IABM SUPPLY TRENDS REPORT

JANUARY 2018

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Representing vendors globally across the digital media and entertainment industry

Contents

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About this document

The IABM Supply Trends Report biannually tracks financial performance and trends in the media technology sector. The purpose of this report is to enable IABM member companies to benchmark their own performance within the industry and track emerging trends in the supply side of media technology.

Report Methodology

The information analyzed in this report is derived by both quantitative and qualitative research carried out by IABM. The primary sources used in this report are:

- **Quantitative Evidence:** Public and private financial data of media technology supplier companies gathered and analyzed by IABM
- **Qualitative Evidence:** Survey evidence on sector trends and issues gathered and analyzed by IABM

We produce indices and statistics based on this primary evidence. These can be divided into two pools:

- **"The IABM Supply Trends Index":** a monthly tracker of sales and profits in the media technology sector. This information is mostly used in the first section of the report
- **"The IABM Supply Trends Survey":** a biannual survey of trends and opinions in the media technology sector. This information is mostly used in sections 2-7

We use both these pools of information as well as variety of secondary sources – including interviews, news, announcements, earnings calls, technology material etc. – to provide users with a comprehensive account of the status of the media technology market.

More information about the report's methodology – including index and survey demographics – can be found in the Appendix of this report.

Report Content

The analysis is undertaken by the IABM Business Intelligence team. The contents of this report, which focus on the performance and trends experienced by media technology suppliers, are the following:

- Financial Performance
- Business Sentiment
- Products, Revenues & Profits
- Supply Chain
- Costs and Prices
- Investment
- Skills & Training
- Outlook

Users can view the highlights of this report in the Executive Summary section on pages 4 and 5.

Report Consumption

This study can be downloaded as a PDF or viewed as an interactive report at www.theiabm.org/supply-trends-reports/ – we suggest users view the interactive report as it enables them to drill down into the data. The PDF version of the report is instead more suited to offline reading.

While IABM members have free access to the report, non-members are charged for accessing it.

Executive Summary

This section includes the key findings of this report, which are:

Financial Performance

- Sales in the media technology market grew by 1.2% in December 2017
- SMEs' sales performance continued to improve, overtaking large companies
- Profits in the media technology market continued to decline, going down YoY to -24.1% in December

Business Sentiment

- Confidence ratio was down from 7.4 to 5.6
- Software suppliers were significantly more confident than hardware suppliers
- Anecdotal feedback was mixed with a slight majority of negative comments

Products, Revenues & Profits

- Most of the sample (56%) said that their primary source of revenues is hardware products
- Hardware was also the revenue category forecast to decline the most, by 18% of vendors
- The Middle East significantly increased its importance as a sales region for suppliers

Supply Chain

- "Prices and competitive position" was the primary growth constraint
- "Development capacity" remained the primary factor limiting order fulfillment
- 63% of software vendors said they partner with a cloud provider for delivering their products

Costs & Prices

- Pressure on selling prices has increased with 38% of companies reporting declining prices
- Material costs continued to increase, though less so than in the last survey
- The inflation in labor prices eased as companies reduce recruitment

Investment

- Recruitment of personnel slows down as companies seek greater efficiencies
- R&D and trade shows investment declines compared to historical standards
- IP and the cloud are the focus of suppliers' R&D spending

Skills & Training

- Technical and sales staff remain the most difficult to recruit/train
- Of technical staff, engineers with both broadcast and IT skills are the most sought after
- Of sales staff, technical sales skills remain the most sought after

Outlook

These results show that the supply industry is still in flux, with changing business models and buyers' purchasing behavior having a significant impact on its general performance and sentiment.

Buyers' demand shift to software running on generic IT technology and increased concern for efficiency are continuing to exert pressure on selling prices, which is affecting suppliers in various ways. The financial effect of product price deflation is forcing them to raise sales volumes to preserve current margins. Margins are however falling as demonstrated by our data on profits. The increased concern for pricing pressures among suppliers is also highlighted by our data. All of this is ultimately affecting suppliers' sentiment, as the drop in the IABM Confidence Ratio shows.

The profitability decline has also been caused by a massive increase in investment in recent years. This investment has been made in different functions, particularly in R&D, sales and marketing, to develop new offerings and market them aggressively to technology users in different regions. Our latest data points to a decrease in investment as companies try to become more efficient and reap the benefits of past product launches.

The transition to software (including the cloud) is well underway, though hardware remains the primary source of revenues for most suppliers. This is demonstrated by our data on revenue distribution and outlook, which shows a changing composition of revenue sources with a significant shift towards software revenues. The shift to software is also requiring suppliers to upgrade the skills of their staff; recruiting new staff with these skills is challenging. To be able to help media technology users transition to next-generation infrastructures running mostly on IT technology, they need to have a workforce that understands both the tools of IT and the requirements of broadcast.

Although some suppliers are going through difficult times as of late, there are reasons to remain positive about the future of media technology. 2018 will be a quadrennial year with plenty of events-related spending guaranteeing growth and opportunities for many. Adoption of emerging technologies will continue to rise, driving more growth for those that have invested in them. In the long-term, media technology spending also will continue to grow as traditional technology users try to keep up with the volatile nature of online video, leaving a plethora of opportunities for suppliers.

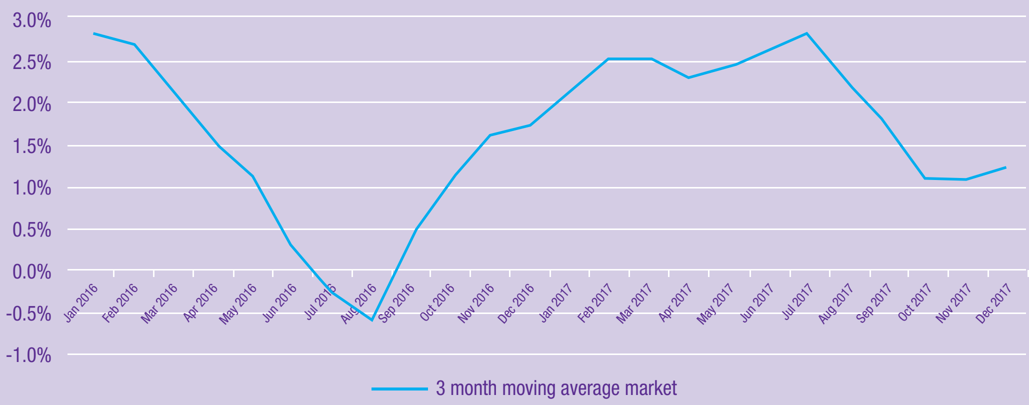
Financial Performance

This section includes an analysis of sales and profit growth in the media technology sector. The data used in this section is derived from the monthly analysis of media technology businesses' accounts by the IABM Business Intelligence team – "The IABM Supply Trends Index". The latest analysis was carried out up to the end of December 2017 and includes 118 companies with aggregate sales amounting to US$7.7bn.

Latest Supply Trends Index	
Results up to	**No. of Companies included**
December 2017	**118**

Sales

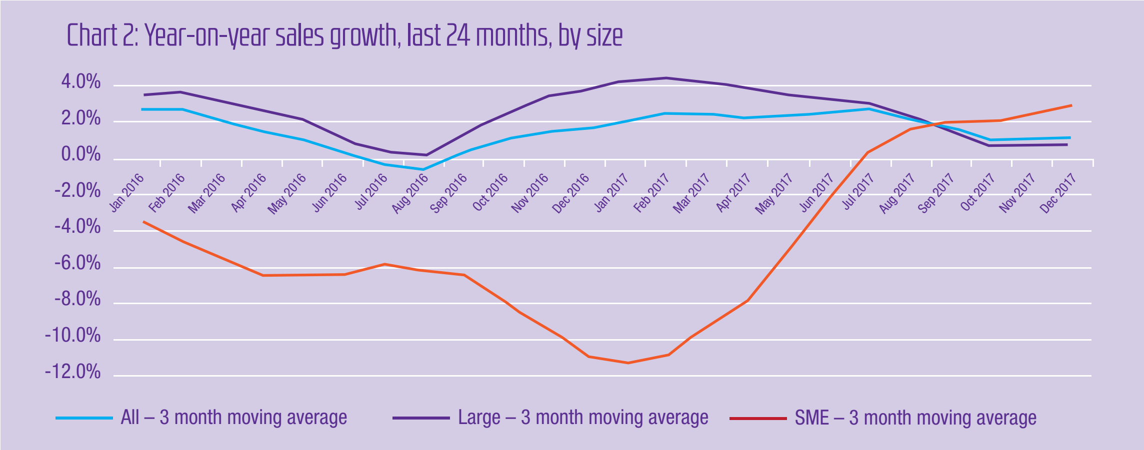
Chart 1: Year-on-year sales growth, last 24 months



Year-on-year sales in the broadcast and media technology market grew by 1.2% in December 2017. This growth rate was mostly flat compared to November and October 2017 but declined compared to previous months. More specifically, sales growth has been consistently declining since reaching a peak of 2.8% in July 2017.

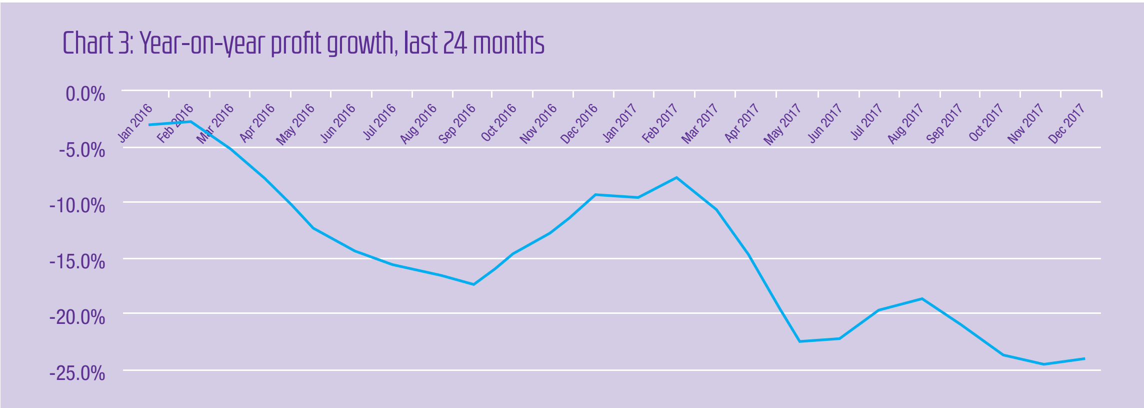
Even though sales have grown throughout 2017, the growth rate has never been particularly high, ranging between 1-3%. Despite 2017 not being an "event year", this is rather disappointing given the level of investment made during 2017 – we will explore this further in a section later in this report – and the fact that buyers are increasing their demand for media technology. We will talk about this in more detail in the last section of this report. It is worth remembering that the figures in this report refer to the conditions of the overall industry – growth varies greatly from one segment to the other.

When looking at different organization sizes, SMEs' sale performance has continued to improve whereas large companies have faced a slowdown in revenue growth. More specifically, SMEs' growth now stands at 3%, higher than the 0.9% experienced by large companies. This is in contrast with the long-term trend that has seen large companies consistently outperforming smaller ones. A closer look at this data shows that SMEs' recent growth has been mostly driven by the performance of medium companies as small ones have continued to fare worse than large companies. Medium companies may have the right characteristics to cope with this period of intense changes. In fact, they may have the right amount of resources to invest in new products as well as the flexibility to address changing customer requirements.



Although the sales performance remains positive, we will see that profit growth continues to worry media technology executives.

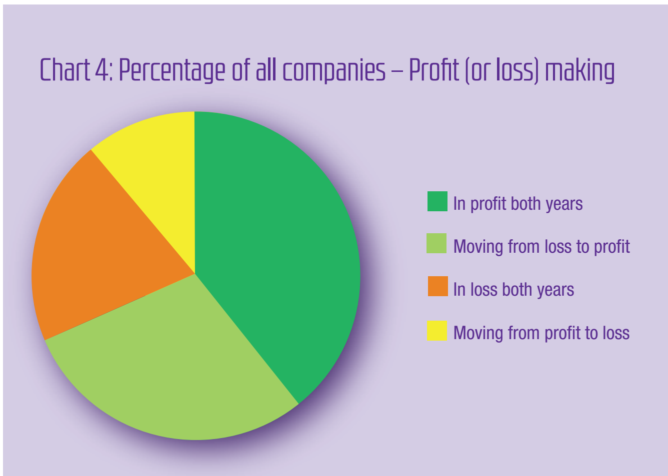
Profits



Overall profits in the market have continued to decline, going from -22.3% in June to -24.1% in December. The decline in profits, which started at the end of 2015, has continued throughout the industry affecting all companies, regardless of their size.

There are many forces behind this decline in profits, some of which will be analyzed in detail later in this report. The already mentioned high level of investment – including R&D, sales and marketing spending – has bitten into profits, particularly as selling prices have continued to decline due to technology commoditization. To maintain the same levels of sales, some companies have been forced to raise volumes or implement internal efficiency measures, but the lower margins have nonetheless impacted profit growth. Also, increased buyer consolidation has not helped suppliers in negotiating contracts with them.

The snapshot of profitability as of December 2017 shows that most companies (68%) remain in profit. Moreover, this percentage has increased in recent months. This means that many companies still in profit have seen their margins decline in 2017 – the same applies to many companies in loss, which are making more losses. The 15% of companies which have moved from loss to profit have therefore not compensated for the companies seeing their margins collapse.



Business Sentiment

The data used hereafter is derived from a biannual IABM survey of trends and opinions of media technology suppliers' senior decision makers – the "The IABM Supply Trends Survey". The latest survey was carried out between December 2017 and January 2018, receiving 146 responses.

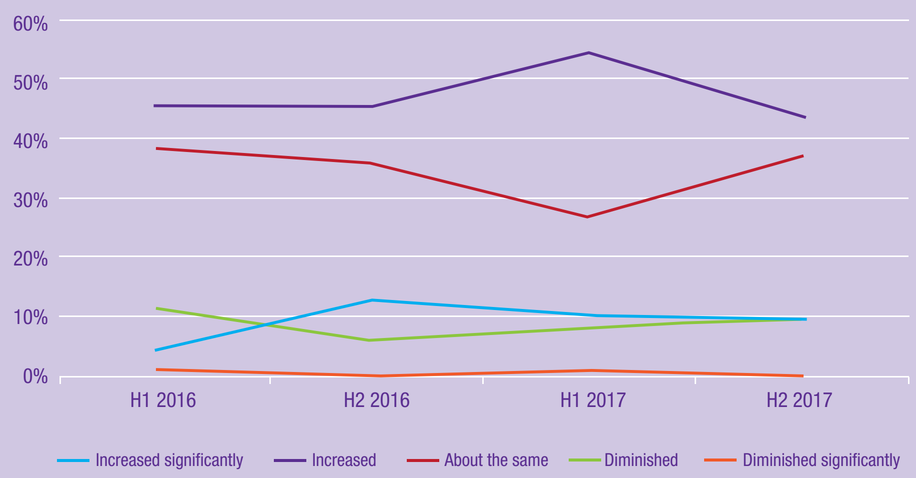
Latest Supply Trends Survey	
Survey Period	Survey Responses
December 2017 – January 2018	146

The first section looks at business sentiment in the media technology industry.

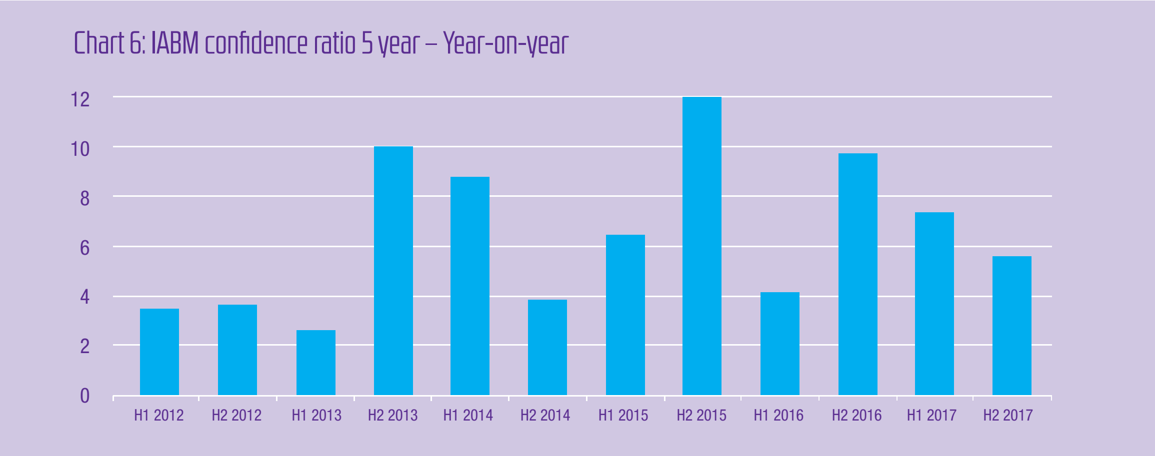
Business Sentiment

Year-on-year confidence has deteriorated over the last six months. This can be read in conjunction with the financial performance data showing a steep decline in profitability among media technology suppliers which was reported in the previous section on financial performance. Although sales are increasing, various industry forces such as technology deflation and cost pressures continue to bite into margins. The industry transition to virtualized IP infrastructures and data-driven workflows is also taking its toll on some businesses, which still need to adapt to changing users' requirements. We will show later how some of the data in this report point to a change that has created both winners and losers in the media technology market.

Chart 5: Market confidence – Next year v Last year



The IABM Confidence Ratio has declined from 7.4 to 5.6 as a result of a decrease in the percentage of companies with increased confidence. The current value of the ratio is low by historical standards – confidence in H2 2016 and H1 2015 was higher. In fact, confidence in the second half of a year is generally higher than the first half as technology suppliers reap the cyclical benefits of summer events – particularly sporting events.



When the data is broken down by using some of the sample's characteristics, interesting insights emerge:

- **Organization type:** Companies that primarily rely on software revenues are significantly more confident than companies that primarily rely on hardware revenues – 84% of software suppliers report increased confidence vs 54% hardware suppliers. This is consistent with the now long-standing industry transition of technology buyers from hardware to software and shows that software suppliers feel more positive about their future in the industry
- **Geography:** The geographical analysis of the data shows that Asian media technology suppliers are by far the most confident in the market while Western Europe reports the highest percentage of respondents with diminished confidence. This may mirror the recent growth of some technology suppliers in Asian countries such as India and China as well as the continued business stagnation in Europe

Anecdotal Feedback

Anecdotal feedback to this question is mixed, showing both positive and negative business sentiment for the future. The sentiment analysis (sentiment analysis systematically determines if responses are positive, negative or neutral) score of -0.1 shows that, overall, the general feedback is slightly negative. Looking at individual comments shows that there are some common themes in the text responses (these were identified by looking at the words that were used the most):

Negative Comments

- **Brexit:** The divorce between the UK and the EU is still creating uncertainty for businesses – particularly UK businesses but also European ones. This uncertainty has translated into negative effects such as decreased technology spending, higher sourcing costs and a rise in resources dedicated to planning for Brexit
- **Project Deferral:** This not only relates to Brexit but also to buyers' own uncertainty. Faced with a variety of strategic transitions to implement, some media technology buyers are still delaying projects, fearing making the wrong choices. This is exerting pressure on media technology suppliers' financial performance

Positive Comments

- **New Products:** Some suppliers reporting a positive outlook for 2018 feel that they have made the right changes in their businesses. These changes relate to new product launches and a different approach to dealing with customers' requirements
- **Events Year:** Some positive comments highlight the fact that 2018 will be a quadrennial year, with a large number of sporting events guaranteeing higher growth for media technology suppliers, particularly those specializing in live production

Products, Revenues & Profits

This section contains an analysis of the product offerings as well as revenue and profit sources of the companies that participated in this edition of the Supply Trends Survey. We also discuss regional sales and trends in non-broadcast revenues.

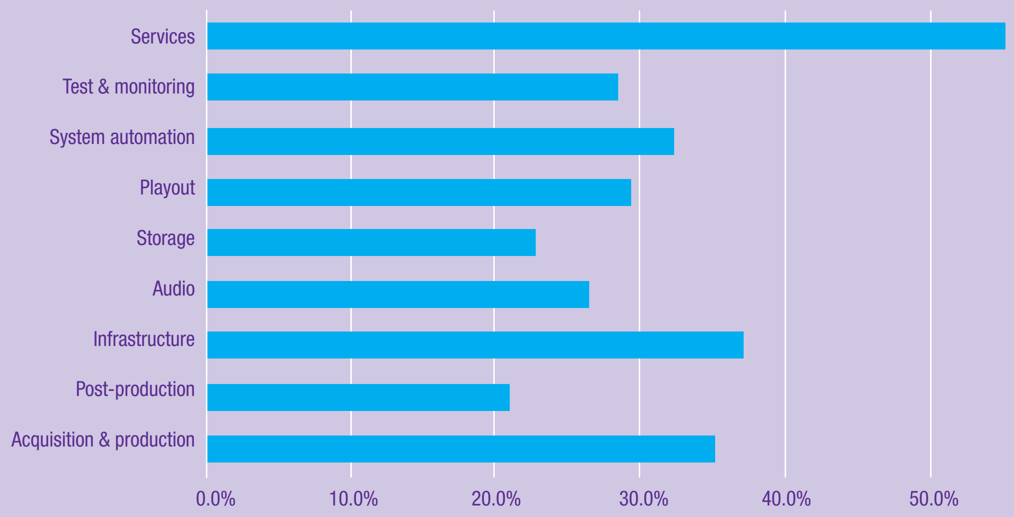
Product and Service Categories Supplied

Research participants were first asked which product and service categories they supply to their user base.

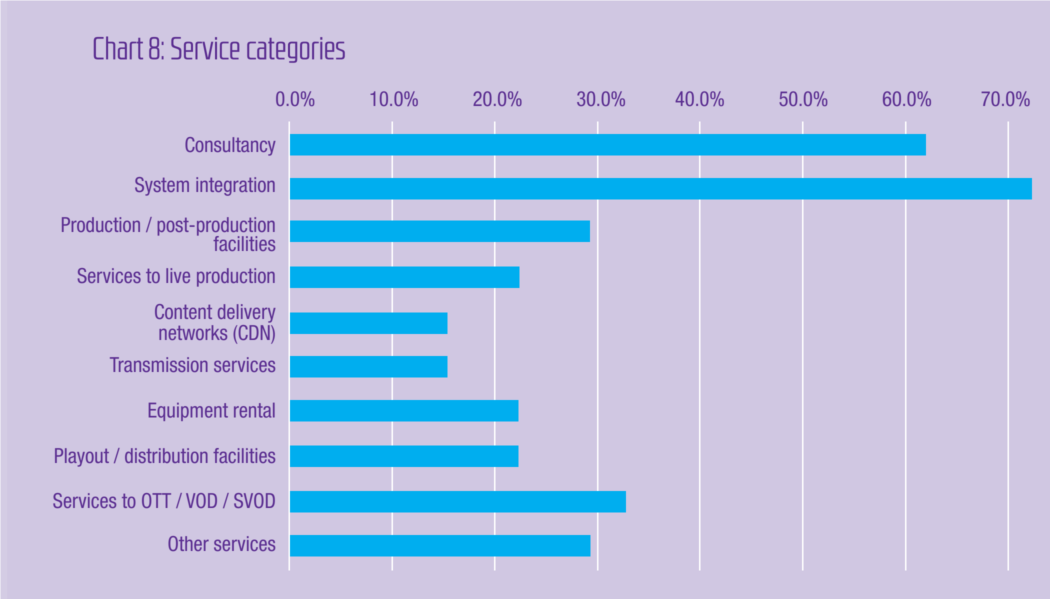
The segmentation used is based on the IABM Industry Model which divides the broadcast and media technology industry into 9 segments – 8 product segments and 1 services segment.

The chart below shows that over a half of respondents (55%) supply "services", which is significantly higher compared to our previous survey. Other important categories are "infrastructure", "acquisition and production" and "system automation" products. This is consistent with the revenue distribution in the industry as services represent more than half of total revenues in the broadcast and media technology sector.

Chart 7: Product/service categories



Respondents who said that they provide "services" were also asked which types of services their organizations supply to end-users of broadcast and media technology. A significant percentage of respondents ticked the boxes "system integration" and "consultancy". This is associated with the fact that many product vendors have started supplying system integration and consultancy services in order to expand their offerings and tap into new revenue sources. This has contributed to increased competition for traditional, "pure" system integrators. A significant percentage of respondents also ticked the box "services to OTT/VOD/SVOD". This latter category has experienced strong growth in recent years as traditional end-users continue to reinforce their new media offerings. 29% of respondents identified their service category as "other services".

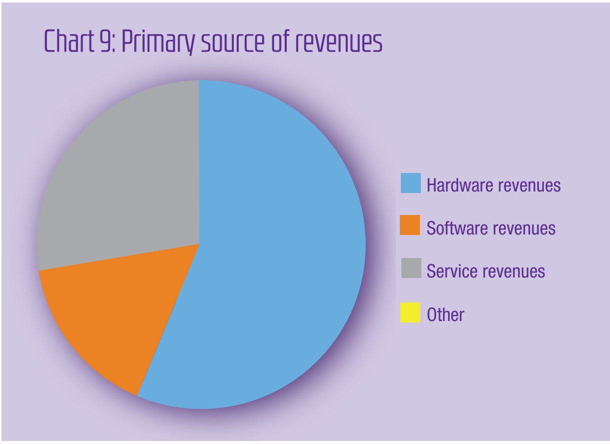


Respondents were also asked what are their primary source of revenues and primary source of profits. It is interesting to appreciate the difference between primary source of revenues and primary source of profits as these may differ significantly.

Primary Source of Revenues

Most of the sample (56%) said that their primary source of revenues is hardware products. This is up from our previous survey. The percentage of respondents saying that their primary source of revenues is software products was 16%, down from 30% in our previous survey. 28% of companies said that their primary source of revenues is services – up from 14% in our previous survey.

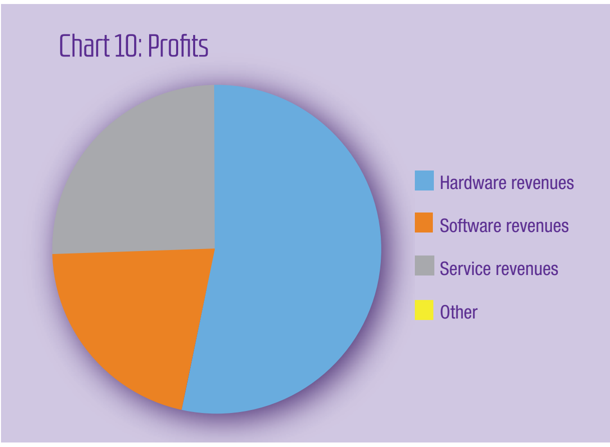
This is a big change compared to the distribution of revenues observed in our previous survey. Despite the preference of end-users for efficient, software-defined solutions, an increasing majority of industry participants still rely on hardware products as their primary source of revenues.



Primary Source of Profits

The primary source of profits for 53% of respondents is hardware with 21% saying it is software and 26% saying it is services.

It is worth noting that, compared to the previous question, the software revenues' percentage has increased – by five percentage points – whereas all the other percentages have decreased. In fact, some respondents who said that their primary source of revenues is hardware also said that their primary source of profits is software – which generally carry higher margins than hardware.



Revenue Distribution

Respondents were also asked to estimate their revenue distribution. The questions asked of research participants depended on the answers given to the question: "What is your primary source of revenues?". Below, we provide the average revenue distribution, analyzed separately for each group:

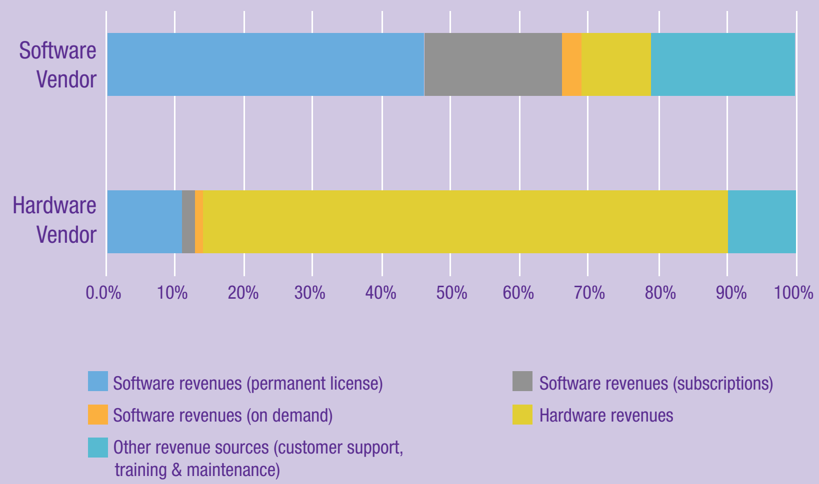
Vendors

Hardware and software vendors were given the same options to break down their overall revenues:

- **Hardware Vendors**
  Hardware vendors said that they derive 76% of their revenues from hardware, 14% from software and 10% from other revenues such as customer support, training and maintenance. When looking at the split of software revenues, 11% is derived from permanent licences, 2% from subscriptions and 1% from on demand offerings

- **Software Vendors**
  Software vendors said that they derive 69% of their revenues from software, 10% from hardware and 21% from other revenues such as customer support, training and maintenance. When looking at the split of software revenues, 46% is derived from permanent licences, 20% from subscriptions and 3% from on-demand offerings

Chart 11: Hardware & software vendors

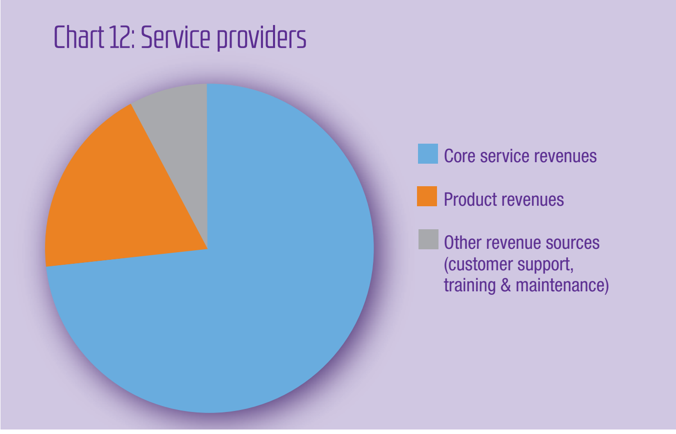


These results show that hardware vendors rely heavily on hardware products as 76% of their revenues come from hardware sales. However, this is down from 81% in our last survey showing that hardware vendors are increasing their reliance on software. Software vendors derive most of their software revenues from the sale of permanent licences although this percentage continues to decrease compared to our previous surveys. Reliance on alternative software business models is though still low compared to the potential demand from technology end-users.

Service Providers

Service providers said that they derive 73% of their revenues from their core service offerings, 19% from product offerings including both software and hardware products and 8% from other revenues such as customer support, training and maintenance.

Service providers have a more mixed revenue distribution compared to hardware and software vendors as some service categories often rely on product sales as an important revenue source. This is the case for system integrators who might also sell certain product types separately from their core services.

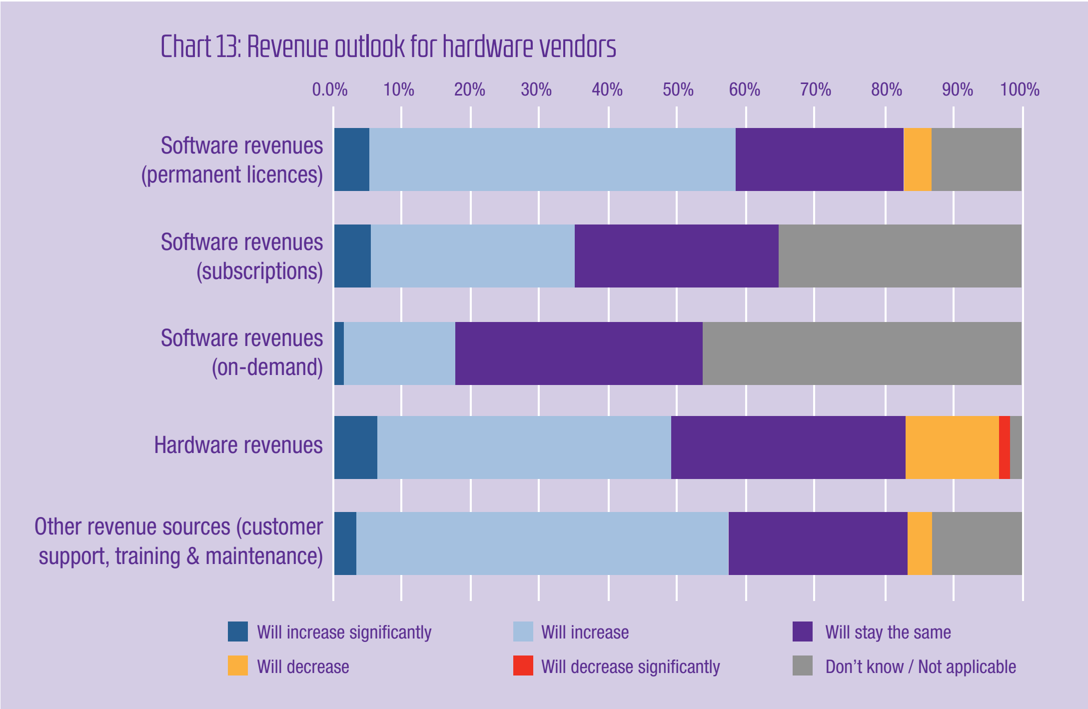


Revenue Outlook

Respondents were also asked to forecast the trends in their revenues in the next 12 months. Forecasts by hardware vendors, software vendors and service providers are given below.

Hardware Vendors

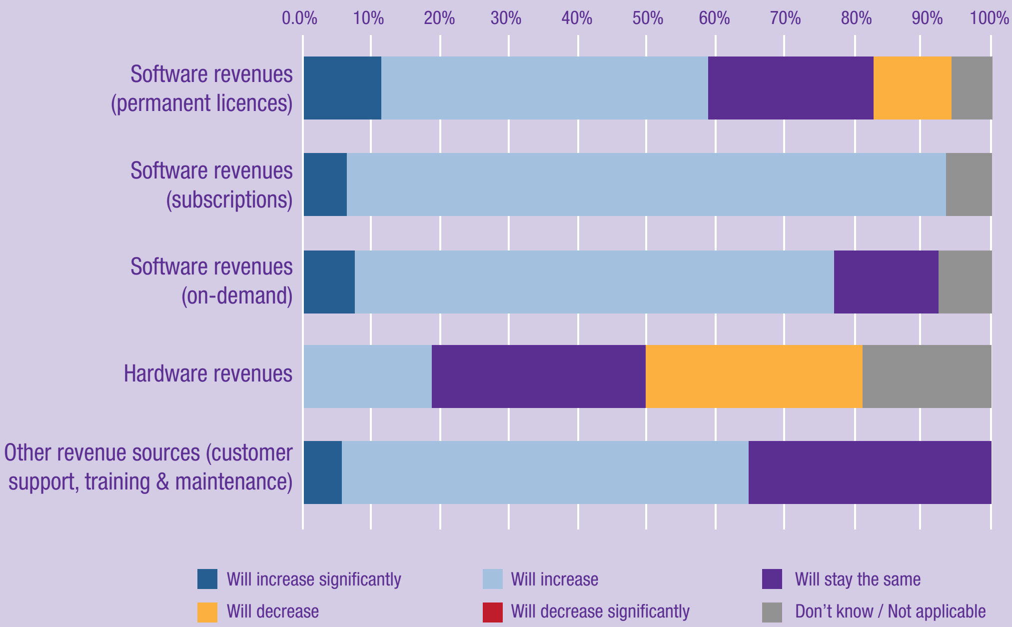
The fastest growing revenue sources for hardware vendors in the next 12 months were "software: permanent licences", "other revenue sources" and "hardware". The category of revenues forecast to decline the most was hardware as well – by 16% of hardware vendors. This is consistent with the transition from hardware to software that most hardware vendors are experiencing – although most of them are moving to a permanent licence model rather to the subscription or on-demand models that may be preferred in some use cases (e.g. cloud technology). This data also mirrors an expected and continued shift of media technology demand away from hardware to software solutions – as buyers continue to demand more of the latter.



Software Vendors

The fastest growing revenue source for software vendors was "software: subscriptions", which were forecast to increase by 94% of software suppliers. This category was followed by "software: on-demand" and "software: permanent licences". The category forecast to decline the most was "hardware revenues". This shows that some software suppliers that sell software are also reducing their reliance on hardware. Also "software: permanent licences" was forecast to decrease in the next 12 months by 12% of software suppliers, showing that some of them may be moving away from that model to others that guarantee more flexibility for the users. Although permanent licences are still very popular, some end-users are increasingly discovering the benefits of on-demand, for example, as they deploy the cloud in their operations.

Chart 14: Revenue outlook for software vendors



Service Providers

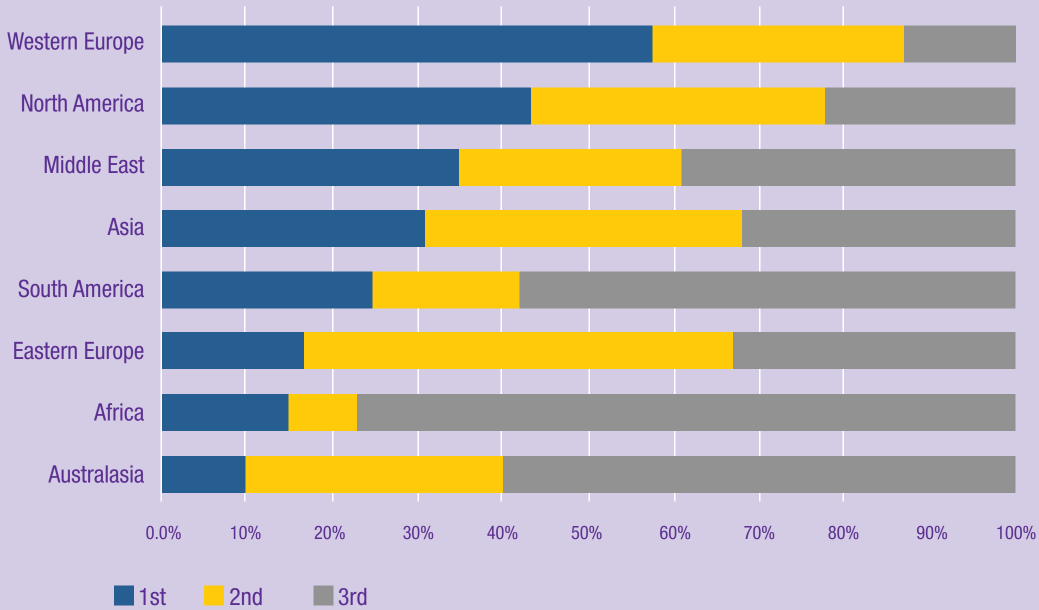
The fastest growing revenue source for service providers was "core service revenues", which were forecast to increase by over half of the sample – although this was also the category forecast to experience the steepest decline, by 18% of providers. Product revenues and other revenues were also predicted to rise in the next year, though by a smaller percentage of service suppliers. Service providers were generally less bullish than vendors in their estimates.

Chart 15: Revenue outlook for service providers

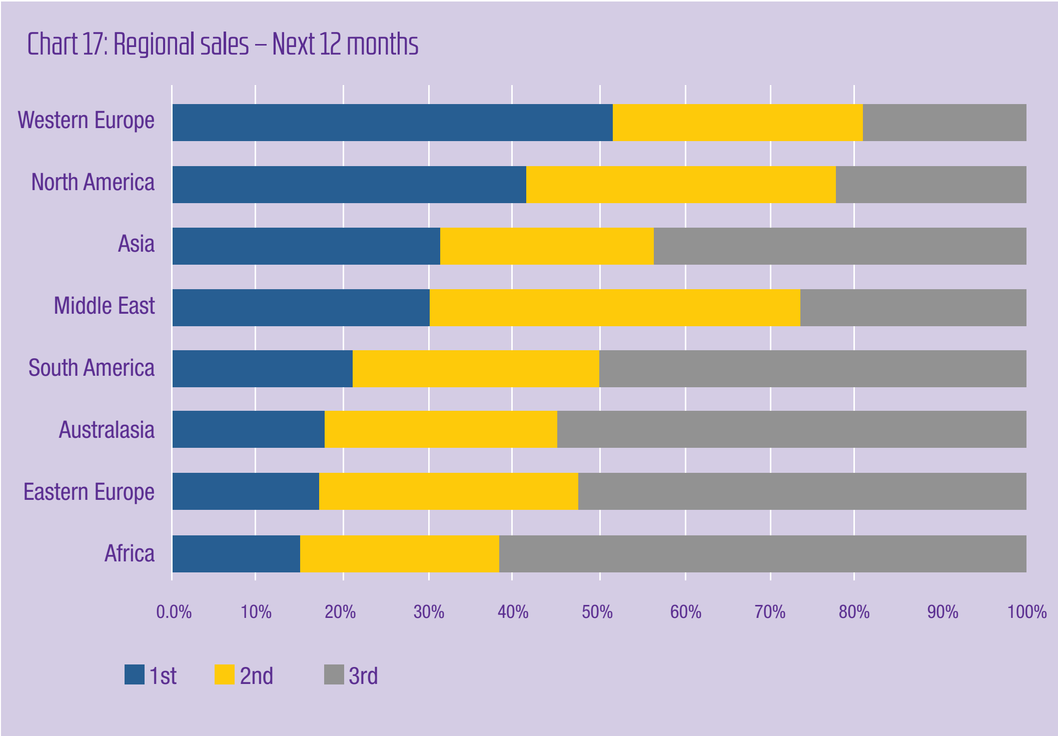
Regional Growth

Respondents were also asked to rank the three most active regions in terms of sales, both in the last and next 12 months.

Chart 16: Regional sales – Last 12 months



Western Europe, North America and the Middle East were the three most important sales regions for respondents in the last 12 months. For Western Europe and North America, this is not surprising as most research participants said that their headquarters are in these two geographies. The Middle East has however experienced a significant increase in importance compared to the last survey – it's never been ranked in the top three before. This may be due not only to the temporal vicinity of Cabsat – the region's flagship show – but also to a recent recovery in media technology spending in the region.



For the next 12 months, Asia overtakes the Middle East as the third most important region although the Middle East maintains a high score by historical standards. Western Europe and North America remain at the top although their scores diminish slightly. Australasia also gains some importance compared to the data on the last 12 months.

These results show that, although Western Europe and North America remain the most important territories for media technology suppliers, emerging regions such as the Middle East are becoming important growth drivers – for some, these are even more important than Asia.

Broadcast Vs Non-Broadcast Revenues

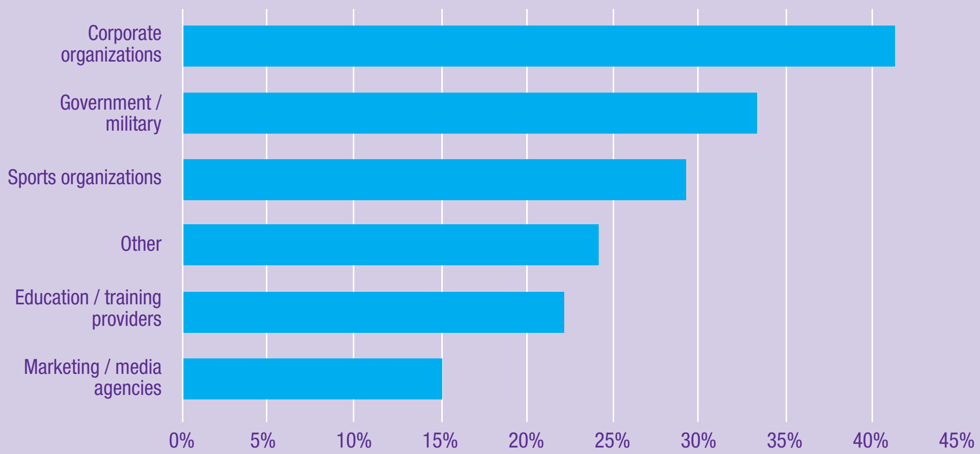
We also asked research participants what percentage of their revenues is derived from broadcast customers (broadcasters, media organizations, content distributors etc.) vs non-broadcast customer types. This is important to know as an increasing share of broadcast and media technology suppliers' customer base comes from a non-media background.

The results show that, on average, research participants' reliance on traditional customers stood at 73% – with the rest derived from other customer types. This is up from 71% in our previous survey, showing that despite the growth in media technology spending by non-media organizations, almost three quarters of suppliers' revenues remain linked to media organizations.

Chart 18: Revenues from traditional customers

Looking at the fastest growing non-broadcast segments shows that corporate, government/military and sports organizations are the most important customer categories for media technology suppliers.

Chart 19: Fastest growing non-broadcast segments



Supply Chain

This section contains an analysis of media technology supply chain issues as well as the channels used by suppliers to sell and deliver their products and services.

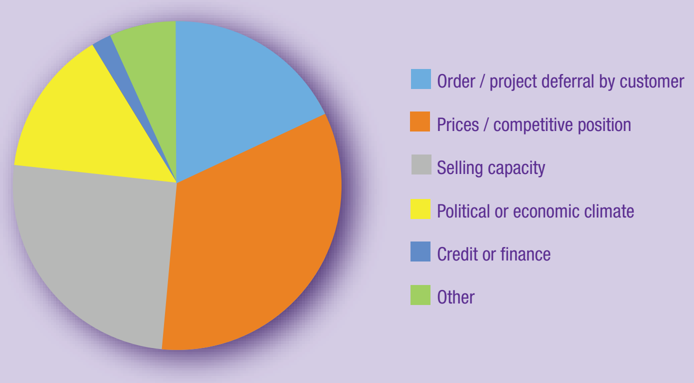
Order Growth & Fulfillment

Respondents were asked to choose the most important issues limiting their order growth and fulfillment respectively.

Order Growth

The most important factor limiting order growth was "prices and competitive position", which overtook "order/project deferral" as the primary growth constraint. This shows how pricing pressures – and their influence on performance – are becoming a primary worry for media technology suppliers. The second most important factor limiting order growth was "selling capacity", followed by "order/project deferral". Compared to the previous survey, "political and economic climate" doubled in importance, consistent with some of the anecdotal feedback we received – particularly with regards to Brexit and its role in slowing down business.

Chart 20: Factors limiting order growth

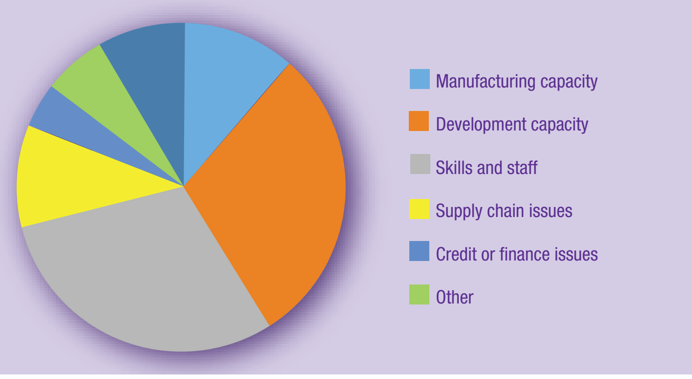


Looking at this data from an organization type perspective shows that while "prices and competitive position" is a problem particularly for hardware suppliers – as hardware technology becomes more commoditized - software suppliers consider "selling capacity" to be their most important problem.

Order Fulfillment

"Development capacity" and "skills & staff" were cited by respondents as the most important factors limiting the ability to fulfil orders – this is consistent with previous survey. However, compared to our previous survey, both these factors lost some importance in favor of other factors such as "credit and finance issues", "regulatory and compliance issues" and "supply chain issues" which significantly increased in importance. "Supply chain issues" was the third most important factor, highlighting the increasing relevance of supply chain management activities in supplier–user relationships.

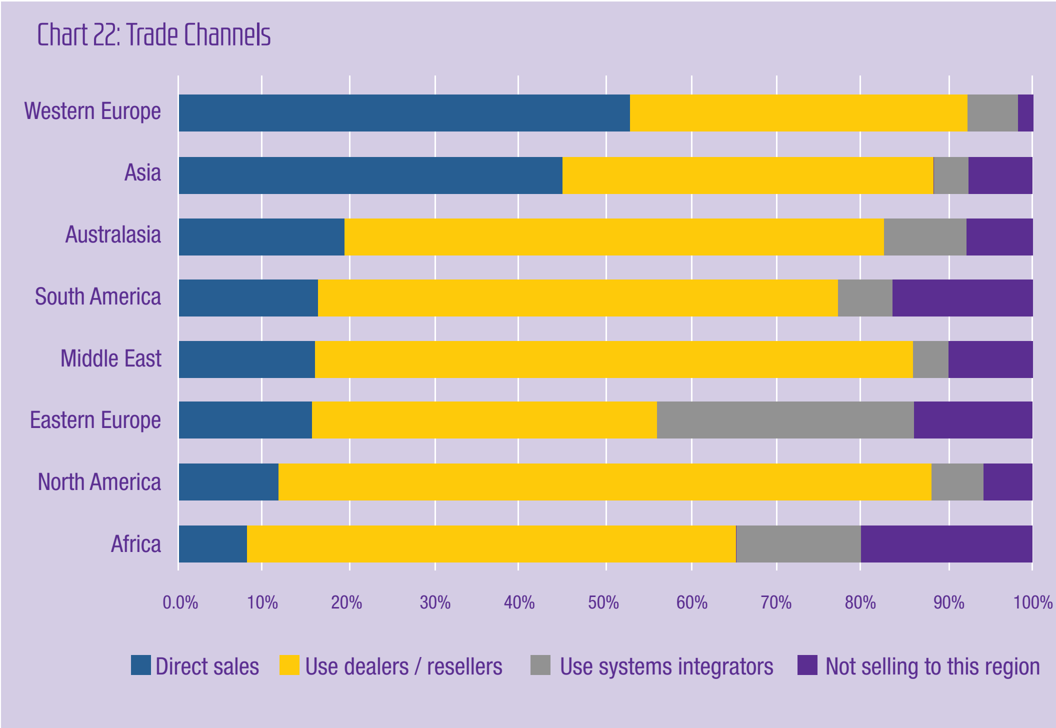
Chart 21: Factors limiting order / contract fulfilment



Looking at this data from an organization type perspective shows that "skills and staff" is a problem particularly for software suppliers, which may find more difficulties in recruiting staff with the right software development skills, particularly if they move to new development approaches.

Trade Channels

Respondents were asked to reveal which trade channels they use to reach different regions.

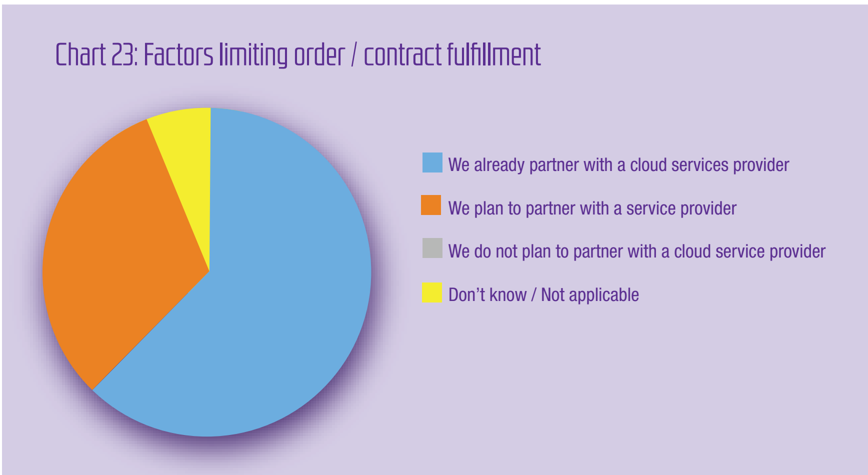


As 53% of the companies in the sample are based in Europe, Western Europe was unsurprisingly the region reached mostly with direct sales. Asia and Australasia were the second and third region mostly reached with direct sales, showing the strategic importance for suppliers of having an office in Asia-Pacific. Suppliers told us that they mostly reach the North American market through dealers/resellers while Eastern Europe was the region with the highest importance of system integrators. Africa and South America were the regions least explored by suppliers as shown by the percentage of companies not selling to them.

Cloud Service Providers

Software vendors were also asked if they partner or plan to partner with a cloud service provider such as AWS or Microsoft Azure for the delivery of their services.

Most of them said that they already partner with a cloud service provider or plan to partner with a cloud service provider, showing the already-established importance of cloud technology in broadcast and media.



Costs and Prices

This section tracks the movements in selling prices and costs, including material and labor costs, in the last and next six months.

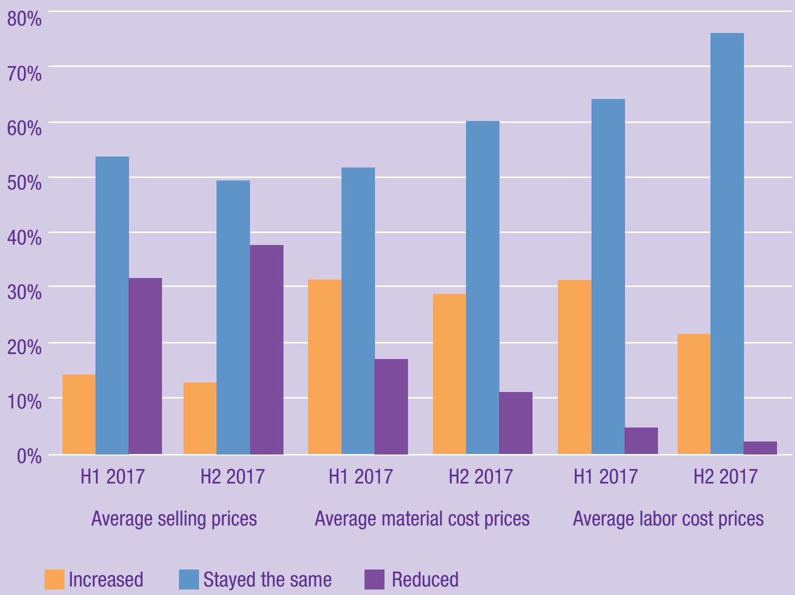
Costs and Prices – Last 6 Months

Compared to the previous survey, pressure on selling prices has increased with a higher percentage of companies (38%) saying that they have reduced in the last six months. This is consistent with "prices and competitive position" becoming the #1 issue in limiting order growth. Increased competition and technology commoditization are some of the forces behind this long-term trend.

The inflation in labor prices observed in the last survey has instead eased – this is consistent with the decreasing importance of "skills and staff" in limiting order fulfillment. Some media technology suppliers have already placed their bets in developing new products, and recruiting new staff. We will explore this in more detail in the next section.

Material costs have continued to increase in the last six months, though less so than in the last survey. Currency headwinds, including the continued depreciation of the Pound, are behind this trend, particularly for manufacturers sourcing components from abroad.

Chart 24: Price trends last six months



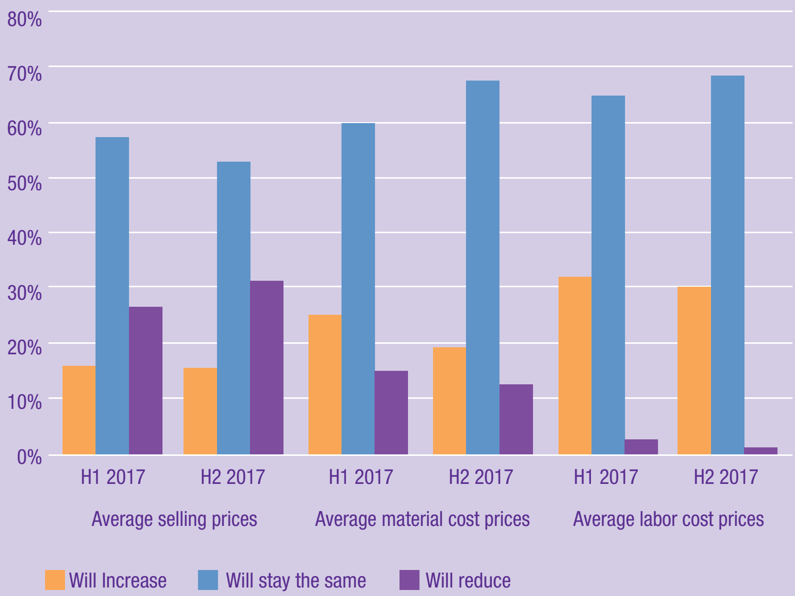
Costs and Prices – Next 6 Months

When looking at the next six months, respondents seem significantly more conservative on cost trajectories while they continue to forecast a decline in selling prices.

In fact, compared to our previous survey, an increasing percentage of respondents expect selling prices to decline further while a decreasing percentage of respondents expect cost prices to go up.

This data points to a continued deflation of selling prices in the next semester and a decrease in cost pressures caused by skills shortages and currency headwinds. This data can also be read in conjunction with our financial performance figures showing a steep decline in profitability. Therefore, some suppliers may need to become more efficient in the future to remain profitable – some of them have already implemented measures to achieve that. In fact, even if costs remain the same, suppliers may need to change something if selling prices continue to go down.

Chart 25: Expected price trends next six months



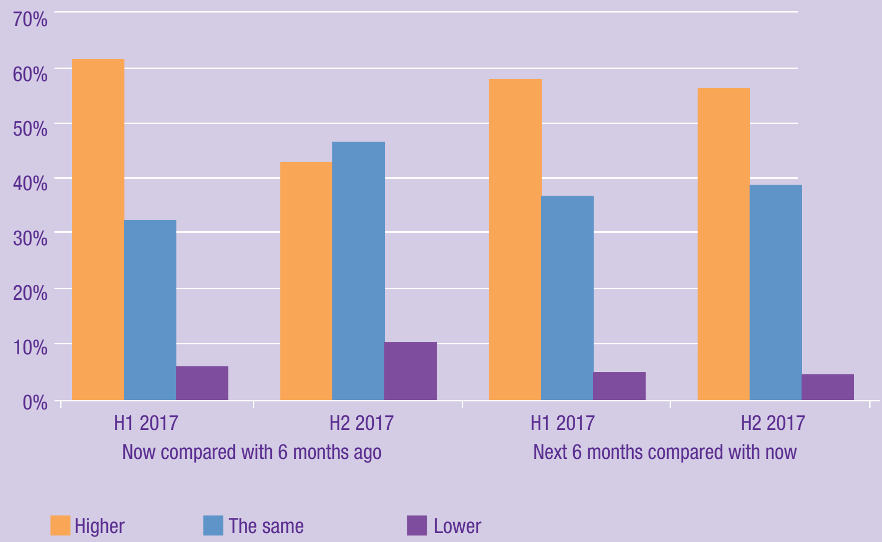
Investment

This section analyzes how media technology suppliers' investment is changing and on which technologies they are focusing their spending.

Personnel Investment

Recruitment of new personnel has slowed down in the last six months, with a higher percentage of companies saying that they have either kept headcount the same or have lowered it. The percentage of companies saying that they have increased personnel declined significantly. This reflects the need of many media technology suppliers to become more efficient and ease the pressure on their margins. This may also mean that demand for personnel is declining as a result of lower investment in research and development.

Chart 26: Headcount



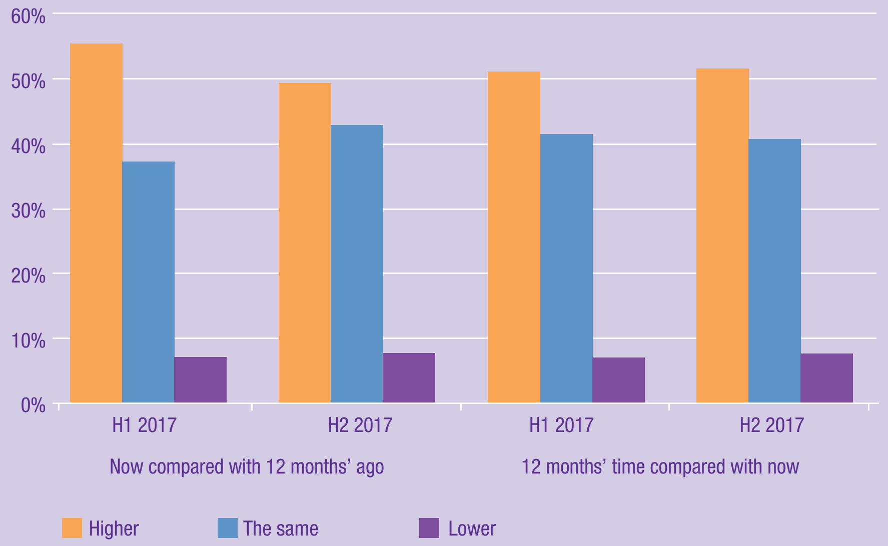
With regards to the next six months, a higher percentage of companies expect greater recruitment although the data has not changed dramatically compared to the forecast made in our previous survey.

R&D Investment

Spending in R&D has been growing over a number of years now, with suppliers increasing their investment in R&D to support new product launches and accommodate the changing requirements of their customers. Similarly to recent headcount movements, this is starting to slow down as companies try to reap returns on the investments they have already made and look at becoming more efficient. In fact, a higher percentage of companies said that investment in R&D has stayed the same in the last 12 months while a lower percentage said that this has increased. The percentage of companies saying that R&D investment has decreased grew slightly.

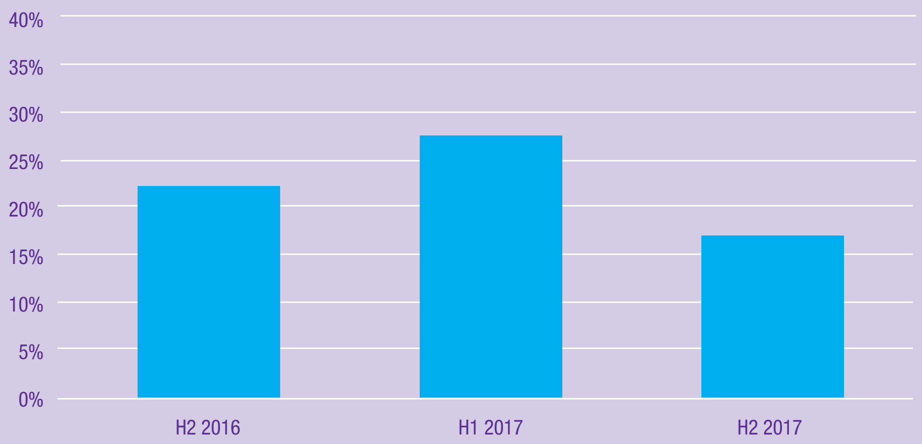
With regards to the next six months, the data has not changed dramatically compared to the forecast made in our previous survey. Similarly to the forecast made on headcount numbers, most companies are more optimistic about the future and continue to predict higher investment in R&D in the next 12 months.

Chart 27: R&D Expenditure



We also asked respondents to report their R&D spending as a percentage of annual sales. On average, respondents reported that their companies spend 17% of their annual sales on R&D, down from 27% in our previous survey. Looking more closely at the data shows that this decline applies mostly to hardware suppliers – software suppliers still spend almost 35% of their sales on R&D. The overall data is consistent with the consideration made before; companies are reducing R&D investment to become more efficient and improve their margins. However, it is important to note that R&D investment in the media technology sector remains higher than the levels observed in other verticals.

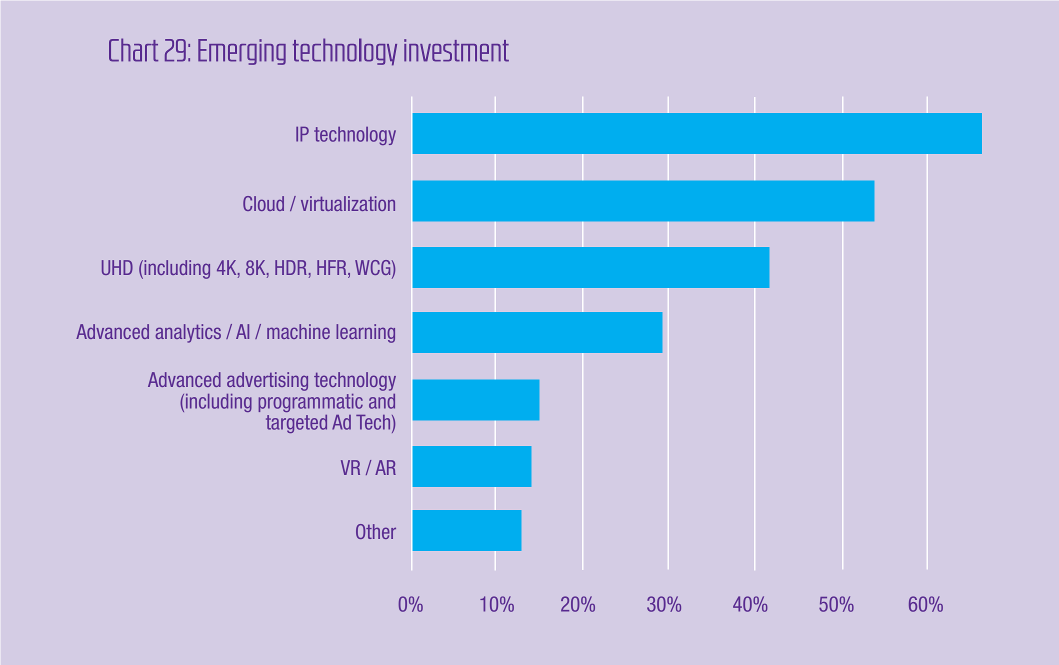
Chart 28: R&D spending as % of sales



Investment

Emerging Technology Investment

Research participants were asked which emerging technologies were the focus of their R&D strategy going forward.

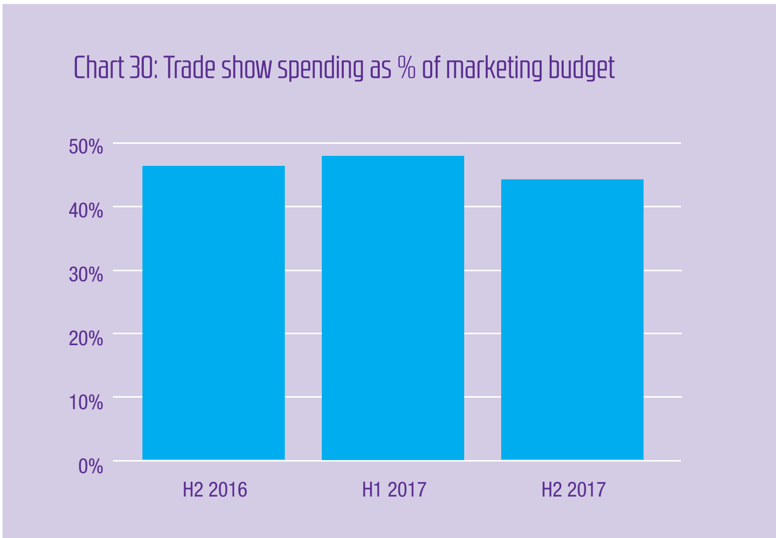


Most suppliers said that the focus of their investment was on IP technology (66%) and cloud/virtualization (54%). The third most important focus was UHD technology at 42%. Looking at this data from an organization type perspective shows that IP technology remains the most important technology for hardware suppliers while software suppliers are by far more interested in the potential of the cloud. Software vendors also rank both "advanced analytics/AI/machine learning" and IP as their second equal most important technologies.

Trade Show Investment

We also asked respondents what percentage of their marketing budget is spent on trade shows. Broadcast and media technology suppliers have historically relied on trade shows to meet a geographically diverse customer base.

According to our survey data, broadcast and media technology companies spend on average 44% of their marketing budgets on trade shows – down from 48% in our previous survey. This is indeed a very high figure that shows us that most of the deals in the sector still come about as a result of attending trade shows. Spending on trade shows is following the trend in R&D expenditure – suppliers will spend less on trade shows if they do not develop new products.



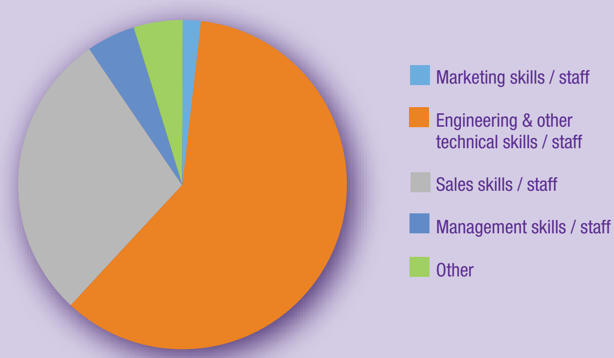
Skills & Training

Skills shortages is a widely recognized issue in the media technology industry. In this section, we aim to investigate which jobs and skills are the most sought after in the industry.

Most Difficult Staff to Recruit or Train

Engineering and other technical staff remains the most difficult to recruit or train for 60% of respondents; this is down from 68% in the last survey as more companies revealed the difficulty of finding the right sales staff (29%). Only 11% said that they have problems finding marketing, management or other type of staff. With almost 90% of companies saying that technical and sales staff are the most difficult to recruit or train, the industry is still coping with the change in skillset caused by the transition to IT technologies. IP adoption at broadcast organizations is rising and broadcast engineers at both technology supplier and user organizations are now required to understand the complexity of making IP work in broadcast. From a sales perspective, there is still a transition underway from selling "boxes" to selling business solutions to end-users – as well as a requirement for technical sales skills.

Chart 31: Most difficult staff to recruit or train

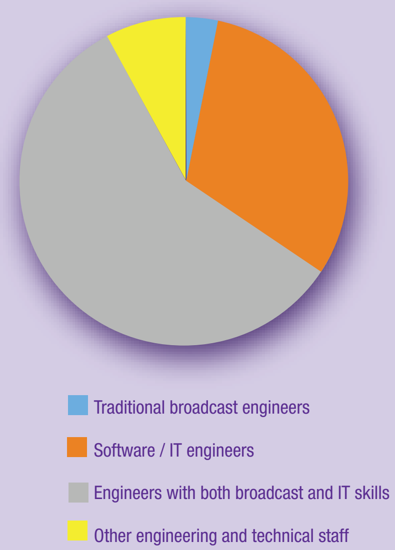


Most Difficult Technical Staff to Recruit or Train

The 60% of respondents who said that they find engineering and other technical staff the most difficult to recruit or train were also asked which type of technical staff they find more difficult to recruit or train. 57% of research participants said that engineers with both broadcast and IT skills are the most difficult to recruit/train – up from 47% in our last survey. 32% are having problems with recruiting/training software/IT engineers – down from 39% in our last survey. Traditional broadcast engineers were chosen by only 3% of respondents.

These results reinforce the conclusion made earlier and show that generally supplier companies need engineers that understand how IT technology can work in broadcast – more than they need pure software engineers. This supports the theory – put forward by many experts – according to which there is a massive need for training both broadcast and software engineers in understanding each other's worlds – broadcast and IT respectively.

Chart 32: Most difficult engineering staff to recruit or train

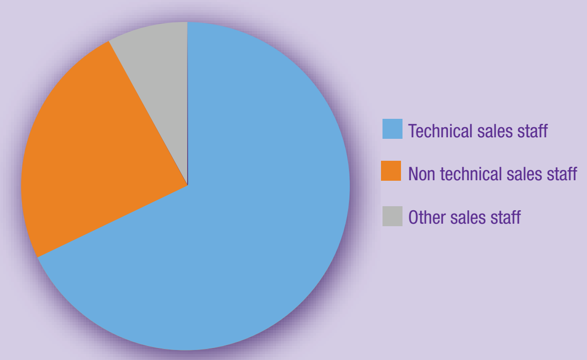


Most Difficult Sales Staff to Recruit or Train

The 29% of respondents who said that they find sales staff the most difficult to recruit or train were asked which type of sales staff they find more difficult to recruit or train. The results are shown in chart 33. 68% of research participants said that technical sales staff are very difficult to find (down from 81% in the last survey) with 26% having problems recruiting or training non-technical sales staff (up from 11% in the last survey).

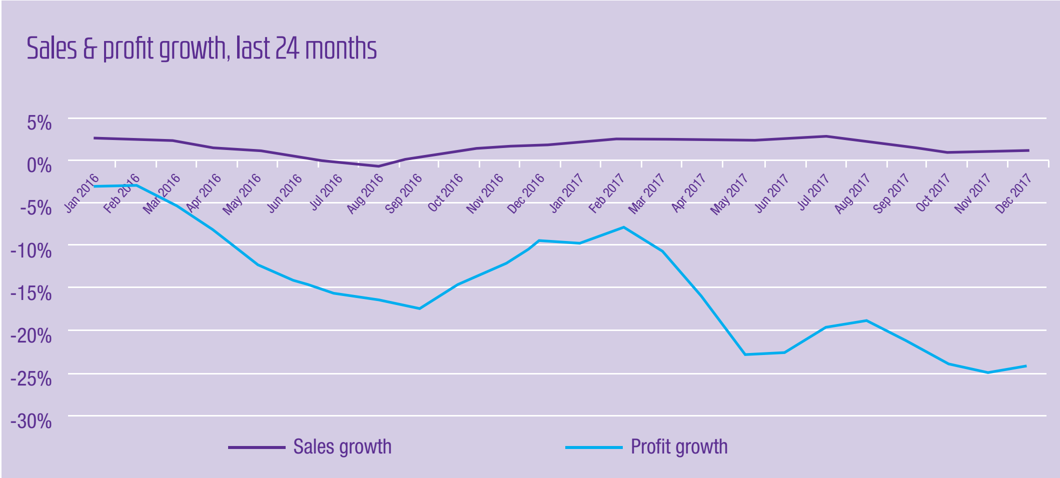
Sales staff with a deep technical knowledge of company products/services are still considered to be harder to find and train than non-technical sales staff. However, compared to our previous survey, an increasing percentage of respondents also revealed the difficulty of finding non-technical staff.

Chart 33: Most difficult sales staff to recruit or train



Outlook

These results show that the supply side of the industry is still in flux, with changing business models and purchasing behavior of buyers having a significant impact on its general performance and sentiment.



Both sales and profits have been disappointing during 2017. Profit growth in particular, has descended to record lows (-24.1%) as suppliers grapple with the long-standing industry transition from hardware to software. Technology users' uncertainty in adopting emerging technology is undoubtedly playing a role in affecting vendors financial performance. Adoption of new technologies such as IP and the cloud is rising but it is not matching the level of investment made by suppliers in recent years. This means that, often, growth from new product launches is not compensating for the losses experienced from reduced sales of legacy offerings. For many, legacy offerings still account for the majority of their total turnover meaning that there is still room to improve their current situation.

2017 was also a year without major events. This has undoubtedly influenced suppliers' figures, particularly those that are heavily reliant on spending accruing from the live production sector. Although the cyclical nature of spending in media technology remains important, it has become less relevant compared to the radical change brought about by emerging technologies such as cloud, IP and artificial intelligence.

Sales have remained positive although their growth has ranged between 1-3% as shown by the long-term trend. This is lower than expected given the level of investment made by the industry in recent years. Many supplier companies have had to ramp up sales volumes to keep up with the decline in selling prices – which is a problem particularly for hardware suppliers, as demonstrated by our data. This has not compensated for the erosion in margins as profit growth has continued to decline.

Hardware still constitutes the main revenue source for most suppliers although demand patterns show that technology users are increasingly shifting away from it in favor of software running on generic IT technology. This is shown by our data on revenue distribution and outlook, which points to a significant shift towards software revenues. This is not to say that hardware will completely disappear in the future, but it is significantly losing importance compared to the past.

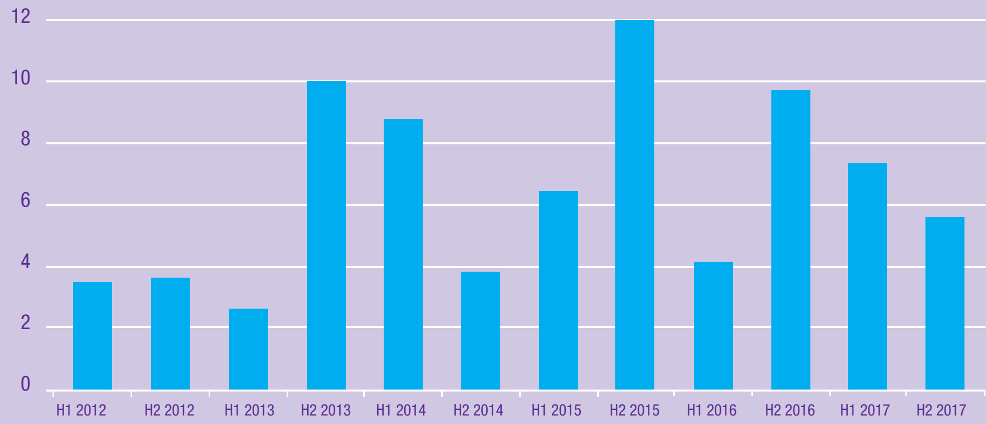
The deflationary effect triggered by this industry transition was one of the main highlights of this report. "Price and competitive position" was identified as the main hurdle preventing orders from growing and selling prices continuing to decline. This is a result of increased competition in media technology and, more importantly, technology commoditization as users increasingly make use of generic IT technology rather than bespoke broadcast technology in their operations.

This deflation, coupled with the sustained level of investment observed in recent years, has played an important role in stifling profitability. Our data show that the growth in investment (R&D, sales, marketing and trade shows spending) may start to slow down as suppliers reap the benefits of past product launches and implement internal measures to become more efficient. According to our data, most of their R&D bets have been placed on IP and the cloud.

There is also a conundrum left by our data regarding company size. While medium companies have started to outperform larger ones in sales growth, recurring industry issues such as development and selling capacity point to a need for small companies to become larger. The answer to this may be in the middle: both large and small companies will be needed to meet the demands of media technology users in the future. However, some consolidation may be needed on the supply side to keep up with the increasingly concentrated demand side – with its greater bargaining power.

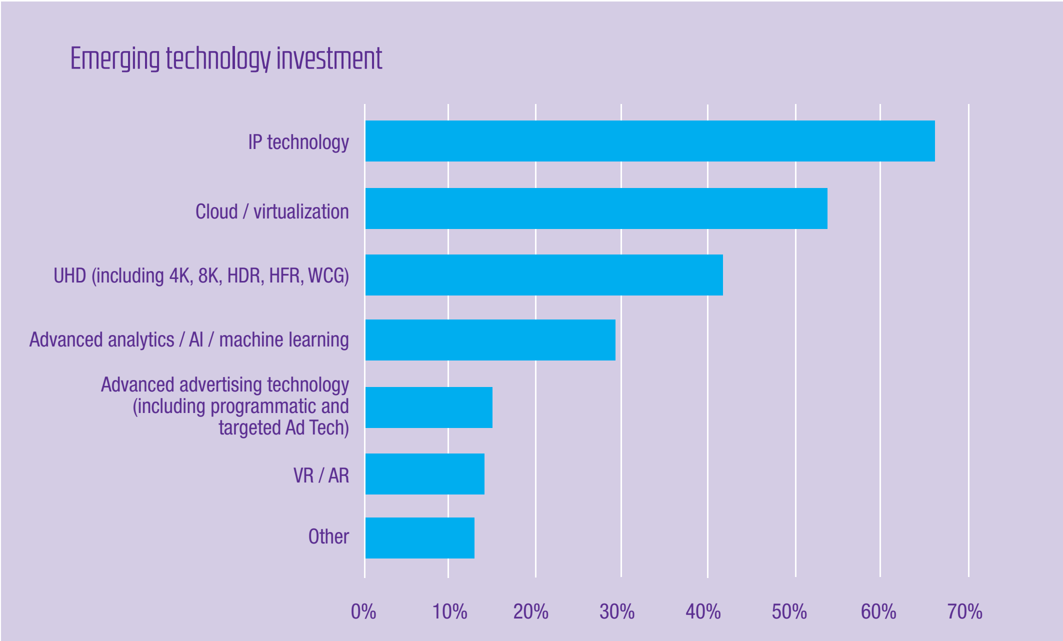
These were some of the main factors influencing media technology suppliers' financial performance in 2017. The deterioration in their performance undoubtedly played an important role in shaping industry confidence, as highlighted by the drop in the IABM Confidence Ratio.

IABM confidence ratio 5 year – Year-on-year



2018 is set to be a better year for media technology suppliers. A plethora of political and sporting events, including the 2018 FIFA World Cup, are set to increase technology users' cyclical spending in media technology. This, along with the rising adoption of emerging technologies such as IP and the cloud should guarantee better returns to suppliers, particularly if costs are lower.

With the finalization of ST 2110, suppliers should expect more growth in the adoption of IP technologies at broadcast organizations. This has been slower than forecast due to interoperability issues – the complexity of using IP technology in a broadcast setting also played a role in deterring investment. Cloud and AI's use in broadcast and media will continue to rise as demonstrated by recent successful applications of these technologies. UHD may continue to disappoint suppliers that have invested in it although the major events of 2018 will be a natural driver of increased spending on this technology.



As mentioned earlier, the move to new technologies such as IP and the cloud is requiring suppliers to transition to new business models. This includes the transition from selling pure technology to selling business solutions to technology users, which are faced with a very complex transition to multi-platform delivery. It also includes the financial move to recurring revenue models such as subscriptions and consumption-based business models. This is still one of the challenges ahead for many vendors.

The shift to emerging technologies such as IP and the cloud is also requiring suppliers to upgrade the skills of their staff, with new staff with these skills not easy to find. To be able to help media technology users transition to next-generation infrastructures running mostly on IT technology, they need to have a workforce that understands both the tools of IT and the requirements of broadcast. This may be one of the greatest long-term challenges for the industry – both on the demand and the supply side. It requires a massive investment in training both current broadcast engineers in IT and future software engineers in broadcast requirements.

Appendix

Report Methodology

The information analyzed in this report is derived by both quantitative and qualitative research carried out by IABM. The primary sources used in this report are:

- **Quantitative Evidence:** Public and private financial data of media technology supplier companies gathered and analyzed by IABM
- **Qualitative Evidence:** Survey evidence on sector trends and issues gathered and analyzed by IABM

We produce indices and statistics based on this primary evidence. These can be divided into two pools:

- **"The IABM Supply Trends Index":** a monthly tracker of sales and profits in the media technology sector. This information is mostly used in the first section of the report
- **"The IABM Supply Trends Survey":** a biannual survey of trends and opinions in the media technology sector. This information is mostly used in sections 2-7

We use both these pools of information as well as variety of secondary sources – including interviews, news, announcements, earnings calls, technology material etc. – to provide users with a comprehensive account of the status of the media technology market.

Below, we delve deeper into the methodologies underpinning our report and give users more information on both index and survey demographics.

IABM Supply Trends Index

The *IABM Supply Trends Index* tracks year-on-year change in overall sales and profitability for the media technology sector worldwide by examining the latest reported financial data. Only data from organizations or divisions trading exclusively or almost exclusively in broadcast and media technology products and/or services are included. It should be noted that this is a wide scope and is not just restricted to the "traditional broadcast" market.

Latest Supply Trends Index	
Results up to	**No. of Companies included**
December 2017	**118**

Sales and profit indices are based on the aggregation of the latest published 12-month period per company compared to the prior 12-month period. These indices look at overall company performance across a wide range of company types and diverse products and services. The situation within a single category or in multiple product categories may be materially different.

The figures we report in the analysis are three-month moving averages. A three-month moving average (3MA) is commonly used in time-series analysis to extract the seasonal component from the data. It is calculated by dividing the values of interest (i.e. sales, profits) of the last three months by three.

Index Demographics

The Index includes a mix of companies, private and public, small to large, predominantly from North America and Europe.

The total in our current portfolio is 118 of which 90 are small or medium sized companies. The weight of large companies in sales is 86% with SMEs making up the remaining 14%. The weight of large companies in profit is greater than in sales as they make up 93% of total aggregate profits.

The Index generally includes businesses based in 25 countries (Belgium, Canada, China, Denmark, Finland, France, Germany, Greece, Hungary, Israel, Italy, Japan, the Netherlands, Norway, Poland, Portugal, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom, USA).

Latest total annual turnover for companies included: US$7.7bn (which will include some inter-company trading down the supply chain).

Index Definitions

- **Sales growth:** the sum of sales for all companies compared to the sum for the prior period
- **Profitability growth:** aggregate market – the sum of operating profit (or loss) before interest and tax for all the companies, compared to the prior year
- **SME:** small and medium sized companies, where:
  - Large companies: turnover → $56m (50m euros)
  - Small companies: turnover ← $11m (10m euros

Appendix

IABM Supply Trends Survey

The *IABM Supply Trends Survey* is a biannual survey of trends and opinions of media technology executives. This latest survey was taken between December 2017 and January 2018.

Latest Supply Trends Survey	
Survey Period	**Survey Responses**
December 2017 - January 2018	**146**

Survey Demographics

The sample of this survey is made up of 146 responses of which 105 were complete and 41 were partial.

Report users can view the sample's characteristics below:

Chart 37: Regional headquarters

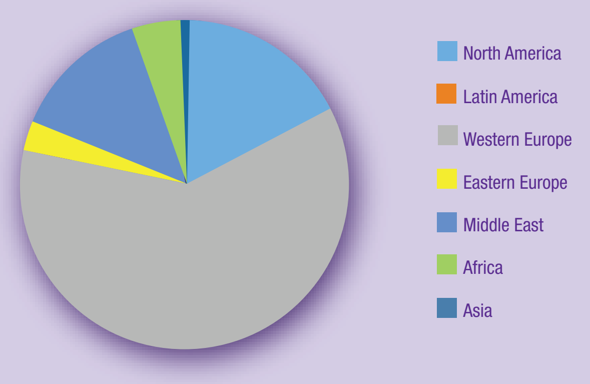


Chart 38: Job roles

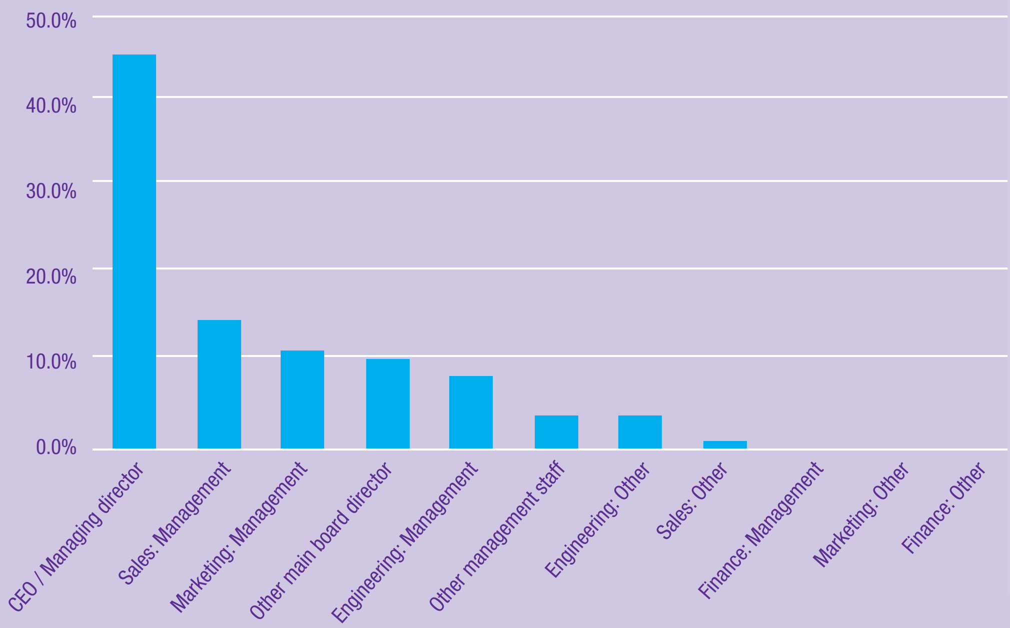


Chart 39: Headcount

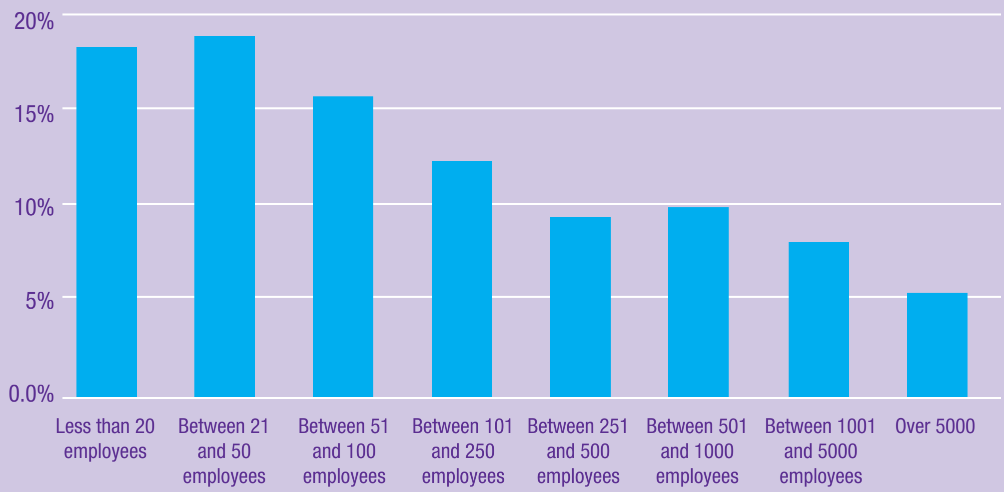
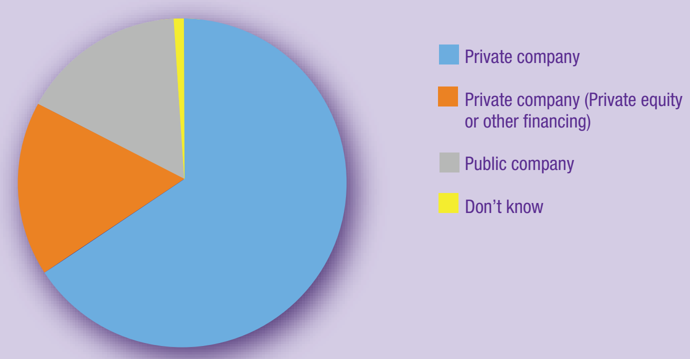


Chart 40: Ownership type



Survey Definitions

- **IABM Confidence Ratio:** a ratio of the percentage of respondents with increased confidence over the percentage of respondents with decreased confidence. This ratio does not account for neutral respondents
- **R&D Investment:** R&D investment is reported as a percentage of total annual sales
- **Trade Shows Investment:** Trade shows investment is reported as a percentage of the total annual marketing budget

IABM is the international trade association for suppliers of broadcast and media technology. IABM facilitates the important networking and interaction between suppliers that shape and define the unique ecosystem of the broadcast and media technology industry.

IABM supports member companies with a comprehensive range of services across market intelligence, training, events, technology, exhibitions, business standards and best practices. We hold the interests of member companies as paramount, and strive to provide strong guidance and support at every level in all geographies.

We understand that in today's rapidly changing media landscape, our members have never had a greater need for timely, relevant and effective advice and support. IABM's mission is to be an ever more powerful beacon illuminating the way forward, highly responsive to all our members' needs and helping them to successfully navigate change and prosper.

Further information about IABM and its activities can be found at www.theiabm.org

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