



**Space Weather:
Developments within the United Nations**

31.07.2017

United Nations/United States of America Workshop on the
International Space Weather Initiative

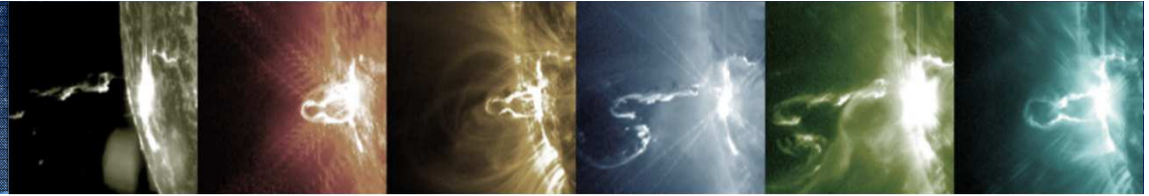
SIMONETTA DI PIPPO
Director



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UN Office for Outer Space Affairs (UNOOSA)

Vision

Bringing the benefits of space to humankind

Mission Statement

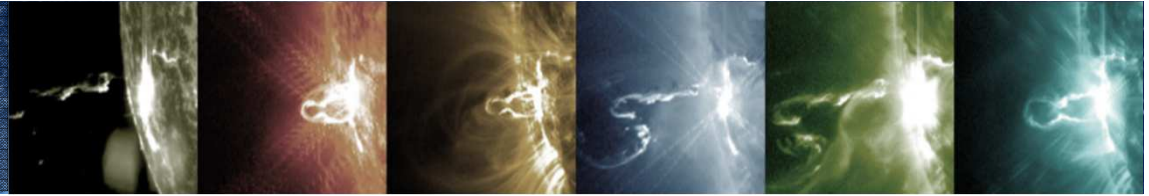
The core business of the Office is to promote

International Cooperation

in the use of outer space to achieve development goals



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The uniqueness of UNOOSA

A **capacity-builder** for United Nations Member States

- UNOOSA aims to bring the benefits of space to humankind by building space capacity of non-space-faring countries, particularly developing countries



UNOOSA Annual Report 2016 available at

http://www.unoosa.org/documents/pdf/annualreport/UNOOSA_Annual_Report_2016.pdf

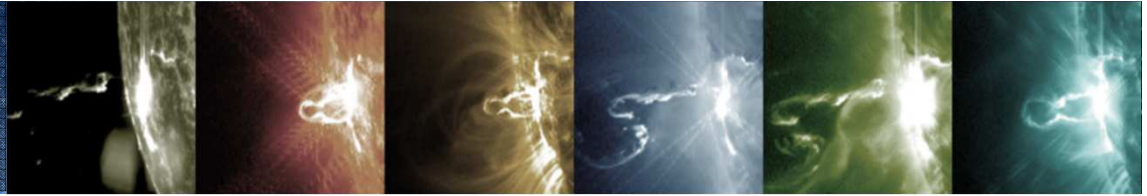


A **global facilitator** for the growing number of actors joining the space arena

- UNOOSA plays a leading and facilitating role in the global promotion of peaceful uses of outer space.

A **gateway** to outer space in the United Nations system

- UNOOSA is the main UN agency on space matters and facilitates the coordination of UN agencies' activities for using space-related technologies for improving the human condition around the world (UN-Space).

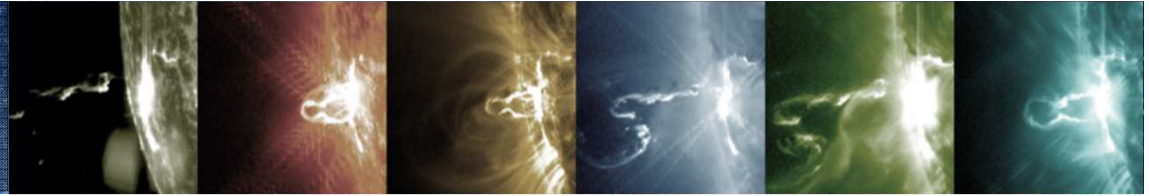


The importance of space today

- 60 years of space era: the world has become dependent on **outer space activities** and the **amount of data and information** generated
- **Space weather phenomena** causing interruptions of satellite services may therefore result in severe damage and losses, and have considerable implications on transport, economy and air traffic.

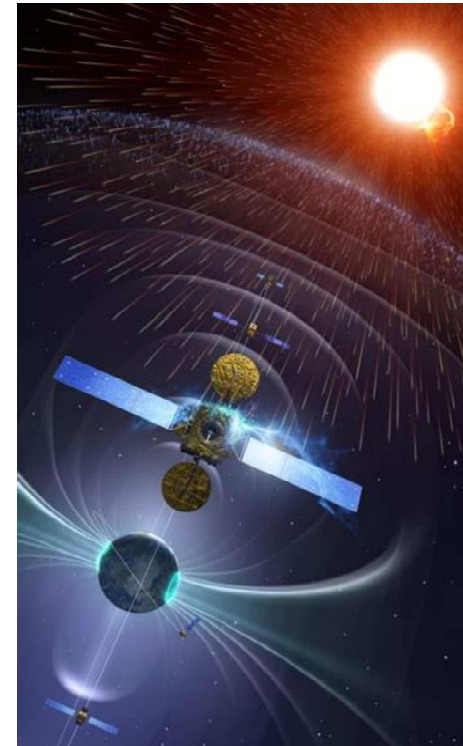
Space is a “global commons”: The advancements of space technology benefit all member states of the UN in one way or another.





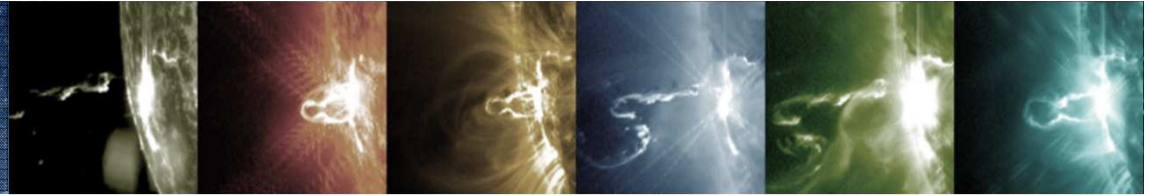
Workshop on the ISWI

- This workshop stands in a long tradition of educational events on space weather organised by the United Nations since 1971.
- The IWSI was established following the commemoration of the fiftieth anniversary of the International Geophysical Year 1957 with the **International Heliophysical Year 2007**
- This was the first international programme that raised worldwide attention to the **importance of the global cooperation** in the field of space weather
- 2013: **STSC agenda item “Space Weather”**
- 2014: Establishment of the **“Expert Group on Space Weather”**





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Space in the UN system

UNOOSA is the only UN office with a number of General Assembly mandates to bridge access to space technologies and space-based information for Member States and other UN agencies and to build capacity in the use of such technologies.

UN-Space

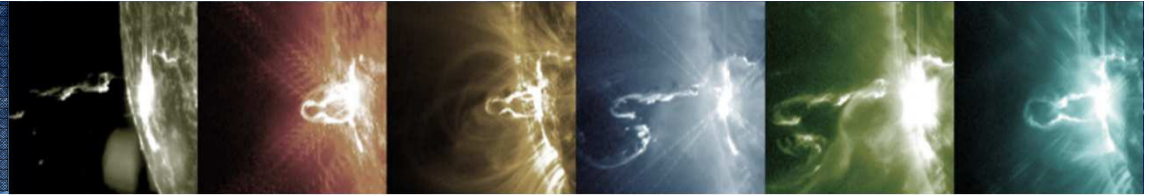
The annual interagency meeting (est. 1975) - since 2014.

For the attainment of all 17 SDGs and 169 targets, **space tools** carry significant relevance:

Direct — as enablers and drivers for sustainable development

Indirect — as an integral part of the indicators for monitoring progress

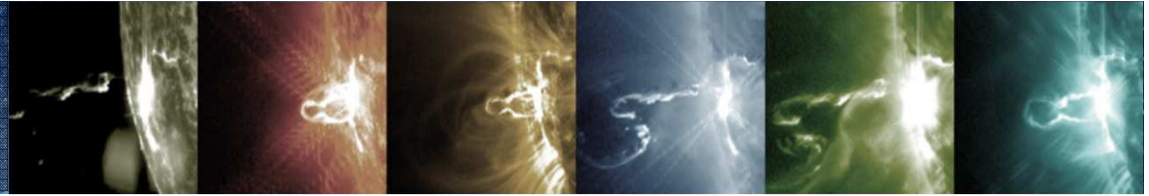




Sustainable Development Goals: the relevance of space technology

- Space technology can help us address **global challenges** and achieve **the 2030 Agenda for Sustainable Development**.
- There is no better example of UNOOSA's vision **'to bring the benefits of space to humankind'** by showing space's importance in the realization and implementation of the 17 Sustainable Development Goals.





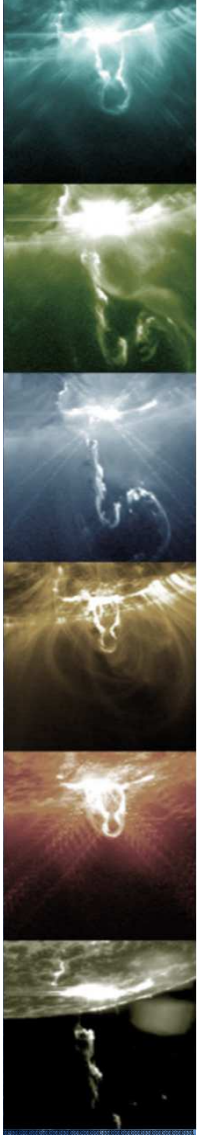
Sustainable Development Goals: the relevance of space technology

- **Cutting-edge technologies** such as satellite technology and space applications are **indispensable** as we strive towards 2030 and beyond.
- **Space weather** research and collaboration may help promote sustainable development through the prevention of catastrophic disruptions of space critical infrastructure and space-based services.





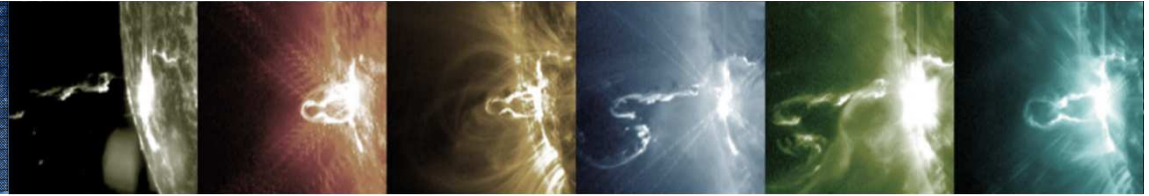
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UNISPACE +50



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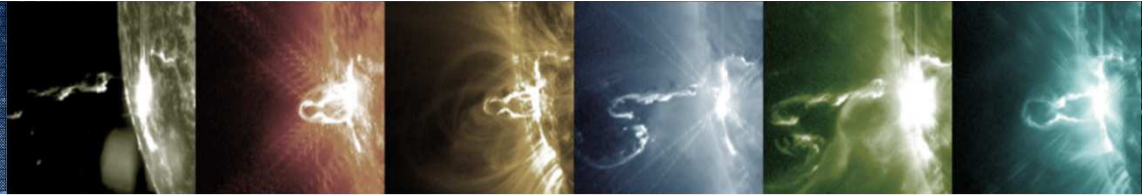
Towards UNISPACE+50 in 2018

20-21 June 2018

2018 marks the 50th anniversary of the first UN Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE I), held in Vienna in 1968.

UNISPACE+50 will articulate a **long-term vision for Space**: from a domain of States towards a domain of a commonly shared human experience.





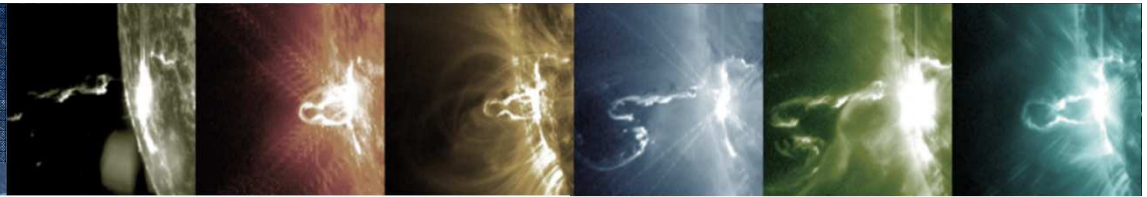
7 UNISPACE+50 thematic priorities agreed by COPUOS in 2016:

1. *Global partnership in space exploration and innovation*
2. *Legal regime of outer space and global space governance: current and future perspectives*
3. *Enhanced information exchange on space objects and events*
4. ***International framework for space weather services***
5. *Strengthened space cooperation for global health*
6. *International cooperation towards low-emission and resilient societies*
7. *Capacity-building for the 21st Century*

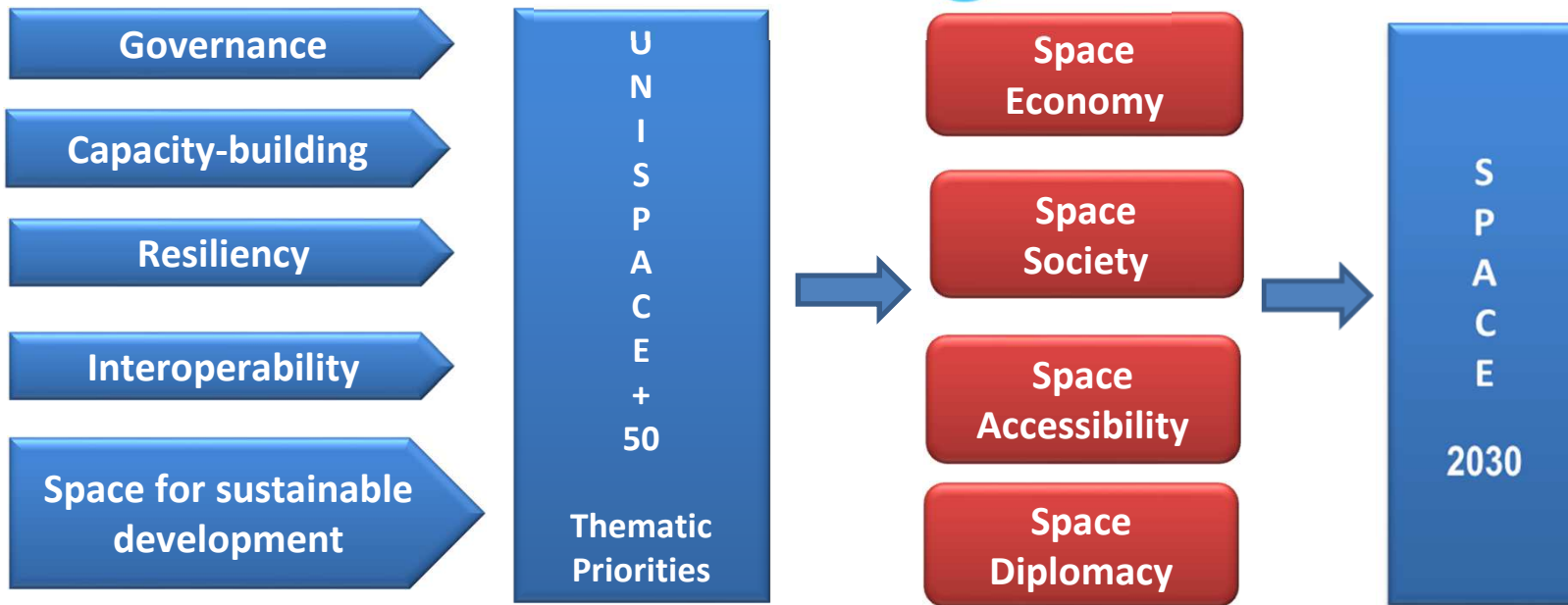


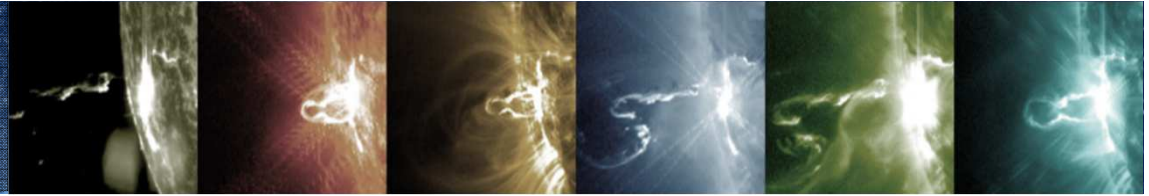


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Four Pillars

Space Economy

1. Development of space-derived economic benefits.

Space Society

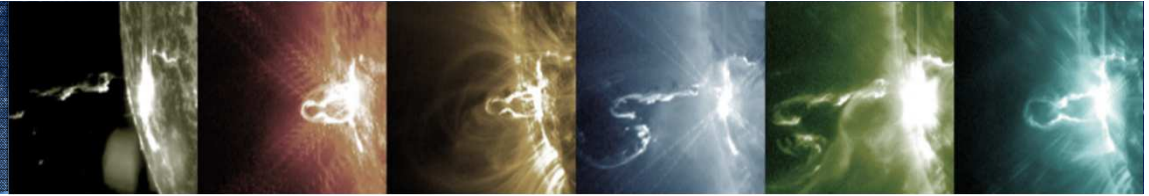
2. Evolution of society and societal benefits stemming from space-related activities.

Space Accessibility

3. All communities using and benefitting from space technologies.

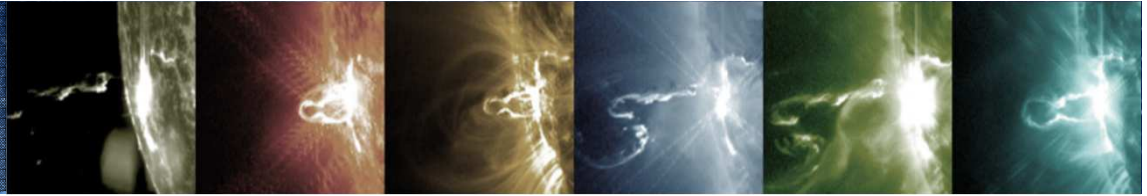
Space Diplomacy

4. Building partnerships and strengthening international cooperation in space activities.



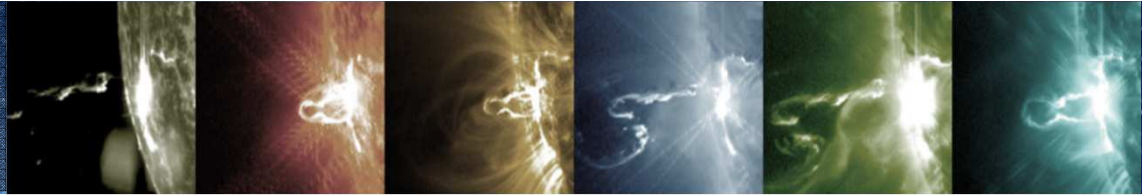
ISWI Workshop and COPUOS objectives

- As part of preparations for UNISPACE+50, this workshop will work to:
 - **Strengthen international coordination and cooperation** on space weather products and services, contributing to the following UNISPACE+50 thematic priorities:
 - Global partnership in space exploration and innovation
 - International framework for space weather services
 - Capacity-building for the twenty-first century
 - **Continue efforts in space weather education**, especially for students from developing nations. IHY and ISWI have contributed to significant progress in the development of space science schools that encourage students to consider a career in space science.
 - **Develop a coherent international policy** towards an appropriate response to space weather.



Workshop on the ISWI – Expected Outcomes

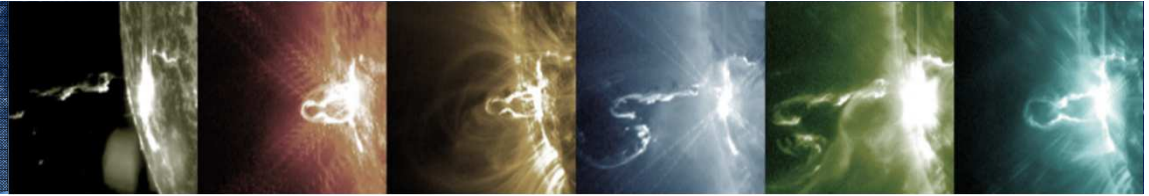
- Together with all participants, UNOOSA is aiming to establish and sustain a mechanism for **international coordination of operational space weather services**, including monitoring, forecasting, and awareness raising, with the overall goal of protecting life, property and critical infrastructure.
- This workshop will **provide recommendations for improved collection, exchange and delivery of space weather data**, as well as improved operational analysis, modelling and forecasting methods through the promotion of best practices, and suggestions of means to improve accuracy, reliability and interoperability.



Towards Space2030

- **UNISPACE+50** will be the best opportunity for joint work among Member States on **Space2030** in order to address **global space governance and the future of space**.
- For the benefit of all humankind, UNISPACE+50 will provide a platform to work towards **stronger international coordination and cooperation**.
- Space technology supports our common goals to address **global challenges**, and space weather prediction and management can greatly contribute to our ability to address these challenges.





Towards UNISPACE+50:

A series of High Level Forums (2015 - 2017)

- 2017 High Level Forum: **Space as a driver for socio-economic sustainable development**
- Dates: **6-9 November 2017**
- Venue: **Dubai, UAE**

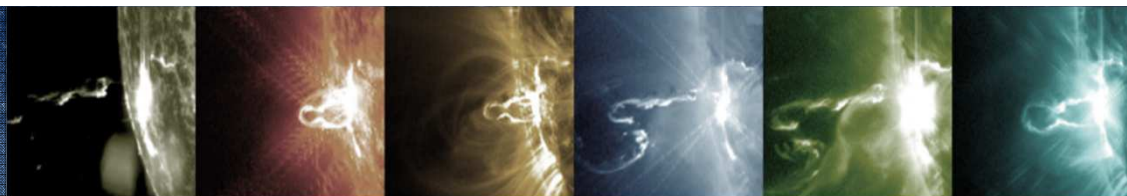
- **Platform** for dialogue under the Forum's 4 pillars of **space economy, space society, space accessibility and space diplomacy** among representatives of governments, international organizations, industry, the private sector, academia and civil society.



RECOMMENDATIONS for UNISPACE+50



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UNISPACE+50 in 2018

Save the date:

UNISPACE+50 high-level segment:

20-21 June 2018

as part of the 61st session of the Committee
(20-29 June 2018)

Special events and symposia: 18-19 June

VENUE: Vienna International Centre

More information:

www.unoosa.org

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THANK YOU



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