

SME**4**SPACE

10
YEARS

2011-2021

THE REPRESENTATIVE ORGANISATION OF SMES IN
EUROPE'S SPACE INDUSTRY

Activities
Annual Report
2022

About SME4SPACE

SME4SPACE is the representative organisation of SMEs in Europe's Space Industry.
SME4SPACE is a not for profit organisation registered in Leuven under the Belgian Law.

The aim of SME4SPACE is to voice Space SMEs' viewpoint in a coordinated way and to facilitate the access of SMEs to space activities in general and to ESA and EU programmes in particular.
More in details, the organisation pursues the following not for profit purposes:

- defending SMEs with the European Space Agency (ESA), the European Union and its related agencies;
- emphasising the potential of the space SMEs in the supply chain and beyond;
- supporting Europe's industrial policy;
- fostering the cooperation among our members, but also with large companies, research and academia;
- organising seminars and information sessions;
- participating in European and International collaborative projects.

SME4SPACE Statutes foresee 2 different typologies of Membership:

- Working Member (WM) for Space Associations/Clusters;
- Individual Company Member (ICM) for Space SMEs.

Presently, SME4SPACE has members in **30 different European Countries** and consists of **22 Working Members** (Associations/Clusters) and **45 Individual Company Members**, gathering cumulatively more than 800 SMEs.

SME4SPACE is also the premier grouping of start-ups in Europe's space industry. We bring together more than 80 start-ups making us their leading voice.



Check our current footprint in Europe:

<https://www.sme4space.org/sme4space-members>

Governance

SME4SPACE Board of Directors is responsible for the management of the Association and oversight to its activities.

Current composition of SME4SPACE Board of Directors is:

- Hans Bracquené, VRI, Belgium, Chairman – chairman@sme4space.org
- Giovanni Sylos Labini, AIPAS, Italy, Board Member
- Stelios Bollanos, Hellenic ASI, Greece, Board Member
- Steve Greenland, UK Space Association SME Members, United Kingdom, Board Member
- Vesselin Vassilev, CASTRA, Bulgaria, Board Member

SME4SPACE Staff



Rosario Pavone – SME4SPACE Secretary



Kris Vanderhauwaert - EU-Liaison Officer



Danai Bournou – Project and Communication Officer

Surveys and Studies

Survey on workforce and skills in the European space sector. In the framework of the Stars*EU contract SME4SPACE and Eurospace conducted a survey to assess and analyse the situation of the European space industry workforce, its related skills and how it aligns with the training courses available for future space professionals.

FINDINGS ON THE ECONOMIC IMPORTANCE AND FINANCIAL HEALTH OF THE SMES IN THE EUROPEAN SPACE INDUSTRY. SME4SPACE conducted an academic study where its findings indicated a main challenge: Space SMEs cope with low profitability as a highly capital intensive company. The investigation was done with the University of the KU Leuven (Faculty of Economics and Business) and with the support of the ESA SME Office.

<https://www.sme4space.org/sme4space-kul-study-eu-space-smes-financial-viability>

Position Papers

In 2022 SME4SPACE circulated the [Position Paper on recent developments in the governance of space activities in Europe](#);

Webinars

On 14th June 2022, SME4SPACE, with the support of VERHAERT, organised a **workshop on Commercialisation** to produce proposals and good examples to be shared with ESA and the European Commission

Webinar on Synergies between Space and HPC. On 4th July 2022, SME4SPACE together with LuxProvide organised a Webinar on Synergies between Space and High Performance Computing (HPC).

Exhibitions and Conferences

SPACE TECH EXPO BREMEN. SME4SPACE participated as an exhibitor at the Space Tech Expo in Bremen together with the ESA SME Office, AKRK and ESA Space Solution Bremen in a joint booth dedicated to space SMEs and start-ups.

IAC 2022. SME4SPACE representatives participated in the IAC 2022 at Paris and in that occasion, together with KU Leuven and ESA presented the [paper European Space SMEs' Financial Viability: Insights and Policy Perspectives](#).

Events and Workshops

ESA Accelerators Workshops. On 14th January 2022, SME4SPACE representatives participated in the ESA Accelerators Stakeholders Workshops, in particular, on **Protect** and on **Rapid and Resilient Crisis Response (R3)**

EUSPA/DG Defis workshop on the impact of the Ukrainian crisis. On 11th May 2022, SME4SPACE participated in EUSPA/DG Defis workshop on the impact of the Ukrainian crisis, bringing its views and the difficulties faced by the European SMEs with this regard.

On 26th May 2022, SME4SPACE Chairman, Hans Bracquené, participated in the **Living Planet Symposium** in an Agora on Responsible Space, reiterating why SME4SPACE believes that is important to act now for a responsible space and why SME4SPACE signed the Joint Statement on Responsible Space Sector.

SME FORUM 2022. An annual consultation process jointly organised by SME4SPACE and ESA SME Office, that collects feedback from space SMEs and their associations on factors that affect their business environment. This year edition of the ESA SME Forum was organised on 20th June 2022.

Round Table Toward a Shared Vision for the Future of Space Transportation in Europe. On 27-28 June 2022, SME4SPACE Secretary, Rosario Pavone, attended the Round Table Toward a Shared Vision for the Future of Space Transportation in Europe in Palermo (Sicily – Italy).

On 6th July 2022, SME4SPACE attended the **ESA – Industry High Level Forum**.

On 11th July 2022, SME4SPACE Chairman, Hans Bracquené, participated in the workshop on “**The European Parliament's Ambition for the Connectivity Satellites**”, organised by the MEP and rapporteur the of regulation proposal, Christophe Grudler.

ESA INDUSTRY SPACE DAYS 2022. SME4SPACE participated in the 2022 edition of the ESA Industry Space Days organised in ESTEC (Noordwijk – The Netherlands) on 28-29 September 2022.

ACCEDE 2022. SME4SPACE was represented by SOLARMEMS at the "Workshop on COTS Components for Space Applications" that was held in Seville on 19-21 October 2022.

News Space Economy Expo Forum 2022. SME4SPACE representative participated in a Roundtable discussion on the joint Statement for Responsible space sector in the frame of the News Space Economy Expo Forum on 2nd December 2022.

Policy

In 2022 SME4SPACE has actively engaged both ESA and European Commission to raise their awareness with regard to the **potential of the European SMEs within the space industry**.

ESA Profit policy was a topic for which SME4SPACE succeeded to make clear the position of European SMEs and also to change a discussion that until our engagement was led by LSIs only. SME4SPACE was particularly involved together with the other European Space Associations in the discussion with the European Commission for the **establishment of a co-Programmed Public Private Partnership (cPPP)**.

SME4SPACE was invited by ESA and strongly adhered for drafting first and signing then of a **joint statement for a responsible space sector**.

In 2022, SME4SPACE **renew the Memorandum of Agreement (MoA) with ESA** for other 3 years. The Memorandum is the basis for our longstanding collaboration with ESA and in particular with the ESA SME Office to support ESA in implementing their SME Industrial Policy.

Technology



ESA 2022 HARMONISATION PROCESS. Since 2015 SME4SPACE contributes to the European Space Technology Harmonisation process. The Harmonisation process is an ESA led initiative that every year harmonises between 8/10 technologies thanks to technology mapping and technology roadmap phases. The harmonisation process is carried out within the activities of ESA Technology Harmonisation Advisory Group (THAG) an advisory body of the ESA Industrial Policy Committee (IPC). In the Harmonisation process, SME4SPACE supports the participation and the contribution of the Space SMEs in both phases as well as presents their viewpoint and contributions during the mapping meetings.

ECSS and Standardisation

In 2022, SME4SPACE continued to follow the **ECSS simplification process**. Indeed, after the exercise to simplify the ECSS M-Branch Standards (Space Project Management), its publication is required to allow all the companies to be able to apply the new simplified standards. This was a pivotal initiative leading at make easier the application of the ECSS' standards and also to lead to the simplification to other standards (i.e. Q-Branch and also E-Branch).

CubeSat Propulsion Handbook.

SME4SPACE supported ESA in consulting the CubeSat propulsion community to jointly define a Handbook with engineering guidelines for developing and integrating propulsion systems (both electrical and chemical) for CubeSats.

ESA Materials and Processes Technology Board (MPTB). SME4SPACE is in contact with the Chair of the ESA Materials and Processes Technology Board (MPTB) in order to allow single companies to understand and to get support from ESA for what concerns the material and process obsolescence, the application of EU regulations (see the REACH regulation). SMEs interested in get more information or participating in the SME sessions within the MPTB meeting are invited to contact SME4SPACE.

Projects

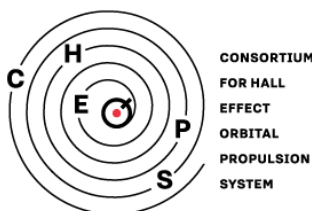


EPIC – Electric Propulsion Innovation & Competitiveness



EPIC is a PSA activity under the Horizon 2020 Space “COMPET-3-2014: In-Space electrical propulsion and station keeping” Work Programme 2014 topic (Grant Agreement n. 640199).

<http://www.epic-src.eu>



CHEOPS is a challenging EU H2020 space project that proposes to develop three different Hall Effect Thruster (HET) Electric Propulsion Systems (EPS), in order to serve different application fields or orbits:

- a low power for Low Earth Orbit (LEO) applications;
- a dual mode EPS for GEO/NAV applications;
- a >20 kW high thrust EPS for exploration applications.

Grant agreement N. 730135. <https://www.cheops-h2020.eu>

SME4SPACE is one of the partners of **SpaceUp** (Assisting European SPACE Start-ups in scaling UP) project, funded under Horizon 2020 framework programme (Grant Agreement n. 776356).

SpaceUp aims at fast-tracking Europe's innovative start-ups in and around the space sector on the road of maturity. The project's key features are 6 Space Academies across Europe, complementing ESA BICs in their work.

<http://www.space-academy.eu>



SME4SPACE is one of the eight partners of the **ASPIRE** (Advanced Space Propulsion for Innovative Realization of Space Exploration) project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N. 101004366.

SME4SPACE is in charge of the Dissemination and Communication activities of ASPIRE that aims at developing a Space High Power Electric Propulsion System of more than 20kW.

<https://www.aspire-h2020.eu>

CHEOPS Low Power and **CHEOPS Medium Power** are daughter projects of CHEOPS and they aim at further developing 2 Electric Propulsion Systems to serve LEO and Constellations as well as Nav Markets.

CHEOPS LP GA N. 101004331 <https://www.lp.cheops-h2020.eu>

CHEOPS MP GA N. 101004226 <https://www.mp.cheops-h2020.eu>



Working Members

National Associations and/or Regional Clusters



Individual Company Members

Space SMEs from Countries where no Working Members are part of SME4SPACE Membership (or at least there were not at the time of their application)

Alén

AMPHINICY
TECHNOLOGIES

ARQUIMEA

A&DSS

AZIMUT

BEAMAGINE

BERNS
ENGINEERS

CELESTIA
TECHNOLOGIES GROUP

compoxi

dhv
technology

D-ORBIT

EIDEL



ENPULSION

Feanor

GeoVille

In Extenso
Innovation Croissance

INVENT

isaraerospace
technologies

Jotne

Miratlas

PARADIGMA
technologies

PLASMABOUND

rasdaman
raster data manager

RDI network

skylabs

SOLAR MEMS
TECHNOLOGIES

SPACE
STRUCTURES

SPECTRUM
AEROSPACE GROUP

SYDÉRAL SWISS

Tauria

TisaLabs

TIWARI
SCIENTIFIC INSTRUMENTS

UARX⁺
space solutions

URANIA
VENTURES

VISION
SPACE

VYOMAN

Start-up Members

Among the Individual Company Members, SME4SPACE Start-up Members are:



Contacts

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