



ESPI

European Space
Policy Institute



A year of transformation: **Empowering Europe** **in Space and Beyond**

ESPI Annual Report 2023



Statement from Director of ESPI

Hermann Ludwig Moeller

Dear Readers,

2023 has been a remarkable year for space and an extraordinary steppingstone for ESPI's future.

India became the fourth nation to land on the Moon. The MENA region just witnesses the emergence of an AI-powered space technology champion, leveraging vertical integration of geo-spatial, satcom with AI and business intelligence. China and the US progresses on Tiangong and Starship. In Europe, despite many achievements, including Juice and Euclid, 2023 will go down in history as the year of the launcher crisis.

The lack of critical debate in 2016, lack of bold European ambition and readiness for change, today may develop into more than a launcher crisis, as it is currently hindering urgently required action also for accelerating the use of space, for space for security & defence, for space exploration and consequently for safeguarding the future of space in Europe.

Then as much as today, in times of disruptive change, the value of independent and critical analysis and recommendation as provided by ESPI is essential. In 2016, ESPI had raised a flag that "game changing technologies ...could dramatically affect Ariane 6 future prospects ... and blunt its forecast competitive edge by the time it enters into service." (The European Launchers between Commerce and Geopolitics; M. Alberti; M. Tugnoli). In 2023, the ESPI2040 vision calls for Europe to urgently voice a clear political will and act on Europe's ambitions in space to develop into a full space power and strong global partner. We advocate for the importance of the interplay between the different stakeholders in industry and business, policy makers, institutions and agencies, academia and media. While in other world regions, in particular in the US the value of this exchange is well understood and put to action, one may argue that Europe is only beginning to fully embrace the benefits of such multi-stakeholder dialogue and the critical role an independent European think tank for space.

However, 2023 marked a turning point, witnessing a new quality of recognition of the independent research, analysis and policy recommendation of ESPI, demonstrated at its 1st extraordinary General Assembly and Advisory Council in 20 years, and the first of its kind high level political event at the Austrian parliament welcoming close to 40 nations. 2023 brought a new level of ESPI's international engagement from the Asia-Pacific, the US, India, Africa, to Australia, and with the Vienna Space Diplomat initiative. This development has been supported by a growth of the ESPI membership base by 25% and a new level of commitment by members and international partners via several bi-lateral agreements. The year saw ESPI expanding its research portfolio, with 40+ publications, and about 50% of research performed under ESPI lead in collaboration with other entities. The ESPI Autumn Conference saw a record attendance with about 200 guests from more than 45 nations.

2023 also brought new competencies to the Advisory Council with 7 new members and new emphasis on business and finance, policy and media. It also saw an increase in social media outreach by more than 50%. The year allowed for significant growth in ESPI's most valuable asset, its staff and expertise and related budget and resources, including the move to our new HQ.

In 2023, with ESPI2040 we formulated our beliefs, our aspiration, what we stand for, our ambition, where we are going, our purpose. We proposed goals and an agenda with timeframes and tangible outcomes, including the goal for Europe to double its investment in space to 0.15% of GDP by 2040. With the full support of our members and advisors, we call upon Europe to engage in a collective debate for Europe to develop into a full space power.

We call for you to join us in this endeavor.



ESPI 2023 key highlights

→ Long-term vision for Europe

Next to celebrating our 20th Anniversary we also ushered in a new era of ESPI marked by the publication of our landmark long-term policy vision for Europe, *ESPI2040: Space for Prosperity, Peace and Future Generations*. Building on its numerous achievements, Europe has all the prerequisites to develop into a full space power, by bringing together, federating, and developing the excellence of its European, national, institutional and industrial capacities. What it lacks is political will and a space policy integrated into other policy domains, beyond the perceived bounds of space systems. Our work, guided by *ESPI2040*, aims at reinforcing a strong Europe as a partner to the world.



→ Reflections on European human space exploration

Having facilitated the work of the High-Level Advisory Group on Human and Robotic Space Exploration for Europe, resulting in the release of *Revolution Space* report by the Group, we furthermore contributed to the discussion on European space exploration through socio-economic impact analysis and foresight, which positions human space exploration, next to security and defence, as one of the most strategic and essential aspects for becoming a global space power.

→ Engagement with the security and defence

We have also responded to the increasing prominence of security and defence considerations in the space sector by convening European forums on facilitating the further use and dual-use of space for security purposes (such as the 2nd ESA Security Conference); publishing our first interdisciplinary ESPI+ Report on space, cyber, and defence; consulting with MoDs and Space Forces actors, and contributing with suggestions to the development of EU Space Strategy for Security and Defence.



→ Institutional evolution

2023 has also been a time of transition and institutional evolution of ESPI. We wrapped up the year with a new home and a slew of new commitments and agreements (e.g. announcing the establishment of a new Centre of Excellence for Space and Sustainability; welcoming four new members; entering into new agreements with ESA, ASI and AEE; and reinforcing our existing international cooperation, in particular with JAXA, KARI, SGAC, German Institute for International and Security Affairs and Flinders University).

About this ESPI Annual Report

ESPI Annual Report 2023 reports on the main 2023 highlights of ESPI, its achievements and main impact in the five areas of research of the institute, with its major publications and its key events of European and international engagement supporting global reach. It captures the people and the culture that define ESPI, it gives a voice to our founders, our host country, member representatives, advisors, partners, and it presents ESPI's core team and its diversity. ESPI Annual Report 2023 recalls our mission and agenda as well as the governance structure of the institute with its members, captures the organisational and institutional evolution of ESPI and provides a high level budget overview. In the year of its 20th anniversary, the report outlines the *ESPI2040* vision and provides a brief outlook towards 2024 and beyond.

Statements from ESPI co-founders



Austrian Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology
Leonore Gewessler

Dear Ladies and Gentlemen,

It is with great pleasure that I welcome you to the 2023 Annual Report of the European Space Policy Institute. The report addresses the increasing political and strategic importance of space globally and also in Europe and highlights ESPI's activities and the many achievements of ESPI and its talented, diverse and international team.

Austria, an important hub for space diplomacy for decades, has proudly hosted the ESPI for the past 20 years, and supports ESPI's mandate to promote European space policy at a global level.

ESPI's core values of excellence, creative energy and forward-looking research notably respond to a growing need for independent advice in space policy matters, at a time when space-based services are deeply and increasingly integrated into our economies and digital societies. Space is a critical tool for climate and environmental monitoring, which is of vital necessity now more than ever.

Climate, sustainability and environment are the priorities of Austria's space strategy 2030+. To promote these values at European and international level, we need a true interdisciplinary expertise underpinning policy research and advice, a vivid cross-fertilising network of European and international actors, and targeted capacity building measures. ESPI has a long experience and excellent expertise in providing and facilitating these components of credible and efficient space-related decision-making.

I am pleased to note that we have demonstrated Austria's growing support to ESPI in 2023 with an agreement on a new initiative announced at the Austrian Parliament in September 2023 – to establish a Centre of Excellence for Space and Sustainability at ESPI.

I would like to emphasise that the increasing global competition requires all actors in Europe, the European Commission, ESA and the Member States to pursue a common vision and coordinated approach at all levels of political decision-making.

On behalf of the Austrian government, we are honoured to facilitate ESPI's work along this vision.





Director-General of European Space Agency

Josef Aschbacher

Dear Readers,

The European Space Agency has long underpinned the work of the European Space Policy Institute, and in co-opening this first comprehensive Annual Report of ESPI, I am pleased to acknowledge a new expanded framework for ESA's support of ESPI, decided on in June 2023 by the ESA Council. This commitment, approved by all ESA member states, demonstrates a pan-European recognition of ESPI's added value in the European space ecosystem.

At times when Europe is increasingly faced with turbulent international developments and growing space capabilities of public and private actors around the globe, the importance of independent, forward-looking policy advice – enshrined in ESPI's mandate and repeatedly demonstrated through ESPI's research, engagement, and education activities – is needed more than ever.

While Europe already stands second to none in crucial science and application domains, it has never exploited the full strategic dimension of space. This is a major challenge that confronts us today, for which political will and a bold vision at the highest political level are required. The ESA Agenda 2025 clearly spelled out Europe's ambition to assert itself as a space power in the same league as the US, China, and Russia by the 60th anniversary of ESA creation.

If Europe wants to grow as a global leader in space alongside other prominent space partners, it needs to take the right steps and make the right decisions today. Thanks to its legacy, expertise, know-how, and competitive industrial capacity, Europe can become a full-fledged space power. Crucially, it must become a space power, for it cannot afford to be left behind in the unfolding space revolution.

To provide a clear pathway towards this objective, ESA is currently formulating the ESA 2040 Strategy, which will be published in the course of 2024. This new ambitious strategy will build on existing national strategies within Europe and will enable ESA to boost world-class science, technology leadership and autonomy through space programmes that are flexible and designed to cost. In parallel, the ongoing ESA Transformation process will equip ESA and the European space ecosystem with the right tools and setup to reach these objectives in the years to come. ESPI's recently published 2040 policy vision for Europe in space will serve as a very helpful input in the formulation of the ESA Strategy 2040.

ESA is ready for the challenges and is committed to playing its role in shaping and implementing Europe's ambition in space – an ambition of inspiration, exploration, and realisation of Europe's political, societal, and economic goals. ESPI, serving as Europe's most comprehensive think tank for space, has a relevant role to play in facilitating such ambition.

With that, I am thrilled that ESA continues to remain a profound supporter of ESPI activities, alongside Austria and 18 member organisations, for the benefit of the entire European space ecosystem.





1. About ESPI

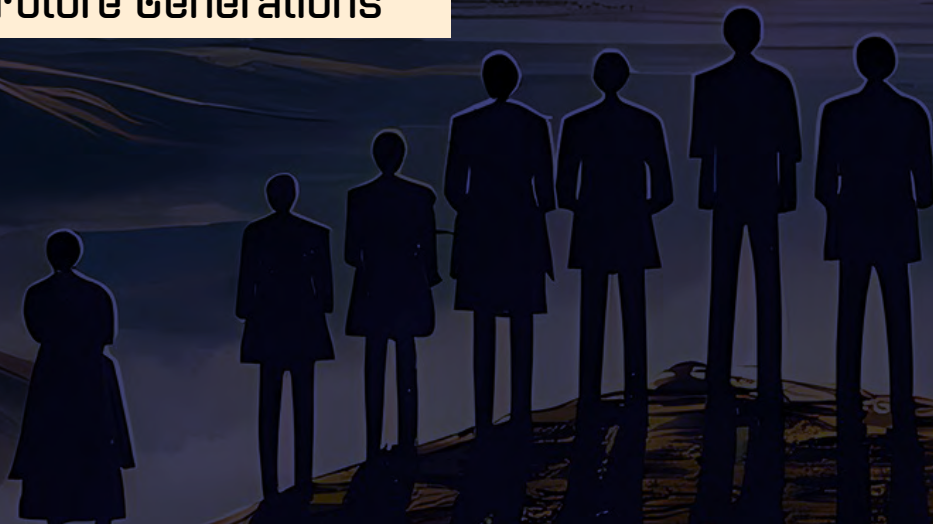
⇒ ESPI Mission & Agenda

⇒ Celebrating our 20th Anniversary

⇒ Team & Culture

⇒ Institutional Evolution

⇒ ESPI2040: Space for Prosperity,
Peace and Future Generations





ESPI Mission & Agenda

For a strong Europe as a partner to the world

Our Mission

The European Space Policy Institute (ESPI), founded in 2003, is the independent think tank for space based in Vienna, Austria – the world’s capital of space diplomacy. Working in a non-profit capacity, ESPI:

- Promotes European space policy on a global level by serving as an active forum for the discussion and analysis of European needs, capabilities and mid- to long-term prospects in space activities.
- Develops approaches to European space policy and addresses proposals and recommendations to European decision-makers and institutions.
- Facilitates European space policy research, academic interaction, and the exchange of information and opinions between interested parties in space policy.
- Supports the training of young graduates interested in the development of European space policy.

Our Agenda

ESPI’s mission is implemented through the ESPI Agenda, which is comprised of three lines of activities:

Research

The quality, depth and breadth of ESPI’s research lays the foundation for substantiated proposals and recommendations to European decision-makers and institutions, and to fuel the debate across sectors and world regions on needs, capabilities and long-term prospects.

Engagement

Engagement with and beyond the space community and the facilitation of a forum for continued discussion in Europe and globally with varied stakeholders is fundamental, as the number of national, institutional and commercial actors in space has more than doubled in the last 20 years.

Education

Education of young talent and a skilled workforce are prerequisites towards developing the technologies and space capabilities that are required to provide benefits to the wider economy and society.



ESPI will continue to serve as a leading source of information for space and non-space stakeholders, promoting open access to ESPI publications and other research products and outputs.

Matija Renčelj
ESPI Research Manager





Green & Sustainable Societies

Moving Towards a NetZero and Sustainable Future



Security & Defence

Protecting Europe and its Values



Exploration & Science

Inspiring Europe through New Frontiers



Space as an Asset

Securing Europe's Ability to Decide and Act



Industry, Innovation, Finance, Workforce

Fostering Europe's Competitiveness



Nowadays there is an increasing perception and awareness, also among the population, and among our decision-makers and politicians, that space is really woven into the fabric of our everyday life, of our economies, of our prosperity, of our security. And so, ambitious space programs, that deliver for European citizens, can only be the product of an equally ambitious space policy.

Samantha Cristoforetti
ESA Astronaut & Member of ESPI Advisory Council



Celebrating our 20th Anniversary with our members, partners and a renowned policy audience



On 25 September 2023, ESPI celebrated its 20th Anniversary at the Austrian Parliament in our host town of Vienna. The event brought together over 200 high-level guests from across Europe and the world, counting close to 40 nations.

Governmental representatives, heads of agencies and guests from NASA, JAXA, ISRO and KARI, executives of UN and international organisations, ambassadors, parliamentarians and industry leaders joined ESPI's staff, members, and Advisory Council.

The occasion also provided an ideal forum for forward looking policy debate on the future of Europe in space. Giving the floor to leading voices foremost Austrian Federal Minister Leonore Gewessler, ESA DG Josef Aschbacher, and EC DEFIS DG Timo Pesonen, stimulated the debate.

The policy-focused panel discussions were followed by announcements of new ESPI collaborations.

This included:

- New ESPI Members (Portuguese Space Agency, Luxembourg Space Agency, Beyond Gravity, and ExoLaunch).
- New Agreements (ESA, ASI, AEE).
- Reinforced International Cooperation (JAXA, KARI, SGAC).
- Announcement of the ESPI Centre of Excellence for Space and Sustainability (in cooperation with the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation & Technology).

The release of *ESPI2040* policy vision for Europe in space "Space for Peace Prosperity and Future Generations" served as a guiding theme for the event.

Our 20th Anniversary Event was a major policy milestone, a first-of-its-kind ESPI event, bringing high-level space and policy stakeholders together under the umbrella of space policy.

The broad support to ESPI work embodied through active presence and contributions from high-level invitees and guests from all around the world provided positive energy and commitment to ESPI growing role as Europe's independent think tank for space for the next 20 years.

First extraordinary sessions of our governing bodies

The occasion of our 20th Anniversary led us, for the first time ever, to call for extraordinary sessions of ESPI's two governing bodies, our General Assembly and Advisory Council on 26 September 2023.

Symbolically, in ESPI's 20th year we reached 20 member organisations, a growth of 25% in a year, making the Extraordinary General Assembly our largest ever gathering of members' representatives, with active contributions from our members, who attended the meeting with high-level representations, including at the CEO level.

The key feature of both meetings was a forward-looking approach to the evolution of European space and with it of ESPI's growth, ambition and own evolution, taking into account the unique momentum and energy created by the anniversary event and recent milestones.

Underlining the persisting need for independence as ESPI's core value, our members highlighted ESPI's increasing value in future-oriented research and international networking, while emphasizing the role for ESPI to connect space with other policy domains and sectors of economy, and endorsing the proposed *ESPI2040* vision, calling for wider dissemination and translation.





Space and Policy in action!





The ESPI Family

An almost complete ESPI Family
at ESPI's 20th Anniversary Event
in the Austrian Parliament.



I joined the ESPI Advisory Council because I believe this think tank is really helpful for making sure that space reaches policy where it needs to be. (...) It's the collective ideas, the collective input that really brings forward the work of ESPI as a whole.

Niklas Nienau
Member of the European Parliament
& Member of ESPI Advisory Council





Representatives
of 20 Member
organisations

Vienna
based staff

Experts in
ESPI's Advisory
Council



Our Culture



ESPI takes a down-to-Earth approach when tackling space policy matters guided by principles of being just and opinionated, balanced, and not risk averse. This culture encourages us to strive for excellence, to be proactive in proposing recommendations to policymakers, and to push Europe to look ahead. It is our aspiration be actionable and real.

“ESPI ist echt”.

Fostering diversity

At ESPI, we firmly believe that our diversity is our strength. As the leading space think tank in Europe, we take pride in showcasing European diversity through the nationalities cultural and gender balance of our researchers. This diversity enables us to be more representative of Europe, to gain a deeper understanding of European challenges, and be more inclusive in our proposals and recommendations to policymakers.

The ESPI team is composed of experts in a variety of backgrounds, coming from economics and finance, political science, law, engineering, IT, physics, data science, journalism, humanities and the arts. This interdisciplinary approach allows us to produce high-quality research and enhance the relevance and substance of our work, amplifying our impact in European space policy.



Investing in talent

Our steadfast commitment to empowering young minds is exemplified through our internship programme at ESPI. By offering compensated internships for candidates of a myriad of backgrounds, we seek to foster the growth of young professionals within the dynamic landscape of space policy. This commitment underscores our dedication to nurturing the next generation's involvement in and impact on the field of space policy.

Empowering women

In the increasingly dynamic space sector, ESPI stands out for its unwavering commitment to fostering an inclusive work culture. At the heart of this commitment lies a proactive stance towards gender equality in the aerospace sector. Two significant 2023 milestones in this regard were our active support in launching the Women in Aerospace Europe (WIA-E) – Austria chapter and becoming a **Member of Women in Aerospace Europe (WIA-E) network**, recognizing the importance of a diverse workforce in shaping the future of space and its impact on wider society.





Commitment to flexible working

In an increasingly fast-paced professional world, ESPI strives to provide a flexible working environment that is highly adaptable to the needs of its staff. Our staff have the option to work either on-site at our Vienna offices or remotely from their homes, with a certain degree of scheduled flexibility. We believe that providing a work environment based on trust and agility is a key factor for success in this contemporary world. The modern work culture supports an extraordinary team spirit and our internal monitoring of staff sentiment has consistently throughout the year showed overwhelmingly positive assessment of “purpose” and “teamwork” indicators of working at ESPI. The extraordinary team spirit is also visible through a high in-office presence, well above 80%, unusually high at a time when virtual presence is dominating the work dynamics elsewhere.

The team culture has abundant energy and motivation. The team is enthusiastic and always willing to go that extra mile.

Evelyn Obernosterer-Egger
Treasurer at ESPI



Our staff in 2023



Secretariat and Management Team



Research Team



Communications and Engagement Team



Administration and Finance Team



Interns

* Left in 2023



Hermann Ludwig Moeller
Director



Evelyn Oberosterer-Egger
Treasurer



Matija Renčelj
Research Manager



Marco Aliberti
Associate Manager and Lead on International Engagement



Tomas Hrozensky
Senior Researcher and Lead on European Engagement



Sara Dalledonne
Research Fellow and Lead on Regulatory Affairs



Mathieu Bataille
Research Fellow and Lead on Security and Defence



Lucas Bersegol
Research Fellow seconded by CNES



Alberto Rueda Carazo
Research Fellow



Jermaine Gutierrez
Research Fellow



Andreas Kapounek
ESA YGT in Space Economy and Commerce



Lars Petzold
Research Fellow



Lina Pohl
Research Fellow seconded by DLR



Clémence Poirier
Research Fellow



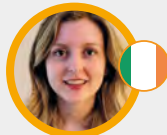
Gabriele Redigonda
Research Fellow



João Falcão Serra
Research Fellow



Costanza Crivelli Visconti
Research Fellow seconded by ASI



Laura Corbett
Research Fellow



Irene Saiz Briones
Junior Research Fellow



Sonja Agata Bišćan
Engagement Officer



Alexandra Chronopoulos
Communications Officer



Lena Köck
Management Assistant and Data Protection Office

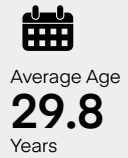
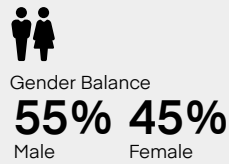


Reza Rezaie
IT Administrator



Petra Walter
Financial Assistant

Our 2023 demographics



Verena Eiboeck
Financial Assistant



Iris Puchner
Administrative and Finance
Assistant



Justine Dousset
Research Intern



James Francis
Research Intern



Giusi Discenza
Research Intern



Sophia Djounov
Research Intern



Jules Varma *
Research Fellow



Mateusz Walczak *
ESA YGT in Space Economy
and Commerce



Veronika Ruskova *
Communications Officer



Daniel Leichte *
Research Intern



Marco Tomassetti *
Research Intern



Ciarán Beahan *
Research Intern



Riccardo Margarini *
Research Intern



Taras Trunov *
Research Intern



Aoife van Linden Tol *
Creative Impact Intern

Global Fellows



Tales Gaspar



Yui Nakama



Daniel Porras



Quentin Verspiere *

Our Institutional Evolution



A year of organisational and institutional evolution.

Growing membership and partnership agreements

Our foremost growth is reflected in a 25% increase in membership over the last year, as we welcomed four new members from both national space agencies and industry. We were also able to establish new bilateral agreements within Europe (in particular with ESA, ASI and AEE) whilst also reinforcing our international cooperation (in particular with JAXA and KARI).



Evolution of ESPI Advisory Council

We were pleased to welcome new high-level members to our Advisory Council, making this governing body even more impactful and reflective of our growing national and professional diversity (incl. policy, industry, business, academia and media), and future ambitions. The year also saw the departure of our excellent Advisory Council Chair of the past 7 years, former French Minister for Higher Education and Research Ms. Geneviève Fioraso, as well as departures of several highly qualified Advisory Council members, whom we sincerely thank for their dedication to ESPI over the years and some of which we will welcome as future ESPI ambassadors.

A new ESPI+ format of work

The newly launched ESPI+ is a collaborative research and publication format that unites contributions from various experts in a specific field, under ESPI lead on topics which are relevant to the Institute's mandate.

Reinforced internal structure

2023 also saw the establishment of a dedicated ESPI Management Team, reinforcing the Secretariat and adding to the resilience of the organisation.

Moving to a new home in the heart of Vienna

2023 also marked the beginning of a new chapter as we moved into our new home at the historic Schwarzenbergplatz 16 in Vienna's first district. This representative space with improved conference facilities and expanded office space by 40% will allow for continued growth and serve as a forum for engaged discussions on European space policy and international space affairs as well as serve as a hub for space and local actors to convene, honouring Vienna's art, culture, architecture and history.

Evolution towards a Quasi International Organisation

In 2023, ESPI has also taken first promising steps with the Austrian Ministry of Foreign and European Affairs towards being recognised as a Quasi-International Organisation. This is expected to further augment the Institute's institutional standing as the European think tank for Space and further strengthen its international engagement.





ASI has been pivotal in founding ESPI and consistently supporting its initiatives for two decades. We're proud to enhance our collaboration through a 2023 MoU, empowering ESPI to better address ASI and Italy's needs. This agreement marks a significant milestone, it aligns with our mission and underscores our dedication to advancing space policy. This strategic partnership ensures ESPI fulfills its mandate in the dynamic European space sector.

Teodoro Valente
President, Italian Space Agency (ASI)





A bold vision for Europe

ESPI2040: Space for Prosperity, Peace and Future Generations

Next to some 40+ research publications, our landmark publication this year was *ESPI2040: Space for Prosperity, Peace and Future Generations* – a bold policy vision for Europe in space in the coming decades. *ESPI2040* outlines how space can provide solutions to respond to the unprecedented challenges Europe and the world are facing, such as climate change and geo-political shifts, and how space can be a source of inspiration for society.

Calling upon Europe to voice a clear political will and act on Europe's ambitions in space, *ESPI2040* defines measurable goals for Europe in 2040 and an agenda for ESPI to support this vision, building on Europe's achievements to engage in the space revolution, and affirm Europe's role as a strong partner to the world.

ESPI's proposal will be developed further, together with ESPI members and in consultations with other European stakeholders and international partners. This will be reflected in ESPI's Agenda, with an implementation plan to guide the realisation of the vision.



Europe has all the prerequisites to develop into a full space power, by bringing together, federating and developing the excellence of its European, national and industrial capacities.

However, what is missing is a clear political will and a whole-of-Europe vision beyond the perceived bounds of space systems, which would precipitate policy impact.

To date, European space policy and programme action is mostly concerned with **space capabilities**, such as satellites and launchers, and less so with the **policy impact** of space. This includes how to integrate space into other policy sectors including security and defence, and how to build the required **foundations** in industrial competitiveness, scientific and technological excellence, innovation, talent and finance. Developing the policy impact of space is particularly critical at a time when crises affect policy priorities of public spending.

Through *ESPI2040*, ESPI proposes a bold vision to European policy makers and institutions in an effort to stimulate debate, form political will, and realise European political ambition.

The *ESPI2040* Vision proposes to define and implement policy action on three levels and their interconnections:

POLICY IMPACT

SPACE CAPABILITY & AUTONOMY

FOUNDATION





ESPI 2040

Much more than
a Space Programme



2. ESPI's Impact

⇒ By the numbers

⇒ European Engagement

⇒ International Engagement

⇒ Highlights across our thematic research areas

 Green & Sustainable Societies

 Security & Defence

 Exploration & Science

 Space as an Asset

 Industry, Innovation, Finance & Workforce

⇒ What's on the horizon for ESPI in 2024



By the numbers

LinkedIn Followers



Total Followers

12,345

New Followers in 2023

4,224

2023 Growth

+52% ↑

ESPI Members



Members in 2023

20

New Members in 2023

4

2023 Growth

+25% ↑

Top 5 Website Downloads of 2023

1.

ESPI2040:
Space for Prosperity,
Peace and Future
Generations



2.

ESPI
Yearbook
Space Policies,
Issues and
trends



3.

Space Venture
Europe 2022:
Investment in the
European and Global
Space Sector



4.

ESPI Brief No. 63:
"High Time for an
EU Space Strategy
for Security and
Defence"



5.

ESPI Report No. 86:
"Space Safety
and Sustainability
Momentum"



Research and Engagement output highlights

7

Global Regions with ESPI Presence:

Accelerating our international reach in 2023, we partnered, engaged or cooperated with stakeholders in all of the global regions.*

23

European countries engaged:

We have engaged in bilateral exchanges with national authorities and joined the key space events in 23 out of 30 ESA and EU member states.

40+

ESPI publications:

We published a suite of Reports, Briefs, Director's perspectives and various other ESPI publications, all next to monthly news digest ESPI Insights.

150+

Events and Forums with ESPI involvement:

Our diverse team has organised more than 20 and contributed to more than 130 events and forums around the world.

250,000+

Unique views of ESPI content on social media:

Our regular updates on digital platforms, in particular LinkedIn, reached out to a historically large international audience.

* Europe and Central Asia, East Asia and Pacific, South Asia, Middle East and North Africa, Sub-Saharan Africa, North America and Latin America and Caribbean.

Our European Engagement



Increasing connections to national decision-makers


Concentrating on the nature of ESPI as policy think tank, in 2023 we increased targeted engagement activities towards decision-makers in Europe.


Next to a long-term and deepening support to decision-making within the ESA framework, we have engaged in bilateral exchanges with national authorities and joined the key space events in 23 out of 30 ESA and EU member states (see map on page 31).


This reinforced focus to the national dimension of European space governance, which, accounts for more than 80% of consolidated European public space budget, include several highlights:


 **Austria:** We enlarged cooperation with our host nation through new initiatives, such as the Centre of Excellence for Space and Sustainability, and expanded engagement to the local space community.

 **Finland:** The Finnish Ministry of Economic Affairs and Employment contracted us via a competitive process to support the process of the renewal national space strategy with a targeted study.

 **Germany:** We began a process of regular *jour-fixe* meetings with the Head of German Space Agency at DLR, an offer extended beyond our founding members and which we are making available to all our interested members.

 **Italy:** We signed a special cooperation agreement with ASI, reinforcing ASI membership in ESPI, to develop expanded support for the Italian space ecosystem, including a possible future presence of ESPI in Italy.

 **Norway:** In January we co-organised with NOSA a targeted Space Policy Workshop for the Members of the Norwegian space community.

 **Spain:** We signed an MoU with the newly created Spanish Space Agency.

Moving towards an increased role of ESPI in processes under the EU-level

Acknowledging the expanding scope of EU space-related engagement, we developed contributions to some of the major consultation processes taking place at the European Commission level, in particular regarding the **EU Space Strategy for Security and Defence, EU Space Law and the Mid-term evaluation of the EU's space programme.**

In our work in EU-funded projects, we continued to support **DG DEFIS** in developing a platform for EU-funded space research and innovation (STARS*EU consortium) and we have also been a part of a multi-national consortium #REACTS – Responsive Space for Europe, selected for EDF funding to investigate an interoperable, resilient and scalable network of Responsive Space Systems (RSS).

Advancing support to EISC and ECSECO

2023 was a first fully operational year for ESA's **European Centre for Space Economy and Commerce (ECSECO)** and ESPI was proud to continue its varied support to ECSECO, enshrined primarily in our role to host ECSECO secretariat and supporting research.

ESPI has long fostered European interparliamentary exchange on space matters through serving as a secretariat and co-organiser of the **European Interparliamentary Space Conference (EISC)** and we continued acting in this role. In 2023, the Austrian Parliament had the honour of chairing the EISC under the theme "Space to support the green transition in an evolving space economy", supported by the ESPI EISC secretariat. This allowed also the co-hosting of the EISC Plenary together with the ESPI 20 years event at the Austrian parliament.





200
Guests

45+
Countries

Largest annual Autumn Conference in ESPI's history

In October we welcomed more than 200 guests from over 45 countries to the 17th ESPI Autumn Conference, our annual event in Vienna. This year's edition convened the largest and most diverse audience in Conference history to discuss the theme: **"European Space Governance in a Transforming World"**. The Conference provided a platform to address how European space governance may need to evolve to allow Europe to be part of and a leader of the transformation of the space sector globally. The conference provided for an outside-in perspective, including perspectives from India and the US, as a contrast to the European landscape.

ESPI's Autumn Conference is probably the only place in Europe where you can have really frank and open honest discussions about what the state of the industry is today and what the goals are and the vision for tomorrow.

Sinéad O'Sullivan
Harvard Business School & Member of ESPI Advisory Council



Our International Engagement



Positioning ESPI as an active forum

2023 marked the inauguration of our new ESPI **Vienna Space Diplomat (VSD)** initiative, for which our first summer reception welcomed more than 50 ambassadors, members of Vienna's diplomatic community and international organisations. The event was co-hosted by H.E. Jean Graff, the Ambassador of Luxembourg in Vienna. Envisioned as a first-of-its-kind engagement platform, the VSD aims to further ESPI's mission of promoting space policy debate through a set of vibrant events and activities for diplomats and foreign policy practitioners.

The VSD houses several complementary activities, which were also put into action this year. First, we were happy to re-start our **Inter-Regional Dialogues series**, by hosting the **Third Inter-Regional Space Policy Dialogue Between the Asia-Pacific and Europe** in cooperation with the **Asia-Pacific Regional Space Agency Forum (APRSAF)**, in addition to several ESPI side events aside the 60th session of **COPUOS**. These events, hosted with partners such as the **International Astronomy Union**, **European Southern Observatory**, or **Secure World Foundation**, convened 80+ COPUOS delegates and representatives of permanent missions in Vienna from around the world to discuss some of the space sector's most pressing issues.



Promoting European space policy on a global level

We also engaged in targeted visits to the US, Japan, Republic of Korea, and Australia to both kick-start new relations with global space stakeholders and re-affirm our existing commitment.

When travelling to the US, we engaged with representatives from **NASA**, the **National Space Council**, the **State Department**, the **Office of Space Commerce**, and the **Space Policy Institute of George Washington University**.

In the Asia-Pacific, we participated in this year's **Seoul Defence Dialogue** and met with partners at **KARI** and **JAXA**, the **Japanese Cabinet Office**, **Astroscale**, and the **University of Tokyo**. We also played an active role in the **APRSAF-29** meeting in Jakarta, Indonesia and further solidified our relationship with KARI and JAXA with new agreements, laying groundwork for enhanced cooperation.

ESPI also participated in the first **Australian Cyber Space Forum** and extended greater engagement in Africa with presence at the **NewSpace Africa Conference** and by engaging in discussion within the **African Space Leadership Institute (ASLI)** and **SpaceinAfrica**.

On the side of international organisations, ESPI was proud to become an academic member of the **International Telecommunications Union (ITU)** in 2023.

The establishment of the Vienna Space Diplomat platform signifies another vital step towards enhancing dialogue and comprehension among the participants in the UN's standard-setting bodies. It is with immense pleasure and honor that I participate in its inauguration as one of its early supporters.



H.E. Ambassador Jean Graff

Ambassador of Luxembourg to Austria and Permanent Representative of Luxembourg to the International Organizations in Vienna





Europe and the Asia-Pacific have many opportunities for cooperation. "Inter-Regional Space Policy Dialogue between the Asia-Pacific and Europe" can serve as an excellent platform for facilitating the dialogue between two regions. I look forward to our enhanced partnership.

Ikuko Kuriyama
Advisor to the Director,
General Affairs Department, JAXA,
Initiator of the Inter-Regional Space Policy
Dialogue and the co-chair of the 3rd Dialogue

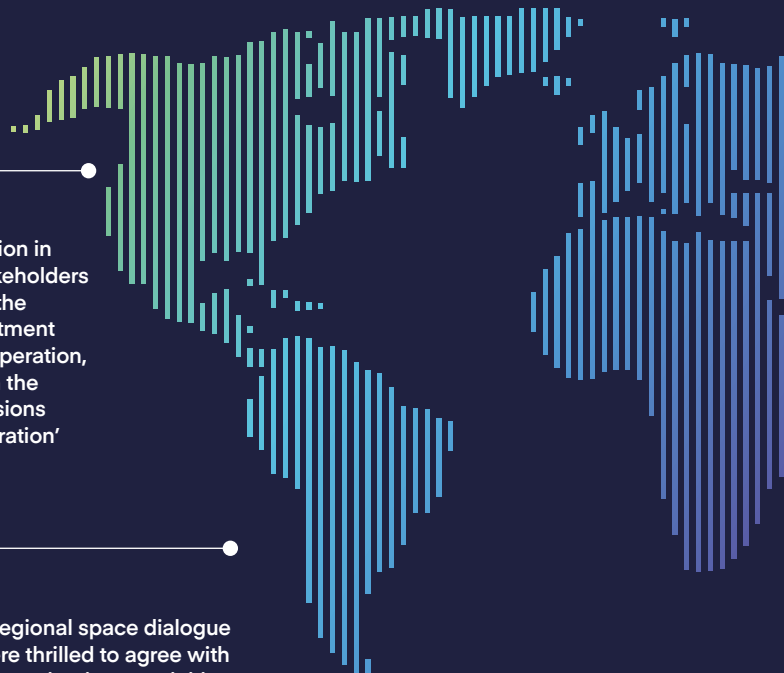


Promoting an effective global exchange

To further broaden our horizons, we also established our **Global Fellows programme**, which allows for members of the space sector around the world to contribute to ESPI and its research and engagement. We currently have three Global Fellows residing in the US, Brasil, and Japan.



ESPI's Global Reach



North America

In May, we embarked on an engagement mission in Washington DC, meeting some of the key stakeholders in the U.S. space policy ecosystem, including the National Space Council, NASA, and the Department of State. Fostering transatlantic think-tank cooperation, we also reinforced collaborative activities with the Secure World Foundation and initiated discussions on a new collaboration with Aerospace Corporation's Center for Space Policy and Strategy.

Latin America

Building on the success of our inter-regional space dialogue initiative with the Asia-Pacific, we were thrilled to agree with the Argentinian Permanent Mission to UN in Vienna to initiate a similar framework for engagement between European and Latin American space stakeholders.

Africa

Acknowledging the growing African space sector, we sponsored and attended the NewSpace Africa Conference in April in Abidjan, contributed to activities of newly established African Space Leadership Institute (ASLI), and continued bilateral engagement with a variety of African public space stakeholders, including the African Union Commission and national space agencies.



Asia-Pacific

2023 reaffirmed our historically strong links to stakeholders in the APAC region. ESPI contributed to the annual APRSAF gathering in Jakarta. Next to reinforced cooperation with JAXA and visit to Japanese stakeholders (i.e. JAXA, Cabinet Office, University of Tokyo), we were privileged to be invited and contributed to the Seoul Defence Dialogue and sign a new MoU with KARI, which will be followed by joint projects from 2024 onwards. The year 2023 was also marked by India's presidency of the G20 and we were honoured to follow an invitation and contribute to the G20 Space Economy Leaders Meeting in April in Meghalaya. In the Middle East region, we maintained our regular presence at major space events with our Director's invitation to 2023 Dubai Air Show, following up on an earlier invitation to the Abu Dhabi Space Debate end 2022.

Australia

We contributed to the first Australian Cyber Space Forum in Adelaide, and increased collaborative efforts with our academic partners in Australia, in particular Flinders University. In 2024 we will host Australian students at ESPI for short-term research stays.

General highlights

Establishment of Vienna Space Diplomat: In the presence of 50 ambassadors and international representatives we inaugurated the ESPI Vienna Space Diplomat (VSD) initiative, a first-of-its-kind engagement platform for the space diplomatic community in Vienna. The VSD houses several complementary activities, including ESPI's trademark ESPI Evening Events aside UN COPUOS sessions.

Membership in ITU: Deepening our engagement in spectrum policy issues in 2023 we became a member of the International Telecommunication Union (ITU), in the form of academia membership and subsequently participated to ITU'S quadrennial 2023 World Radio Conference, also facilitated by the Austrian delegation.

Broad European Engagement: We have engaged in bilateral exchanges with national authorities and joined the key space events in 23 of 30 ESA and EU member states.





Strengthening European and International Engagement





The independent role of ESPI as a policy platform that supports a forward-looking Europe is essential. ESPI shall conduct independent research on mid- to long-term issues and foster an international network promoting its views and recommendations towards policy makers globally. It shall build bridges between space and broader policy landscapes.

Eric Morel de Westgaver
 Director of European, Legal and International Matters at ESA and Representative of ESA in ESPI's General Assembly



ESPI's key publications in 2023



REPORTS

Space Venture Europe 2022



Safety & Sustainability Momentum



Space Spectrum Management



Space, Cybersecurity & Defence



Value of Space Exploration



Space & Civil Society



Future of Space Exploration



OSAM State of Play & Future



WITH



WITH



WITH



WITH



ESPI2040

ESPI's Policy vision for Europe in Space



DIRECTORS PERSPECTIVES

(Monthly)



BRIEFS



SPACE SECTOR WATCH

ESPI Insights (Monthly)

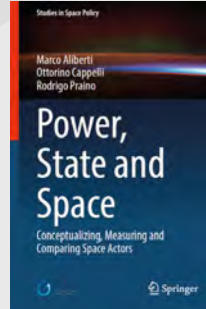


ESPI Yearbook 2022



BOOKS

Power, State & Space



WRITTEN INPUTS TO POLICY-MAKING



EU Space Strategy for Security & Defence

EU Mid-Term Evaluation of the EU Space Programme

EU Space Law

Annual highlights across ESPI's five thematic research areas

1: Green & Sustainable Societies



Key themes:

Space for green transition and climate action

Centre of Excellence for Space and Sustainability

Space and civil society

Key 2023 activities:



Advancing the role of space for climate and bridging the gap between the space community and green transition actors:

As part of our support to ESA's Space for Green Future (S4GF) Accelerator we concentrated on building a community that brings together actors with different roles and characteristics, from high-level legitimacy to regional representativeness, with both funding and operational capabilities. Enlarging and diversifying the community and consolidating partnerships remain major tasks on the way ahead. As we continue to deepen our research, for example on the role of Big Data of climate action in and emergency management, we are proud together with ESA to have our 2021 study on the role of space-based data in European climate policies – peer-reviewed and published in the January 2024 volume of Acta Astronautica.



One of ESPI's key 2023 activities across multiple research areas has been support to the development of ESA Accelerators (Space for Green Future, Rapid and Resilient Crisis Response and PROTECT)



Creation of a new platform for comprehensively addressing the link between space and sustainability:

In partnership with the Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation & Technologie (BMK), we announced the Centre of Excellence for Space and Sustainability. This new initiative at ESPI, which will be inaugurated in 2024, aims to foster impactful policymaking in Austria, in Europe, and globally.



Reinforcing the link between space and civil society: We conducted a related a study on this topic for the European Economic and Social Committee (EESC) with recommendations for the EESC and EU institutions engaging with civil society, focusing on three dimensions: communication (to improve awareness on the benefits provided by space), action (to ensure a greater uptake of EU space solutions), and evaluation (to ensure the effective of engagement).



The ESPI vision is to bring maximum benefit of Europe's engagement in space to society this vision fits perfectly with our own vision of advancing society.

Kurt Kober

Managing Director Austria, Vice President Electronic Solutions, Beyond Gravity



2: Security & Defence



Key themes:

Security and defence dimension of space at EU and European level

Space capabilities for crisis response and disaster relief

Space cybersecurity

Key 2023 activities:



High time for an EU space strategy for security and defence: Early in 2023, ESPI was providing its views in the policy process leading to the release of this new EU strategy. Our written contribution, released also as ESPI Brief, noted five distinct dimensions which should receive due consideration in defining the strategy and in its implementation: seizing opportunities offered by streamlined European collaboration; garnering credibility through robust threat response mechanisms; accelerating the development of EU capabilities; increasing the scale, availability, and flexibility of financial resources; and cultivating partnerships and international cooperation.



Convening European forums on facilitating the further use of space for civil security purposes: Next to support to ESA's Rapid and Resilient Crisis Response Accelerator (R3) Accelerator and Civil Security from Space (CSS) programme, we co-organised the 2nd ESA Security Conference, which explored ways to make ESA activities and expertise more readily available to its stakeholders, while also reflecting on the Agency's further contribution to both Europe's welfare and international peace and security through its programmes, policies, and partnerships, e.g. in support of R&D or dual-use innovation. Later, in November, we continued with another forum related to crisis management – through co-organising a workshop on Space Data Space at EU Satellite Centre premises.



Knowledge sharing on space cybersecurity considering upcoming policy developments in Europe: In our new study "Space, Cyber and Defence: Navigating Interdisciplinary Challenges", ESPI integrated and consolidated expert contributions providing a policy, legal, and interdisciplinary analysis of issues at the intersection of space, cybersecurity, and defence. This initiative under the new ESPI+ format, aimed at gathering expert input and making this expertise more easily available to the European space community.



Space is an exceedingly significant policy theme in national and international security and think tanks have a larger role to play in advancing robust and forward-looking European decision making. Consistent with this vision, we amplified our cooperation with ESPI, the European think tank for space.

Stefan Mair

Director of the German Institute for International and Security Affairs (SWP)



3: Exploration & Science



Key themes:

Europe's ambition in Space Exploration

Impact of space exploration activities on the wider society

Long-term foresight

Key 2023 activities:



Facilitating reflections on the future of space exploration in Europe: In March, the "Revolution Space" report by the High-Level Group on Human and Robotic Space Exploration for Europe was released, spurring a vivid debate in Europe and beyond. Throughout the course of the Group's work, ESPI supported and accompanied the High-Level Group in their reflection and elaboration of key messages and recommendations for the final Report. It was an honour to work with such an esteemed group of renowned personalities.



What value does space exploration have beyond the space sector? Continuing the work on space exploration, we collaborated with the Boston Consulting Group (BCG) in a first research effort to quantify the induced and catalytic economic impact of a bold European Mission for Space Exploration on the space economy and on the wider impact of space on other sectors of the economy. The joint study "More than a Space Programme: The Value of Space Exploration to Empower the Future of Europe", was developed in preparation for the Space Summit held in Sevilla from 6 to 7 November 2023 and was subsequently released to the public in November.



Four scenarios for Europe's long-term future in space exploration: To discern the trends that will influence space exploration in the long term, ESPI alongside the Copenhagen Institute for Futures Studies collaboratively conducted a foresight analysis on the "Future of Space Exploration in Europe between 2040-2060". Strategic foresight is essential for current decision-making that aspires to be alert, enduring, and forward-thinking. The collaborative study was released in late November.



Space exploration has the potential to transform and ripple throughout almost every facet of European society. Strategic foresight is essential for current decision-making that aspires to be alert, enduring and forward-thinking.

Bugge Holm Hansen
Senior Futurist and Head of Innovation & Technology,
Copenhagen Institute for Future Studies



4: Space as an Asset



Key themes:

Europe's capacity and autonomy to act in space

Safe and sustainable use of space

Spectrum management

Key 2023 activities:



Europe's pathway to becoming a full-fledged space power was dissected in the new ESPI book, "Power, State and Space", with its key takeaways released also as an ESPI Brief. The analysis sets forth a comprehensive, cross-disciplinary conceptual framework aimed at a dynamic comparison of space actors, considering their technical, industrial, and political characteristics as well as the trajectories that bring them in or take them out of the "club" of space powers. The study argues that while Europe does not meet all necessary criteria to be a space power, it can become one. Crucially, it must become one, for what is at stake is much more than its relative position in the global space arena.



Space safety and sustainability – a need to leverage the growing awareness and commercial perspectives into impactful policy action. One of our latest studies "Space Safety and Sustainability Momentum", brings a targeted perspective on the future policymaking in the domain of space safety and sustainability. The report notably showcases how space safety and sustainability is increasingly recognized and prioritised in public policymaking and regulation. Next to this particular research work, ESPI strengthened commitment to space sustainability by joining the Net Zero Space Initiative and signing the Zero Debris Community Update, signalling our intent to sign the Zero Debris Charter in the coming year.



How can spectrum management systems be enhanced to deal with the congested space and spectrum environment and the demand more effectively and efficiently for a more connected world? This question stood at the core of our study: "Space Spectrum Management: Foundations for an Informed Policy Discussion Towards WRC-23 and Beyond", released prior to WRC-23 meetings in Dubai. As both the operation of satellites and the provision of services intrinsically rely on wireless communication, radio spectrum availability is the backbone of the digital economy, with the full portfolio of space applications being no exception.



The increasing complexity of activities in the space domain has led to new and evolving safety and sustainability challenges. In light of these challenges, dialogue between regulators is an important element of ensuring space sustainability principles are implemented.

Dr. Peter Martinez
Executive Director, Secure World Foundation



5: Industry, Innovation, Finance & Workforce



Key themes:

Space investment landscape

Alternative financing for the European space sector

On-orbit servicing, assembly and manufacturing (OSAM)

Key 2023 activities:

-  **Investments in European space start-ups are at an all-time high**, as revealed by ESPI in the latest edition of “Space Venture Europe 2022”. This latest edition of our annual study on entrepreneurship and investment in the European space sector observed another record-breaking year for European space start-ups, which saw significant growth of investment in 2022, with total investments reaching €1 billion, up by 23% compared to 2021. For the first time, the report also provided comprehensive insights into global space investment landscape as well as insights into China, noting a remarkable growth in investment in China’s space sector.
-  **Identifying and exploring alternative finance mechanisms:** We conducted a study to address the problem of shifting investment strategies in the face of volatile macro-economic conditions. The study explores alternative financial mechanisms in the European industrial sector and across nations of the world, that could provide the (growing and up-scaling) space sector with required level of funding beyond start-up phases and more stable and diversified funding sources. Only by diversifying and deepening the financial resources available, the sector can maintain growth and mitigate the impacts of economic uncertainty and volatility.
-  **On-orbit servicing, assembly and manufacturing (OSAM) poised as a lucrative emerging market:** “Our “On-Orbit Servicing, Assembly, and Manufacturing (OSAM) State of Play and Perspectives on Future Evolutions” report published in collaboration with Way4Space, revealed that OSAM is increasingly being identified as one of the main activities that will shape the future of the space sector. Building on our 2020 report on in-orbit servicing, this latest report provides a forward-looking perspective and identifies measures to foster the development of this sector in Europe.



Space has never been as integral to our daily activities as it is now. However, the increasingly commercialized space industry faces macroeconomic challenges and fiscal restraint policies. To preserve, promote and increase the European space sector's competitiveness, large government-led initiatives and significant financial backing will be crucial.

Jules Varma

Former ESPI Lead on Industry and Finance, currently Commercialisation Officer at the Ventures and Financing Office at ESA



What's on the horizon for ESPI in 2024



Security & Defence

We look towards 2024 and beyond to build upon our recently expanded research and engagement in security-related topics.



Centre of Excellence for Space and Sustainability

We will accelerate our presence in activities related to space uptake in the green transition and addressing the climate crisis, and are committed put into action the recently announced Centre of Excellence for Space and Sustainability with the support of Austrian government.



Growing membership

ESPI's main Leitmotiv of fostering a strong Europe as a partner to the World is also driving us to further expand our membership and presence across European nations.



International engagement

We will deepen and enlarge our international partnerships, building on core partners in Asia-Pacific and expanding across the Atlantic and in Africa. Enlarging our scope of activities, ESPI will also initiate a global policy monitoring project to assess and analyse international space policies across key regions of interest for European space actors.



Network of European Space think tanks

We will establish and oversee a Network of think tanks from different domains, incl. security or economy, working on space policy, fostering collaboration and synergy among these institutions.



Educational agenda

We are committed to actively develop ESPI education activities, nurturing and retaining a talented and skilled workforce.

Staying ahead of the curve: Research activities in 2024

We are planning to specifically address several emerging topics of our research. The topics include but are not limited to:



- The place of space in 2024 European elections
- Soft power value of space science
- Wargaming practices for space operations
- Deepening of the European talent pool



3. ESPI Governance

Statement from the Chair of ESPI General Assembly



**Head of Aeronautics and Space
Agency at Austrian Research
Promotion Agency (FFG)**
Andreas Geisler

Dear Readers,

Having the privilege to chair ESPI's main governing body for the past 8 years on behalf of FFG, I am thrilled to witness and actively facilitate ESPI's growing impact on the European and global space ecosystem.

As ESPI's team and portfolio of activities grow to respond to an increasing demand for policy-oriented research, recommendations and proposals, the family of ESPI member organisations saw this growing impact most evidently through the interest of a range of new organisations, public and private alike, in becoming members of ESPI.

Perhaps most symbolically, the year of ESPI's 20th anniversary brought about a 25% increase in ESPI membership, reaching 20 member organisations. In 2023, we welcomed the Portuguese Space Agency, the Luxembourg Space Agency, Beyond Gravity and Exolaunch among ESPI members. This evolution further contributed to a truly representative group of members of the ESPI General Assembly, i.e. agencies, national and European as well as space industry. This diversity underpins an effective implementation of one of the General Assembly's core mandate – to define general long-term guidelines and orientations for ESPI. The expansion of ESPI General Assembly also drives us to take adequate steps in the foreseeable future to ensure a governance structure that remains connected to public policy, balanced and adequately integrating private sector perspectives.

Next to the two ordinary meetings of the General Assembly, in September I had the privilege to convene a first-ever Extraordinary ESPI General Assembly, welcoming high-level representatives of ESPI members to discuss the future engagement of members and the views on ESPI's long-term evolution as reflected in *ESPI2040*.

Looking ahead, ESPI members particularly underlined

- a) the need to ensure ESPI's independence as ESPI's foundational feature and special added value in the European space ecosystem,
- b) the role for ESPI in bringing space to other policy domains and sectors of economy and
- c) the need for a forward-looking anticipatory research approach, ensuring ESPI can address key issues of today and of the future.

As of January 2024, ESPI members' family is stronger than ever. On a personal note, when looking to the future, I will assist the further growth of ESPI members while ensuring an effective governance, and hence invite readers from non-members to join ESPI and support and benefit from its mission and work in the European space landscape.



ESPI Governance Structure

ESPI's General Assembly

ESPI is governed by a General Assembly, which defines our general long-term guidelines and approves the annual report on activities, financial report and annual budget. The General Assembly is chaired by the departmental head of Aeronautics and Space Agency (ALR) of Austrian Research Promotion Agency (FFG), co-founder of ESPI.

ESPI Secretariat

ESPI is managed by the Secretariat composed of the Director and the Treasurer and supported by ESPI own staff as well as staff seconded by members.

ESPI Advisory Council

The Advisory Council provides the ESPI Secretariat with medium-term orientations with respect to the activities of the Institute.

Key organs of ESPI

ESPI's General Assembly

Highest governing body composed of ESPI Members

ESPI's Secretariat

ESPI's Managing organ (Treasurer + Director) supported by ESPI staff

ESPI's Advisory Council

Experts from across Europe's space sector

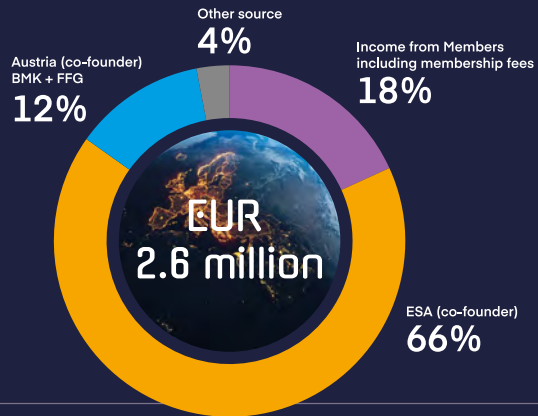
At the end of 2023, ESPI had 20 member organisations

ESPI Budget

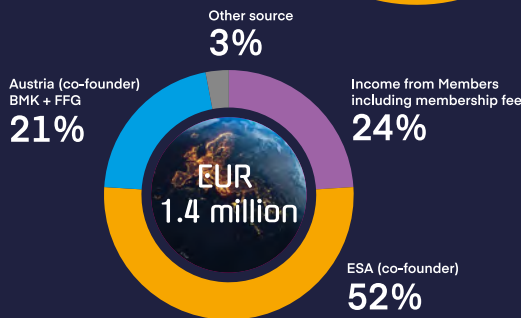
After years of stagnating budgets, 2023 confirmed the trend in budget increase observed over the last two years, significantly exceeding the EUR 2 million mark for the first time. This evolution has been enabled primarily due to agreements with ESA and thanks to the growth in membership. It is expected that in 2024/25, Austria and a further increased commitment from a growing membership base, including bi-lateral agreements with members and partners will support a continued growth phase. This will allow the sustainable operation of the institute and secure its independence at the service of its members and the wider space community and beyond.

Source of ESPI budget

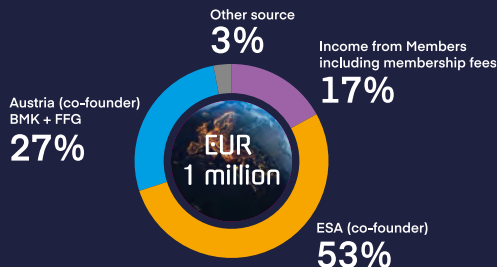
2023



2022



2021



- 2023 data is indicative , not yet an approved financial statement
- 6 FTE directly seconded by members not included in budget figures

Statement from the Chairs of ESPI Advisory Council



Genevieve Fioraso

ESPI Advisory Council Chair 2017 - 2023



Etienne Schneider

ESPI Advisory Council Chair from 2024

Dear friends of ESPI,

In parallel to the ongoing transformation of ESPI in 2023, ESPI's Advisory Council saw a similar evolution. Seven new members joined the Advisory Council in 2023 or will join by January 2024, coming from varied backgrounds (European astronaut Samantha Cristoforetti, Member of European Parliament Niklas Nienaß, renowned economic expert Sinead O'Sullivan, former deputy prime minister of Luxembourg Etienne Schneider, Financial Times journalist Peggy Hollinger, the Head of the German Space Agency at DLR Walther Pelzer and President of the IRT Saint Exupéry and Member of the Ministerial Space Steering Committee of France 2030 Magali Vaissière).

Acting on the mandate of ESPI's Advisory Council to advise on the mid-term evolution of ESPI, the Advisory Council met three times in 2023 and we are thrilled to outline a few key themes, recommendations and observations raised by the group and its members.

The group very much appreciated the release of the *ESPI2040* policy vision for Europe in space and its bold and visionary character. The vision enshrined in the document shall reach a much wider audience and the Advisory Council recommended further active distribution across the European continent.

Looking at ESPI's future and its place and added value for the European space ecosystem, our group of ESPI advisors underlined a few overarching themes. When looking at ESPI's Research agenda, Security and Defence for Europe's future in space presents a particular challenge and the Advisory Council encourages ESPI to expand its activities in the field. Additionally, the Advisory Council also supported ESPI's ambition in further developing the role of space in addressing climate crisis and related challenges.

The Advisory Council also noted limited recognition of the socio-economic impact of space among the decision-makers outside the space field and hence has been encouraging ESPI to develop additional measures, included at a much needed communications level to convince politicians and citizens to be more aware of the importance of space at all levels.

Beyond the security & defence dimension and wider socio-economic benefits, the Advisory Council specifically raise several important questions for Europe's future, calling for ESPI to act within its perimeter of action. These questions include for instance:

- How can Europe foster deeper integration of financial markets to support the European Space sector?
- How to develop a synergetic approach for the pursuit of strategic autonomy with strategies for international cooperation and space for diplomacy.

As ESPI embarks on a new year to build on a resounding success of 2023, the leadership of the ESPI Advisory Council also evolves, with the hand-over of the chair from former French Minister Genevieve Fioraso to the former Deputy Prime Minister of Luxembourg.

In concluding, please let us underline what a diverse ensemble of varied expertise, experience and perspectives, coupled with energy and spirit to shape and improve things, is gathered in ESPI's Advisory Council. The group will continue to advise ESPI in its work and through this contribute to the growth of Europe's space sector and the role of space in European politics and globally.



ESPI Advisory Council



The Advisory Council is made up of experts from across Europe's space sector. The Advisory Council provides the ESPI Secretariat with medium-term orientations with respect to the activities of the Institute.

2023 Advisory Council Members



Genevieve Fioraso (Chair)
(2017-2023)
Former French Minister of Higher Education and Research



Marek Banaszekiewicz
(2020-2026)
Former President of the Polish Space Agency



Samantha Cristoforetti
(2023-2025)
ESA Astronaut, member of the European Astronaut Corps



Stefania Giannini
(2017-2023)
Assistant DG for Education at UNESCO and former Italian Minister for Education, Universities and Research



Gerd Gruppe
(2017-2023)
Former Member of DLR Executive Board



Max Kowatsch
(2017-2023)
Former Managing Director Beyond Gravity Austria (Formerly RUAG Space Austria)



Sergio Marchisio
(2017-2023)
Full Professor of International Law at Sapienza University



Fritz Merkle
(2020-2026)
Former Chief Technical Officer at OHB



Margit Mischkulnig
(2020-2026)
Head of Department for Space Affairs at the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology



Niklas Nienaß
(2023-2025)
Member of the European Parliament



Sinéad O'Sullivan
(2023-2025)
Economist at Harvard Business School's Institute for Strategy and Competitiveness



Dominique Tilmans
(2017-2023)
President of Eurisy & Former Member of the Belgian Parliament

New Members of the ESPI Advisory Council starting in 2024



Etienne Schneider (Chair)
(2024-2027)
Former Deputy Prime Minister of Luxembourg



Peggy Hollinger
(2024-2027)
International Business Editor at the Financial Times



Walther Pelzer
(2024-2027)
Director General of the German Space Agency at DLR



Magali Vaissière
(2024-2027)
President of the IRT Saint Exupéry and Member of the Ministerial Space Steering Committee of France 2030



Outlook 2024

As we are reporting on a most successful year 2023, the opportunities and challenges for 2024 are already unfolding.

2024 shall see the inauguration flight of Ariane 6, as Starship may reach space for the first time. Globally, space for security & defence and the international dimension of space will receive new importance in a shifting geo-political scenario. Yet, Europe can be expected to still fall short on political will and its own revolution space, to step up as a global space power. 2024 will be a decisive year, setting the scene for years to come. ESA and its member states will engage in preparations for CM25, supported by a new ESA Strategy 2040. The EC will start planning the evolution of the EU space programme, preparing for a new Commission towards the next MFF. Several countries will continue to develop and amend their national space strategies, as space may find increased recognition in other domains of policy, such as energy, digital, transport and security.

ESPI will support these developments, implementing its mandate to make proposals and recommendations to European decision makers and institutions. It will increase its effort in particular in security & defence matters, the build-up of the Centre of Excellence for Space and Sustainability and the development of its educational activities. The institute will further pursue its evolution, with the objective of a continued growth of members and agreements, and further international engagement, in line with ESPI's international character. ESPI will continue to expand its Vienna based research team by about 15-20%, including senior positions, quality assurance functions, development of data science expertise, as well as an improved gender balance also in the management team. The institute will expand its Global Fellow network, as well as initiate the network of European space think tanks. New high-level experts are planned to be integrated into the ESPI Advisory Council.

With the issuing of the ESPI2040 implementation plan, ESPI will engage in a collective debate, for Europe to voice a clear political will and act on its ambitions in space. Together with ESPI members and in consultation with the other European stakeholders and international partners, ESPI will further develop its vision, fully convinced that Europe today still has all it takes to develop into a full space power and strong global partner.







Beyond 2024

While ESPI Annual Reports focus on the achievements and impact of the past year, and include an outlook on the year ahead, this report also provides a mid-term perspective, 5 years into the future.

Europe in Space

Over the period 2024 – 2028, space will have entered the debate in other policy domains of governments, political programmes, parliamentary action and policy direction, supporting public needs as well as business strategies beyond the space industry, in sectors like food and agriculture, transport, finance, and pharmaceuticals. Space will have become an element of diplomacy, for Europe as a global partner.

Should Europe wish to equip itself for the future, this period will be decisive for:

- Making first significant and measurable progress in integrating space into other future-shaping innovations, infrastructures, policies and strategies, including digital, green, security and defence, energy, mobility and health.
- Establishing a leading position in the international community in leveraging space for the sustainability of Earth and ensuring the safe use of space.
- Progressing on space solutions for security and defence (incl. dual-use) and stepped up on human space exploration and science.
- Implementing the first generation of Accelerators, bringing together federated infrastructures and services in Europe and globally, for a green future, crisis response and the protection of the space environment.
- Enlarging space investment to approach 0.1% of GDP, blending private investments, including from sectors beyond space.
- Realising a first phase of industrial transformation of a competitive ecosystem of established and new space actors, enabling innovation, implementing new sources of finance beyond VC, and developing and retaining talent.

The new EU MFF and Space Programme, ESA CM25 and CM28, next to development milestones of national space programmes, stimulating and guiding private and entrepreneurial initiative, will enable the implementation of above perspectives.

This vision will be supported by an ambitious ESPI Agenda.

ESPI Agenda

While the ESPI2040 Implementation Plan will be elaborated together with ESPI members, advisors and stakeholders during 2024, a first outline of ESPI targets for 2025 is provided.

Specifically, ESPI will aim to:

- Maintain and further improve the **quality and impact of ESPI research output** in all research areas, and increase the outreach towards decision-makers in governments and parliaments as well as references in key media outlets and digital footprint by at least 50% with reaching at least 25,000 online followers.
- See the **ESPI Centre of Excellence for Space and Sustainability fully operational** by 2025, next to supporting the growth of EISC to include at least three new countries, and of ECSECO, including opening up to institutional members.
- Further invest in existing exchange platforms with the Asia-Pacific, Middle East, Africa and Latin America and establish at least one new **interregional dialogue**.
- Establish the routine operation of the **ESPI Summer School**.
- Have integrated **at least 20 (and by 2028 at least 25) of the EU and ESA member states as ESPI members**, including space agencies and offices, with an ESPI presence at least in two countries.
- Include also **direct membership of at least two governments**, in particular from countries which have an ESPI presence or which were candidates for hosting ESPI in the past.
- Ensure, in coordination with its members, the first implementation steps of ESPI's evolution as and possibly beyond Quasi-International Organisation, **towards a modern and future-proof governance and institutional set-up**, reflecting the international nature of ESPI.





ESPI

European Space
Policy Institute

www.espi.or.at

Design Stimulus Creative / www.stimuluscreative.co.uk

ESPI Associate Manager and Lead on International Engagement
Marco Aliberti in front of the Austrian Parliament during ESPI's
20th Anniversary Event on 25 September 2023