A Space Strategy for Europe

European Parliament resolution of 12 September 2017 on a Space Strategy for Europe (2016/2325(INI))

The European Parliament,

– having regard to Article 4, and to Article 189 of Title XIX, of the Treaty on the Functioning of the European Union (TFEU),

– having regard to the Commission communication of 26 October 2016 entitled ‘Space Strategy for Europe’ (COM(2016)0705),

– having regard to the Commission communication of 28 February 2013 entitled ‘EU space industrial policy’ (COM(2013)0108),

– having regard to the Commission communication of 4 April 2011 entitled ‘Towards a space strategy for the European Union that benefits its citizens’ (COM(2011)0152),


– having regard to the Commission communication of 14 September 2016 entitled ‘5G for Europe: An Action Plan’ (COM(2016)0588) and the accompanying Commission staff working document (SWD(2016)0306),


– having regard to the Paris Agreement, Decision 1/CP.21 and the 21st Conference of the Parties (COP21) to the UNFCCC and the 11th Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP11) held in Paris, France from 30 November to 11 December 2015,


– having regard to Decision No 541/2014/EU of the European Parliament and of the Council of 16 April 2014 establishing a Framework for Space Surveillance and Tracking Support³,


– having regard to the relevant Council conclusions and to the ministerial ‘Declaration of Amsterdam’ of 14 April 2016 on cooperation in the field of connected and automated driving,

– having regard to the The Hague Manifesto on Space Policy of June 2016,

– having regard to the joint statement on shared vision and goals for the future of Europe in space by the European Union and the European Space Agency, signed by the Commission and the Agency on 26 October 2016,

– having regard to its resolution of 8 June 2016 on space capabilities for European security and defence⁵,

– having regard to its resolution of 8 June 2016 on space market uptake⁶,

– having regard to its resolution of 10 December 2013 on EU Space Industrial Policy, releasing the Potential for Growth in the Space Sector⁷,

– having regard to its resolution of 19 January 2012 on a space strategy for the European Union that benefits its citizens⁸,

– having regard to its resolution of 7 June 2011 on transport applications of Global Navigation Satellite Systems – short- and medium-term EU policy⁹,

¹ OJ L 122, 24.4.2014, p. 44.
⁵ Texts adopted, P8_TA(2016)0267.
⁸ OJ C 227 E, 6.8.2013, p. 16.
having regard to the study of January 2016 on Space Market Uptake in Europe¹,

having regard to Rule 52 of its Rules of Procedure,

having regard to the report of the Committee on Industry, Research and Energy and the opinions of the Committee on Foreign Affairs, the Committee on the Internal Market and Consumer Protection, the Committee on Transport and Tourism and the Committee on Fisheries (A8-0250/2017),

A. whereas the benefits of space for society are manifold and can lead to a more competitive economy for Europe by stimulating the development of many new products and services, and by supporting agriculture, forestry, fisheries and maritime transport; whereas satellite technology can lead to better access to communication technologies, high-resolution Earth observation systems that allow for the exchange of information in real-time, a rapid response to natural disasters, and more effective border and security controls;

B. whereas space technologies, data and services can support a variety of EU public policies and key political priorities, such as boosting the Digital Single Market, stimulating the European economy and tackling climate change;

C. whereas space is not a cost for European citizens but an investment, and whereas an ambitious space strategy can ensure the EU’s autonomy and positioning in the strategic area of space, while also boosting growth, competitiveness and the creation of jobs in space-related manufacturing, operations and downstream services;

D. whereas the political decisions taken by Parliament and the Council in 2007 resulted in the allocation of a budget for the European satellite navigation programmes – the European Geostationary Navigation Overlay Service (EGNOS) and Galileo – and provided for an agreement on the governance structure of the programmes;

1. Welcomes the Commission communication entitled ‘Space Strategy for Europe’ and endorses the Commission’s full commitment to maximising the economic and societal benefits of space, increasing the use of space technologies and applications to support public policies, fostering a globally competitive and innovative European space sector, reinforcing Europe’s autonomy in space, and strengthening Europe’s role as a global actor as well as international cooperation in space;

2. Reminds the Commission that it is imperative to ensure the continuity of EU space programmes and to reflect on the future evolution of Galileo and Copernicus, in particular in order to create a positive and predictable investment climate in the downstream sector; considers that this can only be achieved if public funding of the space flagship programmes, and a downstream data infrastructure, is guaranteed in the long term, whilst recognising the need for significant private sector involvement;

3. Highlights the achievements in space of the Member States, the European Space Agency (ESA) and the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) using new technologies, exploration missions, and Earth-observation and meteorology capabilities;

4. Believes that it is necessary to evaluate the Galileo and Copernicus programmes before the Commission presents its new legislative proposals as part of the next MFF; considers that this evaluation should address, among other matters: the future role of the European GNSS Agency (GSA) in Galileo and its potential role in Copernicus; how to simplify the GSA’s relationship with the ESA; and the current split between the agency’s core and delegated tasks; urges the Commission, in this regard, to ensure that the GSA has the capacity to take on new tasks before any are conferred upon it;

5. Stresses that the outcome of the evaluation should also feed into future discussions on the relationship between the EU and the ESA, taking into account the joint EU-ESA statement signed on 26 October 2016; calls on the Commission to study, in cooperation with the ESA, different options by which the complicated institutional landscape in European space governance can be simplified, thereby improving the allocation of responsibilities in the interests of greater effectiveness and cost efficiency;

6. Stresses that the GSA should be adequately staffed to safeguard smooth functioning and exploitation of the European GNSS programmes; asks the Commission to review the adequacy of resources allocated to the GSA, taking into consideration its current and future tasks; considers that the staffing policy and procedure should be adapted in light of the new tasks conferred on the GSA, in compliance with the Interinstitutional Agreement of 2 December 2013;

7. Stresses that in order to meet current and future challenges, the next EU budget should include a space budget larger than the current one to support the entire value chain (space and ground segment, Earth observation, navigation and communications), to be ensured in the course of the upcoming MFF review; reiterates that the successful development of downstream markets depends in particular on the timely implementation and continuous evolution of the Galileo and Copernicus programmes, the adequate financing of which should be a priority; emphasises the need to preserve and develop the European added value and unique contribution of the EU space programmes when making budgetary decisions in the next MFF;

8. Invites the Commission to examine the possibility of taking advantage of synergies between EU space programmes, so as to increase effectiveness and cost efficiency; believes also that the exchange of information between the EU agencies involved in EU space policy should be intensified in order to achieve further synergy effects; points out that the fields of activity are increasingly converging; calls on the Commission to publish an annual report on the nature and extent of cooperation among the EU agencies;

9. Stresses the importance of identifying and addressing any existing obstacles to the functioning of the internal market in the area of space-based products and services;

**Maximising the benefits of space for society and the EU economy**

10. Highlights the fact that space programmes and their services are key assets in policy areas and economic sectors such as energy, climate, environment, security and defence, health, agriculture, forestry, fisheries, transport, tourism, the digital market and mobile communications, regional policy and local planning; believes that there is a huge potential in tackling challenges such as migration, border management and sustainable development; highlights also the importance of a European space strategy for a
comprehensive EU maritime policy; notes also the significant benefits to society of the economic use of remote sensing satellites and systems;

11. Calls on the Commission to accelerate the full economic exploitation of the Galileo, EGNOS and Copernicus programmes by: setting adequate targets for market uptake; improving access to, and the processing of, Copernicus data in order to enable enterprises, particularly SMEs and start-ups, to develop applications based on space data; ensuring better integration with other digital services – such as intelligent transport systems, the European railway traffic management system, river information services, SafeSeaNet as well as conventional navigation systems – and enlarging the potential of space solutions; stresses the benefits to citizens and businesses of satellite navigation and earth observation data and services;

12. Welcomes the Commission’s actions in procuring cloud platforms for Earth observation data, to ensure that Europe reaps the full economic benefit of its flagship space programmes and to establish sustainable user access and competence building; urges the Commission to speed up its work in this area so that the first data platforms can be operational in 2018; believes that all tenders for these platforms should be open to private actors;

13. Asks the Commission to evaluate the functioning of the Copernicus Entrusted Entities, in particular with a view to simplifying and streamlining their tendering procedures, in order to make it easier for SMEs to apply;

14. Stresses the need to ‘space proof’ legislation, and reiterates its request, made in its aforementioned resolution on space market uptake, for the Commission to carry out a systematic ‘space check’ before it tables any new legislative and non-legislative proposals; calls on the Commission to remove barriers to the use of space technologies by the public sector, e.g. for monitoring compliance with new and existing European legislation; believes that public policy can be improved considerably by using space technology, building on examples such as eCall and the digital tachograph; asks the Commission and the Member States to stimulate uptake of space technology by European, national, regional and local authorities, for example by buying European Earth observation data or services to meet policy objectives;

15. Points to the pilot project on cleaner space through deorbiting and innovative materials for space equipment, which is designed to test the feasibility and effectiveness of a future Joint Technology Initiative (JTI) applied to the space sector; recognises that adequate resources, both public and private, are essential to ensuring the sustainability and competitiveness of the European space sector, and to developing the role of the EU as a global player in space;

16. Believes that the contribution of Copernicus in tackling climate change should be developed further; calls on the Commission to establish, as soon as possible, the Copernicus-based capacities to monitor greenhouse gas emissions, including CO² emissions, that are currently being developed under Horizon 2020¹, with a view to addressing the needs enshrined in the COP21 agreement, and to allowing the efficient

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implementation thereof; supports the development of future satellites dedicated to the monitoring of CO₂ and methane;

17. Welcomes the Galileo declaration of initial services of 15 December 2016; stresses that the widespread use of the Galileo signal is a precondition for the development of a strong downstream market for space-based applications and services, and that adequate measures – including, where appropriate, regulatory ones – should be taken to make full compatibility with Galileo and EGNOS the standard for devices sold in the EU, and to encourage the take-up of Galileo- and EGNOS-ready devices on the global market; invites as well the Commission to consider measures to strengthen the competitiveness of the European GNSS downstream industry;

18. Calls on the Commission to ensure that GNSS-based clocks in critical infrastructure are Galileo- and EGNOS-ready, which is highly relevant from a security perspective;

19. Highlights the ability of satellites to provide uninterrupted, very high-capacity connectivity, in particular in remote areas and outermost regions, which is essential for overcoming the digital divide, for the development of high-speed networks and for the expansion of the Internet of Things networks, enabling services such as autonomous driving, smart fleet and freight management, e-governance, e-learning and e-health applications; emphasises the complementarity of terrestrial and space-based technologies for delivering very high-capacity networks; insists that the Commission recognise this and take appropriate account of the contribution of satellites in this domain; stresses as well the need to reserve adequate frequency bands for the operation of such satellite services; calls for this to be addressed in the current legislative work on telecommunication networks, with adequate investments made in R&D; believes as well that the Space Strategy for Europe should be implemented in coordination with the Commission’s digital strategies, with the support of Member States and industry, so as to promote effective and demand-driven use of satellite communications in order to foster ubiquitous connectivity in the whole of the EU;

20. Underlines the important role of the European Structural and Investment Funds (ESIF) in stimulating downstream space markets, most importantly through public procurement, including in countries that do not yet have a large space sector, noting that this should be addressed in the ongoing discussions about the future of cohesion policy; supports the introduction of targeted capacity-building measures to assist the Member States and regions with emerging space capabilities; highlights the fact that the regional dimension is essential in bringing the benefits of space to citizens, and that the involvement of local and regional authorities can create synergies with smart specialisation strategies and the EU Urban Agenda; supports, therefore, an increased involvement of regional and local authorities in a successful EU space policy, including the Outermost Regions and Overseas Countries and Territories; underlines the fact that the Committee of the Regions should be a member of the Copernicus user forum in order to highlight the importance of regional and local actors as users of Copernicus data;

21. Stresses that users such as SMEs and local and regional authorities are still not sufficiently aware of funding opportunities, including those made available by the European Investment Bank, for projects with links to Galileo or Copernicus, and that the targeted dissemination of information about these opportunities should be improved without delay;
22. Acknowledges the role of space technologies, and of the two EU flagship space programmes, in making land, maritime, air and space transport smarter, safer, more secure and sustainable, and integrated in strategic future sectors such as self-driving and connected cars, and unmanned aerial vehicles; believes that the Space Strategy can contribute to meeting new transport needs of secure and seamless connectivity, and more robust positioning, intermodality and interoperability; encourages the Commission to include transport stakeholders in the dialogue with the space sector so as to ensure transparency, and to facilitate the uptake of European space technology in the transport market with a view to enhancing the competitiveness of EU transport services on the European and global market; asks the Commission and the Member States to pay attention to the development of space tourism;

23. Calls on the Commission to support the implementation of EGNOS-procedure landings for smaller airports, but also for larger airports; reiterates the financial advantages and the increased accuracy, resilience and safety that EGNOS could provide for the use of safety-critical applications such as aircraft landings, and reiterates the importance of extending EGNOS coverage to south-eastern and eastern Europe, as a priority, and further to Africa and the Middle East; considers as well that Galileo could play a key role in air traffic control as cornerstone for the transition from radar-based to satellite-based surveillance;

24. Stresses, furthermore, the importance of aircraft equipped with space-based Automatic Dependent Surveillance-Broadcast (ADS-B) technology, and of mandating operators to equip aircraft with ADS-B, in order to ensure accuracy and reliability in real-time tracking of aircraft and to save fuel;

25. Stresses the importance of EU space programmes for marine and maritime issues, fishing activities and the blue economy in general, for example in: tackling illegal, unreported and unregulated fishing; surveying and assessing the state and health of the oceans and fish stocks; supporting fish farm productivity; facilitating maritime research; and providing search and rescue services as well as satellite connections for on-board medical equipment; points, in this regard, to the need for space-based ocean surveillance capacities and good coordination between Galileo, EGNOS and Copernicus services;

**Fostering a globally competitive and innovative European space sector**

26. Stresses that the success and competitiveness of the space sector, and the development of breakthrough technologies, are highly dependent on research and innovation; calls for the enhancement and extension of the dedicated space budget line under Framework Programme 9; highlights the importance of full cooperation between the EU, the ESA and the Member States to ensuring efficiency and avoiding duplications, in particular in areas where several actors provide research funding; believes that research and innovation should be stimulated and financed to benefit a broad array of space technologies; urges the Commission to extend the use of the SME instrument for scaling-up business opportunities in space-based products and services, both within Horizon 2020 and in future Framework Programmes;

27. Calls on the Commission, in the context of public procurement, to ensure fair treatment of EU enterprises vis-à-vis enterprises from third countries, specifically by taking into consideration the prices that companies charge to other customers worldwide, in an effort to ensure that rules are respected and that market players abide by fair practices, with a view to ensuring a level playing field; points out that the European space industry is
facing increasingly fierce international competition; welcomes the Commission’s proposal to strengthen the use of innovative procurement schemes;

28. Highlights the importance of reinforcing the European industrial base, and of guaranteeing the EU’s strategic autonomy, by diversifying sources of supply and making the best use of multiple EU providers; considers, therefore, that the involvement of industry at all levels needs to be promoted in a balanced way, and calls on the Commission to support the European space sector throughout the value chain; believes that space clusters can play a useful role in a space-industrial strategy;

29. Calls on the Commission to support the Europe-wide development of new space business models and technologies capable of revolutionising the sector and reducing costs (e.g. European technologies that make it possible to send small satellites into space, such as reusable balloons or launchers);

30. Asks the Commission, with a view to creating a level playing field for space businesses, to consider the situation and needs of SMEs when determining the duration of public contracts in the area of space infrastructure and services;

31. Emphasises the need to invest more decisively in education and training of European citizens in the area of space, including in order to be able to fully exploit the opportunities created by space during the shift to a digital society; highlights the importance of space policy achievements in inspiring future generations and fostering a sense of European identity; stresses, therefore, the need to continue and expand a coordinated approach for European space education that can attract young people to pursue careers in space science and technology;

32. Stresses that participation in ESA’s optional programmes, in the framework of which European businesses and universities or research institutes can participate in preparing cutting-edge technologies for space missions and systems, is a basic and fundamental tool for developing the capacity of the European space industry; stresses that involvement in such programmes opens the way to entrepreneurship in this area, and to accessing highly technology- and knowledge-intensive scientific projects, which can also have a positive impact in the transport sector;

Reinforcing Europe’s autonomy in accessing and using space in a secure and safe environment

33. Recalls that EU space programmes are of a civil nature and reiterates its commitment to the non-militarisation of space; recognises nonetheless the strategic dimension of the space sector for Europe and the need to improve synergies between civil and security / defence aspects, and to make use of space capacities to meet security and safety needs, also taking account of the geopolitical environment and the Common Security and Defence Policy; believes that the Commission should analyse synergies between European space programmes and the European Defence Action Plan proposed in November 2016 to ensure overall coherence in this strategic field;

34. Calls on the Commission to aggregate the demand of institutional customers from the European Union and the Member States to ensure an independent, cost effective and reliable access to space through the use of the European launchers Ariane, Vega and their
future evolutions; believes that this is of utmost strategic importance for contingency and crisis management functions and for a resilient European security and defence policy;

35. Supports the objective of the Commission to assess different ways to support European launch infrastructure facilities, where this is needed to meet EU policy objectives and needs, in terms of autonomy, security and competitiveness; stresses, consequently, the strategic importance of the European Spaceport based in Kourou (French Guiana) and the need to pay close attention to the economic and social benefits for the territory in which it is located;

36. Recalls that the notion of independent access to space cannot be dissociated from the independent capacity of Europe to conceive, develop, launch, operate and exploit space systems;

37. Notes a lack of visibility as to the continuation of the launch vehicle programme in Europe beyond the next three to four years (Ariane 6 and Vega C), and as to the financial situation for this programme; expresses concern at the lack of any mid- to long-term launch programme; urges the Commission to come forward with a work programme for launch vehicles in Europe for the next 20 years;

38. Calls on the Commission to encourage the development of alternative launching technologies and the inclusion of eco-design principles in all launchers and space assets;

39. Considers that in the next generation of satellite systems the security of the Galileo infrastructure, including the ground segment, and the dual-use capacity of Galileo and Copernicus should be developed further, along with better precision and encryption; recalls that the Galileo Public Regulated Service’ (PRS), restricted to government-authorised users, could play an important role in the future for responding to evolving threats, particularly in the event of a crisis;

40. Draws attention to the vulnerability of space infrastructure to interference or attack from state and non-state actors and to a range of other threats, including collisions with space debris or other satellites; reiterates the importance of securing critical infrastructure and communications as well as the development of resilient technologies; recognises the growing significance of space and space-based technologies for dual use, particularly in communications, intelligence, surveillance and reconnaissance, disaster response and arms control, and underlines the vital importance of space capabilities in the fight against terrorism; further encourages investments to speed up the development of new space capabilities and technology; believes it necessary to enhance capabilities to address emerging threats in space, which would in turn strengthen the ability of Europe’s space sector to respond to changing markets, actors and technologies;

41. Calls on the Commission to mitigate the risks presented by space debris by enhancing current space surveillance and tracking (SST) services with the aim of setting up a programme for an independent system capable of recognising threats posed by space debris to European space infrastructure, underpinning measures to avoid collisions and, in the longer term, actively removing debris; supports the plan to extend the scope of EU SST to allow space-based weather forecasts, and proposes an additional focus on near-earth objects to counter the potentially catastrophic risk of any such object colliding with Earth; emphasises that capabilities and expertise in these fields, including those available
at the ESA, should be built on and expanded; reaffirms the need to provide as much open data as possible in order to foster research and innovation;

42. Recalls the growing importance of cybersecurity for space programmes, and notes that this problem is particularly serious given that a large part of our economy relies on space-related services; calls on the Commission to mitigate the risks for EU space assets by taking adequate measures, including, where appropriate, the use of encryption, for the protection of space-related infrastructure against cyber-threats; asks, furthermore, the Commission to ensure that all relevant agencies have contingency plans in place for possible cyber-attacks;

43. Considers the planned Govsatcom initiative as a promising measure to ensure access to secure, efficient and cost-effective services for European institutional actors, addressing user needs in a wide range of areas, while, at the same time, stimulating growth, competitiveness and innovation throughout the whole European satellite telecommunications sector; calls on the Commission, if the impact assessment is sufficiently positive, to design the planned Govsatcom initiative in a cost-effective way – which may include the pooling and sharing of capabilities, or the purchasing of services from certified commercial communication satellites – and to ensure that the initiative creates significant added value and avoids duplicating existing structures;

44. Underlines the importance of a comprehensive European space policy, aimed at effectively contributing to enhancing the Common Foreign and Security Policy by means of providing relevant institutions with independent intelligence, such as real-time situational awareness;

Strengthening Europe’s role as a global actor and promoting international cooperation

45. Calls on the Commission to promote EU space assets and space industrial capacity in all relevant aspects of its external relations;

46. Believes that ensuring a peaceful and safe space environment will require engagement with international partners to promote norms of responsible behaviour and sustainability, notably in relation to space exploration, and calls on the Commission to work closely with the EEAS and the Member States in this regard;

47. Highlights the need for international coordination on space traffic and debris management, which are bound to increase owing to the planned installation of so-called ‘mega-constellations’ and to the congestion of near-earth orbits that may result from the continued lowering of satellite launch costs;

48. Asks the Commission to monitor existing private sector objectives in areas such as space mining and to consider what impact these could have on the current legal framework and, in particular, the Outer Space Treaty; considers that the basic principles of the Treaty should be upheld and that it is necessary to avoid a race for depletable resources in space; urges the Member States to work toward a coordinated European approach, and calls on the Commission to take the lead in brokering a consensus; recognises that space is the common heritage of mankind;

49. Strongly welcomes the Commission’s intention to use economic diplomacy to open up new business opportunities for the European space industry; stresses that European
players in third-country markets should be supported by the Commission and, where relevant, Member State authorities, either individually or through the ESA, and by bodies such as the European Aviation Safety Agency (EASA); recommends that plans for such coordinated support be drawn up in advance;

**Ensuring effective delivery**

50. Highlights the fact that Parliament should play an active role in the development of EU space policy and that it should be involved in all exchanges conducted by the Commission, the Council, the EEAS and the ESA on space-related topics;

51. Considers that democratic support is important for investing in space; calls on the Commission to present a well-designed and comprehensive communication strategy about the benefits of space technologies for citizens and businesses; urges the Commission, in implementing this strategy, to base it on the following three pillars, each addressing an important audience group: (a) raising awareness with the public of the necessity of investments in space; (b) informing SMEs and entrepreneurs about the opportunities of the space flagship programmes; (c) including space in education in order to close the skills gap; asks the Commission to present Parliament with a roadmap on the creation of this communication strategy as soon as possible;

52. Calls on the Commission to draw up a timetable for the implementation of the measures proposed in the strategy, to report regularly on its implementation, to propose legislation where necessary and to devise additional concrete and tangible actions needed to achieve in a timely fashion the aims outlined in the strategy;

53. Instructs its President to forward this resolution to the Commission, the Council, the governments and parliaments of the Member States and the European Space Agency.