

4. Regulatory framework

The legal and regulatory framework determines the rules according to which space actors operate. During the 1960s and 1970s, a set of international treaties and principles was enacted establishing the peaceful uses and non-appropriation of outer space. Based on this regime, governments are liable under international space law whenever a space object is launched from their territory, even if it is by a private entity. This international regime is therefore complemented by national space laws, to mitigate the risks for governments involved in space activities with an appropriate national licensing structure that regulates institutional and private space activities taking place on their soil.

Since the 1980s, the rapid progression of commercial space activities that followed the privatisation of international telecommunications organisations, such as Intelsat and Eutelsat, has spurred the swift development of national laws and regulations worldwide. A diversity of governments are developing space laws, not only long-established space-faring nations, but also countries with limited space activities wishing to either attract new investments from abroad, or to cater to the needs of their own fledgling space industry (e.g. supporting development of small satellite missions). The enactment of a national legal and regulatory regime for space activities can be an important component when trying to develop a competitive space industry.

In parallel, the International Telecommunication Union (ITU) co-ordinates with national administrations the use of the radio spectrum internationally and plays a crucial role in assigning satellite orbits to avoid interferences. Since the 1990s with deregulation and privatisation in satellite telecommunications, with new access to commercial and private funding, the co-ordination has become more challenging with ever more actors. Some 72 national administrations indicated to the ITU their intent to launch satellite networks in 2013 in geostationary and low-earth orbits. Operators have seven years to bring the network into use when the first submission is accepted. France and the United States have the largest shares of total ongoing ITU requests (14.5% and 13.4%). Many countries in Asia and the Middle East have also recently submitted projects planned to be brought into use over the next four to five years (i.e. satellite networks in “advanced publication stage”: China, Japan, Israel, Qatar, Saudi Arabia, United Arab Emirates).

Another relevant indicator is the list of operating administrations/agencies in operational control of the ground

stations. More than 20 new operating agencies have been submitted to the ITU Radiocommunication Bureau since 2008, underlining the internationalisation of actors in the space sector. Satellite operators face in parallel strong pressure to share their frequencies with terrestrial mobile networks, with increased harmful interferences for some services. This will be one major issue discussed at the World Radiocommunication Conferences to be held in 2015.

Methodological note

The data on legal and regulatory instruments come from national reporting done via the United Nations Office for Outer Space Affairs. The ITU data are extracted from the organisation's World Telecommunication/ICT Indicators database, based on the count of unique filings (satellite networks) per administration. Only countries with more than 50 filings are identified.

Sources

International Telecommunication Union (ITU), Space Services Department, www.itu.int/en/ITU-R/space.

United Nations Office for Outer Space Affairs (UNOOSA), www.oosa.unvienna.org/.

Notes

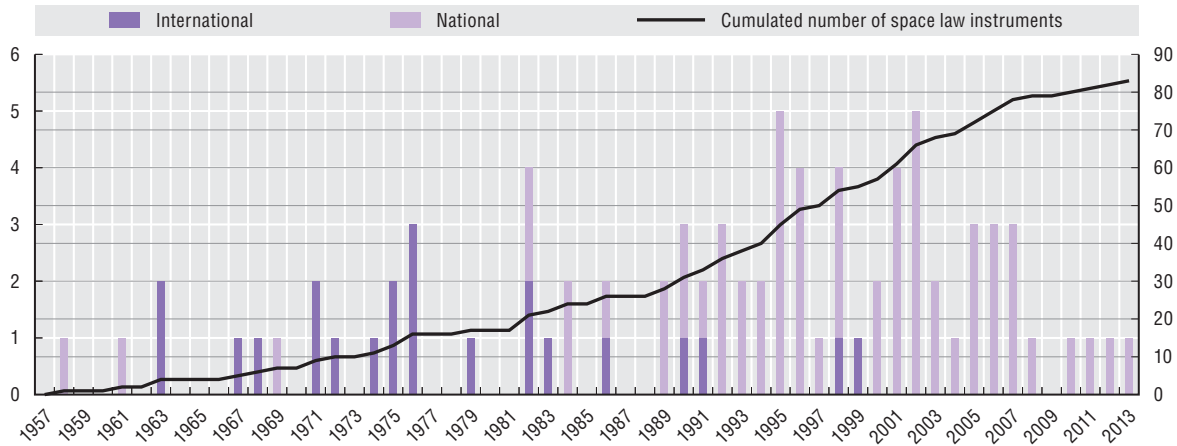
4.1: International instruments include United Nations space-related treaties and principles, international conventions creating multilateral organisations (ESA, Intelsat...) and other international agreements. National space laws and regulations include several instruments (in some cases major updates to existing regulations), as referenced by UNOOSA.

4.3: There are three ITU regulatory stages when developing a satellite network: network in Advance Publication of Information stage (operators have seven years maximum to set up their network) (A), network in co-ordination stage (C), and network in notification stage (the final step before frequency assignments can be recorded into the Master International Frequency Register or MIFR) (N).

Information on data for Israel: <http://dx.doi.org/10.1787/888932315602>.

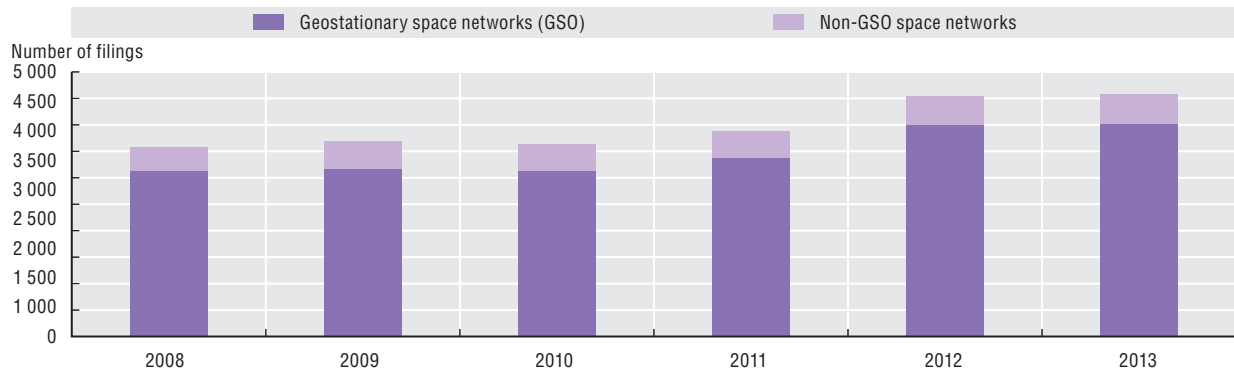
4.1. Development of national space laws and regulations

Number of treaties, national space laws and regulations per year, 1957-2013



Source: OECD calculations based on United Nations data (2014).

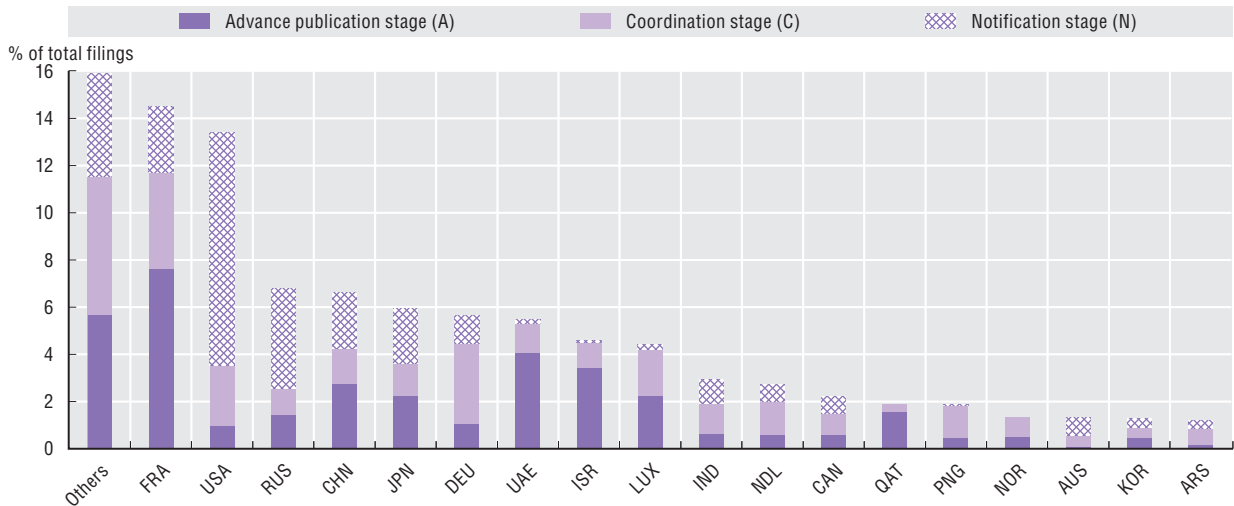
4.2. ITU filings for satellite networks



Source: OECD calculations based on ITU data (2014).

4.3. Share of satellite networks filings per national administration

% of total filings by country, with % of satellite networks' regulatory stage



Source: OECD calculations based on ITU data (2014).



From:

The Space Economy at a Glance 2014

Access the complete publication at:

<https://doi.org/10.1787/9789264217294-en>

Please cite this chapter as:

OECD (2014), "Regulatory framework", in *The Space Economy at a Glance 2014*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264217294-8-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.