

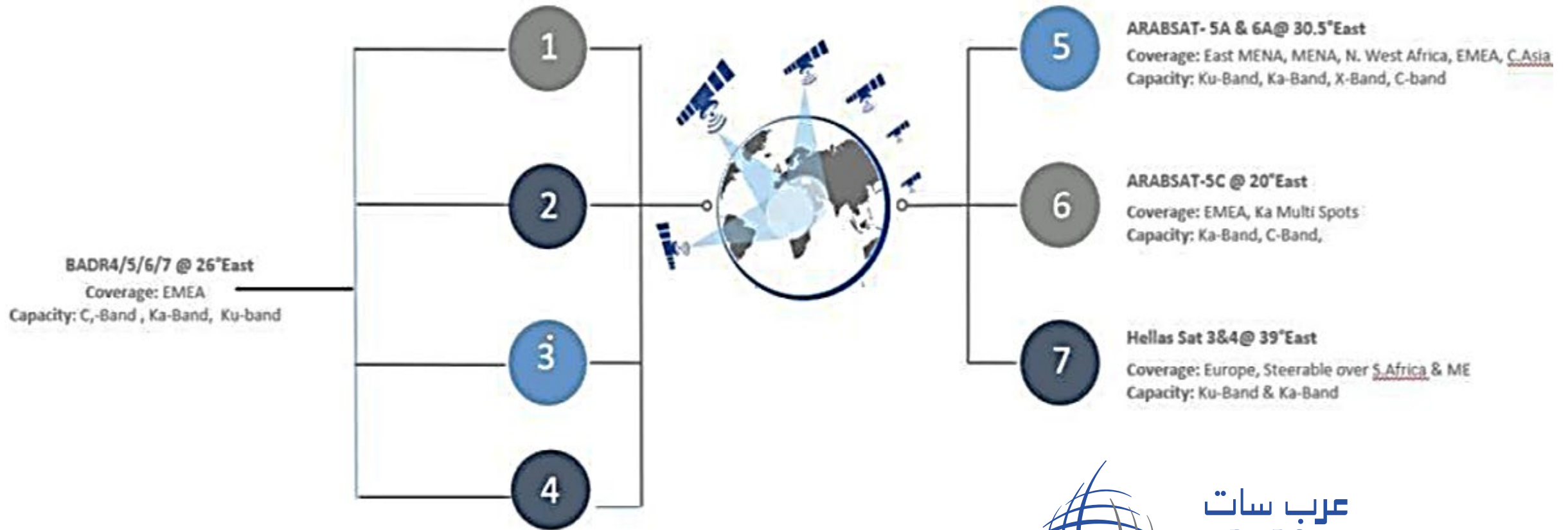
ITU GSR-21 REGIONAL REGULATORY ROUNDTABLE (RRR-ARB21) AND
REGIONAL ECONOMIC DIALOGUE (RED-ARB21)
FOR ARAB STATES

Virtual 2-3 June, 2021, 12h00 - 15h00 (CEST time)

Satellite industry
Economy, Trending
and policy



Arabsat Satellite fleet



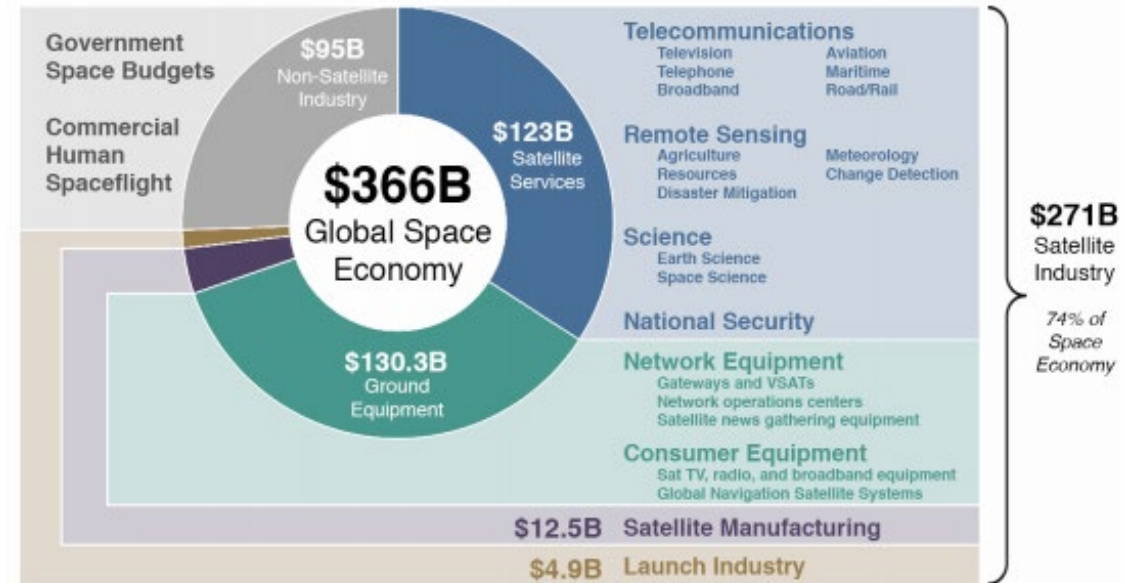
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Our world. Your world.



Satellite Industry Economy

1. 386 commercial satellites has been deployed into orbit during 2019 this No. is entitled to be tripled in year 2021 backed by massive launch of LEO satellites (Starlink launched 610 satellites ,Oneweb launched 72 satellites during the first half of year 2021)
2. In 2019 the total number of satellites circling the earth increased by 17 percent to total of operational 2460 satellites (the Number increased to 3676 active satellites in May 2021 due to massive lunches of LEO satellites)
3. Technology innovations drove faster throughput speeds and data capacity, satellite broadband revenue grew by 19 percent compared with 2018 to \$2.8 billion.
4. Global satellite ground equipment revenues grew by 4 percent in 2019 to just over \$130 billion
5. Over the coming decade it's estimated by Euroconsult that 990 satellites will be launched every year.

The Satellite Industry in Context (2019 revenues worldwide, in billions of U.S. dollars)



Unique characteristics of satellite communications

1. **Ubiquity:**

Satellite can provide high-speed capacity across the globe addressing needs like capacity augmentation inside geographic gaps, overspill to satellite when terrestrial links are congested, general global wide coverage, back-up/resilience for network fall back and especially communication during an emergency.

2. **Mobility:**

Satellite is the only readily available technology capable of providing connectivity anywhere at sea or air for moving platforms , planes, ships and trains.

3. **Broadcast/multicast:**

Satellite can efficiently deliver rich multimedia and other content across multiple sites simultaneously using multicast streams with information-centric network and content caching for local distribution.

4. **Security:**

Satellite networks can provide efficient solutions for secure, highly reliable, rapid and resilient deployment in challenging communication scenarios, such as emergency response.

New Satellite technologies and digital transformation

Next-generation multibeam high throughput satellite (HTS) systems

- HTS is a communications satellite that provides more throughput than a classic FSS, and can provide more than 200 Gbps

Non Geo Satellite constellations

- low latency and expected high data rate these satellite would be augmented in digital transformation

Earth stations in motion (ESIM)

- Recently more than 120 countries already authorize Ka Band GSO ESIM

Satellite component of 5G

- The main use cases for satellite integration in 5G are service scalability, service ubiquity, and service continuity
- Release 17 would include integration of satellite components in the 5G architecture

Satellite Industry During pandemic

1. **Satellite communications are immune to natural disasters;** they offer a robust and resilient solution that is independent of terrestrial networks. Satellite solutions can be deployed immediately, regardless of constraints such as geography. Satellites provide swift access to life-saving connectivity for those affected. They enable access to information and coordination between Governments, International Organizations (IOs), Non-Governmental Organizations (NGOs) and the international humanitarian community before, during and after disasters
2. **Connectivity requirements have increased across multiple countries for many humanitarian missions including NGOs and UN agencies.** One UN Agency operating across 2 countries & 7 mission sites increased its capacity by 150Mbps due to the pandemic.
3. **Satellite communication played essential role in enabling telehealth solutions and connectivity to essential services** such as ensuring the continued global trade of vitally important goods including food, oil & other infrastructure essentials that are typically transported by sea, thanks to satellite operators some of these services provided free of charge.
4. **Remote sensing and imaging satellites are providing governments with key information about changes in concentrations of atmospheric pollutants** such as carbon dioxide as well as providing health care officials and other users with comparison imagery to help monitor the effectiveness of “stay at home” and other social distancing initiatives. Earth observation satellites also provide a safe and remote method to collect global onsite information without the need to leave home or an office to go onsite. Also, by tracking the movements of goods, satellite imagery can be used to measure the economic impact of an outbreak and the rate of recovery.

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Regulatory restrictions that would limit new satellite technologies

Certain countries in different regions impose restrictive regulatory procedures some of these restrictions are:

1. Burdensome licensing conditions
2. Requirements for unnecessary and duplicative national infrastructure
3. Changes in spectrum allocation decisions
4. Disparate fiscal treatment
5. High equipment importation duties,
6. Requirements of national commercial presence.
7. Regional Geopolitical

Best practice policies to enable new satellite technologies

1. To make the provision of bare satellite capacity unrestricted, there is no need to require licenses or to impose regulatory requirements on satellite operators for the provision of satellite capacity
2. Permit free circulation and use of satellite consumer terminals - in all cases, satellite consumer terminals and other end-user satellite equipment should be exempted from custom duties, not subject to duplicative testing or type approvals and, to the extent possible, freely deployable. It is essential that this satellite equipment is exempted from individual licensing or the licensing of an unlimited number of technically identical terminals is permitted
3. Address security concerns adequately - national governments sometime fear that customers might transmit over foreign satellites and/or might not be controllable, leading them to impose additional market barriers such as the installation of costly local technical facilities in their territory
4. Provide transparent licensing procedures, which should be streamlined, and transparent. Licensing fees and other regulatory / administrative charges ought to be limited to the recovery of the actual costs of the NRA's activity only in relation with the regulation of satellite services.

Thank you

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