environmental network.

77 Years 1 400 + Members 16 000 + Experts

160 + Countries

IUCN and sports

- New area of activity.
- Secretariat and partner of the Sports for Nature Initiative.
- Provides guidance and expertise on nature conservation to sports.
- Helps unlock the cooperation potential between sport and the nature conservation sector.



Vision

A just world that values and conserves nature



About Sports for Nature

Joint Initiative, launched in December 2022

Institutional partners











- MAIN AIM: To deliver transformative, nature positive action across sports by 2030 and beyond, enabling sports to champion nature and contribute to its protection and restoration.
- Its main pillar Sports for Nature Framework -targets primarily sport organisations (teams, clubs, leagues federations etc.).





How does it work?

"TEAMWORK IS IN OUR NATURE"

- Developed and implemented together with sport organisations.
- Currently 11 signatory organisations, representing over 30 sports

SPORTS FOR NATURE PRINCIPLES

- Main pillars of the initiative
- Providing a direction of travel for signatories.

COMMITMENT & ACTION

SUPPORT & COLLABORATION





Latest signatories





















Challenges / opportunities?



Context: Sports...

...depend on nature



....have a responsibility and great opportunity to act for nature

- Nature is their playground, provider, protector and ally
- Their events and operations can have negative impact on nature
- They have a great power and platform to engage and communicate

However...

- For most sports, nature and biodiversity protection and restoration are very new topics.
- Tracking, impact assessment and measurement is a challenge none or very few tools or guides specific
 to the sector.
 - This is true both for **general operations and events**.



1. Nature impact mapping and monitoring tool for sports

Aims/benefits

 support transparency, encourage collaboration, and highlight the role of sport in driving impactful environmental action.

Possible functions

- Action Mapping & Tracking: Visualization of (positive) nature-related activities (e.g. reforestation, habitat restoration around venues) implemented by sport organisations.
- <u>Temporal Analysis:</u> A timeline function to monitor the evolution of the actions and track environmental
 improvements over time in individual locations as well as globally illustrating the cumulative impact of the Sports
 for Nature initiative.
- <u>Categorical Layering:</u> Grouping of sports based on context (e.g. urban vs. rural), or by ecosystem type, allowing users to filter and compare actions across different sports disciplines and environments.

2. Sport event site monitoring system

Aims/benefits

- To enable the monitoring of the "before-during-after" of a sport event and subsequent action.
- One of the most sought-after function/tool mentioned by S4N signatories.

Possible functions

- General site assessment with a temporal function (before, during and after).
- Visualisation of ecosystems and flora and fauna on site (links to open-source databases of e.g. protected areas etc.)
- (Live) measurement of air quality, land or water pollution (before, during, after the event)
- "Observatory" of any restoration efforts over time





www.sportsfornature.org sportsfornature@iucn.org





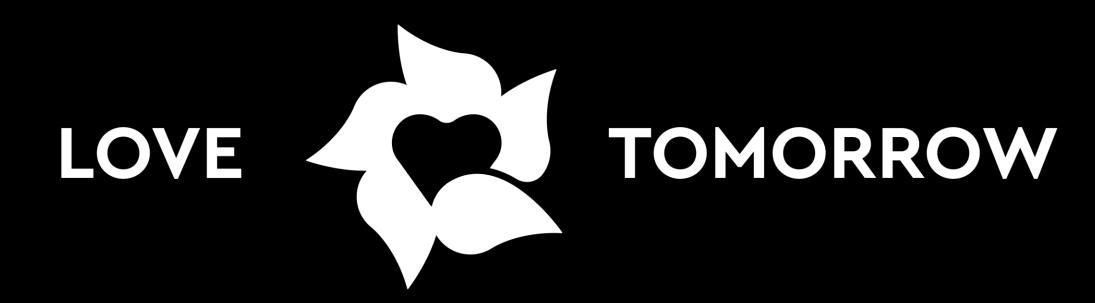
Guest speaker

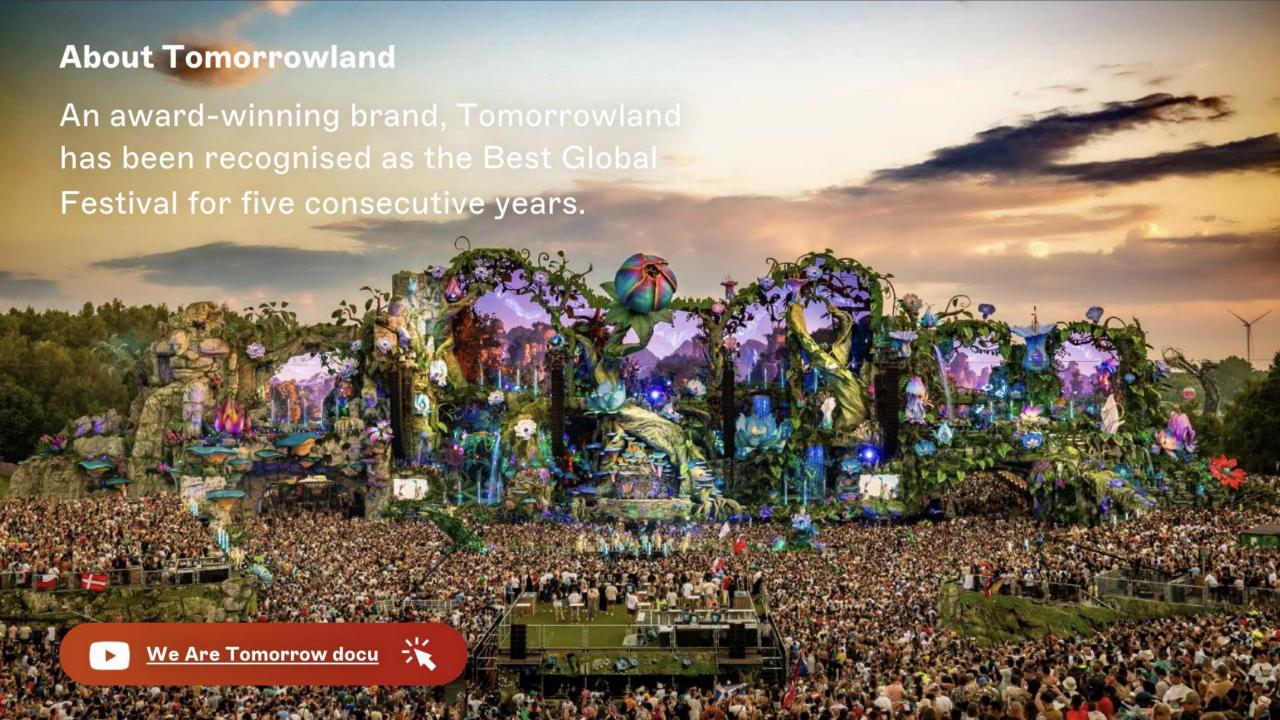
Debbie Van Dijck

Project Lead Sustainability
Love Tomorrow



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WE ARE ONE WORLD

Tomorrowland performed and showed two of its brand values to the world

LIVE TODAY

LOVE TOMORROW

UNITE FOREVER

QUALITY

ENJOYMENT

HAPPINESS

MAGIC

DANCE

MADNESS

RESPECT

NATURE

INNOVATION

HEALTH

RESPONSIBILITY

UNITY

FRIENDSHIP

BELONGING

PURITY

HONESTY

LOVE

THE BENCHMARK IN LIVE ENTERTAINMENT.

The most exciting physical immersive experience with attention to the smallest details. Making sure the people of tomorrow enjoy the best time of their life.

TAKING CARE OF THE GENERATION OF TOMORROW

Step-by step evolving ourselves, taking care of each other and the world around us. Inspiring the People of Tomorrow to create a positive impact on our society and environment.

A SYMBOL OF GLOBAL UNITY

Our vision is a united world where the People of Tomorrow live as one, feel free and be nobody but themselves, while enjoying life to the fullest.



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VALUES



RESPONSIBILITY

Embracing the duty to positively influence tomorrow by championing sustainable and ethical actions in every endeavour.

Holy grounds

Sustainable BD



NATURE •

Valuing, protecting and respecting the natural world, and understanding that its health, and therefore a sustainable and harmonious future. depends on our actions now.



Air

Energy

Mobility



INNOVATION •

Constantly seeking out and embracing new ideas and technologies that can pave the way for a smarter, more efficient future.

Joy & Magic

Co-creation

Route 360



HEALTH •

Prioritising physical and mental wellbeing, recognizing it as essential for a balanced, fulfilling life and a thriving community.

Body & Mind

Surrounding

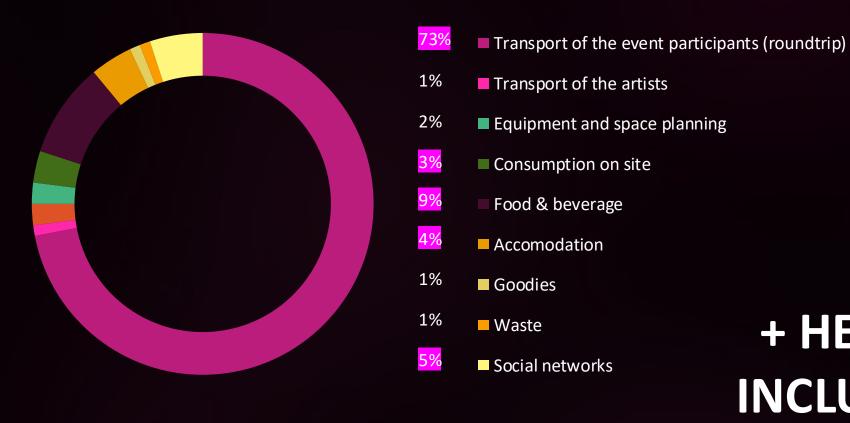


RESPECT



Upholding a deep respect for all individuals, cultures, and viewpoints, fostering an inclusive environment where diversity is celebrated and every voice matters.

CARBON FOOTPRINT TL23BE



+ HEALTH INCLUSION



RESPONSIBILITY

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NATURE

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environment where diversity is celebrated

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RESPECT •

Body & Mind

Air

Mobility

Joy & Magic

Route 360



of raw materials for event infrastructure

Multimodal mobility planning for events

- Reducing & meisure the carbon footprint (of event transport) with space data
- Sustainable lastmile transport





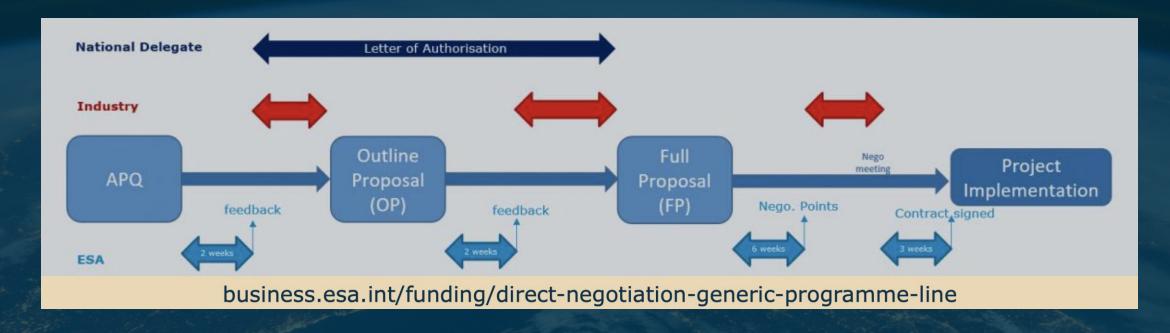
How to apply?





How to Apply





- Incremental procurement approach: APQ is the starting point max. 8-page document with a standard template to present WHAT, WHY, HOW
- Standard templates for proposals and deliverables before and during activity implementation
- Ambassador Platform available to guide companies in the process

APQ – Activity Pitch Questionnaire



- (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 are their pains and gains
- 4. (HOW) do you intend to implement



Official Use Only Section AP.1 Background information					Important Note: For optimal viewing and accurate completion of the template, please download and install the latest version of <u>Acrobat Reader</u> , which is available for free. Click on "0" for more information.			
① AP.1.1	Idea name:							
Brand name:			Full nam	ie:				
① Themat	tic market area							
Primary 1:		•	Subcate	gories 1:				
Primary 2:		•	Subcate	gories 2:				
Keywords 1:	-	- Keyw	ords 2:			Keywords 3: -	-	
① AP.1.2	Basic compar	y information	on					
Name:		<u>-</u>	,	Website:				
Address:				Country:		• Phon	ie:	
Contact poin	t name:			Email:				
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Name:	-	Website:			Industry		Country:	
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APQ Advice



- 1. APQ is a critical stage
- 2. Limited word count makes it more complex make every word count
- 3. Be specific and descriptive. Avoid "fluff", and "magic" black boxes.
- 4. Key messages:
 - 1. Show you understand the final customer and their pains
 - 2. Very clear and understandable value proposition
 - 3. Clarity on how you will commercialise the development
 - 4. Clear definition on the scope of the activity, what's in, what's out
- 5. Commercial focus

Authorisation from National Delegation



- 1. The authorization form the National Delegation will be required for the submission of the Full Proposal (third step in the application process), thus it is a good idea to initiate a dialogue with your National Delegation early on.
- 2. Please note that funding is open to consortiums, however all organisations and businesses must be located in an ESA member state participating in the programme BASS
- 3. To date, these countries include Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Lithuania, Ireland, Italy, Luxembourg, The Netherlands, Norway, Poland, Portugal, Romania, Sweden, Switzerland, and The United Kingdom.
- 4. The contact information of the National Delegations can be found at https://business.esa.int/national-delegations



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