

8. Satellite telecommunications

Satellite services are a growing part of the global communications infrastructure. Through unique capabilities, such as the ability to offer point-to-multipoint communications distribution with small receivers, to effectively blanket service regions, and provide a flexible architecture in hard to reach places, satellite services constitute an important complement to terrestrial telecommunications services.

Satellite networks have been the backbone of the intercontinental telephone network from the 1960s to the 1980s, and although fibre cables have supplanted their uses on routes with highest traffic volume, satellite communications remain a highly profitable business. It branches out traditionally between providers of fixed satellite services (i.e. leasing capacity on geostationary-orbiting satellites for video, voice and data traffic) and providers of mobile satellite services (i.e. data services for mobile users, such as ships at sea and aeronautical markets). This distinction is increasingly losing its relevance, as operators are increasingly entering each other's markets. Another closely-linked ecosystem assembles the providers of satellite ground segment equipment and very small aperture terminals (VSATs), which provide communication receivers and full network solutions to public agencies (including defence) and private companies in banking, retail, oil and gas, rural communities.

The top 25 actors in the fixed satellite services generated revenues of around USD 12 billion in 2013, a 29% increase as compared to 2008, with more than 300 commercial satellites in geostationary orbit. The top 5 actors (Intelsat and SES in Luxembourg, Eutelsat in France, Telesat in Canada, Sky Perfect Jsat in Japan) have some 4 600 employees and represent around 70% of the revenues, a continuing declining share as compared to 2008 (76.5% of revenues), as competition has grown and national satellite operators have set up business. On top of the fixed satellite services operators selling capacity, large media groups are providing the contents and actual satellite broadcasting, broadband and telephone services to every-day consumers (e.g. Dish Network and DirectTV in the United States, BskyB in the United Kingdom, CanalSat and TPS in France). Although it remains challenging to disassemble the revenues streams, some estimates point to a market of around USD 92 billion in 2013 for these satellite broadcasting services (SIA, 2014).

Mobile satellite operators have traditionally provided communications to the narrower but profitable aeronautical and maritime markets. In 2013, their revenues are esti-

mated at around USD 2.6 billion, with three actors leading the market (Inmarsat in the United Kingdom, Iridium in the United States, Thuraya in the United Arab Emirates). Satellite radio is also a market segment representing more than USD 1 billion. Finally, the VSATs and ground equipment providers represent more than USD 7 billion in revenues (Comsys, 2014), with most actors developing vigorous international subsidiaries networks (e.g. Hughes Network Systems, ViaSat Inc., iDirect in the United States, Advantech Satnet in Canada, Gilat Satellite Networks in Israel, Thales in France).

In this context, satellite television remains the most profitable space business. Direct-to-home satellite television broadcast is almost universally available in OECD economies via one or more services, where the signal is received by satellite dishes and set-top boxes. Countries' uptake of satellite services varies widely, in New Zealand and Poland 50% of television households use satellite, but less than 10% in Belgium and Finland. Finally, broadband via satellite is becoming more common and cheaper, although it still remains a confidential market, representing only 0.2% of wireless broadband subscriptions by access technology in OECD economies in 2012 (OECD, 2013).

Methodological notes

Industry data mainly stem from OECD analysis and calculations based on annual reports of publically-traded companies and media reports. VSATs industry data stem from Comsys (www.comsys.co.uk) and satellite television broadcasting estimates from the Satellite Industry Association (www.sia.org).

Sources

OECD (2013), *OECD Communications Outlook 2013*, OECD Publishing., dx.doi.org/10.1787/comms_outlook-2013-en.

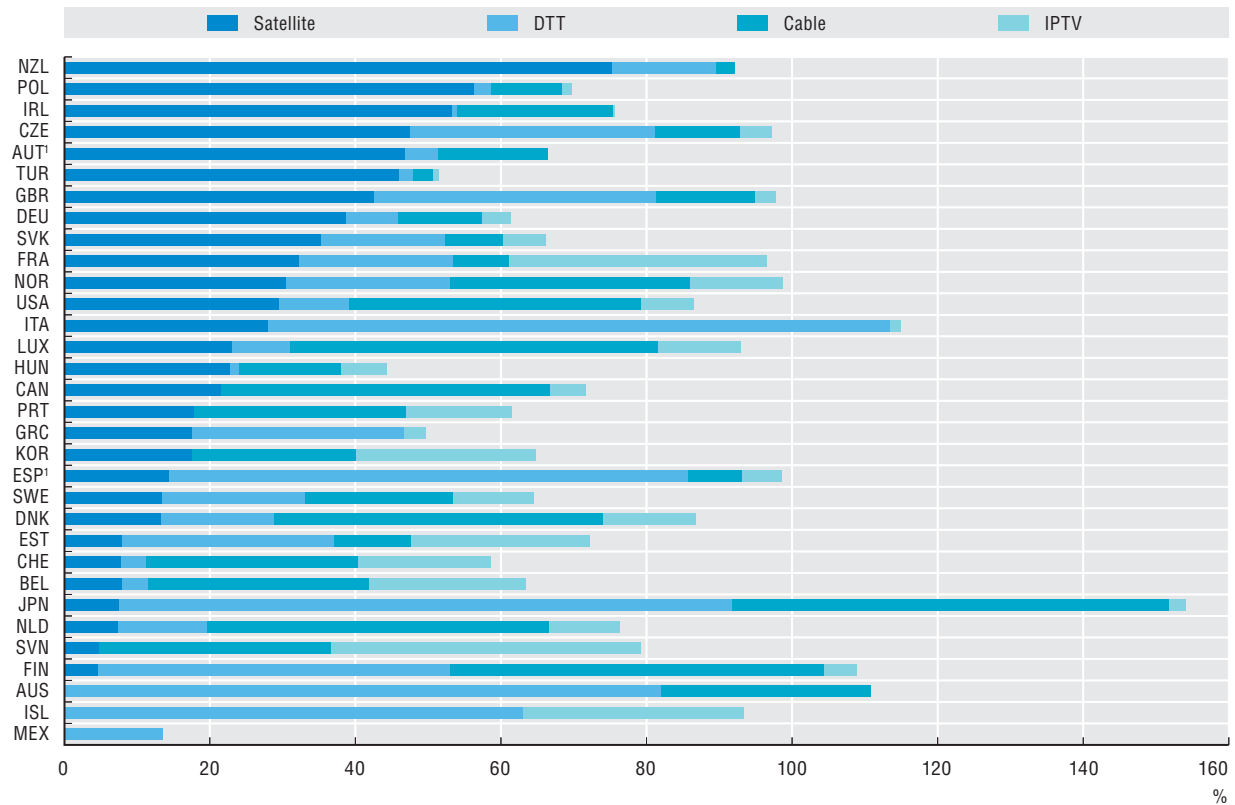
Notes

8.1: DTT: Digital Terrestrial Television, and IPTV: Internet Protocol Television.

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

8.1. Penetration of digital satellite television by country

As a % of television households, 2012

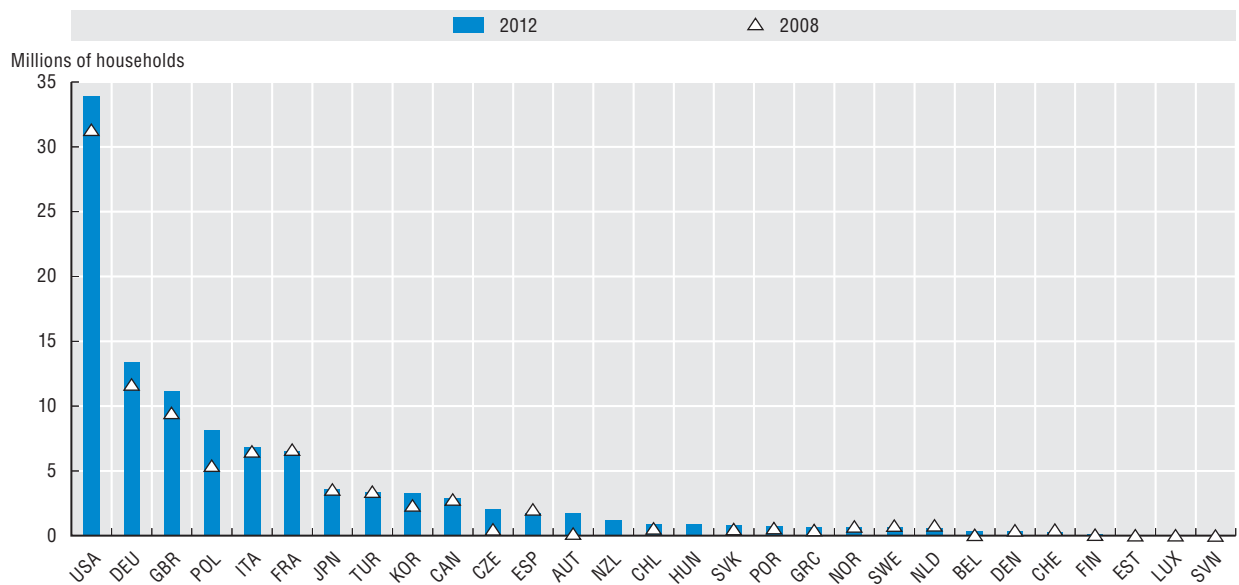


Source: OECD Communications Outlook 2013.

StatLink <http://dx.doi.org/10.1787/888933141798>

8.2. Number of households using satellite platforms for digital television in selected OECD countries

Millions of TV households, 2008 and 2011



Source: OECD Communications Outlook 2013.



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