**Privatizing space the final frontier:**

Privatizing space - the final frontier The extraordinary growth of global communications via satellites in the 1990s has been compared to the technological leap forward of cabling the world in the nineteenth century and, in the twenty-first century, satellites are set to become the 'trade routes in the sky'. Economic growth and technological progress have fuelled a huge rise in demand for global telecommunications services of all types, resulting in the phenomenal growth of the satellite industry. Satellites are now crucial in providing the cheap, dependable and fast communication services that are essential for international businesses to operate in the global electronic marketplace, especially in such areas as transnational broadcasting and telephony, global banks and airlines, international newspapers and magazine distribution. Ever since the mid-1960s when geostationary communications satellites first began to provide direct telecommunications links across nations and oceans, they have played a key if unsung role in the development of international communication.

Complementing ground-based systems, such as cable and microwave, satellites are able to reach huge areas, unrestrained by geographical terrain. They have enabled the expansion of broadcast and telecommunications services all over the world, from metropolitan cities to the furthest flung islands and remote rural areas. These factors make satellites a lucrative and highly competitive industry in which a few big players operate, given that there are a limited number of orbital slots in the geostationary orbit and multiple satellites covering the same footprint. To be able to fully exploit space communication services, access to the appropriate radio frequencies and orbital positions is essential. Demand is particularly high for the geostationary (and geosynchronous) orbit (GSO), some 36,000 km above the equator, where satellites move at the same speed as the earth.

At this optimal location, communication satellites can cover up to one-third of the earth's surface. All satellite operators — whether global or regional - have to make use of the 180 available orbital slots (though there are 360 degrees in the orbit, geostationary satellites need at least two degrees spacing between each other, halving the number of slots available). With communication satellites being launched by many countries, for example, India (1983), China (1984) and Mexico (1985) and by regional consortiums, Eutelsat, Arabsat, AsiaSat and Hispasat, the GSO has become very crowded. Though the ITU upholds 'equitable access to the GSO' for all countries, it continues to be dominated by a few nations. In major satellite markets such as Europe, the governments are encouraging private satellite operators. The European Commission's Green Paper on Radio Spectrum Policy, published in 1998, called for 'market-based mechanisms', a euphemism for auctions, to allocate the spectrum in an 'efficient manner'.

More geostationary satellites have been launched in the 1990s than in any other decade combined. As Figure 3.1 shows, in just six years more satellites were launched than in the past three decades. According to a 1998 global survey of satellites by the US-based publication Via Satellite, 192 Western-built geostationary commercial communications satellites were in orbit, carrying 4241 transponders (components that receive, amplify, and retransmit a TV signal). In addition, 67 were on order, which will add another 1918 transponders to the global supply. Contributing to this vigorous growth were the international agreements on telecommunications in the late 1990s, especially the WTO's Fourth Protocol also referred to as the Basic Agreement on Telecommunications Services, which endorsed the US position that the distinction between 'domestic' and 'international' satellite systems was no longer valid in a digitally connected world and that satellite transmissions could cross national borders. Such has been the change in the global communication industry that even intergovernmental organizations have been increasingly driven by market.

This inevitable trend towards the privatization of intergovernmental organizations is demonstrated by the case of Inmarsat (International Marine Satellite). Based in London, Inmarsat was established in 1979 as an internationally-owned co-operative of 86 countries to serve the maritime community and is the sole provider of a broad range of global mobile satellite communications for distress and safety communication, as well as communications for commercial applications at sea, in the air, and on land. In April 1999, it became the world's first international treaty organization to transform itself into a commercial company. Part of the company's attraction to likely investors was that it would be operating in the mobile satellite communication industry, estimated to grow to 4-8 million subscribers and to generate revenues of up to $13 billion a year by 2002.

With privatization, some of the largest national telecommunication businesses in the world, from among its former 86 member countries, have become the shareholders and backers of the new company. Other telecommunications bodies set up along similar lines, such as the Paris-based panEuropean intergovernmental organization Eutelsat, which operates 14 satellites, broadcasting more than 500 digital and analogue channels to over 70 million homes in Europe, Middle East and North Africa, are also getting ready for privatization, euphemistically called the 'restructuring process'. However, in an international context, a more significant change has been the gradual commercialization of the International Telecommunications Satellite Organization (Intelsat).

The privatization of Inmarsat and Intelsat raises important questions about telecommunications access for the world's poorer countries. Intelsat has played a crucial role in bringing satellite technology to the South. The economies of scale coupled with innovations in satellite technology made it possible for Intelsat to progressively cut the rates charged for the use of its services. Under its policy of rate averaging - high density routes, for example between North America and Western Europe, had lower costs per circuit than low density routes - much of the developing world came under the latter category. In order to provide services to thin routes, Intelsat charged the same rate for all routes, thus in effect the high density traffic subsidized the others. The new Intelsat is unlikely to continue this practice. Given their economic situation, it would be extremely difficult for poorer countries to afford transponder fees or to acquire other commercial satellite services. Despite its recent growth, the satellite industry demands very substantial investment and high risk, and only the large transnational corporations will be able to exploit this communication hardware. In terms of satellite footprints, the most heavily covered regions are North America, followed by Asia-Pacific and Europe.

**INTELSAT**

* International telecommunication satellite organization was formed as an intergovernmental consortium in 1964 with 11 participating countries - reflected the spirit of the UN with the objective of improving global communications.
* At the time of its creation commercial satellite communication did not exist and most telecommunications organizations were state-controlled monopolies, operating within a highly regulated environment.
* As it was the height of the Cold War, the Soviet Union and its allies inevitably saw Intelsat as a US instrument to control satellite communication.
* Following the global shifts to privatization of telecommunication in the 1990s. INTELSET endorses the restructuring of the organization from an intergovernmental cooperative to a fully commercial company in 1999.
* A new Intelsat a private entity was set up in 2001 changed the name to Intelsat Ltd. Currently owned and operates a fleet of 51 communications satellites around the globe.
* *Fleets: Allows companies to organize and coordinate work vehicles with the aim to improve efficiency, reduce costs, and provide compliance with government regulations*
* Intelsat operated as a commercial co-operative and a wholesaler of satellite communications, providing advanced telecommunications services to its 143 member countries, and indeed to all nations
* It followed the policy of global price averaging using revenue from high traffic routes for developed countries and subsidize the less developed countries.
* In 1999, Intelsat owned and operated a global satellite system of 19 satellites, bringing both public and commercial networks in 2001, video and Internet services to over 200 territories around the world.

**Huawei**

* Huawei was founded in 1987 by ex-military officer Ren Zhengfei and formed as a private company owned by its employees. Its core missions are building telecommunications networks; providing operational and consulting services and equipment to enterprises inside and outside of China; and manufacturing communications devices for the consumer market.
* President of Huawei is Ren Zhengfei: Consider as most influential person in this company. Because all important descions are taken by him
* Huawei Technologies Co. Ltd is a Chinese multinational networking and telecommunications equipment and services company headquartered in Shenzhen, Guangdong.
* It is the largest telecommunications equipment maker in the world, having overtaken Ericsson in 2012.
* It is commonly known in china business community that Ren makes final descions at Huawei.
* The bulk of Huawei share holders cannot execute rights as bona fide shareholders, and execution team members cannot override Rens’s descions.
* Moreover, operating and management teams that report to Ren are evidently more powerful than the company’s board**.**
* Its products and services have been deployed in more than 140 countries and it currently serves 45 of the world's 50 largest telecoms operators.