



**SES White Paper** June 2017

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# MAXIMISING GROWTH AND RETURNS

SES delivers sustained growth and return on investment

As the world's leading satellite-enabled solutions provider, SES is focused on delivering sustained and profitable growth by executing a differentiated strategy of globalisation, verticalisation, and innovation. SES's full global coverage, with its unique combination of over 50 satellites in geostationary orbit (GEO) and 12 satellites in medium earth orbit (MEO), delivers services to customers in more than 130 countries around the world. This creates over EUR two billion



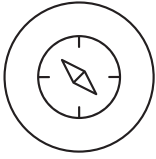





in annual revenue and a contract backlog of EUR 7.8 billion.

SES is well placed to generate attractive and growing return on invested capital because of three elements. First it executes a strategy that is focused on delivering profitable and sustainable growth. Second it is developing differentiated capabilities by enhancing, expanding and innovating in SES Video, SES Networks and its technology. This

enables SES to deliver tailored customer solutions across the video value chain and the entire realm of network services including Fixed Networks, Mobility, and Government applications. Third, it operates a disciplined financial approach and framework. Together, these elements work in concert to deliver a competitive positioning and maximise return on invested capital.

**SES**<sup>▲</sup>  
beyond frontiers

## Strong growth opportunities for SES

Markets	 <b>VIDEO</b>	 <b>FIXED NETWORKS</b>	 <b>MOBILITY</b>	 <b>GOVERNMENT</b>
Market Opportunity <sup>1</sup>	<b>+2% CAGR</b> To USD 20 billion (by 2022)	<b>+3% CAGR</b> To USD 8 billion (by 2022)	<b>+14% CAGR</b> To USD 5 billion (by 2022)	<b>+7% CAGR</b> To USD 4 billion (by 2022)
SES % Revenue Share 2016	 <b>67%</b>	 <b>13%</b>	 <b>7%</b>	 <b>11%</b>

# PROFITABLE AND SUSTAINABLE GROWTH

SES's strategic vision has guided the direction of both SES Video and SES Networks. It executes in four key areas: driving customer centricity, optimising technology, optimising the business model, and shaping the industry's ecosystem. These actions are implemented according to the growth drivers in each market vertical and enabling SES to transition SES Video into an experience provider and SES Networks into a service providing distributed networks to fixed networks, mobility and government.

In the Video market there are three elements that are expected to contribute to a +2% CAGR between 2016 and 2022 in the overall market to USD 20 Billion: first by enhancing the viewing experience via the growth of High Definition and Ultra High Definition, second the expansion of video platforms globally, and third the delivery of innovative hybrid solutions where direct to home and over the top

offerings are combined into a complementary solution catering to any device, anytime and anywhere.

The explosion of global data usage is fuelling significant new growth opportunities in each market and for SES Networks. In Fixed Networks the overall market is forecast to grow at +3% CAGR to USD eight billion from 2016 to 2022 is anticipated because of the need to enable clients to extend their networks to connect the 'unconnected'. In Mobility a CAGR of +14% to USD five billion over the same period is predicted thanks to the demand for a 'home-equivalent' passenger experience and delivering end-to-end network solutions. Finally in Government a +7% CAGR to USD four billion by 2022, compared to 2016, is projected because of the expansion in the Government market a wide range of both civilian and defence purposes.

<sup>1</sup> SNL Kagan 2016 UHD industry survey

# DIFFERENTIATED CAPABILITIES

Unlocking these opportunities requires a bold strategy roadmap which prioritises customer-centricity; an optimised business and technology model; and having the foresight to adapt as markets and customer requirements evolve. This is why SES is developing its differentiated capabilities by continuing to enhance, expand, and innovate across the value chain.

## ENHANCING

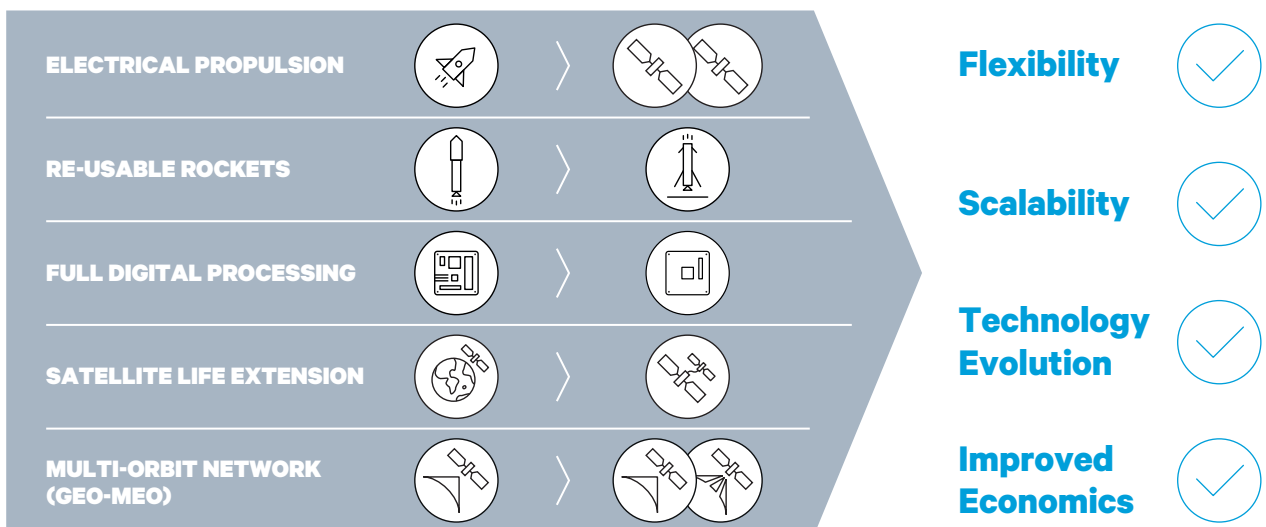
SES has been consistently enhancing its capabilities in order to refine its approach and improve its services in both SES Video and SES Networks, as well as enhancing the technology that enables these services.

**SES Video** currently serves 325 million households globally, totalling over one billion people. Today SES satellites distribute 2,496 HD TV channels, and 22 UHD commercial channels. The advent of HD and UHD provide a powerful opportunity in the video industry, with over 65% of video service providers believing that consumers will pay a premium for UHD<sup>2</sup>. With 45% of millennials reporting that HD quality is worth paying for<sup>3</sup>, this expectation has a strong basis. This is the foundation for the SES Video strategy to enhance the viewer experience by fuelling the upgrade to the highest quality broadcast formats.

**SES Networks** offers a unique GEO-MEO architecture, boosting a 99.99% measured service availability, to deliver data services to fixed networks, mobility applications, and government organisations. SES Networks currently serves more than 300 business customers, major global inflight connectivity partners, who serve 90% of all connected aircraft and 62 global government clients in 28 countries. On this basis, SES Networks is further enhancing its go-to-market capabilities, increasing the flexibility and scalability it offers via a distributed network model, and tailoring the connectivity it delivers to customer needs across its GEO-MEO fleet. Integral to enhancing its business is the approach SES Network implements when working with partners, encompassing collaborative processes, tailored coverage, customised service, diverse fleet options, and open architecture.

**Technology** and the capabilities it enables is integral to enhancing SES's business, and it has a strong track record of using technological innovation to enhance its offering and capital efficiency. Electrical propulsion allowed for improved mass efficiency on board satellites. Re-usable rockets are set to reduce cost and time to market, providing more flexibility in launching satellites. Digital processing on satellites improves the industrial processes and therefore service flexibility. In total these innovations, and others like them, enabled SES to deliver on its target of a 20% reduction in the 'normalised' average future annual satellite expenditure from 2014 to 2017, allowing enhancements across the board and improving the competitiveness of the offering to customers.

## Enhancing SES's technology model and CapEx efficiency



<sup>2</sup> SNL Kagan 2016 UHD industry survey  
<sup>3</sup> Ericsson ConsumerLab 2016

## EXPANDING

SES is expanding by developing its capabilities across value chains and by increasing its service capabilities.

**SES Video** is challenging the status quo by not only expanding globally, but also its media capabilities across the value chain. MX1, SES's subsidiary, is integral to this approach. The MX1 360 platform enables customers to transform, accelerate, and globalise their content around the world, using a combination of satellite, fibre and the internet. For customer Vubiquity (a leading provider of media technology solutions and premium content services), MX1 currently provides 580 TV channels with distribution and content management capabilities, serves 800 different video formats, and distributes 1,400 linear TV feeds, as well as 50 channels to over-the-top streaming services. In concert SES is expanding the number of video platforms it serves globally, building on

its unique track record of growing and developing new video neighbourhoods. This includes the launch of a new backbone in North America for UHD distribution, and the development of the East and West African Platforms.

**SES Networks** is expanding across the value chain by adding new end-to-end products and solutions for each of three data-centric market verticals it serves, moving SES beyond an infrastructure provider to a network and service provider. For all verticals, but particularly fixed networks, services could include such applications as end-customer analytics, cybersecurity, internet portals, and Wi-Fi access. With over 13 billion connected devices projected by 2021<sup>4</sup> applications that include such services will continue to increase in value. In the mobility sphere, applications that take advantage of the full potential of the GEO-MEO

combination will become ubiquitous, while in the Government services domain SES Networks will apply similar applications with specialised features in an increasing number of countries around the world.

**Technology** innovations SES invests in enable it to expand its global network and capabilities in tandem with changes in customer demand. SES's innovative approach and unique infrastructure allow for more flexibility and scalability, fuelling the development of more end-to-end services. Its open architecture enables a multi modal delivery that is so important for complete interoperability between different technologies. Finally, innovative managed solutions for both SES Video and SES Networks that are being implemented today will reduce cost and time to market for customers, a key driver for success.

## INNOVATING

Innovation has been the key to SES success since its founding and will continue to play a vital role in its future.

**SES Video** is innovating in the media industry by combining linear and non-linear content delivery to provide the best possible experience to viewers. In Latin America this has taken the shape of the end-to-end solution for a new DTH platform. It will enable new customers to enter the market easily by providing clear roadmap features and a time to market that is less than one year. By combining the solutions offered by SES and MX1, a turnkey solution will be available to any client, encompassing channel aggregation and consumer marketing tools as well as content services.

**SES Networks** is extending its addressable market with innovative

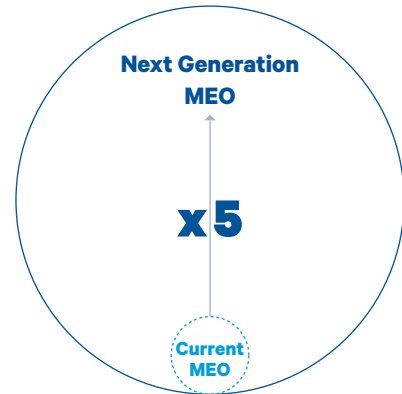
distributed network solutions, targeting a five fold increase in the addressable data-centric applications using a truly distributed network. In the future SES Networks will serve even more locations, as well as data centres, cloud access, and remote offices with fixed data. In mobility it will deliver connectivity to an increased range of mobile vessels, including smaller yachts and commercial vessels, and serve aircraft with commercial high performance through GEO applications. Finally in government there will be more and more units in theatre, which SES Networks will continue innovating to provide the best connectivity and solutions. These services will be provided by new technologies, but also new service models, including embedding SES Networks personnel in client organisations to work in partnership in

shaping the ecosystem in the industry.

**Technology** is at the core of all SES capabilities, and therefore innovation has always been integral to SES success. In the new era of the business as an experience provider in SES Video, and a service provider in SES Networks, technological innovation will continue to play a key role. Further investments in the GEO and MEO networks will allow for general purpose satellites that support innovation across the value-chain as well as increased differentiation in the potential use cases for satellite. Paired with a powerful ground ecosystem, together these new investments will drive the creation of a completely integrated and distributed network management system. This is key, as proper allocation of resources to customers and applications is critical to revenue generation and profitability.



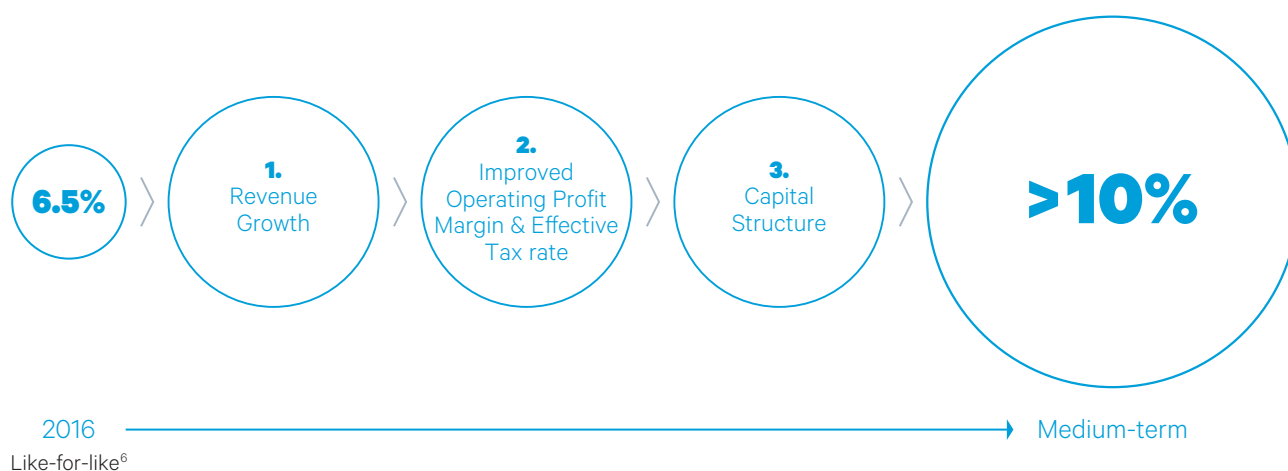
## Expanding MEO addressable market size/opportunity



- Small towns and remote locations
- Remote offices
- Data centres
- Cloud access
- Smaller mobile production vessels
- Smaller cruise ships
- Large yachts
- Inter-regional commercial ships
- Commercial aircraft (with GEO)
- VIP aircraft
- Multiple units in theatre

- Small cities
- Large multi-national organisations
- Fixed rigs/larger production vessels
- Large regional cruise ships
- Larger fixed/mobile installations

## Improving SES's return on invested capital<sup>5</sup>



## SES'S DISCIPLINED FINANCIAL FRAMEWORK

SES is applying a consistent financial framework to drive profitable growth and generate a return on invested capital (ROIC) of more than 10% over the medium-term. This framework is defined by three elements. First, SES is separating the decision making around investments from financing decisions, only investing in projects that should create a minimum 10% internal rate of return (IRR). Second, it is focused on making financing decisions with the intention of minimising the group's combined cost of capital. Third, it is consistently applying a use of cash approach that is based on four priorities: re-investing in current replacement and growth investments, maintaining a progressive dividend per share policy, investing in additional growth and capability accelerators, and optimising leverage as well as the cost of capital. Together these elements enable SES to drive sustained and profitable growth and long-term returns. SES has shown robust profitability and financial returns over the past years, building a substantial fully protected contract backlog of 7.8 billion. In its globalisation activities SES has paired a strong revenue CAGR of +6% internationally, while maintaining strong profitability metrics. The verticalisation that began in 2013 is also delivering stable profitability, and enabling the re-positioning of the Enterprise, now

Fixed Networks, vertical towards major global clients and managed services. The inorganic investments SES has made support both the growth and transition of SES Video to an experience provider and SES Networks into a service provider. In total, more than EUR 100 million in synergies are expected, in the medium-term, from the consolidation of O3b during 2016. The current and future GEO-MEO investments of SES are projecting to deliver up to EUR 750 million in annual incremental revenue once at 'steady-state', representing a 35% increase compared to final year 2016 revenue.

SES's financial framework is solid. SES's IRR hurdle rates are over 10% for organic/inorganic projects supported by topline growth, strong cash flow conversion and strict cost discipline. Its operating profit margins are projected to grow from 33% in 2016 (on a like for like basis) to over 40% in the medium-term driven by topline growth and greater capital efficiencies. Its capital structure combines a strong balance and low cost of finance of below 4%. Finally, SES's financing decisions are made on a basis of maintaining a net debt/ EBITDA ratio below 3.3 times on a year-end basis, and a progressive dividend policy per share.

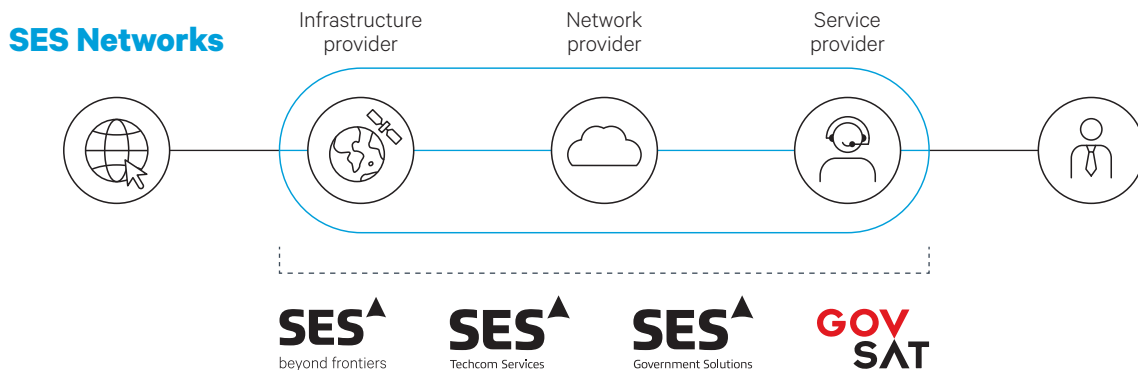
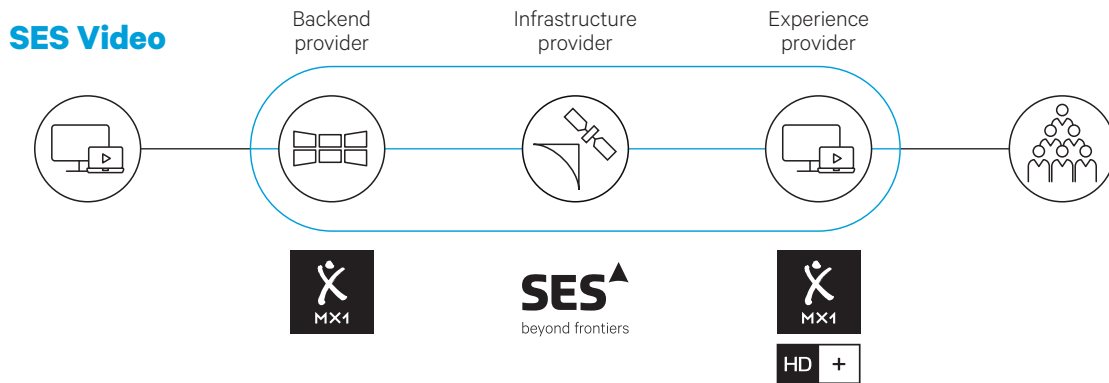
<sup>5</sup> Net operating profit after tax divided by average of opening and closing shareholders' equity plus net debt  
<sup>6</sup> Assuming RR media and O3b were consolidated on 1<sup>st</sup> January 2016

# ENABLING TRANSFORMATION

SES Video and SES Networks are executing on the strategy, while using innovative technology, to make SES the world's foremost integrated provider of satellite-enabled solutions. By enhancing, expanding, and innovating, SES Video is shaping future video experiences with a unique offering, while SES Networks will continue to grow its market traction with increasingly differentiated capabilities. Through its growth and development SES will create the transformation

of SES Video from a back-end provider to an experience provider, and SES Networks from an infrastructure provider to a service provider. This will, when combined with the combination of operational and financial cost optimisation, enable SES to deliver sustainable growth and maximise financial returns, with the aim of increasing SES's annual return on invested capital to more than 10% in the medium-term.

## Differentiated capabilities across the value chain



# WELL PLACED TO DELIVER SUSTAINED GROWTH AND RETURNS

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