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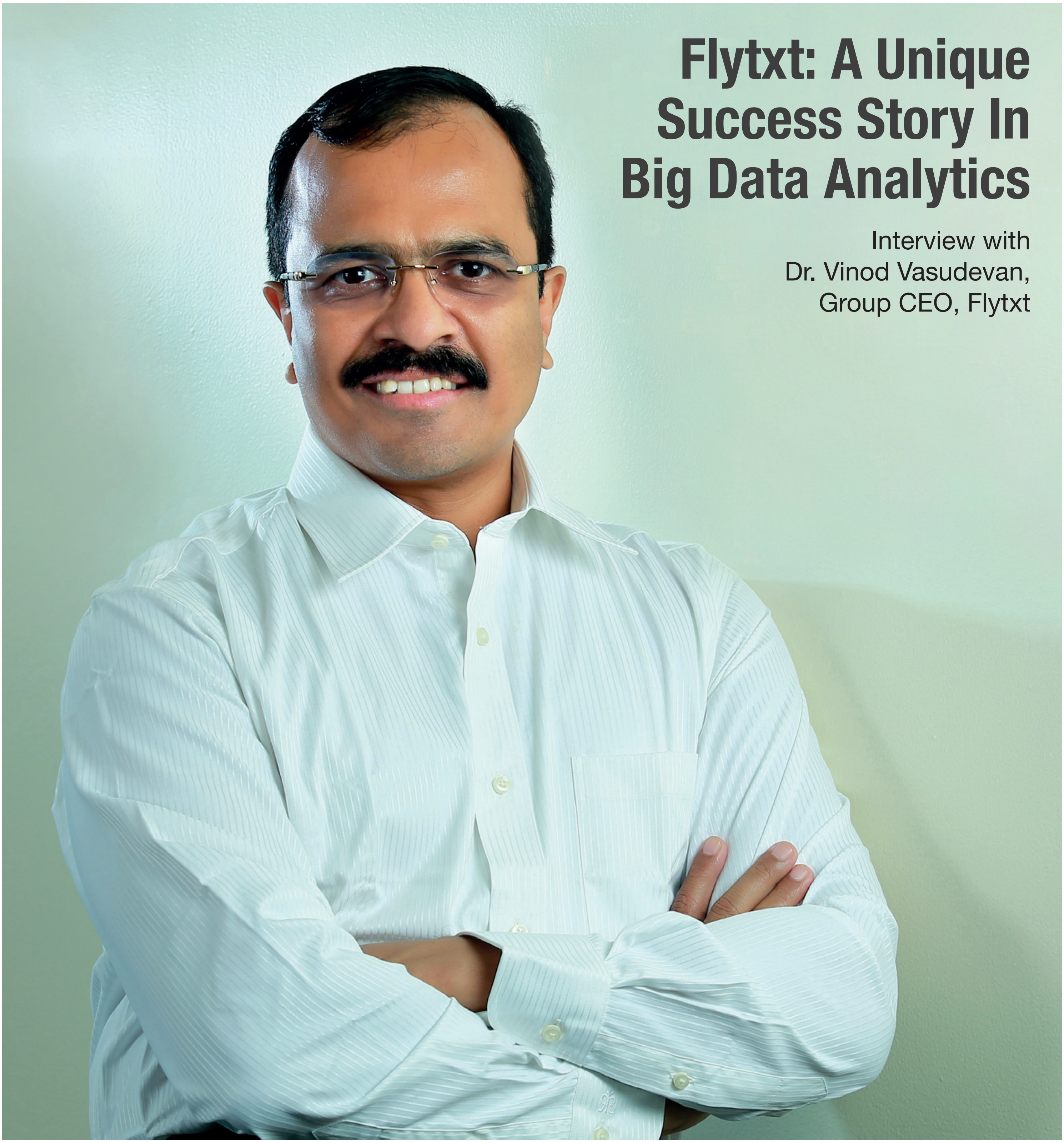

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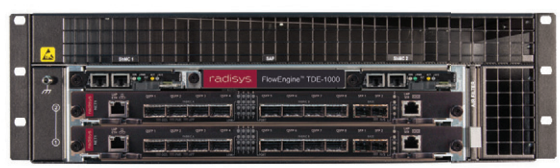

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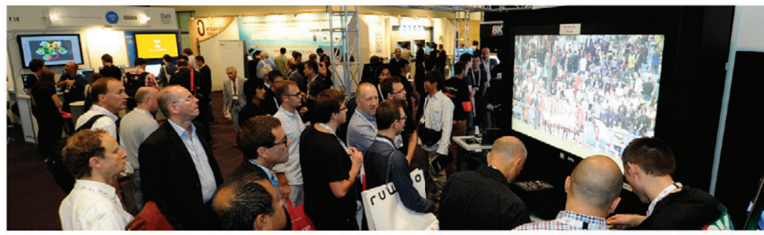

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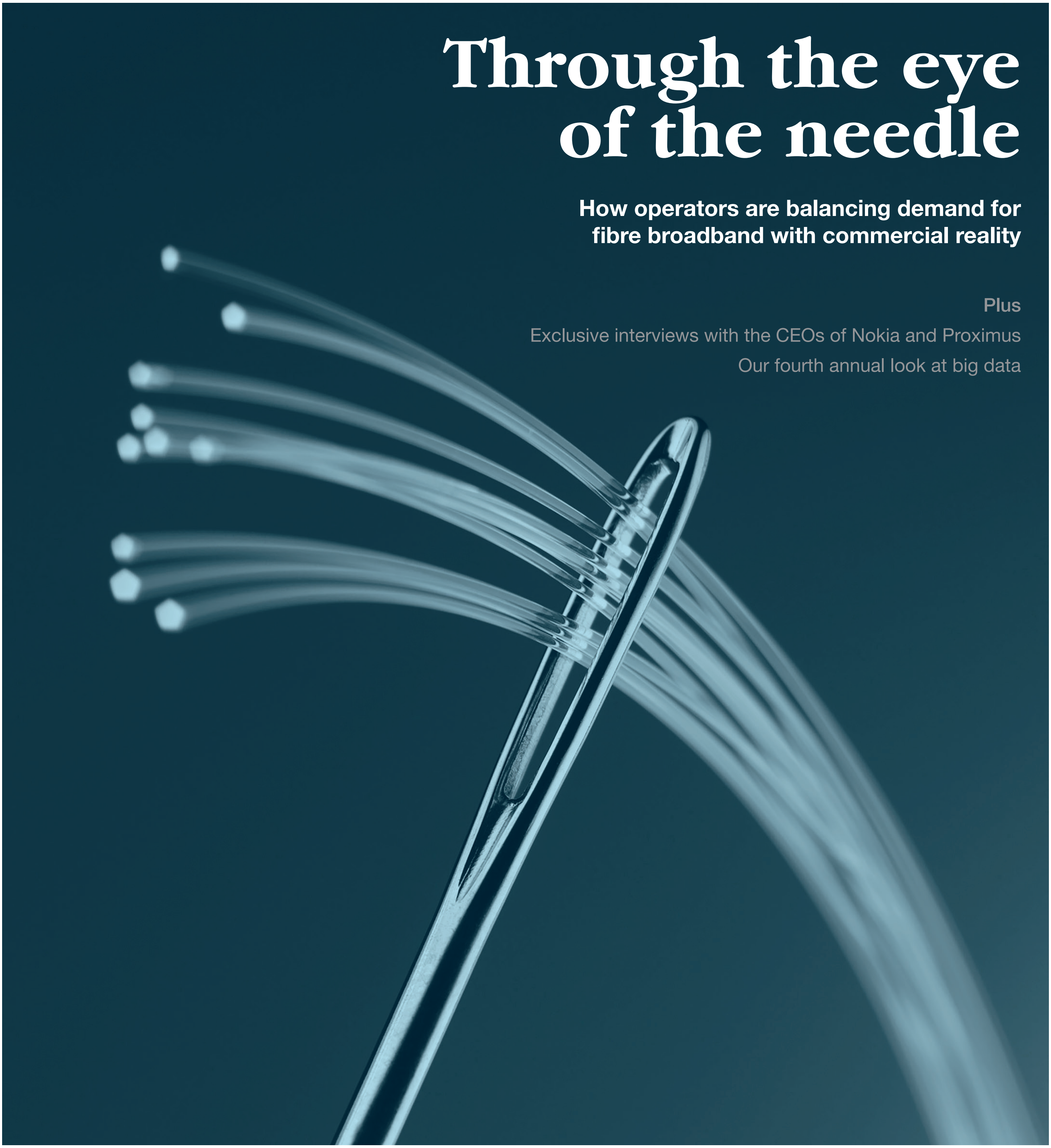

Through the eye of the needle

How operators are balancing demand for fibre broadband with commercial reality

Plus

Exclusive interviews with the CEOs of Nokia and Proximus

Our fourth annual look at big data

Q2 2015 ISSUE | THE LAST WORD ON NETWORK OPERATOR STRATEGY FROM AROUND EUROPE

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Rajeev Suri tells Marc Smith how he plans to make Nokia's merger with rival Alcatel-Lucent a success

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Two CEOs, two special reports and our second CMO of the Year

Like animals boarding Noah's ark, it's all about pairs this issue – our second of the year, naturally.

First, we have two exclusive CEO interviews: Belgacom's Dominique Leroy and Nokia's Rajeev Suri. I travelled to Brussels to meet that rare thing in telecoms – a female Chief Executive. Leroy offers quite a contrast to her predecessor and expands on her strategy to return the Belgian incumbent to growth.

One of the key things she had to do was to reverse a culture of decline at a business that had become used to it.

The early signs are good. The operator's Q1 financials, announced after this interview took place, saw core underlying revenues up 3.3 percent.

"We have shown we can reverse the trend," Leroy says. "That is very important as it gives people faith that you can do it. It's a self-fulfilling prophecy – if no one believes you can do it then you won't. It was important to provide a vision and articulate how we were going to get there."

Providing a vision was one of the things that Nokia CEO Rajeev Suri has set out to do since the April announcement that it is acquiring rival Alcatel-Lucent in a €15.6 billion deal.

When I met him in London in May, he was very clear that for the merger to be successful, the Nokia values and culture would have to prevail. "In Nokia Siemens Networks one of the faults we made was to try and find the best of both cultures. You can't do that," says Suri, who is celebrating his 20th year at the Finnish firm.

"We don't want to find the best of both companies… It will be the Nokia corporate culture, headquarters and values."

An uncompromising if perhaps necessary approach; it will be interesting to see how that goes down with staff at Alcatel-Lucent.

Second, we have two special reports this issue – our fourth annual look at big data and our first in-depth report into fibre broadband.

Alongside reader surveys in both areas, we look at data privacy legislation and tease out some use cases in our big data report.

Meanwhile, we assess the fibre broadband business case and analyse the pure fibre upstarts looking to take on the telcos.

Third, and finally, this year also marks the second year of our CMO of the Year award. We are launching the 2015 judging process this issue – you can read more on page 15.

Enjoy the issue.

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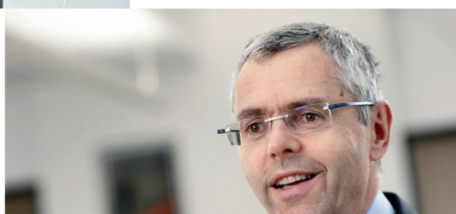
Nokia Networks veteran to lead A-L integration team
Nokia Networks veteran Jorg Erlemeier has been given the task of driving the integration of Nokia and Alcatel-Lucent following the announced merger.

EE, Vodafone voted worst for customer experience in the UK
EE and Vodafone have come bottom of a UK survey ranking mobile operators for customer experience.



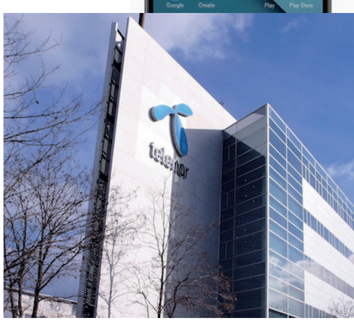
Alcatel-Lucent CEO set to leave in January 2016
The Chief Executive of Alcatel-Lucent will leave the company next January, European Communications understands.

Swisscom launches new fixed line-only brand for "digitally savvy" customers
Swisscom is targeting young, digitally savvy urban customers with a new brand that offers fixed line-only internet, IPTV and telephony services.

Google partners with US operators to launch MVNO
European operators watched on as Google unveiled plans to launch an MVNO called Project Fi in partnership with two US carriers.

Ericsson and Opera partner to offer mobile marketing services to operators
Ericsson and software provider Opera have joined forces to deliver mobile marketing services for operators.

Telenor unveils new European roaming strategy
Telenor has unveiled what it calls "a company-wide retail roaming initiative" as it bids to persuade customers to consume data abroad.



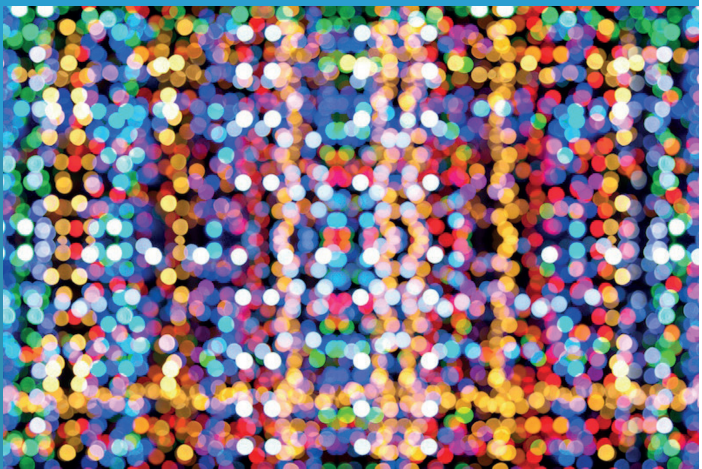
Deutsche Telekom launches first product from its all-IP network
Deutsche Telekom has "switched on" its pan-European IP network and revealed the first product to benefit from it.

BT makes "aggressive" return to mobile market with low-cost, SIM only tariffs
BT has returned to the UK's mobile marketplace with a trio of 4G tariffs as the operator attempts to gain a foothold ahead of its merger with EE.

KPN sells BASE to Telenet
KPN is to sell its BASE mobile subsidiary to Telenet after agreeing a €1.3 billion deal with the Belgian cableco.

Opinion

Key takeaways from the current IoT hype
By Adrian Baschnonga, Global Telecoms Lead at EY



Q&A

LycaMobile CEO
Chris Tooley
The MVNO Chief Executive discusses M&A, Google and future growth.

Analysis

Deutsche Telekom looks to the Netherlands, UK in bid for connected home leadership
Deutsche Telekom is bringing its smart home platform to the Netherlands and the UK as it looks to take a lead in the connected home space.

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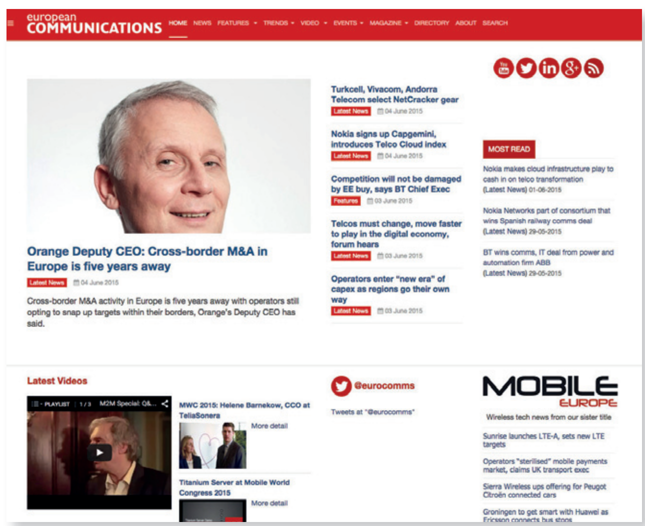

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Telco stocks rise as 2015 kicks off in style

The new year heralded a rise in share prices all over the world

US fails to shrug off Q4 slump as Asia-Pac improves

Asia telcos considerably outpaced their American rivals as they entered 2015, with shares increasing 4.4 percent during the first quarter, compared to 0.26 percent in the US.

AT&T disappointed the market in March when it revealed it expected to add 400,000 contract customers, a slump on Q1 2014, when it brought in 625,000 net postpaid adds. It also disclosed its service revenues were being hit by its Mobile Share Value plans, which remove subsidies.

Its share price hit a quarterly low of $32.52. The operator was the only US player to see its share value fall during Q1 and closed March at $32.65.

T-Mobile had the biggest growth in share price of any operator, experiencing a steady rise throughout the quarter and closing at $31.69, up just over a sixth on the beginning of January. It peaked on 27 February at $33.10, when flamboyant CEO John Legere repeated his desire to work with satellite TV company and spectrum holder Dish, either in partnership or as a takeover target.

Despite a rocky start to 2015, when its share price bottomed out at $56.58, China Mobile rallied to close the quarter at $65.03, growth of 10.2 percent. Its value stayed robust even though it reported net profits dipping 10 percent in March.

News that rival China Telecom was exploring a new broadband network in Mexico gave the market jitters, with shares hitting a quarterly low of $55.28. Aside from that dip, it had a broadly similar quarter to its competitor, with shares closing at $64.32, up 8.8 percent on the end of 2014.

Many CEOs talk about the importance of the customer but Telstra's David Thodey went one step further, reportedly phoning grumpy subscribers himself. He announced he was stepping down as CEO of the Australian operator during Q1, with CFO Andrew Penn taking charge when he left in May. The operator saw its share price rise 6.9 percent to AUS$6.39 during the three months to the end of March.

0.26%

The US

The US telecoms sector grew 0.26 percent in Q1 according to data from the Dow Jones US Index

4.4%

Asia-Pac

The Asia-Pac telecoms sector grew 4.4 percent in Q1 according to data from the FTSE Group Index

Deutsche Telekom goes on the offensive

Deutsche Telekom saw its share price grow by over 30 percent in the three months to March, and had plenty of reasons to back up the meteoric rise.

The Germany-based operator said it expected organic growth of between one and two percent over the next three years as it revealed an impressive set of 2014 financials.

Revenue increased 4.2 percent to €62.7 billion last year after an excellent fourth quarter that saw sales grow 8.5 percent.

CEO Tim Höttges said: "We have more money to invest… we will convince customers with our better quality and thereby increase revenues."

Investors were also cheered by the announcement that BT agreed definitive terms to acquire EE for £12.5 billion (€16.7 billion) after talks with DT and Orange concluded in February.

The operator will receive €4.6billion in cash plus a 12 percent stake in BT, once the deal gets over the usual regulatory hurdles.

Höttges hinted at an interesting future ahead with its UK rival: "We are laying the foundations for our two companies to be able to work together in the future," he said.

His company was also ranked as Europe's most valuable telecoms brand in the quarter. It finished in 16th place of all the companies across 40 sectors, with a brand value of $31.1 billion.

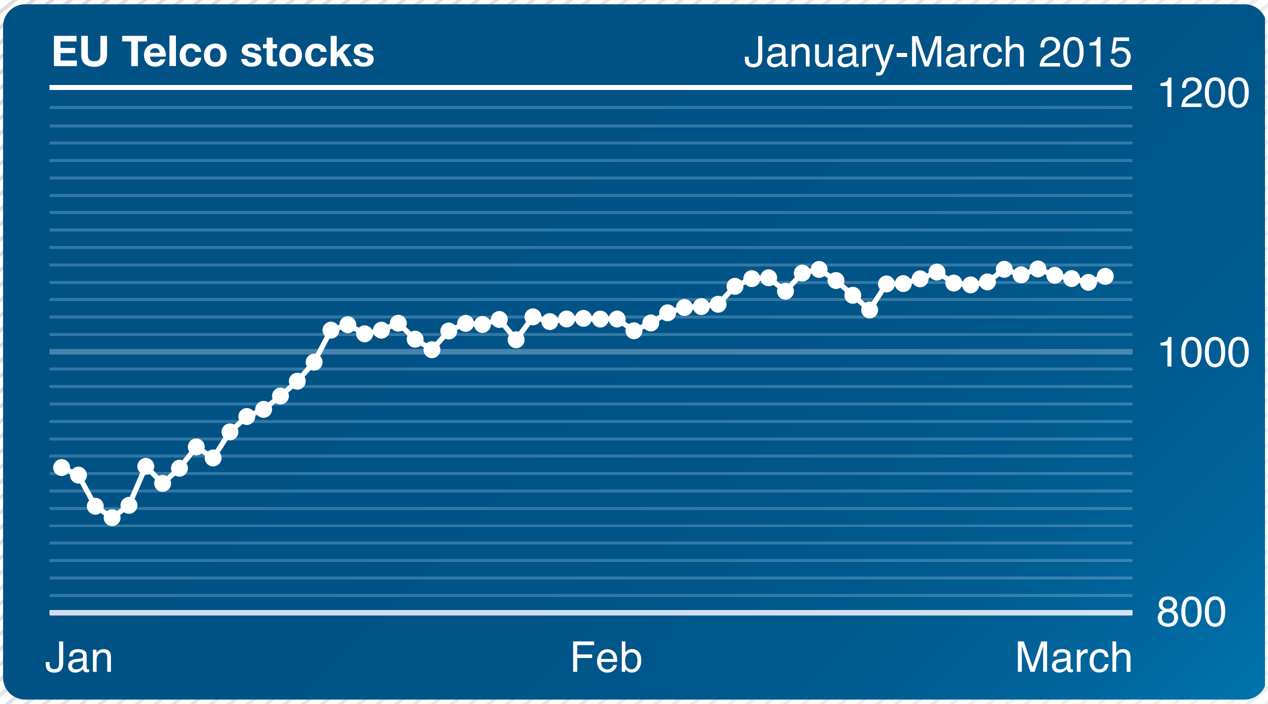
DT's Head of Branding, Hans-Christian Schwingen, claimed: "We are on an equal footing with the automotive industry."

There were other interesting announcements too; DT unveiled a pan-European partnership with rental accommodation company Airbnb alongside one with Microsoft to market the US company's Lumia smartphones and some online services in 12 European countries.

Meanwhile, at Mobile World Congress, it "switched on" its pan-European IP network and revealed the first product to benefit from it – a cloud VPN.

Finally, it revealed it is bringing its smart home platform to the Netherlands and UK as it looks to take a lead in the connected home space.

All told, DT has set its stall out as Europe's most impressive operator and it is not shy about saying as much. Investors sound impressed and are looking forward to the ride.



Europe has its best quarter for many a long year

European telco stocks continued to outperform their rivals elsewhere in the world during the first three months of the year.

A more than 15 percent increase in the share price of the continent's biggest operators meant momentum from 2014, in which stocks rose in three of the four quarters, was maintained.

Altice was again the star performer. Its share price rose over 60 percent in Q1, more than double that of its nearest rival, Deutsche Telekom (see box out). Altice's rise came despite the company revealing that 2014 revenues fell 4.6 percent.

Investors were more cheered by the fact that Vivendi accepted its offer to acquire the remaining 20 percent stake in Numericable-SFR. The original merger was waved through in November.

KPN also received a much needed boost. The Netherlands-based operator saw its stock rocket over 27 percent in the quarter after it said excess cash from the financial investment it made in Telefónica Deutschland following the sale of E-Plus would be used for M&A, dividends and improving financial flexibility.

CEO Eelco Blok commented: "2014 was a transformational year for KPN in which we made good strategic progress. The investments in our customers, products and networks have resulted in growing customer bases and all-time high customer satisfaction."

Telecom Italia's share also performed well, rising over a quarter in the three months to March. The operator announced it had made a profit for the first time in three years for the 2014 financial year. It also announced plans for a major €15 billion investment in its infrastructure over the next few years, as well as the addition of 170,000 retail customers from MVNO Noverca Italia.

BT, Telefónica, Telenor and TeliaSonera all registered a 10 percent increase in their share prices, while Swisscom and Orange saw rises of nine percent and eight percent respectively.

That left Vodafone bringing up the rear, with an increase of just 0.2 percent. The operator has kept its powder dry as rivals BT, EE, O2 and Three have engaged in matchmaking. Despite announcing some major contract wins for its enterprise arm, its organic services revenue in the last three months of 2014 fell 0.4 percent. ec

15.2%

Europe

The European telecoms sector grew 15.2 percent in Q1 according to data from the FTSE Group*

* Our index is made up of the following EU telcos: Altice, Belgacom, BT Group, Deutsche Telekom, Orange, Swisscom, Tele2, Telecom Italia, Telefonica, Telenor, Teliasonera and Vodafone Group.

Leroy aims to be queen of Belgium's telecom court

Dominique Leroy on how she is turning Belgium's incumbent operator around. Marc Smith reports

The last time I was at Belgacom Towers, the Brussels HQ of Belgium's incumbent operator, Didier Bellens was sat in the Chief Executive's chair.

He didn't stick around. The outspoken executive was fired in November 2013 after calling the Belgian State the company's "worst shareholder".

It was the smoking gun of what turned out to be fairly thick case file the government had on Bellens. This included controversies surrounding a number of hirings and firings, as well as these choice words aimed at the country's Prime Minister.

"He's like a child looking for Father Christmas," Bellens memorably opined.

Fast forward to the present and his successor couldn't be more different. Dominique Leroy, who took over in January 2014, is engaging, female and, with a background in marketing, far too savvy to make the kind of off-the-wall statements for which her predecessor became known for.

"I think I have a very different leadership style [to Bellens]," says Leroy. "I am very open, very accessible. I like to walk the talk. I spend at least one day a month in the field – in call centres, in shops and with technicians to really feel what's going on."

Clearly, Bellens had a reputation for being a standoffish executive more at home in high level meetings. But does she have some sympathy with her predecessor's views on the government?

"I can work very well with the state – they're not hugely different to our other shareholders," says Leroy. "In the past we didn't spend as much time with our major shareholder. What I try to do is spend more time with them, even if they don't ask for it!

"I try to explain what I want to do and how they can help. I think that makes a difference because if they understand then they are more open to follow your path. It's about open dialogue and being transparent."

One of her first acts as CEO was to cut the dividend. She says: "If you are the main shareholder you don't like it but I explained that we needed to go on a transformation journey, to create long-term value for the company and the country. In the past this was not something that was dared to be done but I think it was really needed."

It would be too simplistic to describe Leroy as a smooth talker, but she clearly has the interpersonal skills that Belgacom appear to have lacked in the past.

Such skills were cut at the operator's consumer business unit, which she ran for two years, and before that at consumer goods company Unilever, where she gained experience in marketing, sales and finance.

This can perhaps explain another of her first acts as CEO – a change of brand. Although the corporate entity is still known as Belgacom, to customers it is now Proximus.

"In terms of brand, marketing and sales, particularly in the residential segment, we didn't have the right perception in the market," she explains.

So can she sum up what Proximus stands for in one sentence? "We want to bring people in contact with the world so they can live better and work smarter," Leroy responds, barely breaking sweat.

She explains: "It's important because there is no mention of technology. People put a lot of value in apps and devices but they don't work without the network and I don't think we've done a good job of explaining that in the past."

Changing mindsets

It is a pleasant change to interview a CEO who, in the male dominated world of the telecoms industry, stands out for her gender as well as her expertise.

"Whether you like it or not, [as a woman] you are kind of a role model," says Leroy. "I wasn't looking to be one but it has turned out like that. Does being a woman [in an industry where there are not a lot of us] give me an advantage? I don't know.

"It gives you more media attention, which is not always easy to deal with that but it's part of the job."

Without prompting, she returns to what sets her apart from Bellens. "I think I have different sensibilities to my predecessor but there are also a lot of men who have strong soft skills."

Such skills allied to her previous jobs partly explain her desire to give Belgacom a different focus. "I put the customer at the centre of what we do and try to make people understand it's all about how we can bring a better service to our customers," says Leroy.

"In the past we were very much a tech-driven company, now we are heading to being a more customer centric one."

It wasn't simply a case of changing the outward looking face of the company that the new CEO had sitting in the in-tray. Leroy took the helm with Belgacom still very much in financial decline.

"The company had not been able to grow over the last 10 years," she explains. "It had been declining and people thought that was normal. I wanted to change the mindset of the people. I didn't want to be a CEO of a declining company."

She claims to have been "quite bullish" in predicting top and bottom line growth by 2016. "I think when I said it I was the only one to believe it!"

The operator's Q1 financials, announced after this interview took place, saw core underlying revenues up 3.3 percent. Reported revenues were flat at €1.5 billion. Although net profit fell by €16 million, group EBITDA rose by 4.9 percent.

"We have shown we can reverse the trend," Leroy says. "That is very important as it gives people faith that you can do it. It's a self-fulfilling prophecy – if no one believes you can do it then you won't. It was important to provide a vision and articulate how we were going to get there."

Her vision is based around a strategy she called Fit for Growth. It has four main planks: customer experience, simplification, organisational efficiency and brand differentiation, built upon investment and innovation in the network.

"For growth, we have to be able to invest more and be more digital," says the CEO. "We have to get company more as one team… we were a bit fragmented. It's also very important to deliver a better customer experience and to be more efficient."

On the technology front, she says: "Telcos are extremely complex companies. We have always invented new tech but haven't got rid of the old tech. We are afraid to move people from old to new tech. I think we need to change that."

Leroy rejects the assertion that the operator has been guilty of underinvesting in its network infrastructure.

She says: "We have consistently not made mistakes. We have a clean balance sheet. We have always had strong competition in Belgium – cable covers 95 percent of the country – that has kept us sharp and kept us investing."

Given the Belgian regulator is set to force Belgacom and Telenet to open up their cable networks to new players this year, that competition is only set to get stiffer.

Leroy is more concerned about Belgacom's IT infrastructure. "Where we have not invested enough is in IT – developing digitally," she admits. "That is an area where we are trying to catch up in."

She adds: "We need to move up the value ladder and bring platforms, value added services and end-to-end solutions to the enterprise market in particular."

The simplification challenge

Interestingly, the CEO says simplification has provided the biggest challenge over the last 12 months.

Leroy wants to take a scythe to the operator's bloated offerings. She says the number of products needs to be halved, while the number of pricing rules needs to be reduced by more than 50 percent.

Leroy reveals that there was "a lot of resistance and fear about losing customers" that required a change of mentality within the organisation itself.

She says: "We are progressing well. The job we have is how to migrate customers from the old to the new portfolio. It's a lot of work and you need to do it carefully. Its tough but we'll get there. We now look at product lifecycle management… I'm a lot more optimistic now than I was 12 months ago."

Looking ahead, it is cost cutting and finding new growth areas that are proving tricky. "How to get cost out of the company is one of the most difficult challenges we face," says Leroy.

"We've done the quick wins… now we need to be much more disruptive in looking at how we invest, and at how we manage people and structure the organisation."

Leroy does not go further, but it seems certain that there could be pain ahead for the workforce.

When it comes to new growth, the CEO says she is most excited about the enterprise market. "Companies will be increasingly reluctant to invest in their own IT infrastructures. We will move more towards offering as-a-service solutions," she predicts, citing cloud and analytics as two key areas.

Next year should be a good time to judge her. She will have had two years in charge and her promise of financial growth will have been realised, at least in her mind.

If that is indeed the case, it is very likely she would be in the hotseat the next time we come to Brussels. EC

Belgacom CEO tips Deutsche Telekom to consolidate Europe

Dominique Leroy believes Deutsche Telekom is the only operator that could conceivably consolidate the market in Europe. The continent continues to experience a surge in M&A activity; in her home market rival KPN sold its BASE subsidiary to Liberty Global-owned Telenet in April.

She is sure there will be more and thinks, eventually, that the biggest will prevail. "If there's one company that can consolidate the European market it's Deutsche Telekom. That's not counting the foreign players but that would come down to a political decision. I think it's dangerous to sell your key infrastructure as it's as strategic as the other utilities like water."

She is sceptical that cross border mergers can deliver an advantage in the short term. "Too much investment still needs to be done in networks. When everything is 5G and fibre then potentially you will see benefits," she says.

Regarding Belgacom's prospects, Leroy wants "a few more years to put the company in order" before she has to consider making an acquisition or fending one off. "I don't want to be distracted," she warns.

Suri: We've learned the lessons and we're going to do this the Nokia way

Rajeev Suri tells Marc Smith how he plans to make Nokia's merger with rival Alcatel-Lucent a success

Nokia CEO Rajeev Suri is unequivocal: Alcatel-Lucent is going to have to fit in with his and his company's way of doing things if the €15.6 billion merger is going to work.

The deal, announced in April, sees the Finland-based vendor take over its French rival in an all-share deal. It is currently jumping through various regulatory hoops with a view to closing sometime in the first half of 2016.

While the first day of Nokia Corporation, as the new company will be known, remains on the horizon, Suri is keen to set his stall out early. For some A-L lifers, it might make for uncomfortable reading.

"We don't want to find the best of both companies," says the CEO. "It's a takeover [so you have to] make your call early on regarding values, culture, product portfolio, integration.

"You can't drag your feet on that because nobody is clear. It will be the Nokia corporate culture, headquarters and values… that's what it is." He adds:

"We have to do this in the first 100 days. Speed is key."

It is a somewhat surprising tack from the softly spoken Suri. But he affirms: "I don't like indecisive, consensus-based management."

Although only appointed to the CEO role just over one year ago, Suri is celebrating his 20th anniversary at the company. As such, he has personal experience of a number of M&A deals the firm has been involved in, notably the one which led to the formation and eventual breaking up of Nokia Siemens Networks.

Says Suri: "In NSN one of the faults we made was to try and find the best of both cultures. You can't do that."

There are some differences between Nokia and A-L in terms of corporate culture, Suri admits. When pushed, he describes Nokia as having a flatter and more approachable management structure.

> "In NSN one of the faults we made was to try and find the best of both cultures. You can't do that"

But he rejects the notion that clashes will happen based on national company stereotypes. "We're actually both a lot more global than people give us credit for. Our Finnish head count is around 7,000 out of roughly 60,000; A-L has around 5,000 French out of around 50,000 in total. It is a key similarity. Our management teams are very international."

A deal made in summer

Rumours of a tie up between the companies have been around for several years as they struggled to keep up with rivals Ericsson and Huawei in particular.

Announcing the deal, both parties admitted it would have been hard to continue as separate entities in the long term.

Suri says on becoming CEO he and his team looked at the 10-year strategic direction and "what we wanted our company to be".

He explains: "We came to the conclusion that we wanted to offer a full scope offering to converged operators."

This led to a formal contact with A-L and he met up with his French counterpart Michel Combes last July to discuss "the vision for the two companies and how they could be aligned".

Suri admitted in April this year that he had been both "worried and impressed" with the performance of A-L under Combes.

So what, exactly, had he been impressed by? "The Shift Plan, they've done a very good job with it," says Suri without hesitation.

Here today, gone tomorrow?

The CEO also provided an update on the status of Nokia's Here mapping business, which various media outlets claim has attracted bidders including Uber and Facebook.

Suri admits the subsidiary has attracted "significant interest" but would not confirm who is in the running.

He does say that the quality of the bids is better than expected, but adds: "Let's give it more time… We may not end up selling it if we don't get the right value."

This would appear to be more sales patter than a realistic strategy.

However, Here is likely to be sold because it lacks synergies with the rest of the company.

To ram home the point, Suri says: "We're doing [the strategic review] because the company will become much more networks focused. We've made that call."

Here, which offers maps for 196 countries, voice guided navigation in 97 countries and live traffic information for 41 countries, saw revenues increase by 25 percent in the first three months of the year thanks to continued interest from automotive companies.

It is a considerable leap from the six percent increase in sales that the business managed in 2014 as a whole.

Suri admits things weren't going to plan when he took over the CEO role last summer.

"When I started, Here was doing too many things… the strategy needed a refresh, a more common sense approach to it. So we said we're not going to be all things to all people."

One of the first things he did was to change the leadership. Michael Halbherr, in post for just a few months, was replaced by former TomTom executive Sean Fernback.

"He's done a good job of finding efficiencies and improving our competitiveness," says Suri. "Here has had growth for three quarters in a row and profitability is up."

It has all the hallmarks of fattening a pig for market.

But that may not have been the plan from the outset, despite Suri revealing that it coincided with the start of takeover discussions with A-L Chief Executive Michel Combes.

When European Communications spoke to Nokia Networks' VP of Corporate Strategy last November, a sale seemed to be far from her mind.

Kathrin Buvac indicated bringing Here and Networks together was a key goal and said it would be "foolish" not to leverage the relationships it has with car manufacturers.

Suri admits that there "might be" synergies between Here and Networks in the long term but it was "prudent" to do a strategic review now.

"On the big picture I think the synergies are limited. But that's ok… sometimes you don't have the synergies but you improve the portfolio, refresh the strategy and make it better," he says.

So, the "might sell, might not sell" act is an act ahead of selling Here to the highest bidder? "Let's see," Suri says. "Not necessarily, it has to be a good competitive deal for Nokia and our shareholders."

There is much more clarity around another subsidiary, however.

Should the A-L deal get the go ahead from regulators, the France-based vendor's submarine cable business will not be part of the new company.

"It may be spun off or divested or whatever and from our point of view we're fine with that," Suri confirms.

"We have a lot of respect for what they've done there. He's assembled a good team. Also, his management of different parts of the business – driving the value businesses in a certain way, the maintenance businesses in a certain way and the growth businesses in another way again. He didn't apply the same methodology to all."

For a moment, the CEO's ego comes to the surface: "There is an example of this in the market – that was us… we had done some of this before. But to [Combes'] credit he went ahead and did it, learned from what others have done and put his own stamp on it. That gave them momentum in the marketplace."

This seems like an opportune time to ask whether there was any ever doubt about who would lead the new organisation.

"It's a bit awkward as it's more a question for the Nokia board to answer. They made a judgement call," says Suri. He claims he did not have to pitch for the new, enlarged role.

European Communications understands Combes is set to leave A-L in January, although neither the company nor Suri will confirm this.

Scope, not scale

Suri denies he felt under any pressure to get a deal done. "No, that's why I feel the timing is good because there was no need to do it. I'm not putting two companies together so they can survive.

One of Suri's watchwords for the merger is scope. He says the deal is more about scope than scale and cites a 70/30 split. "When it closes we will be number one in 4G and fixed broadband. We'll also be number two in IP with strong portfolios in transport, mobile broadband and cloud."

The industry is halfway between the cycle of 4G and 5G, according to the CEO, while operators' need to have a converged network in the future "has become much more evident in the last year to 18-months". Crucially, he says they are also starting to invest in cloud technologies too.

> "We wanted to offer a full scope offering to converged operators"

"That is why some people don't understand, because it's not obvious to many now [why we are doing this deal] – it will be in four years time. Our job as managers is to figure this out before it becomes obvious."

Suri says he is most excited about A-L's IP portfolio, describing it as the company's "crown jewel". He adds: "Operators tell me it's one of the best assets out there. A-L has done better than its competitors in that field – gaining market share at every point of market disruption."

Some analysts worry that rationalising the product portfolio, particularly on the wireless side where there is overlap, will take a long time thereby handing an advantage to Nokia's competitors.

Suri disagrees. He points out that some analysts seem fixated with wireless at the expense of the full scope – that word again – of the deal. Harking back to the merger that led to NSN, he adds: "It's one tenth of the challenge we had in the past."

There are two other key challenges to discuss. The first relates to the fixed broadband assets that Nokia is set to acquire, and an area the company has limited experience of.

How does Suri rate his knowledge of this space? "Pretty strong, actually," comes the reply. "We had a fixed line business [sold to Adtran in 2011] but we just didn't have scale. There's a big difference to the one we're acquiring from A-L, but we have the knowledge. And the knowledge is not out of date."

Nevertheless, does he feel that Nokia will have to try harder to convince A-L's employees in the fixed line business that they are understood and, more importantly, wanted?

"It's a good question. I don't get that sense because there was a full alignment of vision between Michel and I. I'm sure there is a little bit of that deeper in the ranks… but my message to them is that we absolutely wanted the mobile, IP, fixed and cloud assets. Our vision is to be a full scope portfolio company and fixed is absolutely core to that."

Devil is in the detail

But as in any takeover, there will be job losses. Understandably, Suri is not willing to put any flesh on the bones here. He is targeting €900 million of operating cost synergies to be achieved in 2019.

He says it's too early to talk about specific numbers, but hints that those with jobs in headquarters, procurement, wireless R&D and "some geographies" are most at risk.

"The devil is in the detail… [we'll do it] on a country by country basis. But we can't do this until we close the deal."

In a bid to assuage the fears of the French government, the company has already committed to hosting two "major" technology sites in France, focusing on small cells, security, 5G and wireless tech.

Conversations with other governments, workers councils and investors are ongoing as Nokia awaits regulatory clearance.

Says Suri: "The tone, from both governments and customers, is very good."

He claims his biggest challenge is keeping focused and eliminating any distraction. Given his determination to impose Nokia's DNA on their rival, it looks like a challenge he will have no problems overcoming. Suri has the air of a man who is determined to make this work. EC

Mobile disConnect?

The industry's latest attempt to find a toehold in the digital services space sees it focus on user identification and authentication. Owen Hughes examines whether it will succeed

At the opening keynote of this year's Mobile World Congress, the CEOs of Deutsche Telekom, Vodafone and Telefónica took to the stage with the same resounding message: operators must work in unison in order to cement themselves in the digital service value chain.

But as the popularity of digital media, entertainment, payment and communications services explode, operators are increasingly finding themselves muscled out by OTT players encroaching on their space.

Telcos think they have now identified a potential entry point. Mobile Connect, an industry-wide initiative from the GSMA, hopes to provide operators with a much-needed toehold in the digital services industry through the provisioning of user identification and authentication.

The premise is straightforward. Mobile Connect allows users to access applications using their phone number and a PIN, without personal data being exchanged. In doing so, the system provides a simple, secure login method for websites and other digital services that is both device and network-agnostic, thanks to a shared set of APIs.

The result – so the theory goes – is that operators can position themselves as the trusted personal information manager for digital transactions. Meanwhile, consumers can rest easy that their privacy is being treated with discretion.

As of March this year, a total of 17 mobile operators across 13 countries had launched Mobile Connect, with more expected to follow this year.

Orange is Executive Sponsor of the initiative and has committed to implementing Mobile Connect across all its markets by the end of 2015.

Daniel Gurrola, Vice President of Business Vision at Orange Business Services, says: "The rationale is that today, as people's lives become increasingly

digital, more and more of peoples' daily transactions and journeys are going to be made through the digital world.

"You need a way to identify people, a way to navigate using trusted solutions. There is space for operators to come in and position themselves as the trusted partner that can help consumers navigate that in safe and secure ways."

However, growing user concerns around who holds their data poses its own problem for operators.

According to the latest instalment of Orange's Future Digital Trust survey, 78 percent of consumers feel service providers hold too much information on them and are gathering personal data in a means "beyond their control".

Marie Austenaa, VP and Head of the GSMA's Personal Data programme, says that in order to help operators regain this trust, Mobile Connect takes a firm stance when it comes to user privacy.

"What we've set out as part of Mobile Connect is the privacy principles: telling the operators, this is how we're going to handle customer data. Not at a data process level, but really as a principle: you're not going to share it and you're going to seek customer consent," she says.

"Part of [Mobile Connect] is operators re-emphasising in their communication to the users that they take their data seriously."

What is the point?

Not everyone is convinced, however. Dario Talmesio, Principle Analyst at Ovum, says the incentive from a customer perspective is lacking, despite the promise of tighter privacy.

"I think what still remains unanswered is the 'why', from a consumer point of view, and I don't think there is a strong enough or a good enough answer there," he says.

"Put it this way. You present this to an average customer, and they will say: 'Well, so what? I have this already.' Is the promise of better security good enough? Maybe for some services, but I wouldn't really bank on that too much."

Operators themselves have different ideas around where and how they plan to use Mobile Connect.

While Orange says it is "well on track" to launching Mobile Connect commercially across its European markets, Telenor's ambitions for the system initially lie elsewhere.

Sven Thaulow, Head of Global Scale at Telenor Digital, explains: "We're primarily focusing on our Asian business units. Hence, we are focusing on what we call a lower level of assurance when it comes to authentication."

"That means we're not focusing on what mobile operators in Europe primarily are focusing on, which is more around higher levels of security. We're trying to bridge the gap in connecting the unconnected people of Asia to internet services."

Talmesio suggests this could create knock-on effects. "A group with diverging interests and a group in which members are competing inevitably moves slower than individual companies," he says.

"Bringing it all together is not an easy task; sometimes, you might argue why bother trying to create something that is interoperable at this stage and not go individually from an operator point of view."

> "Operators don't usually work together in this way to ensure interoperability"

The GSMA's Austenaa admits that getting operators to commit at the same level is the biggest challenge. However, she adds that telcos acknowledge the need to pull in the same direction in order to succeed.

Different priorities

"The reason it's difficult isn't necessarily because operators don't see the value and benefits of why they should be doing Mobile Connect - they get it, they really do. It's more that they have different priorities.

"Operators don't usually work together in this way to ensure interoperability and ensure they're coming to the market with a similar product in a similar timeframe. The strongest value proposition to the service providers of Mobile Connect is the fact that all their users can use it. That's why it's so important that all the operators are working together."

Thaulow also acknowledges this issue. "It's a setup where you actually need quite a few pieces of the puzzle in place to success," he says. "You need to get other operators on board in the marketplace, you need to get service providers to buy into the value proposition, and you need to make a product that customers actually like to use."

Austenaa claims the GSMA has taken on board key takeaways from the group-led Rich Communications Service programme, which was conceptualised in 2007 as an industry-wide initiative but has failed to see widespread uptake.

"We've learnt a lot, the GSMA and also the operators. We've learnt how to work together, which I think is now the strongest asset that we have.

"The operators have learnt that they need to take a role in the digital services enablement market. We are much more open to use the rest of the market to help us. I think we're also a bit more humble in terms of the role operators can take."

Meanwhile, Orange is already looking ahead to future collaborations that Mobile Connect could open the doors to.

"This has the potential for demonstrating to the industry that operators can work together in bringing things to market in ways that benefit the entire ecosystem," says Gurrola.

"Mobile Connect is a small step that can really position the industry for the bigger picture."

Austenaa agrees. "We're now supporting a globally consistent service that requires only a single technical interface to reach any operator. Starting with authentication and using this to establish a common service delivery model across operators, we can effectively expand into other services.

"Industry collaboration, appropriate regulation, optimising networks as well as developing key enablers will support the growth of M2M in the immediate future and IoT in the longer term."

If Mobile Connect proves operators can play nice, consumers, operators and the industry as a whole may stand to benefit. But as initiatives such as joyn have shown, there is no guarantee. ec

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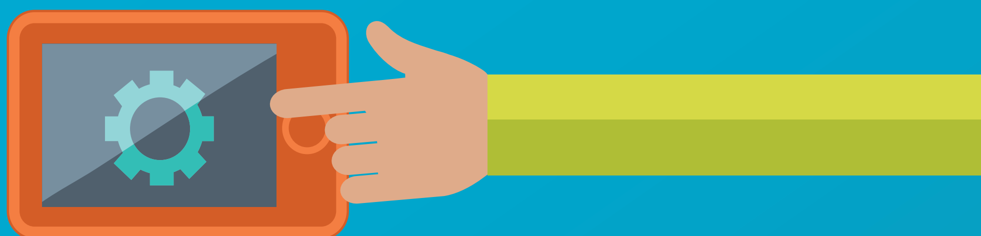
COMMUNICATIONS

CMO of the Year

Recognising and rewarding the leading telco CMOs

European Communications is delighted to launch the 2015 CMO of the Year award. Set up last year to recognise the growing importance of top marketing executives at operators across Europe, this year's award kicks off here.



To succeed, CMOs must orchestrate the CSP customer experience

Foreword by Chris Williams, Head of Global Marketing at Amdocs

Amdocs is proud to sponsor, for the second consecutive year, the European Communications CMO of the Year Award. It is a great way to honour those visionary marketers in the industry who have built and delivered an outstanding experience for their customers and, in doing so, reinforced the competitive advantage of their organization.

Service providers today need to take a multidimensional view of customer experience and see it as going well beyond customer care. The New World of Customer Experience™ demands exciting services, delivered in an intelligent way and shaped by a dynamic quality of experience, accomplished in a manner that accelerates business value for the service provider.

Indeed for all sectors in the economy and not just the communications industry, customer experience is now the primary basis of true sustainable competitive advantage.

And the competition is fierce. In our industry, service providers are fighting two parallel battles. The first is over services – designing, launching and refreshing exciting, innovative services, ranging from groundbreaking data plans to the internet of things (IoT) and new business models such as mobile financial services. Here, service providers face intense competition from both their peers and the over-the-top (OTT) internet companies.

The second battle is centered around experience: attracting and retaining valuable customers through intelligent interactions. These experiences should be personalised, contextualized and dynamically updated to adapt to the end user's preferences.

Recent research conducted by Amdocs indicates very strongly that consumer expectations of their service provider are shaped not just by what is going on in our industry, but by all others: banks, retailers, and airlines, not to mention emerging business models such as Uber and Airbnb that make up the sharing economy for example, so the bar is set high.

On both these battlegrounds, the service provider CMO has to take the lead, with a mandate to design, execute, measure and improve a differentiated customer experience.

Representing the voice of the customer in the organisation, the CMO is best placed to interpret the needs and wants of the market into a complete experience for the brand's customers. As brand guardian, the CMO's duty is to brand the experience, delivered in a way that makes it unique and stand out from the competition.

And as mentioned earlier, the reality is that customer experience is a multidimensional issue, one that goes beyond the remit of just one department inside the service provider. Let's say you are launching new 4G price plan. The marketing team will most likely take the lead – focusing on segmentation, competitive reaction and comms mix. The product team is also a natural participant, deciding on features, cost and price, often with a responsibility for the P&L.

> “Like with an orchestra delivering a pitch-perfect performance, the CMO is the conductor of the customer experience”

The sales and channel groups will normally be in the loop. But so too should the network department (because customer take-up will impact network investment and optimisation), as well as the IT guys (who provide the underpinning systems and tools to operate and bill for the 4G plan) and the customer care division, who need to make sure that any increase in customer queries is planned for and satisfied seamlessly using an omnichannel approach.

Like with an orchestra delivering a pitch-perfect performance, the CMO is the conductor of the customer experience. Planned and rehearsed in detail, executed with skill and harmony, that experience bears the signature of the CMO.

We look forward to recognising in October those marketing leaders who have made a difference in delivering the New World of Customer Experience™ to their subscribers, and thereby improved their company's position in a highly competitive marketplace.


Chris Williams presents the award to the inaugural CMO of the Year

2014 winner: Lars Thomsen, Telenor Denmark

Telenor Denmark's Lars Thomsen was crowned the inaugural European Communications CMO of the Year. The CMO was praised by the judges for a number of key successes, such as drastically simplifying his operator's product catalogue and saving the company several million euros in the process.

They also highlighted how Thomsen successfully engaged other departments to enact the simplification plan and becoming the first operator in Denmark to launch family tariffs, all while defending market share and ARPU.

THE VOTE

Readers are invited to vote for which European operator CMO they think deserves the title. Vote at www.eurocomms.com/CMOY

THE JUDGES

The entries will be analysed by our independent panel of judges who will then decide on a shortlist and the eventual winner. This year's judging panel includes senior executives from Amdocs, AsiaInfo, European Communications, KPMG and Telenor. More will be announced in due course.

THE AWARD

The winner will be presented with the award at an exclusive dinner in London in October. The news will be shared online at www.eurocomms.com and in the Q4 issue of European Communications magazine.

Flytxt: faster, deeper, proven big data analytics comes to town

Telecom operators are faced with rising data traffic and narrowing margins. Business efficiencies, achieved through intelligent decision making and smarter operations, are crucial to handling these twin pressures. Big data analytics can help, by enabling operators to better understand and respond to their customers.

Telecom operators are faced with rising data traffic and narrowing margins. Business efficiencies, achieved through intelligent decision making and smarter operations, are crucial to handling these twin pressures. Big data analytics can help, by enabling operators to better understand and respond to their customers.

Telecoms operators have an abundance of customer data within their labyrinthine systems. Stored in customer relationship management, billing and order systems, this data can provide an excellent historical resource. But, fast data about customers' interactions with the network, has even more value, especially when combined with these deeper insights derived from historic data.

Dutch solution provider Flytxt has made significant inroads in a number of markets already with a highly agile analytics platform that enables operators to interrogate both their static big data stores and fast data streams, and respond in real-time based on the consumer insights they produce. It is now bringing its big data analytics solutions and expertise to the European market.

MONESTISING BIG DATA

Flytxt provides two types of analytics-driven monetization solutions for telecoms operators; geared towards increasing revenue, reducing churn, enhancing the customer experience and generating new revenue streams.

The first, and so far the most significant in terms of its established partnerships, uses insights gained from subscriber data to enable operators to drive customer satisfaction and influence consumption behaviour. Its analytics platform processes customer interactions on the network in real time, and transforms them to actionable insights for faster decisioning across internal business work flows.

Such in-depth, up-to-the-minute insights bring considerable advantages for all operator functions, from sales and marketing through to operations and finance. "We provide operators with a way to engage with their subscribers in a meaningful way," says Dr Vinod Vasudevan, Group Chief Executive Officer of Flytxt.

"They can understand their customers, almost one-to-one, and respond to them appropriately – whether in providing targeted information to enhance customer experience, or sending contextual offers to influence consumption behaviour or taking appropriate action to pre-empt users who may have become unhappy with the service. And all of that, of course, translates into measureable economic benefits for telecom operators."

The second type externalises these benefits, allowing operators to make subscriber behaviour insights available to third parties, such as advertisers, retailers, over-the-top providers and other commercial enterprises. Vasudevan makes clear this model is private and secure in terms of data protection; no personally identifiable data is disseminated under any circumstances.

Nevertheless, its power is tangible: operators can enable services like targeted advertising, market research, media measurement and planning, thus resulting in more engaged customers, revenue upside for operators and superior RoI for Brands and agencies.

FOUNDATION AND EXPANSION

Flytxt is working with more than 50 customers across 32 countries. There are some major global brands on its books – among them, Vodafone, Hutchison, MTN, Axiata and Etisalat. It analyses data from over 500 million subscribers and processes around four billion real-time events every day in one of their installations. Indeed, its big data analytics platform is one of the most widely deployed in the world, according to Dr. Vasudevan.

Founded in the Netherlands in 2008, and funded largely by private capital from Europe, Flytxt has retained its vision statement from day one: to create more than 10 percent economic impact to customers.

"That could be in terms of an uplift in revenue, or arresting a decline in revenue; it could be about reducing churn and the cost of acquisition; it could be for promoting a special type of service like mobile money or 4G adoption. The impact can be felt on the bottom line or the top line, or in relation to a specific service or parameter like churn. Either way, it has a hugely positive effect on growth and business productivity," explains Vasudevan.

Flytxt started its operations focusing on developing markets, and has since signed contracts with multiple operators in South Asia, Africa and the Middle East. It has consistently delivered six to seven percent economic impact for its customers, and more than its 10 percent in some cases, depending on the breadth of solutions its customers deploy.

"Our analytics solutions are now used to generate measurable impact on majority of their businesses – their core business, value added services, data, voice and SMS, and in many cases

Flytxt Group CEO Dr Vinod Vasudevan explains how their big data analytics solutions can help the big beasts of mobile leverage their data to enhance revenue, reduce churn, improve customer experience and generate new revenue streams

their mobile money and e-commerce services," says Vasudevan.

In the past few months, it has also set up offices in Europe and Latin America, and expects to announce new partnerships in these markets during the next quarter; North America is not on its agenda right now. "Our growth strategy is very deliberate," he explains. "We enter new markets when we have traction – when the market is ready to adopt technology and operators are willing to invest time and resources with us."

TECHNOLOGY AND TACTICS

Flytxt's record so far stands it in good stead for its new adventures in Europe and Latin America.

The technology applies across markets, observes Vasudevan; only the tactics differ. "It applies across the board – across all markets and all of telecoms, and way beyond, ultimately to any consumer-facing business. Its fundamental nature, to understand and engage with consumers in a one-to-one fashion, is relevant in every market and in all kinds of industry," he says.

> "We are faster, because our platform is real-time, fully integrated and closed loop"

Its insights tell more than just what a user is spending. "We can know whether they're a local commuter or a frequent flyer, whether they like devotional music or country music, or what apps a consumer segment prefers or what apps are most used in varying screen sizes," says Vasudevan. A whole set of subscriber characteristics can be determined with Flytxt's packaged analytics; its subscriber profiling goes very deep, while protecting consumer privacy and data security", he adds.

He goes on: "The specific tactics you adopt will vary from market to market, of course, because of the deeper multi-dimensional analytics and Nano-segmentation the technology enables. We have operators running 6,000 programmes a day, through 1000s of analytics jobs and each can be segmented into specific tactical actions. That's what changes across businesses and markets and industries. The capability of the technology to understand subscribers in great detail and recommend actions applies everywhere."

The fact is many of the major operators, in the markets Flytxt is only just entering, are a way behind the operators elsewhere in terms of big data analytics, as they often are for new technologies. However, Flytxt expects this to change and believes that when these major operators eventually adopt these new technologies, their benefits will be considerable.

PARTNERSHIP AND ENGAGEMENT

For Vasudevan, the depth of its engagement with customers is as essential to delivering economic value as the sophistication and agility of its technology.

"We engage with customers as a true partner. These are multi-year contractual relationships and we go on a journey with them. We seek to understand their objectives, and define their business outcomes very clearly. And this is essential, because the ability to choose the right analytics and tactics, and sometimes even to experiment with them in a continuous fashion, determines their success."

He adds: "We decide, in advance, precisely which use cases to focus on in order to achieve those desired business outcomes. We engage with partners in a way that ensures return-on-investment and long-term value."

Flytxt provides a full suite of services around its data analytics platform, from the technology itself, through to consulting, execution and managed services. "Customers move through various of these, and sometimes do all," says Vasudevan. In some instances, Flytxt is tasked with deploying brand new analytics models; in others, it is required to modify existing ones.

"Everything is designed and deployed to react instantaneously to consumer and market insights," says Vasudevan. "It needs to work in an agile fashion. If our partners see some change or trend or opportunity in market, and it takes them two months to react, then they are not getting great business value. So agility is built in, at root level, and that is only possible with our partnership approach."

INVESTMENT ON RETURN

But what is the cost to operators of deploying these data analytics solutions? Vasudevan returns, again, to this point about a partnership approach.

"I don't have a price list. You might, in broad terms, call it a revenue share, though it's not just about revenue. It is

> "We provide operators with a way to engage with their subscribers in a meaningful way"

based on everything we impact. If we impact churn, we translate that impact into a dollar value. But at the end of the day it is all about the outcome for our partners. And I believe that is the way to build a partnership," he says.

"You have to have an end-goal; it can't just be about technology for its own sake. That doesn't make sense. Big data analytics is all about measurement, ultimately, and therefore you must be able to assess its impact on your business. The simple answer is that it is not a cost based item, it is a revenue item – whatever the net impact in economic terms, minus our fees, is all theirs. We believe if the technology capability is aptly utilised RoI can be as low as three months." adds Dr. Vasudevan.

The majority of its partners are contracted under this business model – of clear objectives, and fees based on a share of the value created by achieving them. A minority prefer a traditional software-pricing model. "We don't shy away from that," says Vasudevan.

INTEGRATION AND DIFFERENTIATION

The technological agility required to process the mad tangle of commands service providers place upon their mad tangles of subscriber data is an essential part of the Flytxt proposition.

Communication service providers need multi-dimensional analytics tools to extract actionable insights from diverse data streams. General purpose solutions often require advanced statistical knowhow. Flytxt's library of integrated solutions enables simpler, faster and deeper analytics, based on clear business objectives. It allows service providers to respond to data insights in a timely, creative and effective way.

"We have built a versatile Telco API library that has pre-built connectors with almost every system in telecom operating environment you can think of. And it is highly configurable, so you can configure it to connect almost any data source, fulfilment systems and communication touch points. Along with that, we have the software to crunch the data, and the technology and procedures to guarantee its quality and integrity," explains Vasudevan.

It's not just a case of straight traffic flow, of directing data insights to pre-defined destinations; it is also a question of flagging down the old bangers that shouldn't be on the road. "You have to be able to integrate all this huge volume, and all these different types of data, and also accommodate all the errors and idiosyncrasies that come along with them. And we have solid process for doing that."

This is what differentiates Flytxt, ultimately, from other vendors in the space. "We are faster, easier and more efficient," sums up Vasudevan. He deals with each of these points in turn.

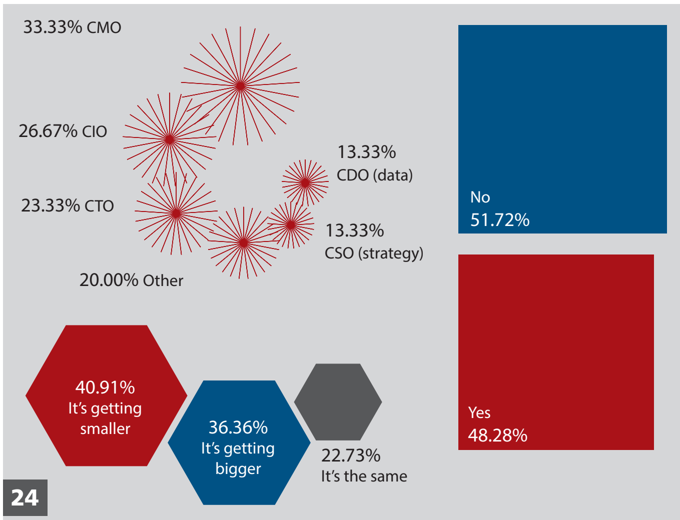
"We are faster, because our platform is real-time, fully integrated and closed loop; so you can react faster to your subscribers and what's happening in the market. We are easier, because it is a complete package and an outcome-based solution. The approach of the several big names in IT is to build a custom solution with their own products and components from third parties. Ours is a single product, and we provide the full service, covering technology, consultancy, and execution and managed services.

"And we are more efficient – we deliver better results. Operators have done controlled experiments, independently, and found we perform over two-and-a-half times better in terms of agility and economic value than our competitors in the market."

And Flytxt is bringing its technology, proven practices, and all of the efficiencies and commercial benefits it draws from operators' big data stores and fast data streams, to this market very soon. Watch this space.

www.flytxt.com

Special report
BIG DATA

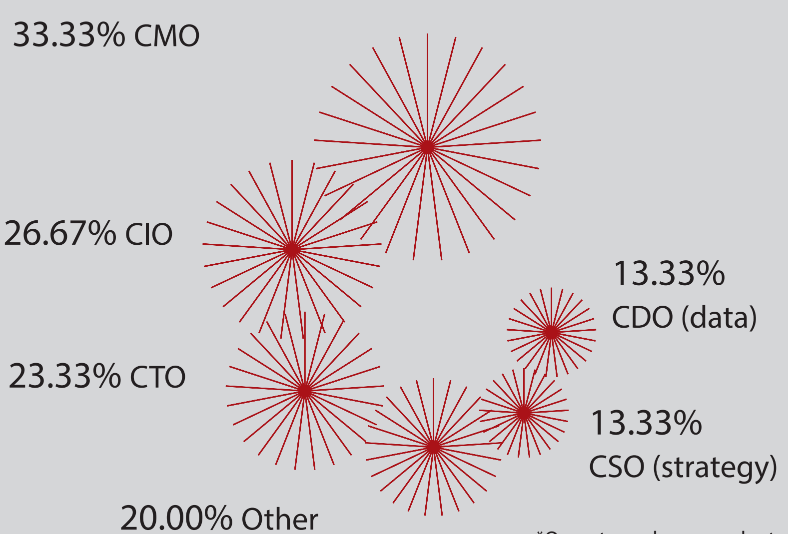


Contents

Big data survey: Telcos split on role of CDO as reality doesn't match the hype

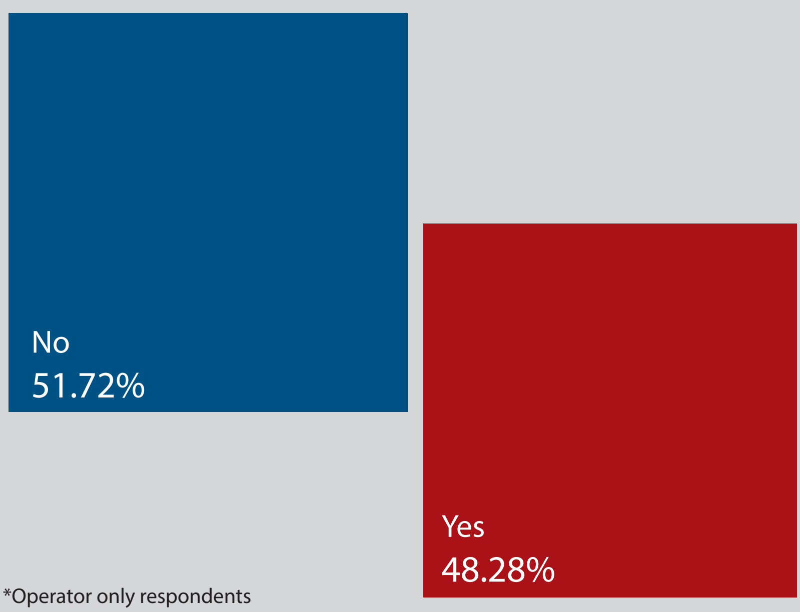
Operators are finding it harder to see the returns of their big data strategies but remain lukewarm on hiring a CDO to help them

Fig.1 Who is in charge of your big data strategy?



*Operator only respondents

Fig.2 If your organisation does not have a Chief Data Officer, would you like this role to be created?



*Operator only respondents

The question of who should be in charge of an operator's big data strategy continues to vex the industry. According to European Communications' fourth annual big data survey, the number of Chief Data Officers is on the rise, but those who have yet to hire one seem to be unconvinced.

Despite their lack of a public face, thirteen percent of operators said a CDO was in charge of their big data strategies – up one percentage point from last year (see Fig.1).

But when asked if they would like this role to be created, the majority of those who do not have a CDO currently said they would not like the position to be established (see Fig.2).

This is a massive turnaround on last year, when 61 percent said they would like a CDO position.

Said one respondent: "It is not that important if procedures are set right."

But commentators are urging telcos to reconsider. Says Arthur D Little Manager Vikram Gupta: "Telecom companies should embrace the role of the CDO. A CDO is dedicated to mining, analysing and managing data, and co-ordinating its use throughout the whole organisation across use cases.

"The CDO is in-charge of the central data & BI function which should be the engine to deliver analytics products roadmap, implement the chosen business models for internal and external monetisation, implement robust data governance and promote a data driven mindset in the organisation."

Ovum Analyst Adaora Okeleke adds: "The office of the CDO is still very new and only operators with a visionary objective to make the most of big data have instituted this office.

"In our view, the office of a CDO is critical as it lays the responsibility for the management of all data assets within one office which is centralised and serves the data needs of all departments."

For the moment, it's the Chief Marketing Officer who is top of the tree. CMOs are the people leading big data strategy ahead of the CIO and CTO, who took the top spots last year.

The rise of the CMO could be explained by the fact that improving the customer experience remains the biggest opportunity that the industry sees big data providing (see Fig.3).

It came ahead of improving operating efficiency and creating differentiation as priorities appear to be shifting somewhat.

Last year's top answer, generating new revenue streams, has fallen from first to fourth place overall. However, operators place it joint second.

Okeleke agrees with the findings: "Improving customer experience remains the operator's biggest opportunity with big data."

On leveraging big data for new revenues, she adds: "This will be driven by the operator's ability to attract new customers and probably less from leveraging the data for external monetisation.

> Improving customer experience remains the operator's biggest opportunity

"There's so much focus on customer data and security issues that telcos are sceptical about making such moves. There's also the need for telcos to invest in partnerships to succeed in such ventures."

More on this later. In the meantime, the industry continues to view legacy systems/data remaining in silos as the biggest challenge to making big data

Fig.3 What do you regard as the biggest opportunity that big data presents operators with?

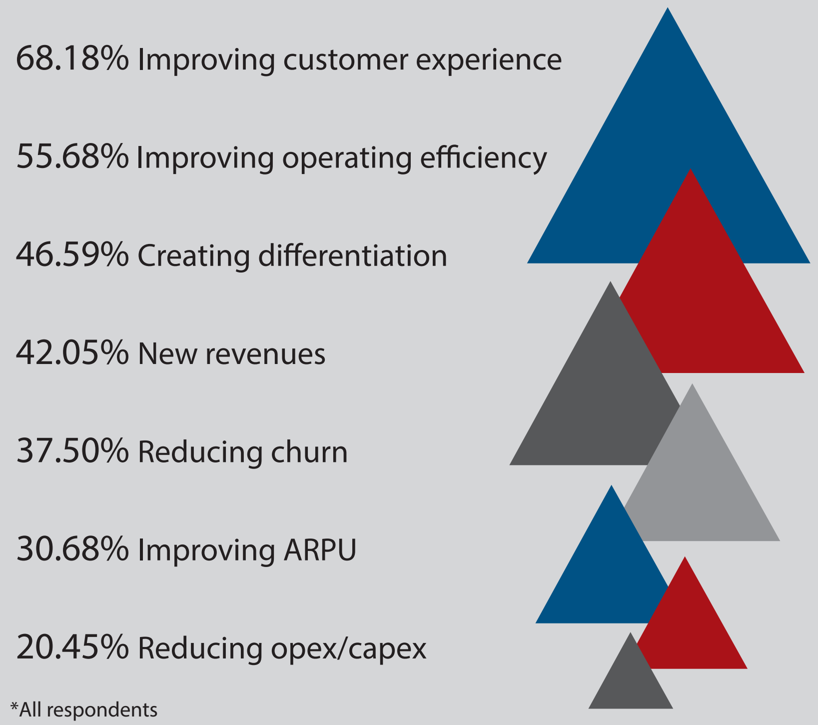


Fig.4 What is the biggest challenge operators face in successfully executing a big data strategy?

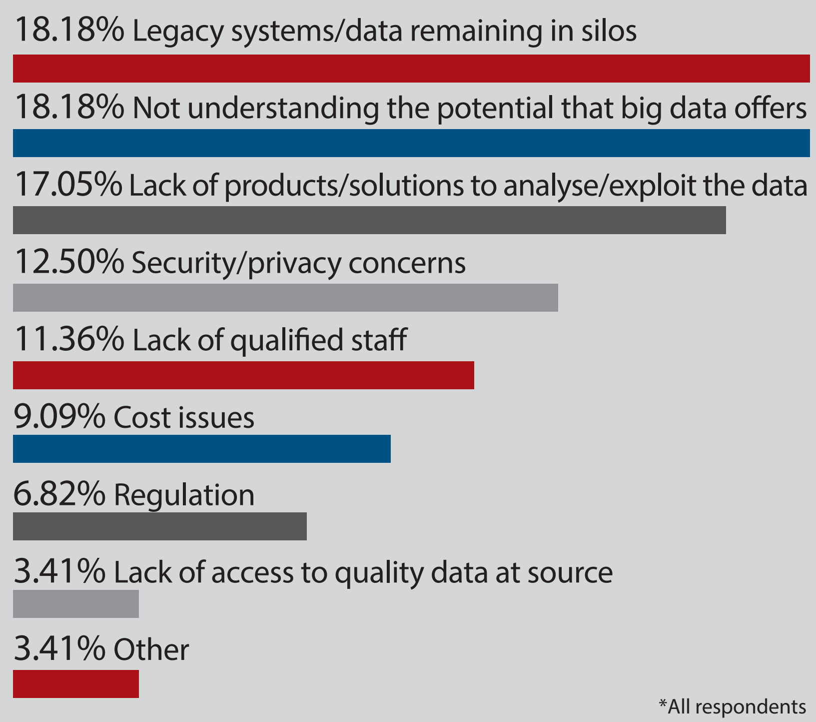
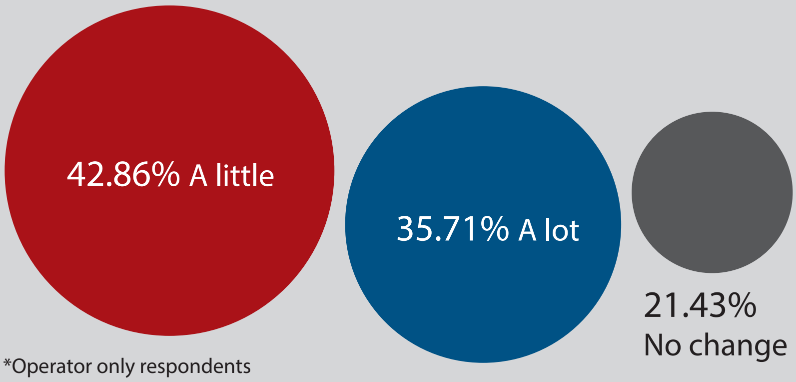
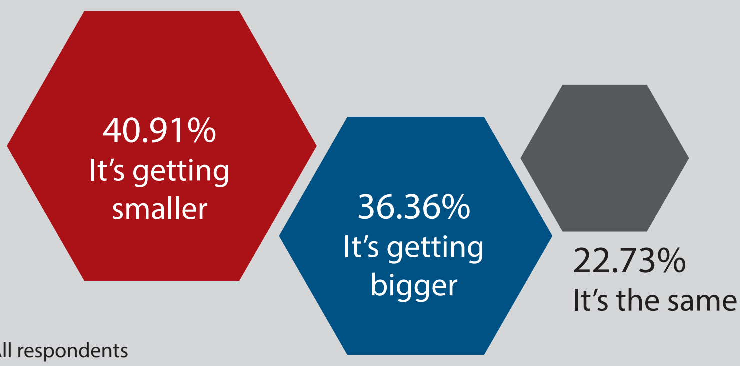


Fig.5 To what extent have security/privacy issues stymied the development of big data strategies in the past 12 months?



*Operator only respondents

Fig.6 Do you think the gap between the perceived benefits of big data and the reality is getting bigger?



*All respondents

strategies successful (see Fig.4).

Not understanding the potential that big data offers was joint top followed closely by a lack of products/solutions to analyse/exploit the data, which rounded off the same top three answers as last year.

> “In reality, the benefits of big data are much bigger than what we are using today”

Okeleke says: “Existing legacy systems and sitting in silos remains the bane of all operators. These systems lack interfaces that enable the direct extraction of the data they hold.

“Other issues relating to data quality and structure also need to be addressed. These are expensive procedures that need to be tackled to achieve successful big data strategies.”

When operator-only answers are considered, cost and security/privacy concerns came above a lack of products/solutions into second place.

ADL Principal Shinichi Akayama points out that vendors have started to provide solutions that do not require special analytical skills and costs are coming down thanks to improvements in recent ICT hardware.

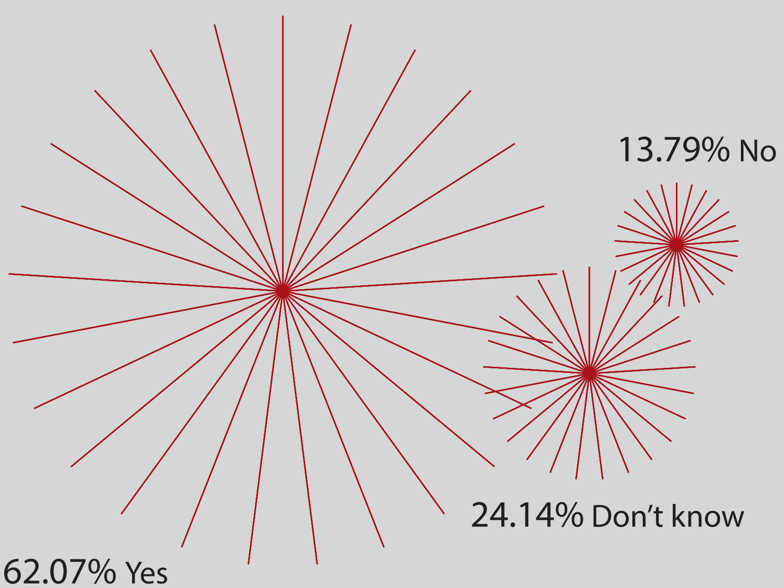
On the security/privacy front, fears appear to be receding. When asked to what extent they had stymied the development of big data strategies in the past 12 months, 43 percent said a little, which was down five percentage points on last year (see Fig.5).

While 36 percent said a lot, an increase of two percentage points, the overall proportion of those who said such concerns had impacted big data strategies fell three percentage points.

Don't believe the hype?

The telecoms industry as a whole thinks the gap between the perceived benefits

Fig.7 Is big data a strategic goal in your organisation?



*Operator only respondents

of big data and the reality is getting smaller, although a sizeable minority – the operators, largely – thinks it's getting bigger (see Fig.6).

Said one respondent: "Most organisations and vendors still see big data as an evolution of current technology and not as a new environment."

Said another: "In reality the benefits of big data are much bigger than what we are using today. The perception and information of all possibilities is poor."

According to ADL's Akayama, the benefits don't come easy and companies should expect "a lot of homework" beyond the implementation of a big data platform.

He says: "The hype has implanted many unrealistic expectations on big data and the related business value. [But] one good example can change the trend. In Japan, manufacturers were initially sceptical about its benefits until a few years ago. However, they soon found its benefit and changed their operations dramatically."

Operators are the most sceptical. A majority, 41 percent, thinks the hype is getting bigger versus 31 percent who say it's getting smaller.

Ovum's Okeleke says: "A lot has been said about the benefits but less about "the how'".

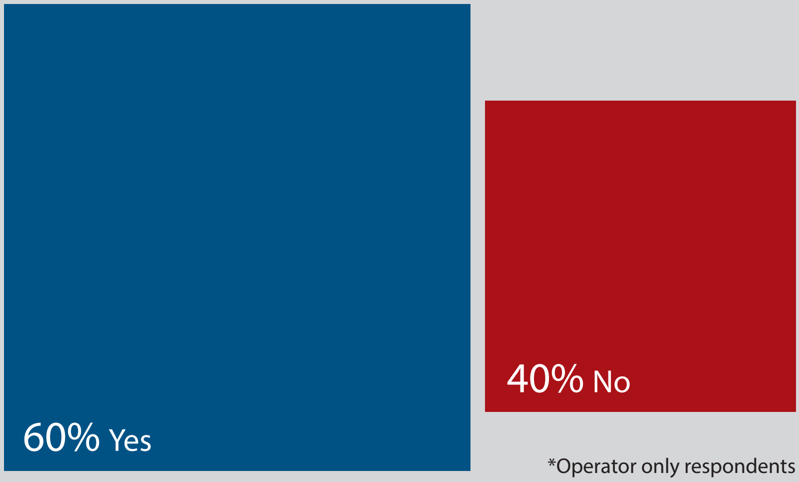
As such, the percentage of operators who say big data is a strategic goal in their organisation, 62 percent, has remained the same as 12 months ago (see Fig.7).

Okeleke says: "It's impressive to see that over 60 percent of operator respondents consider big data as strategic to the organisation's overall objectives. Indeed, big data has the potential to meet several strategic objectives.

"However, inasmuch as big data is a strategic goal for operators, a majority still lack a proper strategy on how to exploit it to drive their overall business objectives."

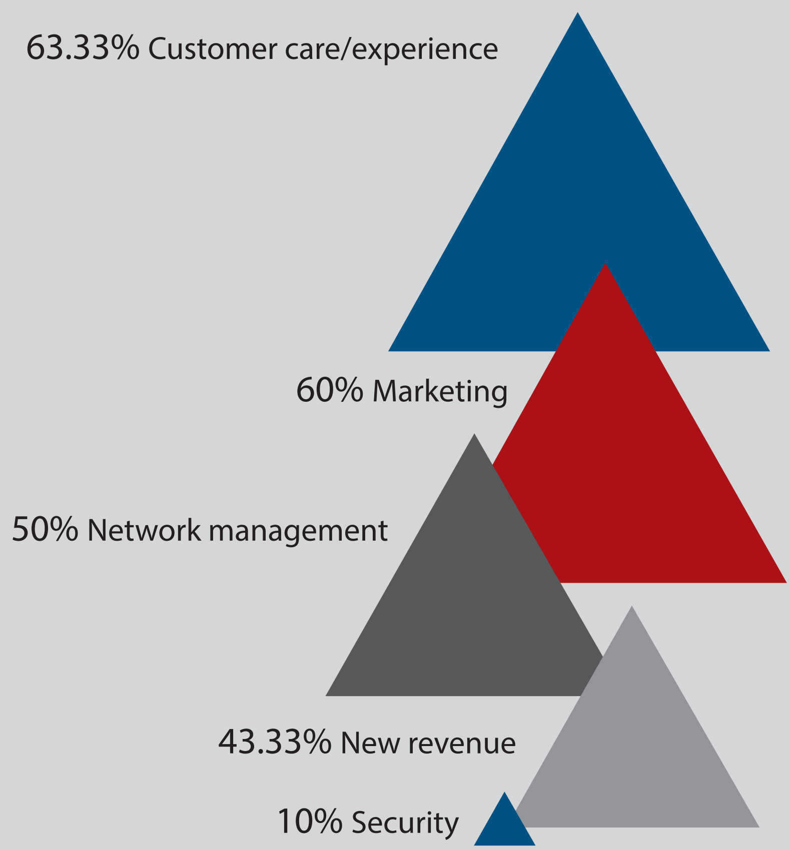
The percentage of operators who say they have a defined set of business objectives has increased by 10 percentage points in the last 12 months to 60 percent (see Fig.8).

Fig.8 Does your organisation have a defined set of business objectives for big data?



*Operator only respondents

Fig.9 What types of use cases currently drive the adoption of big data strategies in your organisation?



*Operator only respondents

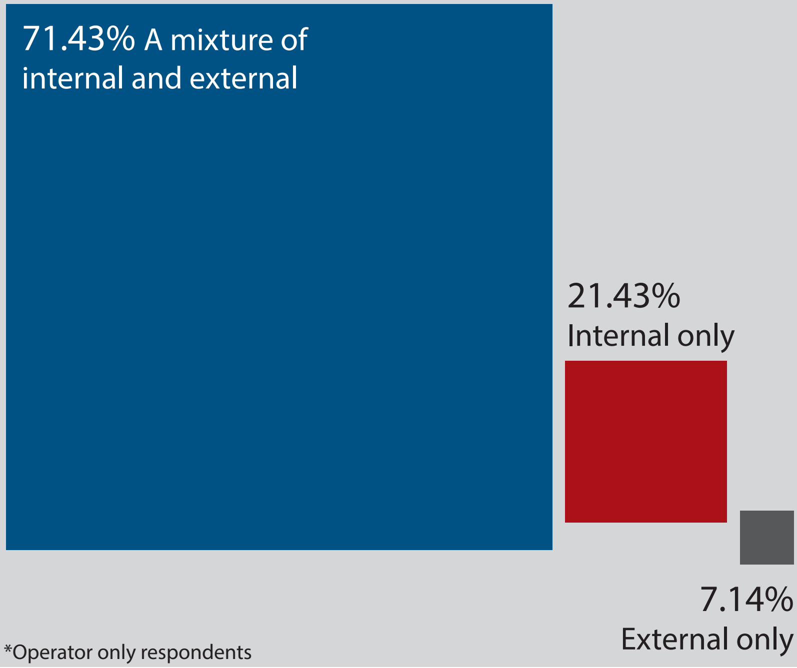
Customer care/experience and marketing are still the top two use cases, followed by network management and new revenues (see Fig.9). Reflecting the fall in concern discussed earlier, security use cases fell from 34 percent in 2014 to just 10 percent this year.

Meanwhile, operators remain focused on using big data for both internal (eg, improving customer care/network issues) or external (eg, driving new revenue streams) purposes. Over 71 percent said a mixture of the two, up from 66 percent 12 months ago (see Fig.10).

Says Okeleke: "Although the survey results indicates that most operators are looking at a mixture of both external and internal use cases, the more advanced use cases in deployment today are based on the internal applications.

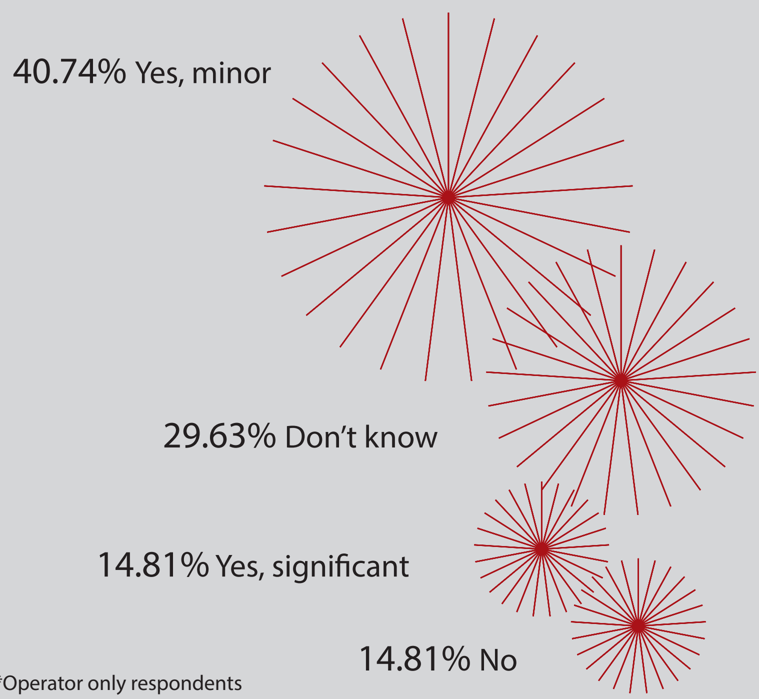
"There are still a lot of issues relating to the monetisation of customer data that need to be resolved before we will begin to see any progress along that path.

Fig.10 Are you more focused on using big data for internal (improving customer care/network issues) or external (driving new revenue streams) processes?



*Operator only respondents

Fig.11 Internally, has the introduction of big data strategies resulted in any meaningful improvement in customer experience measurements?



*Operator only respondents

ADL's Gupta adds: "The business potential of internal monetisation use cases can be six to nine times more than the potential realised through external monetisation.

"Telefonica Dynamic Insights and Orange Datavenue are some of the pioneering initiatives by telcos towards [the latter]. However, the revenue realised from external monetisation use cases has been relatively limited, so far."

Getting results does appear to be increasingly hard. The percentage of operators who said that the introduction of internal big data strategies had resulted in meaningful improvements in customer experience measurements was down sharply (see Fig.11).

Fifteen percent cited significant improvement, down from 23 percent last year. Those who said minor improvements had been made numbered 41 percent, down from 54 percent last year.

Says Okeleke: "With a larger proportion of respondents indicating that they have seen minor improvements to customer experience measurements, it implies that the insights generated from the analysis of big data are not yet fully integrated to optimise business processes.

The same was true when it came to whether the introduction of big data strategies had resulted in any meaningful cost savings. Operators were equally split between yes, no and don't know (see Fig.12).

Interestingly, the biggest shift was from the 'don't knows' to the 'nos', suggesting the reality is proving harder than the theory.

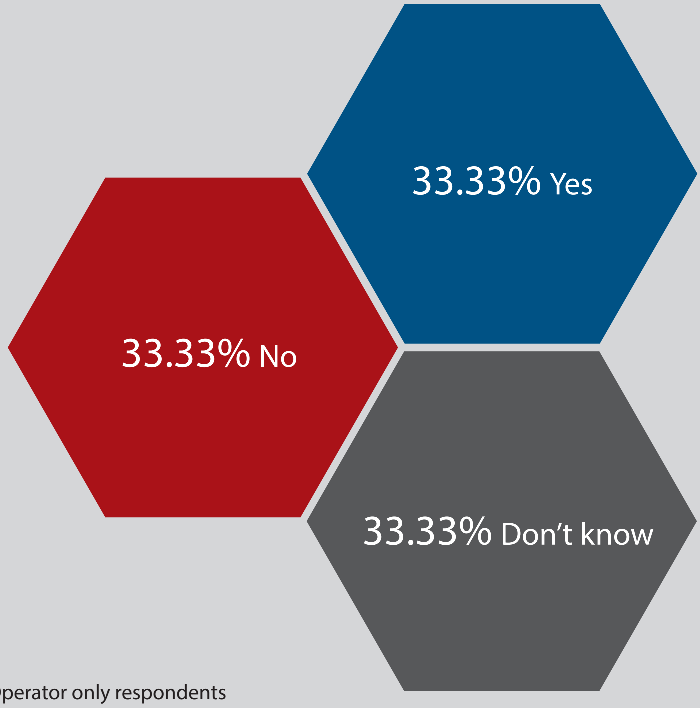
Says Okeleke: "With different big data strategies being executed across different business units, the benefit of cost savings bandied around by marketers remains elusive.

"Big data strategies need to be driven by a central part of the business with the responsibility to serve the needs of the different business units."

The difference between theory and reality also appears to be borne out when it comes to generating revenues from selling data to third parties. The majority, 61 percent, said no, which represents a 20 percentage points increase on 2014 (see Fig.13).

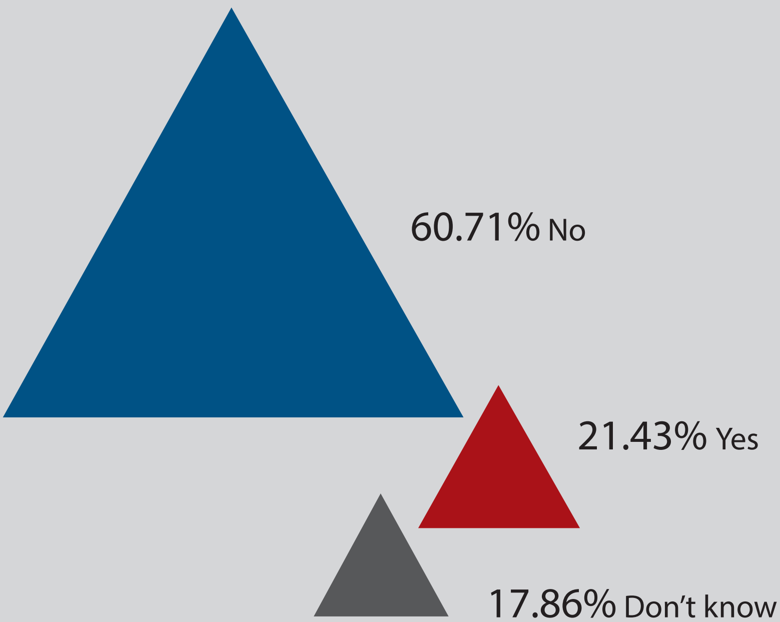
Says Okeleke: "To generate revenue from these business ventures, telcos need to cross the hurdles associated with extracting meaningful data from their data, which are relevant to third parties. The opportunities are there but… it's an expensive activity making sense of data before selling it to third parties."

Fig.12 Internally, has the introduction of big data strategies resulted in any meaningful cost savings?



*Operator only respondents

Fig.13 Are you generating revenues from selling data to third parties?



*Operator only respondents

About the survey

Ninety seven respondents took part in our online survey in April and May 2015. Forty one percent were operators, 36 percent were vendors with the remaining 23 percent consisting of a third parties such as analysts, regulators and consultants.

From a geographical perspective, 71 percent came from Europe with nine percent from the Middle East and Africa. Over 12 percent hailed from the Americas and seven percent from Asia-Pac.

Big data use cases: from the call centre to the IoT

European Communications sought out some examples of the data sets that operators are using in their day-to-day operations

Big data remains one of the key topics that operators are struggling with as they attempt to solve a range of issues, from improving customer experience and getting a more up-to-date view of what's happening on their networks to driving new revenue streams.

But while operators are happy to talk about the potential big data offers and share the theories about why it should improve their internal processes as well as offer a new path to growth, specific examples of what they are doing are not as easy to find as you might think.

The topic remains very much a work in progress within operators, but European Communications has teased out some concrete examples from Orange, Telefónica and SFR.

1. Improving customer experience

Orange uses data such as signal or location information to help handle customer care around billing and outage issues. It also uses data more proactively to inform customers with poor indoor coverage, for example, about planned deployments or alternative solutions such as a femtocell.

Mari-Noëlle Jégo-Laveissière, Orange's Senior Executive in charge of Innovation, Marketing and Technologies, says: "We are also working on additional big data use cases to improve other internal processes and to resolve customer problems quicker, for example, regarding the detection of malware on apps."

2. From pre-pay to post-pay

Telefónica is using big data in Latin America to try and move customers from a pre-pay contract to a more profitable post-pay one. The Spain-based operator analyses the behaviour of pre-pay customers to ascertain whether they would benefit from being offered a post-pay contract.

Says Richard Benjamins, Telefónica Group Director BI & Big Data: "It is not just about upgrading as many pre-paid customers to post-paid as possible. If you do that, the new post-paid customer will be unsatisfied and consequently there will be churn. You have to use the analytics and the understanding of customers to identify those who will value such an up-sell and then execute it."

3. Reducing call centre calls

SFR has implemented solutions from Cloudera in a bid to gain a 360-degree view of their customers. In particular, the France-based mobile operator said it had found it difficult to understand the customer journey between different channels – retail stores, call centres, websites and smartphones. One bottleneck it discovered was in the call centre, where customers were calling up to make changes to their contracts. SFR made changes themselves, allowing customers to alter their contracts online, thereby lowering the number of calls to the call centre. An added benefit, says Francois Nguyen, SFR's Director of BI and Corporate IT, is that the operator was able to retain "some thousands of customers"

Selling data to third parties

Orange also markets anonymised customer data to businesses who would benefit from an insight into the movement of people around certain geographic areas, such as those operating in the tourism and transport industries.

The operator converts technical data from its network into real-time statistical information through its Flux Vision platform. This can then be used by businesses operating in the public and private sectors in a variety of ways, such as to determine the number of vehicles on a street, evaluating the catchment areas of commercial centres or assessing how often tourist spots are visited.

Jégo-Laveissière says the way in which customer data is anonymised is completely irreversible, meaning it "eliminates any possibility of customers being identified".

Orange claims to have 70 companies and public authorities in France using Flux Vision.

Leveraging the IoT

Orange is also trying to align big data with the emerging Internet of Things space, in order to help businesses create new, more efficient services for their customers.

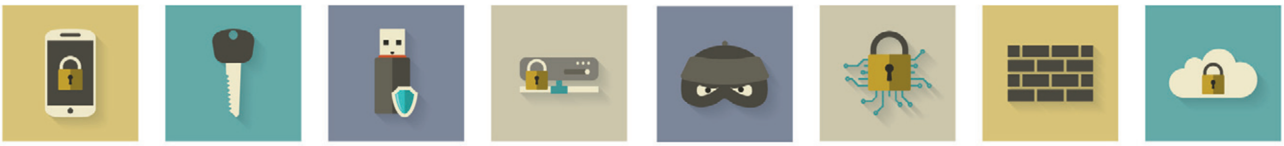
The operator's Datavenue platform allows enterprises to collect, aggregate and securely store data from their customers' connected objects to enable them to deliver services tailored to their needs. For example, a fitness coach could access data generated from a customer's fitness-tracking wearables and "smart" cooking appliances in real-time and send them nutritional information.

Datavenue is currently available in beta for some developers and industry partners.

Says Jégo-Laveissière: "The combination of data from connected objects with other data opens the path for a whole universe of new services for the general public, and of new business opportunities." ec

Operators shouldn't wait on EU data protection reform

Controversial new EU legislation is on its way, but European operators cannot afford to wait if they are to reposition themselves as big data champions, writes James Blackman



The European Commission (EC) is on track to pass new data protection legislation by the end of the year, for implementation in 2017. For most European businesses and citizens, it cannot come fast enough. The problem is, few industry watchers think it will go without a hitch.

"We're not even sure what we can comment on," says Luca Schiavoni, analyst at Ovum. "There's just an endless tension between member states. This principle, that 'nothing is agreed until everything is agreed', is killing every chance of coming to a swift and reasonable decision – because everyone has something to say."

This principle of final accord, to which Schiavoni refers, underpinned the Council of Europe's announcement in March it had reached a "partial general approach" on a revised version of the one-stop shop regime – a mechanism intended to simplify transnational data protection disputes, which has become increasingly complicated, with both multiple undefined regulatory bodies now set to adjudicate.

Playing field

The existing European Union (EU) Data Protection Directive dates from 1995, to an era before Google and Facebook. Since then, technology has made the world unknowable, somehow. Personal data is captured with practically every keystroke, often without knowledge or consent.

The proposed General Data Protection Regulation (GDPR) seeks to eliminate certain regulatory inconsistencies around the collection, storage and processing of personal data in EU territories. Unlike the current directive, transposed variously into individual state law, it will be enshrined at European-level, making all 28 members states compliant under its terms.

More than this, it will remove the ability of foreign businesses to import home rules. This is a gnarly issue for the big US OTTs in particular. In America, privacy is a property right. In the EU, it is a fundamental right, upheld by government. In Europe currently, the US OTTs play by US rules. The GDPR will change that, and hold all organisations extracting data from its people and territories accountable under European law.

But telcos take issue with a number of other GDPR components. Most urgently – and to really level the field– operators want assurances over the e-Privacy Directive, part of the 2007 EU Telecoms Package, a specific framework for the telecoms industry that also comprises the old Data Retention Directive and the foundation of European regulator BEREC.

The e-Privacy Directive was created as an extension of the original Data Protection Directive to capture the new 'digital age'. It covers such items as cookies, spam and basic data retention, and requires communications service providers to notify of any security breaches. It is on its third life; the reach and composition of a fourth iteration is the most vexing element for operators of the GDPR negotiations.

A GSMA spokesperson says: "Mobile operators and other communications service providers would be subject to a dual regulatory regime and restrictions and obligations that do not apply to other internet players. In order to achieve a comprehensive technology-neutral framework, it is essential legislation treats functionally equivalent services and data equally."

In May, the EC said in its commitment to a Digital Single Market for Europe that, indeed, it will review the e-Privacy Directive as part of the GDPR. Presently, the operator community is lobbying so such a review will make it part of the GDPR, and applicable beyond just telcos.

It might also be noted, here, that the Data Retention Directive, which requires telcos to keep data on file for police purposes and was repealed last year by the European Court of Justice, could also be reinstated under the GDPR.

Less optimistic commentators have suggested it might take another three or four years before the GDPR is made law – and, when it does, it will likely come with caveats and loopholes, allowing interpretation at local level.

Spaghetti systems and the trust gap

There is little question the GDPR will require telcos to adapt, both systematically and mentally, at considerable cost. “You can’t just throw a switch over night. A whole bunch of stuff will have to change,” says Bob Plumridge, CTO at Hitachi Data Systems.

The scope will only be clear in the final analysis. New requirements around consent, for instance, remain undefined, and will likely require considerable changes to current business practices. Operators should be looking at privacy by design as a matter of course, and a way to untangle the “spaghetti” of their legacy systems.

With or without data protection reform, the issue of trust is on the table. With a level playing field, operators can make impact as brands of trust. Bar none, industry protagonists and market watchers agree. For big data to succeed, customers need to understand it is not something that just goes on under the table or behind their backs.

Nicholai Pfeiffer, Group Privacy Officer at Telenor, remarks: “Operators are already taking strong positions on privacy. This is not a result of the reform. Privacy is no longer something only geeks and academics are concerned about.”

Gordon Rawling, Director of Marketing for EMEA at Oracle, adds: “The industry has been looking for a silver bullet for how data insights can drive revenue and relationships. But for a few shiny spots, it hasn’t found it. A new approach to data protection, which brings intimacy with customers, can help. If it doesn’t turn it into an opportunity, it will just be an extra weight.”

Orange is explicit on this. “This industry is highly regulated, and risk averse. Those who can position themselves as brands of trust will reap value. That is the endgame for us; it is a strategic imperative. It starts with transparency around how we collect and use data, and goes to providing customers with control and educating them at every touch point,” says Daniel Gurrola, its VP of Business Vision.

It has done its research. Orange’s three-part report, The Future of Digital Trust from late 2014, polled 2,000 European consumers and found a disconnect between the value they place on personal data and the value businesses extract from it. Most ascribe a higher value to more intensely personal data, and claim a reluctance to trade it. They consider their digital footprint and purchase history, of more interest in most data analytics, to be fairer game.

> “Consumers are increasingly aware they have been lured by the promise of a free lunch”

In March, Symantec published a similar report, State of Privacy, which considers the views of 7,000 EU nationals, and draws many of the same conclusions. It finds trust in organisations declines in line with their ability to collect data. Technology companies, in general, rank poorly, with faith at just 22 percent. Hospitals, banks and governments do considerably better.

For its part, Orange puts trust in communications providers at 31 percent, higher than for governments. Symantec says the trust gap, the delta between the sensitivity and the security of personal data, as perceived by the public, is biggest for web browsing, at 36 percent.

Ilias Chantzos, Senior Director of Government Affairs for EMEA at Symantec, explains: “Security is a competitive advantage. If you convince customers you will protect their data, they’ll be more inclined to do business with you. If you can’t, then there will be a drag in the adoption of technology. This shouldn’t be a compliance exercise.”

Deal with the devil

Consumers are increasingly aware they have been lured by the promise of a free lunch. US operator AT&T is the first to reveal, explicitly, the devil is in the detail – and to give customers the chance to deal with him.

In Kansas, it is offering fibre broadband for $70 per month, provided customers share their browsing history for use in targeted advertising. Those who don’t want to share private data must pay $99 for the same service. There are no discounts. For AT&T, privacy comes at a $29 premium.

European operators – those prepared to speak on the matter, anyway – are not about to make the same bargain with customers. Instead, Telefónica says it is collaborating with the likes of MIT and Mozilla on an open data project called the Data Transparency Lab, which aims to shine a light on current data protection practices.

It is also experimenting with personal data vaults, cloud-based repositories for all manner of personal information that can be accessed from any device, anywhere. “It works like a bank, except, with your consent, it trades your data – and even offers a revenue share in return,” explains Richard Benjamins, Group Director of Business Intelligence and Big Data at Telefónica.

Telcos may think they have time to find out what works, given negotiations in Brussels are slow-moving and unclear. But Ovum’s Schiavoni warns this may not be a good thing. “Markets and technologies change,” he says.

“We’re starting to talk about connected objects and the IoT, which begs the question of whether the EC is intelligent enough to understand the eventual framework needs to be flexible enough to capture the constant changes in technology and communications markets.”

Symantec’s Chantzos is based out of Brussels and has a more moderate view. The same principles have been in place since 1984, he observes, when the UK established the Data Protection Act under the Data Protection Registrar, forerunner of the Information Commissioner’s Office. The same principles have held sway, all through, he says.

“I’m pretty confident; data protection in Europe is based on certain principles, which allow for flexible implementation of legislation. We’ve been operating with them for almost 30 years, and they still apply.” ec

G.fast: racing into the future

Swisscom's business is shaped by people. It's the way they communicate and how they collect and share information. This development is gathering pace noticeably right now, prompting telecommunication companies to be innovative. Swisscom has always faced such challenges, modernising its network and providing a wide range of technologies for the benefit of consumers in Switzerland. Swisscom puts its infrastructure, innovative services and know-how at the disposal of people and companies alike. By introducing Fibre to the Street (FTTS) and Fibre to the Building (FTTB), combined with the new G.fast transmission standard, Swisscom is taking the next step into the future of telecommunication.

Switzerland enjoys a positive investment climate with regard to communications infrastructure. Swisscom alone invests more than EUR 1.5 billion a year in its IT and network infrastructure. That's about EUR 200 per head of population and puts Switzerland at the top of the world's investment league table. Aside from classic telecommunication companies, other players are also contributing to the country's high-quality broadband coverage, including 250 cable network operators and about 20 power utility companies. With about 99% coverage at 30 Mbps, Switzerland is already close to achieving the broadband objectives of the EU's Digital Agenda 2020. And all without any state subsidies whatsoever.

Municipalities need an efficient broadband network

Swisscom has decided to expand FTTS as well as test the new G.fast transmission technology in Bibern in the municipality of Buchegg, canton Solothurn. Buchegg may be the third-largest municipality in the canton by surface area, but with only 2,500 inhabitants, it is far from having the biggest population. Alex Mann, municipal councillor in Buchegg: "Time and time again, the rural character and sparse population of our municipality pose a significant challenge to infrastructure projects. Buchegg is the result of a combination of ten previously autonomous municipalities in early 2014. Since then, there has been a significant disparity in the bandwidths available across the municipality." In some parts, residents already enjoy very good coverage with high bandwidths, while in others, they have to rely on alternative technologies such as satellite or mobile network solutions.

Alex Mann also points out the importance of an efficient broadband network as a location factor to people and companies: "People expect more and more every year. Even in rural areas, a fast internet connection is now often considered a basic requirement, driven mainly by young families and new working models such as home office. But also modern, well-equipped agricultural enterprises and small business increasingly need stable and fast internet connections. For example, they have to submit production data to the authorities by electronic means. Therefore, an efficient broadband network is an important location factor for any municipality in today's world." Initially, the municipal council had toyed with the idea of its own fibre-optic network. But Swisscom's FTTS expansion plans ultimately convinced the decision makers. "We eventually came round to a different way of thinking. For a long time, we considered an FTTH network to be the only option to meet current requirements; However, Swisscom was able to convince us that FTTS would also provide a sufficient solution for the coming years. And to have been chosen as one of the first municipalities in Europe to test the new G.fast transmission technology makes us quite proud."

Huawei and Swisscom: a partnership for the future

G.fast, the successor of VDSL2, uses a wider range of frequencies (up to 106 MHz) on existing copper lines for data transmission. This allows transfer speeds of up to 800 Mbps over short distances under ideal conditions. One novel aspect of this technology is the use of separate time slots for upstream and downstream communication instead of dedicated frequency bands (Time Division Duplexing). The higher frequencies used by G.fast cause strong cross-talk between the individual copper pairs of a cable, requiring improved vectoring algorithms.

This new transmission technology arose out of a European research project that eventually led to standardisation efforts. Swisscom and its technology partner Huawei promoted the standardisation of G.fast from very early on, adding Swisscom's own requirements for G.fast. The International Telecommunication Union (ITU) approved G.9701, the G.fast standard, at the end of 2014. This is a decisive factor for G.fast's success because it defines how network elements and end-user devices must interoperate to exchange data. Together with Huawei, Swisscom ran through various deployment scenarios which resulted in requirements for the technology and lead to the development of initial prototypes of G.fast-capable Micro-CANs. Since April 2015, Swisscom is running field test with G.fast Micro-CANs in the municipality of Buchegg.

Come and meet us at the Broadband World Forum
Want to find out more about our experiences with G.fast? Then come and meet our partner Huawei at the Broadband World Forum 2015 in London.

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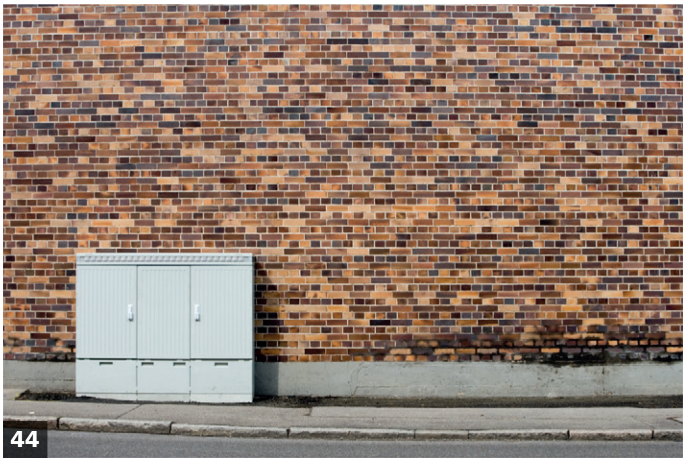
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Fibre survey: Competition driving the market, but is it a race to the bottom?

The telecoms industry is happy to admit that competition is the most significant driver for operators to deploy fibre broadband technology. European Communications' first in-depth survey into fibre shows a majority of respondents, 42 percent, said this was the case (see Fig.1).

A desire for new revenue, chosen by 14 percent of respondents, and current demand from retail customers, 13 percent, were the next most popular answers.

Oliver Johnson, CEO of research house Point Topic says: "Concerned that their competitors, particularly the cable industry, will be able to claim significantly more speed, the non-cable based operators have been pushing forward plans for higher bandwidth deployments.

"However, this is in danger of developing into a feedback loop independent of what is happening in the consumer space. Having trained an audience to compare offerings on price and bandwidth the industry is now reaping what has been sown.

"Prices and margins continue to be squeezed while the emergent demand for more than 50Mbps down and 10Mbps up is lower than many predicted."

Jeff Heynen, Research Director, Broadband Access and Pay TV, at analyst firm IHS, adds: "You don't have to look any further than the US market for proof [that competition is the primary driver for fibre upgrades].

"Google Fiber, despite having limited rollouts and subscribers, has already forced Time Warner Cable and AT&T to increase their own fibre offerings in response. I would suggest that Google Fiber as a catalyst might end up being more successful than Google Fiber as an actual service."

Interestingly, operators view new pure fibre players like Google Fiber and Euro-

Fig.1 What do you think is the most significant driver for operators to deploy fibre?

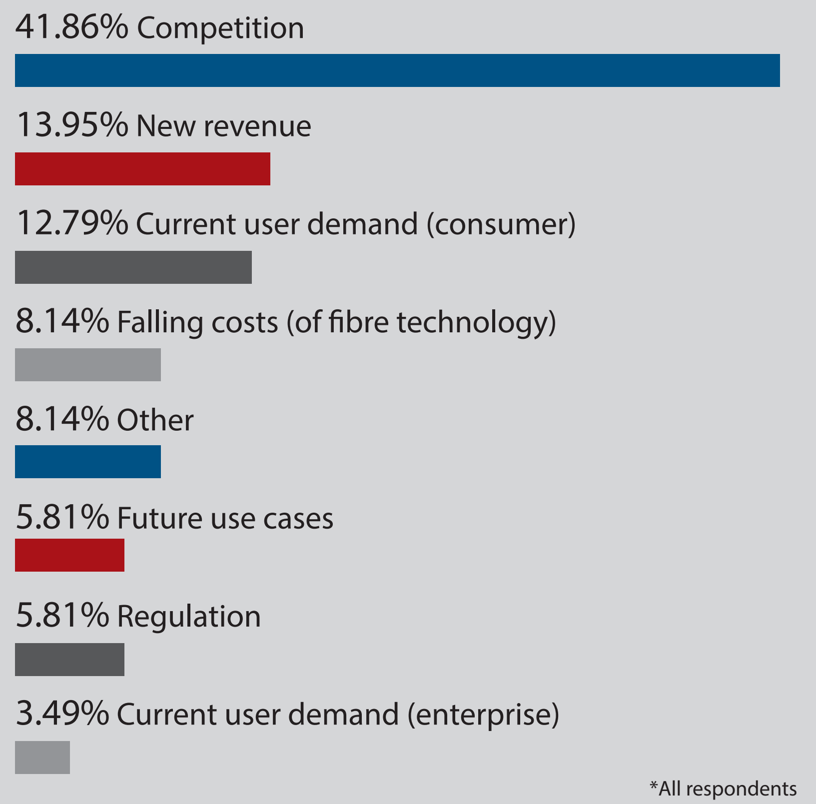


Fig.2 Which of the following do you regards as more of a threat to your fixed broadband business in the long term?

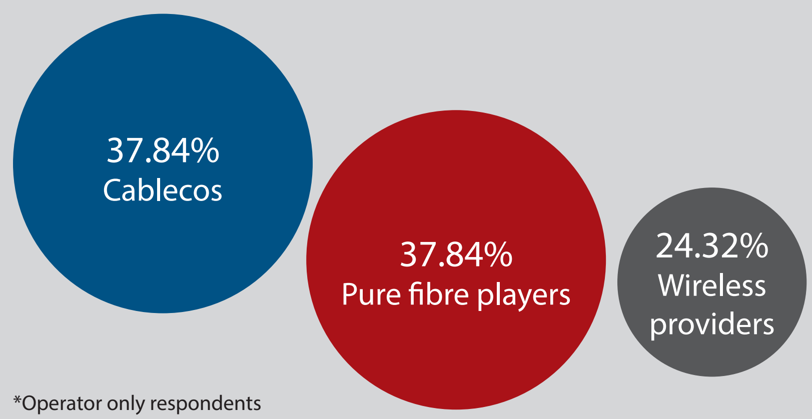
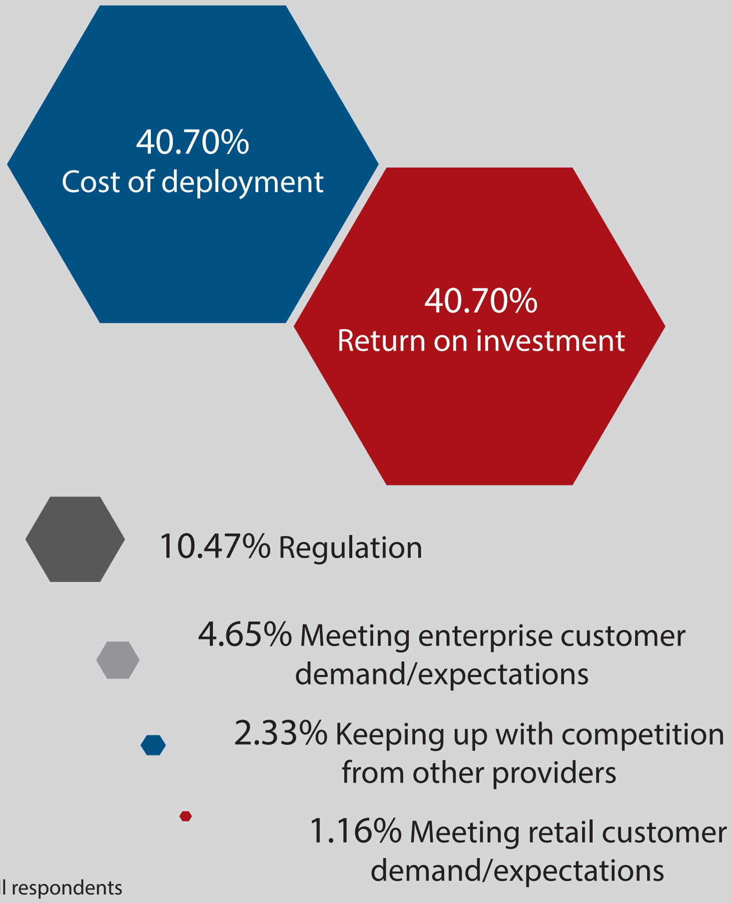


Fig.3 What do you regard as the biggest challenge currently that operators face as they deploy fibre?



*All respondents

pean peers such as CityFibre and Hyperoptic in the UK and Altibox in Scandinavia, as just as threatening as cablecos.

When asked who they regard as more of a threat to their fixed broadband business in the long term, cablecos and pure fibre players came out joint top with 38 percent each (see Fig.2)

Returning to present day challenges, RoI and cost of deployment were cited as the most significant for operators deploying fibre. They came joint top with 41 percent of the vote each. Regulation came a distant second with 10.5 percent (see Fig.3).

Operators put cost of deployment ahead of RoI when their answers were looked at in isolation.

Johnson says: "Concerns about the cost of deployment and RoI stem from the demand uncertainty (coupled with regulatory issues and single digital market doubts).

"It's certainly the case that changes in assumptions about what people will want today and in five years has redrawn the deployment tactics of a number of players.

> "Prices and margins continue to be squeezed"

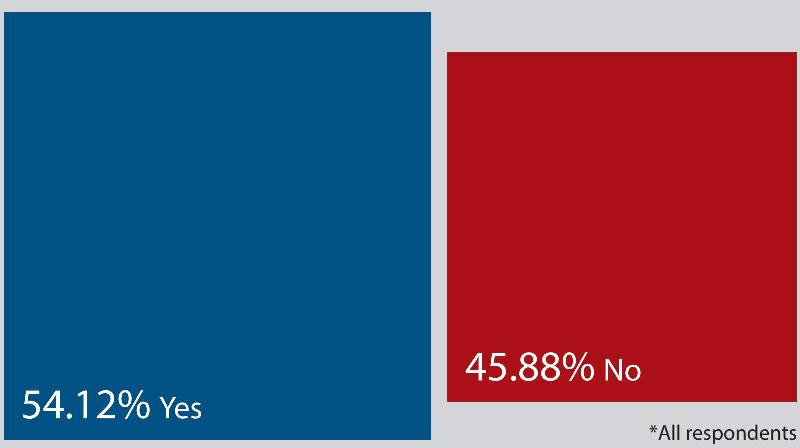
"The opex for end-to-end fibre is more attractive than hybrid networks but until the capex comes down, particularly in the five year horizon, for fibre deployments there will continue to be doubts and reticence on committing to a strategy and timetable."

Heynen adds: "Though technology improvements have helped reduce labour costs, the cost to deploy FTTH remains high. Also, the deployment is in terms of single homes, as opposed to an entire neighbourhood, so the cost savings don't scale as well."

To be FTTH or not to be FTTH?

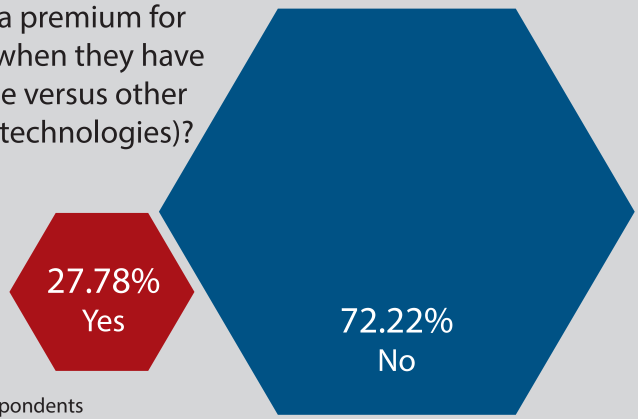
The industry is split on whether FTTH is the future. Although a majority of all respond-

Fig.4 Do you believe that 100% FTTH is the end goal that operators should be aiming for in their fixed network infrastructure?



*All respondents

Fig.5 Do you think retail customers are happy to pay a premium for FTTH (when they have a choice versus other access technologies)?



*Operator only respondents

ents, 54 percent, believes that 100 percent FTTH is the end goal that operators should be aiming for in their fixed network infrastructure, operators themselves are less sure (see Fig.4).

When operator responses are viewed in isolation, 58 percent said a pure FTTH network is not the end goal.

Said one respondent: "They should but they won't. In the current regulatory framework, it will be not economically viable to do it."

Said another: "Yes and no really. It's a nice headline goal but it isn't realistic in any time frame that we'll live to see for Europe. G.Fast (and what's coming after that) are good examples of what makes it possible to continue to sweat the copper. Plus how future proof do you want? Some copper has been in the ground for 50 years and more. It's unlikely to be the same for fibre."

Heynen comments: "Europe is unique in the amount of copper that remains available to end customers, as well as loop unbundling and line-sharing requirements that make it difficult to justify the extra costs associated with FTTH deployments. Technologies like G.Fast wouldn't have been developed if it weren't for the unique requirements of European access networks."

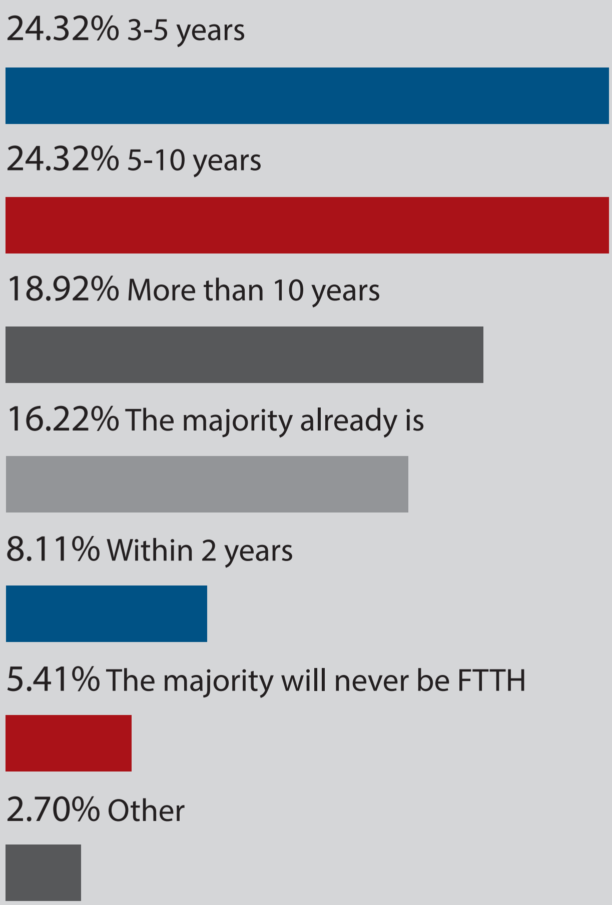
Operator reticence could be explained by the fact that a majority does not think retail customers are happy to pay a premium for FTTH when they have a choice.

Just 28 percent are confident that subscribers will pay more (see Fig.5). Said one respondent: "It depends on the plan. Early adopters will pay more, but if you're mass rolling out fibre in an area and the customers know this, the attitude towards differentiated pricing changes."

Said another: "It really depends which competing technology is in place. If it gives 10Mbps, people [in my country] look at price no matter which technology. Content may significantly influence the success. Especially IPTV with exclusive content can be a driver for extensive utilisation of FTTx."

Johnson comments: "Once FTTP was

Fig.6 Realistically, how long do you think it will be before the majority of your fibre network infrastructure is FTTH?



*Operator only respondents

the only gold standard way to go. The pessimism about its performance/desirability versus other technologies is revealing and runs counter to what now seems forced optimism from some quarters."

Looking ahead, operators expect it will take anywhere between three and 10 years before the majority of their fibre network infrastructure is FTTH-based (see Fig.6).

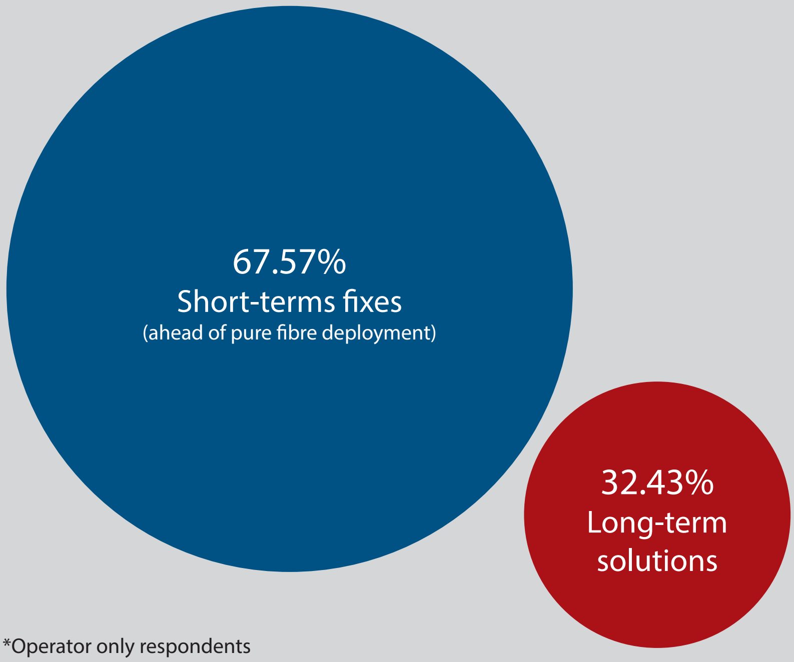
Twenty four percent said it would be in a three to five year timeframe while another 24 percent said it would take five to 10 years.

Almost one in five, 19 percent, said it would take more than 10 years, while 16 percent claimed the majority of their fibre network is FTTH-based already.

Meanwhile, operators are of the opinion that technologies such as G.Fast and vectoring are short-term fixes rather than long-term solutions.

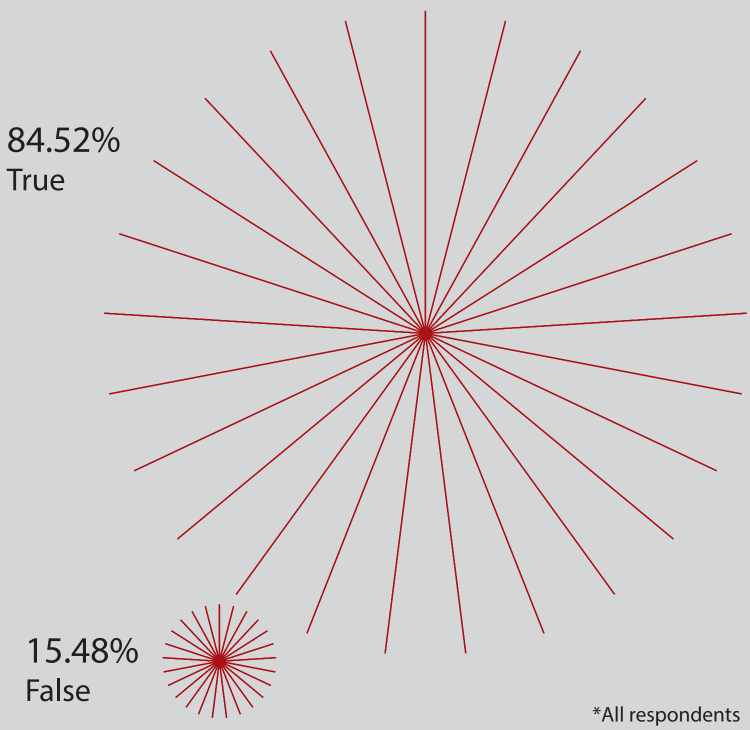
More than two-thirds, 68 percent, said they regarded such technology as a quick solution ahead of a pure fibre deployment (see Fig.7).

Fig.7 With regards to technologies such as G.Fast and vectoring, do you regard them as being short-term fixes or long-term solutions?



*Operator only respondents

Fig.8 True or false, operators have failed to deliver adequate fibre broadband services to rural customers



*All respondents

Said one respondent: "Copper-based topologies are very distributed and inefficient operationally. The reach and centralisation opportunities with fibre help reduce operational costs massively.

> "Europe is unique in the amount of copper that remains available to end customers"

"Reliability - over dedicated transport bandwidth to the customer, unaffected by electrical interferences, the weather or the alignment of the stars - makes a fibre network a complete no-brainer in terms of operational support and confidence in what is being delivered, and customer satisfaction in the knowledge that they are getting what they pay for."

Heynen says: "G.Fast and other short-loop technologies are intended as stopgaps to balance the long-term investment in FTTH. But I also think that G.Fast will perform well-enough in specific environments that it will remain a major part of operators' access technology portfolios."

A rural let down

The industry is in agreement that operators have failed to deliver adequate fibre broadband services to rural customers. More than 84 percent of respondents agreed with this premise (see Fig.8).

Johnson says: "Commercial organisations will recognise the shortfall in rural areas but it's not their concern as a company. Without suitable subsidy they won't deploy. Why should they in effect subsidise the government and population unless regulated to do so?"

As such, the industry refutes the notion that operators have made a mistake by targeting dense, urban areas for fibre deployment rather than rural areas.

Just 27 percent of respondents agree with this premise (see Fig.9)

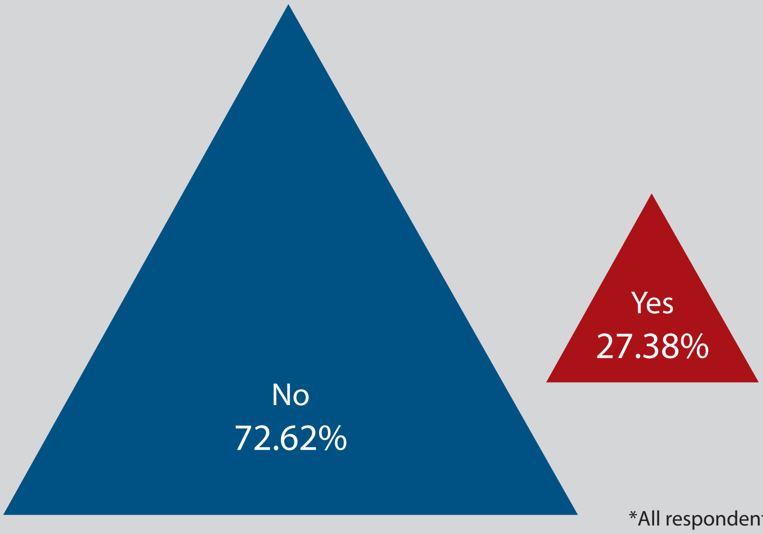
Said one respondent: "At least for Germany, the answer is an unmitigated yes. Many professionals and SMEs are located in rural, rather than urban, areas. For the country to stay competitive, said users will depend on FTTH-based broadband access."

However, another respondent said: "[The] business case makes it difficult to target rural areas. It's a difficult justification from a business case point of view. It's more of a social obligation argument, hence the EU directives."

Another respondent commented: "Generally, urban areas have higher competition and more wealthy people around, so it is reasonable to go for those, even if it may be frustrating for people in rural areas."

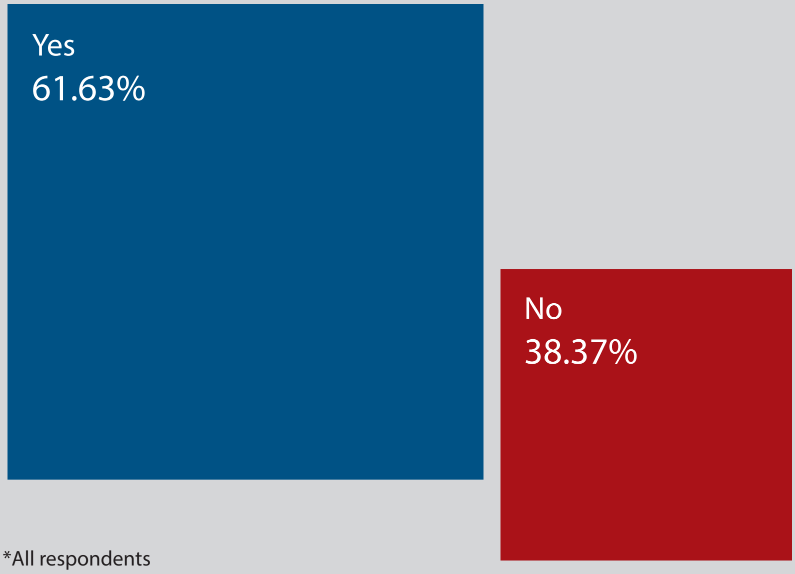
"Would a different approach have been more beneficial from a national economics point of view? Maybe, but that's more an issue for the governments to take care of." ec

Fig.9 Do you agree that operators have, in the main, made a mistake by targeting dense, urban areas for fibre deployment rather than rural areas?



*All respondents

Fig.10 Are you confident that your country will meet the Digital Agenda target of providing broadband speeds of 30Mbps to everyone by 2020?



*All respondents

About the survey

Ninety four respondents took part in our online survey in April and May 2015. Forty five percent were operators, 24 percent were vendors with the remainder consisting of third parties such as analysts, consultants and regulators.

From a geographical perspective, 79 percent were from Europe, 9.5 percent from the Middle East and Africa and 7.5 percent from Asia-Pac. The remainder came from the Americas.

Industry remains confident of meeting Digital Agenda targets

Fig.11 Are you confident that your country will meet the Digital Agenda target of half of subscribers being able to access broadband speeds above 100Mbps?

*All respondents

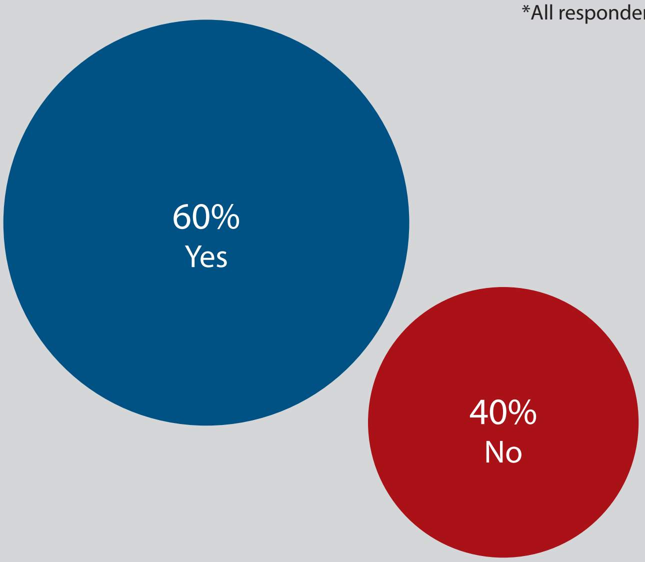
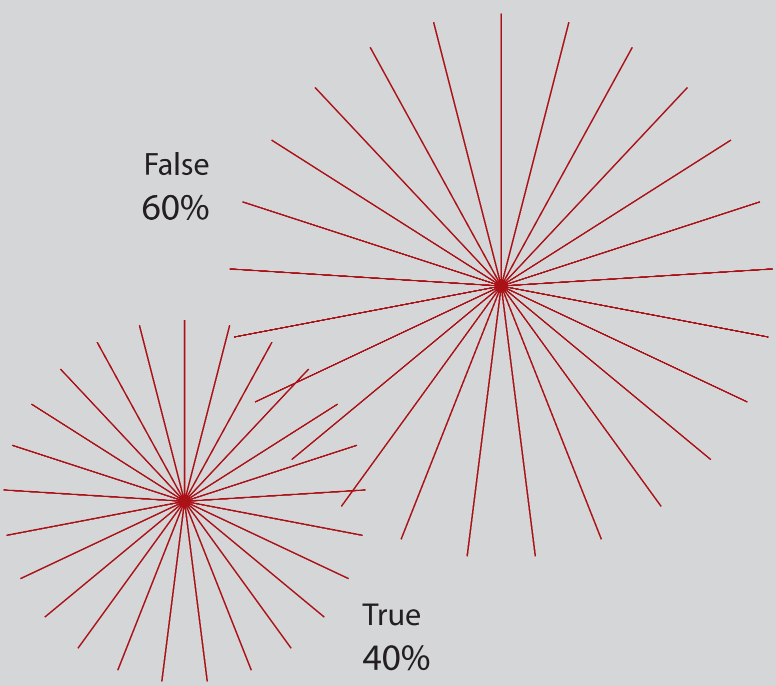


Fig.12 True of false: Digital Agenda targets can be met without FTTH tech

*All respondents



The telecoms industry is confident that it will meet the broadband targets set out in the Digital Agenda. Almost two-thirds, 62 percent, said they are confident that their country will provide broadband speeds of 30Mbps to everyone by 2020 (see Fig.10).

When operator only responses are considered, this rises to 74 percent.

However, one respondent warned: "Rural areas will be an issue; almost 40 percent of Slovakia's population lives in countryside and it will be challenge to cover all the villages. Importantly, the government is not able to spend EU funds to achieve this target."

Nevertheless, 60 percent believe that that their country will be able to offer half of subscribers access to broadband speeds above 100Mbps (see Fig.11). ALL This rises to 65 percent when operator only responses are considered.

But one respondent said: "This would mean an aggressive FTTH roll out in major cities; there is no evidence that operators would risk such an investment."

Oliver Johnson, CEO of research house Point Topic, adds: "Although we think the 100Mbps take-up (50% of households subscribing) will be a close call the coverage targets will definitely be missed."

If they are to meet both targets, the majority of the industry is convinced it will need FTTH technology. Six in 10 respondents said it would not be possible without FTTH (see Fig.12).

Of those that think it is possible without the next gen technology, there is an acceptance that it will come at a price.

Said one respondent: "[It is possible], but it may come at a cost. High speed broadband can be achieved in a few ways, but it's the local environment that determines the costs. A VDSL or G.Fast deployment will cost well in excess of a PtP fibre topology."

Fibre is "an essential" competitive factor

Q&A with Pierre Louette, Deputy CEO, General Secretary, Operators (France) and Purchasing

European Communications: You have announced plans to triple spending on fibre technology over the next five years; is this an admission that you have underinvested in the past?
Pierre Louette: Not at all. Fibre, and the deployment of high-speed networks, lies at the heart of our strategy in France and Europe. We are the market leader in France in terms of deployment throughout the country and we firmly intend to remain so.

We have already deployed fibre to over four million connectable houses at the end of April 2015. We are in fact accelerating this deployment with our recent announcement – it is our intention to increase this to 12 million in 2018, and 20 million in 2022 (the final year of France's very high-speed broadband plan).

For areas located outside the reach of this programme and where fibre will not be deployed in the medium term, Orange is offering a broad range of alternative solutions to increase broadband speeds and facilitate the movement towards very high-speed broadband.

You are spending €1.5 billion in markets outside of France; which market do you see as offering the most profitable opportunity and why?
FTTH is a profitable investment in France, Poland and in Spain. The most profitable opportunity is in Spain where Orange does not own a wide fixed network.

Orange Spain [has been] leading fibre broadband market growth since Q2 2013 and in Q1 2015 we maintained positive commercial momentum with 50,000 net adds and an increase of 13.4 per cent year-on-year customer base growth.

FTTH deployment is done both through our own deployment and co-deployment in co-ordination with our partner Vodafone. Following Vodafone/ONO consolidation and Orange's expected acquisition of Jazztel, we have redefined areas of roll out to optimise shared and owned FTTH roll-out avoiding overlaps.

So far, we have already covered almost one million households with Vodafone and we have launched a second wave to reach three million households, added to that Jazztel's 4.5 million households and additional coverage - our ambition is to reach 10 million households by the end of 2016.

FTTH deployment will allow Orange Spain to migrate ADSL customers to fibre offers, increasing ARPU for both convergent and non-convergent offers. FTTH will also develop new use cases and services such as Smart Home, Multi-room HD TV and Cloud Gaming.

This project is a value generator for Orange Spain as it will allow to both increase the number of mobile subscribers, as most of the fibre customers will have convergent offers, but also have significant gains on network OPEX through proactive migration of ADSL customers to our own fibre network.

What is driving this current investment increase?

Fibre is an essential competitive factor. We see increased consumption of digital services such as video on demand among fibre homes. If you look at the market today, a third of French households have four types of screens (TV, computer, mobile phone, tablet) on average.

An essential contribution of fibre is its symmetrical speed and therefore the ability to exchange data, videos, files and such content very effectively. Switching to fibre enables the use of multiple monitors simultaneously – up to 50 times faster than ADSL. By their very large transmission capacity in both directions, fibre optimises this sharing of personal or professional documents.

Additionally, Orange is offering its customers Orange Cloud (up to 100GB) as part of its fibre offer, so Orange customers can quickly store and retrieve their content online at no additional cost.

For consumers and businesses alike, the benefits of fibre are reflected in the take-up. We have over 630,000 fibre customers in France, 75,000 of which were added in this last quarter. We are experiencing similarly strong results in Spain too, with over 110,000 customers in Spain at the end of March.

Do you see a better ROI today or is it in reaction to what the competition is doing?

According to a first assessment by (France's regulator) ARCEP, FTTH performance is three times that of cable in terms of responsiveness, benefiting internet surfing, online gaming and social networking. The cable-based solutions our competitors are offering provide a latency closer to that of ADSL access so we really believe that only FTTH is able to meet the demands required today and in the future.

Technically, the flow rates of optical fibre are up to 50 times faster than ADSL and up to 1Gbps, which we believe will foster the emergence of new media and internet usage. The unique capacity of fibre networks will increase opportunities in, for example, access to services such as telemedicine, tele-education, tele-training and tele-working, among others.

We believe that FTTH is the only technology that will effectively bring such superfast broadband services to a customer's home, at a competitive rate that is affordable. Complementarily, availability of fibre-to-the-office will increase exponentially as urban centres are equipped, bringing businesses a raft of new services and benefits.

Who do you regard as your biggest competitor: cablecos or rival telcos?

Both to a degree but this is market dependent, especially in markets like France where some of our competitors unfairly benefit from tax and regulatory asymmetry. That said, we believe that market consolidation will really erase the distinction between the two kinds of players.

We are seeing a number of new fibre providers spring up, from Google Fiber in the US to companies such as CityFibre in the UK. What is your assessment of these new competitors?

The arrival of new competitors like these helps confirm that our strategic choice and direction is the right one to follow. It shows that there is a demand from customers for higher speeds and, correspondingly, the arrival of such players also shows that there is opportunity to develop the business around fibre provision further.

Google and CityFibre are pursuing different goals. CityFibre is addressing the wholesale market: they provide fibre infrastructure for service providers, mobile network operators, local authorities and businesses throughout the UK, whereas Google is addressing the retail residential market in the US.

Google has already rolled out its fibre in three cities and plans to deploy fibre networks in 30+ Cities (Kansas city, Austin, Provo, Atlanta...) in the US. Though Google has attractive service plans (Google: 1 Gbps Internet at $70/month versus Verizon: 500 Mbps at $300/month), for the moment it is not representing a threat to ISPs with only 27,000 subscribers.

> "Fibre is an essential competitive factor"

There are now a wide range of fibre technologies in an operators toolbox: are you happy with what's available from the vendor community or would you prefer more/less choice?

Yes, there is a full portfolio of technical solutions and we need this set because there are issues such as different legacy situations and different regulations that we need to deal with. There are still some technologies under development, in particular G.Fast that we would like to see available on a larger scale. On the whole though, we feel that we have the right technical solutions available.

Fibre broadband is a key topic of the current negotiations over the Connected Continent reform. What is the most important measure you would like to see enacted?

We have been saying for a few years now that the regulatory framework should put investment as a number one priority. While we can regret Digital Single Market could have been more ambitious on this topic, the current draft seems to have reached a balance on the roaming and Net Neutrality issues. What is important now is not to jeopardise this balance with political moves which would make no sense on the industrial field. ec

** This interview took place before Orange's takeover of Jazztel was formalised.*

Operators mix it up as cost concerns continue to weigh heavily on fibre deployments

David Craik assesses how operators in Europe are aiming to meet Digital Agenda targets and keep up with the competition as customers binge on broadband

According to the EU's Digital Agenda, all citizens should have access to internet speeds of above 30Mbps by 2020, while at least half of European households should be subscribing to internet connections above 100 Mbps.

While the EU targets are all about speed, they fail to mention the technology that will provide them.

Data from industry body Cable Europe shows that 17.9 percent of the EU's 151.1 million broadband customers have access via cable, including DOCSIS 3.0. The majority, 72.2 percent, still gets its broadband via DSL, which includes VDSL technology.

Just over 12 million homes are subscribed to FTTH/B, according to the FTTH Council Europe's latest figures.

Ovum Analyst Luca Schiavoni believes the 30Mbps coverage target is not too far off but the 100Mbps target is further away as just over six percent of broadband connections reached that speed last year.

He says: "Countries are different in terms of infrastructure legacy and geography. In some it has been easy to deploy fixed next generation access whereas in others it is more challenging. Some countries, mainly Italy, have little or no cable and little infrastructure competition. Significant investment will be required there likely to entail public funding if the gap is to be filled on schedule."

Rupert Wood, Principal Analyst at Analysys Mason, adds: "In Spain and Portugal, helped by a system of regulated duct access, FTTH has been relatively inexpensive to do. Scandinavia has also gone straight to the home. In Northern Europe they have focused on FTTC as they think it is quicker to roll-out to help them compete with cable.

"The UK is probably not going to meet the 100Mbps targets unless gigabit providers CityFibre and Hyperoptic get significant share or if Vodafone does something interesting."

The telcos rely on the technology of companies like Alcatel-Lucent. The vendor's Head of Fixed Access Marketing, Stefaan Vanhastel, agrees that the slow take-up in certain regions has been about cost and time to market.

> "The key issue for any FTTH build is access to physical infrastructure"

He says: "To get FTTH you need more cost-effective equipment, a lot of floor space, air-conditioning units and power costs. It also takes hours for an engineer to drill walls in an old European building and install. Point to multi-point or the cabinet means a lot less power consumption. It is cheaper than fibre. FTTH also takes time to roll-out, between 10 and 20 years, to 'fibreise' an entire country."

However, he adds: "The 30/40Mbps of VDSL was enough to compete with cable in 2008 but not enough in 2014 to compete with cable and fibre."

Does that leave operators between a rock and a hard place? Hartwig Tauber, the FTTH Council's Chief Executive, says: "The big risk is that we reach the 2020 targets with the cheapest and easiest to install technology."

He was keen to stress that he is not "bashing telcos" with these comments.

He explains: "You have to realistically look at what they can and can't do. They are now stocklisted companies and their main target is to make shareholders happy. FTTB and FTTH take long-term investment and they are not ready for that. Another challenge is that the politicians all lean back and say the incumbents will do it. But they need financial investment in long-term infrastructure and ways of finding pension fund and structural investors."

Variety reflects uncertainty

The variety of existing and new techniques and approaches that operators are trying reflect the uncertainty.

Telecom Italia has announced a new Superfibra service this year as part of an investment drive based on its FTTC network and offering 50Mbps for downloads and 10Mbps for uploads. That's three times faster than present speeds.

In Ireland, eircom has just sealed a deal with Huawei to construct a 1Gbps FTTH network for 66 communities by 2016. At present, eircom uses FTTC technology to around 1.1million homes and business promising speeds up to 100Mbps.

Belgium's Proximus says it will remain focused on its nationwide vectoring VDSL2 network provided by A-L. It has around 1.2 million broadband customers at present.

By December 2014, BT's FTTC network was available to around 22 million UK premises. The operator is now looking at the VDSL2 successor known as G.fast, which promises closer to the home FTTC technology at higher speeds of up to 500Mbps. It is testing G.fast in two pilot locations with plans to deploy it in 2016.

According to the latest figures from Swisscom, by the end of 2014 it had connected over 1.4 million homes and businesses with ultra-fast broadband from FTTH, FTTB, FTTS (fibre to the street) and vectoring technology. It is targeting over 4.6 million by 2020.

"As we push the FTTS and FTTB rollout, we're rolling out FTTH too just in lower quantities than originally planned and mainly in larger cities," says Swisscom Communication Consultant Said Rassouli. "FTTS and FTTB allow us to reach our ultrabroadband goals faster and with lower costs."

The operator is also looking at the development of G.fast. "The implementation of vectoring and G.fast, coming in 2016, are important measures to gain more bandwidth out of our copper network," according to Rassouli.

Deutsche Telekom is also using a mixture of technologies to reach its aim of 80 percent of households with superfast internet access by 2018.

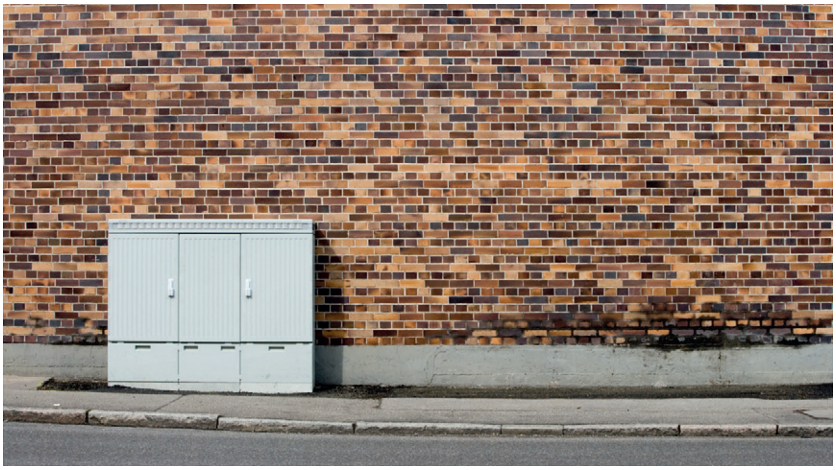
"We will evolve our offerings from a bandwidth and economic perspective to bridge the gap to competitors bandwidth offerings. We are currently targeting to deploy 'Super Vectoring' in selected markets according to market demand," says Christian Fischer, from DT's corporate communications team.

"The question is how to get there – the architecture of the networks itself will change. The data centres are moving closer to the customers. The core network between them consists of fibre. The access network has to guarantee that the customers are always best connected.

"Sometimes we will use G.Fast, sometimes Super Vectoring to connect them, based on the individual regional situation. We simply don't have to focus on one technology, we choose the one which will connect our customers best."

Is G.Fast a quick fix?

Some operators are thinking outside the traditional toolbox. Vodafone Ireland is teaming up with energy company ESB to invest €450 million to create a FTTB broadband network. The fibre will be deployed on ESB's existing overhead and underground infrastructure to reach 500,000 premises in 50 towns by



2018. Open access will be offered to all telecoms operators in Ireland on a wholesale basis. It will offer speeds from 200Mbps to 1Gbps.

Analysys Mason's Wood says: "The key issue for any FTTH build is access to physical infrastructure i.e. ducts, underground spaces and aerial poles. ESB had recently renewed its entire aerial distribution network in Ireland, and foresaw the possibility of monetising it by opening it to telecoms.

"The JV is to invest €450 million to pass 500,000 premises in 50 small towns. €900 per premises passed is a lot of money, and the JV may struggle to get the take-up of FTTH needed to achieve pay-back."

Meanwhile, cable operators are looking at new DOCSIS 3.1 technology, which promises higher download speeds of 10Gbps. The UK's Virgin Media is preparing for trials later this year. It expects to get 1Gb initially and up to 10Gb in the future.

Tauber of the FTTH Council sees more telco incumbents reacting to this enhanced cable competition by going down the G.fast route. "G.fast is just another step in between but it is a technology we are willing to count as a fibre solution if it is in a building's basement," he explains.

"The big challenge is the distribution point. It is still hundred metres outside of the building so you will still have some issues regarding bandwidth like VDSL. But it is helping incumbents who are finding quick solutions to compete with cable and gigabit providers."

Michael Weissman, VP of Marketing at G.fast chip provider Sckipio, says European telcos are queuing up to use the product. "Telcos have long been losing share to cable because of speed. They like G.fast because it is less expensive and can be deployed seven times faster than FTTH," he says.

"G.fast gives you around 70 percent of FTTH without the installation in the resident's home. I can't name names but I was at dinner last week with six telcos from Europe all talking about G.fast. They have all been testing it in the lab."

Robin Mersh, CEO of industry body the Broadband Forum, says the tech is the best copper and fibre mix out there currently. But he warns: "G.fast is not necessarily the final piece. I think we will end up with a group of technologies including G.fast, FTTH, the gigabit providers and VDSL which will answer different needs."

A-L's Vanhastel agrees: "It is no longer about the religion of one technology. Now it is more of a pragmatic combination of the technologies. You look at the circumstances – is it a modern building, can I bury fibre, is it rocky or sandy ground? – and then use those parameters to find the right solution."

Sckipio's Weissman concludes: "One telco provider said to me: 'You think we are doing nothing but this is the fastest we have ever deployed anything'. Telcos have a heavy infrastructure and it takes a lot of energy to move in a new direction. They are thorough in their analysis." ec

The pretenders to operators' fibre crown

New players with a slick line in marketing are shaking up the fibre game. How should telcos react, asks David Craik

York and Peterborough are similar English provincial cities, boasting beautiful historic cathedrals, middling to poor local football teams and are at the vanguard of ultra-fast fibre communications in the UK.

The two cities, as well as Aberdeen, Edinburgh and Coventry, have been chosen by fibre optic infrastructure designer, builder, and operator CityFibre as its Gigabit City projects. They aim to offer fibre deployment directly to businesses, mobile operators, public sector organisations and, in the future, to the home.

Its official blurb states: "Without the bottlenecks that exist in traditional networks, an ultra-fast fibre infrastructure will future-proof a city, offering superior quality of service and higher speeds as demand for bandwidth increases".

CityFibre recently announced that its move to build a city-wide, pure FTTP network in York, as part of a joint venture with Sky and TalkTalk, had completed its first phase of construction. The network is currently being deployed and tested, with Sky and TalkTalk services to be launched later this year.

Also in the UK, Hyperoptic is working on bringing full fibre optic gigabit broadband direct to multi-dwelling buildings such as apartments and offices.

It says if enough residents show support for installation by registering online it connects its fibre network to a building with cable running "discreetly" to each home or office unit.

Twelve UK cities, or 'hyper-cities', where the services are currently installed include Liverpool, Leeds, Greater London and Glasgow.

It states: "Most 'fibre broadband' services are not fibre broadband. They are fibre and copper and stop at the cabinet. The copper really spoils the fun so a consumer doesn't get the advertised speeds and the service is subject to peak-time slow-downs and distance attenuation. As a technology it's 140 years old."

Elsewhere in Europe, providers such as Norway's Altibox, part of utility giant Lyse, are also offering gigabit services direct to the home. It set out a target to gain 28,000 customers by 2017. By 2014 it claims to have customer numbers of around 364,000.

In the US, Google has been offering its gigabit fibre service since 2011 when it began in Kansas City. It is currently working with 34 cities in nine metropolitan areas as part of its expansion plans.

These new fibre firms are offering customers speeds they have never come close to experiencing before with their existing providers and are using clever buzzword marketing techniques.

So how big a threat are they to telcos, also striving to improve fibre connections and speeds, and how should they react?

Forced reaction

Stefaan Vanhastel, Head of Fixed Access Marketing at Alcatel-Lucent, says the new providers have forced telcos to react and quicken up their implementation of fibre to the home through searching for new faster techniques such G.Fast.

This competitive reaction has certainly been notable in the US, with AT&T ramping up its investment in fibre connectivity and promising speeds of up to 1Gbps in towns such as Kansas City and Austin, Texas.

European telcos also seem to be upping their game when it comes to speed but they seem reluctant to talk about the new gigabit competition. A spokesperson for Belgium's Proximus - one of the few telcos that did respond to questions on this issue – would say only: "We know that these players install fibre in the UK and Scandinavia independently from telecom operators. Of course we follow these and other evolutions in the market."

Swisscom spokesperson Said Rassouli was more revealing: "We don't see these new players, which in Switzerland are mainly local utility companies, as a threat. We are actively seeking co-operation with such players regarding infrastructure and competition on services."

It's a point picked up by A-L's Vanhastel: "Some cities are seeing an opportunity to build their own fibre networks through these new companies and we will see more do it. You can run those networks but you still need services and content providers and telcos will be invited to put theirs on. So telcos could get access to a full fibre network without the cost of creating it."

CityFibre, as seen in its JV with Sky and TalkTalk, is eager for partners. "We were formed to address the lack of good quality fibre access in regional towns and cities outside of London," says co-founder Mark Collins.

"But we are a wholesale owner with no plans to offer retail services. Our network will be used by other service providers, such as business ISPs and telcos. In fact anyone currently using BT Openreach is a target customer. Service providers should see us an opportunity and indeed wherever we go we are being welcomed in by the telcos. They don't own a lot of their own infrastructure and lack the economies of scale to make the investment in it. To get the right returns they need a shared wholesale infrastructure."

Of course, when analysing these new players there are some caveats. Vanhastel questions the consumer need for 1Gb speeds.

"These new service providers are using 1Gb as a fantastic competitive and marketing weapon to draw consumers in," he says. "But from an engineering point of view end-users don't need those very fast speeds yet. The magic number at the moment for people using services such as TV in the home is 100Mbps. One gig has come too early."

Rupert Wood, Principal Analyst at Analysys Mason, agrees. "The consumer need for gigabit speed is spurious but telcos will still believe that trying for those speeds will boost the appeal of their services. However, increasingly operators will look at the quality of the bandwidth," he states.

"In the end if you offer 76Mbps or 1Gb it won't make a lot of difference at the moment to you streaming Netflix at 15Mbps."

He believes the new providers offer some promise but at present it is largely "unrealised promise".

> "CityFibre is an interesting approach and with Sky and TalkTalk it could get a high consumer conversion rate"

Indeed, Google Fiber's rollout in the US has been criticised for being too slow with the company unwilling to disclose how many customers have access and how much it has spent to date.

Some analysts have put the cost at $84million so far. The UK providers are also at the very beginning of their roll-outs.

Invest, partner of acquire?

"CityFibre is an interesting approach and with Sky and TalkTalk it could get a high consumer conversion rate," Wood says. "But what is the pay-back period for these new players from their networks? Thirteen or 14 years? Most telcos look for three-year returns. As for Google they are talking the talk but haven't done very much yet."

He says Altibox has performed well with 60-70 percent conversion rates in Norway helped by a lack of competition in rural areas.

"Telenor is really stuck. They've been focused on mobile but now they are thinking what can we do to claw our way back?" Wood says. "Other than an acquisition of Altibox what can they do? Remember Altibox is just a brand owned by a power generating company. It is not impossible that it could go up for sale. Fibre roll-out costs are expensive and it is difficult to know how commercially viable these will be in the real world."

He highlights the sale of Dong Energy's fibre communications network to TDC in 2009.

"At the time Dong was doing FTTH in Denmark but the owners decided since it was loss-making they would sell it," he states.

Hartwig Tauber, Chief Executive of the FTTH Council Europe, mentions Holland's KPN buying fibre optic provider Reggefiber in 2011 and raises the prospect that some networks will be built for the sole purpose of being bought by an incumbent.

"They build a network to a size which is a real threat and telcos have to buy it to get rid of it," he says. "Telcos don't like the primary risk of building the infrastructure. They buy a network already with customers meaning lower risk. It can be win-win for both."

CityFibre's Collins is eager to answer some of these points. "In York we have the opportunity to prove the economies of deploying the network. Our advantage is that our technology is superior to cable and FTTC and at a very competitive price-point. We have a seven to 10-year payback period. That's a sensible time-frame."

He says CityFibre is fully funded to deliver 25 Gigabit cities.

"All of the projects we undertake we get pre-committed demand before we invest. As I said, telcos are welcoming us partly because there is a desire among them for the infrastructure provider to be neutral unlike BT," he says.

Regarding 1Gbps he is confident there is demand. "When people use it they never go back to copper or cable," he says. "You can even go to 10Gbps at no extra cost."

It seems, although they have much to prove regarding cost and effectiveness, these new providers are here to stay.

Telcos must react either through increasing their own speeds to compete, hitching a ride on new fibre infrastructure or playing the oldest trick in the book when faced with new competition – snapping it up. ec

Telenor Group serves up Brekke as new CEO

Sigve Brekke will take up the reins of Telenor Group in August, the Norway-based operator has announced. A former Deputy Minister of Defence, Brekke joined Telenor in 1999 and is currently Head of the operator's Asia operations. He replaces Jon Fredrik Baksaas, who is stepping down after 13 years as President and CEO.