

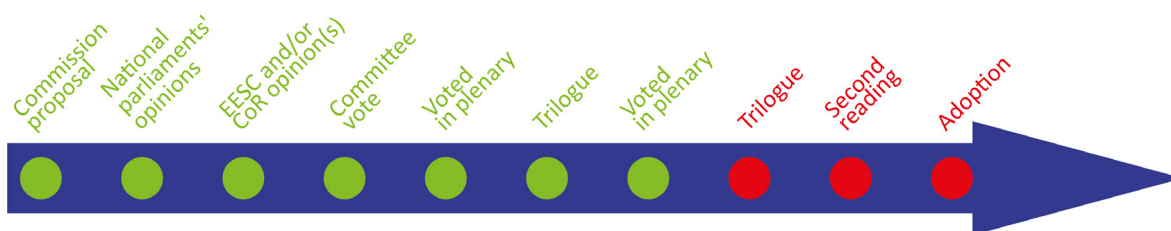
EU space programme

OVERVIEW

In June 2018, the European Commission proposed a total budget allocation of €16 billion to finance space activities during the 2021-2027 period. The bulk of this, €9.7 billion in current prices, would be allocated to Galileo and EGNOS, the EU's global and regional satellite navigation systems, €5.8 billion would be allocated to Copernicus, the EU's Earth Observation programme, and €500 million would be earmarked for security, such as the Space and Situational Awareness (SSA) programme and the new Governmental Satellite Communication initiative (GOVSATCOM) to support border protection, civil protection and humanitarian interventions, for instance. The main aims of the new space programme are to secure EU leadership in space activities, foster innovative industries, safeguard autonomous access to space and simplify governance. The space programme would upgrade the European Global Navigation Satellite Systems (GNSS) Agency by expanding its tasks and transforming it into the new EU Agency for the Space Programme. In April 2019, after several trilogue meetings, Parliament and Council reached a partial agreement on the programme, covering the content, but not, among other things, budgetary issues. Parliament adopted its position at first reading in April. Further discussions on the outstanding issues can be expected once Council reaches agreement on the overall multiannual budget.

Proposal for a regulation establishing the space programme of the Union and the European Union Agency for the Space Programme and repealing Regulations (EU) No 912/2010, (EU) No 1285/2013, (EU) No 377/2014 and Decision 541/2014/EU

<i>Committee responsible:</i>	Industry, Research and Energy (ITRE)	COM(2018) 447 6.6.2018
<i>Rapporteur:</i>	Massimiliano Salini (EPP, Italy)	2018/0236 (COD)
<i>Shadow rapporteurs:</i>	Constanze Krehl (S&D, Germany) Evžen Tošenovský (ECR, Czech Republic) Caroline Nagtegaal (ALDE, the Netherlands) Jaromír Kohlíček (GUE/NGL, Czech Republic) Davor Škrlec (Greens/EFA, Croatia) Dario Tamburrano (EFDD, Italy) Christelle Lechevalier (ENF, France)	Ordinary legislative procedure (COD) (Parliament and Council on equal footing – formerly 'co-decision')
<i>Next steps expected:</i>	Resumption of trilogue negotiations	



Introduction

With more than 30 satellites currently in orbit and over 25 planned for the next 10 to 15 years, the EU is the largest institutional customer for launch services in Europe. According to the European Commission, the [strategic importance](#) of the space sector for the Union has increased, as has the need for the European space sector to adapt to the changing global environment. Space technology, data and services have become indispensable to the daily lives of the public and to the EU's strategic interests. Space can play a crucial role in tackling new challenges such as climate change, sustainable development, border control, maritime surveillance and security.

It was against this backdrop that the European Commission announced a new space programme on 6 June 2018. The new proposal was presented in the context of the proposals for the new [multiannual financial framework \(MFF\)](#) and builds on the October 2016 [space strategy for Europe](#). Both the Council – in its [conclusions](#) adopted on 30 May 2017 – and the European Parliament – in its [resolution](#) adopted on 12 September 2017 – had welcomed the Commission's 2016 space strategy.

The new [proposal](#) for a regulation establishing the space programme of the Union and the European Union Agency for the Space Programme (COM(2018) 447) aims to ensure that EU remains a [global leader](#) in the space domain. Today, the EU's space sector employs over 231 000 people, and its value was estimated at €53-62 billion in 2017. In this regard, the new programme intends to continue investing in EU space activities, foster technical progress (e.g. high-performance computing) and support the competitiveness and innovation of the European space industry, in particular small and medium-sized enterprises (SMEs) and start-ups. The proposed MFF allocates [€16 billion](#) (at current prices)¹ for the 2021-2027 period.

Context

Every seven years, the EU decides on its long-term budget. On 2 May 2018, the European Commission proposed the next multiannual financial framework (MFF) for the 2021-2027 period. It had already presented [various options](#) (and their financial consequences) for a framework that would deliver efficiently on EU policy priorities after 2020. The 2001-2027 MFF will be the first for an EU of 27 Member States, taking account of the budgetary consequences of the expected [withdrawal](#) of the United Kingdom. Brexit has triggered not only a debate on the future financial architecture of the EU, but also a [discussion](#) on UK companies' direct involvement in the EU space programme and the EU's new satellite navigation system.

Existing situation

At present, the space sector is governed by the following EU legislation:

- › [Regulation \(EU\) No 1285/2013](#) on the implementation and exploitation of the European satellite navigation systems, Galileo and EGNOS;
- › [Regulation \(EU\) No 377/2014](#) establishing the Copernicus programme;
- › [Decision No 541/2014/EU](#) establishing a framework for space surveillance and tracking support (SST);
- › [Regulation \(EU\) No 912/2010](#) setting up the European GNSS Agency;
- › [Decision No 1104/2011/EU](#) on the rules for access to the public regulated service provided by the Galileo system; and
- › [Council Decision 2014/496/CFSP](#) on aspects of the deployment, operation and use of the Galileo system affecting the security of the European Union.

The European Commission is the programme manager responsible for the EU space policy and sets its priorities and takes operational decisions. The [European GNSS Agency](#) (GNSS Agency or GSA) manages public interests relating to European Global Navigation Satellite Systems ([GNSS](#)) programmes, European Geostationary Navigation Overlay Systems ([EGNOS](#)) and [Galileo](#), the

European global satellite-based navigation system. The intergovernmental [European Space Agency \(ESA\)](#) is the majority partner in technical and operational programme implementation. In this context, ESA is responsible for the development, design and construction of the Copernicus space infrastructure. [Copernicus](#) is the European Earth Observation Programme. The EU fully finances, owns and manages Copernicus, Galileo and EGNOS. The Union allocated some €12.6 billion to space activities for the 2014-2020 period, under the budget heading / policy cluster 'Single market, innovation and digital'.

Parliament's starting position

Parliament has adopted several resolutions on the EU's space activities,² the most relevant to the new proposal being the September 2017 [resolution](#) on the space strategy for Europe. In this resolution, Parliament welcomes the space strategy, but urges the Commission, inter alia, to seek greater coherence and efficiency. It calls on the Commission 'to study 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'. It also calls for a greater space budget allocation in the upcoming MFF. Parliament also 'reiterates that the successful development of downstream markets depends in particular on the timely implementation and continuous evolution' of the Galileo and Copernicus programmes. Here, it calls for acceleration of the full economic exploitation of the Galileo, EGNOS and Copernicus programmes by setting adequate targets for market uptake.

Parliament considers the GOVSATCOM initiative to be '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'. Regarding space infrastructure and services, Parliament asks the Commission to consider the situation and needs of small and medium-sized enterprises (SMEs) when determining the duration of public contracts. Finally, Parliament calls on the Commission to present a comprehensive communication strategy on the benefits of space technologies for citizens and businesses. This strategy should be based on the following three pillars: raising public awareness of the need for investment in space; informing SMEs and entrepreneurs about the opportunities of the flagship space programmes; and including space in education in order to close the skills gap.

Preparation of the proposal

The new space programme regulation is based on several evaluations, mid-term reports, external studies, workshops, stakeholder consultations and fitness checks of existing legislation.³ It is also part of the follow-up to the [White Paper on European space policy](#)⁴ and the [space strategy for Europe](#), which focused on four strategic goals: maximising the benefits of space for society and the EU economy, fostering a competitive and innovative European space sector, reinforcing Europe's strategic autonomy in accessing and using space in a secure and safe environment, and strengthening Europe's role as a global actor and promoting international cooperation.⁵

In line with 'better regulation' policy, the proposal came with an [impact assessment](#). This was based on three specific goals: ensuring the continuity of existing space infrastructure and services and developing new or enhanced ones; fostering an innovative European space sector; and maintaining the EU's capacity for autonomous access to space, relying on an independent EU industry, guaranteed access to EU space data and services and using them safely and securely.⁶ In its impact assessment, the Commission summarises stakeholder views collected following an open eight-week public consultation. The consultation was launched at the beginning of January 2018 and covered the broader policy area of strategic infrastructures. Of the 441 responses received, 33 were related to space.

According to the Commission, respondents confirmed the long-term sustainability of Europe's space capability to be an important challenge. Stakeholders called for adequate funding and more simplification as well as less red tape. Regarding the governance structure, some respondents saw scope for better coordination between the various actors and potential for further synergies. The Commission points out that business stakeholders and public authorities share similar views regarding the challenges and the importance of flexibility to react to unforeseen circumstances and new user needs. In this context, it seems that non-governmental organisations have less clear positions – except for their support for action to address environmental and climate issues.

On programme funding, the Commission assessed two options. The baseline scenario consisted of a 15 % reduction in the current budget, taking into account the withdrawal of the UK from the EU. The proposed scenario consisted of a sustained level of funding, increased by 50 %, compared with the current budget. The baseline scenario was considered insufficient to achieve the objectives of the Union space policy as set out in the space strategy for Europe. Under the baseline scenario EGNOS would remain operational for the most part. As for Galileo, a decrease in the current budget would lead to a gradual degradation of its infrastructure and services and ultimately to the shutting down of its activities in future decades. Similar consequences could be expected for Copernicus, which could barely continue, let alone make any improvements (e.g. replacing satellites). The proposed scenario would ensure continuity in the operations and service provision by the constellation of Galileo's 30 satellites, and technological evolution, which would contribute to second-generation deployment, while also supporting the flourishing of the applications markets.⁷

For GOVSATCOM, a self-standing [impact assessment](#) was conducted. This assessment analysed the baseline and several policy options sharing a common set of underlying core elements, including common security requirements, synergies from aggregating national and EU demand, coordinating supply, civil-military coherence, economies of scale and efficiency gains, strengthening of Union autonomy and industrial competitiveness.⁸

EPRS has prepared an [initial appraisal](#) of the Commission's impact assessment, which found that it fell short of the requirements of the better regulation guidelines, in particular in respect of the costs and benefits of transforming the GSA into an agency for the space programme.

The changes the proposal would bring

The new regulation aims to simplify and streamline the existing Union *acquis* by bringing it together within a single text.⁹ In this regard, the new regulation would replace and repeal four legal texts:

- Regulation (EU) No 1285/2013 on the implementation and exploitation of the European satellite navigation systems, Galileo and EGNOS;
- Regulation (EU) No 377/2014 establishing the Copernicus Programme;
- Decision No 541/2014/EU establishing a Framework for Space Surveillance and Tracking Support (SST); and
- Regulation (EU) No 912/2010 setting up the European GNSS Agency.

The new space programme aims to maintain the existing infrastructure and services and introduce a number of new features. The main goals are:

- 1 **Ensuring leadership:** The new space programme aims to safeguard continuity and evolution of Galileo, EGNOS and Copernicus, the world's most advanced satellite positioning and earth observation systems, and develop new security initiatives on governmental satellite communication (GOVSATCOM) and space situational awareness (SSA).
- 2 **Fostering innovative industries:** The new proposal aims to create innovation partnerships to develop and purchase innovative products and services; facilitate access to testing and processing facilities for innovative start-ups and emerging business models; and promote certification and standardisation. The programme will be rolled out alongside [Horizon Europe](#),

ensuring collaboration between space-related research and innovation actions. The creation of a dedicated equity instrument through the InvestEU programme will also be explored.

- 3 **Autonomous access to space:** The Commission intends to aggregate EU demand for launch services. In this context, it aims to provide investment and support for the use of innovative technology (e.g. reusable launchers), and to contribute to the adaptation of the necessary ground infrastructure. This would ensure Europe's strategic autonomy regarding critical infrastructure, technology, security and defence and contribute to autonomous and cost-effective access to space.
- 4 **Simplifying governance:** The Commission will continue as programme manager, setting priorities and taking operational decisions.¹⁰ The intergovernmental ESA will remain the major partner in technical and operational programme implementation. The GNSS Agency (or GSA) will be renamed the 'EU Agency for the Space Programme' and will support exploitation and market uptake of EU space activities, playing an increased role in security accreditation.

In addition, the proposal provides the Union with a higher space budget with a view to continuing Galileo, EGNOS, Copernicus and space surveillance and tracking support (SST), but also to launching the new GOVSATCOM initiative. While the EU earmarked some €12.6 billion for space activities in the 2014-2020 period, the new MFF envisages a rise in long-term budget allocation, i.e. [€16 billion](#) at current prices for the 2021-2027 period. The Commission is proposing to allocate the €16 billion budget as follows.

- **€9.7 billion for Galileo and EGNOS, the EU's global and regional satellite navigation systems:** The goal is to ensure continuity in operations and to invest in ground infrastructure and satellites. The development of an enhanced precision signal (error margin: 20 cm) and support for market uptake of the satellite navigation services would benefit autonomous and connected cars, drones, robots, the internet of things, smart phones and traffic management.
- **€5.8 billion for Copernicus, the EU's earth observation programme:** This would maintain the EU's autonomy and leadership in high-quality environmental monitoring (e.g. observation of polar areas, forest and water management, land use to support agriculture), emergency support for border and maritime security (e.g. improved detection of small objects such as vessels, monitoring of illegal trafficking). New Copernicus missions, such as CO₂ monitoring, would enable the EU to become a technological leader in the fight against climate change. The Copernicus Data and Information Access Services (DIAS) intends to make it easier for SMEs and start-ups to exploit Copernicus data and develop innovative applications.
- **€500 million for space and situational awareness (SSA) and GOVSATCOM:** The new space programme aims to enhance the performance and autonomy of SSA by further developing space surveillance and tracking of space objects. This would help avoid collisions in space and monitor the re-entry of space objects to earth. It also intends to address space hazards linked to space weather, solar activities and asteroids or comets threatening critical infrastructure. The new GOVSATCOM initiative aims to provide Member States with reliable, secure and cost-effective access to secure satellite communications. Today, the majority of Member States and EU institutions do not own secure communication satellites. GOVSATCOM aims to support police, border protection, diplomatic communities and civil protection and humanitarian interventions, for instance. In this regard, the GOVSATCOM initiative aims to contribute to the objectives of the European defence action plan and the EU's Global Strategy.

Advisory committees

The European Economic and Social Committee appointed Raymond Hencks (Workers – Group II, Luxembourg) to draft an opinion (INT/861-EESC-2018). The EESC [opinion](#) adopted on 17 October 2018, welcomes the Commission proposal. It suggests, however, conducting an

appropriate campaign, so that citizens realise the added value of European space activities. According to the opinion, Europe needs competitive launchers suited to commercial and institutional markets if it wants to maintain its independent access to space in the face of a growing number of launchers. In this context, the opinion encourages the Commission to support research on launch infrastructure.

The European Committee of the Regions (CoR) appointed Andres Jaadla (ALDE, Estonia) to draft an opinion (ENVE-VI/036). The [opinion](#) was adopted in the plenary session of 5-6 December 2018. The CoR opinion welcomes the Commission proposal, but calls on the European Commission to further clarify and elaborate on the concept and creation of space hubs and innovation partnerships, more specifically on the financial and management responsibilities of different actors.

The CoR also welcomes the proposal for a Space Surveillance and Tracking System (SST). Yet it asks the Commission to clarify its scope including the ways through which stakeholders will be involved and existing services integrated. Moreover, data from Copernicus should be further distributed, and additional measures should be deployed to facilitate data access for SMEs.

The CoR, however, regrets that the EU's framework programme for research and innovation does not include dedicated funding on space. Synergies between research and industry are not emphasised enough.

The CoR calls on the Commission to better specify how the new programme will interact with commercial suppliers of security-related data, and to better specify cooperation with private entities including joint procurement options.

National parliaments

The deadline for the submission of [reasoned opinions](#) on the grounds of subsidiarity was 13 September 2018. No reasoned opinion was adopted.

Stakeholders' views¹¹

ESA [welcomed](#) the Commission proposal as it would 'help consolidate the role of Europe in space and provide further impetus to space activities and their use in different sectors in Europe'. According to ESA, the proposed regulation shows that the [EU-ESA framework agreement of 2004](#) has been taken fully into consideration. Earlier, ESA's Director-General had, however, [criticised](#) the Commission's proposal to upgrade the GNSS Agency by expanding its tasks and transforming it into the European Union Agency for the Space Programme. According to the ESA Director-General, there was 'no need to develop a new Space Agency in parallel in Europe, the ramp-up of which would take decades and cost billions and would therefore in itself be a major risk to the programmes it manages. We need to streamline, not double administrative layers'.

The European Association of Research and Technology Organisations, EARTO, also [welcomed](#) the Commission proposal. It believes, however, that 'Space Situational Awareness (SSA) will require some research, in particular the activities related to space weather. According to EARTO, further information will also be needed 'to understand the purpose of including asteroids as space hazards: if it implies to deviate them for a potential impact with the Earth or if other goals are pursued.'

Legislative process

Parliament assigned the file to the Industry, Research and Energy Committee (ITRE), which appointed Massimiliano Salini (EPP, Italy) as rapporteur. An exchange of views in the committee took place on 9 July 2018. The draft report was published on 2 August. The deadline for tabling amendments was 6 September 2018, and more than 600 amendments were submitted. The ITRE committee adopted the [draft report](#) on 21 November 2018.

On 13 December 2018, the plenary adopted Parliament's position and provided the mandate to enter into informal negotiations with the Council. The first trilogue meeting took place on 15 January 2019. At the second one on 26-27 February the co-legislators reached a [partial agreement](#). This covers the content of the programme, but not financial aspects which will not be discussed until the Council has reached overall agreement on the 2021-2027 MFF, nor on certain horizontal provisions that should be consistent across MFF programmes.

The European Commission, however, expressed its [dissatisfaction](#) with the partial agreement and suggested an amended wording of certain paragraphs. The reservations include governance and role sharing between the European Commission, the European Space Agency (ESA) and the future EU Agency for the Space Programme. The Commission, for instance, opposes the mandatory delegation of certain tasks to ESA as it fears that ESA would not adapt its decision-making rules to ensure that a third country could not block a decision (e.g. in view of Brexit). And the possibility of delegating tasks to ESA makes the Commission fear it might lose control over the management of the space programme.

On 13 March 2019, Coreper confirmed the [partial agreement](#). The ITRE committee endorsed this agreement on 25 March 2019, and the plenary then adopted its [position at first reading](#), on 17 April 2019. Some of the agreement's main points are:

- › the regulation establishes the space programme as well as the EU Agency for the Space Programme that will replace and succeed the European GNSS Agency;
- › the financial framework partnership agreement defines the roles, responsibilities and obligations of the Commission, the EU Agency for the Space Programme and the European Space Agency with regard to each component of the space programme and necessary coordination and control mechanisms. In this context, ESA has to apply the EU's security rules, in particular with regard to the processing of classified information;
- › in order to ensure uniform conditions for the implementation of the space programme's security requirements, implementing powers should be conferred on the Commission;
- › to increase the participation of SMEs, for contracts above €10 million, the contracting authority shall ensure that at least 30 % of the value of the contract is subcontracted to companies outside the group of the prime contractor, notably in order to enable the cross-border participation of SMEs.

Provisions related to the protection of security interests, ownership and licence rights (in respect of tangible and intangible assets), and the participation of third countries and/or international organisations in the space programme were not addressed at this stage (e.g. Article 7, Article 8, Article 9(3) and (4), Article 25, Article 32(1)(b)).

In addition, budgetary issues were left outside the scope of the negotiations, as they require the completion of negotiations on the multiannual financial framework 2021-2027. These provisions concern the protection of the Union's budget in case of generalised deficiencies as regards the rule of law in the Member States (Recital (22)), the overall target of EU budget expenditure supporting climate objectives (Recital (13)), cumulative funding (part of recital 8), the overall financial envelope for the implementation of the space programme (Article 11(1) and part of Article 11(6)), and other financial provisions (Article 22)).

In its mandate for trilogue negotiations, Parliament called for an increase in the budget (in current prices), i.e. for Galileo and EGNOS €9.7 billion; for Copernicus €6 billion (the Commission had proposed €5.8 billion); and for SSA/GOVSATCOM €1.2 billion (the Commission had proposed €0.5 billion);

Parliament and Council will return to negotiations on the file once the MFF provisions become clear.

EP SUPPORTING ANALYSIS

Reillon V., [European space policy: Historical perspective, specific aspects and key challenges](#), EPRS, European Parliament, January 2017.

Reillon V., [EU space policy: Industry, security and defence](#), EPRS, European Parliament, November 2016.
[Space Market Uptake in Europe](#), Policy Department for Economic and Scientific Policy, European Parliament, January 2016.

[Space, Sovereignty and European Security – Building European Capabilities in an Advanced Institutional Framework](#), Policy Department, European Parliament, January 2014.

[The Cost of non Europe in the Field of Satellite Based Systems](#), Policy Department, European Parliament, December 2007.

[The Galileo Programme: Management and Financial Lessons Learned for Future Space Systems Paid Out of the EU Budget](#), Policy Department, European Parliament, September 2011.

Vikolainen V., [Establishing the European Space Programme](#), Initial appraisal of a European Commission impact assessment, EPRS, November 2018.

OTHER SOURCES

[Space programme 2021–2027 and European Union Agency for the Space Programme European Parliament](#), Legislative Observatory (OEIL).

ENDNOTES

- ¹ Current prices make no adjustments for inflation, whereas constant prices adjust for the effects of inflation as they are expressed in the price terms of a base period (normally a year; in this briefing, it is 2018).
- ² For an overview, see V. Reillon, [European space policy: Historical perspective, specific aspects and key challenges](#), European Parliament, EPRS, January 2017, p. 5ff.
- ³ For an overview, see European Commission, Proposal for a [regulation](#) establishing the space programme of the Union and the European Union Agency for the Space Programme, pp. 5-9. See also Annex 2 of the European Commission's [impact assessment](#) accompanying the space programme regulation, SWD(2018) 328.
- ⁴ In its November 2003 [white paper](#) the Commission acknowledged space as a horizontal policy issue that could contribute to the Union's key policy goals: economic growth, sustainable development, stronger security and defence. Key priorities included: satellite navigation, earth observation, telecommunications, bridging the digital divide in Europe, security and defence, and developing international partnerships. One main objective was to secure the EU's strategic independence regarding access to space, technologies and space exploration. See V. Reillon, [European space policy: Historical perspective, specific aspects and key challenges](#), EPRS, European Parliament, January 2017, p. 14.
- ⁵ European Commission, Proposal for a [regulation](#) establishing the space programme of the Union and the European Union Agency for the Space Programme, pp. 1-2.
- ⁶ European Commission, [Impact assessment](#) accompanying the proposal for a regulation establishing the space programme of the Union and the European Union Agency for the Space Programme, SWD(2018) 328, p. 19.
- ⁷ European Commission, Proposal for a [regulation](#) establishing the space programme of the Union and the European Union Agency for the Space Programme, p. 9.
- ⁸ *Ibid.*, p. 10.
- ⁹ The legal basis for the new regulation on the space programme derives from [Article 189\(2\) of the Treaty on the Functioning of the European Union](#), which provides for the Union to draw up European space policy and gives the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, the power to adopt a programme to contribute to attaining that policy's objectives.
- ¹⁰ The European Commission, on behalf of the EU, is responsible for management and security of Galileo and EGNOS, and for supervision of the two entities responsible for implementation: the ESA (an intergovernmental agency) and the GNSS Agency (GSA) (a decentralised EU agency). The tasks delegated to the ESA relate mainly to system design and procurement, system maintenance and improvement, and research and development for system evolution. The tasks delegated to the GSA relate mainly to system exploitation and security accreditation together with market development, and research and development for applications. See European Commission, [Impact assessment](#) accompanying the proposal for a regulation, SWD(2018) 328, pp. 4-5.
- ¹¹ This section aims to provide a flavour of the debate and is not intended to be an exhaustive account of all different views on the proposal. Additional information can be found in related publications listed under 'EP supporting analysis'.

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eprs@ep.europa.eu (contact)

www.eprs.ep.parl.union.eu (intranet)

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