

# Investor Day 2016 beyond frontiers





# **Agenda**

Corporate perspective	Karim Michel Sabbagh, President and CEO
Video	Ferdinand Kayser, CCO
Enterprise	Aslan Tricha, SVP & MSC Leader (Enterprise)
Mobility	Elias Zaacack, SVP & MSC Leader (Mobility)
Global government	Nicole Robinson, VP & MSC Leader (Government)
U.S. government	Pete Hoene, CEO of SES Government Solutions
O3b Networks	Steve Collar, CEO of O3b Networks
SES HTS+	Christophe de Hauwer, CDO
Media Solutions	Wilfried Urner, CEO of SES Platform Services
SES technology framework	Martin Halliwell, CTO
SES financial framework	Padraig McCarthy, CFO



# **Corporate perspective**

Karim Michel Sabbagh, President and CEO

# Executing differentiated strategy to deliver sustainable growth



▲ Delivering a scalable and global satellite-enabled network



▲ Focusing on value-added, end-to-end solutions in four key market verticals, where SES is well positioned to accelerate



▲ Innovating at all levels of the business to create future-proof differentiation



▲ Accelerating growth with attractive and differentiated investments

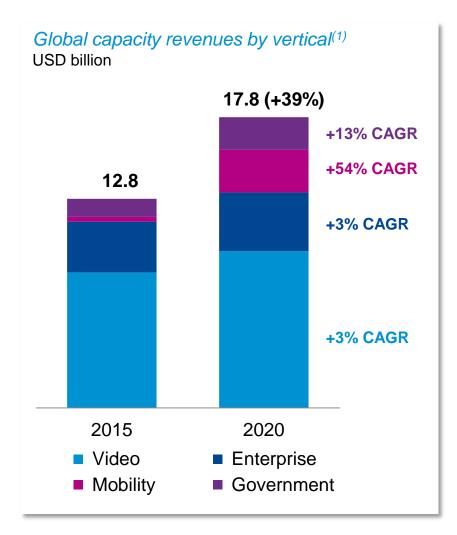


 Execution of financial framework supporting sustainable growth and progressive dividend



5

### Strong growth outlook for satellite in all four of SES's verticals

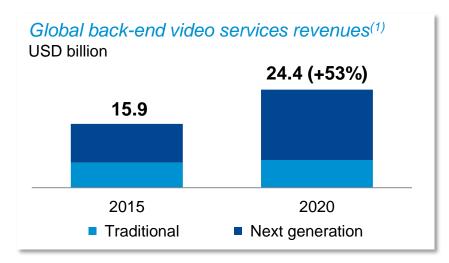


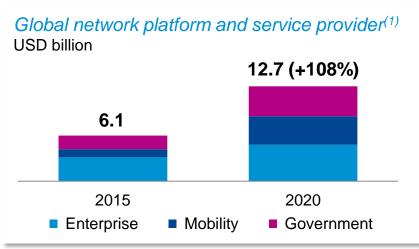
- ▲ USD 5 billion in additional satellite capacity revenues to be captured by 2020
- ▲ Video key growth drivers:
  - · Transition from SD to HD
  - Further development of Ultra HD
  - DTH growth in emerging markets
- Data verticals key growth drivers:
  - · Growing demand for global connectivity
  - · Connectivity anytime and anywhere
  - HTS capabilities essential for delivering efficient bandwidth, tailored to specific applications



6

## Further growth potential from delivering value-added services





- ▲ USD 15 billion in additional services revenues to be captured by 2020
- Generating additional "pull through" opportunities
- Enhancing a key differentiator for SES
  - Merging RR Media with SES Platform Services to create a world-leading media solutions provider
- Overall strengthening strategic relationship with key clients

1) Source: NSR





# **Globalising the business**

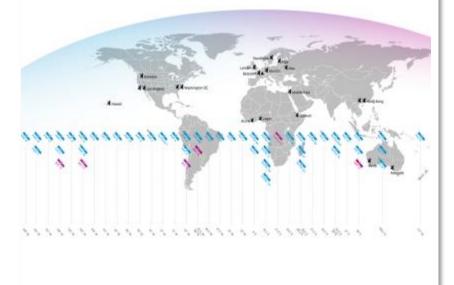
SES's global satellite network

Over 50 GEO satellites

Plus 12 MEO satellites

Over 20 teleports

Over 20 office locations



- Developing the strongest, most scalable and flexible hybrid platforms
  - · Ubiquitous and flexible global coverage
  - · Robust global ground network
  - Complemented by local presence
  - Value-added ancillary services
- Scaling up SES's business around the globe
  - 317 million TV households served by SES
  - 11 managed IP platforms delivered by SES
  - Major global mobility providers supported by SES
  - 57 global governments served by SES

Investor Day 2016 7



# Focusing on four verticals

Building the strongest, most scalable platforms across each market vertical



Prime neighbourhoods with significant technical reach

Video

End-to-end services across linear and non-linear distribution

**Leading share in global** HD/UHD; providing media solutions for 1,000 customers



**Enterprise** 

Combining global coverage across multiple frequencies

▲ Innovative IP-based solutions and network management systems

Supporting over one million simultaneous fixed internet connections



Creating user experiences with major partners

Unprecedented connectivity and 'game-changing' solutions

Largest provider of aero connectivity; growing in maritime



Government

End-to-end solutions for the most demanding applications

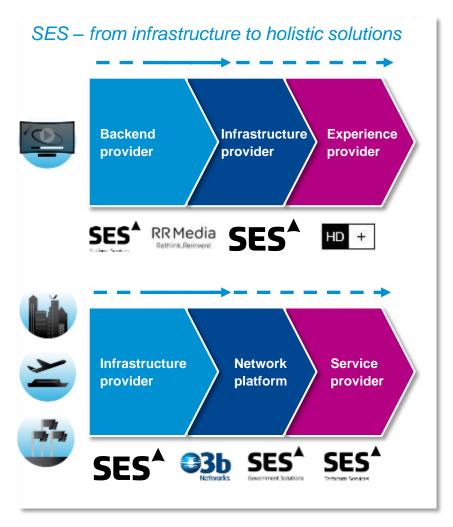
Partnering with global governments to orchestrate capabilities

Supporting 57 global governments (including 13 U.S. government agencies)





## **Enabling markets through end-to-end solutions**



- ▲ Integrated space and ground assets are essential to providing end-to-end solutions
- ▲ Accelerating the scalability of resources downstream
- ▲ Fast-tracking deployment of solutions and applications:
  - Video: SD to HD/UHD acceleration;
     LIQUID VoD; East Africa platform
  - Enterprise: Service Provider+, Telco+,
     Enterprise+ products
  - Mobility: Aero+ and Maritime+ products
  - Government: Tactical Persistent Surveillance, e-inclusion



# Seizing leading position and synergies by moving to 100% of O3b

- Adding unique and complementary products and solutions
- Generating IRR in excess of SES's hurdle rates, and enhancing return on existing investment
- ▲ Accelerating transformational and combination synergies not possible under a 50.5% scenario

#### **Transformational synergies**

- Executing a common technology roadmap
  - Fulfilling data requirements in a unique way with O3b's differentiated, global solution
  - Enhancing future CapEx efficiency and reducing consolidated normalised CapEx

#### **Combinational synergies**

- Financing synergies
  - Refinancing O3b's USD 1.2 billion of debt (currently at an average cost of 9.5%)
- Commercial synergies
  - Combining O3b's capabilities in managed services with SES's data-centric services
  - Unified approach to customer interface

EUR 53 million of synergies by 2017, growing to EUR 106 million by 2021



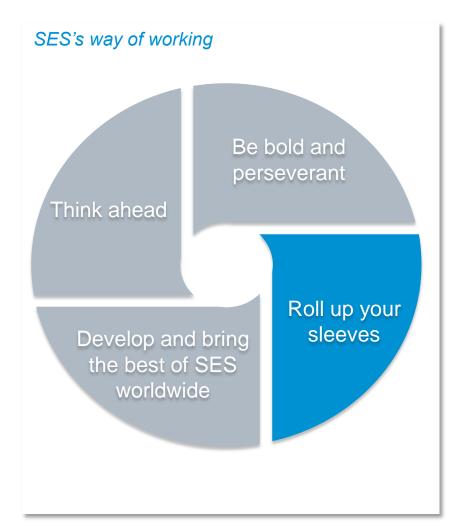
# Having foremost at industry foresight



- ▲ New foresight on the future of Video, Enterprise, Mobility and Government
- ▲ New investments across the value chain, while remaining compliant with SES's financial framework
- New partnership models to strengthen SES's capability systems and amplify resources
- New business models to enable evolving markets on the smartest critical path



## Sleeves rolled up in innovation and delivery



- ▲ Expanding capability systems across the value chain
- ▲ Deploying globally SES's capabilities and facilitating timely customisation
- ▲ Evolving business models, while retaining the principles of SES's financial framework
- ▲ Influencing policies and regulations to accelerate the rollout of new solutions for the benefit of end users



# Developing and bringing the best of SES globally



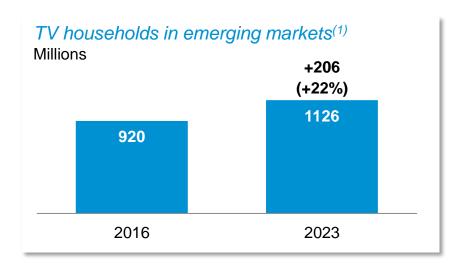
- Unrestricted commitment to serve clients globally
  - Global networks
  - Global capabilities
  - Global talents
  - Global mobilisation

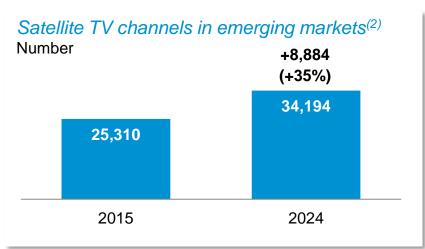


# SES's growth markets: Video

Ferdinand Kayser, CCO

## Strong growth potential from globalising SES's video business



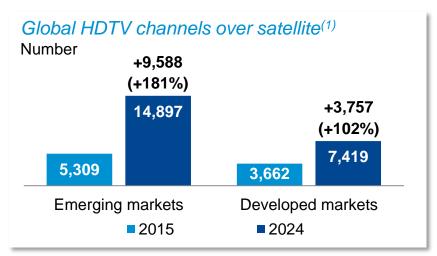


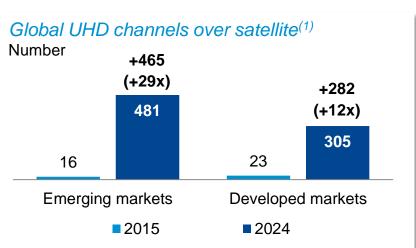
- ▲ Significant audience growth driving demand for new video platforms in emerging markets
- Growing audiences demanding more choice and more TV channels
- SES expanding in global video
  - Serving 76 million TV households in International
  - Broadcasting over 2,750 TV channels in International
  - 52% of SES's available capacity serving International markets (including SES-9)
  - Growing capacity in Latin America at established video neighbourhoods with anchor customers

<sup>1)</sup> Source: NSR

<sup>2)</sup> Source: Euroconsult

## Driving growth from the transition to HD and Ultra HD





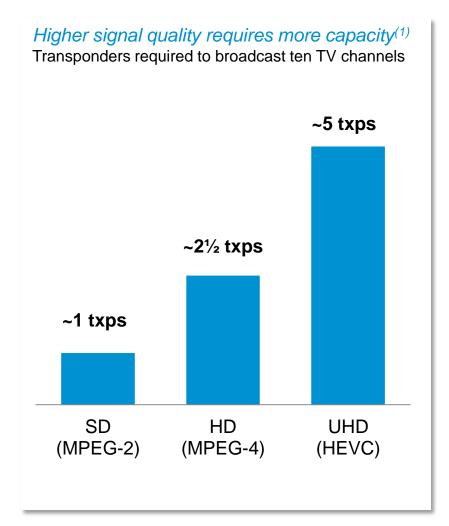
- Increasing demand for higher quality viewing experience
  - TV screen sizes >49" represent the biggest growth segment<sup>(2)</sup>
- Higher quality signals require more capacity
  - Compression enhancements stimulating transition from SD to HD and UHD
- ▲ SES benefiting from transition to HD/UHD, and outperforming the industry
  - ~60% of all TV channels in MPEG-4
  - HDTV now 32.5% of all TV channels, compared to 19.8% for the rest of the industry

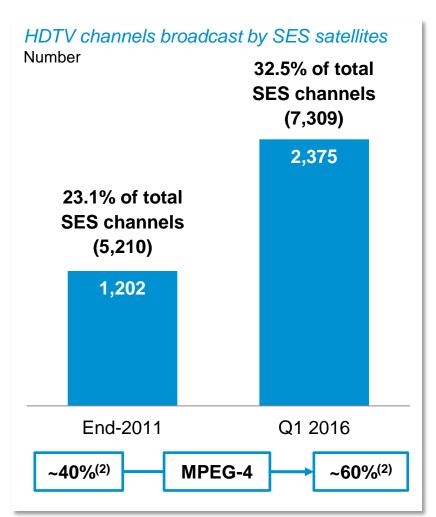
<sup>1)</sup> Source: Euroconsult

<sup>2)</sup> Source: IHS



## **Enabling higher quality content with compression**





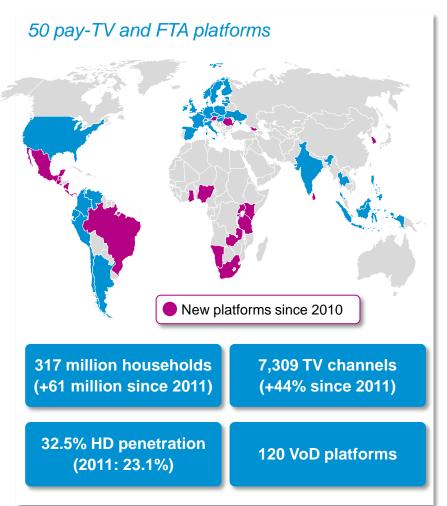
<sup>1)</sup> Based on one 36 MHz transponder delivering approximately 40 Mbit/s

<sup>2)</sup> MPEG-4 TV channels as a proportion of SES's total TV channels



# SES<sup>^</sup>

# Providing scalable, global solutions









# Scaling up SES's global video offering

	2011	2016
Liberalising the broadcast environment	256 million TV households	317 million TV households
Facilitating the digital switchover	5,210 TV channels	7,309 TV channels
Enabling the move to higher quality	23.1% HD penetration	32.5% HD penetration
Delivering holistic and hybrid solutions	0 VoD platform	120 VoD platforms
Replicating the SES way of working globally	<ul> <li>▲ +23% available capacity in Asia-Pacific</li> <li>▲ +15% available capacity in Latin America</li> </ul>	



# SES<sup>^</sup>

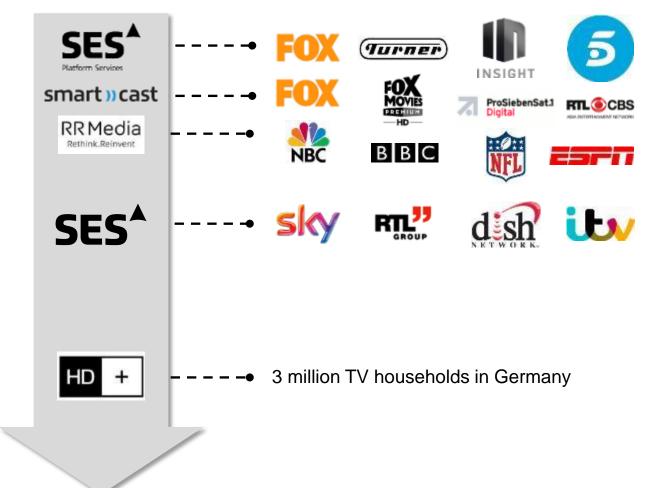
# Delivering differentiated, holistic solutions

▲ SES already delivering end-to-end solutions for major customers

Backend Provider

Infrastructure Provider

**Experience Provider** 





# SES<sup>^</sup>

# Offering scalable, linear/non-linear end-to-end solutions

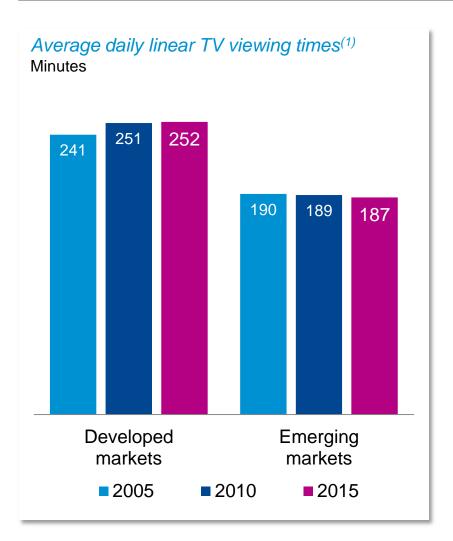
**SES** Media Tool Box **Core DTH Core OTT Broadcast Digital rights Backend** services management **Provider** Conditional **Live and VoD** processing access Infrastructure **Satellite** Content capacity delivery **Provider Set-top-box** WebTV specs apps **Experience Provider Subscription Subscription** and order and order management management

- SES well placed to deliver end-to-end hybrid solutions
- Providing all the technical elements to deliver content from end-to-end
- Offering 'turnkey' solutions, to best suit each customer's requirements
- ▲ Combining DTH and OTT capabilities to deliver the best viewing experience across all devices





# Complementing satellite's competitive advantages



- ▲ Linear TV consumption remains stable
- ▲ Satellite delivers compelling advantages:
  - 100% global coverage
  - · Consistent and high quality bandwidth
  - Highly cost-efficient delivery method
- ▲ Non-linear adding incremental viewing times, mostly during daytime
  - OTT increasingly substituting Blu-Ray/DVD
- ▲ Hybrid approach is essential



## Case studies: complementing satellite with OTT



#### **Task**

- Create a financially viable model for German FTA TV broadcasters to broadcast content in HD quality
- Extend to multi-screen distribution.

#### **Implementation**

- ▲ Introduction of HD+ extrascreen, using SAT>IP technology
- Extending the reach of HD in Germany

#### **Benefit**

- ▲ Addressable market grown to **over 3 million HD+ homes**
- ▲ End consumers able to watch 21 encrypted HD and all FTA HD channels on their mobile devices, using SAT>IP



# **HOME:TV**

#### Task

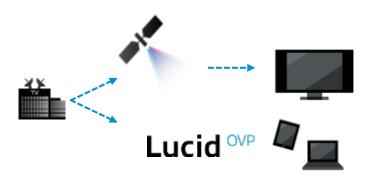
- Create a pan-European TV Broadcast and VoD platform for expatriates in Europe
- ▲ Implement complete end-to-end distribution on DTH and OTT

#### **Implementation**

- Content contribution, back-end services and distribution via satellite and Content Delivery Network
- ▲ Provide OTT reception via iOS, Android and Webplayer

#### **Benefit**

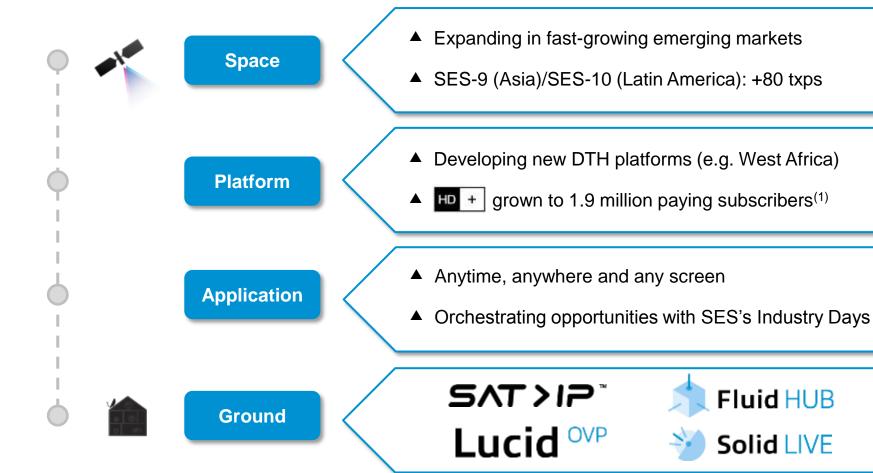
- End consumers have choice to select DTH and/or OTT
- Based on LUCID OVP to enable reception on all common IP devices, in addition to the main TV screen





# SES^

# Shaping the future by innovating at all levels



<sup>1)</sup> Excluding 1.2 million households currently within the six months free introductory period

## Accelerating SES's future-proof differentiation

#### Three key principles:

# Distinct infrastructure to holistic solution

- Prime neighbourhoods and substantial technical reach
- ▲ Complemented by world-leading media solutions provision
- Rapidly scaling up SES's capabilities globally

Yield management to value management

- Complementing infrastructure sales with services
- ▲ 50% increase in "pull-through" from SES PS since 2012









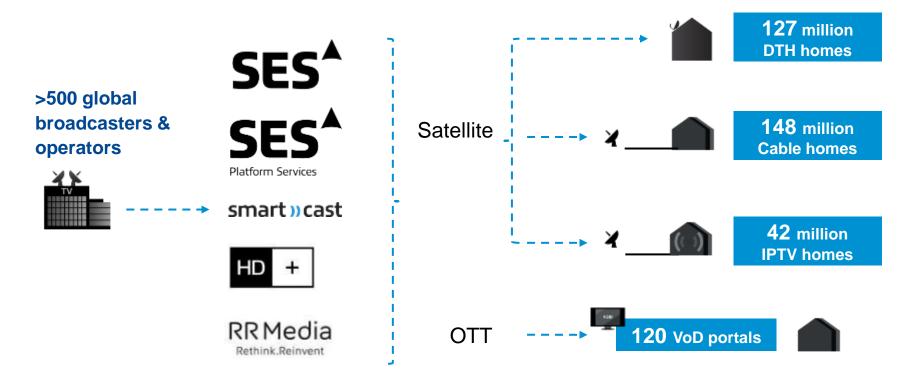
#### Relevance to resilience

- Orchestrating the transition to HD and UHD
- ▲ Complementing satellite with terrestrial capabilities
- ▲ Delivering the best experience across all devices



# Becoming the first choice for delivery of global video content

- ▲ Growing SES's prime neighbourhoods and substantial technical reach
- ▲ Enhancing SES's hybrid capabilities and ancillary services globally

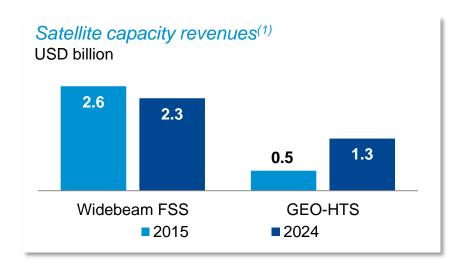


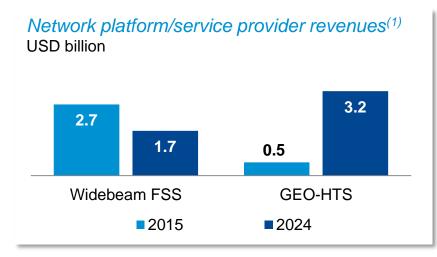


# SES's growth markets: Enterprise

Aslan Tricha, SVP & MSC Leader for Enterprise

## Strong growth potential in global enterprise





2) Source: Ericsson (2015-2021)

- Connectivity adoption is a growth enabler
- Satellite services growing in relevance within the global IP traffic explosion
  - Providing reach to reduce connectivity gap
    - Worldwide ICT development plans to bridge digital divide, broadband adoption, mobile broadband subscriber CAGR 15%<sup>(2)</sup> (proliferation of 3G/4G/LTE networks)
  - Fulfilling performance requirements by application
    - Mobile traffic +45% CAGR<sup>(2)</sup> (capacity usage per user doubling every three years)
  - Fulfilling user experience requirements with high performance networks (throughput and latency)
- ▲ Focusing on key growth applications:
  - Addressing point-to-multi-point enterprise needs
  - Extending terrestrial networks
  - Connecting the 'sub-urban unconnected'

1) Source: NSR

# Reshaping SES's Enterprise business to changing market dynamics

- Reshaping SES's Enterprise business with enhanced product offerings
- ▲ Expanding commercial relationships with 'tier one' telcos/MNOs and channels



# Capacity commoditisation

- ▲ Delivering Enterprise+ managed solutions to optimise the value per application
- Developing a combined GEO/MEO HTS offering

Mbps price pressure

- Executing a focused strategy on tier one Telcos/MNOs
- ▲ Targeting new customer segments (next gen data providers)
- ▲ Reshaping approach to tier two/three Service Providers

Satellite substitution by adjacent solutions

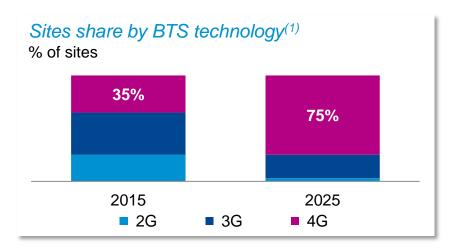
- ▲ No exposure to trunking (less than 1% of overall business)
- ▲ Serving point-to-multi-point applications
- ▲ Connecting the 'sub-urban unconnected' with hybrid solutions

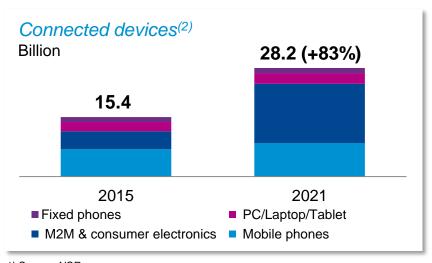


Complex ground requirements

- ▲ Developing channels (VAR and vendors) to increase customer proximity and reduce time-to-market
- ▲ Enhancing business models to create new opportunities

## **Driving growth from backhaul services**





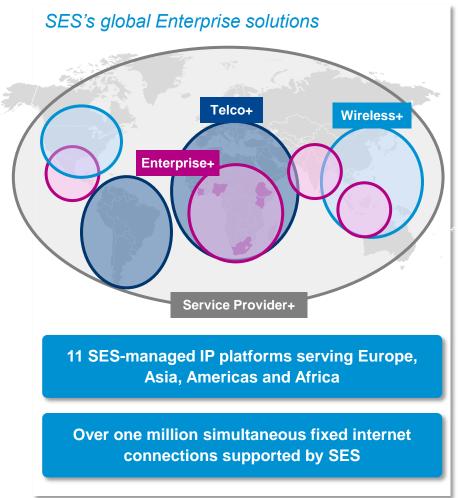
1) Source: NSR 2) Source: Ericsson

- Monetising demand from 3G and 4G/LTE sites by providing competitive solutions with HTS
  - 10 to 40 times traffic growth per site with 3G/4G/LTE, compared to 2G
  - Robust solutions to handle complex network requirements and quality of experience
- Capturing growth in Internet of Things
  - Connected devices to reach 28 billion by 2021
  - Growing range of applications
    - Smart buildings, smart cities, smart home, smart grid, smart agriculture and smart industries
  - New business models supported by falling modem costs and HTS capacity
- ▲ Satellite solution advantages: ubiquity, scale, security, resilience and network management



# SES<sup>^</sup>

# Providing scalable, global solutions









# Scaling up SES's global enterprise offering

	2011	2016
Increasing the connectivity reach in developing markets	21% of households with internet	35% of households with internet
<ul> <li>Facilitating the network proximity</li> <li>Nodes</li> <li>Customer connectivity points</li> <li>Network transport</li> </ul>	15 Teleports	25 Teleports
	25 PoP	>3,000 PoP
	L3 connectivity	L2 & L3 MPLS (support for MEF 2.0 services)
3 Improving application and user experience	3 Mbps average data rate per site	12 Mbps average data rate per site
Delivering holistic and hybrid solutions	0 hybrid platforms	6 hybrid platforms
5 Replicating the SES way of working globally	Vendor partnerships with Gilat & iDirect enhancing channels to market for Enterprise+, Telco+, Wireless+	



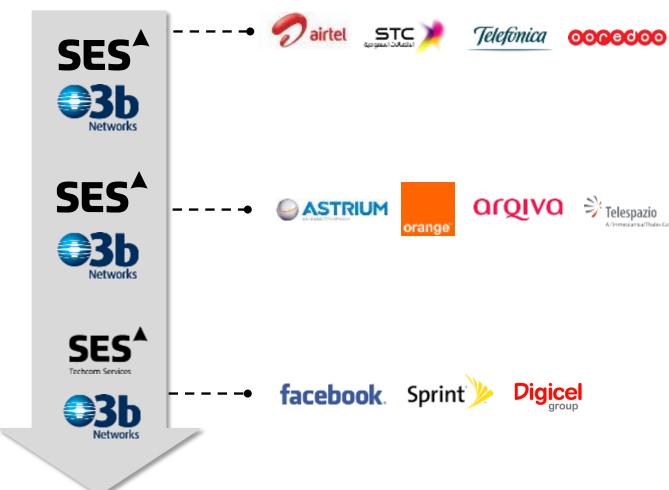
# SES<sup>^</sup>

# Delivering differentiated, holistic solutions

Infrastructure Provider

Network Platform

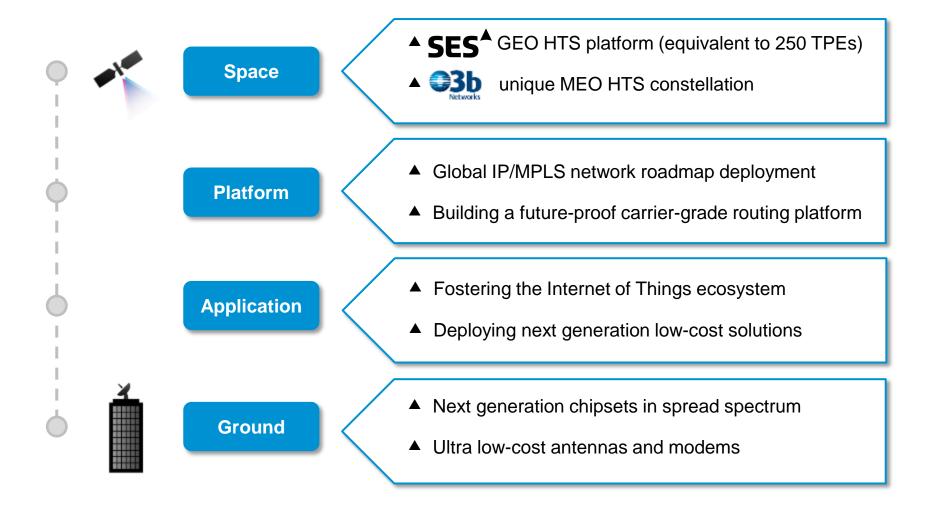
Service Provider ▲ SES already delivering end-to-end solutions for major customers





# SES<sup>^</sup>

# Shaping the future by innovating at all levels



## Accelerating SES's future-proof differentiation

#### Three key principles:

Distinct infrastructure to holistic solution

- ▲ Investing in HTS and next gen data network capabilities
- Delivering complete suite of enterprise solutions globally
- Enhancing satellite solutions with hybrid features

Yield management to value management

- ▲ Complementing infrastructure sales with services
- ▲ Increasing revenues from tier one Telcos/MNOs and Service Providers from 36% to 42% in 2015









Relevance to resilience

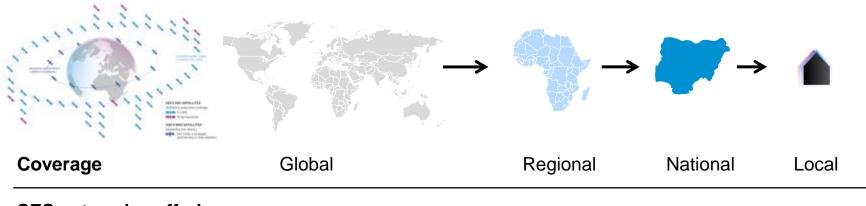
- ▲ Providing satellite services to next gen data providers
  - facebook.
- ▲ Delivering highest service performance (exceeding 99.97% since 2004) and fastest implementation

Investor Day 2016 35

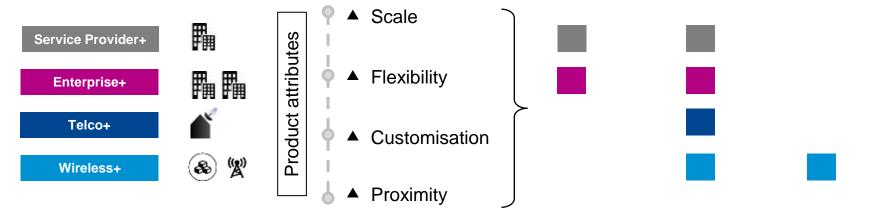


# Providing value in delivering global enterprise solutions

▲ Delivering tailored solutions on a regional, national, and/or local level for customers



#### **SES** enterprise offerings



### Case study: Providing a turnkey solution for Facebook in Africa

#### **Task**

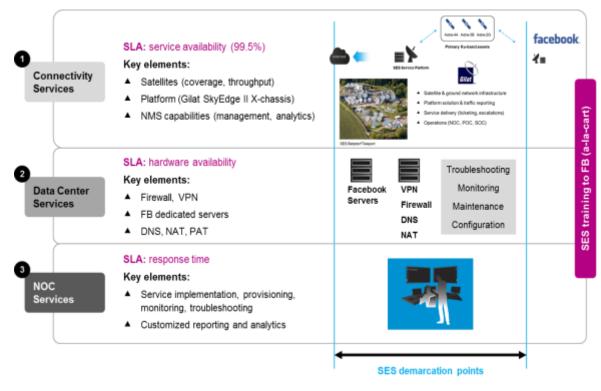
Support Facebook's Express Wi-Fi programme roll-out in Sub-Sahara Africa

#### **Implementation**

- Simplified customer frontend solution
- Combining complex service elements in the back-end
  - Satellite and ground infrastructure
  - Managed services
- ▲ High level performance and SLA

#### **Benefit**

▲ Complete and tailored solution deploying customer-specific protocol enhancement features

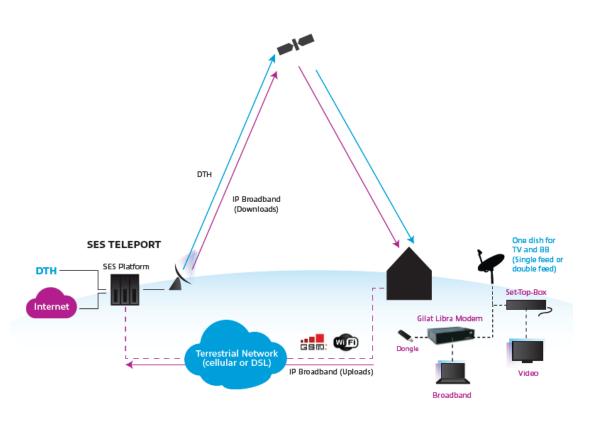


Investor Day 2016



### Case study: Delivering Hybrid Broadband in Asia

▲ Allowing telcos/MNOs and ISPs to deliver broadband services to underserved areas, while leveraging their core network investment



- Enterprise+ Hybrid Broadband enables enhanced broadband connectivity:
  - Superior end-user experience for underserved areas (20Mbps download speeds, return carrier via 2G/3G)
  - Carrier grade infrastructure (total management system)
  - A self-installed terminal with automatic service activation
- ▲ On-going customer testing:





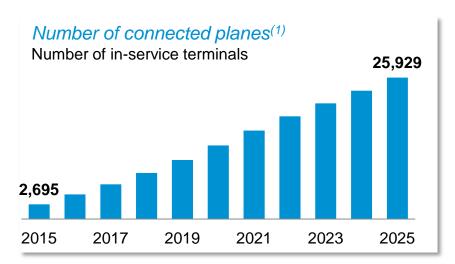
Investor Day 2016

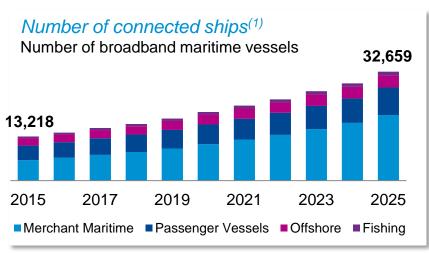


## SES's growth markets: Mobility

Elias Zaccack, SVP & MSC Leader for Mobility

### Substantial growth outlook in Mobility





- Growth driven by explosion in passengers carrying smartphones, tablets and laptops
- Dramatic rise in airlines deploying IFC, and resulting surge in connected aircraft over next decade in all regions, led by North America
- Maritime segment driven by cruise requirements, which accommodate BYOD for up to 5,000 passengers per ship
- Office-at-sea, cargo processing, ship diagnostics and crew welfare driving the maritime space
- SES has cemented solid, long-term contracts and with virtually global providers, and is establishing recognition and 'brand' with end-users (fleet owner/operators)
  - Already serving up to 2,000 aircraft today
  - 5% of group revenue (revenue +25% in 2015 at constant FX)
  - 20%-30% of SES HTS already pre-committed, two years ahead of OSD

1) Source: NSR (FSS only)



## Passengers expecting a home-equivalent quality of service

▲ Importance of moving with changing consumer demand patterns supports SES's technology approach

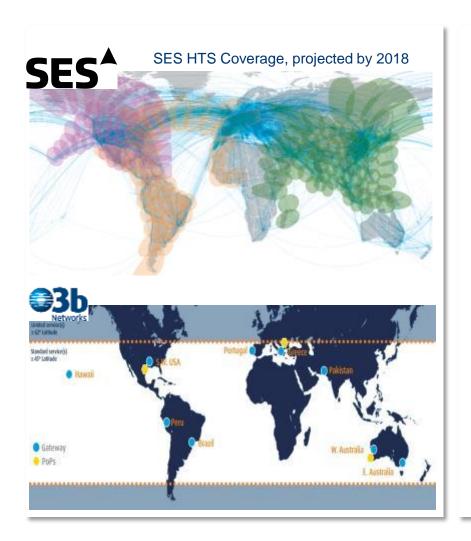
	Yesterday	Today	Tomorrow
Satellite	L-band	Ku wide beam and HTS Ka spot beams	GEO Ku/Ka HTS, MEO
Antenna	Flat aperture	Phased Array	Metamaterial & conductive coverings
Modem speed (FWD / RET)	6 Mbit/s / 4 Mbit/s	150 Mbit/s / 18 Mbit/s	200 Mbit/s / 30 Mbit/s
Throughput per plane	1 Mbps	2-10 Mbps	>200 Mbps
Typical app	Email	Email, Browsing, Social Media and Video Streaming	At home-type experience (including HD video)
Take up rate	3%	6%	>50%
Date rate per seat <sup>(1)</sup>	166 kbps	0.5 Mbps	>2 Mbps

<sup>1)</sup> Assuming an average of 200 passengers per aircraft





## Providing a scalable and optimised global solution



Supporting global service providers/companies





## **Panasonic**



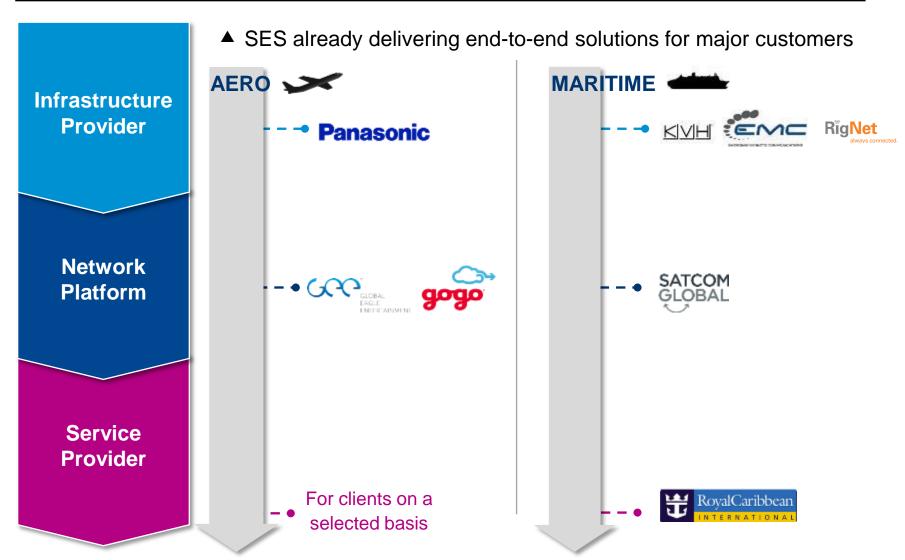






## SES<sup>^</sup>

#### Delivering differentiated, holistic solutions using SES' GEO and O3b





#### Case study: SES's differentiated global in-flight solution

▲ SES's global aero capabilities well placed to deliver optimal IFE/IFC solutions



In-flight connectivity

- HD video streaming
- Browsing
- ▲ E-mail
- ▲ VPN access
- Social networking
- Video conferencing



## Safety/operational and emergency services

- ▲ Electronic flight bags
- Advanced weather reporting
- ▲ Dynamic routing advice
- ▲ Cabin crew assistance
- ▲ Flight tracking
- ▲ Collection and storage of sensitive flight data



#### **In-flight entertainment**

- ▲ Live TV
- ▲ On-demand TV
- ▲ Tailored sports packages
- ▲ Regionalised news feeds
- ▲ HD+ Aero





#### Case study: Delivering seamless connectivity with SES Maritime+







#### Gilat 60cm

- · Lower throughput requirements
- Integrated ACU, GPS, LNB, BUC, Modem
- · Gilat Skyedge

#### Intellian 1m

- · Medium throughput requirements
- · GPS, ABS, Fast switching
- iDirect Velocity

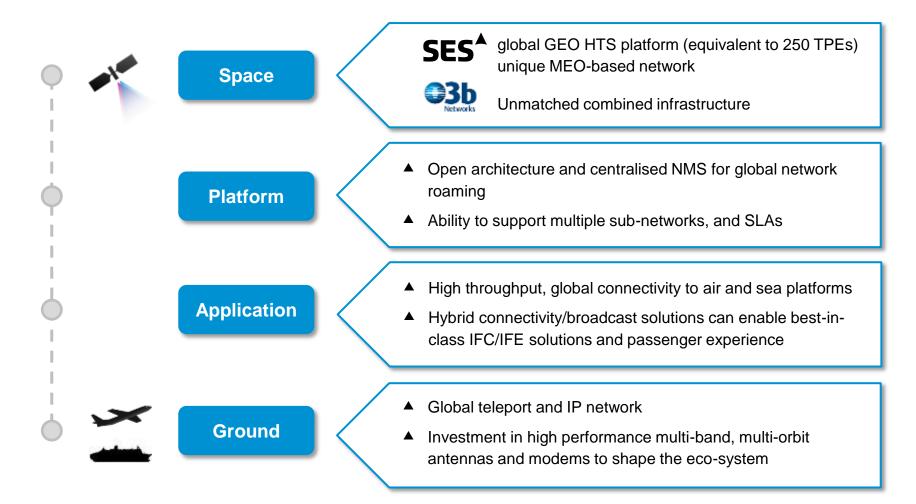
#### Seatel 2.4m

- · High throughput requirements
- GPS, Auto Polarization, C and Ku-Band LNB
- · Comtech Heights
- ▲ Customised connectivity solutions using best mix of technologies for specific users
- ▲ Multi platform offerings including iDirect, Gilat, Comtech
- ▲ Cooperation with manufacturers on new antenna development (flat panel, tri-band, GEO/MEO)



## SES<sup>^</sup>

## Shaping the future by innovating at all levels



### Accelerating SES's future-proof differentiation

#### Three key principles:

## Distinct infrastructure to holistic solution

- ▲ Combining wide-beam infrastructure, with new GEO-HTS and O3b to create a unique value proposition
- ▲ Targeting cruise sector with hybrid offering support high user-demand, while ensuring network resiliency and seasonality

## Yield management to value management

- ▲ Creating a unified platform to deliver value
- ▲ Driving higher value per vessel/aircraft and simultaneously allowing SES to optimise network efficiency
- ▲ 20-30% of SES HTS already pre-committed, two years ahead of OSD

#### Relevance to resilience

- Customisation of infrastructure to best meet client needs in terms of coverage and power-density
- Ownership of the network/platform and having a direct relationship with ship-owners and airlines ensures de-commoditisation



# SES's growth markets: Global government

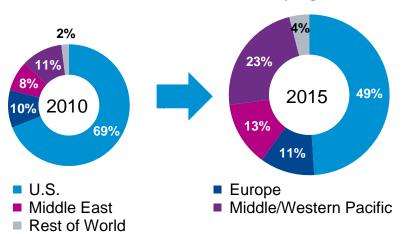
Nicole Robinson, VP & MSC Leader for Government

#### Global government market perspective

#### Global government/military capacity growth<sup>(1)</sup>

	2014	2024
FSS capacity	470 TPE	615 TPE
FSS revenue	USD 0.8 billion	USD 1.2 billion
HTS capacity	2.0 Gbps	82.3 Gbps
HTS revenue	USD 49 million	USD 550 million

#### Demand for UAV solutions diversifying<sup>(2)</sup>



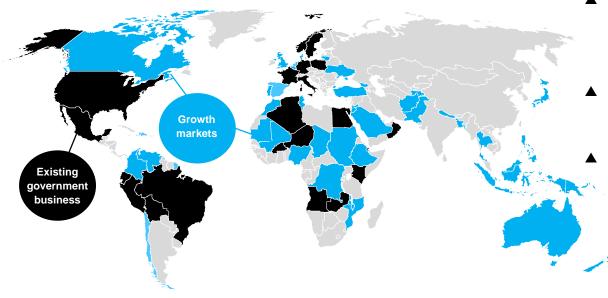
- ▲ Diversifying SES's global government portfolio to support growth
- Adapting channel strategy to varying procurement systems
  - Provision of end-to-end solutions increasingly important for global governments
  - Potential for full or partial outsourcing opportunities of national satellite programs
  - Establishing a framework for invigorating products and solutions development and market-facing resources within SES to share expertise and maximise results
- ▲ UAV-ISR requirements a key driver of global government bandwidth demand, fueled by multisensor and higher resolution payloads

1) Source: NSR 2) Source: Teal Group





## SES's Global government reach



- ▲ Serving 57 government entities today in 28 countries (including 13 U.S. government agencies)
- ▲ International government portfolio doubled from 2014 to 2015
- Strategic focus on growing in new government markets













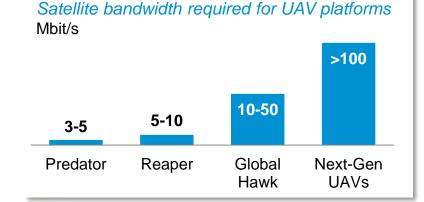






## Developing a complete ISR catalog

- ▲ ISR a key growth driver
- ▲ SES building a catalog of offerings and expertise globally



Tier II+ (Group 5) High Altitude Long Endurance (HALE)

**NATO Global Hawk: SES** is supporting the implementation phase of the Global Hawk program for NATO as well as in the design and development of the system along side Northrop Grumman

U.S. Global Hawk: SES GS supports U.S. Global Hawk training and research missions in the Americas

#### Tier II (Group 4) Medium Altitude Long Endurance (MALE)

Predator XP: SES is working with the one of the first countries to receive the XP in the Middle Fast

HTS SATCOM Suite: SES is collaborating on the next generation SATCOM suite on board select UAVs to ensure HTS capability

Predator/MQ-9 Reaper: SES supports the Netherlands Reaper program as well as the US Government separately

through SES GS

#### Tier II (Group 4) Medium Altitude

Long Endurance - NEW -

#### New European UAV:

SES is working to demonstrate the capability of a new type of Ku/Ka antenna on a brand new UAV platform developed in Europe and recently exported to governments in the region and in the Middle East. New capability will open up additional pipeline for SES

#### **Optionally Piloted** SATCOM-enabled

ISR aircraft MASI: SES is working to develop an institutional

service in conjunction with industrial partners to SATCOM-enable capabilities such as sea border surveillance, traffic monitoring and piracy from these optionally-piloted aircraft

#### Persistent Surveillance

Aerostat-based sensing

#### **Tactical Persistent** Surveillance (TPS): SES

has developed a SATCOM-enabled surveillance and communications capability via aerostat - portable in tow with 1.000 ft. tether. Ideal for security and first responders

51 **Investor Day 2016** 





### Delivering differentiated, holistic solutions

Infrastructure Provider

Network Platform

Service Provider









▲ Delivering scalable solutions from space segment to endto-end secure network solutions to dedicated satellite design

#### Critical infrastructure

**Kativik Government:** delivering 12 txps of SES capacity to enable critical connectivity for hospitals, government facilities, schools and internet services in the northern Quebec region

End-to-end

**Burkina Faso:** enabling secure elections with a network powering biometric voter validation and connectivity to 45 districts

Custom satellite and ground solutions

**EGNOS Hosted Payload:** providing European navigation services with two hosted payloads, ground segment and fully redundant ground network

**GovSat1:** delivering a military frequency satellite, dedicated for government applications in partnership with the Luxembourg government

### Case study: enhancing connectivity for the Kativik government

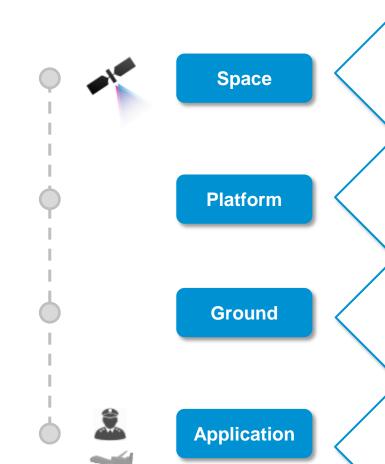
- ▲ Kativik Regional government in Canada awarded SES a contract for the delivery of new satellite services across the northern Quebec region
- ▲ Displacing long-time incumbent, to deliver critical C-band communications capability to more than 14 remote communities
- ▲ Tripling the amount of bandwidth currently available across the Nunavik region
- ▲ Along with providing faster internet and other services to the region, the capability enables essential connectivity for schools, hospitals, government buildings and other important facilities





## SES<sup>^</sup>

## Shaping the future by innovating at all levels



- ▲ **SES** GEO HTS platform (equivalent to 250 TPEs)
- ▲ **3b** unique MEO HTS constellation
- Military frequency satellite GovSat-1 for government missions
- Five hosted payloads for four government agencies
- Protecting live networks to deliver high quality, uninterrupted service for critical communications
- ▲ Developing levels of security that go beyond encryption, masking traffic fluctuations and authenticating terminals
- ▲ Ensuring telemetry, secure data links and ground systems security for government customers
- Custom development and delivery of secure ground infrastructure and gateways (i.e. WGS) for government networks
- Suite of solutions to expand services on UAVs and ISR ground products
- ▲ Health+ and Education+ capabilities to enable first responders and institutional customers in remote regions
- ▲ Secure, end-to-end networks for defence and diplomatic users

#### Accelerating SES's future-proof differentiation

#### Three key principles:

## Distinct infrastructure to holistic solution

- Sharply informing fleet development plans to meet growing needs of global government customers (frequency, coverage and throughput)
- Building products and catalogues of requirements-driven capabilities to deliver complete solutions

## Yield management to value management

- Building each solution with the customer requirement first mission tailored revealing scalability and flexibility
- ▲ Beyond bandwidth bundling equipment, services and expertise to add value with more complete solutions

#### Relevance to resilience

- ▲ Providing global governments with the most resilient network
- ▲ SES's frequent launch pipeline and distributed architecture of hosted payload offerings at GEO and MEO are compelling value propositions to the important mission of resilience for national satellite programs



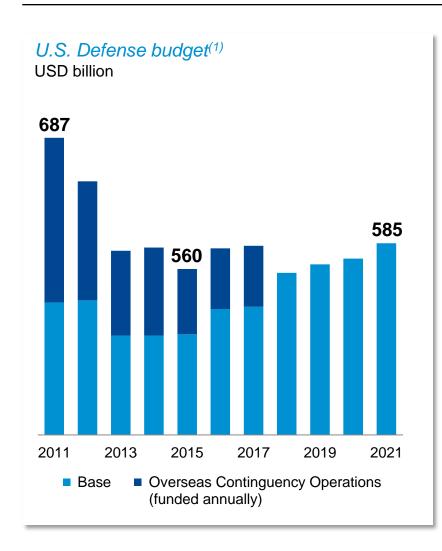
# SES's growth markets: U.S. government

Pete Hoene, CEO of SES Government Solutions



57

## U.S. government defense spending and SES GS performance



#### U.S. government budget stabilising

- Most of cuts occurred in 2012-2015, but Budget will remain tight through to 2017
- Overseas Contingency Operations Funding augments DoD base funding; future value to be determined
- Some relief in 2016-17 from sequestration threat
- While Presidential election introduces some uncertainty, overall outlook is favorable
- ▲ SES GS delivered robust performance in a competitive, budget constrained environment
  - Gained market share and increasing sales over last five years
  - Expanding and diversifying SES GS's portfolio
    - Hosted payloads
    - End-to-end solutions
    - Managed services

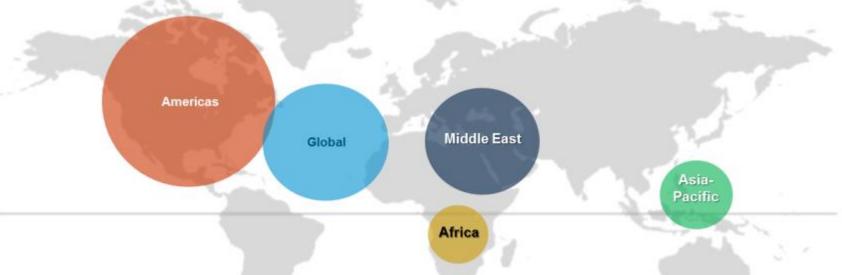
<sup>1)</sup> Source: US DoD



## SES<sup>\*</sup>

## Scalable strategy serving USG SATCOM requirements

#### Distribution of U.S. government SATCOM pipeline/demand



- ▲ Supporting U.S. government missions worldwide
  - · Securing significant new business and have a robust pipeline of opportunities
- ▲ Underlying demand is strong globally
- ▲ Core business remains stable with benefit of diversified portfolio



















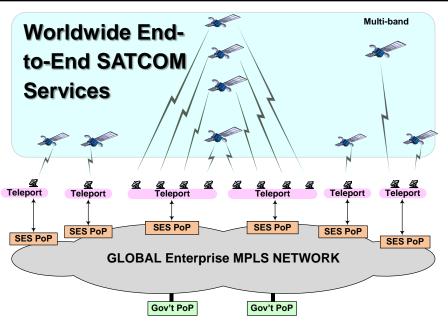
### Delivering differentiated, holistic solutions

Infrastructure Provider

Network Platform

Service Provider





- ▲ SES GS delivered **Trojan solution** to address US Army Intelligence & Security Command (INSCOM) requirements
- ▲ Key elements of Trojan solution include:
  - Worldwide, multi-band end-to-end managed services
  - Self-healing terrestrial network provides end users with access to SES global fleet and teleport infrastructure
  - Centralised network management in SES GS's NOC
  - Customised network and bandwidth management tools





### Delivering differentiated, holistic solutions

Infrastructure Provider

Network Platform

Service Provider





- ▲ NWS Office Pago Pago requested SES GS deliver O3b solution to American Samoa to support tropical weather alerts and warnings
- ▲ **Key requirement**: replace unreliable terrestrial link
- **▲** Delivered solution
  - Managed O3b service providing high-speed data connection between NWSO Pago Pago and primary Pacific NWS center in Hawaii
  - 5 x 5 Mbps using 2.4M GD antennas with room to grow
  - Radomes rated to 200 mph to protect antennas



## SES<sup>^</sup>

## Shaping the future by innovating at all levels

▲ Improving SATCOM performance, maximising operational availability and delivering world-class solutions







Global GEO fleet and future HTS services (SES-12/SES-14/SES-15) provide USG with resilient SATCOM



Adds 'game-changing' capabilities to SES's GEO product line



- Developing and delivering network management tools
- Customising managed service applications (e.g. Bandwidth Manager) to optimise service delivery



- ▲ Improving customer access to SES Fleet through world-wide, highly reliable, self-healing terrestrial networks
- Building out key infrastructure with 'state-of-the-art', sustainable hubs for dynamic bandwidth allocation



**Application** 

- Enabling time-critical delivery of ISR information to meet National-level USG mission requirements
- ▲ Delivering innovative SATCOM solutions and applications to USG end-users operating in demanding locations

### Accelerating SES's future-proof differentiation

#### Three key principles:

## Distinct infrastructure to holistic solution

- ▲ Evolution of stand-alone, highly customised networks to enterprise, end-to-end solutions addressing multiple customer requirements (e.g. transition of **US Army's Trojan network)**
- ▲ Shaping acquisition strategy to use procurement dollars for COMSATCOM buy as critical infrastructure vs. commodity

## Yield management to value management

- ▲ Diversifying and expanding SES's portfolio to include hosted payloads, complex end-to-end solutions and managed services
- ▲ Leveraging deep understanding of USG customers and missions to provide leading edge solutions

#### Relevance to resilience

- ▲ Government Affairs efforts are shaping Congressional language and future USG architectures to enable USG resilience and ensure operations in a contested/congested space environment
- ▲ Evolving from single threaded, unreliable customised ground infrastructure to highly reliable self-healing networks



# SES's growth accelerators: O3b Networks

Steve Collar, CEO of O3b Networks

### **O3b – The Fastest Growing Satellite Operator in History**



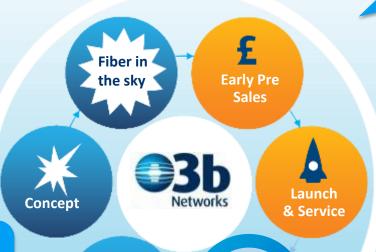
Achieved EBITDA break-even in 1H 2016

More than 23 Gbps of capacity under contract

O3b is the largest operator in the Pacific

43 customers in service on O3b

Serving 10 RCCL ships including the largest cruise ships on the ocean



----

**Enabler** 

Half of O3b's customers have upgraded bandwidth in their first year

O3b enables 16 MNO customers to provide 3G or 4G/LTE service

In PNG, O3b is powering Digicel's largest market with more than 3 Gbps delivered

Provider of turnkey managed service to Airtel, Millicom and RCCL

#### No.1 in The Pacific – 5 Gbps under contract, 50% islands connected



**Digicel, PNG** 



**Telecom Cook Islands, Cook Islands** 





PNCC, Palau



**Telecom Cook Islands, Cook Islands** 



Norfolk Telecom, Norfolk Island





**Improved QoE** 



**Increased ARPU** 



Reduced churn



## **No.1** in Cruise – Changed the Maritime and Cruise Industry





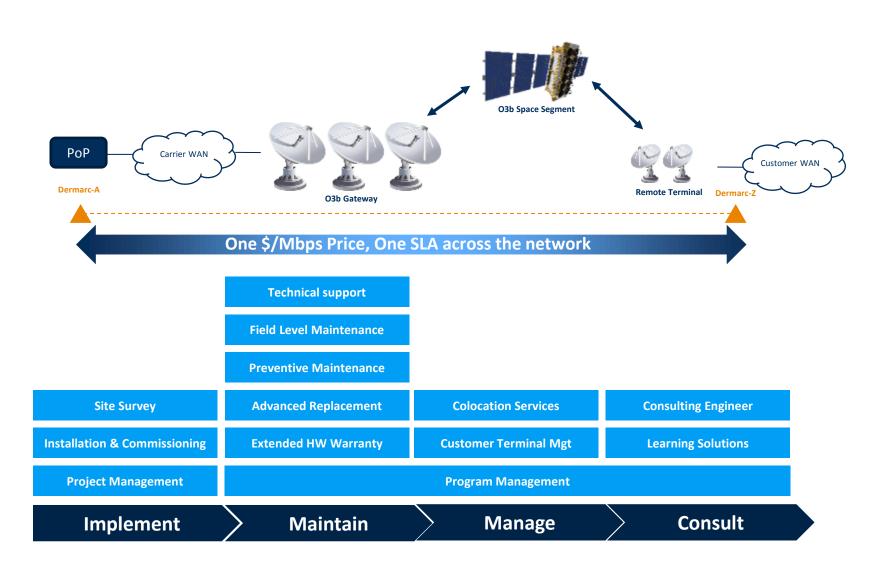
#### 43 Customers worldwide are live across the O3b Network...





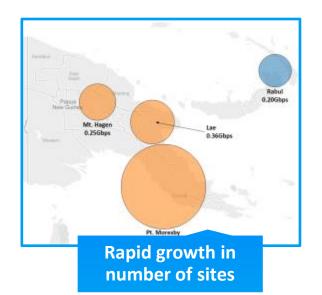
## Delivering customers an integrated, fully managed solution

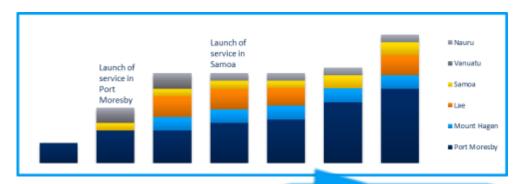




## Telco - The Pacific's largest Telco encouraging O3b to add value









Digicel Pacific has increased capacity by 550% in 15 months



- More than 3 Gbps under contract
- 6 sites across the Pacific
- Optimising Digicel's network
- Driving predictive metrics
- Implementing new products diversity
- Fast activation of services
- Recently resulted in 800 Mbps upgrade

#### Maritime - RCCL and O3b since 2011











## Direct relationships with end users drives rapid service evolution, in-house innovation and delivers high value





## Energy - Following successful deployment onshore with Shell and Chevron, O3b now offshore in Gulf of Mexico



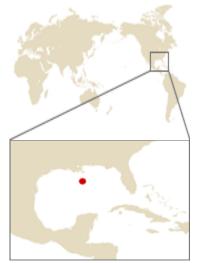
Onshore deployments went live in 2015





First offshore deployment on the BHP Shenzi platform in GoM





High expectations from FPSO offshore markets



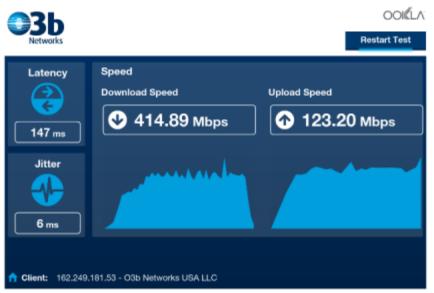


#### **Government - O3b is changing the government landscape**



#### **Providing Unprecedented Speed and Performance on Land and at Sea**













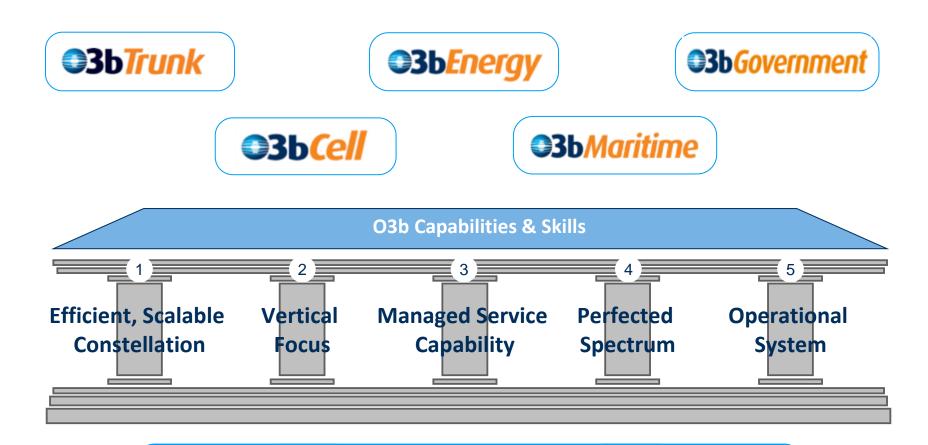
## What's Next? - An expanding use case for "fiber like" satellite





# O3b has quickly established unique capabilities and developed core building blocks to leverage for future growth

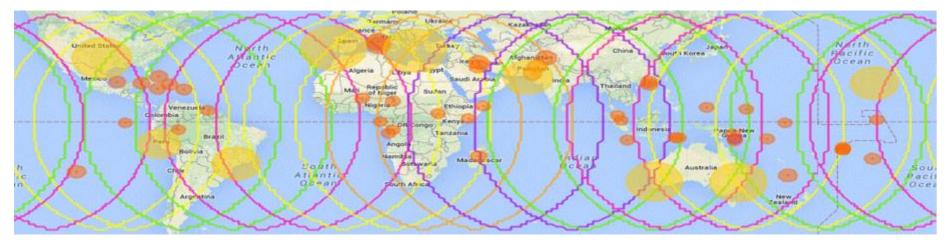


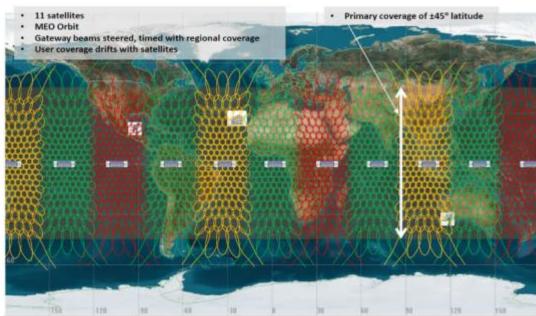


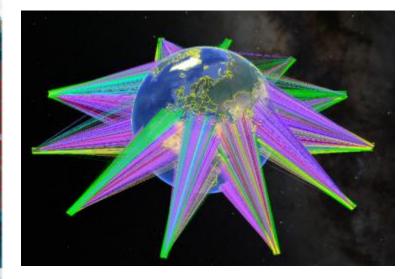
With spectrum secured in the most efficient arc, O3b's followon architectures will deliver global, high-performance networks more affordably than any other system

# **Building Scale and Leveraging Time to Market Advantage**



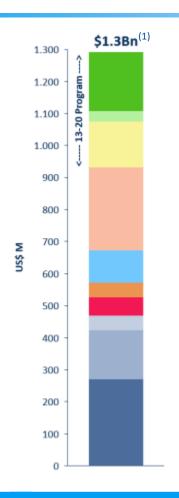






# Strong financial development at O3b - \$1.3bn financed over the last 18 months - but benefits of consolidation obvious





Full acquisition by SES will halve cost of debt and substantially reduce operational complexity

















ALLEN & COMPANY LLC

































## **Strong Execution and Revenue Delivery**





\$55M in revenue in 2015 in first full year of operation and on course to more than double in 2016



**Growing at revenue CAGR of 43% over next 5 years** 



**EBITDA** break-even achieved in May 2016



Additional 8 satellites on order that will almost double capacity in orbit through late 2017 / early 2018



# SES's growth accelerators: HTS+

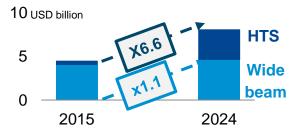
Christophe de Hauwer, CDO



## HTS is a cornerstone of SES's Data strategy

# Lower cost per bit pricing poised to unlock growth

Majority of infrastructure growth in Data is predicated on HTS capacity<sup>(1)</sup>



Increased network complexity stimulates deeper value-chain positioning

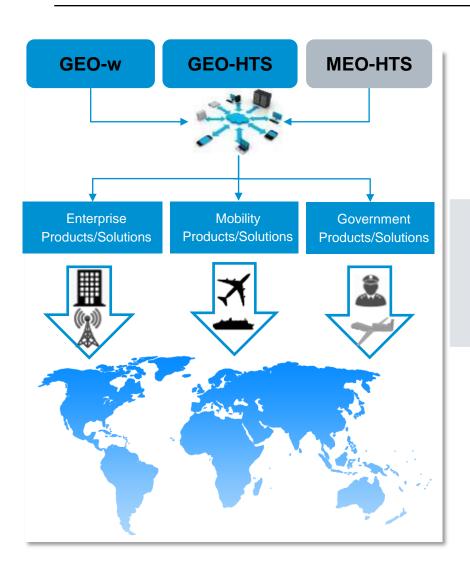


- Leveraging the ability of HTS infrastructure to offer lower prices per bit
- ▲ Unlocking new markets, applications and customers
- ▲ Creating differentiation relevance by having a deep (global) and wide (MEO/GEO) portfolio of infrastructure that can efficiently provide differentiated connectivity solutions to Data clients across all regions
- Providing wider parts of the value chain to help customers to cope with the complexity of HTS based solution
- Capturing large parts of the predicted connectivity demand increase

1) Source: NSR



# HTS serves clients in all Data verticals and all regions



		SES <sup>*</sup>	SES^	S3b Networks				
	Application	GEO wide beam	GEO HTS	MEO HTS				
E	Corporate networks	Low density	High density					
	Enterprise broadband	Low speed & density	High speed	Max speed				
	Energy		Global coverage	Max speed, low latency				
	Mobile backhaul		High speed	Max speed, low latency				
	Consumer broadband		High speed	Max speed				
	Trunking			Max speed, low latency				
M	Aeronautical	Broadcast overlay	High speed & density					
	Maritime	Broadcast overlay	Global coverage	Max speed				
G	Defense & Civilian	Global coverage						



## Not all HTS systems are created equal

# Backward compatibility

**Open system** 

Wide beam overlay

**DTP** capability

**Low latency** 

#### SES adopting a differentiated approach to HTS

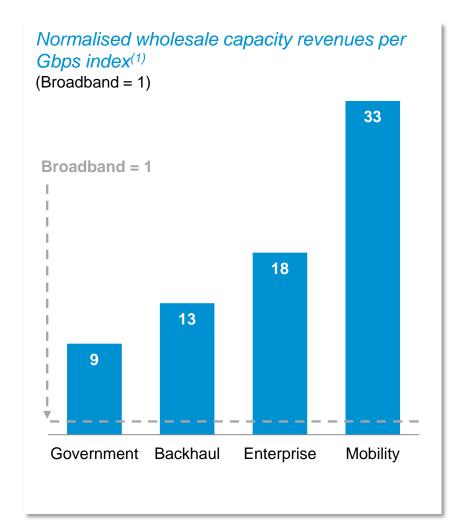
- Locking in anchor customers and backlog to de-risk investments
- Differentiating using O3b's low-latency/high throughput capabilities
- Future-proofing SES's investments by incorporating the latest technologies into payload and ground systems

#### ▲ SES HTS offers unique capabilities

- Backward compatibility of SES Ku HTS allows customers to use existing Ku-band ground technology
- SES open system enables customer's choice of their network system
- Wide beam overlay drives the best of both worlds wide beam and spot beams – for applications in all verticals
- Digital Transparent Processing allows adjustment and concentration of throughput to match market demand
- Combining GEO/MEO infrastructures offer low latency high throughput solutions



#### Relentlessly pursuing differentiation

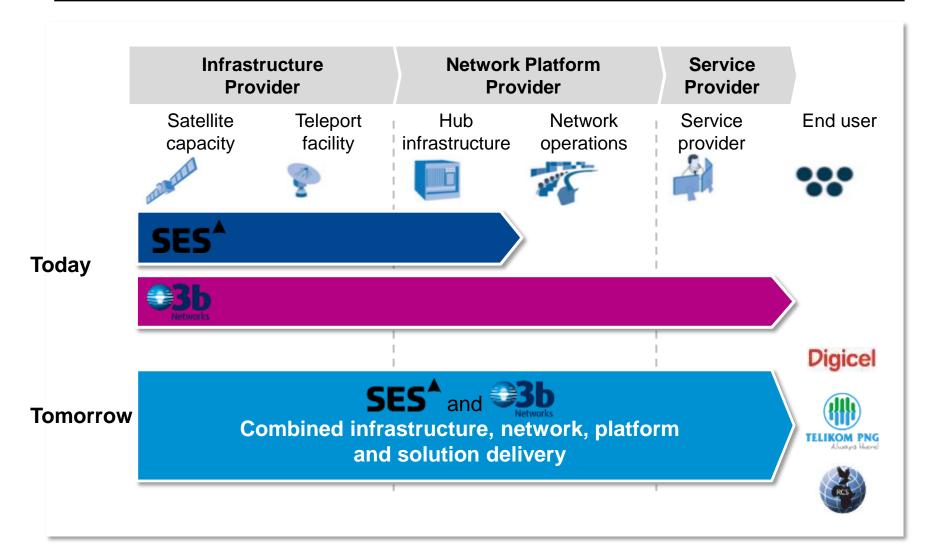


- ▲ Differentiation is the prerequisite to serve market segments in a relevant manner, and with commensurate economics
- ▲ HTS enabling new data applications with higher bandwidth capabilities, and generating tiering requirements
- ▲ SES's approach based on delivering the optimal technology solution to best serve customer requirements

<sup>1)</sup> Source: NSR, SES estimates. Wholesale category is based on wholesale revenue derived from HTS



#### HTS Offering the unique combination of GEO and MEO







# Strong strategic rationale for taking full control



# **Expanding through Globalisation**

O3b is global by design O3b accelerates the expansion of SES's International revenue base



# Augmenting through Verticalisation

O3b offers managed service solutions to serve global requirements across Enterprise, Mobility and Government verticals



# **Enhancing through Shaping the future**

O3b offers one-of-a-kind lowlatency, high throughput and flexible connectivity solutions

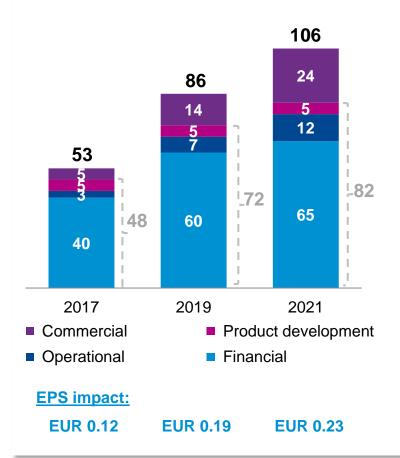


# Synergising through Acquisition

Delivering transformational financial, operational, technical and commercial synergies
Building on SES and O3b strong capabilities

#### Accelerating EUR 106 million of synergies

# Consistent delivery of substantial synergies EUR million



- ▲ EUR 53 million in 2017 rising to EUR 106 million in 2021
- ▲ Combinational and transformational synergies
  - Commercial
  - Product Development
  - Operational
  - Financial
- Synergies will be delivered
  - SES and O3b Tie-up implemented at closing
  - Building on SES and O3b strong management and operational capabilities
- Does not include impact from improved normalized CapEx
- ▲ Synergies accretion to EPS leading to overall value accretion at 15 P/E ratio<sup>(1)</sup>



#### Financial, operational, product and procurement synergies



#### **Ground Infrastructure**



Flat Antenna



Space Innovation



Network Management System

Digital Transponder Processor



- EUR 60 million of financial synergies (2019)
  - Reducing significantly O3b average cost of debt from 9.5% to SES average cost of debt of 4%
- ▲ EUR 7 million of operational synergies (2019)
  - Operational synergies across the group
- ▲ EUR 5 million of product development synergies (2019)
  - Aligning and incorporating key innovations
  - Developing seamless GEO/MEO network capabilities
- ▲ Satellite Procurement synergies (not included in 2019 number)
  - EUR 20-25 million reduction in O3b's normalised CapEx<sup>(1)</sup>
  - Leveraging space innovation (e.g. Digital Transponder Processors)
  - Leveraging on SES Normalised CapEx reduction program

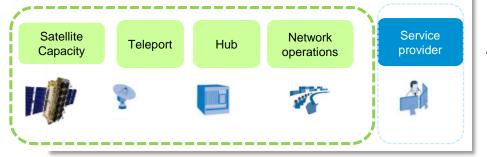
<sup>1)</sup> Excludes economies of scale and design on SES's GEO fleet



#### **Commercial synergies**



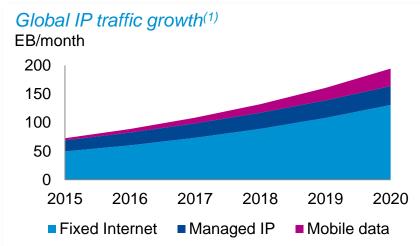
O3b Managed Service capabilities unlock new opportunities



- ▲ EUR 14 million of commercial synergies (2019)
- ▲ Cross fertilising sales to gain market share
- ▲ Cross fertilising products SES and O3b combined network is unmatched in the industry and will provide a differentiated suite of solutions
  - · Geographic complementarity
  - · Application complementarity
  - Product complementarity
  - Commercial path to capacity upgrade from GEO to MEO
- Deploying new fully managed services across the relevant data market verticals
  - Integrating O3b expertise to expand into the value chain towards a vertically integrated model (matching terrestrial Telco data service standard)



#### HTS demand is growing in line with global IP traffic





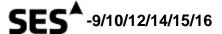
2017

2018

2019

2015

2016



EUR 250 - 300 million of potential annualised revenue by 2021<sup>(3)</sup> (Up to 15% of SES FY 2015 revenue)





EUR 400 - 450 million of potential annualised revenue by 2021<sup>(4)</sup> (Up to 22% of SES FY 2015 revenue)

2020

<sup>1)</sup> Source: Cisco; 2) Source: NSR; 3) Annualised incremental revenue at average "steady-state" utilisation of around 75% (based on FX rate of EUR 1: U.S. Dollar 1.10) 4) With 17 satellites in operation and at 'steady-state' utilisation (based on FX rate of EUR 1: U.S. Dollar 1.10)

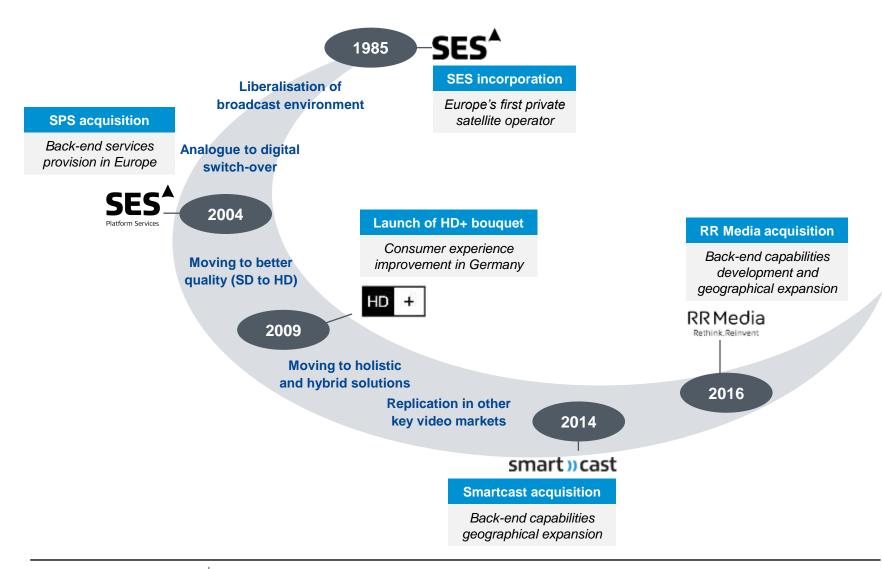


# SES's growth accelerators: Media Solutions

Wilfried Urner, CEO of SES Platform Services & MSC Leader for Video



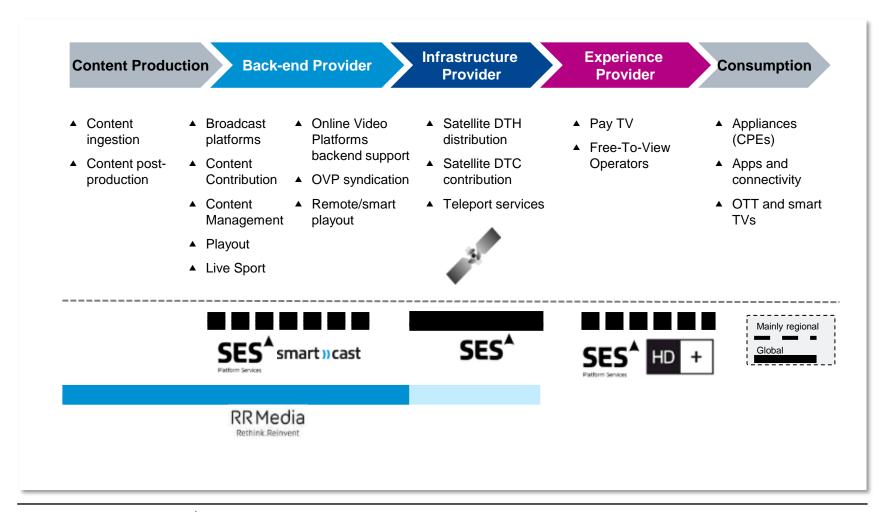
## How services are complementing our satellite infrastructure





#### Providing comprehensive end-to-end media capabilities

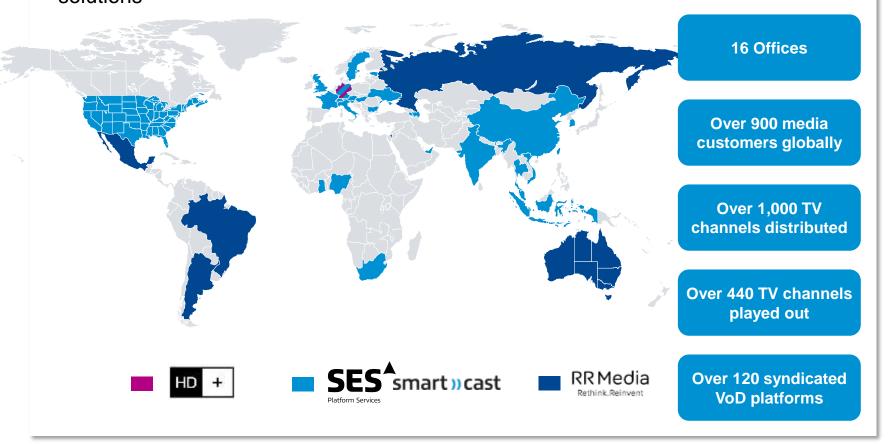
▲ SES offers a full range of conventional and online video services to clients





#### Globalising SES's media services and solutions

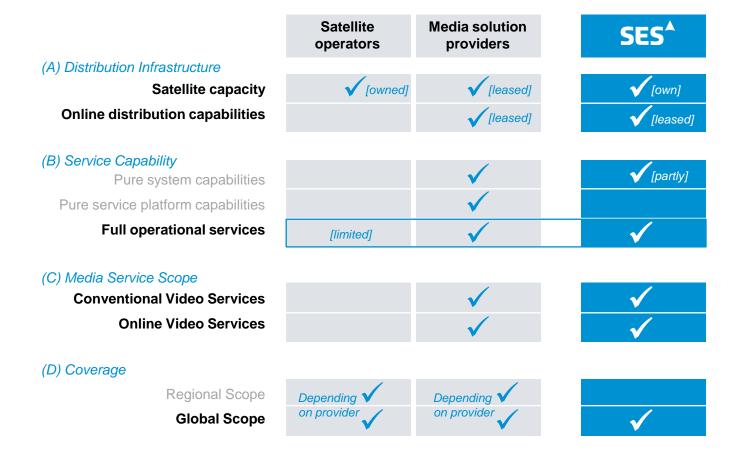
- ▲ 97% of SES PS revenue from Europe; ~2/3 of RR Media revenue outside of Europe
- Providing global back-end services, based on local capabilities and innovative virtual solutions





## Solid differentiation potential from other industry players

▲ SES best positioned to fulfil requirements for comprehensive media service delivery

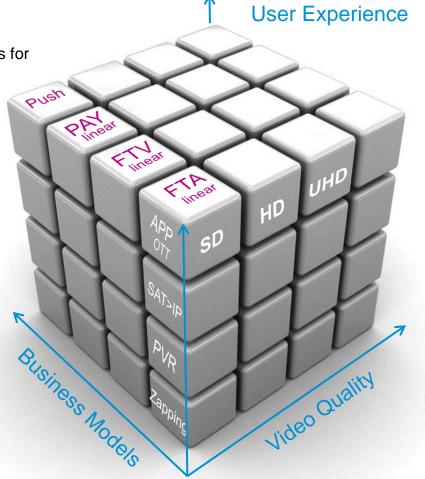




#### Media toolbox

Media Toolbox offers a wide range of developed components and workflows for

- ▲ DTH / DTC
- ▲ Multiscreen (Sat>IP)
- ▲ Online Video



Experience of SES
industry experts ensures
to deliver cutting-edge
technology for your content
business to realise the
best user experience

Media toolbox is a one-stop-shop for DTH and OTT distribution







#### **Back-end services**

- · SOLID satellite services
- LUCID OTT distribution
- FLUID content management

#### **Features**

- · Linear, catch-up, VoD, PVR
- · SD, HD, UHD
- SAT>IP

#### **Platform implementation**

- HD+
- West-Africa Platform
- Home:TV
- UHD North America Platform



## Case study: shaping the video market in West Africa

#### Task

- ▲ Foster the satellite neighbourhood with highly professional ground services:
  - · Classic TV broadcasting
  - Promoting national analogue to digital transitions

#### **Implementation**

- ▲ Infrastructural set-up of high-end technical equipment directly in the region
- ▲ Teaming with proven local and national ground services partners
  - In Lagos/Nigeria: Computer Warehouse Group
  - In Accra/Ghana: partnership with K-NET
- ▲ Imposing similar quality levels as in other SES regions

#### **Benefit**

▲ Professional one-service approach for prospects in the region, allowing African local and national TV broadcasters to concentrate on content, whilst relying on the professional services of SES at adequate price levels



SES reaches ~4 million TV households in Nigeria and Ghana

(with a ~300 thousand annual growth in Ghana since the launch of the platform in 2009)

SES distributes ~50 channels



#### Case study: complementing satellite with terrestrial

- Creating a pan-European TV Broadcast and VoD platform for expatriates in Europe
- Providing turnkey solution and allowing HOME:TV to concentrate on its core business.

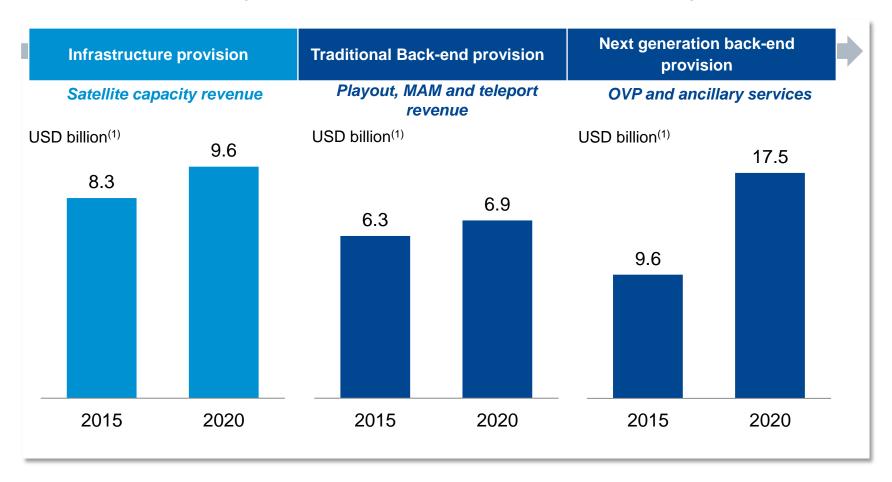


- 1 HOME:TV established relationships to content partners worldwide (with the active support of SES)
- 2 Putting together attractive packages that match the end customers' demand is a key competence of HOME:TV
- Feeding, encryption, multiplexing, up-link and downlink of the TV signal provided by SES
- 4-5 Playout, Set-Top Boxes, Smartcard Handling, Conditional Access System, App development, DRM, CDN by SES
- **6** Execute rollout, build the brand and acquire new subscribers by HOME:TV
- 7 Customer Relationship Management (CRM) and Subscriber Management System (SMS), lettershop, billing by SES



#### Growth potential on all parts of the value chain

▲ SES's world-leading media services provider well placed as a key growth accelerator



1) Source: NSR

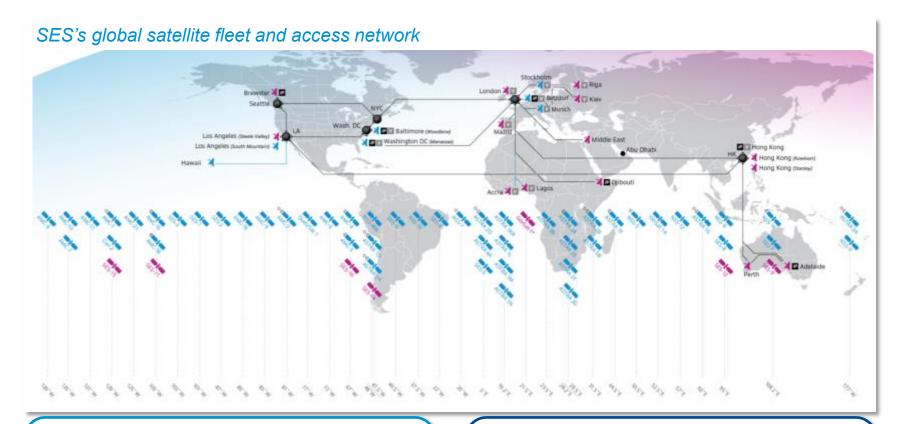


# **SES** technology framework

Martin Halliwell, CTO



#### Robust foundation of fleet and ground segments



**Industry-leading network performance:** 

>99.99% network availability

**Unsurpassed technical understanding:** 

**8.9/10** rating of SES's technical excellence in customer service



## **Expanding in a scalable and flexible manner**

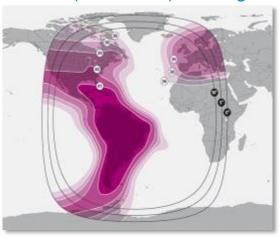
	2016		2017			
	SES-10	SES-11	SES-12	SES-14	SES-15	SES-16
Payload type	Shaped	Shaped	Shaped	Shaped	Shaped	Fully steerable
HTS payload			14 GHz	12 GHz	10 GHz	
Digital processing			2.6 GHz	2.5 GHz		
Satellite propulsion	Chemical	Chemical	Electric	Electric	Electric	Chemical
Launch vehicle	Falcon 9	Falcon 9	Ariane 5	Falcon 9	Ariane 5	Falcon 9

- ▲ Combining industry-leading procurement standards with the latest innovations
- ▲ Adopting an incremental approach to SES technology evolution

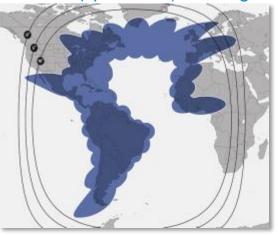
## Case study: delivering scalable and flexible satellite coverage

- ▲ SES-14 (Latin America) delivers flexible, hybrid capacity and capabilities
- ▲ C-band coverage for video
- ▲ Ku-band wide-beam and HTS for IFC/IFE
- ▲ Supporting NASA-funded GOLD hosted-payload

C-band (wide beam) coverage



Ku-band (spot beam) coverage



Ku-band (wide beam) coverage



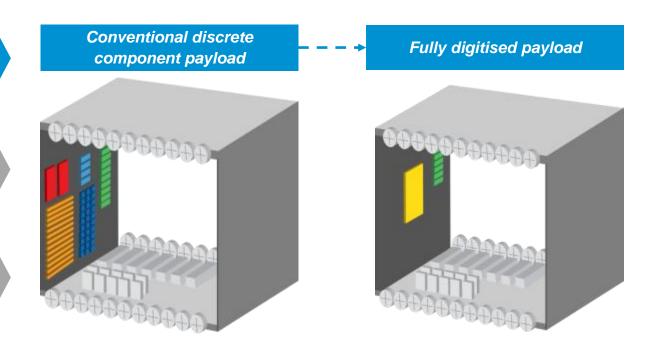


Fully digitised satellite payload

**Modular satellites** 

Satellite life extension

Access to space



- ▲ Replacing >1,000 frequency converters, switches and filters
- ▲ Eliminating 100's of metres in waveguide and coaxial cable
- ▲ Increasing in-orbit efficiency and optimising spectrum utilisation

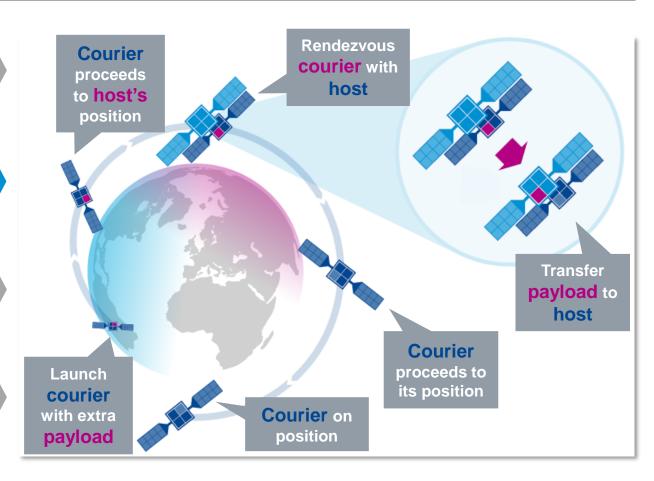


Fully digitised satellite payload

**Modular satellites** 

Satellite life extension

Access to space



▲ Creating a more fluid and flexible service format by changing the static nature of satellites

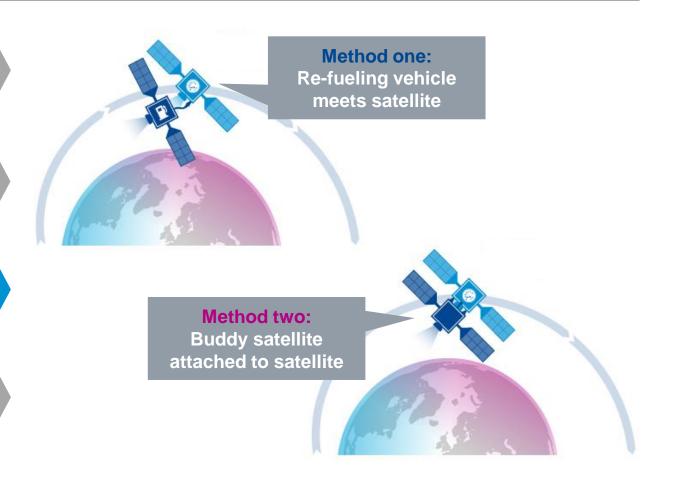


Fully digitised satellite payload

**Modular satellites** 

Satellite life extension

Access to space



▲ Satellites often remain operable well beyond fuel depletion



Fully digitised satellite payload

**Modular satellites** 

Satellite life extension

Access to space



- ▲ SpaceX building rockets faster, increasing launch frequency
- ▲ Re-using rocket's first stage could reduce cost further
- ▲ Modular design and more powerful engines improving time to market and flexibility (Ariane 6, MHI H-III)



## **Executing a future-proof approach**

▲ Establishing satellite at the heart of the digital ecosystem

#### Now

- ▲ Electric propulsion
- Selective payload processing
- ▲ New launch vehicles
- ▲ 16% reduction in normalised CapEx realised (on track for 20% reduction by 2018)

#### 2019

- Fully processed payloads
- ▲ Full digitisation
- Re-usable launch vehicles
- ▲ GEO/MEO synergies
- ▲ Targeting further 15-20% reduction in normalised CapEx 2018-2022

#### **Future**

- Exchangeable payloads in orbit
- ▲ Advanced launch
- Programmable transponders
- Accelerated GEO/MEO synergies



### **Enabling SES's market verticals**

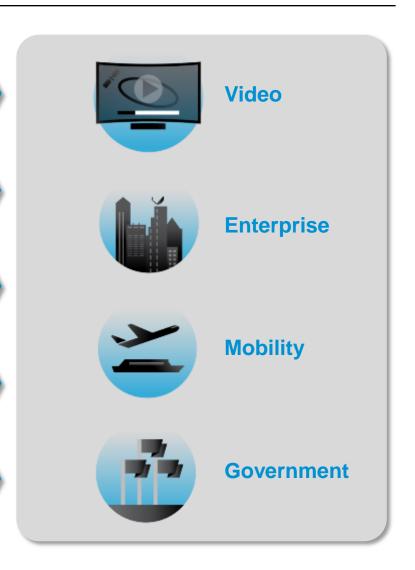
Diverse, cost-effective and timely access to space

Integrating agile, adaptable capacity into the customer's network

Reducing cost per bit and in-orbit price

Ubiquitous coverage and flexible capacity allocation

**Extending the life of SES's space assets** 





### **SES** financial framework

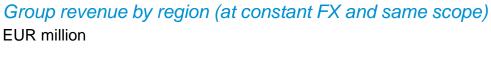
Padraig McCarthy, CFO

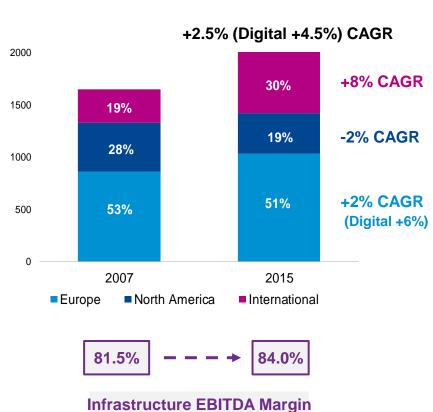




Delivering	robust profitability and financial returns			
Self-funding	profitable, organic growth			
Profitable	execution of selective M&A growth			
Optimising	financing decisions and prudent use of cash			

### Delivering robust profitability and financial returns: Globalisation



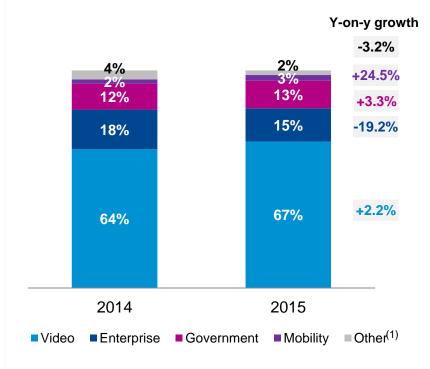


- ▲ Strong revenue CAGR of +8% in international region from 2007 to 2015
- ▲ Significant margin improvement from globalisation, supported by OpEx and CapEx efficiency
- ▲ Ongoing revenue growth through globalisation improving profitability



### Delivering robust profitability and financial returns: Verticalisation





- ▲ Accelerating Mobility growth in aeronautical segment and generating strong backlog
- ▲ Government business benefits from U.S. government stabilising and non-U.S. government doubling
- ▲ Strategy addressing changing dynamics in Enterprise
- ▲ Video growth from emerging markets expansion, HD / UHD transition and value-added media services expansion

▲ Global Video sustained growth, with leading position in data centric verticals, reinforced by O3b acquisition

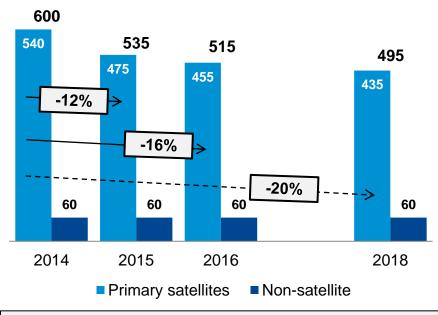
<sup>1) &</sup>quot;Other" includes European transponder sales in 2014 and 2015 as well as development and other related revenue not directly attributable to a vertical



### Delivering robust profitability and financial returns: Innovation

#### Normalised CapEx development (at same scope)

**EUR** million



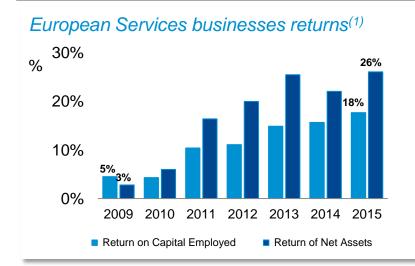
- ▲ Economies of scale and design reduce Normalised CapEx by 16%<sup>(1)</sup>
- ▲ Scope extension (SES-16 and HTS capacity) adds EUR 40 million p.a. once satellites launched
- ▲ All calculations are based on 15 year design life
- ▲ Additional upside with 12 satellites having additional life extension

37	-5	<b>32</b> ur	nch. <b>32</b>	Primary satellites (no.)
220	+2%	224 -	4% <b>214</b>	Cost per satellite (EUR million)

■ Well on track to deliver targeted savings of up to 20% by 2018 for Normalised satellite replacement CapEx

<sup>1)</sup> Savings driven by reduction of number of primary satellites (five satellites) and related cost (-3%); assumed design life 15 years

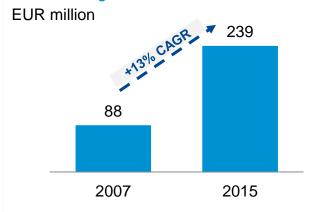
### Delivering robust profitability and financial returns: Services



#### ▲ Services business

- Represents 26% of total revenue
- Procures transponder capacity
- Delivers growing returns
- Is accretive to SES group returns

#### "Pull-through" revenue

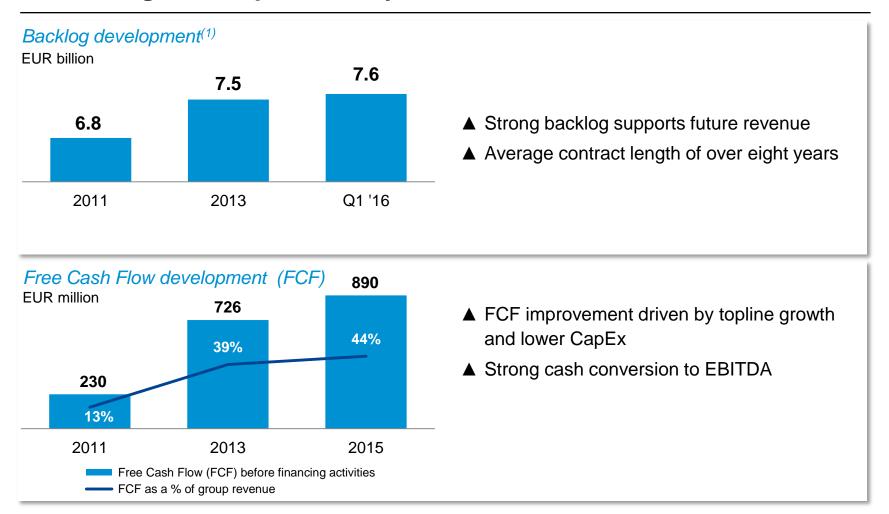


- ◆ "Pull through" revenue tripled since 2007, supporting core business, returns and strategy
- Additional SES transponder capacity to be used by RR Media

▲ Services activities optimise RoIC for the business and the group

1) Including "pull-through" (after charging for transponder capacity)

### Delivering robust profitability and financial returns: Foundations



▲ Strong key financials reflected in Net debt / EBITDA ratio (2.5x), RoE (22%) and RoIC (10%)(2)

<sup>1)</sup> Backlog represents fully-protected or net backlog and does not include backlog from RR Media and O3b

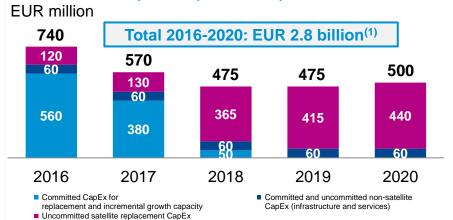
<sup>2)</sup> At end 2015; RoE = NOPAT / Equity, RoIC = NOPAT / (Equity + Debt)

# Self-funding profitable, organic growth: GEO - CapEx and capacity

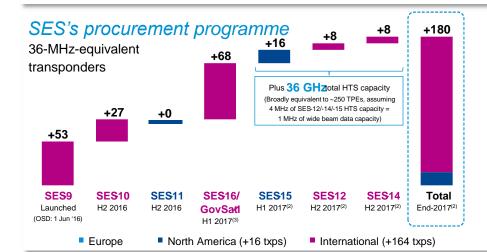




and incremental growth capacity



- ▲ Average IRR on last 20 satellite programmes of approximately 14% ahead of minimum hurdle rate of 10%
- ▲ Fully funded CapEx profile and global anchor clients underpin growth drivers



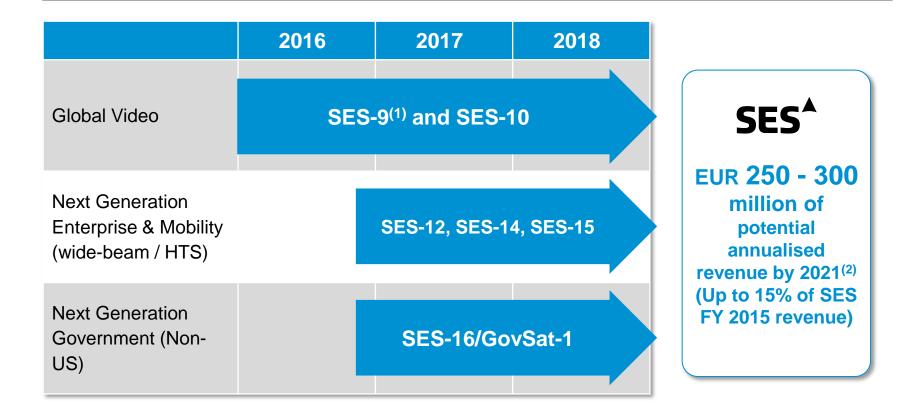
- ▲ Growing emerging market capacity by 21%, total capacity by 12%
- ▲ Dedicated wide- and spot-beam capacity under procurement to satisfy customer specific needs

1) Based on FX rate of EUR 1: U.S. Dollar 1.10. Including capitalised interest, and excluding financial or intangible investments; as of closing date

2) SES-12, SES-14 and SES-15 will be positioned using electric orbit raising, with entry into service some four to six months after launch date

### Self-funding profitable, organic growth: GEO - Revenue





▲ All satellite programmes have anchor customers at time of procurement and have initial fill-rate of approximately 30% at OSD<sup>(3)</sup> ramping up to around 75% 'steady state' three years after OSD

<sup>1)</sup> SES-9 in service as of 1 June 2016

<sup>2)</sup> Annualised incremental revenue at average "steady-state" utilisation of around 75% (based on FX rate of EUR 1: U.S. Dollar 1.10)

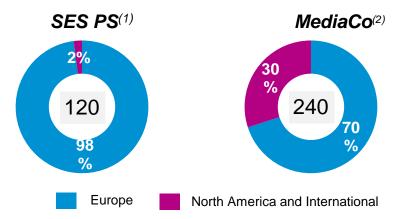
<sup>3)</sup> Operational Service Date

### Profitable execution of selective M&A growth: GEO - RR Media



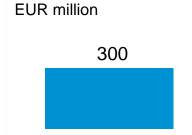


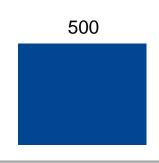
% / EUR million



- ▲ MediaCo pro forma doubles revenue
- ▲ Pro forma EBITDA margin of MediaCo of approximately 20%
- ▲ MediaCo transponder "pull-through" of EUR 120 million, of which approximately half procured from SES, leaves upside potential

#### Backlog development





- ▲ Backlog increases to EUR 0.5 billion
- ▲ Representing two years of MediaCo revenue
- ▲ RR Media complements SES PS and accelerates topline growth, earnings accretive from first year
- ▲ Generates an IRR in excess of SES's minimum hurdle rate of 15% for services investments

1) SES Platform Services 2) Merged entity of SPS PS and RR Media

# Profitable execution of selective M&A growth: MEO - O3b Highlights



### SES move to 100% stake in O3b<sup>(1)</sup>

- ▲ Acquisition exemplifies lowest risk possible M&A
- ▲ SES to pay USD 730 million to increase ownership from 49.1% to 100%
- ▲ Brings cumulative investment to USD 1 billion (EUR 0.9 billion)
- ▲ On completion, SES will consolidate around USD 1.2 billion of O3b net debt
- ▲ IFRS accounting gain of around USD 500 million to be recognised on completion

# Delivering on SES's financial framework

- ▲ IRR pre synergies in excess of SES's minimum hurdle rate of 10% for infrastructure investments
- ▲ Business expected to be free cash flow<sup>(2)</sup> and EPS accretive to SES in 2018 based on revenue growth potential and significant financial and other synergies
- ▲ Proceeds of EUR 1.65 billion from equity raise and hybrid bond issue will be used to finance acquisition price and refinance O3b's most expensive debt
- ▲ Financing instruments and size affirm commitment to investment grade credit rating; Moody's and S&P affirmed (BBB/Baa2) with 'Stable' outlook
- ▲ SES maintaining its commitment to a progressive dividend policy per share

<sup>1)</sup> Acquisition is subject to regulatory approvals and expected to be completed in H2 2016

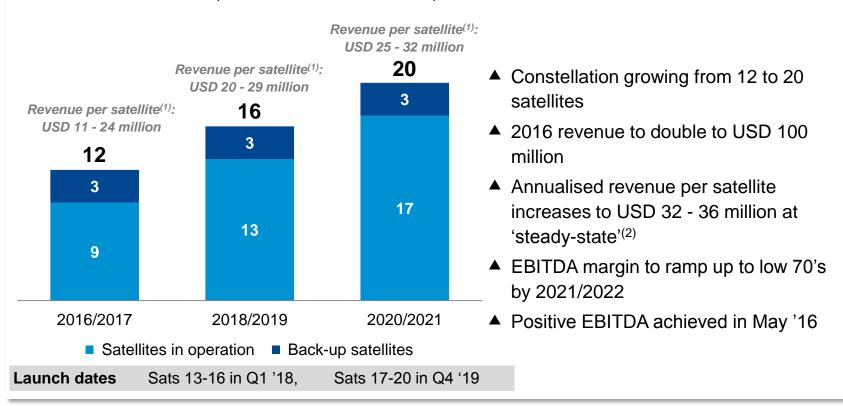
<sup>2)</sup> Free cash flow before financing activities

### Profitable execution of selective M&A growth: MEO - O3b - Revenue





Number of O3b satellites in operation and as in-orbit back-up



- ▲ Modular approach increases constellation efficiency as new satellites are added
- ▲ Further upside from additional satellite procurements

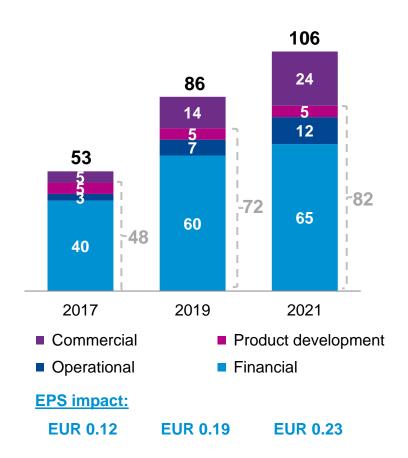
<sup>1)</sup> Indicative range of revenue per operational satellite

<sup>2)</sup> Based on constellation of 20 operational satellites at 'steady-state' utilisation (which is expected to be achieved around three years after satellite's launch)

# Profitable execution of selective M&A growth: GEO + MEO - Synergies

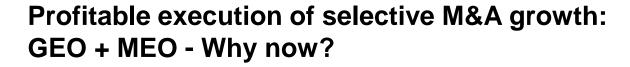


Consistent delivery of substantial synergies EUR million

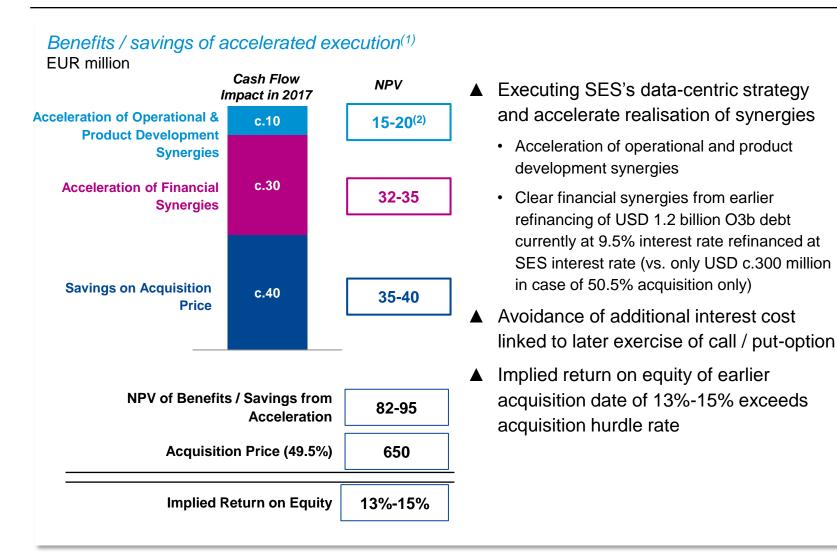


- ▲ EUR 53 million in 2017 rising to EUR 106 million in 2021
- ▲ Combinational and transformational synergies
  - Commercial
  - Product Development
  - Operational
  - Financial
- Synergies will be delivered
  - SES and O3b Tie-up implemented at closing
  - Building on SES and O3b strong management and operational capabilities
- Does not include impact from improved normalized CapEx
- ▲ Synergies accretion to EPS leading to overall value accretion at 15 P/E ratio<sup>(1)</sup>

1) Source: Bloomberg

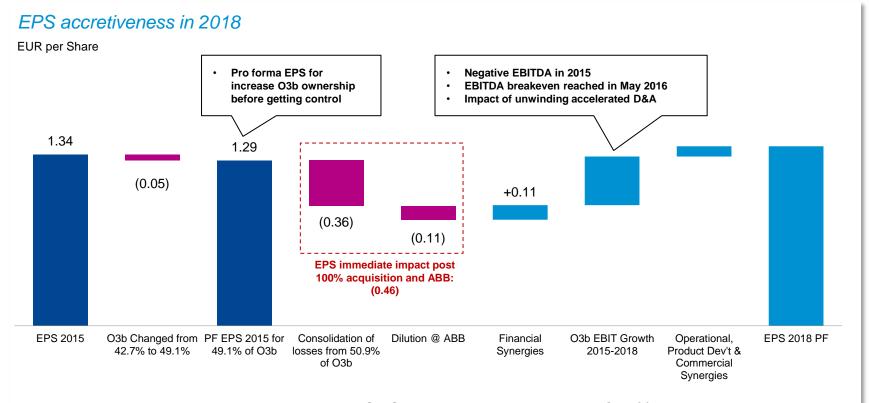








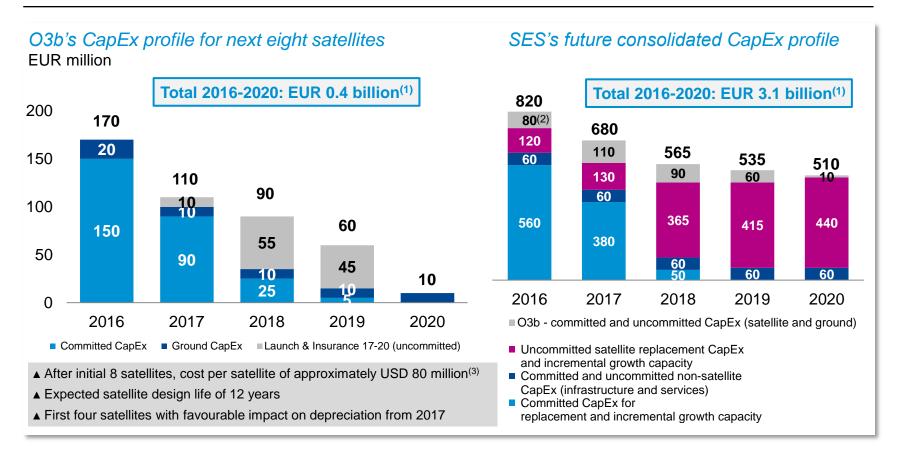
#### Profitable execution of selective M&A growth: GEO + MEO - EPS



- ▲ IRR pre-synergies valuation exceeds SES's minimum hurdle rate of 10%
- ▲ Equity value on USD 1.4 billion (SES paid USD 1.0 billion)
- ▲ One-off positive impact of IFRS accounting gain<sup>(1)</sup> would result in EPS accretion in 2016

# Profitable execution of organic and selective M&A growth: CapEx





- ▲ Fully funded O3b CapEx programme for next eight satellites with 12 years expected design life
- ▲ Approximately 50% of 2016-2020 consolidated expenditure of EUR 3.1 billion yet uncommitted

<sup>1)</sup> Based on FX rate of EUR 1: U.S. Dollar 1.10. Including capitalised interest, and excluding financial or intangible investments; as of closing date

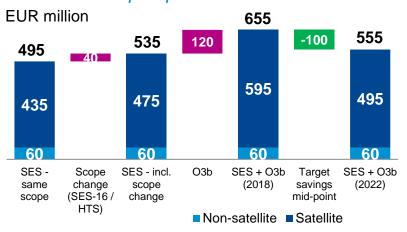
<sup>2)</sup> CapEx as of closing (assumed 1 Oct 2016)

<sup>3)</sup> Including payload, launch, insurance, ground equipment and capitalised interest

# Profitable execution of organic and selective M&A growth: Normalised CapEx

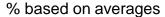


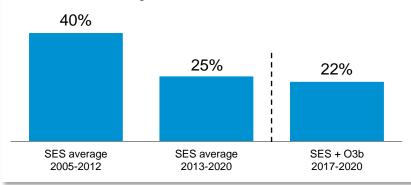
#### Normalised CapEx p.a. - SES + O3b in 2018 / 2022



- ▲ Current scope Normalised 2018 CapEx projected at EUR 535 million
- ▲ O3b adds approximately EUR 120 million<sup>(1)</sup>
- ▲ Target of 15%-20% reduction in consolidated Normalised CapEx from 2018 to 2022 due to fleet scale, design and scope synergies

#### CapEx / Sales development





- ▲ Economies of scale and design, as well as revenue growth continuously reduce CapEx / Sales ratio for SES stand-alone
- ▲ O3b's MEO satellite constellation further reduces capital intensity

1) Based on EUR 73 million (USD 80 million) cost per satellite and assumed design life of 12 years (Based on FX rate of EUR 1: U.S. Dollar 1.10)

# Profitable execution of organic and selective M&A growth: Revenue



	2016	2017	2018	2019	2020	
Video	\$	SES-9, SES	EUR 250 - 300 million of potential annualised revenue			
Enterprise		S	SES-12, SES	S-14, SES-1	15 (HTS)	by 2021 <sup>(1)</sup> (Up to 15% of SES FY 2015 revenue)
			+			
Mobility		S	SES-12, SES	S-14, SES-1	15 (HTS)	©3b Networks
Government			EUR 400 - 450 million of potential			
Government			annualised revenue by 2021 <sup>(2)</sup> (Up to 22% of SES FY			
			2015 revenue)			

<sup>1)</sup> Annualised incremental revenue at average "steady-state" utilisation of around 75% (based on FX rate of EUR 1: U.S. Dollar 1.10)

<sup>2)</sup> With 17 satellites in operation and at 'steady-state' utilisation (based on FX rate of EUR 1: U.S. Dollar 1.10)

## Optimising financing decisions and prudent use of cash: Framework



### **SES** Current / Target

- 1 IRR hurdle rates<sup>(1)</sup> (organic & inorganic)
- ▲ Over 10% for Infrastructure
- ▲ Over 15% for Services

2 EBITDA margins

- ▲ Over 82% for Infrastructure
- ▲ 14-18% for Services

2 Debt and Interest

- ▲ Long average maturity at around 8 years
- Average interest rate of below 4%<sup>(2)</sup>
- ▲ Balance of EUR/USD debt around 55%/45%
- ▲ Ratio of fixed/floating rate debt around 90%/10%
- Financing decisions
- ▲ Net Debt/EBITDA ratio below 3.3x
- ▲ Progressive dividend policy per share
- Providing the basis for solid financial ratios and strong balance sheet metrics
- ▲ Targets reiterated after consideration of ABB / hybrid issue and full consolidation of RR Media and O3b

<sup>1)</sup> On an unlevered, post-tax basis

<sup>2)</sup> Weighted average interest rate, excluding loan origination costs and commitment fees



### Focusing on shareholder value and returns

- ▲ Executing SES's growth strategy within a disciplined and consistent financial framework
  - Delivering robust profitability and financial returns
  - Self-funding profitable organic growth
  - Profitable execution of selective M&A growth
  - Optimising financing decisions and prudent use of cash



#### **Disclaimer**

- ▲ This presentation does not, in any jurisdiction, including without limitation in the U.S., constitute or form part of, and should not be construed as, any offer for sale of, or solicitation of any offer to buy, or any investment advice in connection with, any securities of SES, nor should it or any part of it form the basis of, or be relied on in connection with, any contract or commitment whatsoever.
- ▲ No representation or warranty, express or implied, is or will be made by SES, its directors, officers or advisors, or any other person, as to the accuracy, completeness or fairness of the information or opinions contained in this presentation, and any reliance you place on them will be at your sole risk. Without prejudice to the foregoing, none of SES, or its directors, officers or advisors accept any liability whatsoever for any loss however arising, directly or indirectly, from use of this presentation or its contents or otherwise arising in connection therewith.
- ▲ This presentation includes "forward-looking statements". All statements other than statements of historical fact included in this presentation, including without limitation those regarding SES's financial position, business strategy, plans and objectives of management for future operations (including development plans and objectives relating to SES products and services), are forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of SES to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. Such forward-looking statements are based on numerous assumptions regarding SES and its subsidiaries and affiliates, present and future business strategies, and the environment in which SES will operate in the future, and such assumptions may or may not prove to be correct. These forward-looking statements speak only as at the date of this presentation. Forward-looking statements contained in this presentation regarding past trends or activities should not be taken as a representation that such trends or activities will continue in the future. SES, and its directors, officers and advisors do not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.