Satellite exports are a recent phenomenon, started in the mid 90s. Exports now represent about 15-25% of total satellite mass launched every year.
Key findings

- **Satellite exports started in the early nineties (with the emergence of Commercial space)**
- **Satellite exports concern mostly TLC satellites** (80% in number, 95% of total value).
  - Remote sensing satellites represent a secondary, less sizeable market.
- **Satellite exports are growing in value and in numbers:**
  - In 1999-2008 about 18 satellites were exported every year for an average annual value of almost 1B$/year.
  - In 2009-2018 about 28 satellites are exported annually worth 2.5B$/year at least.
- **The USA is the main exporter of satellites worldwide.**
  - The main destination for US satellite export is Europe.
- **Europe is a net exporter of satellites** (worth 9.6 B$ in the past decade)
  - Europe is the second global satellite exporter, after the USA.
- **European countries provides the largest destination market for satellite exports** (worth 6.1B$ in the past decade).
  - European satellite imports are mostly supplied from the USA.
  - As a result Europe suffers from a trade deficit on satellites with the USA (>2B$ in the decade).
  - This deficit is more than compensated by the trade surplus on satellite markets with other countries (Saudi Arabia, Canada, Brazil...).
- **Satellites are net positive contributors to the EU global trade surplus.**
  - EU satellites contributed an estimated 500M$/year to EU's positive trade balance for goods in the past decade, i.e. 2% of 2018 EU's net trade surplus.
  - The satellite industry, with its average 25000 employees/year represents only 0.084% of European manufacturing industry workforce.
  - The satellite industry has a very high leverage effect on EU global trade.
Key figures

• Two decades
  • Satellites exported: 465
    • TLC: 353 & EO: 74
  • Value of exports: 43,2 B$
    • TLC: 41,2B$ & EO: 2B$
  • TLC systems (mostly large GEO) represent 95% of export markets
    • US exports represent 57% of TLC exports
    • EUR Export represent 36% of TLC exports
    • EUR Imports represent 21% of TLC exports

• Last decade
  • Satellite exported: 284
    • TLC: 207 & EO: 47
  • Value of exports: 27,1 B$
    • TLC: 25,8B$ & EO: 1,2B$
  • TLC systems (mostly large GEO) represent 95% of export markets
    • US exports represent 56% of TLC exports
    • EUR Export represent 35% of TLC exports
    • EUR Imports represent 23% of TLC exports
What was exported in the Two Decades

Count of S/C exports by mission and system value
1999-2008 (#)

Count of S/C exports by mission and system value
2009-2018 (#)

Telecommunication systems represent 95% of the total value of satellite exports worldwide.

Two decades of satellite exports (c) by Eurospace
Supplier's Perspective

Value of satellite exports by class and supplier region
1999-2008 (B$)

Value of satellite exports by class and supplier region
2009-2018 (B$)

The USA are the largest exporters of High value satellites (GEO TLC segment). Their share is growing.
Where are satellites exported to?

Together, European countries represented the main destination for satellite exports in the past decade – two operators represent 50% of all European imports: SES and Inmarsat.
The satellite Trade Balance

**Sum of S/C Values 1999 – 2008 B$**

- **Europe**
  - European surplus 320M$/year
- **USA**
  - US surplus 715M$/year

**Sum of S/C Values 2009 – 2018 B$**

- **Europe**
  - European surplus 355M$/year
- **USA**
  - US surplus 1B$/year
Supply and Demand Synthesis

Satellite export countries and destinations
1999 – 2008 (B$)

- China Supplier
- Europe Supplier: 2,27 B$
- India Supplier
- Others Supplier
- Russia Supplier
- USA Supplier: 2,40 B$

Satellite export countries and destinations
2009 – 2018 (B$)

- China Supplier
- Europe Supplier: 3,83 B$
- India Supplier
- Japan Supplier
- Russia Supplier
- USA Supplier: 5,92 B$

Two decades of satellite exports (c) by Eurospace

satellite trade deficit USA/Europe 0,13 B$
satellite trade deficit USA/Europe 2,09 B$
GEO TLC segment
The B$ commercial market

GEO TLC exports in value by Customer type and Supplier region (B$)
1999 – 2008

GEO TLC exports in value by Customer type and Supplier region (B$)
2009 – 2018

1.4B$/year average

2.2B$/year average

Private
Public

Private
Public

China
Europe
India
Russia (CIS)
USA

China
Europe
India
Japan
Russia (CIS)
USA
Remote Sensing segment
The M$ 'political' market

S/C demand value by Customer and Supplier Country
1999 – 2008 (M$)

- Canada: 75M$/year average
- Japan: 120M$/year average

S/C demand value by Customer and Supplier Country
2009 – 2018 (M$)

Two decades of satellite exports (c) by Eurospace
Annexes
Definitions/methodology

- Export: satellite procured outside the region/country where it is produced
  - Note that the satellite is not always physically exported to the customer country, but delivered to the launch site. The value of the satellite export is registered in the Trade Balance with the customer country.
  - Note that are excluded from the analysis all systems for human flights
    - In the period considered these are relevant to US procurement to Russia of ISS transfer services
  - Note that this analysis does not include the export of satellite equipment/payload/sub-assemblies by lack of a consistent body of data.
    - This market (for sub-assemblies) may represent up to 1B$/year in exports worldwide

- The analysis considers 7 geographical regions
  - Europe (EU+ESA European MS), USA, Russia (CIS), China, Japan, India and Others (bundles all countries not included in 6 main regions)
  - Satellite production regions are allocated based on the Satellite bus manufacturing location.

- For every satellite in the analysis we have estimated a ROM price category, to try and illustrate with values the importance of the Export market.
  - Satellites are organised by ROM price class (from 0 to 1, 10, 100, 300, above 300 M$)
  - Satellite estimate values are added up to broadly assess market segments

- The analysis is based on all satellite exports registered at date of launch in the period 1999-2018, with the analysis separating the period in two decades.
What was exported in the two Decades

• 1999-2008:
  • Total of 181 SC
  • Total value 16000 (16142.575) Million €
    • TELECOM 146 S/C x 15400 M€ (15370.56) → 80% of tot number of produced S/C is TELECOM with a value of 95.21% of the total

• 2009-2018:
  • Total of 284 SC
  • Total value 27000 (27153.442) Million €
    • TELECOM 207 S/C x 26000 M€ (25857.80) → 72% of tot number of produced S/C is TELECOM with a value of 95.23% of the total (less satellites but more valuable)
Supply and Demand Synthesis

Satellite export countries and destinations
1999 – 2008 (#)

Satellite export countries and destinations
2009 – 2018 (#)

Two decades of satellite exports (c) by Eurospace
The satellite Trade Balance

Count of traded S/C
1999 – 2008 (#)

Count of traded S/C
2009 – 2018 (#)

25/09/2019

Two decades of satellite exports (c) by Eurospace
Market Segments

- Export markets can be segmented according to the following criteria
  - The satellite mission
  - The customer (public entity vs private entity)
  - The satellite size/value
Telecommunications mission segment
TLC mission segment

Count of TLC SC by orbit and value class
1999 – 2008 (#)

Count of TLC SC by orbit and value class
2009 – 2018 (#)
TLC mission segment

Value of TLC S/C by orbit
1999 – 2008 (B$)

Value of TLC S/C by orbit
2009 – 2018 (B$)
GEO TLC, demand from non space powers

Demand from non space powers
1999 – 2008 (M$)

Australia
Bermuda Islands
Brazil
Canada
Egypt
Indonesia
Malaysia
Mexico
Nigeria
South Africa
South Korea
Thailand
Turkey
Venezuela
Vietnam

Demand from non space powers
2009 – 2018 (M$)

Algeria
Angola
Australia
Azerbaijan
Bangladesh
Bermuda Islands
Bolivia
Brazil
Bulgaria
Canada
Egypt
Indonesia
Israel
Laos
Malaysia
Mexico
Nigeria
Pakistan
Qatar
Saudi Arabia
Singapore
South Africa
South Korea
Thailand
Turkey
Turkmenistan
Vietnam

China Supply
Europe Supply
USA Supply
Remote sensing mission segment
RS segment - Supplier's perspective

Two decades of satellite exports (c) by Eurospace
RS segment - Customer countries

Count of S/C demand by Customer 1999 – 2008 (#)

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Count of S/C demand by Customer 2009 – 2018 (#)

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RS segment - Customer countries for EU satellite exports

**Sum of Values of S/C (M$) 1999 – 2008**

- Canada
- Indonesia
- Malaysia
- Nigeria
- Singapore
- South Korea
- Taiwan
- Thailand
- Turkey

**Sum of Values of S/C (M$) 2009 – 2018**

- Algeria
- Canada
- Chile
- Kazakhstan
- Morocco
- Nigeria
- Peru
- Singapore
- South Korea
- Taiwan
- Turkey
- Vietnam

Two decades of satellite exports (c) by Eurospace