



Organizers:



FINAL PROGRAMME

4th International Space Forum at Ministerial Level – The Mediterranean Chapter

*“Space Technology and Applications meet
Mediterranean Needs”*

Reggio Calabria, Italy | 5 September 2019

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1 WELCOME MESSAGE FROM THE INTERNATIONAL ASTRONAUTICAL FEDERATION (IAF)

Dear ISF 2019 Participants,

On behalf of the International Astronautical Federation (IAF), it is my great pleasure to welcome you to Reggio Calabria, for the 4th edition of the International Space Forum at Ministerial Level – the Mediterranean Chapter, jointly organized by the IAF, the Italian Space Agency (ASI) and the Università degli Studi Mediterranea, under the theme “Space Technology and Applications meet Mediterranean Needs”.

This 4th edition of the Forum aims at engaging and stimulating the discussions between Ministers and Authorities of the Mediterranean region, on the necessity to take common actions in launching joint initiatives to increase the participation of scientific and academic institutions in space activities. This Forum will provide a unique platform for decision-makers to take concrete steps in meeting the needs of the Mediterranean populations and in developing their capacities and abilities.

The Forum will focus on the topics of Maritime Surveillance, Space and Blue Economy, and Space Education, Cooperation and Scientific Knowledge, and will feature prominent Keynote speeches and Statements from the Delegations. The three Keynotes will bring the attention to the importance of scientific education and capacity building for a better awareness and development of the region, as well as underline how space-based technologies can be vital in increasing the security and economical stability of the area; whilst the Statements provided by each Delegations will give a concrete picture of the actions that need to be taken in their respective countries to achieve such goals.

We are confident that you will find the programme enriching, enlightening and rewarding. Every statement will constitute an important milestone in the creation of a better future for us all.

Enjoy your time in Reggio Calabria and at this unique event!



Jean-Yves Le Gall

President
International Astronautical
Federation (IAF)

WELCOME MESSAGE FROM THE ITALIAN SPACE AGENCY (ASI)

Dear participants,

The International Space Forum (ISF) at Ministerial Level 2019 has reached its 4th edition and the Italian Space Agency (ASI) is truly delighted to welcome you to Reggio Calabria for “The Mediterranean Chapter”. Maritime Surveillance, Space and Blue Economy, Space Education, Cooperation and Scientific Knowledge are the three topics that will drive our discussions this year. The Mediterranean region, with all its beauty, ancient history and challenges will be at the center of this ISF 2019.

As you all are aware, satellites already provide a precious contribution to human activities in the Mediterranean region: from maritime surveillance and other institutional activities to private and commercial activities that constitute the so-called “blue economy”. However, we believe that the full exploitation, fusion and integration of different satellite data would allow us to take an even greater step towards the socio-economic development of the area, in line with the UN Development Goals. In this scenario, Universities and research centers are called to play a key role in the dissemination of space knowledge and in the development of new space curricula in the Mediterranean region.

To this end ASI, with its programs and activities, is at the forefront of making the technologies developed for space valuable and closer to society. I will mention just a few programs aimed at achieving this objective: the COSMO-SkyMed earth observation constellation, composed of 4 satellites in orbit since 2007, which represents an irreplaceable source of geo-information for Europe and the world; the PRISMA hyperspectral satellite launched last March, which will increase the Italian capability of providing geo-information applications and, finally, the ItalGovSatCom, a telecommunication satellite for institutional services, developed thanks to a private and public partnership.

The International Space Forum 2019 represents an opportunity for the Mediterranean countries to exchange ideas, share visions, discuss common actions and launch joint initiatives. As the founder of the International Space Forum initiative, together with the International Astronautical Federation, the Italian Space Agency welcomes you to Reggio Calabria and invites you to make the most of this forum that gathers the best Mediterranean players, together with experts and space agencies from all over the world.



Giorgio Saccoccia

President
Italian Space Agency (ASI)





WELCOME MESSAGE FROM THE UNIVERSITY MEDITERRANEA

Dear Participants,

It is our great pleasure to welcome all of you to Reggio Calabria for the 2019 International Space Forum (ISF), at its 4th edition following Buenos Aires, Nairobi, and Trento.

The University Mediterranea of Reggio Calabria is deeply honored to have been selected to host the Ministers and Authorities from the participating Mediterranean countries, as the Representatives and Experts of International Space Agencies and Organizations, for this scientific and political initiative developed in collaboration with the International Astronautical Federation (IAF) and the Italian Space Agency (ASI).

Founded in 1968, the University Mediterranea of Reggio Calabria is a young and dynamic institution committed to the development of research and education focused on scientific, cultural, social and economic issues in the Mediterranean basin. It operates in various scientific areas, namely Agriculture, Architecture, Engineering, Environment, Law, Economics and Primary Education, well integrated for coordinated initiatives in the field of Sustainability and Renewable Energy, promoting interdisciplinary cooperation for research, innovation and technology transfer in collaboration with local, national and international research institutions and Universities.

Reggio Calabria (*Reghion*) is the second oldest city of *Magna Graecia* in Southern Italy, subsequently romanized as *Regium Julium*. It is one of the main doors on the Mediterranean Sea, located in front of the Sicilian city of Messina, overlooking the famous Strait, also known for the mythological legend of *Scylla and Charybdis* described in *Homer's Odyssey*, and connecting the Ionian to the Tyrrhenian Sea, with a scenic view over the Etna volcano. It is nestled between mountain and sea, with its beautiful beaches and pleasant temperature and represents a natural bridge between continents and a crossroad for culture, religions, commerce and exchanges. Reggio Calabria characterizes itself as a new European harbour for tourists and migrants.

During this edition, titled "*The Mediterranean Chapter*", three main topics will be discussed, i.e. Maritime Surveillance, Space and Blue Economy, and Space Education, Cooperation and Scientific Knowledge. These fascinating and complex themes have great social relevance; however, the complexity of the scenario calls for a more direct and responsible involvement of Universities and research centers, that should now commit to the dissemination of knowledge gained from space science and to the promotion of new academic curricula focused on space environment through the development of cooperation networks in the Mediterranean region.

The opportunity of the International Space Forum 2019 allows our University to offer a tribute to Mediterranean countries to launch joint initiatives in the near future. The success of future activities can benefit from the existing partnerships with the space agencies and organizations represented in Reggio Calabria.

We are certainly confident that the Forum, attended by most of the Mediterranean countries, will promptly achieve its goals.

We truly hope you all can enjoy your stay in Reggio Calabria.



Santo Marcello Zimbone

Rector
University Mediterranea of
Reggio Calabria

WELCOME MESSAGE FROM THE MAYOR OF REGGIO CALABRIA

After Trento, Nairobi and Buenos Aires, the International Space Forum comes to Reggio Calabria.

In welcoming the conference attendees and executives of the IAF, International Astronautical Federation, the Italian Space Agency and the Mediterranean University, I wish to underline the significant strategic role of our city which now has the function of a geopolitical lighthouse for the Mediterranean populations.

ISF 2019 will bring together in our city politicians, scientists, researchers and journalists from all over the world, as well as Space Agencies' chiefs and representatives of International Space Organizations.

I am convinced that this prestigious congress will offer to the scientific and academic institutions of the Mediterranean region the opportunity to expand their role space activities; on the other hand, our honored guests will have the opportunity to learn from the characteristics of our peoples, who are striving for cooperation and sharing of knowledge.

I strongly hope that the forum works will produce research and development for optimal spatial solutions allowing us to face the increasingly demanding challenges that arise at regional and global level and I hope that in Reggio Calabria we can realize a Graduate School of Space Studies and Applications that meet the needs of the Mediterranean peoples.



Giuseppe Falcomatà

Mayor
Comune and Città Metropolitana of
Reggio Calabria





WELCOME MESSAGE FROM THE PRESIDENT OF THE REGIONAL COUNCIL

Dear participants,

I am honored, also on behalf of the Regional Council, to welcome you to Calabria.

A luxuriant and warm land, whose landscapes will amaze you, with its eight hundred kilometers of coast, three natural parks and a rich archaeological, artistic and cultural heritage.

The Region has its historical roots in the culture of Magna Graecia, of which we still preserve precious and unique evidences: among all, the Riace Bronzes currently located at the National Archaeological Museum of Reggio Calabria.

It is also a special privilege and an honor to host the Forum at the Regional Council's seat, a building symbolizing a home to the Calabrian citizens and named in the memory of the great philosopher Tommaso Campanella.

The Mediterranean Chapter of the International Space Forum takes place in the city that represents the geographical hub of the Mare Nostrum.

We look at the Mediterranean Region with care and trust, being aware that this area is crucial for the future of the planet, because of economic, political, geographical and anthropological reasons and in the light of its linking role between Europe, Africa and Asia.

The subject of the Forum takes on particular importance with regard to space policies, which serve a delicate function and are of strategic interest to nations. They can contribute to the improvement of the living conditions of humanity, also thanks to the impulse that derives from scientific progress and the development of new technologies.

As President of the Regional Council of Calabria, I am sure that the Forum will achieve its objective and will contribute to take another step towards the full involvement of Universities and the World of Research in the great challenges and opportunities related to Space.

In this 2019, a year of powerful suggestions related to the 50th anniversary of the first humans landing on the Moon, we are happy to welcome your delegations to Calabria.

I sincerely hope that your time here will be fruitful and enjoyable.



Nicola Irto

President
Regional Council of Calabria

2 ORGANIZERS INFORMATION

2.1 The International Astronautical Federation (IAF)

Founded in 1951 to foster dialogue between scientists around the world and support international cooperation in all space-related activities, the International Astronautical Federation is the world's leading space advocacy body with over **360 members**, including all key space agencies, companies, societies, associations and institutes across 68 countries.

Over 40 administrative and technical committees support the Federation in its mission to advance knowledge about space and to foster the development of space assets by facilitating global cooperation.

Following its theme "A space-faring world cooperating for the benefit of humanity", the Federation advances knowledge about space and fosters the development and application of space assets by advancing global cooperation.

As the organiser of the annual International Astronautical Congress (IAC), and other meetings on specific space-related topics, the IAF actively encourages the development of astronautics for peaceful purposes and supports the dissemination of scientific and technical information related to space.

THE IAF'S MISSION

- **Promoting cooperation:** The IAF's International Astronautical Congress and various IAF committees provide unique collaborative platforms for experts from space agencies, industry and research
- **Advancing international development:** The IAF is building a future of cooperation, development and international friendship, bringing together experts from experienced and emerging space nations alike
- **Sharing knowledge:** The Federation has many well-established channels to disseminate information within its global network and the wider space community
- **Recognising achievements:** The Federation's prestigious awards are presented annually to individuals and groups who have distinguished themselves in the global space community
- **Preparing the workforce of tomorrow:** To nurture new talent, the Federation has many activities targeting students and young professionals
- **Raising awareness:** The global network of the IAF, and IAF publications, help promote the public appreciation of space activities worldwide

2.2 The Italian Space Agency (ASI)

The Italian Space Agency, created in 1988, coordinates and implements Italy's capabilities and expertise in Space under the high responsibility of the Prime Minister and the instructions of the Ministerial Board for the space policies and aerospace research.

ASI activities range from space science to earth observation, telecommunications and navigation, launchers, space technologies and related applications, education and capacity building.

Italy is a founding member of the European Space Agency (ESA) since 1975 and it is the third country in terms of investment, participating in the major European programs and missions such as the exploration mission to Mars (EXOMARS).





Italy is one of the major European contributors in the realization of the International Space Station, considering that more than 50% of the ISS pressurized volume has been realized by the Italian industry.

Italy is in the forefront in the studies related the origin of life and understanding of the Universe. In 30 years ASI participated in many scientific missions in collaboration with ESA and NASA. In the field of Earth Observation, ASI has developed the COSMO-SkyMed satellite constellation, a radar satellite system devoted, in particular, to the natural disasters management. Since 2005 ASI and CONAE are realizing the unique civil earth observation satellite system, SIASGE (Italian Argentinean Satellite System for the management of Emergencies and Economic development), composed by the Italian COSMO-SkyMed constellation and the Argentinean SAOCOM satellites.

In the field of research and space propulsion, Italy developed the European medium size VEGA launcher vehicle, fully designed in Italy and successfully active with the other European launcher vehicles as Ariane and Soyuz.

Bilateral and multilateral space cooperation is a fundamental pillar of the Italian space policy. Many space agreements are in force between ASI and the other space agencies around the world. Italy, through ASI, is member of different International Space Organisations and Committees, among the others the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS).

Italy remains firmly committed in the promotion of international cooperation for peaceful purposes and for safe, secure and sustainable use of outer space.

2.3 University Mediterranea

The University “Mediterranea” of Reggio Calabria combines tradition with an orientation towards the future. It is a public, dynamic and young institution that keeps strong connections within its socio-economic context while looking for internationalisation. Located on the Messina Strait, at the heart of the Mediterranean Area, it aims to be an internationally reputed European research University and to provide highquality education for both domestic and international students. Its strength lies in its integrated range of disciplines that result in interesting opportunities for interdisciplinarity in research and teaching. Research and teaching specializations evidently emerge in the Ph.D. programs. Many scientists from all over the world are linked to researches carried out at the University of Reggio Calabria, which commits itself towards emphasizing the advancement of young scientists and the further development of its range of degree programs by seizing the opportunities offered by the Bologna system.

Internationalisation is of growing importance for universities, as highlighted by many initiatives of EUA (European University Association) of whom our “Mediterranea” has been a partner for a long time. It is a matter to be designed keeping into strict account the three institutional, strategy and policy levels. Our University is looking forward to a strongly growing involvement in EU-based projects and activities. The University “Mediterranea” of Reggio Calabria has been signing numerous partnership agreements with other European and third Universities within mobility and cooperation programs. Our two strongest priorities for the next years are the attraction of more international students at all levels and the internationalisation of learning and teaching at home. As of this academic year, more than 5% of our students gain an international experience within joint initiatives and programs and our goal is to double this figure. We also aim to substantially increase the number of incoming students, also through an improved welcome strategy. Let’s look toward a future of success for our Institution and our young, highly motivated students.

Welcome to Reggio Calabria, city of light, sunny days and Mediterranean wind!

3 FORUM GENERAL INFO

INTRODUCTION

The International Space Forum – the Mediterranean Chapter – is the fourth edition of the international initiative launched in 2016, by the International Astronautical Federation (IAF) thanks to the former President of the Italian Space Agency (ASI), Roberto Battiston, in his role of IAF Vice-President for Science and Academic relations, role that is currently played by the ASI Head of International Relations, Gabriella Arrigo.

The first edition was held in Trento, Italy, on 24 October 2016, and resulted in the adoption of the *Trento Space Statement*. The regional second edition, *The African Chapter*, took place in Nairobi, Kenya, and was dedicated to the African continent; while the third edition took place in Buenos Aires and focused on Latin America and the Caribbean.

For more information, please visit the IAF website:

<http://www.iafastro.org/events/international-space-forum-isf>.

The International Space Forum 2019 is organized by IAF, ASI and the University Mediterranea of Reggio Calabria, with the relevant support of the Local Authorities and the Local Organizing Committee (LOC). The ISF2019 is addressed to the Ministers of Education, Science, Research, Space Authorities and scientific and academic institutions of the Mediterranean region, as well as to the Heads of Space Agencies and representatives of International Space Organisations.

FORUM OBJECTIVES

Space activities require a high level of technical and scientific knowledge, both in terms of infrastructures and applications. Scientific and academic institutions possess an immense reservoir of knowledge and human talents and their widespread presence throughout the world and strong propensity for cooperation and knowledge sharing may contribute to the quest for better space solutions to global and regional challenges. The opportunity for the scientific and academic institutions of the Mediterranean region to play a greater role in space activities and to increase their interaction with the “international space network” may be highly beneficial. This is expected to increase the flow of space knowledge and capacity building in space disciplines, as well as the chances to find space solutions to better respond to the Mediterranean needs.

The International Space Forum 2019 in Reggio Calabria will stimulate fruitful discussions between Ministers and Authorities of the Mediterranean region on the opportunity to take common actions and launch joint initiatives to increase the participation of their scientific and academic institutions in space activities, to contribute to meet the needs of the Mediterranean populations and develop their capacities and abilities.

FORUM PROGRAMME AND CONTENT

The Forum will address three main topics, which will be presented by three keynote speakers:

- **Maritime Surveillance:** improve maritime surveillance capabilities of the Mediterranean region through satellite systems; promote joint space projects and the implementation of a platform for fast information exchange to increase security and stability in the area;
- **Space and Blue Economy:** bring the blue-economy community and the space community together; promote the use of space technology among public and private actors who deal with the Mediterranean Sea for the provision of services and as a resource for the development of commercial activities;
- **Space Education, Cooperation and Scientific Knowledge:** promote space capacity building in the Mediterranean region; expand scientific and academic cooperation in the space field as a key factor in the promotion of social, economic, cultural and sustainable development.

At the end of the Forum, Heads of delegation will adopt **the Reggio Calabria Page** to be added to the Trento Space Statement, which already includes the Nairobi Page and the Buenos Aires Page.





4 FORUM PROGRAMME

Wednesday 4 September 2019

Free arrival of delegations in Reggio Calabria

Social Event 1

18:20	Bus Departure from the Altafumara Resort
19:00 – 20:00	Private guided tour of the Archaeological Museum of Reggio Calabria <i>Piazza Giuseppe De Nava, 26, 89123 Reggio Calabria</i>
20:00 – 21:30	Welcome Reception (offered by the University Mediterranea) Welcome Remarks by: <ul style="list-style-type: none"> • <i>Santo Marcello Zimbone</i>, Rector, University Mediterranea • <i>Carmelo Malacrino</i>, Director, Archaeological Museum • <i>Christian Feichtinger</i>, Executive Director, International Astronautical Federation (IAF) • <i>Giorgio Saccoccia</i>, President, Italian Space Agency (ASI) <p><i>Transfers from the Altafumara Resort to the Museum and return provided by Città Metropolitana of Reggio Calabria.</i></p>

Thursday 5 September 2019

8:00	Bus Departure from the Altafumara Resort
8:10	Bus Departure from the Archaeological Museum of Reggio Calabria
8:30 – 9:15	Accreditation of the delegations at the Forum venue <i>Regional Council of Calabria, Via Cardinale Portanova - 89123 Reggio Calabria</i>
9:30 – 10:00	International Space Forum 2019 – The Mediterranean Chapter – Opening Ceremony Welcome remarks by: <ul style="list-style-type: none"> • Local Authorities <ul style="list-style-type: none"> – <i>Nicola Irto</i>, President, Regional Council of Calabria – <i>Giuseppe Falcomatà</i>, Mayor, Reggio Calabria – <i>Santo Marcello Zimbone</i>, Rector, University Mediterranea • <i>Jean-Yves Le Gall</i>, President, International Astronautical Federation (IAF) • <i>Giorgio Saccoccia</i>, President, Italian Space Agency (ASI) <p>Moderator: <i>Gabriella Arrigo</i>, Vice President for Science and Academic Relations, International Astronautical Federation (IAF)</p> <p>Opening of the Session by: <i>Hon. Marco Bussetti</i>, Italian Minister of Education, University and Research</p>

10:00 – 10:05	ISF2019 – The Mediterranean Chapter Welcome video
10:15 – 10:30	Keynote speech on Maritime Surveillance by <i>Leendert Bal</i> , Head of Department Operations, European Maritime Safety Agency (EMSA)
10:30 – 12:45	Statements by delegations
12:45 – 14:00	Photo Opportunity with the Heads of Delegations <i>Lunch break offered by Regional Council of Calabria</i>
14:00 – 14:15	Keynote speech on Space and Blue Economy by <i>Sharafat Gadimova</i> , Executive Secretariat, International Committee on Global Navigation Satellite Systems (ICG), United Nations Office for Outer Space Affairs (UNOOSA)
14:15 – 15:30	Statements by Delegations
15:30 – 15:45	Keynote speech on Space Education, Cooperation and Scientific Knowledge by <i>Santo Marcello Zimbone</i> , Rector of the University Mediterranea
15:45 – 16:30	Statements by Delegations
16:30 – 16:45	Adoption of the Reggio Calabria Page
16:45 – 17:00	Conclusions

Transfers from the Regional Council to Altafumara Resort and Archaeological Museum of Reggio Calabria provided by Città Metropolitana of Reggio Calabria.





17:30 – 18:00

Press Conference (restricted participation upon invitation only)

Palazzo Alvaro, Via S. Francesco di Sales, 3, 89125 Reggio Calabria

Interventions by:

- Marco Bussetti, Italian Minister of Education, University and Research
- Nicola Irto, President, Regional Council of Calabria
- Giuseppe Falcomatà, Mayor of Reggio Calabria
- Jean-Yves Le Gall, President, International Astronautical Federation (IAF)
- Santo Marcello Zimbone, Rector of University Mediterranea
- Giorgio Saccoccia, President, Italian Space Agency (ASI)

Social Event 2

19:00

Bus Departure from the Archaeological Museum of Reggio Calabria

19:30 – 21:00

Gala Dinner (offered by the Città Metropolitana di Reggio Calabria)

Alta Fiumara Resort, Via Petrello snc, Loc. Santa Trada di Cannitello,
89018 Villa San Giovanni (Reggio Calabria)

Transfers from Archaeological Museum to Altafiumara Resort and return provided by Città Metropolitana of Reggio Calabria.



Friday 6 September 2019

Technical Visit Programme

Visit to the Italian Space Agency "Giuseppe Colombo" Space Geodesy Centre in Matera (Basilicata)

- 08:00 Arrival at the Airport *Tito Minniti* of Reggio Calabria
- 09:00 Departure of the Air Force flight
- 10:00 Arrival at *Gioia del Colle* Airport
Visit of *Gioia del Colle* Base: welcome of the head of the base and Eurofighters visit
- 11:00 Departure by private transfer for the *Space Geodesy Centre in Matera*
- 12:00 Visit of the Space Geodesy Centre Part 1
- 13:00 Lunch
- 14:00 Visit of the Space Geodesy Centre Part 2
- 15:00 Departure for the city of Matera: visit to Matera local institutions and to Sassi
- 17:00 Departure for *Gioia del Colle* airport
- 18:45 Departure for Reggio Calabria
- 19:45 Arrival at *Tito Minniti* airport in Reggio Calabria





5 LIST OF PARTICIPATING COUNTRIES AND INTERNATIONAL ORGANIZATIONS

COUNTRIES

	ALBANIA		JORDAN
	ALGERIA		LIBYA
	CROATIA		MALTA
	CYPRUS		MONTENEGRO
	FRANCE		MOROCCO
	GREECE		PORTUGAL
	ISRAEL		SLOVENIA
	ITALY		TUNISIA

INTERNATIONAL ORGANIZATIONS & SPACE AGENCIES

ASI (Agenzia Spaziale Italiana)		IAA (International Academy of Astronautics)	
CNES (Centre National d'Etudes Spatiales)		IAF (International Astronautical Federation)	
CONAE (Comisión Nacional de Actividades Espaciales)		IISL (International Institute of Space Law)	
COSPAR (Committee on Space Research)		ISA (Israel Space Agency)	
DLR (German Aerospace Center)		ISU (International Space University)	
ECSL (European Centre for Space Law)		Portugal Space	
EMSA (European Maritime Safety Agency)		SGAC (Space Generation Advisory Council)	
ESA (European Space Agency)		The Royal Jordanian Geographic Center	
ESPI (European Space Policy Institute)		UAESA (UAE Space Agency)	
EURISY		UNIVERSITY MEDITERRANEA	
GSA (European GNSS Agency)		UNOOSA (United Nations Office for Outer Space Affairs)	
HSA (Hellenic Space Agency)			

OBSERVERS

- A3 (Adriatic Aerospace Association)
- AIDAA (Associazione Italiana di Aeronautica e Astronautica)
- POLIMI (Politecnico di Milano)
- POLITO (Politecnico di Milano)
- SIOI (Società Italiana per l'Organizzazione Internazionale)
- UNIVERSITY SAPIENZA OF ROME





6 REGGIO CALABRIA PAGE (to be added to the Trento Space Statement)

4th International Space Forum at Ministerial Level The Mediterranean Chapter “Space Technology and Applications meet Mediterranean Needs”

On September 5th, 2019, the Italian Minister of Education, University and Research, the Ministers and Authorities competent for Space in the Mediterranean countries, as well as the representatives and experts of national and international Space Agencies and Organizations met in Reggio Calabria (Italy) under the auspices of the International Astronautical Federation (IAF), the Italian Space Agency (ASI) and the University Mediterranea of Reggio Calabria for the 4th International Space Forum (ISF) 2019 - The Mediterranean Chapter.

After the first International Space Forum in Trento (Italy) and the following regional Chapters focused on Africa (Nairobi 2017) and Latin America and the Caribbean (Buenos Aires 2018), the Mediterranean Chapter triggered open and productive discussions on the wish to increasingly involve Academia and Universities of the region in space programs and activities in order to contribute to find space solutions that meet Mediterranean needs.

Governmental delegates and Space Agency representatives exchanged views, shared experiences and visions, and delivered statements, in which they declared and presented a wide range of valuable views, including:

- **space technologies and related applications** provide and contribute to find solutions to several challenges that affect human life on Earth; they are precious tools for implementing the goals of the United Nations 2030 Agenda for sustainable development;
- **space activities** require high-level scientific and technical knowledge, as well as a multidisciplinary approach;
- **Academia and Universities** are precious sources of knowledge and human capital; they are very well distributed throughout the world and characterized by a great propensity for international cooperation;
- their interaction with the international **space networks** and their involvement in space activities is highly beneficial and increases the chances to find better space solutions to global challenges;
- **the Mediterranean region is an ideal meeting point to discuss a space agenda for stability, security, development, and identity.**

Three keynote speeches were delivered by distinguished space experts on the following topics:

- **Maritime Surveillance:** improvement of maritime surveillance capabilities in the Mediterranean region through satellite systems; promotion of joint space projects and implementation of platforms for fast information exchange to increase security and stability in the region.
- **Space and Blue Economy:** bringing the blue-economy and space communities together; promoting the use of space applications among public and private actors who deal with the Mediterranean Sea for the provision of services and as a pivotal resource for the development of related commercial activities.
- **Space Education, Cooperation and Scientific Knowledge:** promotion of space capacity building in the Mediterranean region, expanding scientific and academic cooperation in space as a key factor for social, economic, and cultural development.

All delegations noted that:

- since ancient times, the Mediterranean Sea has been a crossroad of communication, transportation, and development for Europe, the Middle-East, and North Africa. It has stimulated virtuous contamination among cultures, languages, religions, political and economic systems, and facilitated the dissemination of knowledge, ideas, inventions and technologies that enriched the peoples of the region;
- these uniting factors of Mediterranean peoples outnumber by far the dividing factors;
- some of the problems that affect the Mediterranean region are common to all of its countries and may be solved jointly by elaborating common decisions and actions, also with the support of satellite information and related data;
- the Mediterranean region and its coasts are a source of wealth; their beauty, climate, agricultural products and marine fauna offer several opportunities that can be exploited at best with the support of space technologies;
- the Mediterranean region hosts some of the most advanced space-faring nations and is the cradle of relevant academic communities, with century-old traditions which contributed to the progress of humankind;
- greater interaction between academic communities and the international space actors would activate a potential innovative space knowledge in the Mediterranean region; this regional networking would enhance capacity building in space disciplines for specific expertise and perspective to be created in the region, in view of playing a greater role in the international space community.

Ministers, Diplomats, Heads of Space Agencies and all distinguished delegates present in Reggio Calabria welcomed the 4th International Space Forum – The Mediterranean Chapter and identified the following main objectives to be pursued in the following years:

- promotion of a **greater cooperation in space disciplines among universities of the region** with the support of national and international space agencies and institutions; in particular, the International Astronautical Federation (IAF) will facilitate this regional networking;
- promotion of a **greater use of space-based data and information** from telecommunication, earth observation, and navigation satellites to support the socio-economic development of all people in the region through several activities such as transport, food, energy, and tourism;
- promotion of a **greater awareness of the usefulness for the Mediterranean region of space programs and satellite systems** such as GALILEO, COPERNICUS and the ESA Sentinels, the GovSatCom satellites, as well as the COSMO-SkyMed constellation;
- promotion of the **use of satellites to safeguard and protect infrastructures and activities**, and to discourage threats and illegal activities through or around the sea;
- **exploitation of the existing national and international space centers and infrastructures** to contribute to the United Nations 2030 agenda at regional level;
- **creation of a Space Curriculum focused on the Mediterranean needs.**

Finally, the delegations of the Mediterranean countries attending the International Space Forum 2019 in Reggio Calabria expressed the wish to work together for a prosperous and peaceful Mediterranean region by sharing common and challenging objectives, in which space technologies and related applications play a stimulating role for both regional cooperation and the expansion of the space economy.





7 KEYNOTE SPEECHES ABSTRACTS

Keynote speech on Maritime Surveillance

Leendert Bal, Head of Department Operations, European Maritime Safety Agency (EMSA)

Maritime surveillance benefits a lot from space based derived data. It is an important resource for the maritime picture, supporting all type of coast guard functions. There is a continuous increase in satellite data uptake and more and more government users enjoy the added value of this information, which is demonstrated by interesting use cases. Sea and space is a perfect partnership!



Keynote speech on Space and Blue Economy

Sharafat Gadimova, Executive Secretariat, International Committee on Global Navigation Satellite Systems (ICG), United Nations Office for Outer Space Affairs (UNOOSA)

The monitoring and evaluation of marine resources, due to the large areas involved, cannot be achieved without the contribution of satellite data. Space technologies are critical for mapping and monitoring purposes, including in the marine domain. The role of Earth Observation and geolocation, provided by global navigation satellite systems (GNSS), is recognised by the United Nations in supporting the achievement of the Sustainable Development Goals (SDGs). Apart from the obvious relation between the marine environment and SDG 14 "Life below Water", there are connections, either direct or indirect, between the marine environment and all SDGs. In order to protect and sustainably use our marine environment, it is imperative to work together and develop partnerships to achieve the SDGs. The United Nations Office for Outer Space Affairs, in line with its vision to bring the benefits of space to humankind, works to promote international cooperation in the peaceful uses and exploration of space, and in the utilisation of space science and technology for sustainable economic and social development.



Keynote speech on Space Education, Cooperation and Scientific Knowledge

Santo Marcello Zimbone, Rector University Mediterranea of Reggio Calabria



The human curiosity towards the cosmic universe is deeply rooted in the past. This fascinating history, with many ancient steps moved in the Mediterranean region, culminated with the Moon landing in 1969 and other important space missions until '90s. Today, space science is continuously moving towards new frontiers, such as Mars exploration. The progress of scientific knowledge has taken advantage of the technological challenges overcome by space missions. The innovative and revolutionary effects of the space research have fed several fields of science, as, for instance, medicine, energy, environment, communication, and information technology. This technology transfer from a "donor" organisation to a "receiver" subject has generated multiple products and technologies, only dreamt of in the past, but currently used in everyday life. On a global scale, space systems are today more and more integrated into weather forecasting, communication, navigation, and imaging, to mention only a few fields. The success of technology transfer depends on the peculiar "determinants" of space technologies, such as flexibility, high performance and reliability. Space education programs or curricula could increase the public awareness of space research value and related investments. Besides the dissemination of the benefits of "Space-to-Earth" technological transfer to people (with a special focus on its time lag, economic cost and "spin-off multiplier"), these programs should inspire young people to gain interest in the space field and pursue careers in space science and technology. In this context, university plays a fundamental role, going beyond the borders of nations and shifting science from a highbrow prerogative to universal culture. The cooperation within space research, innovation and education represents a further multiplying factor. In this regard, the International Space Station, with its multidisciplinary research programs and educational demonstrations, is an excellent example of cooperation between former competitors and many other countries currently working together on common research paths. In the pulsing research environment, networking between universities and other research institutions could enhance the cooperation on a large scale, with a consequent efficient use of financial and human resources, a socio-economic and cultural integration among partners, and the alignment of development patterns in peculiar areas with a high historical evocation degree of space knowledge, such as the Mediterranean Region. The Space Forum could be a starting point to identify concrete proposals to promote scientific knowledge, education paths and cooperation perspectives in the whole Mediterranean Region, with the ultimate purpose of building a productive and peaceful alliance among Peoples.





8 LOGISTICAL INFO

PARTICIPANTS REQUIREMENTS

Participation to the Forum is open to Ministers and Authorities in charge of space affairs and to academic communities of the Mediterranean region, as well as to Space Agencies, International Space Organizations and IAF Space Academy Community.

DATES AND LOCATION

The Forum is held in Reggio Calabria, Italy, on **Thursday 5 September 2019, at the Regional Council of Calabria**, Located in Via Cardinale Portanova - 89123 Reggio Calabria.

An optional visit is also planned on Friday 6 September 2019 to the **Giuseppe Colombo – ASI Centro di Geodesia Spaziale** in Matera (Basilicata).

LANGUAGE OF THE FORUM

The Official Language of the Forum is English.

Italian and English simultaneous translation will be provided.

SECURITY DURING THE EVENT

National and local Authorities will take all necessary security measures.

Delegates are required to wear their identity badges at all times both at the Welcome Reception and at the Forum Session venue.

Delegates may collect their badges on 4 September, at the Archaeological Museum of Reggio Calabria, starting at 18:30, and on 5 September, from 8:30 to 9:30, at the dedicated desk that will be located within the Forum venue.

LIFE AND HEALTH INSURANCE

Life and major health insurance are the responsibility of each selected participant or his/her nominating institution or government. The co-organizers will not assume any responsibility for life and major health insurance, nor for any expenses related to medical treatment or accidents.

FLIGHTS TO AND FROM REGGIO CALABRIA

Located on the coast of the Mediterranean, in the South of Italy, Reggio Calabria is one of the main cities of the Calabria region. It is served by the Reggio Calabria airport, linked to the Rome and Milan international airports.

• 4 September

- From Roma Fiumicino to Reggio Calabria: 09:10; 13:40; 21:35
- From Roma Fiumicino to Lamezia: 09:20; 11:15; 13:25; 17:25; 21:00; 21:50
- From Milano Malpensa to Reggio Calabria: 08:40
- From Milano Malpensa to Lamezia: 07:10; 07:20; 14:05; 19:10; 19:40; 22:00

• 6 and 7 September

- From Reggio Calabria to Roma Fiumicino: 06:45 11:05 18:30
- From Reggio Calabria to Milano Malpensa: 15:35
- From Lamezia to Roma Fiumicino: 06:30; 07:15; 11:15; 13:10; 15:20; 19:20
- From Lamezia to Milano Malpensa (6 September): 05:55; 09:00; 09:30; 15:30; 16:35; 20:15; 21:30; 21:50
- From Lamezia to Milano Malpensa (7 September): 06:05; 09:30; 10:30; 15:00; 15:10; 21:30; 22:05

Getting to the city from the airport

Taxis are readily available at the airport, rent a car and private transfers can be booked in advance or upon arrival.

For more information on the Reggio Calabria airport, visit <https://reggiocalabriairport.it/>

VISAS

Visitors of most Mediterranean countries can rent a car in Italy for up to 90 days without a visa. To find out whether you need a visa to enter Italy, please visit: <http://vistoperitalia.esteri.it/home/en>.

If you are required to obtain a visa and an invitation letter, please contact on time the International Astronautical Federation (IAF): spaceforum@iafastro.org.

HEALTH & SECURITY

Reggio Calabria is a safe and modern city with high security standards and good quality health services. Public hospitals are open 24 hours a day and attend patients free of charge, and pharmacies are easily found all over the city.

Any medical costs incurred during the stay in Italy shall be borne by the Forum delegates. It is therefore strongly recommended that delegates take care of their own health insurance.

WEATHER

Summer time in Reggio Calabria can be pretty hot. Temperatures may range from (high) 36°C to (low) 27°C. There are many beautiful beaches in Reggio Calabria and surroundings and to have a swimsuit in the suitcase may be a good idea for the weekend.

MORE INFORMATION

You can find more information about the city, practical information and attractions at: <http://turismo.reggiocal.it/HomePage.aspx?lang=en-US>.

ACCOMMODATION IN REGGIO CALABRIA

Participants are kindly requested to make their own reservation in the following suggested hotels or in any other hotel according to their preferences.





4th International Space Forum at Ministerial level – The Mediterranean Chapter

Reggio Calabria, Italy | 5 September 2019

Please, find possible accommodation listed below.

Hotel	Address	Telephone	e-mail
Altafumara Resort	Santa Trada di Cannitello - 89018 - Villa San Giovanni, Reggio Calabria	+39 0965 759804	info.altafumara@montesano-hotels.it
Grand Hotel Excelsior	Via Vittorio Veneto, 66 89123 Reggio Calabria	+39 0965 812211	info.excelsior@montesano-hotels.it
Continental	Via Vincenzo Florio 10, 89123 Reggio Calabria	+39 0965812181	http://www.hotelcontinentalrc.it/
Torrione Hotel	Via del Torrione 67, 89123 Reggio Calabria	+39 0965 1892380	info@torrionehotel.it
Albanuova Hotel	Via Marsala 18/20, 89123 Reggio Calabria	+39 0965 331356	info@albanuovahotel.it
Lungomare Hotel	Viale Genoese D. Zerbi 13	+39 096520486	http://www.lungomarehotelrc.com/
MedinBlu Hotel	Via Demetrio Tripepi 98, 89123 Reggio Calabria	+39 0965 312982	info@hotelmedinblu.com
Lido	Via Francesco Cananzi 6, 89123 Reggio Calabria	+39 096525001	http://www.hotellidoreggiocalabria.it/en/
é Hotel	Via Giunchi 6, 89123 Reggio Calabria	+39 0965 893000	info@ehotelreggiocalabria.it

DEADLINE FOR ACCREDITATION AND CONFIRMATION OF ATTENDANCE

- Accreditation of delegations should be done through diplomatic channels to the Italian Minister of Education, University and Research.
- It is also very important to confirm whether the Head of delegation or his delegate (with an accompanying person) would like to visit the ASI "Giuseppe Colombo" Space Center, in Matera, on 6 September 2019.

FORUM POINT OF CONTACT

Should you require any further help or information, please contact:

International Astronautical Federation (IAF)

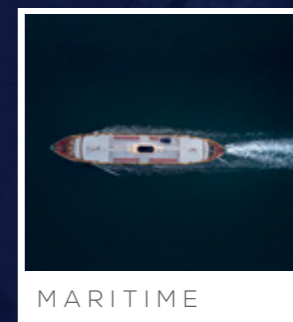
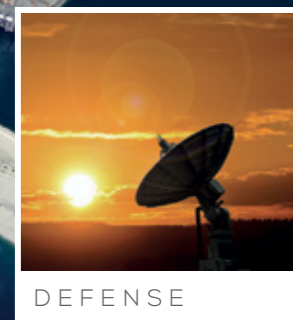
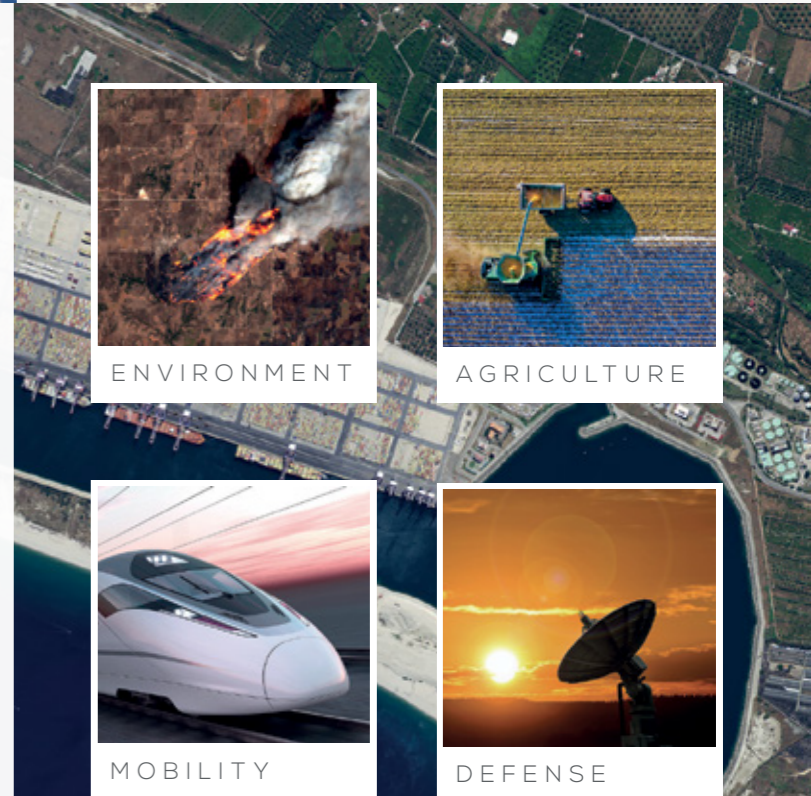
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