AGENDA – THE VIEW OF A FSS OPERATOR

1. EUTELSAT IN A NUTSHELL
2. THE HIGH THROUGHPUT SATELLITE REVOLUTION
3. A GROWING VIDEO MARKET
4. NEW APPLICATIONS FOR SATELLITES: THE INTERNET OF THINGS EXAMPLE
A LEADING GLOBAL SATELLITE COMPANY

KEY DATA

- Over 30 years of satellite operations
- Fleet of 40 satellites; global coverage
- Continued investment: 5 further satellites to launch
- Operating >1,100 transponders
- Broadcasting >6,000 channels
- Revenues: €1.48bn
- Backlog of €5.8bn, representing 3.9 years of revenues

Data as of 31 December 2015, except revenues which are as of 30 June 2015

REVENUE BREAKDOWN

By geography

- Western Europe: 36%
- Central Europe: 9%
- MENA: 9%
- RCA: 6%
- SSA: 8%
- Americas: 10%
- APAC: 19%
- Unallocated and others: 3%

By application

- Video: 63%
- Data services: 16%
- Value-Added Services: 7%
- Government Services: 14%
Total IP traffic has been multiplied by 70 since 2003 (+53% CAGR)
- More internet users (+13% CAGR)
- Traffic per user (+35% CAGR)

Video is a big driver: 64% of consumer Internet traffic in 2014, will be 80% in 2019

Traffic will again triple in the next 5 years to reach 2 Zettabytes in 2019

Mobile traffic grows 3 to 4 times faster than fixed traffic

Growth will be driven by new applications: Internet of Things, mobility
INFRASTRUCTURE IS THE MAIN BOTTLENECK TO MORE GROWTH

Total world population **7.1bn**

- Offlines **4.4bn**
  - Of which **95% in emerging countries**

- Connected **2.7bn**
  - Of which **0.9bn in developed countries**
  - Of which **1.8bn in emerging countries**

- Lack of infrastructure
- Poverty
- Illiteracy

Mostly fixed connections
Mostly 2G mobile connections
FIXED TERRESTRIAL BROADBAND SPEEDS HAVE TRIPPLED SINCE 2008 AND SATELLITE STANDS THE COMPARISON

<table>
<thead>
<tr>
<th>Region</th>
<th>2008, Q4, in mbps</th>
<th>2014, Q2, in mbps</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Europe</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Germany</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Italy</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Portugal</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Spain</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>UK</td>
<td>3</td>
<td>11</td>
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<tr>
<td><strong>Asia</strong></td>
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<td>Australia</td>
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<td>China</td>
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<td>India</td>
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<td>2</td>
</tr>
<tr>
<td>Japan</td>
<td>7</td>
<td>15</td>
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<tr>
<td><strong>Middle East &amp; Africa</strong></td>
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</tr>
<tr>
<td>Israel</td>
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<td>UAE</td>
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<td>11</td>
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<td><strong>Latin America</strong></td>
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<tr>
<td>Brazil</td>
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<td>3</td>
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<tr>
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<td>Colombia</td>
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<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Canada</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>

**HTS satellite today: >20Mbps**

SOURCE: Akamai
SATELLITE DOES NOT ONLY PERFORM WELL, IT IS ALSO COST COMPETITIVE

Incremental cost to serve a client, in thousands dollars

<table>
<thead>
<tr>
<th></th>
<th>Urban (med.-density)</th>
<th>Rural (med-low-density)</th>
<th>Rural (very low-density)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed Broadband leads</td>
<td>0.5</td>
<td>1.1</td>
<td>8.4</td>
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<tr>
<td>4G (700Mhz)</td>
<td>0.8</td>
<td>1.7</td>
<td>8.1</td>
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<tr>
<td>FTTH</td>
<td>0.6</td>
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<td>12.1</td>
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<tr>
<td>Satellite</td>
<td>1.2</td>
<td>0.9</td>
<td>1.2</td>
</tr>
<tr>
<td>xDSL</td>
<td>2.2</td>
<td>12.1</td>
<td></td>
</tr>
<tr>
<td>3G (1800Mhz)</td>
<td></td>
<td>1.2</td>
<td></td>
</tr>
</tbody>
</table>

Satellite leads

Eutelsat Proprietary and Strictly Confidential
The “High-Throughput Satellite” principle has led to the development of a new satellite architecture:

- Coverage in multi-spot beams with frequency reuse
- Smaller beams to improve coverage performances
- Increase of the overall capacity on satellite

This improvement enables service evolution:

- Decrease of Mbit costs and prices
- Smaller terminals thanks to better satellite performances
- New broadband markets for consumer or associated markets

Each HTS has a specific market positioning

- Frequency bands linked to availability and expected performance
  - Ka-band for internet access for consumers and SMEs
  - Ku-band for professional services (enterprise, Telco)
  - Nevertheless, depends on available spectrum, coverage size, etc.

To extract all the benefits of an HTS, size matters, which is only possible by aggregating the needs of several countries and sharing as many parts of the HTS infrastructure between them.
“The availability of satellite broadband in all EU member states is an essential stepping-stone for making a Connected Continent a reality,” Neelie Kroes, ex-EU Vice President and Commissioner for the Digital Agenda 17 Oct 2013

KA-SAT 9° East

Standard terminal

- IDU box
- Antenna 77cm
- 3W ODU
- 75W power

Viasat
Technology & Service partner

→ 200K subscribers

Eutelsat Proprietary and Strictly Confidential
4 NEW HTS SATELLITES ARE AND WILL BE LAUNCHED BY EUTELSAT BETWEEN 2015 AND 2017

- **EUTELSAT 36C (Ka-band)**
  - Russia
  - Launch in 2015
  - 18 spots in Ka
  - Throughput > 11 Gbps

- **EUTELSAT 172B (Ku-band)**
  - Mobility in Asia and trans-pacific
  - Launch in 2017
  - 11 spots in Ku

- **EUTELSAT 65 West A (Ka-band)**
  - South America
  - Launch in 2016
  - 24 spots in Ka
  - Throughput > 35 Gbps

- **BB4 Africa (Ka-band)**
  - Africa
  - Launch in 2016
  - 14 spots in Ka
  - Throughput > 8 Gbps (and 75GBps in 2019)

... Asia-Pacific, the next frontier...
Milestone of 6,000 channels reached end-December

263 new channels over 12 months

HDTV accelerating
⇒ 12.6% of 6,000 channels are HD

Ultra HD emerging
⇒ Three channels on the fleet
⇒ Other trials underway

1 total also includes UHD channels
LIMITED AVAILABILITY OF TV VIA TERRESTRIAL NETWORKS

In many markets, satellite remains the most viable infrastructure for video distribution

**FIXED BROADBAND PENETRATION % OF HOUSEHOLDS**
- USA: 70%
- Russia: 44%
- Brazil: 32%
- Mexico: 39%
- Turkey: 39%
- Egypt: 10%
- Tanzania: 3%

**BROADBAND SPEED % OF HOUSEHOLDS WITH >10MBPS**
- USA: 43%
- Russia: 33%
- Brazil: 2%
- Mexico: 6%
- Turkey: 7%
- Egypt: <3%
- Tanzania: N/A

Source: Akamai's State of the Internet – Q2 2015 report; McKinsey – Offline and falling behind: Barriers to Internet adoption – October 2014
SATELLITE TV GAINING MARKET SHARE WORLDWIDE

- TV homes to increase by **140 million** to 1.7 billion by 2020
- Satellite TV to grow by 80 million homes to **440 million** by 2020
- Satellite TV market share to grow from **23%** to **26%** by 2020

**MILLIONS OF TV HOMES BY DISTRIBUTION MODE - GLOBAL**

Source: Euroconsult, Digital TV Research
BEYOND BROADBAND AND VIDEO, A NUMBER OF CONCRETE OPPORTUNITIES WILL FUEL THE SATELLITE GROWTH CYCLE

Mobility
- Growing request of passengers to stay connected during flights
- In Asia Pacific, Panasonic partnership on future Eutelsat E172B High Throughput payload for in-flight broadband access on the Pacific Rim

Maritime
- Number of vessels equipped multiplied by 2.5 between now and 2020
- Huge potential remains in cruising, ferries, yachts, merchant marine, fishing boats
- Crew welfare

IoT
- Booming number of devices in the « Connected Home »
- Deployement of dedicated networks to connect billions of objects
- Potential for massive gains in key industries, with global coverage needs
Data markets poised for rapid expansion with increase in volume of connected objects

Global satellite M2M revenues forecast to exceed $2 billion in 2022 (Euroconsult)

Eutelsat’s “SmartLNB”, designed for home area networks

Eutelsat investment in Sigfox, pioneer in cost-effective, power-efficient IoT connectivity
Evangelize the benefits of satellite technology

As an industry:
- Unite our forces to promote standards & innovations
- Continue to innovate in the Space segment for long term growth...

... but in order to unlock short term potential, focus:
- On customer premise equipment (cost & design)
- On marketing & distribution
- On integration with other networks

As regulators:
- Simplify the regulatory framework for satellite broadband (blanket authorization for terminals, Ka-Band use authorization, out-of-country gateways, Open-Sky policy, etc.) and satellite DTH
- Create a leveled-playing-field for all technologies, including satellite broadband in National Broadband Plans and ensuring access to subsidies for satellite broadband projects
- Incentivize the States to make use of satellite broadband for equipping emergency and law enforcement services, connecting schools and local administrations, etc.

... and especially true in this part of the world: collaborative partnerships
THANK YOU
jfenech@eutelsat.com