“Satellite: A Key Element in the Future Digital Networks and Ecosystems – Building the Foundations of the Next Decade Communications Networks”

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Good afternoon Ladies and Gentlemen. It is a pleasure and a privilege to join you today for this important conversation on the role of satellites in shaping future digital networks and ecosystems.

The objective before us is formidable: to achieve ubiquitous access to the European and global digital highway. In doing so, we will provide an indispensable enabler to the solutions for dealing with the challenges of our age: economic growth, social integration and development, universal education and healthcare, and political freedom.

In this public discourse, the digital highway should be viewed as the unrestricted, unconstrained, and unlimited exchange of information, in the form of data and video. It is this exchange that enables the major goals that have come to define our societies and economies.

Importantly, the advent of the digital highway is not limited to a series of conversations among policy makers and industry captains. It is, in fact, fuelled by three unprecedented market forces.

First, the digital technologies of the future have taken hold in our present time through increasingly shorter development cycles, and therefore opening unsurpassed possibilities.

Second, consumers of all generations and countries have embraced this digital revolution in ways that blur all facets of our lives, and even has a condition named after it called “digiphrenia”.

Third, economic sectors have put digital technologies front and center of their activities, be it innovation, production, distribution, or customer servicing.

In this digital highway, it boils down to digitizing the information and transporting it seamlessly. In this conceptual simplicity lies an operational complexity which is that 70% of today’s information is video centric, and in two years it could be over 80%.

The sheer volume of the video required is quite extraordinary. Two zettabytes (two trillion gigabytes) of digital content were transmitted in 2013 while four times as much (or possibly even more) will be consumed in 2020.

And, for the sake of a meaningful comparison, a zettabyte is the storage needed for 36 million years of HD-TV video, or for streaming the entire Netflix catalogue over 3 million times at once.

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Let me caution you that these fascinating numbers are not all about opportunities. There are also potential threats in the way the different actors have been preparing for this challenge.

The threat is what economists call “the tragedy of the commons”: a brilliant idea that, through poor cooperation and a lack of planning among the involved stakeholders, gets so fragmented and unbalanced, ending in unnecessary failure amidst waste and confusion.

Digital technology is in the process of creating a communications supernova of potentially huge benefit to all but as it explodes, it could scatter its pieces far, wide and out of reach to most.

The “tragedy of the commons” is that the headlong rush for video content and quality could in practice disenfranchise up to a half of all Europeans, who will drop offline and out of sight, leaving a politically devastating social fault line.

In short, if our digital highways are built on a monolithic technology model, we risk re-enacting the “tragedy of the commons” for ourselves.

For example, if today’s video content was to be conveyed only by terrestrial fixed networks in Europe, data capacity per household would have to be multiplied by a factor of no less than 35. Using Ultra HD, this would multiply again by 3 or 4 times. The economics of such a scenario would be impossible, and the timelines for implementing it would be far out of reach.

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But we can still change course, propose a “New Deal”, and start to build a better digital model for the European Union and its global partners.

We can start to integrate digital infrastructures and combine the strengths of all the technologies in broadband and broadcast to create a unique combination of connectivity, content and distribution.

The strengths of broadband and broadcast create a model where terrestrial networks deliver connectivity and are complemented by satellites for mass market distribution of IP video and non-video content.

For us, a single market means an open and technology-neutral ecosystem. Open and technology-neutral means combining satellite and terrestrial. It is about making the best of both worlds, and building hybrid networks.

The ability to scale cost-effectively is an essential requirement for the hybrid model, which will remove most of the weight of the anticipated global traffic from aging terrestrial backbones and ease the aching joints of fixed access networks.

On a satellite, a gigabyte of content can be transmitted to tens of millions of households for a tiny fraction of what it costs to use terrestrial networks.

Satellite's fixed cost distribution model for the most popular content, combined with the variable cost model of terrestrial networks for connectivity and content, would create the optimal solution for both customers and providers.

In Europe such a hybrid network could save up to one third of the total investment required and distribute 100 times more content per Euro invested. And, we can realistically achieve this objective by the end of the decade.

The money saved in such a venture could have a major impact on other areas, especially those in which public spending is critical, such as health and social welfare.

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We can, in fact, even go much further. Amid the commercial excitement of the video supernova, the significant local and community advantages of satellite could change the face and pace of connectivity.

Satellite has the capacity, because of its pan-European coverage, to bring us all together in communities of our own choice by facilitating the provision of culture, leisure and entertainment as well as essential information, statistics and data for businesses.

Satellites deliver essential services in times of crisis or emergency, from famines, floods, epidemics and natural disasters to longer term benefits such as more accurate weather predictions and more efficient global business services, operational continuity, security and supply.

I would like to suggest that in the cohesion of political and cultural communities, satellites help to maintain and develop the single market, the legislative framework that it has promoted and the vibrant market place that it has created.

We believe that we have the legitimacy, the arguments and the vocation to propose the benefits of satellite-supported hybrid networks and solutions within this framework in the future.

Implementing high-quality broadcast and broadband access, regardless of the whereabouts, in remote, rural, suburban or urban locations, will spur economic growth in Europe as well as encourage social cohesion and mobilize communities.

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In my concluding remark, let me stress that the “New Deal” before us is doable.

We also recognize that our contribution as SES to the evolution towards a hybrid network, and this will require further engagement across three tenets.

As a first tenet, constant innovation will have to become the new normal. We are certainly not shy to go down that path.

This is evidenced by our investment nearly five years ago in O3b, and which stands for the Other Three Billion. This unprecedented constellation of MEO-based satellites now provides within its equatorial arc super-high bandwidth with low latency connectivity that is comparable to terrestrial infrastructures. O3b is headquartered in The Hague, is based on European technology working with our partner Thales, and can deploy in excess of 100 satellites in its orbital arc to provide fiber-in-sky type of connectivity.

We are also collaborating with ESA and OHB on project Electra, which aims to produce an all-European next generation of smaller GEO satellites that uses an all-electric propulsion and an all-flexible payload.

As a second tenet, strong support to the European space industry will continue to be an important imperative for SES.

This is evidenced by our most recent launch this year, namely Astra 5B positioned over Europe which used an Ariane 5 launcher, bringing our total tally of 39 Ariane-based launches. This is combined to the three new satellite programs we awarded this year to Airbus, namely SES-10, SES-11 with our partner Echostar, and SES-12 which is our largest and most advanced satellite to-date.

As a third tenet, strong integration of our infrastructures and applications to the broader digital and economic ecosystem will remain the single most important ingredient of the SES success.

Whether it is about the EGNOS payload we operate on our satellites to augment the European Galileo program; whether it is about the SES broadband solutions that complement the infrastructure of most incumbent telecom operators in Europe to help them achieve universal broadband coverage in their geographies; or whether it is about the SATMED e-health platform we developed with the Luxembourg government that enables the provision of medical services remotely; we are constantly thinking about and working on technology integration.

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Ladies and gentlemen, I appreciate that our proposition to build the European digital highway on the basis of a hybrid network is audacious and ambitious. It is also the most efficient and best future-proof proposition before us.

This view will require a re-imagination of our collective wisdom as to what the digital networks of the future should look like, will invite a re-thinking of the full potential of the European space industry, and will accelerate the re-definition of the collaboration model across our industry and beyond.

This new deal is indeed audacious and ambitious, and more importantly it is within reach for our generation.

Thank you.