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Special report: Big data

2016 survey results
How to build a big data team
Operators play long game with external data sales
How to educate customers about the value of big data

Q2 2016 ISSUE | THE LAST WORD ON NETWORK OPERATOR STRATEGY FROM AROUND EUROPE

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M&A, big data and CMO of the Year

With M&A fever continuing to grip the industry, we kick off this issue with two C-suite execs who have been through the regulatory mill. It's a few years since Three bought out Orange in Austria but the current uncertainty over Three's proposed acquisition of O2 in the UK makes it a good time to revisit the deal.

One of the European Commission's fears about four-into-three mergers is that prices rise. Three Austria CEO Jan Trionow says time has shown that consolidation works. "There's been a lot of noise, which hasn't all been true. Yes, certain components increased in price, but that was a consequence of the tariff structure, where instead of charging extra for roaming or out-of-bundle texts, more value was put into basic packages," he says. You can read the full interview on page 12.

Belgium's Telenet has been involved in a much more recent acquisition. Following a 10-month regulatory review, the cableco's acquisition of mobile operator BASE from KPN got the green light this February. Telenet Chief Strategy Officer Dieter Nieuwdorp defends the price his Liberty Global-owned company paid for BASE and reveals it is already sizing up other M&A targets. "Having control of our destiny in mobile, brings tremendous opportunities to create innovative content bundles and propositions, in a way we've never done before," he says. "It's not just that we have a very big mobile business now; it's that we can manage and monetise our content in new ways."

This issue also features our fifth annual big data special report. Vasyl Latsanych, Chief Marketing Officer at Russian operator MTS, explains how and why he is building a big data business unit. He candidly admits that other departments within MTS felt "uncomfortable" about his plans: "They worried that things were being taken away from them and given to a new business area with more funding. So I did have to go and calm the whole thing down... make them aware [of what was happening]."

Alongside this exclusive interview we look at whether the appetite for monetising customer data is increasing and what telcos can do to better educate consumers about the benefits of big data. As ever, our research delves in what the market thinks about a range of key issues. Arguably the most interesting finding this year is that the industry thinks operators need to acquire a big data-related business in order to succeed.

We round off the issue with the launch of our third annual CMO of the Year award. The 2016 trophy will, as usual, be presented at a gala dinner in October. You have until the end of the summer to get your nomination forms in and potentially follow in the footsteps of previous winners Ariane Marchant from Proximus, and Lars Thomsen from Telenor Denmark.

Enjoy the issue.

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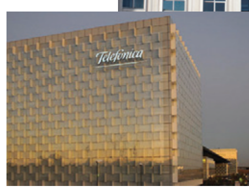
Vodafone unveils new enterprise-focused cyber security unit
Vodafone has created a new business unit dedicated to selling cyber security technologies and advisory services to enterprises.

BT unveils new FTTP plans
BT has announced new plans to deliver pure fibre connectivity to homes and businesses in the UK.

Deutsche Telekom launches public cloud service, bids to disrupt Amazon, Google
Deutsche Telekom has officially launched a public cloud service that it hopes will take the fight to Amazon and Google in Europe.

KPN rolls out smart home service using Deutsche Telekom's Qivicon platform
KPN is using Deutsche Telekom's Qivicon platform to offer smart home services to its customers, it has been revealed.

Mitel acquires Polycom to create enterprise comms giant
Mitel and Polycom have announced a merger that will create a major player in the enterprise communications space.



Telefónica tasks IBM with back office overhaul
Telefónica has signed up IBM to overhaul its human resources and financial management processes in a 10-year deal.

TIM

Telecom Italia hopes to get back on track as it makes Cattaneo CEO
Telecom Italia (TIM) has appointed high-speed train exec Flavio Cattaneo as its new Chief Executive Officer.

Colt makes 1GBps promise to European enterprises
Colt has a pledged to offer 1GBps fixed broadband speeds as standard to businesses in 20 cities across Europe.

Vodafone's FTTH network to power Portugal's cash machines
Vodafone has revealed that its FTTH network in Portugal is being used to power over 7,000 cash machines belonging to financial services firm Multibanco.

proximus

Two Proximus employees injured in "cowardly" attacks
Two Proximus employees have suffered minor injuries in yesterday's terrorist attack in Brussels, the operator has said.

Europe suffers as Asia, America continue to push on

Telco stocks in Asia and the US outperformed their counterparts in Europe in the first three months of 2016

2016 opens with strong start for US, Asian markets

Verizon and AT&T managed to shrug off fines and legal action to close the first quarter of 2016 with their shares up by more than 15 percent each.

Verizon was slapped with a $1.35 million fine by the FCC in March for its use of ad tracking technology that follows what websites a smartphone user visits. It proved inconsequential to the operator's stock, which closed the quarter up 19.4 percent to $53.52.

The US's biggest player also announced 5G projects during Q1, as did rival AT&T, whose share price sat at $38.69 at the end of March, up 15.6 percent over the first three months of the year. It grabbed headlines for suing Louisville after the city moved to make it easier to deploy the likes of Google Fiber.

Despite announcing in February it had added 2.1 million customers during Q4 2015, T-Mobile's share price had an erratic quarter, closing down 0.38 percent at $38.80. Sprint's share price also nudged down 1.14 percent to $3.48, as it announced job cuts of 2,500 in January, largely from its customer call centres.

At 312 million, China Mobile boasts more LTE subscribers than there are across Europe. It is no surprise its rivals China Unicom and China Telecom decided to share 4G base stations in a bid to catch up with the market leader.

The announcement spooked China Mobile's share price, with it hitting a quarterly low of HKD79.65. However, it nudged up over the quarter by 1.59 percent.

As for China Unicom and China Telecom, they closed the quarter up 10.9 percent to HKD10.24 and 16.8 percent to HKD4.10 respectively.

Meanwhile, a $4.1 billion share buyback by NTT DOCOMO led to it hitting a quarterly high of YEN2847.7. The Japanese operator also signed a deal to buy Dell's IT services unit for $3.05 billion, closing the quarter up 5.3 percent.

8.8%

Asia-Pac

The Asia-Pac telecoms sector rose 8.8 percent in Q1 according to data from the FTSE Group Index

14.6%

US

The US telecoms sector rose 14.6 percent in Q1 according to data from the Dow Jones US Index

TIM tumbles on twin setback

Telecom Italia, which rebranded as TIM in January, suffered a torrid first three months of the year. The operator was the worst performing stock in our index, falling 19 percent, after it was hit by twin setbacks. First, it reported a 20 percent fall in 2015 earnings due to a one-off charge of €1 billion and continuing pressure in its Brazilian arm, where sales fell 25.8 percent. Revenues were down by two percent in its home market and five percent overall.

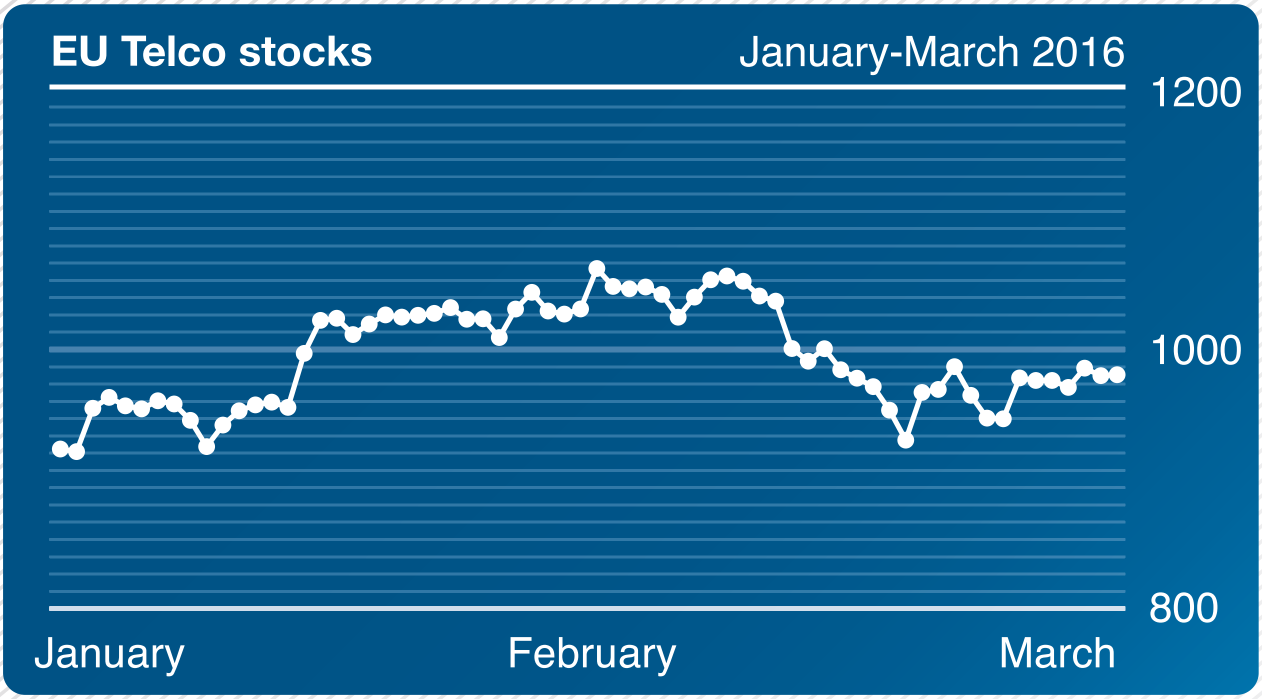
TIM used the financial update to unveil a new strategic plan in which it promised to spend €12 billion between now and 2018. The bulk of the money, €3.6 billion, will be spent on fibre, with €1.2 billion earmarked for the LTE rollout.

However, the launch was overshadowed by rumours that its hand was forced by shareholder agitation. CEO Marco Patuano had to deny the new strategy – just 12 months after another three-year investment plan – was in response to pressure from Vivendi, the France-based company that holds over 20 percent of TIM's stock. Media reports claimed Vivendi wanted the Chief Exec to sell its Brazilian subsidiary

Just a few weeks later, the rumour mill was claiming Patuano, a TIM veteran of 25 years, was on his way out. The operator confirmed the story in March and shortly afterwards replaced him with Flavio Cattaneo, who joined from train operator Nuovo Trasporto Viaggiatori.

TIM said in a statement: "Flavio Cattaneo has been assigned responsibility for the overall management of the Company and the Group, including responsibility for defining, proposing to the Board of Directors and then implementing and developing the strategic, industrial and financial plans and all the organisational responsibilities to ensure the management and development of business in Italy and South America."

The pain could yet get worse. The spectre of increased competition in Italy remains, with the proposed merger of Three Italia and Wind at the mercy of the European Commission. It is due to report in August.



Europe suffers Q1 setback as stocks tumble

Europe suffered a poor first quarter on the stockmarket, as our index of the continent's leading telco shares fell 4.5 percent. The disappointing performance was led by Telecom Italia, which saw its share price decline 18.8 percent between January and March (see box out).

Other fallers included BT, Deutsche Telekom, Telefónica and Telenor. Norway-based Telenor was the worst performer, down 9.2 percent, after it revealed disappointing 2015 results in February. The operator blamed the failure of its Danish joint venture and exit as a Vimpelcom shareholder for a sharp drop in full-year profits. A loss of NOK 1.4 billion in the fourth quarter pushed profits for the year as a whole down by 47 percent. CEO Sigve Brekke said: "We are... entering 2016 with increased competition in some of our key markets, and it will be my key priority to secure focus on profitable growth and cost efficiency."

BT and Telefónica both saw their share price fall by 4.6 percent. It was a busy quarter for BT in particular. The UK-based operator got final regulatory clearance from the UK's Competition and Markets Authority for its acquisition of EE in January. Two weeks later, it revealed revenues and earnings rose three percent in the fourth quarter of 2015. However, shares dived later in February as the UK regulator ruled that it had to open its broadband network to competitors and take future decisions about budget and strategy in consultation with them. BT avoided full structural separation of its Openreach business, although that option remains on the table should negotiations not satisfy Ofcom.

Over in Spain, Telefónica announced plans for a new company that will manage a number of its infrastructure assets. Telxius would oversee 15,000 telecommunication towers, as well as its submarine fibre optic cable network, Telefónica said. The operator also lifted its outlook for this year after posting rising revenues and profits for 2015. However, plans to offload its UK arm to CK Hutchison took a battering from the UK's competition authority and telecoms regulator.

Altice was the best performing stock during Q1 as it recorded a rise of 19 percent. Amid the threat of consolidation in France, the heavily indebted parent of Portugal Telecom and Numericable-SFR saw earnings rise over 17 percent. CEO Dexter Goei said: "We end 2015 delivering the best quarterly KPIs since our IPO with all major operations seeing significant improvements as a result of operational focus, integration and investments."

4.5%

Europe

The European telecoms sector fell 4.5 percent in Q1 according to data from the FTSE Group Index*

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

Austria's chief agitator finds newfound confidence following merger

Amid M&A fever in Europe, Three Austria CEO Jan Trionow tells James Blackman why his company's purchase of Orange Austria has been good for everyone

CK Hutchison's €1.3 billion purchase of Orange Austria three years ago has been watched closely by the European telecoms market, particularly since the parent of Three announced plans to acquire O2 in the UK.

Despite some rocky moments, the deal has been a success, according to Jan Trionow, Three Austria's CEO. "We have obtained a much stronger competitor from it, and individuals and businesses have seen improvements in the entire national telecoms infrastructure as a result," he says.

Three Austria had 1.35 million customers and about 10 percent share of the market at the end of 2011. Orange had 1.5 million customers and closer 15 percent market share, discounting its former subsidiary Yesss, which was acquired by A1 (Telekom Austria).

The remedies package accepted by the European Commission included divestment of some spectrum to any new entrant joining the Austrian market as a consequence of the auction of the 800MHz band, and provision of wholesale access to its network for up to 30 percent of capacity to up to 16 MVNOs over 10 years.

Dubbing itself 'Das Neue Drei' (the new Three), Three Austria went about creating a new network with 50 percent more sites and nationwide coverage of LTE. It has increased investment in network infrastructure by 30 percent compared with the sum of the stand-alone business plans prior to the deal.

The operator's network data speeds have jumped by a factor of seven in the past three years, and its data volumes – "the ultimate measure of customer welfare" – by a factor of six. "It's an excellent position for Austrian consumers, where they have seen better networks and fast-declining unit prices per MB," says the CEO. "And that has only been possible because we invested rapidly in the network."

Three Austria's market share stands at 28 percent today, close to the 30 percent target its parent set at the outset, and up from the 22 percent the pair staked together at the start of their affair in 2013. It is edging T-Mobile for second spot, behind Telekom Austria. It's a tough comparison given the German outfit lumps in its MVNO numbers. But RTR, the local regulator, had T-Mobile pegged at 28.5 percent in the third quarter of last year, a whisker ahead. "It's really close; it's head-to-head," remarks Trionow.

Three Austria's latest figures look good, too. It posted five percent net growth in customers (to 3.8 million) and a seven percent jump in revenues (to €736 million) in 2015, on a 29 percent rise in EBITDA (to €316 million). On this last measure, at least, Three Austria is ahead of its German counterpart.

Its compound annual growth in the past three seasons is even more creditable, with EBITDA rising 74 percent. "We're meeting our synergy targets, and we're delivering value to customers and the country in terms of infrastructure," says Trionow.

Indeed, German gadget magazine Connect recently placed it top of the pile for network performance. It's validation that counts in the German-speaking world, observes Trionow, and if the company hangs its hat anywhere, it is on its data network.

Austria is an extreme case in terms of fixed-mobile substitution; 85 percent of voice minutes and 70 percent of broadband traffic is delivered via mobile. "Fixed line voice is only used by corporations with PBXs; it has no relevance for consumers. The same has been happening with data," says Trionow.

Even in the home, 50 percent of broadband connections are mobile; 30 percent are by copper access and 20 percent via cable, with FTTH hardly getting a look in. Within such a landscape, the company has its leadership position. Seventy percent of all data transmitted via mobile networks in Austria is carried by Three Austria. “That’s our historic position of strength. Without the merger, we would have struggled with the frequency resources and scale to maintain that lead,” explains Trionow.

Regulatory review

Without question, then, Three Austria appears to be making ground as a consequence of its parent’s acquisitive nature. But BWB, the country’s competition watchdog, said last month mobile prices increased by up to 20 percent in the two years following the disappearance of Orange from the local market. Simultaneously, RTR estimated smartphone and feature phone users were paying up to 90 percent and 50 percent more in the period than before the deal.

Trionow says coverage has misrepresented the reports’ broader findings to an extent, and been seized upon to derail parallel arrangements. Indeed, the CMA, the UK’s competition authority, published an open letter to the EC in April urging it to reject CK Hutchison’s purchase of O2 UK on the grounds the Austrian model has undermined market competition.

Instead, it suggested Three or O2 be sold to a new player to maintain the status quo of four UK operators. CK Hutchison retorted such a proposal was a “red herring” in the absence of outside suitors, and slammed the argument as “entirely one-sided”.

Trionow’s response is more measured. “There’s been a lot of noise, which hasn’t all been true. Yes, certain components increased in price, but that was a consequence of the tariff structure, where instead of charging extra for roaming or out-of-bundle texts, more value was put into basic packages,” he says.

“It was also the case that, in September 2013, we had the most expensive frequency auction in Europe at the time – per inhabitant and per MHz. That has to be taken into consideration as well. But regardless of these effects, ARPU has gone down. That’s the reality.”

Trionow says the BWB and RTR findings show competition is “intense” and consolidation “works”, even if it “might take time to deliver results”. RTR’s own pricing index reveals a decline in each of the past five quarters, he observes. “There is no real reason to complain,” he says, pointing as well to the fact the merger has triggered competition around network quality, in the fixed line market as well.

“Other operators have had to match us, and it has precipitated investment in fixed line networks too.” In a market where fixed broadband is four times slower than mobile broadband, fixed line players have been required to dig deep just to cope with the pace Three Austria has set.

The market has found its own balance, Trionow says. A glut of brand new MVNOs have managed to capture three percent of the Austrian market in little over 12 months. It is some going. “There’s intense price competition based on MVNOs on top of all the improvements in network quality and usage,” says Trionow.

As well as being required to divest radio spectrum, Three Austria is obliged as part of the terms of its 2013 acquisition to rent out up to 30 percent of its capacity “on very attractive terms” to up to 16 MVNOs for a decade following its approval. Trionow suggests the telecoms market in Austria has gone as far as it can to streamline and realise efficiencies. “The number of operators won’t shrink any more,” he says.

Looking forward as an agitator

Talking through the industry’s broader challenge to jump-start revenue growth in order to build out digital infrastructure and elevate its economy on the world stage, the CEO says: “The more we get into the Internet of Things (IoT), the more important the quality of mobile infrastructure becomes – for development of the whole economy.”

There are also important marginal gains available by delivering home broadband in rural areas, while Three has a job on its hands to be taken more seriously in the business segment. On the challenge of monetising data, Trionow says operators have a couple of options: to differentiate on network performance, and charge for quality of service, and to break beyond straight service provision and into new markets. The first is perhaps a more straightforward option; the latter brings the sector into contention with the ‘big beasts’ of the internet.

“We see ourselves in that space, monetising our customer base for things outside our core business, whether we deliver these products and services on or own, or with partners, or through new business models,” explains Trionow.

Despite its newfound scale and status, Three Austria wants to retain its challenger ethos. “If you are challenger, you can’t just follow in the footsteps of others, you have to find a new way,” says Trionow.

Part of its role as agitator, is to take the fight to the top, and campaign for change. If Three Austria, and indeed the European sector as a whole, is to reinvent itself as something more than utility pipes, however dynamic, then certain regulatory items must be torn down, reckons Trionow.

He bemoans the general strictures imposed by obsolete sector-specific regulation. He talks about the long-winded process operators are required to go through to make changes to their own terms and conditions, and the anachronistic obligation to provide paper bills to customers.

“We are pushing hard in Austria for fair conditions, and a level field for operators and internet companies. In most cases, it’s about getting rid of out-dated regulation. We urgently need to change the regulatory regime to keep us in the game when it comes to products and services, and not just for access.”

So says the voice of a challenger, albeit a rather established one, with newfound scale and confidence in the market. EC

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CMO of the Year

Rewarding the role marketers play in today's hyper competitive telecoms market

European Communications is delighted to announce the third annual CMO of the Year award.

As operators continue to turn themselves into customer centric organisations, the role of the CMO becomes ever more important.

Launched in 2014 to recognise the leading Chief Marketing Officers at network operators across Europe, this year's award begins here with the nominations process and ends in October when the winner will be announced at a celebratory dinner.

We welcome nominations for CMOs, or those without the CMO job title but who are in charge of marketing, of network operators in Europe from now until the end of August.

The nominated CMOs will then be pared down to a shortlist, with a winner chosen by a panel of independent industry experts who will assess the strengths of the nominations against a number of key criteria.

European Communications will be covering the award as it unfolds online, in print and across our social media platforms.

THE AWARD

The winner will be chosen by an independent panel of judges and presented with the award at a celebratory dinner in London in October 2016. Exclusive interviews will follow in European Communications magazine and on www.eurocomms.com

NOMINATE

To nominate a CMO for the award, please head to **www.eurocomms.com/cmoy** and fill out the form

Nominees for the 2016 CMO of the Year award will be judged against their achievements in the following criteria:

Brand
How the company brand has been improved in terms of advocacy, awareness, context, value etc.

Customer experience
Strategies employed to improve the experience that customers receive and associated metrics

Customer retention/growth
Strategies employed to retain and grow the subscriber base

Products and services
Details of innovative new products and services launched

Financial
Impact on top and bottom line

Previous winners:

Ariane Marchant
Proximus (2015)
"I'm so happy, what can I say?! It's a big reward to be recognised by your peers… I'm very satisfied."

Lars Thomsen
Telenor Denmark (2014)
"Of course you are proud to win because it was a very tough competition."

The European Communications CMO of the Year award 2016 is kindly sponsored by Netcracker

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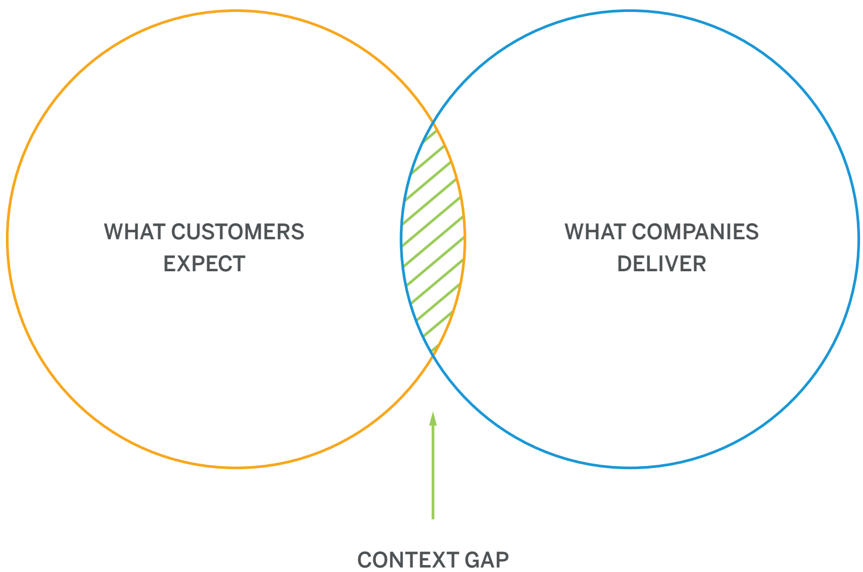
Mind The Gap

USING CONTEXT TO BRIDGE THE CUSTOMER ENGAGEMENT GAP

The Power of Context

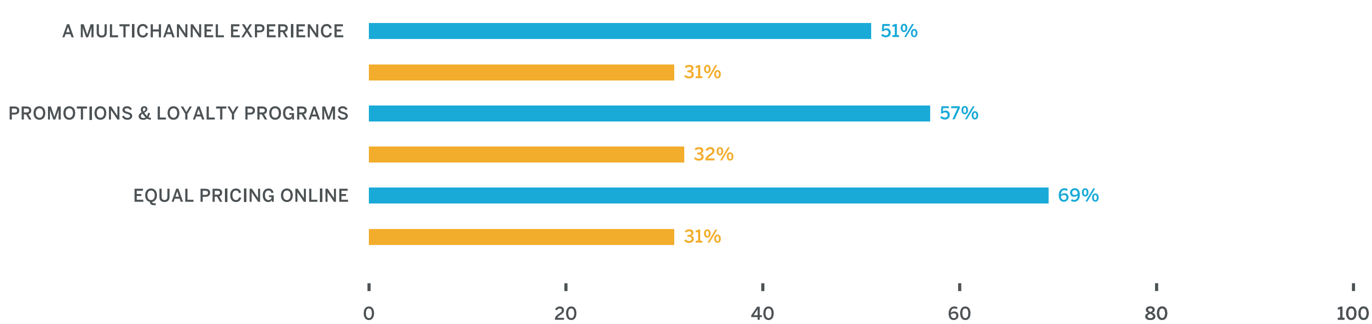
Context is a powerful device. It empowers companies to deliver the right products and services to the right customers at the right time. But massive roadblocks prevent many Telcos from understanding their customers' needs.

THE ENGAGEMENT GAP



What's causing the engagement gap?
Many companies miss opportunities to deliver on customer expectations. This is particularly challenging for Telcos, as over-the-top players emerge with strong online presence and personalized engagements.

CUSTOMER SERVICE EXPECTATIONS VS. REALITY



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In the telecommunications industry, where today's customers seek more flexibility and carrier freedom than ever before, bridging the context gap is critical to engaging your customers and pushing your business to the next level.

An Economy of Disengagement

With engagement a scarce resource in today's economy, Telcos must look to leaders from other industries to learn how to transform context into new revenue streams.

Adobe switched from selling boxed products to SaaS and now monitors everything on its platform.

NHL executed many initiatives such as an OTT network, statistical analyses, and a leading digital customer experience.

Under Armour quickly became a major player in the sportswear business, with its aggressive acquisition strategy.

Red Bull became a legendary brand in the way it executes successful customer engagement initiatives.

Context is Key

Without context, Telcos are less likely to understand the customer needs, resulting in engagement solutions that can overwhelm and disinterest consumers.

44% Receive too many offers/promotions

40% Say most promotions don't offer anything of interest to them

40% Opt out or unsubscribe because they feel overwhelmed

37% Delete most of the emails they receive without reading them

Bridge the Gap, Build Your Business

Companies are successfully closing the engagement gap with easy-to-navigate customer experiences—from proactive recommendations based on past purchase history to OTT partnership promotions to personalized deals based on location.

What the Right Solutions Can Do

Customer engagement solutions give Telco companies the insight and tools to create immersive and intuitive experiences that can:

- Ensure Telco companies understand, meet, and surpass customers' expectations
- Help stage content that addresses customers' needs at the right moment
- Drive results and delight customers across every touchpoint and channel
- Build on customer intelligence, not just customer data

Sources:
"Seamless Retail Study," 2014, Accenture
"Annual Global CEO Survey," 2014, PricewaterhouseCoopers

Telenet CSO targets further expansion thanks to solid BASE

With the ink barely dry on its acquisition of BASE, Telenet's Chief Strategy Officer tells James Blackman the Belgian cableco won't stop there

Dieter Nieuwdorp, Chief Strategy Officer at Telenet, has a lot on his plate. Following a 10-month regulatory review, the Belgian telecoms provider, a subsidiary of Liberty Global, finally completed its purchase of local mobile operator BASE from Dutch operator KPN in February.

"Sure, there aren't many gaps in my schedule at the moment," he laughs. Celebration at such a marathon deal has only just given way to the task of merging two distinct businesses. Until the €1.3 billion acquisition of BASE, the country's number three player with 23 percent of the mobile market, Telenet was a regional fixed line player, serving Flanders and parts of Brussels with fixed telephony, fibre broadband and cable television services, as well as a nominal mobile product via an MVNO agreement with Mobistar.

It had little commercial relevance in French-speaking Wallonia, in the south of the country. BASE gives it that at a stroke, as well as control of a national LTE network and €690 million in additional revenue.

Crucially, it adds more than 3.2 million mobile subscribers to Telenet's more than 1.2 million fixed telephony customers, 1.5 million broadband customers and two million cable customers.

The question lingers about the price of the deal, which valued BASE at eight times its estimated 2015 EBITDA (€165 million). Many commentators, and both its rivals in the mobile sector, Proximus and Mobistar, blew out their cheeks at the time. Nieuwdorp is unequivocal.

"You have to look at it from a post-integration point of view. We're paying Mobistar for every SMS and every MB of data at the moment, and that's a fair model when you're starting at zero, and heading for 100,000. But we have over a million customers. With that scale, it becomes more challenging," he says.

"Data consumption is only heading one way, as is general usage. Map that against a sizeable and fast-growing customer base and it's clear we'd pay enormous sums over time to Mobistar. With our own network, that becomes a fixed-costs game. Those synergies alone justify the price."

The deal creates a business worth €2.4 billion in revenues and €1.1 billion in EBITDA, with a national footprint for mobile and a regional one for fixed line services. "We believe in a fixed-mobile convergence strategy; it's our ambition to become a national fixed-mobile convergence player," says Nieuwdorp.

Regional it might be, but Telenet's hardly a parochial concern. Its revenue and EBITDA, at €1.7 billion and €900 million, swamp that of its new mobile business. Nieuwdorp and the other C-suite execs are starting to turn their attention to the company's lack of fixed infrastructure in Wallonia.

"We can either build a network, acquire a network or find a substitution for a network," the CSO observes, running through the pros and cons of each; that the first two require time and money, in varying degrees, but give the buyer final control of their assets and "destiny". He even identifies the most likely candidate: VOO, the cable brand run by energy firm Nethys in Wallonia and parts of Brussels, in a mirror image of Telenet's own footprint in the north.

The third option, fixed-mobile substitution by way of LTE home gateways, doesn't appear to square with its Flanders operation. "It's what mobile operators are using to compete with the cable companies like ours," he observes.

There is a fourth possibility. Current regulation says dominant cable companies, including both Telenet and VOO, are required to provide open wholesale cable access to alternative providers. It seems a clearer option. "We prefer a cooperative approach," says Nieuwdorp. "If we can form a partnership, where both sides win, then that's what we would choose. Yes, we will look at doing it under our own steam, but we'd always prefer to work with others."

Control of our destiny

Telenet has only been able to consummate its BASE affair following regulatory approval in February; a process that was predicated on the mobile business divesting its interests in the prepaid MVNO brands JIM Mobile and Mobile Vikings, which both went to Flemish broadcaster Medialaan.

So, how are the practicalities of integration, now that BASE has raised its skirts? Much as expected, reckons Nieuwdorp. "The first few months have aligned very well with what we had on paper; and actually, we're realising as we go we can do better than we'd anticipated with the synergies from the merger," he says.

Even so, there's not much to say on the impact on human resources, for example. Staffing is an emotive subject, of course, and the seller tends to guard its hand in such transactions. To an extent, Telenet is still finding out exactly what it got. "It's sensitive. We only started a couple of weeks ago; it's work in progress," Nieuwdorp says.

What, then, of the logistics of merging infrastructure and services? Its MVNO arrangement with Mobistar ends in 2017, and its mobile customers will be migrated onto the BASE network between times. But Telenet's MVNO has accrued quite a following. "It's not something we can do over night," the CSO says.

Still, Telenet's is a different exercise to meshing one network on top of another, as in the case of two national companies in the same game. The two operations are broadly complementary. "We have the regular challenges of a post merger integration, around things like billing, servicing and care. But this is not a four-to-three merger, as we've seen in other markets, and we're not required to relinquish spectrum and merge infrastructure," says Nieuwdorp. "We're an MVNO taking over an MNO, which I don't think we've seen before, and that both adds and removes a degree of complexity."

There is also the issue of branding to resolve. Following the announcement of the deal last year, the company said the BASE brand would be retained. Speaking now, Nieuwdorp won't be drawn on the matter. "We won't make any rash decisions," he says. "We'll have two mobile brands in the market for some time."

Nieuwdorp accentuates the short-term gains of pitching cable services to BASE customers in Flanders. Ultimately, customers want to take multiple services from a single provider, he says. "All products, all communications on a single bill. That's the way it's going."

On the flip side, Telenet has achieved success as an MVNO by the simplicity of its offers. At an early stage, it targeted its fixed line customers with just two tariffs.

"It seemed easier at that point to go with two products – rather than 15 different tariff plans, where, you know, you get a discount on a second one if you take a fourth," explains Nieuwdorp. "And in a couple of years, we went from 250,000 to a million subscribers. So it was pretty successful."

The company reworked its Sports Play proposition last year, and claims double-digit growth as a result. It carries the local Belgian Pro League, as well as the English Premier League, both on an exclusive basis. It also has broadcast rights for Formula 1.

Its production capabilities have improved as well. It has built its own studio, and is developing apps around its content portfolio. "We're an entertainment provider, covering sports and more general content. Ours is a full package proposal, which compares with the very best in the European market," says Nieuwdorp.

Telenet hasn't done much to package and disseminate its content on mobile yet. "Our go-to-market strategy has been to sell mobile into our fixed base." Indeed, 90 percent of its MVNO customers are on its books already. The BASE merger will see it expand its entertainment portfolio across new infrastructure.

"Having control of our destiny in mobile, brings tremendous opportunities to create innovative content bundles and propositions, in a way we've never done before," he says. "It's not just that we have a very big mobile business now; it's that we can manage and monetise our content in new ways."

Ultimately, Nieuwdorp says customers will be better served as a consequence of the merger. Telenet has committed €240 million in network upgrades over and above BASE's pre-merger investment schedule, and on top of the €500 million it had already committed to its own hybrid fibre-coaxial network.

"There isn't a mobile network disappearing. We still have three mobile networks in Belgium," he says. "BASE is a very good mobile network, but it's probably fair to say Proximus and Mobistar are better ones. This investment will provide a third network to the level of those others, which will have huge consumer benefits."

He adds: "The Telenet brand is known for superior connectivity and service; if we're going mobile, with our own network, then we'll meet those standards in that space as well." ec

Integrated digital billing systems enable telcos to capitalise on the digital lifestyle trend

When analyst firm, Stratecast (part of consultant group Frost & Sullivan), last year identified Infonova as one of its 'Top 10 to Watch' in global telecoms operations and monetization, they had strong reasons for doing so. Speaking to European Communications, Infonova's SVP for Digital Innovation, Gerhard Greiner, explained how the Austria-based software development firm offers an innovative digital monetization system which can be utilised by a wide-range of industries. The Infonova R6 product gives businesses, ranging from traditional telco services all the way through to services like utilities, parking and tolling, online services, rental companies and more, the flexibility to orchestrate and monetize both traditional and next generation services and products.

Infonova has always supplied cutting edge IT solutions. Founded in 1989, and today a subsidiary of the management and technology consulting firm, BearingPoint, Infonova provides business solutions to a wide range of industries across the globe. Together the two firms offer a complete solution for managing and monetizing digital ecosystems – comprising consulting, software product, systems integration and managed services – enabling clients to easily create, deliver and monetize innovative digital services within multi-party ecosystems.

Greiner introduced the concept of a 'Digital Moment' – the starting point for monetization in the digital world – using the analogy of Kodak founder, George Eastman, who enabled the world to capture 'moments' on film with his motto: "You push the button, we do the rest." The key to Infonova R6 is the 'digital moment' – an event that happens at a specific time and place describing the use of a digital service. Greiner defines digital moments as 'service-agnostic', meaning the concept can apply to almost anything from paying for parking via the internet to ordering video on demand via broadband. Capturing digital moments also creates the opportunity to monetize these moments. Of course, monetization of services is what telcos and other service organisations already do.

But the significant part of what Infonova R6 enables is the transformation of digital moment monetization into digital ecosystems monetization. Telcos now have the chance to enable other companies, who might lack automated monetization systems, to get on board and start operating their businesses using the telco's monetization platform.

The introduction of an ecosystem that can efficiently manage and monetize complex digital services and harness relationships, enables the straightforward creation of innovative new products and services. In this environment, Telcos can maximise their growth by adopting an enabling-platform strategy for existing connectivity services and growing new offerings through connecting with services from business partners on the same platform. Greiner said: "We see this as the transformation of digital moments to digital ecosystems!"

"Our product is unique in that we are able to bundle and orchestrate services from different industries," revealed

Infonova SVP for Digital Innovation Gerhard Greiner

Greiner. He added: "The Infonova R6 platform can capture all kinds of digital moments and create business models around them."

Telco customers using Infonova R6 also use it to offer B2B services to their own business partners – pushing the system downstream. Infonova R6 is designed to support new digital economy business models providing benefits such as increased speed-to-market and targeted, cross-industry bundles, while also cutting costs through economies of scale, and improving customer satisfaction by offering more services on one, convenient platform.

To give an example, Infonova R6 enables media companies to create more targeted and diverse service offerings and bundles of services to customers, which in turn can bring in new revenue streams. Media companies use Infonova R6 to pool resources and enable an intermediary such as a broadcast network operator to provide the platform as a managed service to consumers and business partners.

Infonova R6 helps automotive companies manage and monetize over the top digital services that are emerging in the modern car industry such as parcel deliveries to a customer's car, filling the car with petrol while the customer is at work, smart parking services, paying to charge an electric vehicle, and more.

Infonova R6 also supports sectors such as utilities, healthcare, government, transport, property operators, and other sectors looking to offer digital services such as SmartGrid power billing, e-Government services, e-health applications and banking services. Greiner said: "Take utilities. Common to most of the smart metering and Smart Grid technologies is an increased use of communications and IT technologies. Infonova R6 will hasten the race towards the monetization of smart technology. Energy suppliers will become more efficient in the transmission and distribution of power and can reduce peak demand by rewarding customers for off-peak use and providing other incentives to reduce peak consumption."

Aside from these examples, a wide variety of business sectors can leverage Infonova R6 to establish partnerships and offer a broader range of digitally priced services. This 'digital ecosystem' can connect and bundle together external services – services bought from business partners – with internal services. Such bundles can then be sold through wholesale channels to other business partners who can then resell them under their own brand name (referred to as 'white-labelling').

Greiner explained: "Traditionally, end consumers were billed for their services separately by each company offering the services. The difference with an Infonova R6 ecosystem is that it enables partnered service providers to combine their services for sale to end consumers, and subsequently issue a combined invoice. This invoice, for example, could include a customer's gas or electricity consumption, as well as their parking, metered water and a range of other services according to the bundle they purchased. It simplifies everything."

Telcos can succeed in this digital ecosystem environment without straying too far from their core competencies, by adopting an enabling-platform strategy for existing connectivity services and emerging digital services. "Infonova is ahead of the competition," said Greiner. "We offer a value proposition that creates competitive advantage and additional revenue for our customers, and enables a digital lifestyle to end consumers." This embodies the principles of B2B2X business models.

Current customers of Infonova include eir, one of Ireland's leading telcos, and BT Global Services, a global leader in managed network IT services, servicing more than 6500 large corporate and public sector customers.

BTGS uses Infonova R6 to manage and monetize cloud services. The Infonova R6 platform allows BT to bring together new cloud services and software applications so that they can be offered as new products and services to customers. Infonova R6 also enables BT to provide white-label facilities to its business partners looking to sell their own cloud and app services via the BTGS Cloud of Cloud platform.

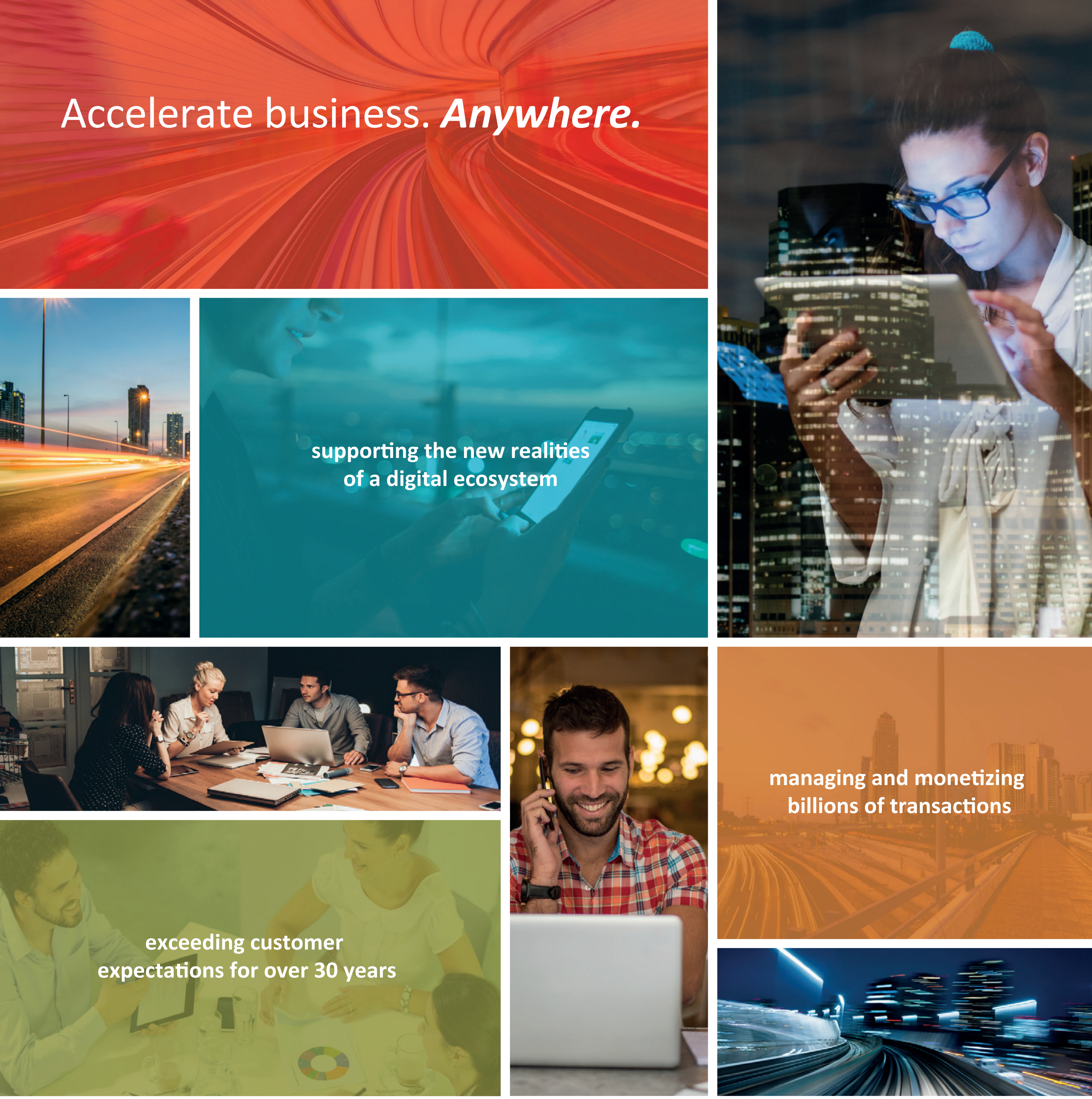
A deal was negotiated in June last year, when Neil Lock, Vice President of BT Compute at BT Global Services, said: "This agreement... enables us to further improve our cloud platform by adding new services such as apps from BT and BT Compute Storage. Those are now available to our customers through a single point of control..."

When discussing this, Greiner stated: "This is an example of the vision of using the multi-tenancy concept to offer business models on the BT platform which can be put together in a way which suits them and their customers – and their customers' customers – in the best possible way."

eir, on the other hand, wanted to meet current as well as future customer and market requirements by offering their customers the best value multi-play bundles on a single convergent platform. Infonova R6 enables eir to easily define innovative new products with rapid time-to-market, bundling PSTN, DSL, and IPTV with mobile services and other value adds.

Digital ecosystem management opens up the prospect of a 'smart-everything' digital world in which a customer can easily achieve a wider variety of tasks with minimum effort: determine utility use at home, have a package delivered to a car while at work, pay to park and charge an electronic car, listen to music or watch television, operate a personal fitness program, and benefit from free movie tickets – all in the same day, all through a service bundle, and saving the customer time and money because it all comes from the one place.

The benefits from the point of view of suppliers, retailers and service wholesalers are equally exponential by monetizing this digital lifestyle, and Infonova R6 is the ideal platform for the management and orchestration of the new digital world.


Accelerate business. *Anywhere.*
supporting the new realities of a digital ecosystem
managing and monetizing billions of transactions
exceeding customer expectations for over 30 years

Special report
BIG DATA

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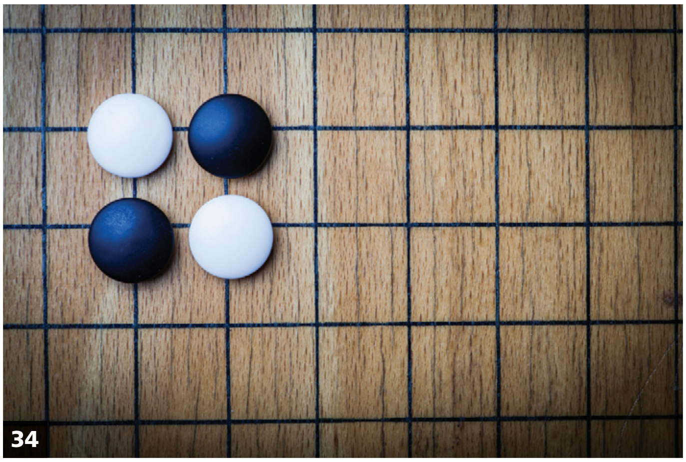

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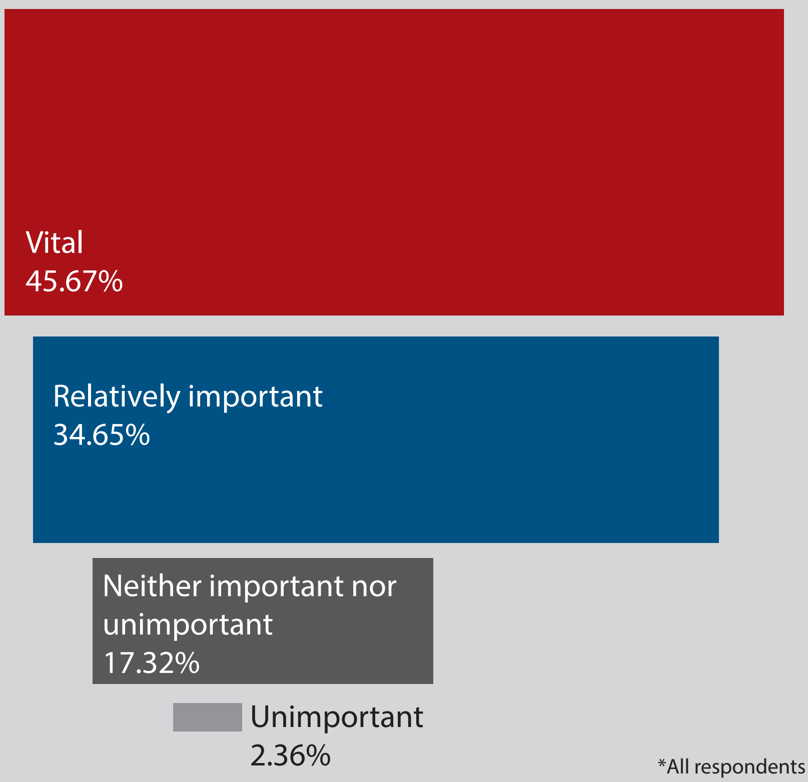
Contents

Survey: Industry thinks operators need to acquire big data businesses to succeed

Respondents to European Communications' annual big data survey think M&A is needed as they continue to focus on improving customer experience

Fig.1 How important is it for operators to acquire a big data-related business in order to succeed?



The European telecoms community believes operators must acquire a big data-related business in order to succeed. That is the headline finding from European Communications' fifth annual survey of big data and telecoms.

The majority (46 percent) thinks it is "vital" for operators to acquire a big data-related business, while just over a third believe it is "relatively important" (see Fig.1). Just two percent of respondents think an acquisition is unimportant, while 17 percent say it is neither important nor unimportant.

The M&A question gains significance as a sizeable minority (42 percent) of the industry thinks European operators lag behind their international peers when it comes to big data (see Fig.2). Just five percent thinks European operators are ahead of rivals elsewhere in the world, while the majority (53 percent) thinks they are on a par.

One respondent said: "There are huge differences among European telcos. Some are really on top of the big data game whereas some are just beginning their big data journey." Another said: "It's difficult to generalise. There are big data 'stars' and 'dogs' in all continents."

The biggest barriers remain constant and are the same as last year. Legacy systems/data remaining in silos (19 percent) and not understanding the potential that big data presents (18 percent) were again the top two answers in 2016 (see Fig.3).

A lack of overarching strategy/leadership (16.5 percent), a new answer, was third knocking a lack of required solutions to access/analyse/exploit data (15 percent) into fourth place. On this last point, one respondent said: "Many [vendors] promote big data solutions [that] are not ready or lack strong analytics (The Brain Power). The outcome so far is seen to be humble and weak."

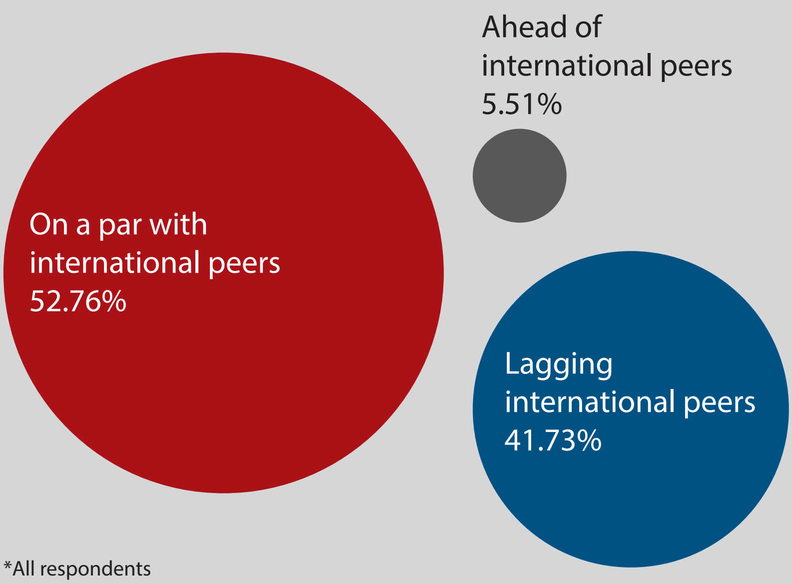
Volker Pfirsching, Partner at management consulting firm AD Little, comments: "Operators currently being really successful with big data have one thing in common: a clear data governance and mostly a dedicated central organisation to develop big data in the company. Big data needs clear data governance, a 'single source of truth', and a central approach to identify, develop and pilot technical platforms and master the metrics and KPIs."

Like the leading challenges, the biggest opportunity that big data presents operators with remains the same. Improving the customer experience kept its top place with 28 percent of the vote (see Fig.4).

Creating new revenue streams, essentially selling data to third parties, was slightly behind with 27.5 percent but up from fourth place last year. Improving existing revenue streams was third with 26 percent.

Pfirsching says: "Many are looking for

Fig.2 How would you describe European operators' big data efforts currently?



*All respondents

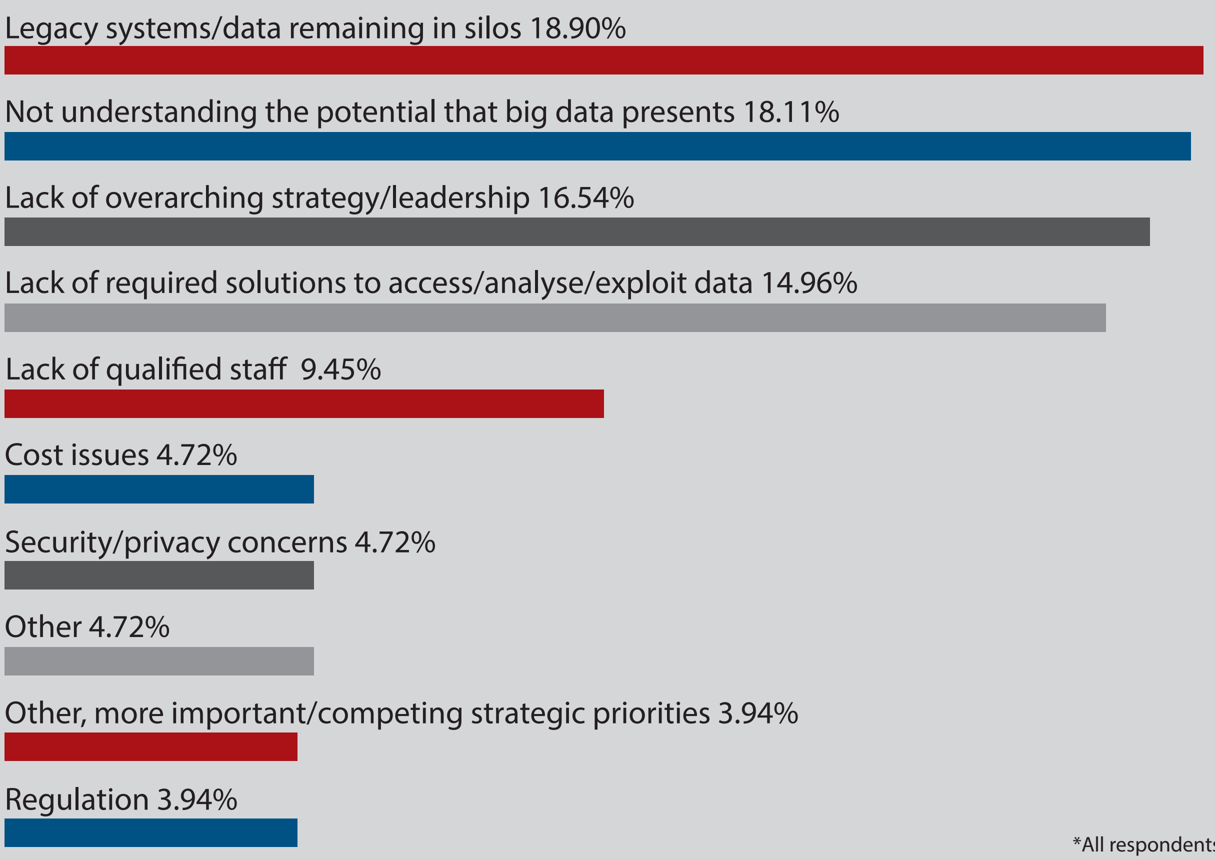
new revenue sources, but only a few have actually achieved the goal to monetise the data. The reason for that is data quality, security and privacy issues and challenges as well as a limited field of current use cases."

CTOs come to the fore

The CTO has become the most important executive when it comes to big data, according to operator respondents. The technology lead (23 percent) has risen from third place last year to replace the CMO (15 percent) as the person most likely to be in charge of big data strategy (see Fig.5). The CIO, retaining the same position as last year, was joint second.

"A clear and natural home for big data has not been established as we can see by the variety of answers here," Pfirsching says. "This is understandable as it is a cross-functional topic and business involvement is a MUST. Value

Fig.3 What do you think is the biggest barrier to operators successfully executing a big data strategy?



*All respondents

comes from business decisions/actions based on analysis of data and this innovation needs to be done close to the business functions. But again: there's a need for central orchestration and governance."

To confirm this point, the rise of the CTO appears to be contradicted when operators were asked which type of use cases are driving the adoption of big data strategies. Marketing (28 percent) moved to the top after coming second last year, while customer care (8.5 percent) fell from first to fifth place (see Fig.6). The development of new products/services was a new answer and came straight into second place, ahead of M2M/IoT.

Retail customers are the main target audience of big data use cases, according to almost half of operator respondents, ahead of enterprises. However, 28 percent are looking at the two segments equally. Pfirsching says: "Enterprise is usually much more complex than retail, therefore big data use cases tend to be more complex as well. But, in the long run, we expect more 'bang for the buck' in the enterprise segment."

Whatever the use case, the number of operators who say that big data is a strategic goal in their organisation continues to increase. Two-thirds of operators said this is the case, up from 62 percent last year (see Fig.7).

It is interesting to note, however, that the number of people who said "no" increased by almost 10 percentage points to 23 percent. The "don't knows" fell from 24 percent last year to 11

Fig.4 What do you regard as the biggest opportunity that big data presents operators with?

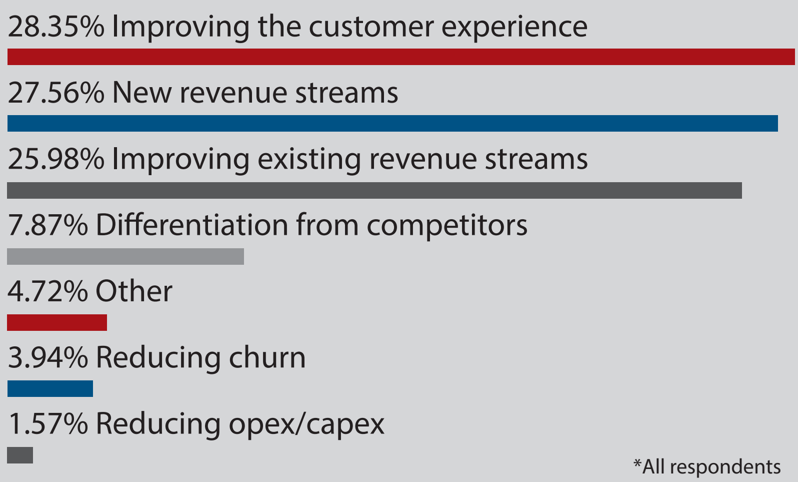


Fig.5 Who is in charge of the big data strategy in your organisation?

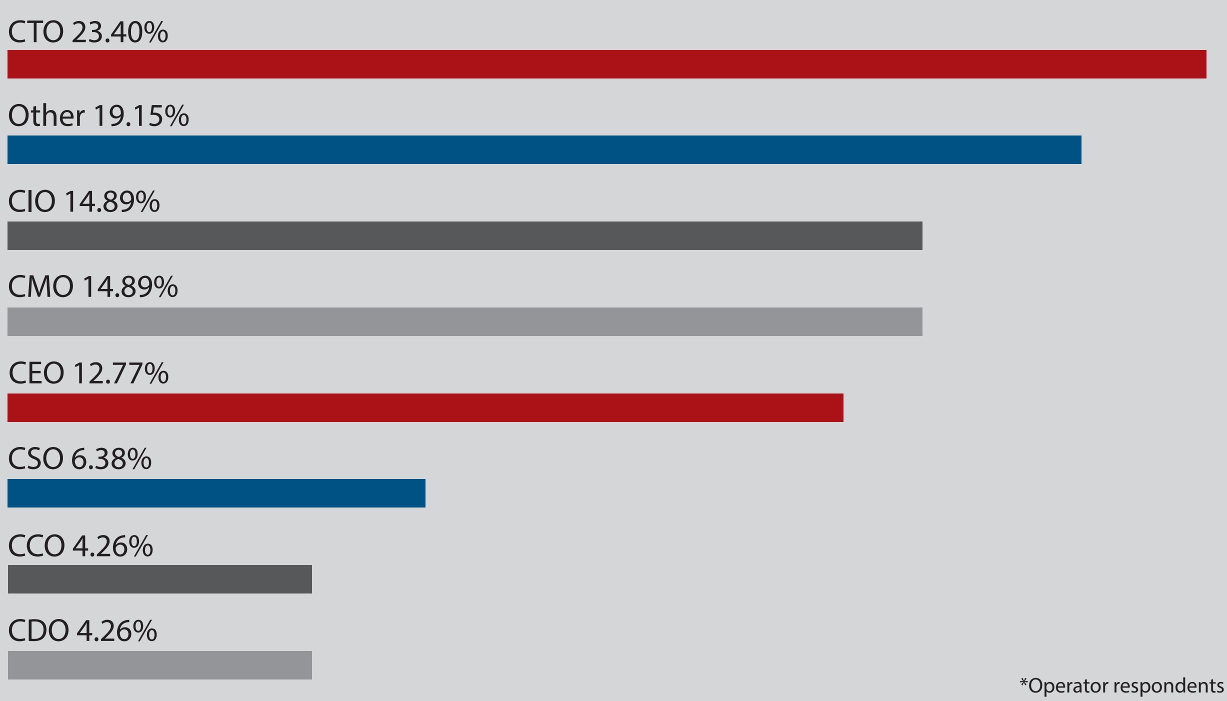
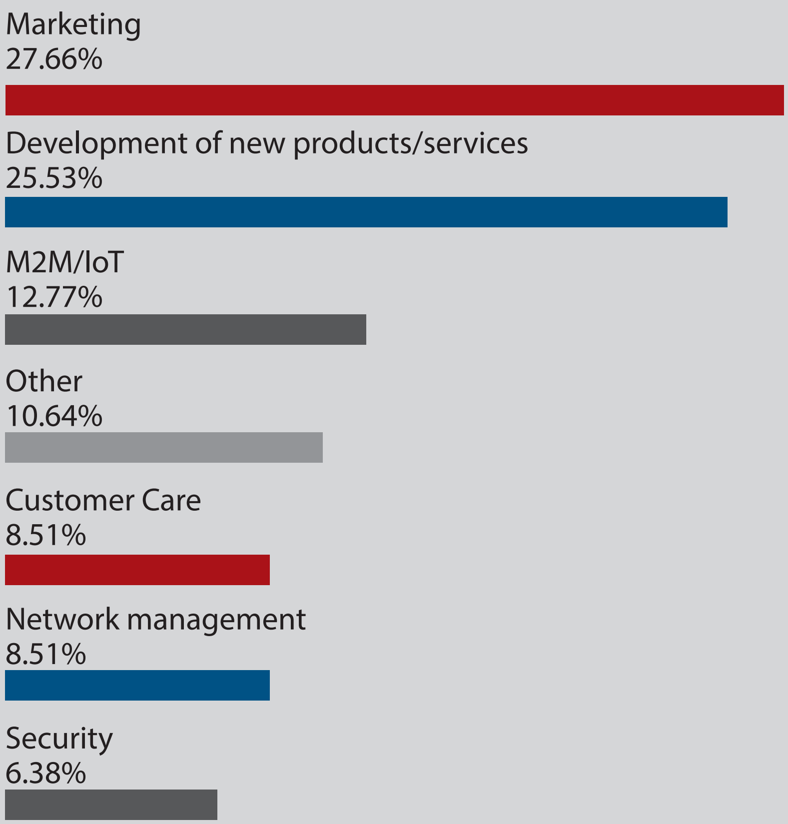
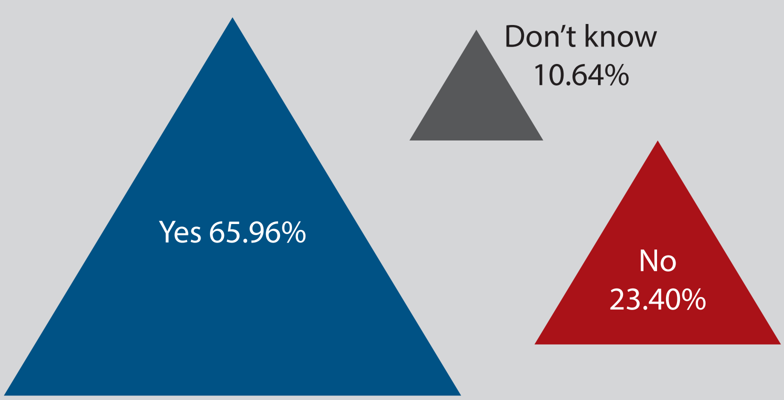


Fig.6 What type of use cases currently drive the adoption of big data strategies within your organisation?



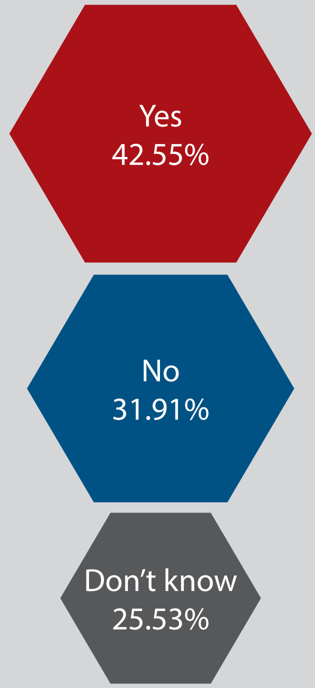
*Operator respondents

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



*Operator respondents

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



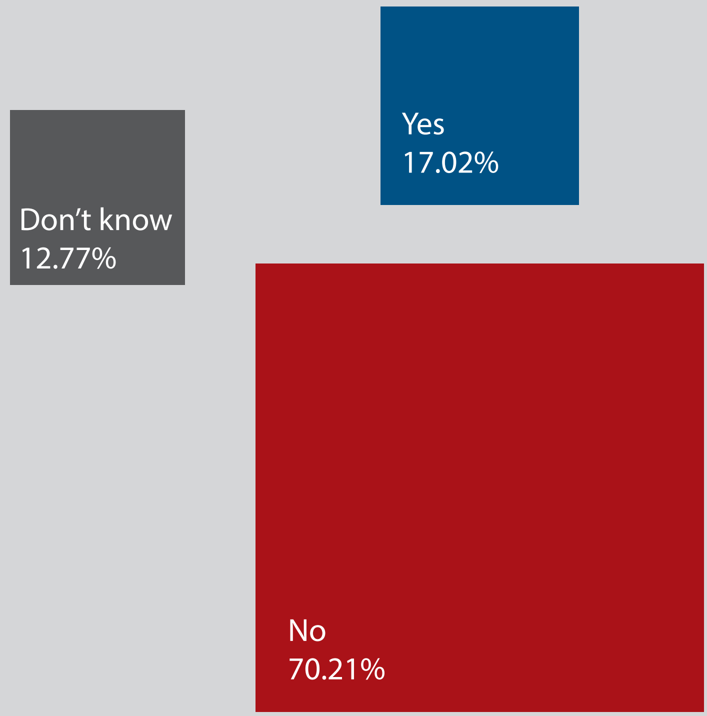
*Operator respondents

percent this year, suggesting there are those who have looked at big data and decided other priorities are more important. One respondent provided an alternative hypothesis, saying: "Big data shouldn't be a goal, it is a means to achieve goals like customer centricity, the IoT."

Nevertheless, there appears to be a significant minority of operator employees who remain unaware of what precise role big data is playing in their business. Over a quarter of respondents claim not to know if a defined set of business objectives exists (see Fig.8). The majority (42.5 percent) is sure such objectives are in place, while just under a third (32 percent) thinks the opposite is the case.

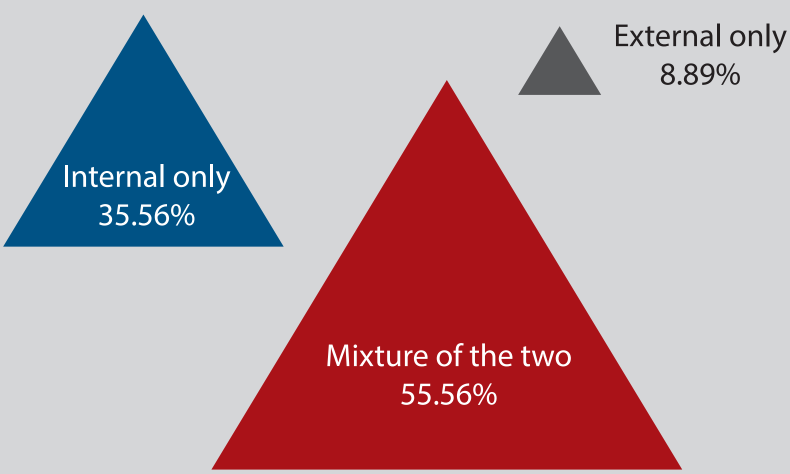
Could this be a human resource issue? A clear majority (70 percent) of operators does not feel they have the right number

Fig.9 Do you feel you have the right number and quality of staff in place currently to manage and exploit the data you possess?



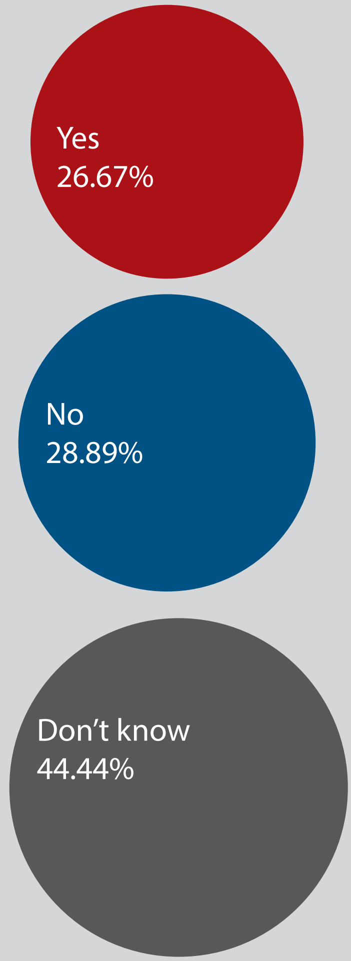
*Operator respondents

Fig.10 Would you say you are more focused on using big data to improve internal (ie, gaining full visibility of data in your networks) or external (ie, selling data to third parties) processes currently?



*Operator respondents

Fig.11 Internally, has the introduction of big data strategies resulted in any meaningful cost savings?

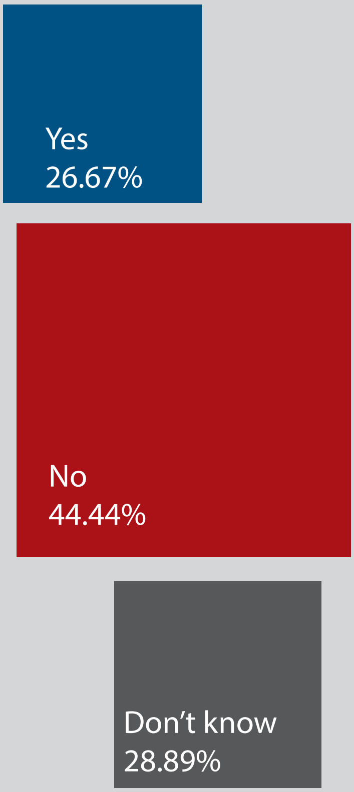


*Operator respondents

and quality of staff in place to manage and exploit the data they possess (see Fig.9). Just 17 percent are happy with the teams they have in place. One respondent said: "There are severe gaps in the amount of resources, as well as gaps in needed know-how." Another was more optimistic, saying: "We're slowly getting there."

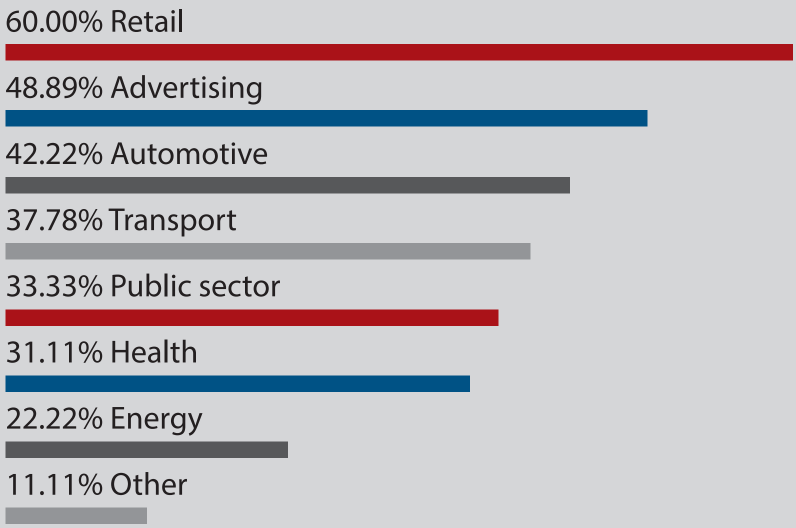
Pfirsching says: "Big data and analytics require some very specific skill sets that most companies don't have so far among

Fig.12 Is your company generating additional revenue as a direct result of selling customer data?



*All respondents

Fig.13 Externally, what markets are you looking at providing big data to?



*Operator respondents

their own resources. 'Data Scientist is currently the most sexy job in the world,' one of my clients recently stated. The necessary capabilities and skills are currently very rare in the market. Many companies have started to develop the skills themselves as a result."

Show me the money

Operators continue to be sceptical that selling data to third parties is possible at the current time. The number of operators who said they are focusing on internal use cases only increased by 14 percentage points to 35.5 percent (see Fig.10). The majority is still looking at both internal and external, but the number fell from over 71 percent last year to 55.5 percent this year.

One respondent said: "Internal first, as we see the biggest advantages here, i.e. low-hanging fruits. External exploitation is much harder and relevant paths are not clear at all."

Internally, one of the many touted benefits of big data is cost reduction. However, operators remain unsure if this is possible. Both the number who said "yes it had" and "no it hasn't" declined versus 12 months ago, meaning those who replied "don't know" increased in number by 11 percentage points (see Fig.11). Several remain hopeful, commenting "not yet".

Pfirsching says: "Much of the effect is being lost due to a lack of monitoring of success and central orchestration. Many things are being tried, but no one challenges if there's really business value behind big data use cases – be it cost savings, reduction of churn rate or additional revenues."

Operators might be sceptical of the potential related to selling data, but the number who claim to be generating revenues increased by five percentage points to 27 percent (see Fig.12).

Retail is the vertical that most operators are looking to here. Sixty percent chose this ahead of the advertising (49 percent) and automotive (42 percent) sectors (see Fig.13).

Pfirsching believes the move to focus on advertising could be "dangerous". He says: "The advertising space is a heavy battlefield. Many other players try to play a role here as well. Be it OTT players or giants like Facebook who claim to have even more valuable customer insights and data." ec

About the survey

One hundred and twenty seven respondents took our online survey in April 2016. Forty one percent were operators, while 39 percent were vendors. The remaining 20 percent came from a variety of other interested third parties, such as consultants, analysts and regulators. In terms of geography, 76 percent of respondents were based in Europe, with 10 percent in the Middle East and African and seven percent in Asia-Pacific.

MTS Chief Marketing Officer: Why we've created a big data R&D lab

Vasyl Latsanych tells Marc Smith about the big data business unit he has set up, and the challenges and opportunities it continues to face

When I saw Vasyl Latsanych speak at this year's Mobile World Congress, the Chief Marketing Officer of MTS was refreshingly dismissive of the whole digital transformation agenda currently sweeping the telecoms industry. "I struggle to comprehend what digital transformation means for carriers," he said. "It's not about being digital, it's about being right."

Indeed. Six weeks after the annual industry shindig, Latsanych appears ready to slay another of the industry's sacred cows. Big data is just a "fancy" phrase the CMO begins. But it soon becomes clear that Latsanych understands all too well the opportunities that it presents and is determined to attain the Holy Grail of all telcos – monetising the data they have about their customers.

The CMO is in charge of MTS's big data strategy and one of his first acts has been to create a dedicated business unit to drive through the necessary changes.

Latsanych says it has been "a long time in my thoughts" and that he set up the division to be "as distant from the core business as possible".

He explains: "We didn't want [the staff] to fall into the pitfall of doing what everyone else is doing but a bit better. We wanted to create something that doesn't exist, that isn't influenced by existing work streams."

This has echoes of Telefónica's ill-fated Digital unit. Formed in 2011, Telefónica Digital was given the job of coming up with new products and services in London – far away from the Spain-based operator's Madrid HQ. However, it was folded back into Telefónica proper less than three years later under the leadership of a Chief Commercial Digital Officer.

The MTS team is 40 strong currently with plans to increase it to 60. "It's like an R&D lab... but whereas before, an R&D lab would mean soldering different wires to get something physical up and running today it is about software," says Latsanych.

With this in mind, hiring people outside of both MTS and the telecoms industry is key. The CMO says: "We could have promoted some of our existing people and called them big data analysts but inevitably they would haven fallen back into doing what they did before [albeit] a bit better."

Giving an insight into the challenges telcos face with their existing workforce, Latsanych says: "We have to be more knowledgeable about [the technology and products in the market]. [The market] has gone from Hadoop to in-memory before we had even installed Hadoop... the pace of tech change is quite challenging, we're not used to it."

MTS arguably has an advantage over other telcos in Europe who often have to fight for data analysts and scientists with the same internet players they are trying to keep up with. "In Russia there is not a lot of development done by Google, for example," Latsanych says. "People are available, I wouldn't say they are easily available, but the [Russian] economy is not doing well [and that] is leading them to be more available to us."

So what, exactly, has the new unit been charged with doing? Latsanych says the team has just been told how to access the data; then, to a large extent, it's up to them. "The plan is to get them to develop ideas and build the system themselves," the CMO says. "The tools are being built as people try to create something new. They harness a particular data stream and then have an idea about how to dissect it in a 120 ways. Some may be useful, some not... the point is there is not a business case for every step. You can't put up a business case to create a specific functionality, which is the normal way carriers think."

Latsanych says churn reduction and "customer lifetime improvements" for its retail subscribers are the key use cases he wants the new team to focus on. "If these work then we will have spent our money and time wisely," he adds.

Calming the whole thing down

No monetary KPIs have been set against the new unit "because it's so new", Latsanych reveals. "It's a very qualitative task we've put in front of them. Initially, it is to have the systems up and running. They have to create the tools for other parts of the business to use."

That sound you can hear is CFOs shifting uneasily in their seats. Yet Latsanych says the MTS C-suite has bought fully into his plans. "There's always an investment challenge," the CMO says. "We've looked at whether there is any proof of cost efficiencies from digital transformation and we didn't find any. I hope big data will improve that."

Instead, those execs below the top management have proved harder to convince. "Subordinates of CFOs are very target and KPI oriented," says Latsanych. "Middle management tries to be very efficient in the short to mid term... it's hard for them to get on board with projects that do not have a quick payback."

More widely, Latsanych admits that other departments within MTS felt "uncomfortable" about his plans. "They worried that things were being taken away from them and given to a new business area with more funding. So I did have to go and calm the whole thing down... make them aware [of what was happening]."

While a series of face-to-face meetings looks to have got the workforce on board, the other major challenge is going to take longer to overcome. Regulation is, according to Latsanych, "the same if not worse" in Russia than in Europe.

"We are regulated by three extremely powerful laws that strangle us when we want to do something with customer data," he says. These laws relate to customer privacy, telecommunication privacy and data exchange. "There is huge fear of data leakage... we have to be very careful," Latsanych adds.

The CMO remains "confident" that changes will be made. "I don't want to be over optimistic but I think in the next 18 months we will see changes that allows us to do more. I'm not saying [we will see changes that will allow us to do] everything, but we will be freer and at least several products will be on the market."

MTS is piloting various types of external use cases. Latsanych says the financial services sector is "very important" – MTS owns a stake in a bank owned by its parent company – while it wants to get into the advertising industry. "We believe we can enhance the metrics of TV viewing, banner re-targeting and existing programmatics that most digital agencies are using," the CMO reveals.

Other verticals are also being looked into, but Latsanych says the financial and advertising sectors represent the "low-hanging fruit".

A bitter pill to swallow

We have, of course, heard all this before. Telefónica is again the bellwether thanks to its Smart Steps initiative, which launched in 2012 but has undergone a drastic refocusing after a number of failures. Can it really be different this time? Can telcos finally achieve the pot of gold at the end of the big data rainbow? Latsanych remains optimistic and is happy to admit the failures of the past. "Like many carriers we thought external monetisation would be big," the CMO says. "We projected 70 percent of new business would come from this and 30 percent from improvements to internal processes. Now we have reverted back to 90 percent internal and exploring maybe 20-30 percent from external."

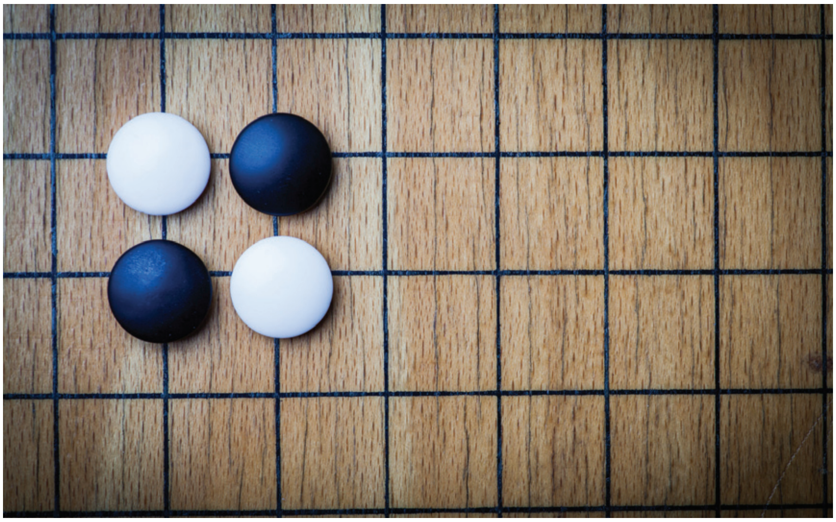
He adds that it was "a bitter pill to swallow" but disputes the assertion that the industry was irrational in thinking that data monetisation was a silver bullet. "They did not take into account the market and regulatory situation," the CMO responds. "That led to some over expectations but it does mean that the product is not possible."

What it does mean, surely, is that others have and continue to steal a march on telcos. As the internet players continue to set the agenda, Latsanych isn't shy about sharing his frustations. "Carrier data is more precise... it is just as valuable as Google's information and maybe even more so."

The problem is "a lot of barriers". The CMO concludes: "We are building data stacks and trying to shape the environment so that the data becomes more appropriate, secure and accepted by the public and regulators." In the meantime, MTS's new big data division will tinker, test and wait for the moment that their creations get to see the light of day. EC

Operators play long game with external data sales

Privacy and trust issues continue to make selling customer data to third parties a tough prospect. It can be better used to stimulate the IoT ecosystem, writes James Blackman



Are we any closer to realising the long running saga of telcos and their attempts to monetise customer data? A couple of announcements from Telefónica in recent months suggest progress has been made. Its SmartSteps initiative, which makes anonymous data about its mobile customers available to third parties, has been picked up by Exterion Media, in charge of advertising on the London Underground, to schedule advertising on digital screens.

In parallel, the Spain-based operator has struck a deal to deploy the same technology with China Unicom; the pair are looking to sell anonymous data about the Chinese operator's 287 million mobile customers to the transport, real estate and government sectors. Telefónica is bullish about the prospect of selling data to third parties, for both commercial gain and industrial innovation, alongside making more expansive usage of it for internal purposes.

"Big data services for third parties and the Internet of Things are taking more relevance in our business," says Elena Gil, Global BI and Big Data Director at Telefónica Group. "We are defining a compelling technological and business strategy to approach these two sectors."

Orange draws a sharper distinction between monetisation and collaboration in its work with big data, where the former is about selling data for commercial gain, and the latter is about stimulating innovation within the IoT space. However, Ludovic Levy, Vice President of Big Data and Analytics at Orange, says internal use cases account for 95 percent of the value it achieves from data analytics.

At one level, external data monetisation is less lucrative simply because encrypted and aggregated data has less value. "The data with most value is personal data. The data we can sell commercially is anonymous data, which can't be traced, and ultimately has less value," says Levy.

Orange's strategy is to retain its customers' personal data, along with their 'pseudonymous' data, which has been stripped of most identifying marks but doesn't guarantee complete anonymity, for its own purposes – "mainly to give us an edge against the competition," remarks Levy.

Complex statistical algorithms are in play, he says. Orange typically sets 200-300 parameters when interrogating customer data to identify target segments for its internal marketing. "We can build a model that says there's an 80 percent probability these customers will be interested in, say, our TV package."

What about conversion rates? Orange managed to persuade customers of its subsidiaries in Africa to take more in the way of data with such a programme. "It's wasn't 20 percent, but a few percentage points of ARPU on a large scale brings sensible additional revenue," says Levy.

Of more interest, arguably, is Orange's Flux Vision suite, which makes network data available via a subscription to the traffic, tourism and trade sectors.

As of November, it has also started selling a cloud platform, called Datavenue, which enables public and private organisations to cross Flux Vision data with their own, and to create new services based on the findings. It's pitched against IBM's Bluemix, Microsoft's Azure and Amazon's AWS Marketplace. As such, it's not geared towards a straight sale. "It's a software business; it's not a data monetisation business," says Levy. "External monetisation is not a priority. Our priority is to improve our own performance."

Good and bad

It is a line that appears to chime with most others in the market. Big data applications tend to focus on marginal gains in sales, marketing and care, as well as in network deployment, management, and upkeep.

Dutch data analytics firm Flytxt reckons certain practices work in each field, and certain don't. In short, instant gratification works; mobile users are inclined to accept non-intrusive marketing, where context is taken into account. Real-time engagement increases conversion rates 10-fold, Flytxt reckons.

"Mobile advertising works well for achieving certain goals, if done right," remarks Abhay Doshi, the company's Senior Vice President of Product and Marketing, in reference to third-party activity.

But the likes of Flytxt have a job on their hands to convince the trade to be bolder. It suggests just 10 percent of operators have "comprehensive" big data solutions in place. "They're scratching the surface," says Doshi. A quarter has fragmented point solutions, as part of half-decent strategies, and the rest are implementing specific use cases "with limited success and vision".

For Telefónica, at least, the pace is picking up. The company acquired Synergic Partners, a Spanish data analytics firm, late last year, and has since introduced training and 'ambassadors' to get its staff 'technologically and culturally' aligned. "We're increasing our level of ambition," says Gil.

Even so, external data monetisation is a single part of one of its four areas of focus for big data analytics; the others are marketing, churn reduction, and network optimisation. "Regarding the external opportunities the evolution is slower. The business models are not completely defined and the privacy/security issues are key," says Gil.

Indeed, the external sales remain largely exploratory, observes Neil Lilley, Operations Director for Business Unit Support Solutions at Ericsson. "From a data science point of view, all kinds of things are possible. The bottom line is there are good ideas, but it's too early to draw conclusions about them – about what would create value and what would be appropriate."

An old, culturally challenged industry

Is the default perception of the industry – a confederacy of laggards, faced with formidable cultural entrenchment – entirely fair in 2016? "The OTTs are ahead, but telcos do pretty well," remarks Andy Hicks, Research Director at IDC. "Which is to say somebody, somewhere within these organisations, is doing something very advanced with big data and analytics."

Levy at Orange puts the industry's inherent cultural challenge in context. "The reason we're late – if we are going to say that – is just that telecoms is an old industry. The digital sector is brand new. It's much easier for those guys to centralise the hosting and processing of data, for example, and build services that are absolutely consistent across markets. We have the same ambition, for sure, but it's taking more time."

Other sectors have had a head start, in part, because their big data is inherently less complex, says Lilley at Ericsson. "The data in telecoms in more difficult to interpret without the right expertise. Even I could probably sit down and create a data model for online retail about all the transactions flowing through the system – the size, the colour, the flavour, and so on," he says.

There are other challenges, too; with data protection is perhaps the most gnarly of these, as both Gil and Levy observe above. But the industry's caution about data privacy may work in its favour.

The General Data Protection Regulation (GDPR), approved by the Council of Europe in April and scheduled to come into effect two years hence, will remove the ability of foreign businesses to import home rules.

This is an issue for the big American OTTs in particular. In the US, privacy is a property right. In the EU, it is a fundamental right, upheld by government. Here, in Europe, the US OTTs have played by US rules. The GDPR will change that, and hold all organisations extracting data from its people and territories accountable under European law.

For Orange, the industry's general approach to data privacy sets it apart, and will give it a competitive advantage. "Consumer trust is low; without it, you can't build business. In general, stronger protection will help regain that trust," says Levy.

He suggests that as new regulation requires enterprises trading in Europe to incorporate 'privacy by design' and 'privacy by default', more investment will go into techniques for data encryption and aggregation, and bring new commercial possibilities for making use of anonymous data, internally and externally.

More than this, by going further to protect customers' data, operators can also shield themselves against disintermediation, where the OTTs "jump in the value chain to take position between" operators and their customers." Levy says: "By protecting your customers, you protect your own business, and your industry."

These are important points. The sector is at a crucial staging post on its way to this 'promised land' of super-connectivity. The lessons in analytics the telecoms sector is now learning will go some way to help it define its role in the IoT ecosystem.

Hicks says: "If the industry manages to get its analytics running, then operators can start to disrupt and compete as providers of ICT services, which is where most of them want to go."

But the manipulation of varied and complex data streams won't just allow bearer networks to perform more intuitively, and more expansively, it will help society as a whole to tackle the bigger challenges of sustainable growth and living.

The industry's experiments with external data monetisation could yet help to underpin this benevolent vision of technology as a force of good. Lilly puts it well. "Big data will deliver the right customer experience, regardless of service or channel, but it will also be crucial to make the IoT workable and useful. It provides the insight and decision-making needed for this vision of the networked society." ec

Time to get proactive and show what data can do for consumers

David Craik looks at how the telecoms industry can better educate consumers about the value of big data

Putting the customer first has not always been the main consideration of big European businesses over the last few decades. Concepts such as brand loyalty and trust remained just that – a bit too 'touchy feely' for some bosses to give much consideration too.

But in 2016 the power of the consumer and the ease in switching from one brand to another through the touch of a screen has concentrated minds. In telecoms especially trust has become a key focus when trying to capitalise on the revenue potential of big data.

Back in January this was the concern of Vodafone Netherlands CEO Rob Shuter when he addressed the 'Big Data: Key to the Future or the End of Privacy?' event in Brussels. Shuter said operators had to do more to communicate the benefits of big data with their customers.

The catalyst was research carried out by Vodafone's Institute for Society and Communications. It surveyed over 8,000 Europeans on their attitudes to big data. It found that only 32 percent believed there are advantages to big data, with only 20 percent stating they know where and how their personal data is collected and stored. Only a quarter, alarmingly, felt that companies respected the privacy of their personal data.

Other findings revealed that Europeans would be willing to share their data if it benefited society or their everyday lives such as personalised traffic reports. But a third said they would be uncomfortable with it being sold to third parties for advertising and marketing purposes.

Viktor Mayer-Schonberger, Professor of Internet Governance and Regulation at the Oxford Internet Institute, says telcos must take immediate action to win over their customers. But that will first take a fundamental change in how they perceive their businesses. "The fundamental crux of big data is that it will only reach its potential of being of significant economic value to operators if their customers are comfortable with them using large amounts of their personal information," he states. "Telcos will only get the data that they need if they recognise the need to move from a cost-cutting commoditised business to a value generating business using data. They need to be trustworthy in the eyes of their customers and trust building takes time. Operators have not looked at this before – they have been more concerned with competing on price. It will be hard and costly for them to do it."

Showing customers that operators can secure data and use it ethically will be key, Mayer-Schonberger believes. "You have to communicate with your customers that you are going to use their data only for certain purposes," he states. "On the streets there is a general notion that telcos are in cahoots with the Government when it comes to sharing data. But in comparison Apple can be trusted to look after data."

He says this does not mean operators going for full transparency and writing large documents revealing exactly what data it will collect and how and what it will use it for. "Nobody has a spare 25 hours in their lives to read those," he laughs. "People are increasingly looking for independent validation. So perhaps operators can bring external auditors in to look at the data and state whether it is being used ethically or not. You see this in other sectors from elevators to food, so why not telecoms privacy as well."

Over cautious?

Professor Nico van Eijk, of the Information Law department at the University of Amsterdam, thinks operators are becoming more cautious about big data. "Telcos have traditionally seen themselves as the protector of customer data and their caution over using it hasn't been helped by the Snowden revelations," he says. "They are more careful now about asking for unlimited permission from customers and know that in the long term they will benefit more from a cautious policy building approach. They don't want to go with the flow in the short term and go off in the wrong direction."

Mary Clark, Chief Marketing Officer at Syniverse, agrees that recent high profile cyber incidents such as Sony have complicated the picture. But they have also re-emphasised the importance of operators tackling three key subscriber hurdles – security, transparency and control.

"These breaches have made subscribers hyper aware of data. They want some level of control. They want to know what the operator is going to do with their data and they want to know that they have the chance to opt out if they are not happy," Clark says. "Operators have to inform the subscriber that they already know a great deal about them such as location data and that they can use it for their benefit. But they must insist that they don't want to use that information without their permission."

Operators need to be transparent about the data security methods that they use and re-emphasise their position as "guardian of your data'. Clark adds: "Operators should inform their users about the good work they are doing with data. One company has teamed up with a credit card firm to use location data to prevent fraud and misuse. Subscribers can see that operators are giving them a direct benefit."

Van Eijk also encourages operators to tell their subscribers that their data can be used to offer them better and more flexible telco services to choose from. "Every customer will understand the link between data and more contract options. It is a very simple communication," he states.

Both he and Clark are confident that consumer demand is there. "Studies have shown that there is a willingness from people to share their personal data if they know exactly what will happen with it and what benefits they will receive," he says.

Clark adds: "People are happier for retailers or hospitality firms to use their data because they expect to get something back. Telcos need to show them that they can also give them obvious value back."

She agrees with Mayer-Schonberger that operators have not been "aggressive" enough in doing this to date. "They have not made an intentional effort to communicate to their subscribers about what their plans and intentions are with data. They have to be more proactive and use multi-channel marketing to get their message across on an individual level to each subscriber," she states. "As part of this they must address the right of an individual to opt-in or opt-out when they plan to use their data and be clear about the ways subscribers can communicate when they are unhappy."

There have to be some limits when it comes to communicating the benefits of big data though argues Mayer-Schonberger. "I know of one mobile operator who is using their customers' personal data to predict churn and ensure their key customers stay with them. Instead of measuring who phones the most or pays the most for call time, they are looking at who their customers are calling. Who are the leaders of their social network? Who when they move to a different network will lead their friends to move as well?" he states. "These people get special deals to stay. They don't know their data is being used. So do operators communicate that at the risk of annoying their other customers? These are important and novel questions operators need to ask themselves."

According to Clark, operators also need to engage with regulators to stress the benefits that big data can bring their consumers and society. Operators are already making progress here according to Emmanuel Letouze, Director of big data coalition Data-Pop Alliance. He explains that a number of telcos are currently discussing plans to allow social organisations or NGOs to "mine" anonymised customer data for non-commercial purposes.

"Telcos could help curb the spread of the next Ebola, increase GDP growth or help with poverty studies by revealing if their customers are becoming poorer or richer," says Letouze. "There are macro benefits here for the telcos as well as the public relations side of showing customers what they can do with their data. They should undertake public awareness campaigns about how data can provide social rather than commercial value."

These are noble, altruistic intentions but most people "don't have a clue" about what is being done with their data Letouze says. "The mantra that operators should follow is 'no surprises'," he states. "Making the terms and conditions simpler and more digestible would be a good first step. Put them into simple graphics showing that this is what you can consent to or not."

On that point he believes that today's teenagers who are consuming much more data than previous generations will require more information and options in the years ahead. "They may have greater demands on controlling their data such as using it more widely to fight Ebola or climate change," he states. "A revolution is needed in setting up the right parameters. It is a very binary opt-in, opt-out question at the moment but in the future you may have conditions encoded in your data stating that you are happy to use it for this reason but not that reason. Data control must be much more holistic." ec

No time to waste for operators' digital transformation

"Going digital" may be the strategy that everyone's talking about but who's putting into practice? Operators have just revealed, in new research by Amdocs, that they believe it will take them more than five years to complete their digital transformation. That's not great news when you consider that customer demand for digital services isn't just going through the roof, but that the expectations around digital services are changing too and outpacing mobile operators' own digital transformations.

And the operators know this, with over half of those surveyed admitting that five years isn't fast enough.

They need to accelerate transformation to meet customers' digital experience needs, to leverage the unique assets that they have mainly around customer experience, and also to face the real threat of the third-party Internet providers. That's the scenario painted by two separate studies by global customer experience solutions leader Amdocs into the changing digital landscape – one study captures the thoughts, concerns, expectations, and strategies of digital-transformation decision makers at over 80 different operators worldwide. The second shows a different perspective, analyzing the views of 8,000 consumers in 13 countries, with almost three quarters of whom saying they would consider getting traditional voice and data services from over-the-top (OTT) providers of digital services if the service was available, and the price was right.

"We've been trained by the likes of Amazon and Netflix to expect a very simple and intuitive experience, whether it's for buying products or renting movies," says Vincent Rousselet, Vice President of Market Insight and Strategy at Amdocs. "Instilling that culture and service agility into traditional operator businesses isn't always easy. Their portfolios are wider, their histories are longer, and, quite frankly, their IT systems are much more complex."

"Making it look simple" is exactly the challenge that operators face right now – taking a very complex back-end (involving systems, networks, activations, complex billing, multiplay bundles etc.), and masking it behind an enhanced customer experience, so that customers feel like it's as easy and as "cool" to use as when they buy a simple product online, like a book, or a new jacket.

The idea that consumer expectations are spiralling upwards as the market in general becomes accustomed to, and reliant upon, more dynamic and sophisticated digital services is hardly surprising, and is confirmed in other research, observes Amdocs.

For example, a recent Vodafone report says 96 percent of UK 'shopping journeys' feature a digital component, and in a separate study by research firm GfK, more than 40 percent of adults switch devices to complete online activities. "Ten years ago, even five years ago, those numbers would have seemed fanciful," says Rousselet.

What the operators say about digital transformation

The more telling statistic from Amdocs comes from their new operator research which found that 50 percent of senior management within telecoms reckon it will take their companies more than five years to transform, and meet these rising expectations for digital services.

Quite simply, this isn't fast enough, admit another 59 percent, who suggest traditional telecoms suppliers will be outflanked by other industries in the meantime. Worse, 46 percent of operators say they don't yet have a digital transformation strategy. And with research firm Ovum claiming that over 80 percent of C-level executives have identified digital transformation the sector's top priority, you'd expect a real sense of urgency, says Amdocs.

"Of course operators understand consumers' digital-experience expectations, but when you ask them about their own transformation, many are still only somewhere near the starting line," explains Uri Gurevitz, Director of Market Insight and Strategy at Amdocs. "They need to accelerate their digital efforts. Their entire culture and outlook needs to change – and fast. Five years is a really long time in today's world. Just look at WhatsApp: five years after its launch, it had 600 million active users, completely disrupting the traditional text messaging market. In five years from now, consumer and business customers' expectations will have evolved again."

"We know that the prospect of digitizing every aspect of their systems and services while keeping existing operations running smoothly, can sound daunting," adds Gurevitz "but they don't have to change everything at once. However, they do need to change their culture and mentality – otherwise I think they'll struggle to keep in synch with customer needs and desires."

Getting going

It's definitely overwhelming to an extent, and undeniably complex, explained Rousselet, adding that this is why operators tend to seek external help through consultancy or managed services from companies like Amdocs to clarify the challenge and simplify the assignment, "because they know they must move forward".

"The reality is that the market's changing faster than ever, and the change is only accelerating. So a good starting point for operators to kick off their transformation is by focusing on the 'low-hanging fruit', by taking a region or a business line first, and digitalizing the relevant services in, let's say, six to nine months," suggests Rousselet.

New digital dimensions

Amdocs is not just asking questions, of course – it has some answers too. Operators must anchor their digital transformation against four strategic imperatives, or four 'pillars', it says.

The first is about straight customer engagement across, what Amdocs calls, 'digital dimensions'. As per the Vodafone statistic about UK customers' shopping habits, Rousselet believes the ability to deliver a consistent, transferable experience across platforms and devices is now a minimum requirement for contemporary services.

He cites a recent project to modernise Telefónica's business support systems in Brazil, Chile and Peru, so Telefónica will be able to provide a consistent multi-channel experience for its quad-play customers across fixed line, wireless, Internet and TV. The work with Telefónica also spans customer relationship management, including self-service, service order management, and revenue management. Telefónica is one of the industry's strongest advocates of digital transformation, with its Global CIO Phil Jordan bluntly making clear that "if we don't go digital, we won't survive".

Diversify, diversify, diversify

Beyond such fundamentals, as a second imperative, operators must also diversify, states Amdocs. Research firm Gartner estimates that, by 2021, one million new IoT devices will be purchased every hour of every day. With changing consumer demands and brand new appetites, it suggests that as much as 30 percent of operators' revenues will come from digital services within this time frame.

Indeed, half of those applications have not even launched yet, it says, and predicts a glut of new digital services coming post-2018. "A digital transformation clearly provides the opportunity to diversify and capture additional revenue streams from new offerings and from new customer segments," says Rousselet.

One of the latest examples of diversification that Rousselet gives is a new project with Globe Telecom in the Philippines announced this month (February) that will allow Globe to make bulk mobile payments of salaries and government disbursements, and enable it to deploy new services faster and more efficiently.

Intelligence and agility

The Globe solution also taps into improved big data analytics functions, which introduces Amdocs' third pillar of 'data empowerment'.

The big data analytics market is growing at over 20 percent per year, it notes, as operators of all stripes take an increasingly granular view of their operations. Analysing the network experience in real time, and exposing it to the operator's business and customer-care teams is a step change, says Amdocs, pointing to another Telefónica project – this time in Argentina – where it has implemented an operational data store to aggregate data from such sources as billing, ordering and customer management, as well as from inventory management, workforce management and network trouble-shooting.

Telefónica says it has enabled a better customer experience across platforms, as well as differentiation in the Argentinian market.

Having an edge comes down to the dynamism of operators' go-to-market capabilities as well, or 'service agility' (which is how Amdocs badges its fourth pillar).

Their ability to bring these services to market swiftly and at scale, in sharp response to changing demands, is increasingly important. "The payback can be measured in reducing the time to market and value from months to weeks or even days, placing operators in the same league as OTT competitors," says Rousselet. As illustration, he points to Bulgarian operator Mtel, which has reduced launch times for its new digital services by more than 80 percent with Amdocs' help.

"This agility is about upgrading IT systems so they work faster, rolling out networks in a smarter fashion, launching services to highly targeted customer segments. It's about how you acquire the dynamism of a start-up or OTT, whilst retaining your inherent culture and values," he says. "Together, these four pillars enable operators to capture the world of digital immediacy."

And there's the rub – the operator community doesn't have five years to overcome such hurdles and enact change. It must act now to "go digital", or else be challenged by younger, more agile contemporaries.

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Standardise to save, then reinvest to innovate:

Srinivasan Jayaraman, Head of Virtusa's Global Telecommunication Business, talks industry challenges, emerging tech and customer experience

Hi Srini, thanks for speaking to us today. With Mobile World Congress fast approaching, things must be pretty busy for your team. I guess the big question is, what has changed over the past year?
Well yes, it's always a crazy time of year, but it's also a good time to reflect. In some ways, the past year has not been much different to the one before except that the pace of change is ever increasing. We are still seeing margins shrink, as OTT players encroach on traditional voice and text revenues, and price wars rage on. As more devices get connected and as consumers and enterprises consume more data, the demand for fast and reliable networks is ever increasing, meaning telcos need to do more to stay ahead of the curve. I guess the big difference is that as every year passes, these problems become more acute, and the environment becomes more complex – particularly when you look at the ever-widening range of Internet-enabled devices being added into the mix. So it's the same, but different.

So what are the major challenges facing CSPs?
The battle to own the customer is one of the biggest challenges CSPs face right now, and the goalposts are constantly shifting. Consumers are setting the agenda, in terms of how fast CSPs need to deliver, what services and devices they need to support, and (in most cases) CSPs are struggling to engage with consumers. Today, there are no barriers to disruptive innovators competing head to head with CSPs. CSPs are in a constant battle to stay ahead of the competition and in step with consumer trends, in order to reduce churn and acquire new customers. From a business operations perspective, there will continue to be pressure to lower costs, increase speed tomarket, improve efficiency, grow the business and so on. As CSPs focus on rolling out newer and faster networks and acquire new consumers, they are still hampered by the reliance on bespoke legacy systems, which run core critical business applications; delivering transformational business change in this legacy-dependent environment is very restrictive and difficult.

Bearing this in mind, what are the three core areas that CSPs should be focusing on?
Firstly, there is a need to redefine the customer experience and how CSPs interact with their customer. There are so many touchpoints that a customer interacts with their provider – from the call centre through to online billing and Point of Sale. Each of these touchpoints needs to engage the customer and deliver a seamless experience, and they all need to run off a common platform, but this often isn't the case. This can mean the customer experience is frustrating and disjointed. This is why having an omni-channel customer environment is essential. Everything from the back office through to front office needs to be connected; there needs to be consistency across all channels, people need to have the option to communicate in whatever way makes them most comfortable.

However, any customer engagement process will not help you if the network doesn't deliver, which is why maintaining Quality of Service will always be a critical focus for any CSP. If customers are experiencing outages, slow service, video buffering, it won't take long for them to take to social media to wreck your reputation. It all comes down to reliability, cost, speed, and stability. But as complexity increases, so do the number of opportunities for things to go wrong, and the difficulty in sorting them out. So a large part of keeping customers happy is in having a network and operations team that can resolve issues fast, and proactively pre-empt problems before they impact customers. Not only this, but CSPs also need to have the ability to launch new services and integrate with more devices, fast.

Yet business transformation requires more than technology and policy, it requires a cultural shift which is often much more difficult to achieve. Many CSPs operate in different siloes with teams for customer care, operations, network teams and so on. This creates issues with communication and inefficiencies can easily slip through the cracks. Overcoming this social challenge, and encouraging people to think and work differently, is one of the biggest challenges I see facing the industry.

So what would you suggest to address these problems? What are the most common mistakes you see people make?
Most CSPs we speak to are stuck in the same dilemma – they want to instigate change, but most of their IT budget is earmarked for 'essential' services, such as maintenance and app support. They have to battle to invest in network upgrades, let alone innovation. Yet increasingly innovation is an essential service – failure to innovate will drive customers away, it will damage reputations and ultimately it will result in lost market share. Getting the board's

buy-in often requires some creative thinking. They need to see the figures, which is why it is vital to take a serious look at where cost savings can be made – and you'd be surprised how many savings are often left on the table.

Typically, whenever we enter into a new engagement, we are able to identify 20-30% of apps support and maintenance cost savings in the first year. When you consider these budgets are normally around £100 million a year, this means £20-£30 million can be reinvested into transformational work and innovation without any requests for funds being made. There is no silver bullet, but a lot of it comes down to the rationalisation, standardisation and finding smarter ways of working. As a strategic partner to our clients, we are exposed to a variety of environments, and an assortment of bad habits as well as common pitfalls to avoid. We are also exposed to the latest waves of technological innovations that, when applied correctly, can deliver even more cost savings. An exciting new area we are currently working with clients to build virtual robots that can automate low-skilled business functions – for example, responding to call centre FAQs, or matching billing, customer, inventory and supplier records to help with billing discrepancy, or auto correcting data discrepancy and systems issues in the order fallout department. So once the savings are realised from cutting inefficiency, they continue to be sustainable because you have invested in smart technology – for example, SDN/NFV, Big Data and analytics, artificial intelligence – these all come together to deliver savings over time which can always be reinvested into what comes next.

What new innovate technologies are CSPs investing in at the moment? What are you recommending to your customers?

We see active interest in the Internet of Things (IoT) – there is tremendous interest in launching new services or capabilities in this area. We are also seeing growing awareness in the areas of AI and Robotics especially in the areas of internal operations or networks. This is an emerging area and we believe this will lead to long term shifts in terms of how CSPs manage certain parts of their business.

We are seeing active interest in areas such as SDN and NFV, as they enable much more flexible networks that can adapt to change and keep in step with consumer demands. Big Data analytics are really key here as they can help you identify trends over time, get a better understanding of your customers, potential demand, allowing you to forecast with much greater degrees of certainty.

The industry is seeing its next wave of consolidation through mergers and this will create tremendous opportunities to unlock value through optimisation and efficiencies. So there is a lot happening, it's an exciting time!

It's been great chatting, is there anything else that you would like to add?

The telecom industry is the engine behind every innovation, whether social or technology, that is emerging today. There has never been a more exciting time to be a CSP and while the challenges in terms of markets, customers and competition is extremely intense, we strongly believe that the CSPs who will make the big bold bets will eventually break away from the rest of the pack.

Srinivasan Jayaraman Executive Vice President, Global Head of Telecoms and Managing Director, Middle East and Asia

Srinivasan (Srini) Jayaraman heads Virtusa's Global Telco business unit. He also heads sales in the MEA region, focusing on Insurance, Healthcare, Media and Entertainment and Diversified Business units. In his Global Telco portfolio, he is responsible for driving significant revenue growth and profitability by building industry leading domain solutions that help address our clients' most pressing business challenges. From a MEA perspective, he is responsible for client relationships, strategy and overall business growth across the above mentioned segments.

Prior to this role, he has held various senior roles in Virtusa driving business growth, establishing and maintaining critical client relations and entering new markets. He also successfully helped various clients transform their business by focusing on accelerating time to market, enhancing customer experience and improving their ability to drive cost efficiencies in IT operations.

Prior to joining Virtusa, Srini was with Tech Mahindra in various roles and was Client Partner for one of their largest customers where he built successful business relations in India and Europe. Srini was also at HCL Technologies in India and US-based roles. He was a part of the core team that led HCL's foray into the Enterprise Applications business and was closely involved in setting up the CRM business.

Srini has a Bachelor's Degree in Mechanical Engineering from University of Pune and has completed his MBA from Indian Institute of Management, Lucknow.

Alierta hands Telefónica torch to José María Álvarez-Pallete

José María Álvarez-Pallete (pictured) took over as Executive Chairman and CEO of Telefónica in April. He replaced veteran César Alierta, who stepped down after 16 years in the top job. "Alierta considers Álvarez-Pallete as the best prepared executive to make a smooth transition and position Telefónica once again at the forefront, but this time, at the forefront of the digital sector," the operator said.