



13.2.2018

A3 consortium



MEMBERS - FIRMS



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AIRBUS



Adriatic Aerospace Association

www.a3space.org

A3 consortium

MEMBERS - Universities, science and research institutions



CONTACTS - Universities, science and research institutions



TU WIENER NEUSTADT



TU MUNICH



A3 consortium



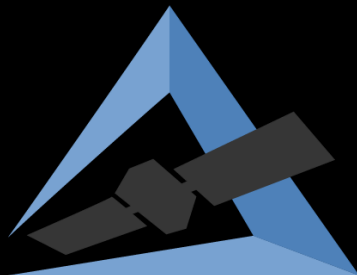
PARTNERS



**FACHHOCHSCHULE
WIENER NEUSTADT**



Applied for membership



Serbian Case For Space

eurisy
ACTING COLLECTIVELY TO
BRIDGE SPACE AND SOCIETY



Strato **WAVE**
Connect

Strateški projekti naše civilizacije



- Očuvanje Zemlje za opstanak civilizacije
- Svemir kao potrební izazov civilizacije

Provedba

Znanost, tehnologija, obrazovanje

Dugoročno planiranje u znanosti

Voyage 2050 » White Papers

Home

Workshop programme

White Papers

Senior Committee

Topical Teams

Call for Membership of Topical Teams

Call for White Papers

VOYAGE 2050

LONG-TERM PLANNING OF THE ESA SCIENCE PROGRAMME

WHITE PAPERS

The following table lists the White Papers that were submitted in response to a Call issued in March 2019. The papers are listed in alphabetical order of the lead author. Click on the title of the White Paper to download each individual pdf file. A zipped file of all White Papers can be downloaded [here](#) (410MB).

White Paper Title	Lead Author	Lead Author Institute
Enabling the sustainable space era by developing the infrastructure for a space economy	Anglada Escude, Guillem	Institute de Ciencies de l'Espai - Consejo Superior de Investigaciones Cientificas, Spain
The Search for Living Worlds and the Connection to Our Cosmic Origins	Barstow, Martin	University of Leicester, United Kingdom
Quantum Technologies in Space	Bassi, Angelo	University of Trieste, Italy
A Space Mission to Map the Entire Observable Universe using the CMB as a Backlight	Basu, Kaustuv	Argelander-Institut fur Astronomie, Germany
High Precision Particle Astrophysics as a New Window on the Universe with an Antimatter Large Acceptance Detector In Orbit (ALADInO)	Battiston, Roberto	Dipartimento di Fisica, Università di Trento, Italy
The local dark sector: Probing gravitation's low acceleration frontier	Bernal, Joel	ONERA

EU harmonizacija u svemirskoj tehnologiji



→ EUROPEAN SPACE TECHNOLOGY MASTER PLAN

Space19  edition



EUROPEAN SPACE TECHNOLOGY HARMONISATION

The purpose of the European Space Technology Harmonisation is to achieve better and more coordinated Space Technology Research and Development activities among all European actors.

The European Space Technology Harmonisation has been developed to achieve better coordinated research and development (R&D) activities among all actors of European space sector and to establish a strong technology base as a key to the worldwide competitiveness of European industry and to the success of future space missions.

The Technology R&D Harmonisation provides to all European actors the framework and the key instruments to coordinate Space Technology at European level. This is achieved essentially by identifying the needs and existing capabilities within Europe (documented in Technology Harmonisation Documents) and by agreeing on European Space Technology Roadmaps, through a process of concertation, coordination, and agreement between all participants. These joint roadmaps aim at optimising public funding and guiding developments to ensure the right technology is at the right maturity at the right time.

Harmonisation is a voluntary process, based on transparency and exchange of information. The continuous support from all participants is key to the success of this European initiative.

For nearly two decades of operation, and several major reviews recommending its strengthening, the Technology Harmonisation is now an established well proven European process.

The European Commission and ESA have been further strengthening the coordination in the context of the European Space Harmonisation process, with the aim to continue using it as an instrument of coordination at European level.



European
space technology
harmonisation

MAIN OBJECTIVES

Objective 1

"Fill strategic gaps" and
"Minimise unnecessary
duplications"

Objective 2

Consolidate European
Strategic capabilities

Objective 3

Achieve a coordinated and
committed European Space
Technology Policy and
Planning

Objective 4

Contribute to continuity
and coherence between
Technology and Industrial
Policies



PROPOSALS FOR TECHNOLOGY

The Ministerial Council 27-28 November 2019

ESA's Ministerial Councils bring together its Member States and observers every two to three years to decide on new proposals and funding for the following years. The previous Ministerial Council was held in December 2016. The next one, called "Space9+", will be held 27-28 November 2019. European ministers in charge of space activities will gather in Seville, Spain, to decide on ESA's vision for the future of Europe in space.

"Space9+" will be an opportunity to direct Europe's next generation ambitions in space, and address the challenges facing not only the European space sector but also European society as a whole. This proposal includes the Director General's plan for space programmes to be carried out by the Agency beyond 2019, and covers all aspects of space activities: science and exploration, applications, access to space, operations, research and development. It also puts ESA in a world-leading position in the emerging field of space safety and security.

From CM16 to Space19: the 5th dimension of Space 4.0

Space is a strong actor for many parts of our life. At the ESA Council at Ministerial Level and the idea of Space 4.0 was introduced as an overall concept for future developments. Space 4.0 was explained having several aspects which can be summarised by the keywords: inform, innovate, interact, inspire.

All space activities serve specific interests and needs, which means that space also has a fifth dimension: infrastructure.

Space has the enormous power of delivering concrete information, innovation and benefits while at the same time offering geopolitical support to bridge Earthly crises. Such an overarching function can best be described by the term "infrastructure", without being moved in the corner of a commodity. Space is used as an infrastructure for different activities from Earth Observation, Navigation, Telecommunication to Science and Exploration and the technologies developed for space are at the same time innovation drivers for the non-space sector.

Space: Infrastructure for Daily Life and more

Space provides the infrastructure for personal mobility, communication for work or when on vacation, weather forecasting, precision farming to maximise crop harvesting and crop rotation, banking transactions, management of precious resources such as potable water, monitoring of forest fires, archaeological investigations, scientific knowledge and the dream of expanding the reach of humanity. These and many more activities rely today on space data and the infrastructure to generate this data and enable its use.

Space has become an integral, though largely invisible, part of day-to-day activities. The perception however is not there yet. The majority of the wider public still sees space, beyond space science and exploration activities, as the remit of

Razvoj kritičnih svemirskih tehnologija u EU



Critical Space Technologies
for
European Strategic Non-Dependence

Actions for 2021-2023

Kako dalje za A3?

Međusobno upoznavanje članova

- Pokretanje projekata:
 - Podrška državnih struktura kroz svemirsku strategiju
 - Podrška gospodarskog sektora
 - Međunarodno umrežavanje

Dobiti status svemirskog ureda

NADAM SE TO JE POČETAK NOVE FAZE RAZVOJA A3

Hvala na pozornosti