I. READINESS FACTORS: INPUTS TO THE SPACE ECONOMY

2. Civilian space R&D programmes budgets

Institutional budgets are critical in starting-up and developing capital-intensive and high technology sectors such as space. Government Budget Appropriations or Outlays for R&D (GBAORD) data are assembled by national authorities analysing their budget for R&D content and classifying them by “socio-economic objective”. These diverse objectives represent the intention of the government at the time of funding commitment, and a special category “exploration and exploitation of space” exists. Although the data provide only a partial picture of space investments (see note below), the long-term time-series provide useful trends on policy orientations.

In 2013, total civil GBAORD for space programmes for all OECD countries amounted to USD 19.2 billion PPP. The United States had the highest GBAORD for space programmes at USD 10.6 billion PPP, followed by the Russian Federation (USD 3.3 billion PPP), Japan (USD 2.2 billion PPP) and France (USD 1.7 billion PPP). The United States was also the country in which space programmes took the highest percentage of total civil GBAORD, at 16.9%, followed by France (10.4%) and Belgium (8.7%). The OECD-wide mean average represented 7.7% in 2013.

Compared to trends seen in previous editions of The Space Economy at a Glance, there is a global 2% decrease in GBAORD for space programmes for the OECD area in 2013. The share of space programmes in total civil GBAORD also decreased from 9.1% to 7.5%, mostly due to a decrease in the United States. However, there are no strong negative trends for a majority of countries, with a number of economies (France, Germany, Japan) having actually increased their outlays for space R&D in the last couple of years.

Methodological note

GBAORD data have the advantage of reflecting up-to-date government priorities, since they use budget provisions and not actual spending, although data delays are sometimes an issue. The breakdown in socio-economic objectives brings some limitations (i.e. the “exploration and exploitation of space” category excludes military space programmes, which are included in a specific “defence” category), but GBAORD data provide trends, which can be usefully complemented by other data (e.g. institutional budgets). USD Purchasing power parities (PPPs) have been used to make budgets comparable between countries. New budgetary procedures introduced in the Russian Federation in 2005 have resulted in items previously classified as GBAORD being attributed to other headings and have affected the coverage and breakdown by socio-economic objective.

Sources


Note

Information on data for Israel: http://dx.doi.org/10.1787/888932315602.
2.1. Evolutions of civil space budgets in government budget appropriations or outlays for R&D (GBAORD) for selected countries, 1981-2013

As a % of GBAORD (or latest available year)

2.2. Civil space budgets in GBAORD, 2013

% of civil GBAORD

Source: OECD Main Science and Technology Indicators Database.