



# MARKET BRIEFS

Executive summaries of market trends and opportunities in key market segments and regions worldwide

## The European Broadcast Satellite Market

### Highlights

- According to Digital TV Research, satellite is facing challenges, with more homes in Western Europe, paying for telco television than for satellite television. In the 18 countries surveyed for the report, there were 25.54 million homes with paid IPTV services, compared to 24.6 million paying for satellite TV.
- There are 25.85 million homes in Western Europe with free-to-air (FTA) satellite TV,

by Elisabeth Tweedie, Associate Editor and Virgil Labrador, Editor-in-Chief

Europe, like the most of the rest of the world, is facing challenges to its traditional broadcasting industry. Whilst the living room and linear viewing are still important, so too is OTT and mobile viewing. 4K is advancing. According to Digital TV Research, satellite is also facing challenges, with more homes in Western Europe, paying for telco television than for satellite television. In the 18 countries surveyed for the report, there were 25.54 million homes with paid IPTV services, compared to 24.6 million paying for satellite TV. Digital TV Research is forecasting that by 2021 there will be 32.53 million IPTV homes and the number of satellite homes will fall further to 24.31 million. This decline in satellite homes is attributed to some operators, particularly those in Spain and Italy converting satellite subscribers to bundled broadband services. However, it must be remembered that there are 25.85 million homes in Western Europe with free-to-air (FTA) satellite TV, so it's way too soon to

write off satellite. And of course most of those IP services, like cable TV are fed by satellite. SES alone has 156 million satellite households in Europe, when those indirect users are taken into account. Furthermore, most sources agree that satellite is the best medium for delivering Ultra High Definition (UHD) or 4K services, which are just starting to appear as consumer offerings.

Right now, the OTT services and Netflix and Amazon Prime in particular, seem to be in the lead when it comes to 4K content. Both started producing in 4K in 2014. At the end of last year Netflix had over 300 hours of 4K programming and was starting to produce in High Dynamic Range (HDR) as well. HDR is part of Phase Two for 4K and effectively means that the content is seen in much more brilliant colors. It also helps to overcome one of the main problems with 4k, namely that in order to really appreciate it compared to HD, the optimum viewing distance is only 1.5x the screen height. Most people simply do not sit that close to the TV.

OTT providers aside, content is a major



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issue for 4K. Apart from sports, content is sparse, as broadcasters wait to see the likely demand and to make sure that there are enough 4K TV sets in the home, to justify the investment. The price of 4K sets is not likely to be a problem, as they have now virtually reached price parity with HD sets. IHS forecast that by 2019, 25% of homes in Europe will have a 4K TV.

Before taking the leap into 4K content production, last year the BBC conducted what it says is the largest ever survey of UK viewing habits, focusing on screen sizes and viewing distance. Based on current screen sizes, it says only 10% of the UK population would benefit from UHD, but based on the size of screen that viewers say they want, that number rises to 22.9%. However only 18.9% of respondents had a TV that was more than five years old, and the normal replacement cycle for TVs is nine years, so it may be a while before that larger set gets purchased.

Delivery of a 4K signal to the home for an OTT provider requires a dedicated 25Mbps connection, although this may be reduced to 15Mbps when high efficiency video coding (HEVC) is used. By dedicated, I mean that no one else in the house is using the Internet for anything else that would encroach on that 25Mbps. Many homes, even in developed countries just don't have that connection.

According to Michael Sichler, CEO of Pearl TV in Germany, "Most Internet connections in Germany are not suitable for live 4K streaming, and this is a major problem." This is also the rea-

**"...As customers' demands grow, with so many ways in which to consume content, the challenges and complexities are only going to increase due to market fragmentation..."**

**-Elad Manishviz, Chief Marketing Officer of RR Media**



son that Pearl TV chose to launch Europe's first FTA 4K channel on satellite. For the OTT provider, it is not simply a matter of the bandwidth not being available; it is also a matter of cost. OTT providers pay around 3 cents to deliver one hour of SD video to a single user, but SD requires just 3Mbps. So to deliver in 4K their costs are likely to increase by a multiple of 5-

February of this year that it had purchased one of its competitors, RR Media. According to Wilfried Urner, Chairman of the new merged entities, "SPS and RR-Media were too small separately, but very good together." Although the culture of the two companies is very different, Urner commented that from the very first meeting things had gone well. RR Media were "very open and good listeners." The two companies are strong in different areas. SPS is strong in Europe and has started providing services in Africa and Asia, and RR Media has a global footprint, with over 1,000 customers. RR Media customers tend to be smaller, second tier organizations, whereas SPS works with top tier organizations who demand a very high level of service.

Once the deal is concluded the merged company will have more than 1,500 customers and distribute more than 1,000 channels globally. Interestingly, the new company will be free to purchase bandwidth from any provider. The new organization structure will encompass three companies. The Media Group, which will be the merged RR Media and SPS; Avi Cohen, presently CEO of RR Media, will be CEO of that company, HD+ Group and an Innovation and New Platforms Group. Wilfried Urner will be CEO of these two and Chairman of all three.

HD+ with 2M subscribers is the largest satellite platform in Germany



**RR Media playout center.**

8x. Enter satellite that can deliver to thousands of homes for the same cost as delivering to one home. NSR is predicting over 1,000 4K satellite channels by 2025. According to Ofcom, 30 of these will be serving the UK.

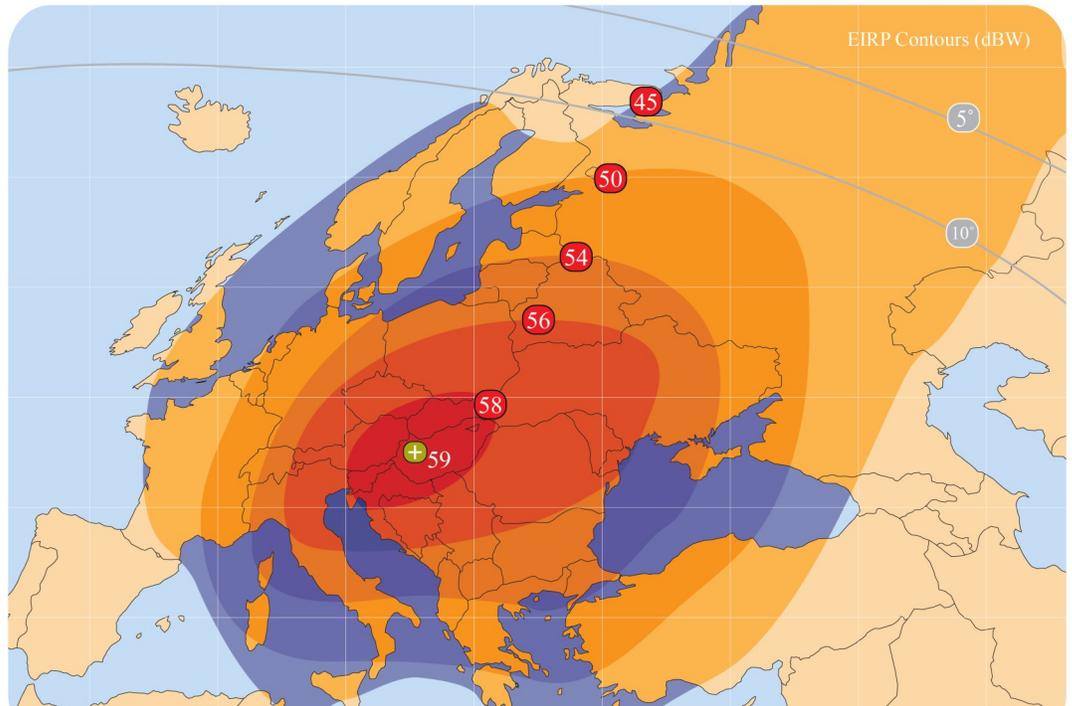
SES Platform Services, who distribute the Pearl TV 24 hour UHD fashion channel in Europe, announced in Feb-

and it is planned to “white label” the service so that it can be offered to other clients. As the name suggests the Innovation and New Platforms Group, will focus on new technology and products, and evolving video trends, to identify where SES can fit into the ecosystem. In June SPS will be launching a pan-European platform for the Asian community in Europe, providing two Chinese, one Indonesian and one Vietnamese channel via satellite and OTT.

SES, SPS’ parent company has joined forces with Eutelsat to create the Future Video Initiative. This alliance is focused on developing next generation video technologies, standards and formats for the reception of satellite services on any device, using converged broadband-broadcast technologies. The initial scope of work will focus on

promoting integrated hybrid broadcast-broadband solutions to increase the reach of HD and UHD services. Shortly after that was announced last year, Eutelsat announced that it was joining the SAT>IP alliance, of which SES along with Hispasat and many leading electronics companies, was already a member. This alliance aims to accelerate the adoption of the SAT>IP standard, which converts satellite signals to IP using a small server connected to the home router. This means that satellite programs can be received on any IP device in the home, including tablets and smart phones. SAT>IP is apparently difficult to install, but Urner commented that everyone who had SAT>IP loved it, and no one would get rid of it.

There are a lot of challenges ahead for broadcasting and for satellite. No one can be more acutely aware of that than Eutelsat, whose shares tumbled 30% in May when it gave a profits warning in its third quarter earnings conference call. SES was also impacted as its shares fell 8%. One can’t help thinking that maybe just for now; SES would prefer not to be associated with Eutelsat.



Spacecom is a leading global satellite service provider operating a constellation of advanced satellites across Europe, Asia and the Middle East. It’s fleet consists of **AMOS-2** and **AMOS-3** co-located at 4°W and **AMOS-4** at 65°E. Pictured above is Amos 3’s Ku-Band beam covering Europe.

### Over the Top Services

Traditional linear broadcasting and traditional wide-beam satellites are both facing major challenges. So, is the IBC, which will be held this month, still relevant for our industry? In other words what are some of these challenges and how is the industry addressing them?

The first and inescapable one, is the transition to Internet Protocol (IP) coupled with the rise of Over-the Top (OTT) services. This issue is by no means confined only to the US market. According to a report from Digital TV Research, Western European OTT TV and video revenues will more than double between 2015 and 2021, reaching US\$ 14.64 Billion. Netflix alone is forecast to have more subscribers outside the US than in the US by 2018; according to a new report from IHS. Western Europe will be the second largest market (the US being the first) by the end of this year. The UK leads this market with six million subscribers, closely followed by the Nordic countries and the Netherlands with a combined total of 5.4 million.

Netflix and Amazon, the two biggest names in OTT, are now being joined by another big name: Facebook. Facebook video is still in the experimental phase and is primarily focused on live video between individuals and groups. However, Facebook has allegedly signed contracts with nearly 140 media companies and celebrities for content for Facebook Live. Mark Zuckerberg has clearly articulated the importance of video to Facebook: “Right now, the big theme and strategy that we are executing is we’re going to become video first.” It remains to be seen whether consumers will respond to professional content from Facebook, or confine themselves primarily to using Facebook live for interaction with friends.

This move to OTT, impacts traditional linear broadcasters, many of whom are rising to the challenge by developing their own OTT offerings, as an enhancement to their legacy services. It also impacts the technology companies that serve the broadcasters. As Didier Mainard, Executive VP, Media Distribution Services at Globecast said: “As audiences be-

come more fragmented, the broadcast industry has had to reinvent its relationship with its viewers. As a result, broadcasters and content owners have had to be more nimble than ever before. Not only do they have to find a way of responding to consumers' demand for anytime, anywhere, any device access to content, but also increasingly they are being expected to deliver a more personalized content experience."

Globecast is adapting to this need by providing a very flexible media management platform that allows broadcasters and telcos, to try out new concepts or markets without having to invest in new infrastructure. By providing a fully managed service, a customer has the option to try something out, with no upfront investment. If something doesn't prove to be successful, it's easy for the broadcaster to pull the plug and try something else. So, for example if it was decided to offer a new OTT service via a new platform – game console, smart TV etc. and for whatever reason it was not successful, it would be easy to move onto something else without having to redeploy staff or invest in additional equipment.

For some of the service providers, namely those in the contribution market, challenges are coming from a different direction: terrestrial cellular operators. Historically, video from live news, sporting events, concerts etc., basically any outside broadcast, has been delivered back to the studio via satellite. In recent years, some of the major, permanent sporting sites, have gone to fiber, but now cellular from companies such as LiveU is providing serious competition to Satellite News Gathering (SNG). Bonded cellular is now even being used for HD and UHD transmissions. As Dr. Michael Weixler, Director Product Management and Marketing, ND Satcom, said; "We see strong competition from cellular networks in our SNG business when SD is sufficient or no live streaming is required. We see new activities to transmit HD or even UHD using bonded LTE connections to achieve the

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**-Didier Mainard, Executive VP  
Media Distribution Services,  
Globecast**



required bandwidth – competing with all the other phones in a public cell." ND Satcom is responding by being flexible. If a client wants bonded cellular as part of a solution, it will be integrated into the solution. But using cellular is never as reliable as satellite, as anyone who has ever suffered from a dropped call can attest. Even with the extra towers sometimes installed for special events, this often remains an issue. As a result for high-end clients,

panies strive to address these issues as smoothly and efficiently as possible. However there is another issue, that is also having a major impact on the satellite industry, and that, as we all know, is the impact of high throughput satellites (HTS). Some will argue that these, with the corresponding lower price per bit, are creating the "race to the bottom." Hopefully these doomsayers will prove to be incorrect; certainly there are some applications, broadcast



**Globecast's teleport in Los Angeles, Calif.**

being one of them, for which a traditional wide-beam satellite is far better suited. But either way, it cannot be denied that HTS is starting to have a major impact. This is an issue that the technology companies are being forced to deal with. The first HTS were closed systems, targeted at the consumer broadband market. Many of the HTS satellites being launched now, are open system and therefore can be used by any network operator or service provider.

This is impacting the technology providers as many of their clients are now looking to be able to work with both wide and spot beam satellites. One company that is dealing with this, is Newtec. Kevin McCarthy, VP of Market Development, of Newtec said "Although the majority of VSAT terminals are deployed for

broadband, much of the revenue actually comes from other applications including broadcast. By combining all these applications on a single platform, network operators can maximize economies of scale, while satisfying the demands of customers, and as an equipment provider, we have to be agile in providing these multiservice capabilities." Dialog is Newtec's solution to this. Dialog can be used for both traditional wide-beam satellites

**Key Driver**

Video is still the key driver for the commercial satellite business, so changes impacting that industry, impact our industry, which is why compa-

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MarketBriefs are occasional reports providing actionable intelligence on key market segments and regions for busy executives. Available both online and mobile versions. Printed copies are also distributed at major trade shows to ensure that you reach your target market segments.



### Asia

**Pay TV boom boosts satellite services markets in Asia in 2013**

**Asia Pacific Pay TV revenues reach US\$4.9 billion in 2013**

Asia Pacific Pay TV revenues reached US\$4.9 billion in 2013, an increase of 14% over 2012. This growth was driven by a combination of factors, including the expansion of pay TV services into new markets, the introduction of new content, and the increasing adoption of satellite services for pay TV distribution.

Key highlights include:

- Pay TV revenues in Asia Pacific reached US\$4.9 billion in 2013, up from US\$4.3 billion in 2012.
- The growth was driven by a combination of factors, including the expansion of pay TV services into new markets, the introduction of new content, and the increasing adoption of satellite services for pay TV distribution.
- Key markets contributing to the growth include India, China, and Southeast Asia.

### Africa

**The African Satellite Market**

The African satellite market is expected to grow significantly in 2013, driven by increasing demand for satellite services in various sectors, including telecommunications, navigation, and remote sensing. Key factors contributing to this growth include the expansion of satellite-based mobile services and the increasing use of satellite data for agricultural and environmental monitoring.

Key highlights include:

- The African satellite market is expected to grow significantly in 2013.
- Key factors contributing to this growth include the expansion of satellite-based mobile services and the increasing use of satellite data for agricultural and environmental monitoring.
- Key markets contributing to the growth include South Africa, Egypt, and Nigeria.

### Middle East

**Update on the Middle East Satellite Market**

The Middle East satellite market is showing strong growth in 2013, particularly in the areas of satellite-based mobile services and satellite data services. This growth is driven by increasing demand for satellite services in various sectors, including telecommunications, navigation, and remote sensing.

Key highlights include:

- The Middle East satellite market is showing strong growth in 2013.
- Key factors contributing to this growth include the expansion of satellite-based mobile services and the increasing use of satellite data for agricultural and environmental monitoring.
- Key markets contributing to the growth include Saudi Arabia, the UAE, and Israel.

### North America Broadband Market

**The North American Broadband Satellite Market**

The North American broadband satellite market is expected to continue its upward trajectory in 2013, driven by increasing demand for high-speed satellite broadband services. This growth is supported by the expansion of satellite-based broadband services and the increasing use of satellite data for various applications.

Key highlights include:

- The North American broadband satellite market is expected to continue its upward trajectory in 2013.
- Key factors contributing to this growth include the expansion of satellite-based broadband services and the increasing use of satellite data for various applications.
- Key markets contributing to the growth include the US and Canada.

### SNG Market

**The SNG Market**

The SNG (Satellite News Gathering) market is showing strong growth in 2013, driven by increasing demand for satellite-based news gathering services. This growth is supported by the expansion of satellite-based news gathering services and the increasing use of satellite data for various applications.

Key highlights include:

- The SNG market is showing strong growth in 2013.
- Key factors contributing to this growth include the expansion of satellite-based news gathering services and the increasing use of satellite data for various applications.
- Key markets contributing to the growth include the US and Europe.

### Manufacturing Market

**Trends in Satellite Manufacturing**

The satellite manufacturing market is showing strong growth in 2013, driven by increasing demand for satellite-based manufacturing services. This growth is supported by the expansion of satellite-based manufacturing services and the increasing use of satellite data for various applications.

Key highlights include:

- The satellite manufacturing market is showing strong growth in 2013.
- Key factors contributing to this growth include the expansion of satellite-based manufacturing services and the increasing use of satellite data for various applications.
- Key markets contributing to the growth include the US and Europe.

### COTS

**The Military COTS Market**

The Military COTS (Commercial Off-The-Shelf) market is showing strong growth in 2013, driven by increasing demand for satellite-based military services. This growth is supported by the expansion of satellite-based military services and the increasing use of satellite data for various applications.

Key highlights include:

- The Military COTS market is showing strong growth in 2013.
- Key factors contributing to this growth include the expansion of satellite-based military services and the increasing use of satellite data for various applications.
- Key markets contributing to the growth include the US and Europe.

Go to: <http://www.satellitemarkets.com/MarketBrief> to view these free reports

## Modems for the Next Generation Satellite Networks

Work Microwave, a leading European manufacturer of advanced satellite communications equipment, will introduce its A-Series FPGA-based modem platform at the IBC Sept. 9-13 in Amsterdam, WORK Microwave will provide demonstrations of the AX-60 IP modem, showing attendees how the new platform provides the high performance necessary for IP trunking and IP network infrastructure applications.

"One of the biggest challenges that operators in the satellite communications environment face today is the rapid rate of technology innovation. When it comes to modem equipment, they need more flexibility and faster deployment times," said Jörg Rockstroh, director of digital technologies at Work Microwave. "We designed the A-Series to specifically address these issues. Through a flexible, future-proof, IP-based architecture, the new platform enables our customers to adapt to future requirements, including the next-generation DVB-S2X standard, with ease and affordability."

Using the AX-60 IP modem, operators can transmit and receive DVB-S2X signals with utmost efficiency and simplify operations. The platform is completely customizable and scaling to any throughput (i.e., analysis method, and other wave-S2X, it is an ideal solution for telecommunications, internet service providers, government and intelligence agencies, and operators of low orbit (LEO) satellite constellations. Optimal use cases include high-speed network links (i.e., 100, 200, based satellite IP newsgathering, IP-based contribution and distribution links, connection to and from LEO for earth observation, and reception and analysis of satellite communication. By providing operators with a future-proof and flexible platform for both standardized DVB-S2X and customized satellite communication, the AX-60 IP modem simplifies the transition toward an all-IP environment.



**Work Microwave's AX-60 IP modem**

Some of the advanced features and benefits that will be on display at IBC2016 include higher modulation schemes up to 256APSK, a finer granularity of ModCods, and advanced filtering. Work Microwave will also show the platforms' enhanced access from monitoring and control to the transmission parameters, allowing direct real-time monitoring as well as a quick adaptation to specific operator requirements.

The A-Series platform includes modem, modulator, and demodulator options, all of which are now shipping.

More information about Work Microwave is available at [www.work-microwave.com](http://www.work-microwave.com), or visit their booth at the IBC at Hall 5, booth # 5.A77.

and for HTS. It gives operators the flexibility to adapt their business as the market changes, by enabling multiple services over a single IP-based platform. Globecast, as a service provider, enables operators to offer new services in new markets, as needed without any capital outlay. Newtec Dialog, gives operators the flexibility to introduce new services themselves. It enables the automation of broadcast workflows and makes the most efficient use of hardware and bandwidth resources. Dialog also incorporates the most efficient modulation technique, DVB-S2X.

So, is IBC still relevant for our industry? We think so, and apparently so do the broadcasters. For the Olympics this year, according to SES, they booked more capacity, on more satel-

lites to broadcast more hours, than for any previous Olympics. There are challenges and changes, but we're rising to them and creating new products and services in order to do so.

### Changes in the Industry

Tremendous changes, driven by technological innovations and market forces, have been sweeping the video broadcast market. People no longer view their favorite shows just on TV but also on their different devices, mostly through streaming video. Viewing habits have been changing. Today, 87% of subscription video comes from binge viewing or marathon viewing or subscription video. Thematic channels, binge viewing, and the use of cloud for viewing are prompting technology enablers to change how videos are provid-

ed to customers. Most of these "disruptive" technologies are altering business models and the dynamics of providing broadcast services. This was the consensus during the EUatcom conference held during IBC 2015.

Despite all these changes, traditional broadcasting elements—satellite, cable, terrestrial—remain as vital enablers, though satellite could sometimes be lost in view, says Pryor. But because there is now video everywhere, satellite broadcasting is still a vital component. Satellite's relative market share is decreasing as there is cloud, mobile data, and other technologies but its absolute share of the market continues to grow.

The broadcast and media service provider industry continues to march

towards efficiency, more innovative, spot beam architectures, higher performance and higher efficiency. What is driving the change are the enablers who drive these business opportunities. Broadcast market is changing and the impact of all these technological changes are changing the old order. Pryor said satellite remains in good shape but hidden from view, but continues to enjoy higher revenues. Although satellite stays dominant in the broadcast industry, it is partially hidden, Pryor said. While technological advancements in video broadcasting are changing, satellite broadcast continues to grow as it adapts to changes.

### Multiservice Broadcasting

Hans Massart, Broadcast Market Director of Newtec reviewed a couple of market trends in the broadcast industry. He said content remains to be the king but the difference is there is now multi-camera events leading to higher bitrates. Capture content for any screen, he said, has led to more and more feeds tailored-fit for each device; next to transport streams. There is the also the need for the traditional MPEG-2 TS and http adaptive streaming.

Multiservice network, or a single network that runs multiple services such as video or file exchanges. But next to that, there is also a need for an “always on” network for voice and other types of IP communications for social interaction, such as for tweeters accounts, e-mail, managed internet, etc. There is no such thing anymore as satellite-only or terrestrial-only network. All networks that we see these days are hybrid and workflows need to go flawlessly over the entire network.

Newtec revealed the findings of an industry survey it conducted in 2014, results of which are still valid, which found that over 90 percent of the industry considers the satellite segment OPEX to be a very high expense, yet more than a third (40%) say they have spare capacity. The total amount of space segment is therefore an expense area where OPEX can be reduced. The survey results also uncover many Occasional Use (OU) sessions in broadcast networks. These sessions often require a lot of manual operations, despite the cost of staff overall being considered even more important than the satellite space segment OPEX. This is another area

**“...We see strong competition from cellular networks in our SNG business when SD is sufficient or no live streaming is required. We see new activities to transmit HD or even UHD using bonded LTE connections to achieve the required bandwidth – competing with all the other phones in a public cell....”**

**-Michael Weixler, ND Satcom**



where OPEX can be saved.

Obviously, Massart said, there is something that can be in the Opex by making effective use of the satellite resource.

Newtec also found the industry to be constantly searching for new growth. More than 80 percent of broadcasters and broadcast service providers plan to launch additional services in the near future. A single platform shared between multiple services, a “multiservice network”, will help address rising costs while increasing network flexibility, enabling business cases for new service deployments.

The survey revealed that the industry wants a multiservice network is based on a single and future proof all-IP transport layer, independent of the underlying network layers. An all-IP multiservice network supports video, voice, data and broadband services on a single infrastructure and space segment.

linear and non-linear workflows can run simultaneously on multiservice networks. They share the same infrastructure, operating staff and space segment, instantly reducing the level of CAPEX and OPEX while increasing business flexibility.

So what do we believe the next generation should look like if we look at these trends and challenges. Massart said that by looking at all these trends, it is obvious what the next generation networks should look like. “We believe that it should all be IP...all IP transport layers, network should be flexible, scalable and efficient, multi service support, umbrella management system, workflow automation, hybrid connectivity, satellite capacity management, file exchange management,” he said.

Different broadcast



**Elisabeth Tweedie** is the Associate Editor of the *Satellite Executive Briefing*. She has over 20 years experience at the cutting edge of new communication and entertainment technologies. She is the founder and President of Definitive Direction a consultancy that focuses on researching and evaluating the long term potential for new ventures, initiating their development and identifying and developing appropriate alliances. During her 10 years at Hughes Electronics she worked on every acquisition and new business that the company considered during her time there. [www.definitivedirection.com](http://www.definitivedirection.com) She can be reached at: [etweedie@definitivedirection.com](mailto:etweedie@definitivedirection.com)



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