



**Global
telecommunications
study: navigating the
road to 2020**



EY

Building a better
working world

About this report

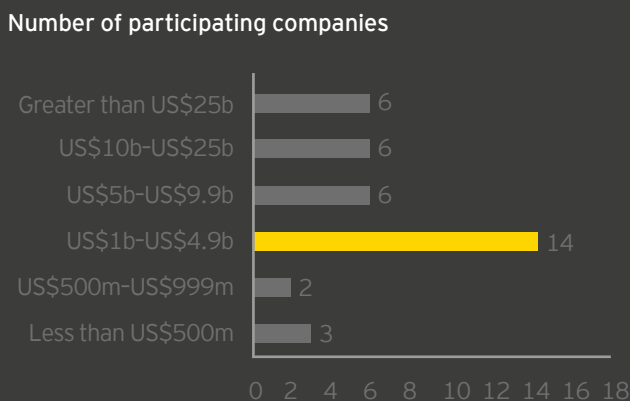
The 2015 Global Telecommunications Study has been conducted by EY to monitor and evaluate the evolving views of business leaders across the global telecommunications industry.

To give a firsthand industry perspective, senior executives from 40 companies in Africa, Asia, Europe, the Middle East and North America participated. These included not just the major operators in these regions, but also wider sector stakeholders, including technology providers and industry experts.

We conducted in-depth interviews with all these participants, supported by insights and analysis from EY's sector professionals and secondary research sources. Quotes highlighted throughout the study are from the interviews and are not attributed because we have promised our participants anonymity.

The following report collates the outputs of the interview process in both qualitative and quantitative terms, providing insights into industry dynamics, operator strategic priorities and key initiatives such as customer centricity, new services development and attitudes to inorganic growth.

Figure 1: Participating companies – annual revenues



The senior industry executives featured in our report represent telecommunications and technology companies with combined annual revenues of US\$670b worldwide, with an even split between entities based in developed and emerging economies.

43 interviews with representatives of **40** organizations

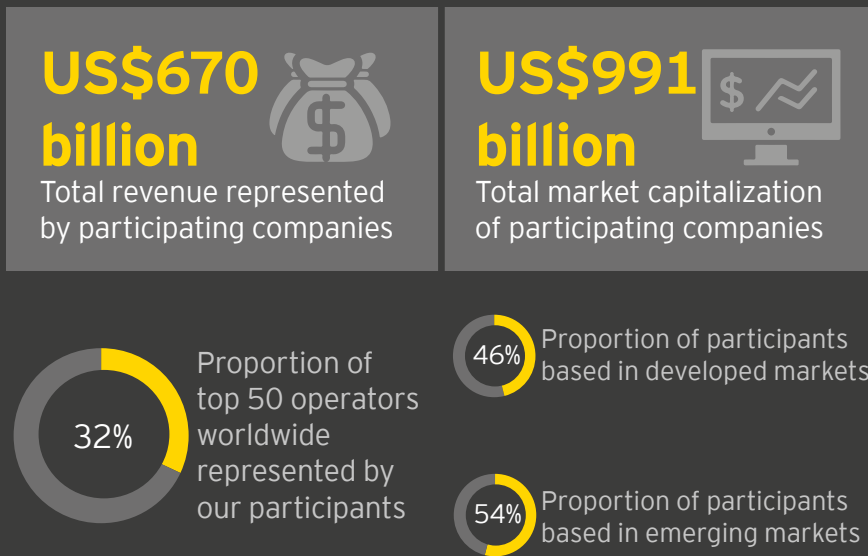
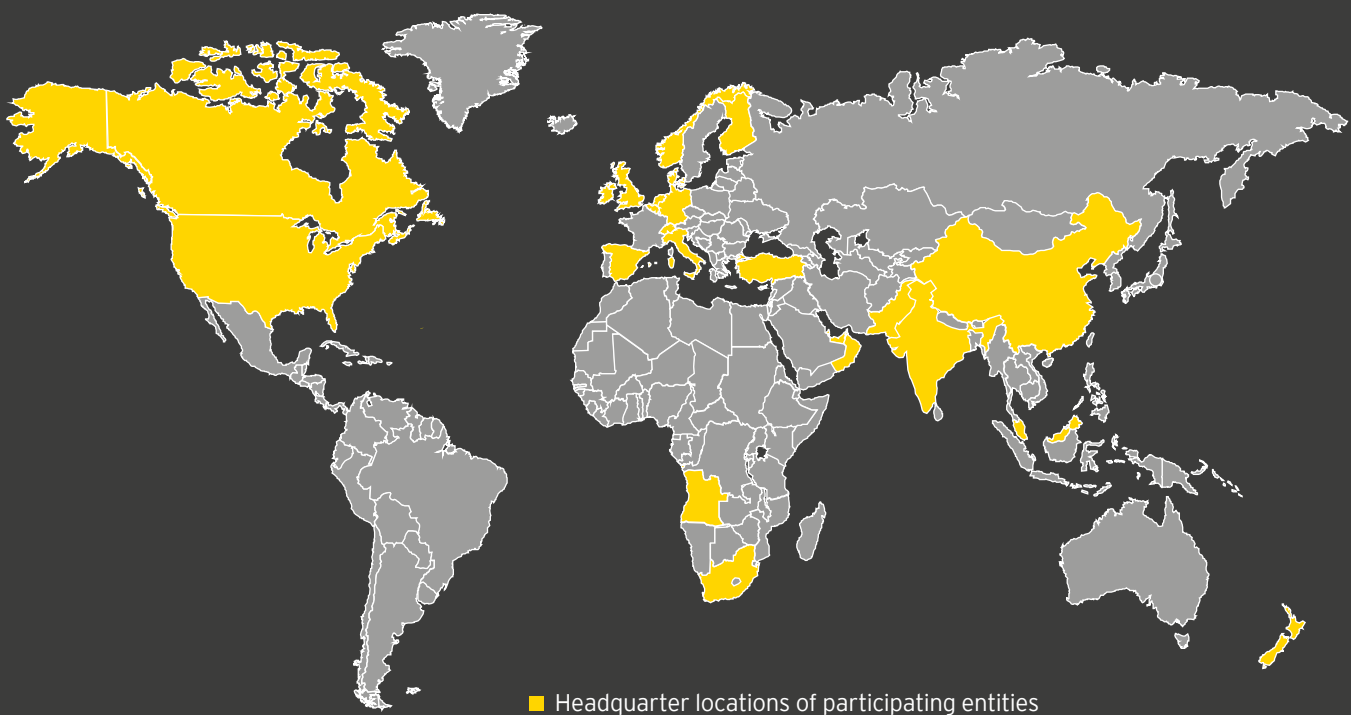


Figure 2: Geographic locations of participating companies



Participating industry executives*



Talal Said Al Mamari
Chief Executive Officer
Omantel



Claudio Contini
Chief Executive Officer
Telecom Italia Digital



Michael Foley
Chief Executive Officer
Telenor Pakistan



Brian Armstrong
Chief Operating Officer
Telkom South Africa



Christian de Faria
Chief Executive Officer
Airtel Africa



Akhil Gupta
Vice Chairman
Bharti Enterprises



Dr. Andrew Arowojolu
Group Executive Director
Strategy and Business
Development
Zain Group



Nick Dent
Chief New Business Officer
Ooredoo



Emre Gurkan
Chief Strategy & Business
Development Officer
Zain Group



Jon Fredrik Baksaas
Chief Executive Officer
Telenor



Carsten Dilling
Chief Executive Officer
TDC



Jose Henriques
Managing Director
Movitel



Datuk Bazlan
Chief Financial Officer
Telekom Malaysia



Tony Dolton
Chief Executive Officer
Unitel



Sanjay Kapoor
Chairman
Micromax Informatics Limited



Eelco Blok
Chief Executive Officer
KPN



Miguel Escrig
Chief Financial Officer
Telefonica S.A.



Zarrar Khan
Chief Technology Officer
VIVA Kuwait



Professor Martin Cave OBE
Regulatory and Policy Expert
UK Government



Deon Fredericks
Chief Financial Officer
Telkom South Africa



Murat Kirkgoz
Chief Financial Officer
Turk Telekom



Jukka Leinonen
Chief Executive Officer
DNA Finland



John Porter
Chief Executive Officer
Telenet



Fran Shammo
Chief Financial Officer
Verizon Communications



Dominique LeRoy
Chief Executive Officer
Proximus



Faisal Qamhiya
Chief Financial Officer
Batelco Group



John Stephens
Chief Financial Officer
AT&T Inc.



Jo Lunder
Former Chief Executive Officer
VimpelCom



Elaine Robinson
Director of Consumer Products
Eir



Chari TVT
Group Chief Financial Officer
Axiata Berhad



Yiannos Michaelides
Chief Executive Officer
GO Malta



Vincent Rousselet
VP Market Insight and Strategy
Amdocs



Klaus Werner
Chief Financial Officer
Telekom Deutschland



Simon Moutter
Chief Executive Officer
Spark New Zealand



Enzo Scarcella
Chief Marketing Officer
Telkom South Africa



Ulaiyan Al Wetaid
Chief Executive Officer
VIVA Bahrain



Tim Pennington
Group Chief Financial Officer
Millicom



Urs Schaeppi
Chief Executive Officer
Swisscom



Rhys Philip
Chief Commercial Officer
IHS Africa



BS Shantharaju
Chief Executive Officer
Indus Towers

*Three participants asked to remain anonymous.

The methodology

We met with each of the senior industry executives who participated in the study, asking them 12 questions focused both on the industry as a whole as well as on specific areas within their organizations. We asked participants to rank up to their top three answers to specific questions in order to provide full insight into the opportunities and challenges confronting them now and in the future. At the same time we have captured key comments from the dialogue accompanying the interview process, a selection of which appears in this report.

If you would like to see the complete results of the study, please contact your local EY representative.



Executive summary

Taking the pulse of the industry

The telecommunications industry is continuing to change at breakneck speed. Faced with ongoing disruption from every side, operators have recognized – and are taking advantage of – their pivotal enabling role in a digital society.

Mounting pressure on the bottom line means the emphasis is still on driving efficiencies into the business, yet many operators are also exploring new opportunities in a rapidly widening digital ecosystem as they look to meet a new wave of customer demands.

Operators are well placed to act as catalysts of transformation in a fast-changing digital society. But before they can take advantage

of changing customer and industry stakeholder expectations, they must decide where they want to play – and then focus rigorously on developing the strategies, technologies and talent that will be prerequisites for success in that area.

The alternative is to be sidelined as a “jack of all trades, but master of none” at a time when strategic vision and the ability to execute have never been more important.

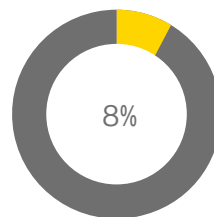
Telecommunications: a sector in the midst of transformation

The telecommunications industry has changed radically in the past 10 years as data-hungry customers with smart devices consume ever more bandwidth. Over this period, operators have expanded their service portfolios and overhauled their price plans to meet explosive demand, while rising capital expenditures underline the ongoing imperatives to upgrade network capabilities.

Operator performance varies significantly by region. North American and Asian telcos have outperformed other regions, benefiting from increased scale and strong secular growth opportunities, respectively. Meanwhile, European operator share performance has improved on anticipation of consolidation, while Latin American telcos have felt the brunt of a worsening macroeconomic outlook.

While many players are diversifying their revenue streams, ensuring that new services deliver healthy margins remains challenging. At the same time, over-the-top (OTT) players are also expanding the scope of their offerings, disrupting different industry verticals in the process.

All entities in the digital ecosystem are now seeking new points of differentiation in order to maximize their share of customer spend. As a result, issues of competition and collaboration have never been more pronounced. While operators still enjoy a majority of ecosystem revenues, OTTs have grown their share to 10% in the space of a few years, and competition in retail and distribution is becoming more intense.



Proportion of global operator voice minutes lost to OTTs in 2015

Source: Ovum

Current state, future state: survey results in focus

More than three-quarters of respondents cite disruptive competition as the leading industry challenge, with all respondents recognizing the potential of OTTs to reshape demand scenarios. Regulatory uncertainty is the number two perceived challenge, with spectrum release frameworks and data privacy legislation seen as particular pain points.

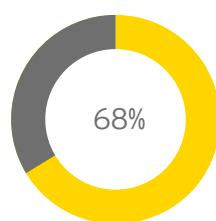
Customer experience management dominates the telco strategic agenda – 68% of senior industry executives cite it as their number one strategic priority. As operators look to boost loyalty and spend, higher levels of customer service allied to greater service personalization are seen as critical levers.

Cost control and network upgrades also rank highly as strategic priorities, and the majority of respondents see their organization's capex rising in 2015, contradicting industry forecasts of falling capex in years to come. Improved network quality is also seen as the third-most important driver of greater customer centricity.

Business efficiencies and organizational agility are second and fourth, respectively, on industry leaders' ranking of strategic priorities, while a lack of organizational agility is viewed as a leading industry challenge by almost half of the study participants. In this light, operating model refinements are mission-critical, with talent acquisition, shorter time-to-market and big data analytics initiatives all playing a mutually supportive role.

Inorganic growth ranks lower down the list of operator priorities, perhaps reflecting already high levels of sector M&A. Nevertheless, in-market consolidation is seen as the most important type of M&A, while more than half of the participants see entering new industry verticals as an important deal rationale. A similar proportion retains a pragmatic attitude to geographic growth.

While more than one in four participants view new services as a strategic priority, confidence in their revenue-generating potential varies. TV and services and cloud services for enterprises lead the way, yet Internet of Things (IoT) services, such as smart home and smart city, are the scene of less certainty. Nevertheless, revenue mixes will evolve rapidly: by 2020, 36% of participants see digital services accounting for more than one-fifth of their revenues.



Operators that view customer experience as their number one strategic priority

New horizons: navigating the road to 2020

The telecommunications industry and related verticals will continue to evolve dynamically over the next five years. Boundaries will blur among product categories as a range of industry actors shape customer demand scenarios.

Partnerships will play an ever more important role in driving innovation. In this light, operators must reconsider areas where they can take more discrete value chain positions as business-to-business (B2B) approaches become a key facet of value creation.

On the supply side, operators must also heed a more diverse set of policies touching the industry. At a national level, there will be a greater focus on holistic digital agendas that incentivize the entire value chain; yet, the risk of fragmentation at a global level remains very real, with spectrum release frameworks and net neutrality rules the scene of ongoing consensus building.

Meanwhile, network upgrade road maps will require careful deliberation. New technologies can help maximize the performance of existing fixed and mobile infrastructure, but operators must consider how best to combine different network standards to support the Internet of Things. At the same time, the current focus on in-market consolidation is likely to give way to a

new round of cross-border M&A, with operators also increasingly interested in acquiring new vertical-specific capabilities.

As a more complex sector landscape emerges, operators must engage in a delicate balancing act. On the one hand, more selective business models will allow more targeted strategies backed by focused investments. On the other hand, preparing for a range of demand scenarios will be vital as customer needs become more nuanced in a digital world.

Greater agility will be vital for all as operators grapple with the demands of digital natives. Organizations that can clearly connect their network and service capabilities with changing customer needs stand to gain the most, while other industries offer learnings on how to differentiate successfully while, at the same time, deepening customer trust levels.

While EY expects operator strategies to develop in different ways due to more nuanced digital ambitions and contrasting prioritizations of growth and efficiency within their strategic agenda, improvements across a number of domains – from customer experience to in-house collaboration – will be vital for all.





Telecommunications – a sector in transformation

A decade of disruption and diversification

The telecommunications industry has changed beyond recognition in the last 10 years, with customer needs and competitive landscapes shifting in ways that few could have predicted. During this time, we've seen capex trending inexorably upwards at the same rate as global industry revenues (at 5% compound annual growth rate (CAGR) in the period 2005-15¹), with spectrum costs adding to the investment burden facing operators.

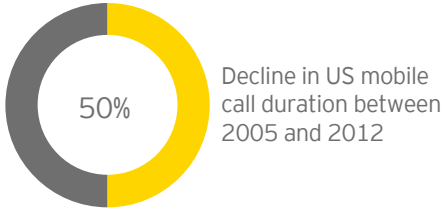
Meanwhile, there have been seismic changes in consumption trends. With smartphone usage surging over the same period, mobile has become firmly established as the leading computing platform.

“Customers are increasingly focused on data. Media and video was less than 10% of traffic in 2010; now it is almost 50% in 2015.”

¹ “Revenue and Capex Forecast,” Ovum.

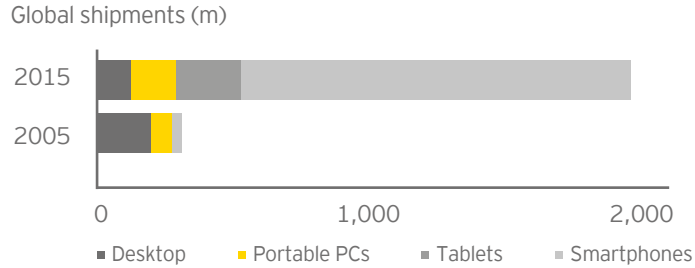
Figure 3: Fast-changing consumption trends

Voice usage has declined ...



Sources: Press, Canalysys, IDC, Gartner, EY analysis

... and mobile is now the leading computing platform²



In order to meet high levels of demand, operators have been investing in faster network capabilities, while also diversifying their service portfolios. Cross-selling has become increasingly important as a route to enhanced customer stickiness: by the end of 2013, 14% of global broadband subscribers also took an Internet Protocol television (IPTV) service from their broadband providers.

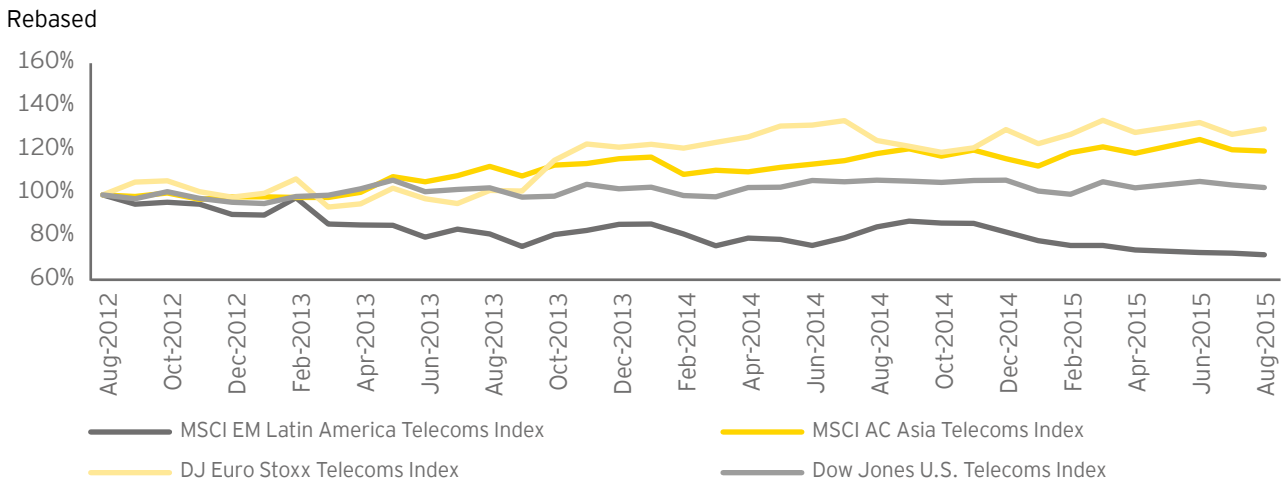
At the same time, many markets have shifted to tiered usage-based pricing for mobile data, a better monetization model than the all-you-can-eat price plans that preceded them. Similarly, more innovative data-sharing models have seen operators increasingly tailor their individual packages for the needs of households.

A contrasting landscape of operator performance

European operator share performance has recovered since mid-2013 in anticipation of M&A as a route to market repair. Elsewhere, macroeconomic pressures in Latin America and Russia have taken their toll, whereas less fragmented market structures in North America have enabled considerable service innovation.

At the same time, developed Asia operators have benefited from the rapid sophistication of user needs, while continuing penetration growth and the emergence of mobile data are the hallmarks of developing Africa and Asia.

Figure 4: Operator share performance by region



Source: ThomsonOne

Although investor confidence remains positive in key geographies, operators' status as utility-like safe havens remains uncertain.

Despite the easing of regulatory fears in many markets, dividend yields have remained under pressure in recent years.

² "40 Million New Broadband Subscribers and 14.1% Growth in IPTV Mark a Year of Steady Growth," Point Topic, 9 April 2014.

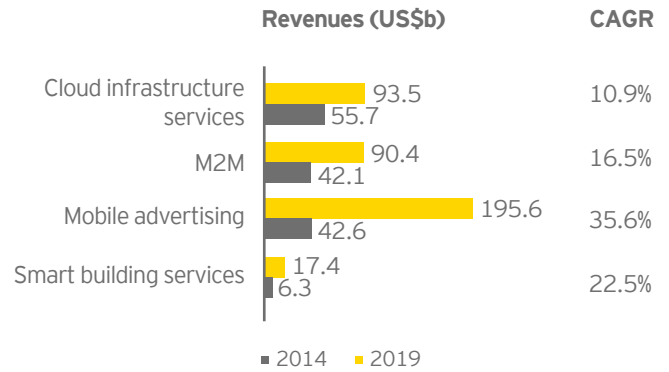
Plenty of digital growth opportunities but profitability pressure persists

Promising growth opportunities exist across information and communications technology (ICT). M2M connections are forecast to reach 1b by 2020, representing 10% of all mobile connections³ as the Internet of Things (IoT) takes shape, while enterprises are adopting cloud services in ever greater numbers.

In this environment, operators are positioning themselves to provide new use cases across a number of digital domains, while also bundling established products in order to offer new forms of value-add to existing customers.

“Life has been good and is still good so far, but times are changing, and managers who were used to launch new operations and manage growth are not well equipped to manage intense competition and shrinking margins.”

Figure 5: Global market growth of selected TMT segments



Sources: Ovum, IDC, Research & Markets, eMarketer

Nevertheless, profitability remains under pressure for a number of operators, despite the promising growth potential of new digital service domains. Downward trends in return on invested capital (ROIC) are the result of a number of factors, from regulated price reductions to cannibalization of legacy revenues by OTTs, along with high capital intensity required to support demand for data.

³ “The Mobile Economy 2015,” GSMA, 2015.



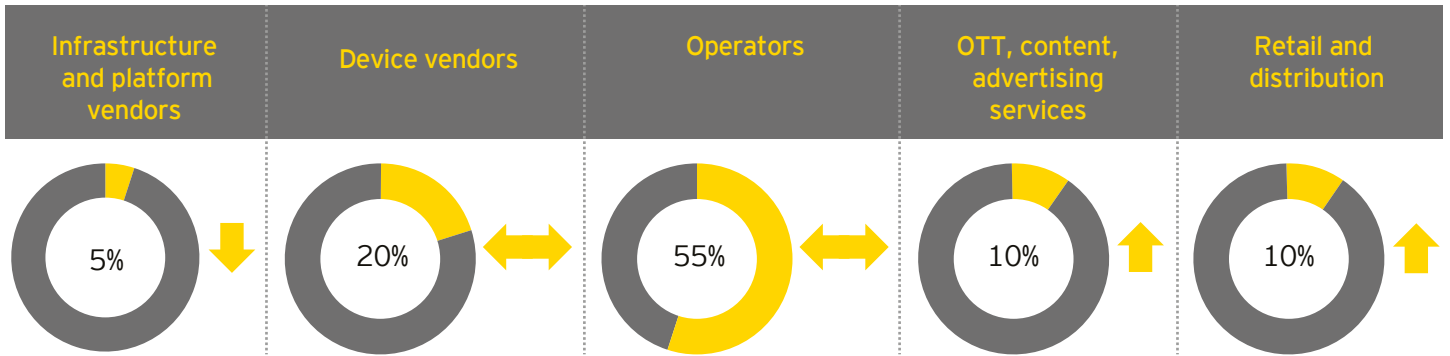
Tension in the telecommunications value chain as OTTs call the shots

While telcos are seizing a foothold in adjacent industries, many new services have a challenging margin profile compared to legacy telecommunications services. Even more importantly, OTTs are diversifying their own service propositions. Mobile instant messaging providers are adding voice services and mobile payments capabilities to their platforms, for example, threatening

both legacy and new services offered by operators in the process.

OTTs are growing their share of industry value chain revenues, reaching the 10% mark in just a few years according to EY estimates. With competition also rising among retail and distribution providers, it is clear that operators must do more to make the most of opportunities represented by the digital society.

Figure 6: Telecommunications industry value chain – 2015 share of revenues by segment



Source: EY analysis

“To avoid commoditization, telcos should become the focal point of the extended value chain, focusing on digital services and taking advantage of their traditional competencies.”





Headline survey results

Overview

A clear majority of our respondents cite disruptive competition as the leading industry challenge while regulatory issues take second place, with spectrum release and data privacy top of mind for many senior executives. At a strategic level, customer experience

management stands out as the primary focus for the next three years, with efforts geared toward meeting growing demand for seamless, high-quality experiences and providing more personalized services.

2015 Global telecommunications study: key survey findings

1. Disruptive competition is the principal industry challenge.
2. OTTs are the leading drivers of changing demand scenarios.
3. Regulatory uncertainties continue to unsettle the industry.
4. Customer experience management is the top strategic priority.
5. Service levels and personalization can unlock greater customer centricity.
6. Network quality remains a key point of differentiation.
7. A new interplay of people and processes can boost agility levels.
8. In-market consolidation is the leading driver of sector M&A.
9. Digital services will transform the 2020 revenue mix.
10. Confidence is high in TV and cloud, but IoT revenue growth potential is less certain.

Network quality remains a key source of differentiation, and half of our respondents see capex rising in 2015. Meanwhile, attracting new talent, shortening time-to-market and leveraging big data analytics are all viewed as central to the overhaul of existing operations.

Although M&A and partnerships are a strategic priority for a minority of respondents over the next three years, consolidation is

viewed as the primary M&A driver, with a majority of participants also viewing entry into new industry verticals as an important rationale for deals. Looking ahead to 2020, many respondents see digital services accounting for a substantial portion of overall revenues. Confidence is highest in TV and enterprise cloud services, while Internet of Things use cases are the scene of some uncertainty.

Disruptive competition is the leading challenge facing the sector

Given developments in the marketplace – particularly the rise of free social messaging apps – it’s no surprise that the majority of respondents highlight disruption as a leading challenge, with 36% singling it out as the number one challenge facing the sector.

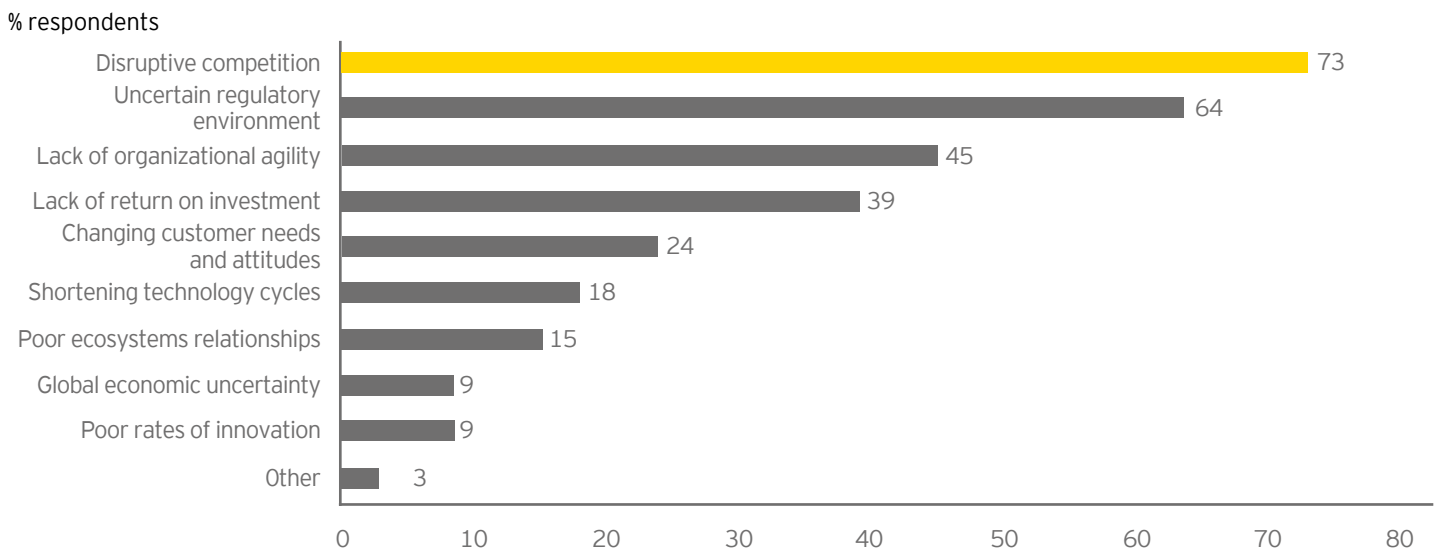
As operators seek to compete with these nimble disruptors amid substantial network investments, their ROI is coming under pressure, explaining why this is identified as another leading challenge, along with a lack of organizational agility. Interestingly, “changing customer needs and attitudes” ranks mid-way as an industry pain point. While customers may well be more demanding, it is the capacity of industry newcomers to create new user experiences that is top of mind among the C-suite.

“The emergence of OTTs has resulted in price and product erosion, impacting both revenues and margins. Unfortunately, the response from the industry has been too slow.”

“Telcos are platform heavy and suffer from a lack of agility to meet new customer demands.”

Figure 7: Operator views on the challenges they face

Q. What are the most significant challenges facing the industry? (Top three responses.)



Note: Percentages used in this survey chart reflect the proportion of respondents that selected the categories concerned as one of their top three answers. This methodology is used for survey outputs throughout the report unless otherwise stated.

Operator attitudes to disruptors are highly ambivalent

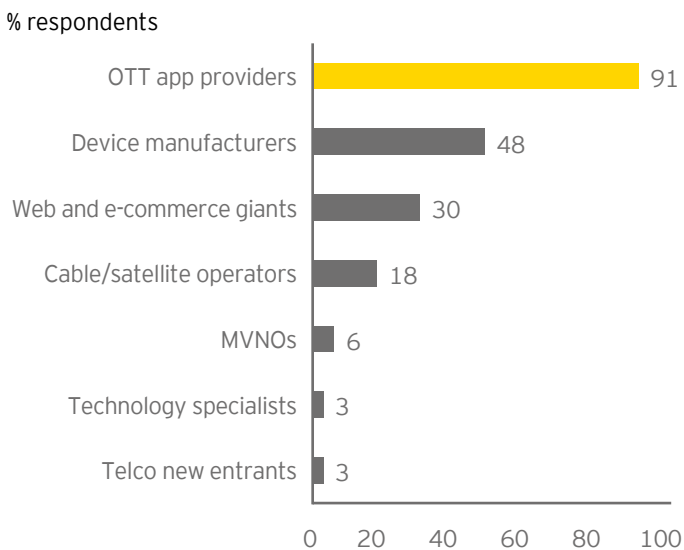
A clear consensus emerges among interviewees that disruptive digital players are transforming customer demand scenarios quicker than other industry entities. App providers, such as WhatsApp, are viewed as the top driver of new demands (by 61% of respondents), with innovative device manufacturers and web and e-commerce leviathans, such as Google, Amazon and Facebook, also squarely in the spotlight.

“Operators have lost control of consumer spend. The real control now is with app stores and device players.”

Perhaps surprisingly, mobile virtual network operators (MVNOs) feature lower down the list as perceived agents of changing demand scenarios. In the past, many MVNOs have competed solely on price, or targeted offers at underserved segments, such as migrant workers, yet recent merger remedies in Europe are safeguarding mobile spectrum for virtual operators while large tech companies such as Google and Panasonic have recently unveiled MVNO launch plans.

Figure 8: Operator views on competitor positioning

Q. Which types of industry actor are most likely to alter customer demand scenarios in the future? (Please select two.)

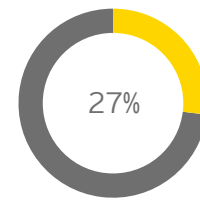
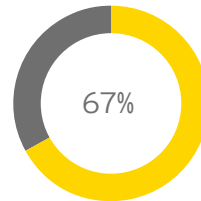


While the significance of the OTT phenomenon is recognized by participants worldwide, the views of operators in developed and emerging markets diverge when it comes to assessing the roles played by other industry entities. Forty percent of developed market participants see web and e-commerce giants as one of the top-two agents of changing demand scenarios, almost twice the

proportion of emerging market participants. This divergence is reversed for device vendors, with two in three emerging-market-based operators seeing smartphone manufacturers impacting demand scenarios.

Emerging market operators

Developed market operators



Proportion of participants that see device vendors as most likely or second-most likely to alter demand scenarios

It's not all about competition though. Increasing numbers of respondents are actively pursuing partnerships in the new digital ecosystem – whether that's including social media access within the monthly packages to stimulate mobile data usage in emerging markets or forging partnerships to include unlimited music streaming within tiered data packages in developed markets.

“We see opportunities to leverage OTT in terms of video so we don't see it as too much of a threat.”

In other words, perceptions are changing fast. Some operators see video-based opportunities from OTT, others are learning valuable lessons from the ways in which web giants interact with consumers, while some want to emulate OTT services themselves.

“We are planning a big step into OTT and will be the first player in the country to take this step.”

Meanwhile, there's a recognition that however potent the disruptive threat may be, incumbents continue to wield a major advantage through their established infrastructures. Nevertheless, some participants question the role that web giants are pursuing in terms of alternative access technologies.

“The likes of Facebook and Google are investing in drones and satellites in order to promote access, which is helpful; ultimately, it's boosting access to data. But will they be monopolistic?”

Regulatory concerns loom large in a data-centric world

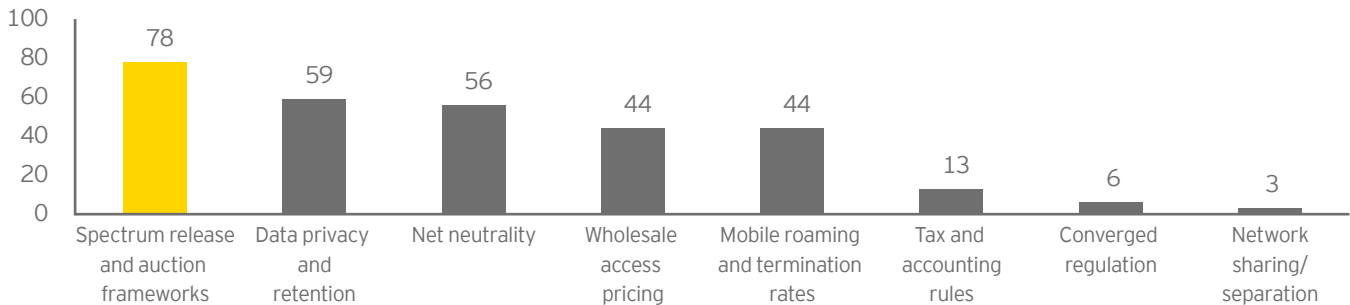
Telecommunications is a heavily regulated sector and industry leaders are highly sensitive to uncertainties that may undermine incentives to invest. As mobile data traffic continues to grow in all geographies, spectrum remains very much the lifeblood of the sector, and 78% of participants believe that spectrum release and auction frameworks will be a leading regulatory issue over the next three years.

“Government should understand that operators have to maintain appropriate return on capital so should be mindful about the cost of spectrum.”

Figure 9: Operator perceptions of evolving regulatory issues

Q. Which regulatory issues will be most likely to impact the industry in the next two to three years? (Please select three.)

% respondents



Interestingly, net neutrality led the way as the single most important regulatory concern in years to come, cited by more than one-third of participants. This reflects its contentious status in a number of geographies, from the US to India, and a number of participants underlined the importance of a level playing field where operators and OTTs are subject to the same rules.

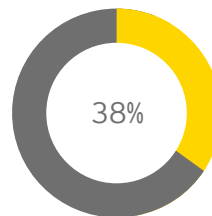
Wholesale access pricing and mobile roaming and termination rates complete the list of leading regulatory challenges cited by participants. Despite recognition that the regulatory goalposts may shift in unwanted ways, glide paths for termination rate reductions are well understood, while many operators are innovating their international roaming packages, mindful that both changing regulation and new customer demands require an overhaul of approach.

“The same treatment of OTTs and telcos is necessary; they have far greater scale compared to us.”

“Roaming is no longer a sustainable business model.”

Meanwhile, participant views on policy risks varied according to geography. For developed market operators, data privacy and protection ranked as the leading top-three challenge (cited by 75% of participants), while spectrum release is proportionately more pronounced among emerging market operators (88% of participants).

“Data privacy and retention could be very costly to the industry in years to come – failure to act may result in regulatory penalties and there are also the reputational risks to consider.”



Operators that view net neutrality as the top regulatory issue impacting the sector in the next 2-3 years

Customer experience management dominates the strategic agenda

Customer experience management is emphatically the top priority for operators, with 68% of participants citing it as the number one strategic priority for their organizations, while 82% viewed it as a top-three consideration over the next three years.

customers have an ever-widening set of relationships with telecommunications companies and a range of digital newcomers. In this light, many of the other leading answers can be seen as supporting elements on the journey toward more intuitive, convenient and trusted relationships with customers.

“Customer experience management has become the center of gravity for all strategic decision-making.”

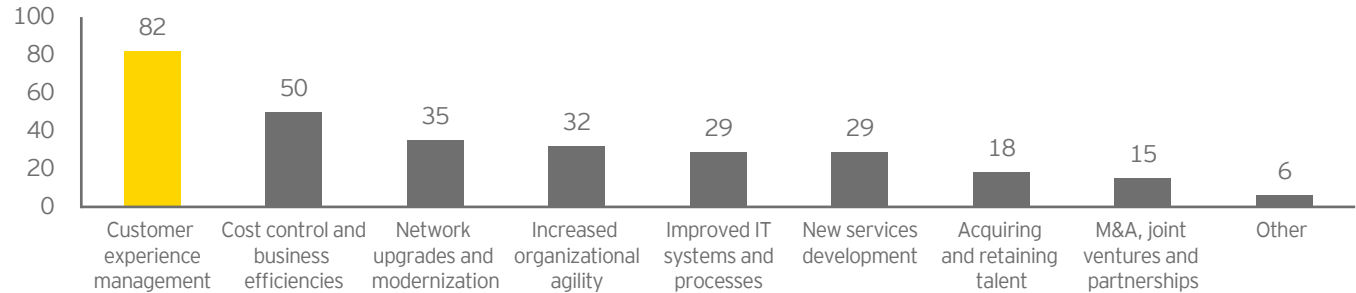
“If you are customer-centric and provide value, keep your customers happy and anticipate their future needs, you will thrive. If you can’t do that, you will become a dumb, wholesale connectivity provider.”

The drive to put customers front and center in everything they do is also forcing operators to focus on agility, efficiency and network quality – all must-have differentiators in a world where

Figure 10: Operator strategic priorities over the next three years

Q. What are your organization’s most important strategic priorities over the next three years? (Top three responses.)

% respondents



While new service development ranks fifth out of eight categories as a top-three priority mentioned by sector leaders, it ranks second, alongside network quality, as a number one priority cited by interviewees. This underlines how some operators are highly focused on widening their service portfolios to capture new digital growth opportunities.

However, the low scores for acquiring and retaining talent and M&A and partnerships may signal that engaging with the rest of the industry ecosystem is less of a priority among operators. In an increasingly complex marketplace, this may well compromise agility levels going forward.

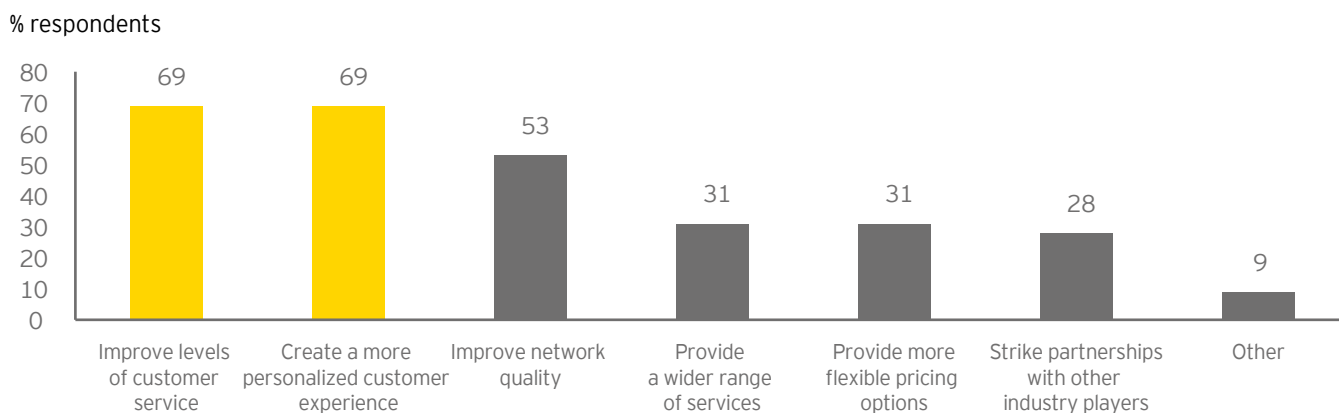
Improved service levels and personalization can unlock a new customer experience

A new generation of consumers has higher expectations about what they expect from their service providers. These customers have never lived in a world without digital. As such, they expect high-quality, seamless omnichannel interactions and will quickly switch providers when convenience and quality fail to live up to their expectations.

Operators recognize this. In their drive toward customer centricity, participants identify improved levels of customer support, more personalized services and improved network quality as the most important levers at their disposal.

Figure 11: Leading operator initiatives to improve the customer experience

Q. What are your organization's most important initiatives in order to improve customer centricity? (Top three responses.)



Providing a more dynamic level of customer support can create greater levels of trust in the long-term. Customization also has an important role to play, with 34% of respondents deeming service personalization their number one customer centricity initiative, the highest of any category.

purpose-built for a digital world. After all, these organizations are built around platforms that can capture and act upon consumer feedback – and it's these feedback loops that are so vital to understanding consumers, allowing service providers to continuously test new products and refine their offerings.

“Personalization is key, which means ensuring that customers get a preselection of what they're interested in.”

“You need to be spoken to like an individual. Making that transition from assisted to unassisted channels is key.”

For this to happen, a number of related competencies are seen coming to the fore, from the integration of different customer support channels to new analytics tools that can provide a more holistic view of customer needs. If operators don't act now, they risk ceding more ground to disruptive digital players that are

“We are developing processes whereby recommendations can be targeted to customers based on consumption patterns. This kind of sophistication already exists in other industries.”

Network quality remains a key point of differentiation

Network quality remains a vital differentiator for most operators. 4G services are commercially available in 143 countries worldwide⁴ while the number of global fiber-to-the-home (FTTH) subscribers crossed the 100m mark in 2014,⁵ signaling that fixed network upgrades continue apace.

through new technologies. Our survey participants suggest that such expectations may be optimistic: 50% of our respondents cite a slight or significant increase in network expenditure year-on-year in 2015, with only 16% anticipating any form of decline.

Nevertheless, many industry watchers are predicting a leveling off of capital expenditures worldwide in the next two or three years, as operators focus on in-filling coverage of their mobile data networks and extending the life of their copper networks

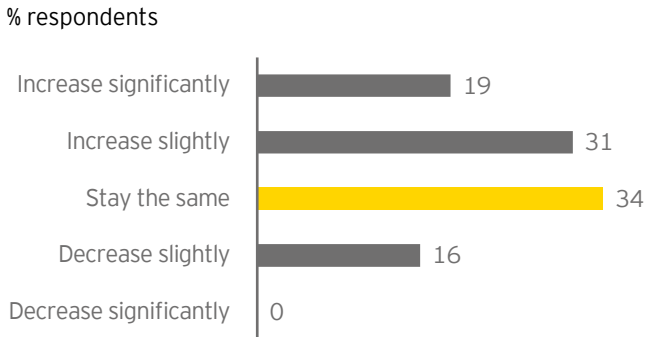
“FTTx and LTE are key for us given the current access technology advantage we have over our peers.”

⁴ “GSA confirms 422 LTE networks launched, Cat 6 LTE-Advanced deployments setting the pace,” Global mobile Suppliers Association, 22 July 2015.

⁵ “Infonetics Projects Fixed Broadband Subscribers to Approach 1 Billion in 2019, Led by China,” IHS Infonetics, 10 April 2015.

Figure 12: Operator views on 2015 capex development

Q. What are your expectations regarding your organization's capex over the next 12 months? (Please select one.)

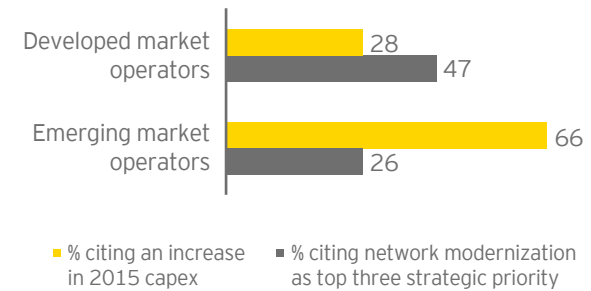


Pressure to invest in network quality is strongest in developing economies, where already high levels of capital intensity are being exacerbated by the migration to more sophisticated mobile technologies that can support fast growing demand for mobile data.

"We always think that capex is going down and it never does by as much as we think."

Interestingly, developed market operators are more likely to cite network modernization as a top three strategic priority compared to their emerging market peers, yet the proportion of developed market participants forecasting an increase in capex is smaller. This suggests a more pronounced inclination among developed market operators to use new technologies such as bonding and vectoring to extract better performance levels from existing network assets, as opposed to coverage-boosting roll out of new infrastructure.

Figure 13: Operator attitudes to network modernization according to market maturity



"Our strategy is to go fully fledged to fiber in areas where it is relevant and use vectoring for other areas. You need hygiene network speeds."

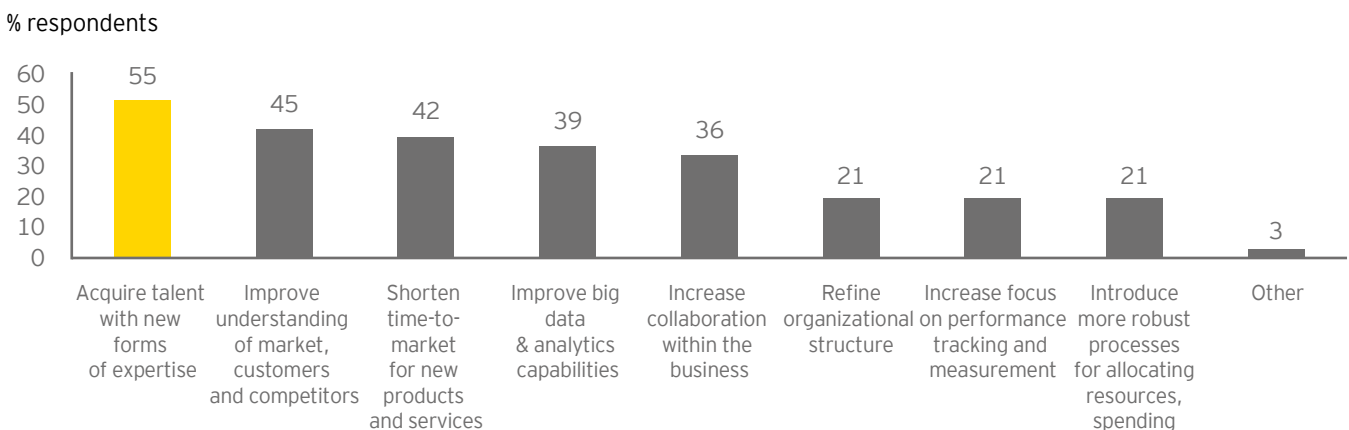
A new interplay of people and processes can boost agility levels

As they move to boost organizational agility, operators attach greatest importance to talent acquisition, shortening time-to-market and implementing big data analytics that can enable improved understanding of the marketplace, customers and competitors.

"Big data could be a really powerful tool to create something that feels very specific, a unique experience for the end user."

Figure 14: Operator actions to boost organizational agility

Q. What actions can provide the most positive impact on your operating model? (Top three responses.)



When singling out the top action to increase organizational agility, 21% of respondents highlighted increased collaboration within the business, highlighting the importance of organizational culture alongside the sourcing of “hard to find” expertise as operators seek to build new digital capabilities. This drive for new capability has implications throughout the organization – from the ways in which new talent is identified and recruited, to the incentives that will be required to retain this in-demand resource.

“How do you bring in new brains? Well you need an innovative HR policy to start with.”

Many of our respondents also highlighted the significance of IT as a driver – rather than just an enabler – of business strategy. They also recognized the need for a new management mindset, as shorter planning cycles replace traditional annual processes.

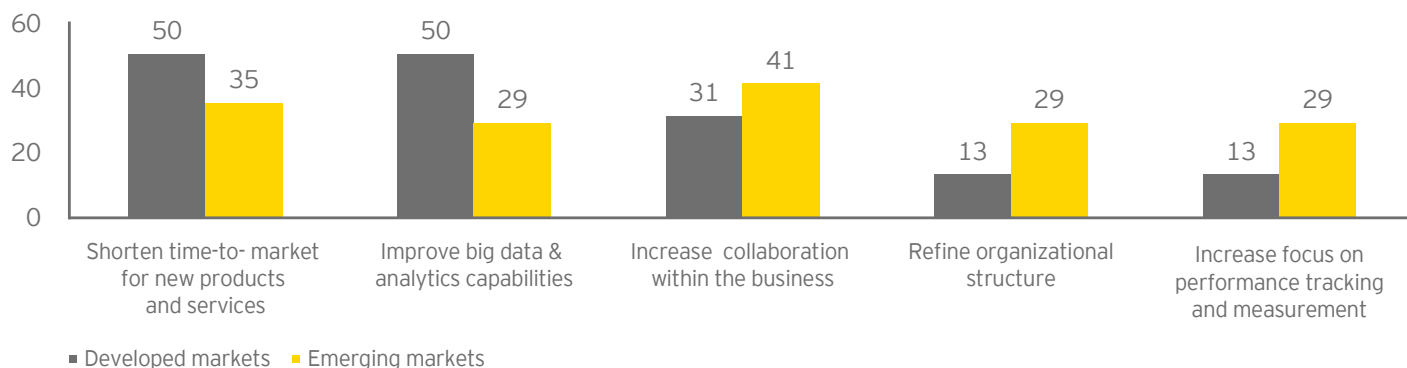
“Our business needs to be defined by software, not by hard assets.”

“The main thing for CFOs is that if they still run annual processes, then that isn’t right. The industry moves in faster cycles than that. Not in terms of the infrastructure on the ground, but the services layer evolves on a monthly or quarterly basis.”

Again, opinions on operating model improvements diverge according to market maturity. Developed market operators are proportionately more likely to cite IT-led technical improvements that can aid greater agility, while emerging market operators are relatively more concerned with people-oriented improvements that can improve organizational effectiveness. Many operators in mature markets have already undergone substantial changes to their organizational structures and for some, people-related initiatives now center on new leadership roles regarding digital activities and big data.

Figure 15: Operating model improvements by market maturity

% respondents



Consolidation is firmly at the front of the M&A agenda

Market conditions for operators remain extremely challenging, with ongoing price deflation driven by competition from OTT providers and adjacent market players – such as cable companies and unbundlers – moving into mobile services. At the same time, fixed and mobile convergence is putting greater pressure on operators to widen their service propositions as cross-selling strategies gain more importance.

Under these conditions, stressed operators see consolidation and transformational M&A as a route toward more rational market structures, which they believe can support higher levels of

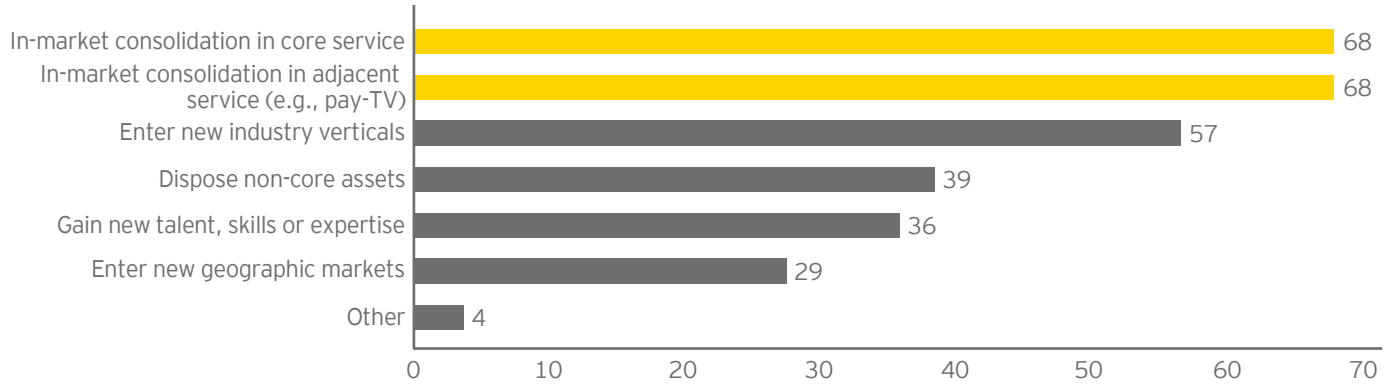
network investment. With global telecoms M&A deal volumes on an upward trajectory, our survey highlights the ongoing focus on these opportunities, with in-market deals to generate scale, widen product scope and reduce churn currently top of mind.

“Further consolidation will happen. Telecoms is a capital-intensive industry, but returns on capital are declining.”

Figure 16: Operator M&A priorities

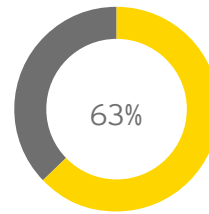
Q. What types of M&A are most important to your organization at the moment? (Top three responses.)

% respondents



Opportunities for entering new industry verticals are also proving increasingly attractive. This reflects rising market appetite for “bolt on” acquisitions designed to add capability and credibility in growth segments. Research suggests that operators currently have a 28% share of global M2M revenues, for example, and targeted acquisitions will underpin moves to grow share of wallet.⁶

Meanwhile it’s clear that the majority of operators are adopting an opportunistic approach to geographic growth (scaling up where they already have operations, rather than entering new markets for their own sake).



Proportion of respondents that have an opportunistic approach to geographic growth

“We are looking at bite-size add-ons that will increase our rate of growth and bring a step-change in capability.”

“We are opportunistic within a defined area, but it’s within emerging markets. Our general view is that you have to keep an eye on large markets in Middle East, North Africa and Asia-Pacific.”

⁶ “Cellular M2M Forecasts,” Ovum, November 2014.



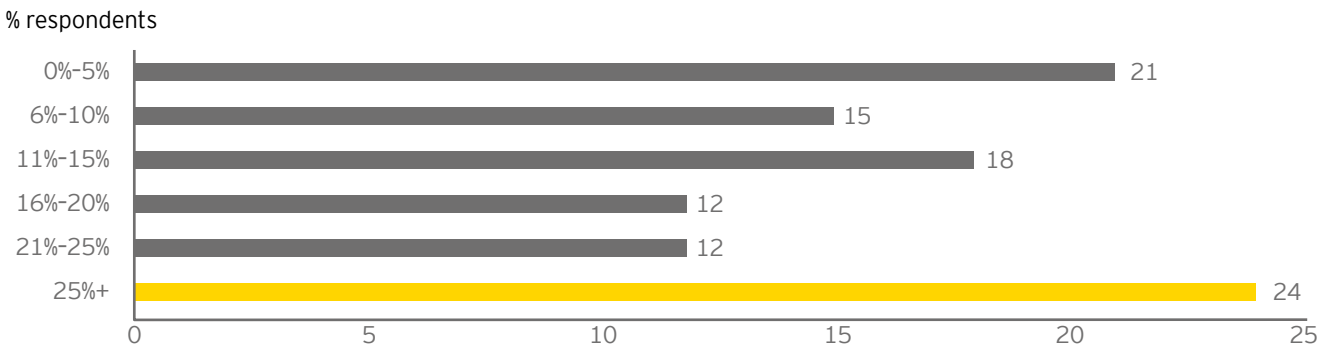
Digital services will transform the 2020 revenue mix

By 2020, the vast majority of participants see digital services accounting for an ever greater share of overall revenues. But there's a significant spread in these predictions. Almost as many

respondents expect digital to contribute between 0% to 5% as those expecting a contribution of 25% or more. Some of this could be explained by rates of attrition in operators' legacy businesses, which would increase digital's significance by default.

Figure 17: Operator 2020 revenue mix predictions

Q. What proportion of revenues do you believe digital services will account for at your organization in five years' time? (Please select one.)



From now on, alignment of key performance indicators (KPIs) and investor communications to a changing revenue mix will be high priority as operators' digital growth agendas start to mature. New KPIs will play a key role in communicating the overhaul of traditional business models, while strategic mission statements will need to be regularly revisited. At the same time, there is a growing onus on operators to explain the benefits of new services without recourse to the technology push of old.

"Digital services currently account for 3% of revenues. In five years' time this will rise to 10% or the low teens due to the provision of services in security, smart city and enterprise services."

"The company has done well in communicating its roadmap and communication plans to all stakeholders. What may need to be improved is explaining lifestyle benefits to consumers of various technologies and products offered by the company."

"We need to be clear and transparent around strategy. We should over communicate but be real about what will work."



High confidence in cloud and TV, but revenue prospects of Internet of Things are uncertain

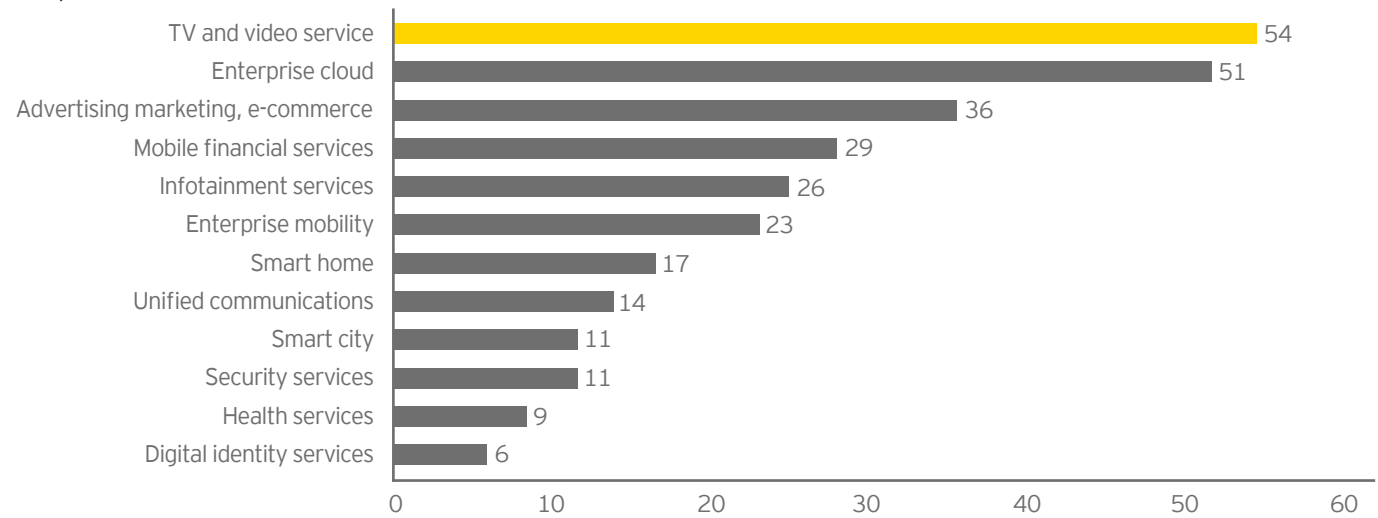
Enterprise cloud, new TV and video services, and advertising/e-commerce are expected to provide the most fertile opportunities for incremental revenue growth going forward – with TV and video services standing out as the number one digital growth driver for

31% of respondents. Confidence in the revenue-generating and churn-reducing potential of TV services is borne out in recent M&A where telcos have acquired pay TV assets in markets such as the Brazil, Germany, Spain and US.

Figure 18: Operator confidence in digital service revenue development

Q. Which digital services represent the best opportunities for incremental revenue growth? (Top three responses.)

% respondents



“IoT is very interesting ... but unified communications offer better prospects since governments and enterprises are all moving towards these technologies.”

Interest in the Internet of Things (e.g., smart home, security services and connected health applications) is growing. But opinions are mixed on its real-world revenue potential – at least for the time being. Some operators with a narrower service portfolio question whether investments in connected cars and smart cities, for example, can be justified.

Others adopt a pragmatic stance, accepting limited revenue potential from IoT investments in exchange for the positive effect these have on their brand and overall ecosystem positioning. Many participants also recognize that while operators are well-placed to drive the connectivity side of Internet of Things, a broader range of capabilities, including application management, will drive the most attractive returns.

“Both smart city and smart home will depend on whether it’s more than just connectivity. If you can move up the service stack, then revenues could start to become meaningful.”

“Health care will take time to evolve but has potential. Digital identity is important but will be low turnover.”

“TV is attractive because of high volumes. You can increase customer loyalty and have the ability to fine-tune the offer and pricing.”





New horizons – navigating the road to 2020

Creating the successful telco of the future

The telecommunications industry will continue to evolve in a number of new directions. Operators will continue to seek differentiation through network quality and breadth of service portfolio, underpinned by further industry consolidation and the appearance of new technologies to support data needs in the gigabit era.

However, OTTs will also aggressively widen their capabilities, disrupting a number of industry verticals as software- and interface-led innovation comes to the fore. Meanwhile, regulators and policy-makers will face new challenges in legislating for an increasingly interdependent digital ecosystem. A delicate balance must be struck between creating investment incentives and ensuring competition, while the telecommunications industry will rely on predictable spectrum release and licensing regimes.

For operators, infrastructure migration road maps will also require careful consideration as a new range of technologies becomes available to support long-term migration to 4G, fiber and M2M environments. Meanwhile, the pace of M&A is likely to accelerate, with the current focus on in-market consolidation giving way to a new wave of cross-border deals as operators consider more ambitious routes to generating scale.

In this concluding section, we highlight the need for new operator mind sets in the evolving digital marketplace. Flexible and more selective business models will be essential as operators seek out new growth opportunities. As a result, effective delineation will be needed between B2B and B2C approaches. More robust partnerships will also unlock new opportunities for growth, yet the specter of “co-opetition” will remain an essential tension in a more complex industry ecosystem.

Higher levels of agility and improved customer focus will go hand in hand – and there is much that operators can learn from other industry sectors as they look to build more trusted customer relationships. No single route to innovation will predominate, meaning a holistic attitude to value creation is essential, one that prizes gains through targeted IT investment, talent acquisition and better collaboration inside and outside the organization.

In an increasingly diverse market landscape, EY expects operator strategies to diverge based on differences in geographic scale, level of digital ambition, and contrasting prioritizations of growth and efficiency within their strategic agenda. Yet higher levels of agility, more collaborative mindsets and a recasting of customer relationships will be vital to all.

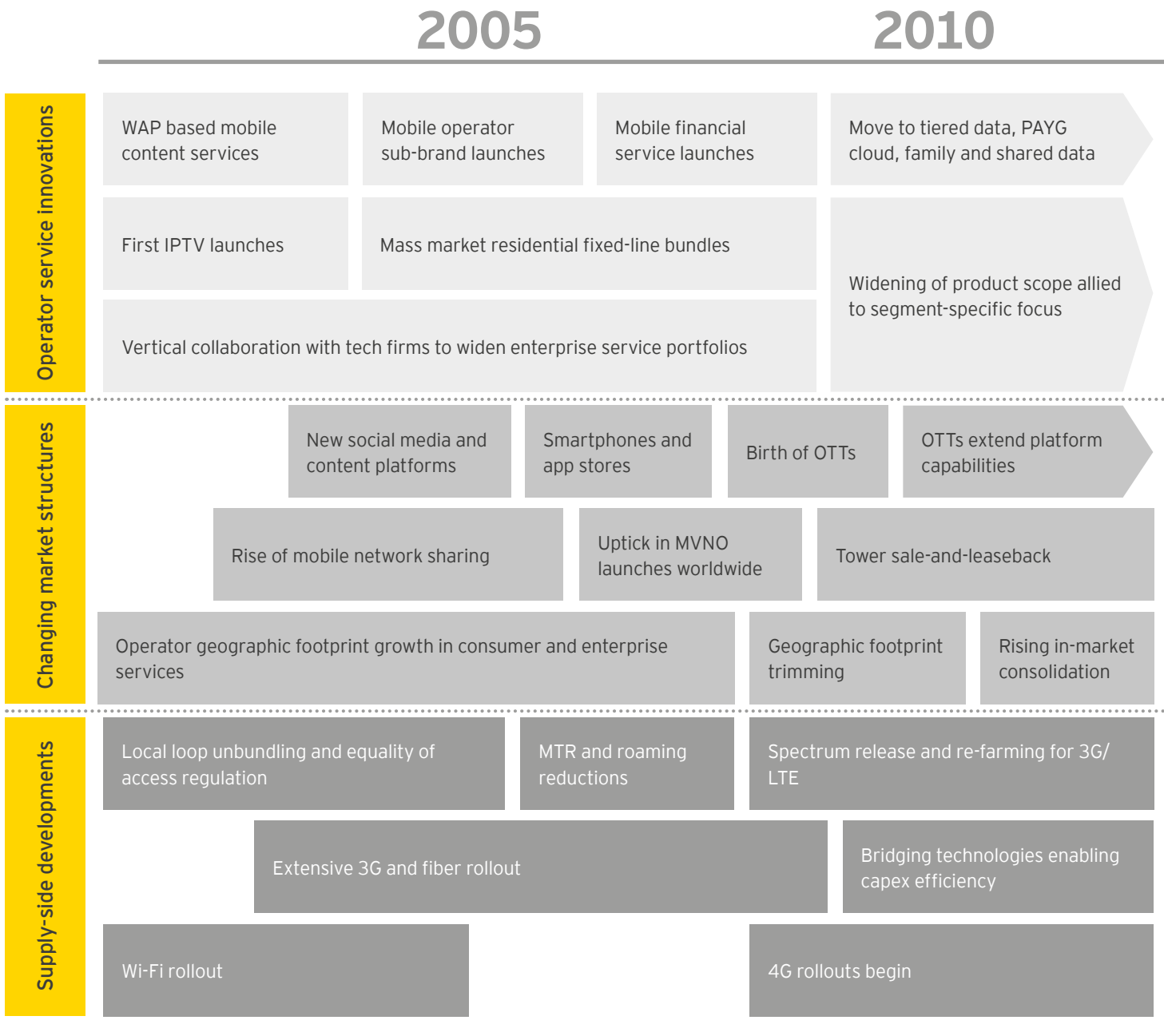
On the agenda: Creating the successful 2020 telco

1. New service creation dynamics in the 2020 ecosystem
2. Sizing the 2020 growth opportunity
3. Navigating a shifting policy and regulatory landscape
4. Preparing for a new wave of network technologies
5. Ongoing M&A to redefine market structures
6. Accommodating a range of customer demand scenarios
7. Selective business models and flexible partnerships to the fore
8. Greater agility to transform the customer experience
9. Leveraging learnings from other industries
10. Pursuing multiple routes to innovation
11. Operator 2020 strategies to diverge in different directions

“The telco of 2020 cannot be a bad copy of the telco of 2015.”



Figure 19: Changing ecosystem dynamics – past, present and future



2015

2020

Vertical collaboration with OTTs to differentiate packages

Rising operator horizontal collaboration in digital services

Vertical collaboration with tech, e.g., IoT, smart city

Blurring of digital categories, e.g., ecommerce, payments, marketing

Web giants extend into access provision

Rising operator appetite for bolt-on acquisitions

Regulatory support for MVNOs as merger remedy

Network virtualization

New standards and technologies for IoT, 5G

Partnerships drive operator service creation

Shift beyond B2C-centric business models

Widening of use cases, customer types, pricing models

Increasing disruption across all industries and blurring of use cases

Increasing operator differentiation through network quality

Rising competition for wallet share as all players boost scale and capability

More holistic and pro-investment national digital policies

Risk of global policy fragmentation, e.g., net neutrality, data protection

Proliferation of network standards according to use case

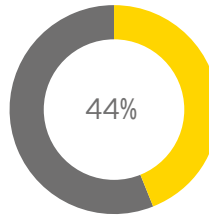
New service creation dynamics in the 2020 ecosystem

Innovation rates are only likely to quicken between 2015 and 2020. The smartphone revolution and the resulting birth of OTT platforms have created new catalysts for innovation that touch all verticals. In this light, long-standing distinctions between different industries and product categories are blurring, a process that will continue in the long term.

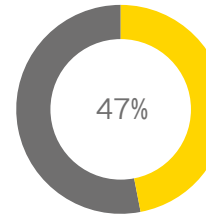
In this light, operators targeting new service development should continually revisit their assumptions as a more symbiotic relationship emerges between seemingly distinct IoT segments, such as connected car and smart home, and traditionally separate functionalities such as payments and marketing blend into new propositions. In this increasingly convergent environment, service providers have both more to gain and lose as competitive intensity increases and all players target increased wallet share.

Knowing where to compete and where to collaborate will be a defining feature of the marketplace. Increased vertical collaboration with OTTs and technology specialists allied to greater horizontal collaboration between operators in digital services will propel partnerships to the fore by 2020. In order to serve a more

Developed market operators



Emerging market operators



Proportion of participants that cite improved customer, competitor and market understanding as a top-three action to improve agility

“Predicting what our business will look like in 2020 is the biggest challenge. The digital lifestyle will make our business far more complicated.”

complex set of end user needs, continued overhaul of service propositions and pricing models will be necessary.

Sizing the 2020 digital growth opportunity

The landscape of new service opportunities will evolve dynamically over the next five years. Some digital growth opportunities, such as mobile advertising, are set for strong growth, yet established service specialists already boast high levels of market share, which will force operators to consider more innovative ways to grow share of wallet. Meanwhile, domains such as IPTV and OTT TV are already seeing operators act as disruptors in their own right.

in e-commerce also signal a move beyond reliance on cash.

“As money goes mobile, operators will play a significant role in the m-commerce value chain. Realizing opportunities, however, requires operators to think in new ways about ecosystems, marketing and technology.”

This is reflected in study participants’ opinions on the revenue-generating potential of digital services, with emerging market-based operators more confident in segments such as mobile financial services and smart city – where a lack of legacy infrastructure is a key growth enabler – while developed market operators are more focused on services such as unified communications and smart home, that play well to existing bundling strategies.

“ICT will see significant growth to 2020. The key thing is to capture a sizable portion of this value creation.”

Nevertheless, local market factors and competitive positioning will do much to dictate the emphasis operators attach to key services. Operator traction in mobile financial services, for example, is greatest in emerging markets that lack traditional banking infrastructure and services, and where high growth rates

Figure 20: 2020 digital service market size according to geography

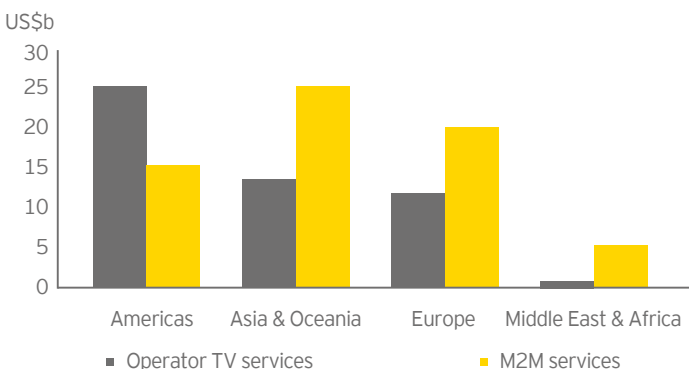
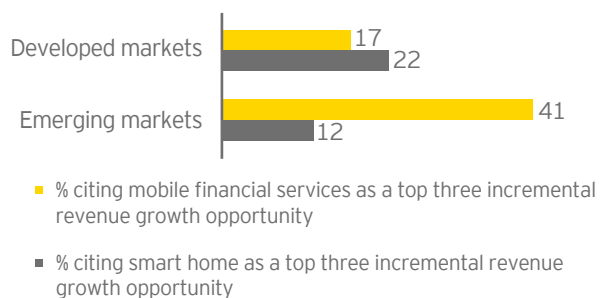


Figure 21: Operator confidence in digital service revenue development according to market maturity



Navigating a shifting policy and regulatory landscape

For the regulators, achieving a balance between competition, innovation and investment, while safeguarding industry and consumer needs, will be no easy task. At a national level, policy-makers are increasingly focused on long-term digital growth policies, with the incentivization of new business models a key imperative. Yet we may see greater disparities across the international marketplace as national regulators take different approaches to issues such as net neutrality and data privacy.

“The economics of product differentiation in fact come down quite strongly against net neutrality.”

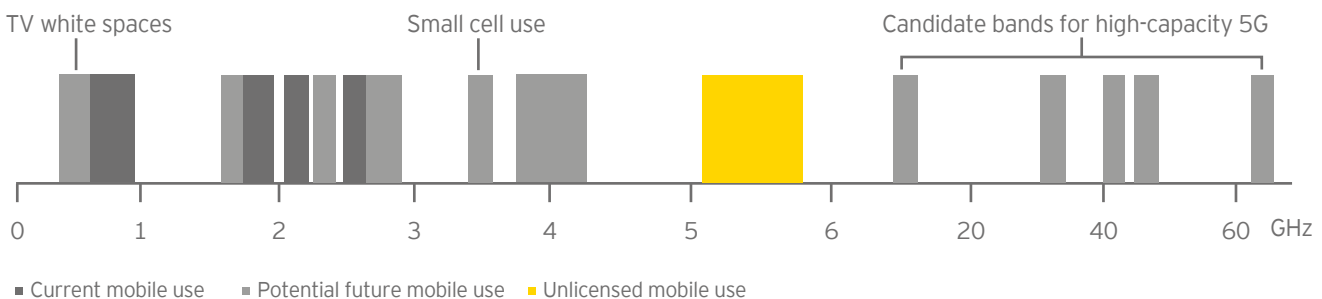
This lack of predictability looks set to persist in the mid-term, while standardization issues will also make themselves felt in areas such as interoperability guidelines for the Internet of Things. Looking ahead, much work remains to be done at an international level to align high frequency bands for 5G spectrum release, while internet governance is also likely to be an area where further consensus building is required.

“There are substantial programs of spectrum release worldwide. However, the possibility of using much higher frequencies for 5G, even as an ancillary service, will change things.”

The importance of key regulatory issues is set to vary by region. In the Americas, for example, commitment to net neutrality principles and changes to mobile termination regimes feature strongly. In Europe, the focus is squarely on the pace and scope of European Digital Single Market reform, with data protection also a key issue. Meanwhile, in Asia-Pacific, spectrum auction design and licensing regimes and sector-specific taxes are high on the agenda. For operators planning geographical expansion, it will be important to track developments in target regions and adapt growth strategies accordingly.

“There is no clear roadmap of spectrum availability or the technology riding on it at present. This makes planning difficult.”

Figure 22: Mobile spectrum usage – current and future scenarios



Preparing for a new wave of network technologies

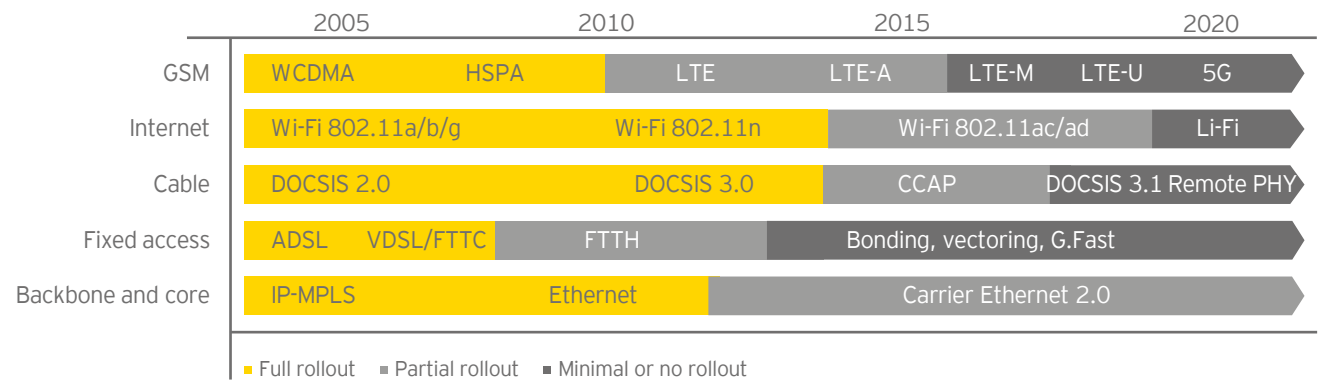
Where network infrastructures are concerned, expect to see large-scale fiber and 4G rollouts giving way to more nuanced infrastructure strategies. While the growth prognosis for 4G is not in doubt, operators face very real choices about which iterations of LTE they opt for as they focus on use cases in consumer and M2M markets. At the same time, fixed-line operators and cablecos must carefully weigh optimal combinations of new technologies with “bridging technologies” that help extract better performance from existing assets.

Before the end of the decade, further paradigm shifts will be felt as 5G is standardized for release, while the potential for disruptive technologies cannot be discounted. Li-Fi – data communications using visible light – has been shown in trials to offer speeds well beyond what is currently capable with Wi-Fi or Bluetooth. In this light, the degree of substitutability between different technologies is another key concern for industry leaders.

“5G will increase bandwidth, lower power consumption, reduce infrastructure costs, and improve spectral efficiency and network resilience.”

“Wi-Fi networks do not handle a large volume of voice traffic well. Wait until everyone in a Starbucks tries to make a call at the same time and see how happy they are with their Wi-Fi.”

Figure 23: Network technology cycles in telecommunications



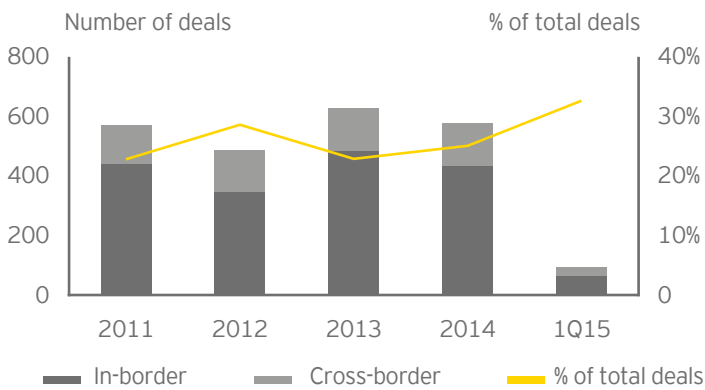
A maturing Internet of Things environment will also hinge upon a widening technology mix: a range of standards will be needed in the M2M ecosystem, from Wi-Fi and Bluetooth to low-power, wide-area (LPWA) networks and cellular. This means moving now to place the right bets on the right technologies. As operators come to grips with this challenge, closer, more consultative relationships with vendors will be critical.

“Today’s vendors are currently suppliers and are getting beaten up. We need to move to a world where our core technical partners are part of our growth story.”

Ongoing M&A to unlock new market structures

A new wave of M&A has already started to redefine the telecommunications industry worldwide, with in-market consolidation heralding a new breed of convergent offerings that include fixed, mobile and TV services. Looking ahead, acquisitions will also play a key role in supporting operator ambitions in digital growth segments, such as IoT and IT services. Meanwhile, there are already signs of a new era of footprint growth, as operators seek international scale and synergies through cross-border M&A.

Figure 24: Telco cross-border M&A



Source: EY analysis

“A horizontal split of the value chain does pave the way for long-term consolidation. This approach didn’t work in the ‘90s because there were no synergies in operating networks in different countries. But if you split the network and services layers, then services are transferable across borders.”

Looking ahead, regulatory attitudes will play a pivotal role in dictating the speed and extent of transformation to existing market structures. Policy makers remain keen to preserve choice and low prices for consumers, and there are a number of alternatives to in-market mergers.

In markets at an earlier stage of penetration growth, or where there are very sparsely populated regions still lacking infrastructure coverage, network sharing and tower outsourcing still have a vital role to play. More ambitious network and sharing approaches may come to the fore, yet more transformational models that generate greater efficiencies will also require deeper levels of co-operation between participants.

Looking ahead, there is also scope for new market structures leveraging separate network layer and service layer-centric companies. Such moves would enable a clear delineation in core competencies between service development and network operation and management, yet such a radical transformation of the competitive landscape would involve new and often untested forms of regulatory oversight.

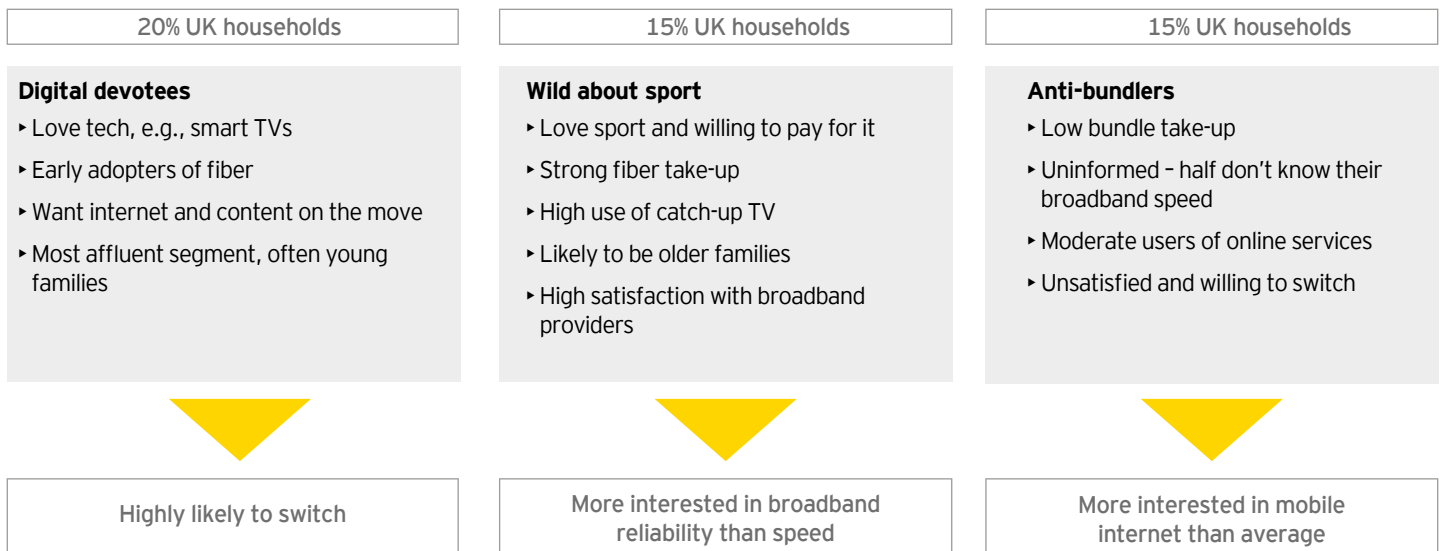
Accommodating a range of customer demand scenarios

In the digital era, accepted industry thinking contains its own dangers. Customer needs are difficult to predict and changing all the time. This means the emphasis must be on flexibility. Operators need to be preparing now for a whole range of demand scenarios.

“There is still an unresolved question about whether consumers are happy having a one-stop shop for services. This affects bundles and IoT. Maybe they want multiple suppliers?”

Take just one example: where bundling is in scope, operators need to revisit their assumptions on what customers want. Familiar upselling scenarios, such as the addition of TV elements to bundles, may give way to more fluid demand scenarios as customers seek greater flexibility in terms of package and price. Segmenting customer attitudes according to their digital lifestyle attitudes will play an increasingly important role in understanding the drivers of their relationships with service providers.

Figure 25: Attitudinal segmentation of UK broadband households



Source: "The Bundle Jungle," EY, 2014 (based on survey of 2,500 UK broadband households)

Big data analytics can help transform operators' targeted marketing approaches, and ensure that they communicate effectively with different segments in their base. In our survey, evolving customer demands ranked only fifth out of nine challenges facing the industry, yet the OTT phenomenon shows just how quickly demand scenarios can mutate in an app- and device-driven age.

"Understanding customer behavior – which is at times irrational – is paramount. You cannot expect to sell more unless you understand how your customers think."

Selective business models and flexible partnerships to the fore

Operators are playing in a broadening and fast-changing marketplace. Flexibility has to be the name of the game for 2020-focused business models. The bottom line? More flexible partnering frameworks and go-to-market strategies will be critical to the telco of the future.

"We need to overhaul the business model, to play well in both B2B and B2C – but we need a change in mindset to make this happen."

Operators must focus on business models that are sensitized to different use cases, at the same time deciding which digital growth opportunities represent the best opportunities for value creation, and clearly delineating between B2C and B2B approaches. While telcos are in the driving seat as enablers of the digital society, a narrower focus on better-defined vertical opportunities could reap rewards in the long-term.

"Telcos don't have the brand strength to take over the world – they're not like Coca-Cola or Google."

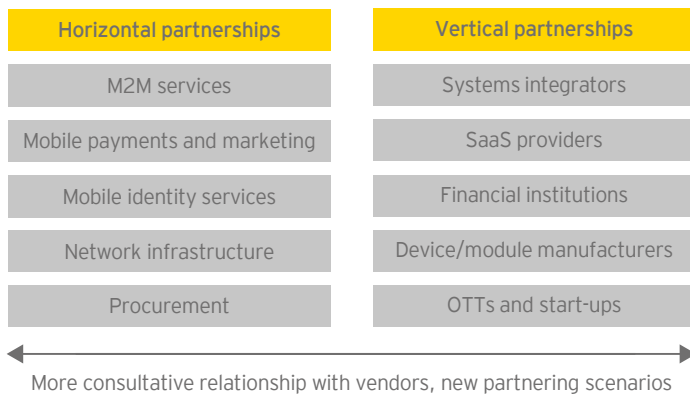
Figure 26: Potential business model choices according to digital service

Digital service category	B2C	B2B2C	B2B
IP messaging	●	●	
Video and TV	●	●	●
Mobile money	●	●	
Mobile advertising		●	●
Cloud/storage	●	●	●
Smart home	●	●	
Connected cars	●	●	●
Retail		●	●
Healthcare	●	●	

● = Telcos currently active

These business model selections will need to be supported by a range of partnership scenarios. Potential partners – both horizontal and vertical – will have to be carefully (and often rapidly) evaluated, while governance structures must be regularly revisited.

Figure 27: Horizontal and vertical partnering scenarios for operators



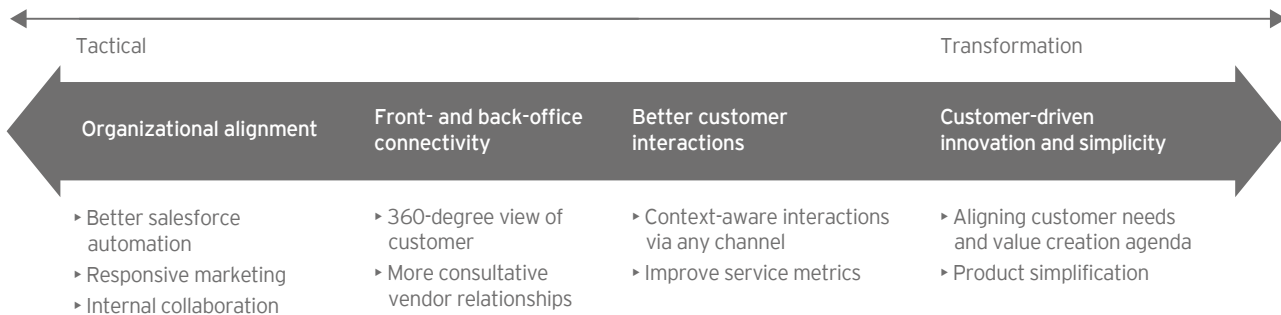
“The whole thing around partnerships is what you can sell to each other. You need a balance of trade, plus what you can take to market together.”

Greater agility to transform the customer experience

Increasingly, it all comes back to the customer. And from now on, transformation on multiple fronts will be needed to help telcos

differentiate through the customer experience and reinvent themselves as truly customer-driven organizations.

Figure 28: Transformation to a customer-driven organization



Current systems, processes and structures all have to be overhauled. At a strategic level, there needs to be a continuous process through which customer needs are aligned with value creation. At the level of investment, customer-centric initiatives must be prioritized, with IT capabilities primed to deliver both more granular and more holistic customer insights. The trade-off between in-house and outsourced functions should be carefully evaluated as part of this.

Where execution is concerned, operators should focus on improving inter-departmental collaboration, connecting front-office and back-office functions, enabling seamless omnichannel interactions, and refreshing and aggregating metrics so they can continuously monitor and fine-tune performance. Meanwhile, a drive towards simplicity is critical in order to ensure that scale of transformation does not in itself undermine agility levels.

“We need a dynamic and flexible organizational structure in order to boost time to market and anticipate new customer needs.”

“We use a high degree of outsourcing – most recently, some of the customer support functions have been outsourced and more will follow.”

“We need to use lifetime value of customers as a KPI for investment decisions. This requires more granularity and a clear link between investments and customer behaviors.”

Leveraging learnings from other industries

The good news? Operators don't have to start from scratch. There are plenty of examples of best practice available in other industry sectors. Retailers and banks, in particular, highlight the benefits of overhauling points of differentiation and concentrating on customer trust. Telcos currently underscore most other sectors on key satisfaction metrics, with operator net promoter scores (NPS) in the United States just one-third those of department stores, and far below financial service providers.⁷

“Operators are strong in stores and call centers – better than department stores and banks – but haven’t bridged over into different online interactions.”

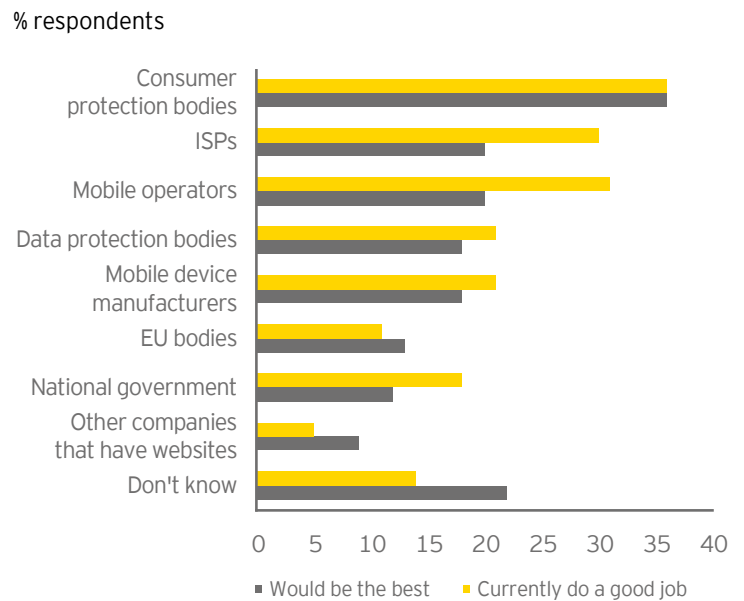


Telcos can address this by focusing on their digital channels: their current low NPS scores are often due to poor customer service delivery across channels – especially social media – and non-proactive consumer communications. By contrast, retailers are actively pursuing new points of differentiation, with digital-first transformations that prioritize online/mobile as primary sales channels, alongside fast fulfillment, personalization of the in-store experience and dynamic pricing.

In a hyper-connected world, establishing digital trust with consumers is essential. In the wake of the financial crisis, banks have prioritized customer trust levels and now seek to differentiate through this vital commodity. Operators can learn from their example. Right now, consumers feel that mobile operators do a marginally better job in educating them on internet use or safeguarding their personal data compared with other industries. However, they have a potentially huge advantage, provided they move fast to exploit it. After consumer protection bodies, ISPs and mobile operators are identified as the ideal digital trust providers.

Figure 29: Trust levels in the digital ecosystem

Q. Which of the following entities do a good job of educating you on internet use and keeping personal data safe?



Source: “Future of Digital Trust,” Orange, February 2014

“The biggest advantage we have compared to OTTs is high levels of trust.”

⁷ Satmetrix.

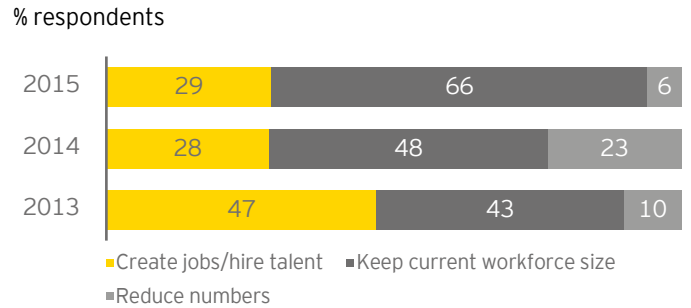
Pursuing multiple routes to innovation

In a continuously evolving ecosystem, operators that can get to market first with new service propositions will stand out from the crowd. It is not enough to follow the herd. To succeed, operators have to start thinking more holistically about how they innovate – attracting the best in new talent and developing new ways of interacting with the world of technology startups.

“You want to go into innovation and proof-of-concept trials, and you only have two people skilled in these areas.”

Operators’ willingness to hire new talent is actually in decline. This could create problems for the industry through to 2020. External hires can bring invaluable experience from other industry verticals, while new leadership roles, in key domains such as IoT and big data, can help inject fresh thinking into telco organizations.

Figure 30: Operator hiring intentions worldwide

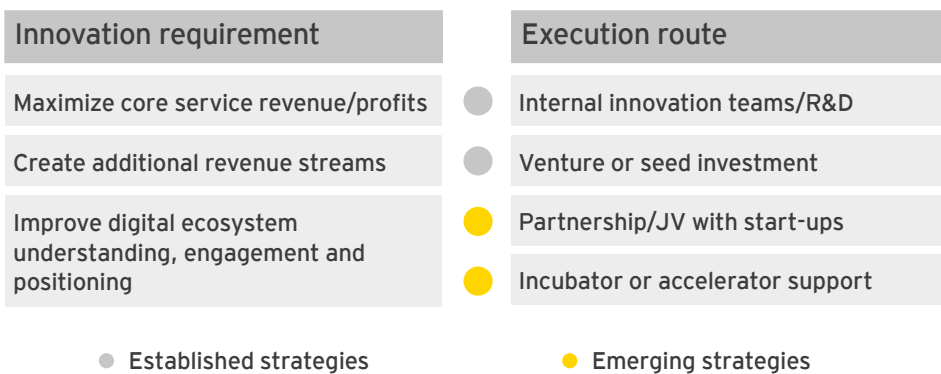


Source: “Capital Confidence Barometer,” EY

Internal innovation and R&D is a major focus for the industry, although R&D as a percentage of revenues varies widely by region. But capturing innovation can take a variety of forms and a shift in mindset is long overdue. From now on, leading operators will pursue a more collaborative innovation agenda, pursuing new partnerships/JVs with startups, providing incubator or accelerator support, and reassessing the role of venture capital and seed investments.

“The concept that you can only have ‘good’ once a year doesn’t work. There’s no VC or PE fund that says ‘this is my budget for the year.’ They allocate a certain amount of resources and identify the return they want and it will happen when the right opportunities come up.”

Figure 31: Mapping execution routes to different types of innovation



“You need to allow people to fail – and to fail quickly.”

For example, innovation funds can play a valuable role in allowing telcos to source, support and ultimately acquire new capabilities at an earlier stage – and also far more cost-effectively than would be the case once those technologies were mature. At the same time, incubator initiatives allow operators to play new roles within a wider digital ecosystem, where they can benefit in a number of ways from exposure to the world of start-ups.

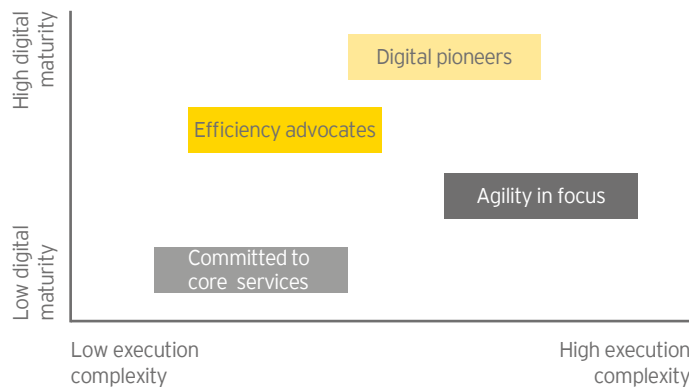
Operators should consider the optimal mix of different innovation strategies that can aid their long-term positioning in the digital ecosystem. Striking the right balance between delineating new innovation capabilities within the organization and external activities that focus on start-up incubators or partnerships with other ecosystem players will be essential. The level of digital growth ambition, scope of existing R&D capabilities and range of potential digital partners will inform the ideal approach.

Operator 2020 strategies to diverge in different directions

In an increasingly diverse market landscape, EY expects operator strategies to diverge based on differences in geographic scale, level of digital ambition, and contrasting prioritizations of growth and efficiency within their strategic agenda. Yet higher levels of agility, more collaborative mind sets and a recasting of customer

relationships will be vital to all, regardless of nuances in strategic approach.

Figure 32: Segmentation of operator strategies



Digital pioneers	<ul style="list-style-type: none"> ▶ Established digital agenda ▶ High business model focus ▶ Rising capex appetite ▶ Wide geographic footprint
Efficiency advocates	<ul style="list-style-type: none"> ▶ Niche digital growth agenda ▶ High operating model focus ▶ Stable capex appetite ▶ Medium/small geographic footprint
Committed to core services	<ul style="list-style-type: none"> ▶ Minimal digital growth agenda ▶ High operating model focus ▶ Service personalization focus ▶ Small geographic footprint
Agility in focus	<ul style="list-style-type: none"> ▶ High digital growth ambitions ▶ High business and operating model focus ▶ Talent acquisition focus ▶ Medium but diverse geographic footprint

“The biggest challenge in 2020 will be around simplicity of operations. Right now, operators are finding it hard to achieve more simplicity.”

The emphasis that operators give to developing a new range of key competencies will vary according to their overall strategic aims. For example, for digital pioneers that have already expanded significantly into the Internet of Things, continued business model innovation will be critical, as will deeper engagement with a wider range of stakeholders in order to develop new ecosystem roles. Those operators that are committed to core services may well

find that in-market M&A provide the most secure path to long-term scale, while greater focus on customer support can also differentiate their core offerings. Meanwhile, for operators with diverse footprints that are seeking greater agility, a focus on talent acquisition and new types of partnership, allied to substantial organizational overhaul, can help them shorten time-to-market and enter new ecosystems.



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