

Re-affirming Europe's ambitions in space: Past, present and future perspectives



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ABSTRACT

The paper provides an overview of the past, present and future perspectives of space policy developments in Europe. In the past decade, the EU enlargement has been subjected to various crises that threaten the European integration project. At the same time, the space sector is changing rapidly. In response to these challenges, on 26 October 2016, the European Union (EU) and the European Space Agency (ESA) signed a Joint Statement on “Shared Vision and Goals for the Future of Europe in Space”, demonstrating their commitment to further strengthening their cooperation on space. The common European vision is that Europe remains a world-class actor in space and a partner of choice on the global level. The shared vision and goals of the Joint Statement are reflected in the European Commission Communication on its “Space Strategy for Europe”. ESA subsequently adopted on 2 December 2016 the Resolution “Towards Space 4.0 for a United Space in Europe”. In light of these space policy developments, the future creation of an all-encompassing European Space Strategy can underpin the future of Europe in space and beyond. Such strategy shall seek to address Europe's particularities, needs and responsibilities and ultimately reinforce European integration.

1. Introduction

Understanding the past and current evolution of the European space sector and its interconnection with the EU integration process is fundamental for addressing rising challenges and preparing future developments. European integration has been interwoven with the development of space activities and programmes. In the past decade and after the introduction of the Lisbon Treaty, the EU has been going through a transformation of the European landscape. Space activities and programs though have demonstrated consecutive successes that contribute to reinforcing European cooperation and integration of Member States. At the same time the space sector is changing rapidly; this calls for Europe to adapt itself to the evolving space sector in order to maintain its role as a global partner for space.

ESA and the EU have made steps to strengthen their cooperation through signing the Joint Statement on ‘Shared Vision and Goals for the Future of Europe in Space’ in October 2016. This reflects their commitment to the common European vision that Europe shall remain a world-class actor in space and a partner of choice on the international scene. By 2030, Europe should be able to fully benefit from its space solutions in the implementation of its policies, strengthening European values and security, improving the knowledge base and fostering prosperity. The goals identified for the years to come are to: maximise

the integration of space into European society and economy; foster a globally competitive European space sector; and ensure European autonomy in accessing and using space in a safe and secure environment. The European Commission has used the shared vision and goals as high level policy guiding elements in preparing the EC Communication on its Space Strategy for Europe. ESA adopted on 2 December 2016 the Strategy Resolution ‘Towards Space 4.0 for a United Space in Europe’.

In light of these policy developments the future of Europe in space and the improvement of the European integration project can be accommodated under the creation of an all-encompassing European space strategy. Such a strategy shall seek to address Europe's particularities, needs and responsibilities and ultimately reinforce European integration. The implementation would require enhanced cooperation among all those concerned, including ESA, the EU and its institutions and their respective Member States.

2. Past perspectives

The emergence of Europe in the space sector during the 1960s through collaboration in space programmes was pursued as a means to generate technological, scientific and political benefits. Necessitated by Europe's need for peace and deeper political integration that would foster economic co-operation among European countries, space

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<https://doi.org/10.1016/j.actaastro.2018.07.013>

Received 14 February 2018; Received in revised form 28 May 2018; Accepted 5 July 2018

Available online 06 July 2018

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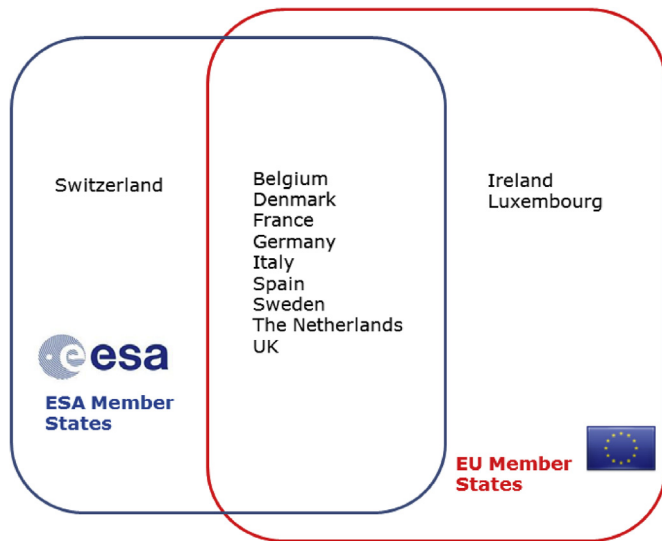


Fig. 1. ESA and EU member states - European space integration 1975.

cooperation's non-contentious nature contributed to gradually underpin the European integration scheme [1]. Ever since, the European space integration has been inextricably intertwined with the evolution of the broader integration process in the European Union. This is reflected in Figs. 1–4 and discussed below.

2.1. EU integration and evolution of the treaties

Determined to put an end to the war, Europe initiated a dynamic process of treaty-making and reforms towards the realization of the European integration project [2]. The economic integration of Europe began with the Treaty of Paris (1951) which created the European Coal and Steel community (ECSC) by six founding countries: Belgium, France, West Germany, Italy, Luxembourg, and the Netherlands. One of the main objectives was set to 'create, by establishing an economic community, the basis for a broader and deeper community among peoples long divided by bloody conflicts' [3].

Ever since, the EU enlargement of the Community/Union has taken place in eight waves [4]. Later, the founding Treaties of Rome (1957), which created the European Economic Community (EEC) and the European Atomic Energy Community (EURATOM) (together with the ECSC, the Communities), aimed for creating significant political integration and economic collaboration [5]. Less than half a year earlier, the Space Age had been initiated with the launch of Sputnik I.

Forwarding 30 years and following conflicts over the balance of powers between the Member States and the Communities, major reform was implemented by the Single European Act in 1987 [6]. Among other things, this revision of the Treaty of Rome triggered the launch of the internal market, improved the operation of the European Parliament and set forth the creation of a common policy for scientific and technological development as a strong basis for European industry. Moreover, the Single European Act introduced EC competence in research and development, though not explicitly mentioning space [7]. The 1992 Treaty of Maastricht established the EU based on the three-pillar structure and adopted the European Monetary Union (EMU). Subsequent reforms brought about by the Treaties of Amsterdam in 1997 [8] and Nice in 2001 reshaped the institutional structure with the objective of accommodating the enlargement of the EU, which was joined in 2004 by ten further States.

Although EU enlargements were presented to depict the well-functioning of European integration, this was not always the case. The duration of pre-accession negotiations would be largely determined by differences in the fulfilment of various membership criteria and the implementation of the *acquis communautaire* which was often difficult to apply [9]. After the failed attempt in 2004 to ratify the proposed Constitutional Treaty [10] because of lack of popular support, the Member States signed in 2007 the Treaty of Lisbon which was perceived as opening a new chapter for European integration. The Lisbon Treaty amended the Treaty on the European Union (TEU) and the Treaty Establishing the European Community, which was renamed the Treaty on the Functioning of the European Union (TFEU) [11]. Acknowledging the crucial role of space and space policy in the process of political integration and support tool for multiple EU policy areas, the Lisbon Treaty introduced explicitly for the first time the space competence.

The European integration after the Lisbon Treaty has not fulfilled its full potential as was expected [12]. This has been further hindered by the subjection of Europe over the past decade to unprecedented crises and challenges of multidimensional nature. These include, but are not limited to: the Eurozone crisis, the migration flow, the terrorist attacks, the rising of Euroscepticism and Brexit.

2.2. ESA and its role in European space integration

Over the past decades, European space programmes have been mainly developed through established cooperation with international organisations as well as national and bilateral programmes. The main actor in Europe is the European Space Agency. The Agency was founded in the era that European integration was needed to counterbalance the supremacy of the United States and the former Soviet Union in the space race [13]. ESA emerged from the European Launcher

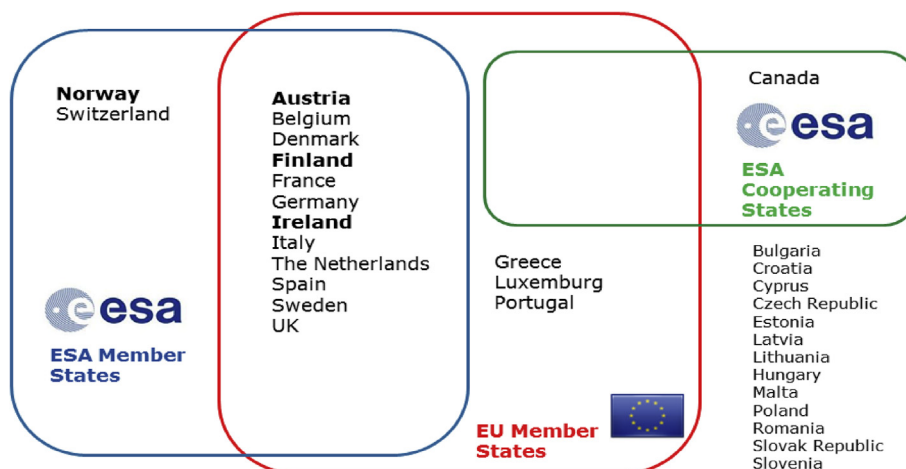


Fig. 2. ESA and EU member states - European space integration 1997.

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