



BT Capital Markets Day – Part 2

Seizing the convergence opportunity

5 May 2016

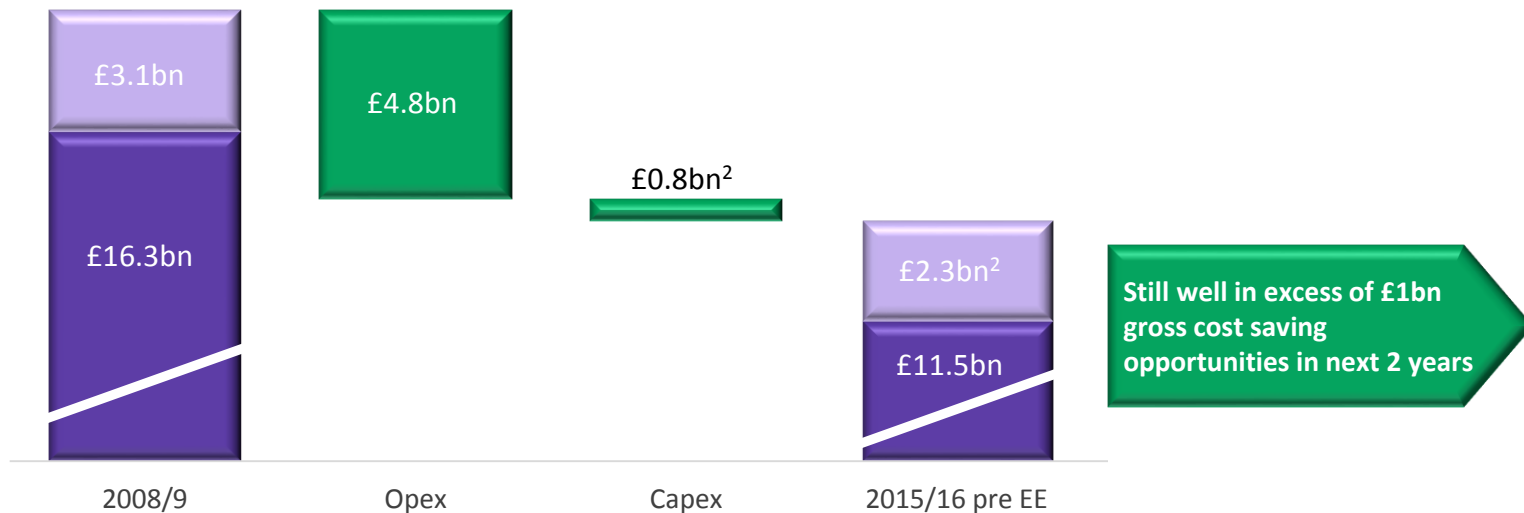


Cost transformation

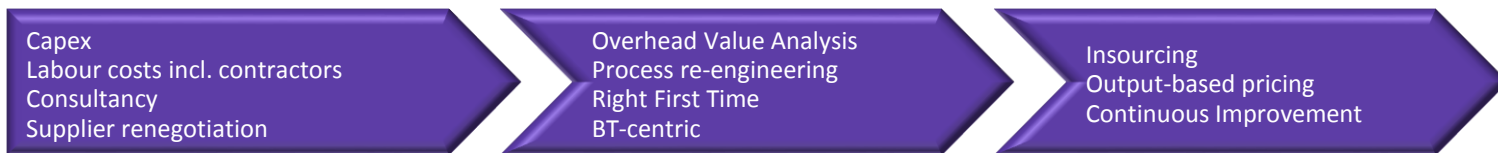
Tony Chanmugam – Group Finance Director



Total costs reduced by £5.6bn¹ in last 7 years



Still well in excess of £1bn gross cost saving opportunities in next 2 years

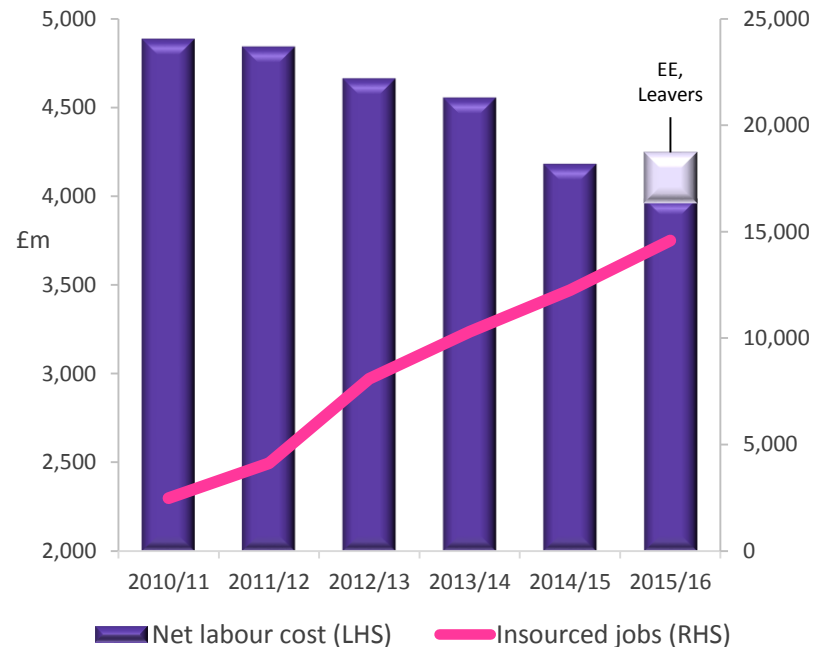


¹ excludes EE and £229m grant funding deferral in 2015/16
² excludes £229m grant funding deferral in 2015/16

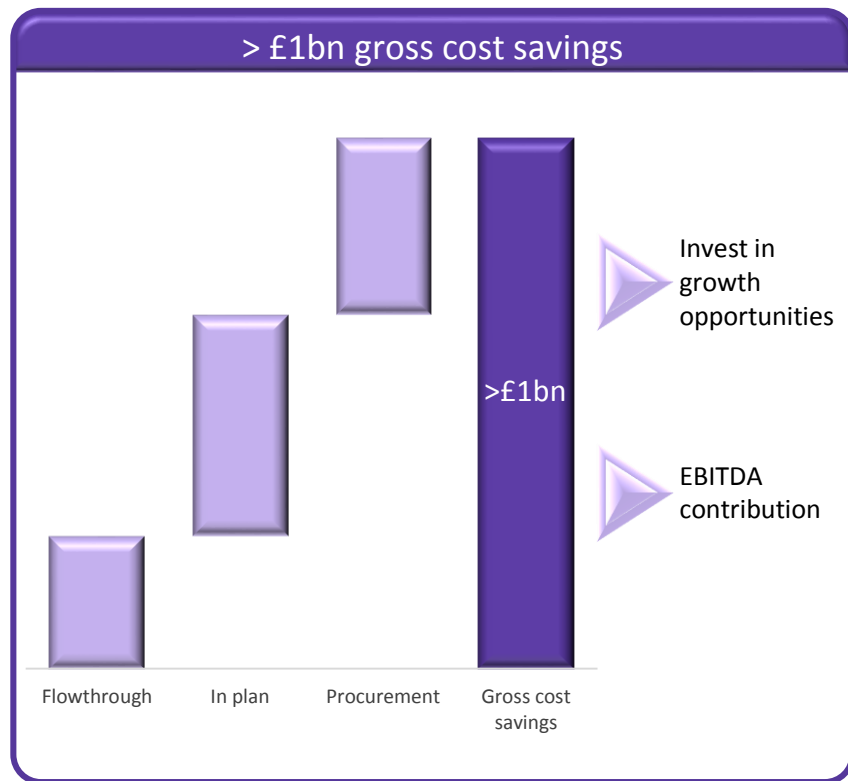
Cost transformation supports investment in service

- Insourcing saves money, protects BT jobs, improves service
 - nearly 15,000 jobs insourced since 2008/09
- Improving back-office efficiency
 - c.6,000 jobs created in Central Business Services unit in UK and overseas
- Investing in customer service
 - >900 new UK contact centre staff, hiring 1,600 more in Consumer and EE
 - c.3,000 Openreach engineers hired in last 2 years

We have reduced labour costs despite insourcing



Well over £1bn gross cost savings over next 2 years



	Activity	Benefit
1	Operating model including UK business changes and EE	High
2	Contact centre transformation	Med
3	“Compete 3” - applying best practice across Global Services including reviewing smaller countries and global field	High
4	Product / customer journeys; Ethernet end-to-end transformation, customer churn	High
5	Continuous Improvement; application of forensic toolkit and customer data analytics	Med
6	Sales effectiveness; sales best practice and analytics, margin optimisation	Med
7	People and organisation; spans and layers	Med
8	Site strategy; onshoring and offshoring	High
9	IT and networks; data centre rationalisation, centralised IT and automated code review	High
10	Improving efficiency; pan-BT reviews of TLC, SG&A, discretionary spend, procurement tail	Med

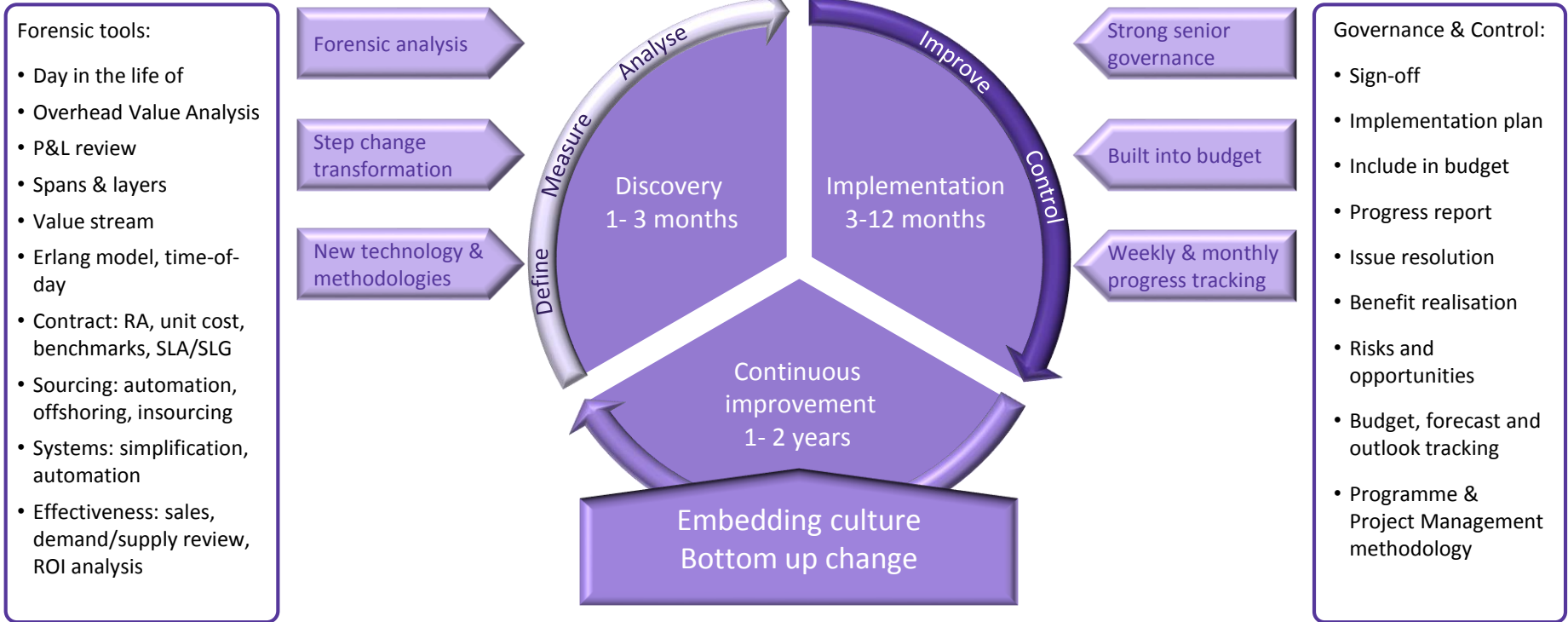


Cost transformation

Shahzad Saleem – MD cost transformation



Transform, implement, improve; repeat using proven methodology



Contact centre transformation

Areas of focus	What have we achieved	Going forward
Efficiency & effectiveness	<ul style="list-style-type: none">• >£300m of benefit delivered through:<ul style="list-style-type: none">– elimination of unnecessary volumes– drive for first contact resolution– shortening call duration– standardising approach to measuring utilisation and defining what 'good' looks like	<ul style="list-style-type: none">• Further opportunities >£100m<ul style="list-style-type: none">– eliminate process failure to drive a better customer experience with lower costs– better utilisation of digital and self-service options
UK site strategy	<ul style="list-style-type: none">• Creation of scaled sites to drive efficiency<ul style="list-style-type: none">– >2,000 people moving between sites or business units	<ul style="list-style-type: none">• Further cross-business unit consolidation to create scaled sites for both contact centre and back office activity
Right-shoring	<ul style="list-style-type: none">• Coordinated group approach to moving work<ul style="list-style-type: none">– customer-facing back to the UK– back office to new Indian shared service centre	<ul style="list-style-type: none">• Commitment to answer 90% of Consumer and 100% of EE calls within the UK

Compete – applying best practice toolkit to Global Services

What we have achieved

Delivered c.£340m¹ in 2015/16

- Rationalised circuit inventory, ceased unused circuits and optimised network structure
- Supplier rationalisation and identified third-party spend/services that can be insourced
- Utilisation of shared services in low cost economies and reduced subcontractor spend

¹ Annual run-rate compared with cost before programme

Further opportunities of £300m

- Renegotiation of leased line pricing and improved in-life management
- Data centre footprint review and consolidation
- Review of product cost base to maximise margins
- Leverage investments in major systems





Cost transformation

Rikkyä Okker – Cost transformation director



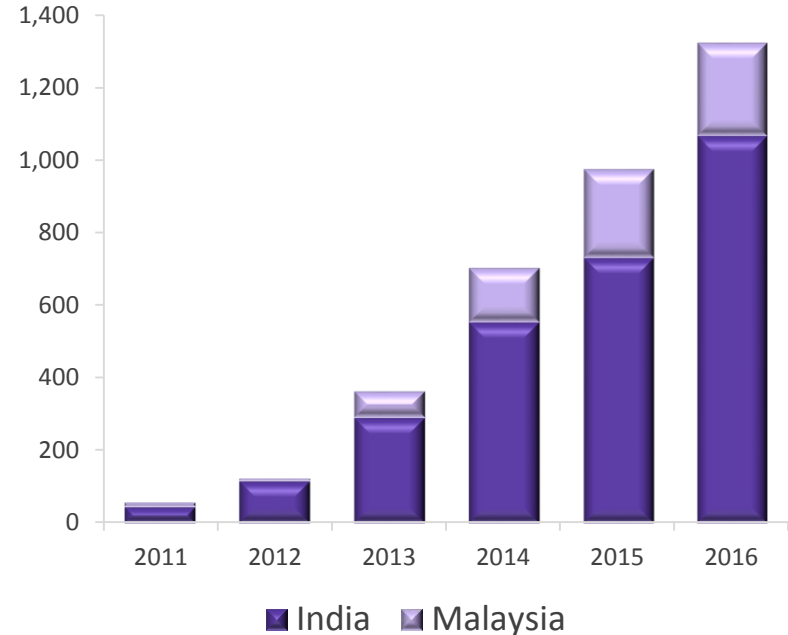
Continued efficiency and quality improvement from IT insourcing

Insourcing framework

- Established our own IT development centres in India and Malaysia
- Structured approach:
 - business-facing and strategic work located in UK with our own people
 - strategic work offshore using our own people
 - legacy and transactional work offshore with third parties
 - replacement ratio of 1.4 – 1.6 subcontractors to every BT person
 - annualised savings year-to-date of £15m
- Further opportunities of £9m to go for
 - opportunity to insource another 700+ roles

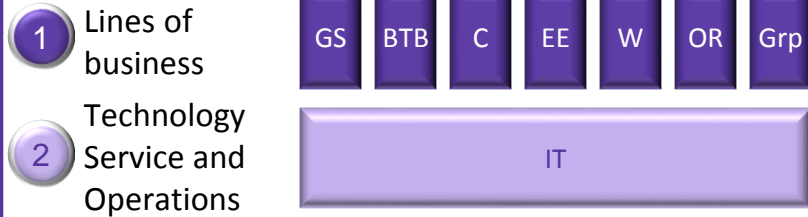
Insourcing across India & Malaysia

Number of BT employees in IT



We delivered >£50m IT efficiencies this year; £50m more to go after

Centralised IT



- 1 Now only have directly customer-facing IT teams
- 2 All internal IT centralised, with centralised security wrap and improved support levels at lower cost

More to go after...

- Continued insourcing in low-cost locations
- EE integration
- Improve productivity using automated code review (adopted from other industries)
- Simplify IT estate, rationalise number of applications
- Advanced automation of test and support functions
- Quality improvement and reduced cost of failure

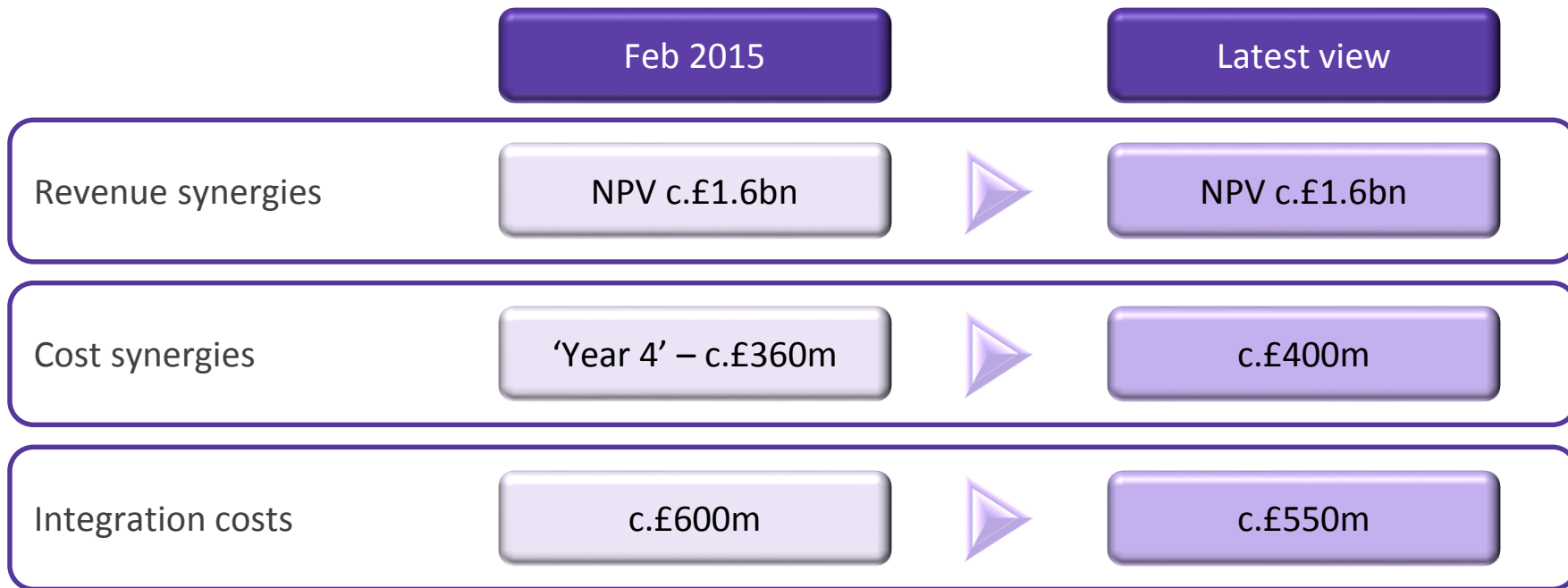


EE integration

Tony Chanmugam – Group Finance Director



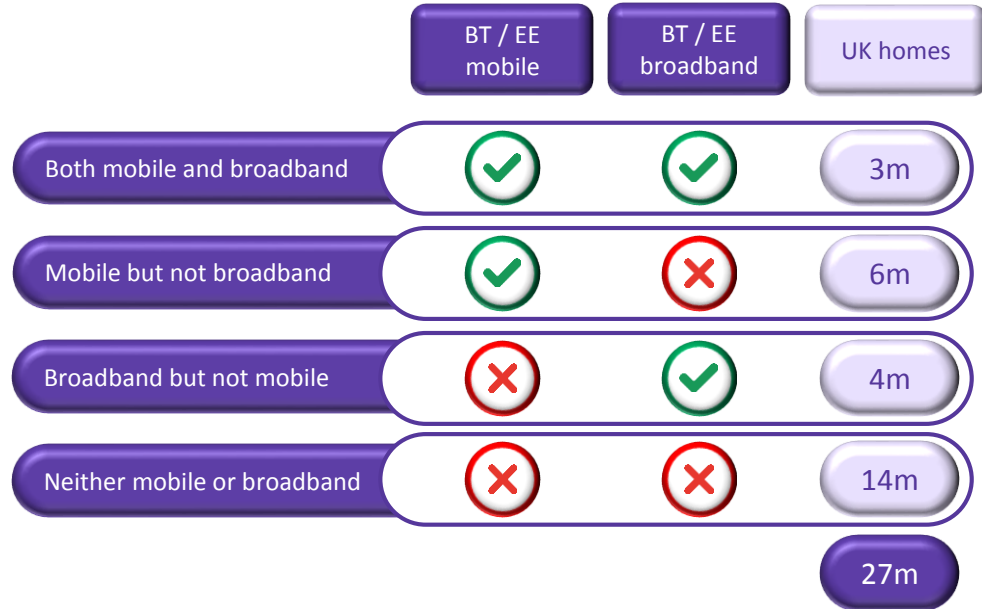
EE synergies and integration costs - update



We'll achieve £1.6bn of total revenue synergies

Consumer

- Using owner economics to cross-sell mobile to BT customers
- More broadband and TV to EE customers
- Leveraging BT's content using EE



Postpaid only. BT/EE estimates

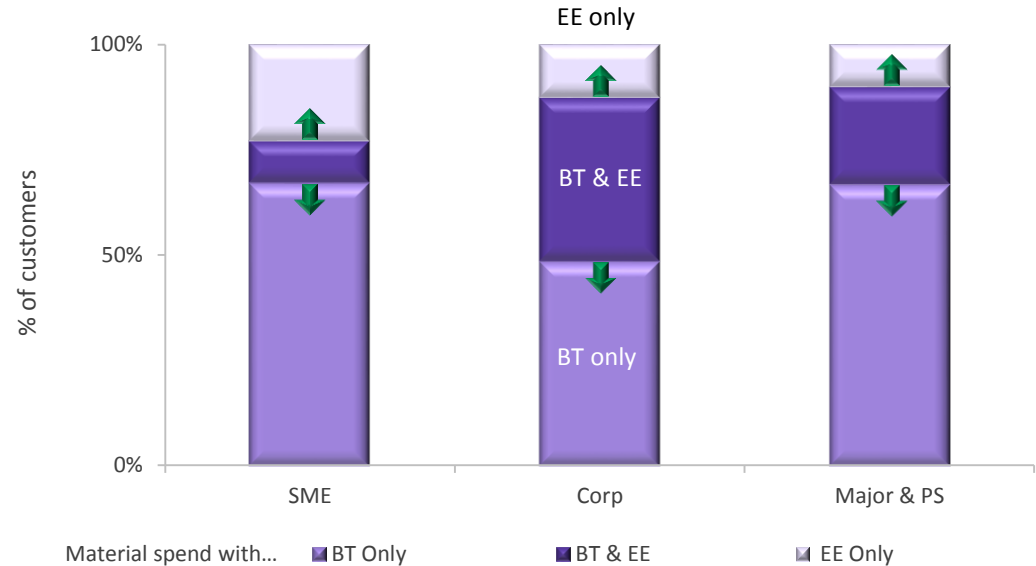
We will achieve £1.6bn of total revenue synergies

Business

- Cross-sell to existing customer bases
- Increased market coverage from larger sales force
- EE shops to sell wider BT product range

Significant cross-sell opportunity for mobile and fixed

Opportunity to increase overlap in customer base



Range of operational cost synergies

Area	Expected cost synergy in 2019/20
Network	High
IT	High
Support functions	High
B2B	Medium
B2C	Medium
Customer service	Medium
Property	Medium
Supply chain & logistics	Low

Synergy key – Annualised cost savings in 2019/20: Low <£20m, medium £20-£50m, high >£50m

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EE integration

Howard Watson – CEO, Technology Service & Operations



Network and IT synergies – c.£200m in 2019/20

Achieve synergies **and** simplify our technology landscape

Consolidate
technology

Migrate to strategic IT stacks, a single network and leverage our quad-play capabilities early

Purchasing
efficiency

Create an integrated supplier landscape across datacentres, networks, applications, test and support activities

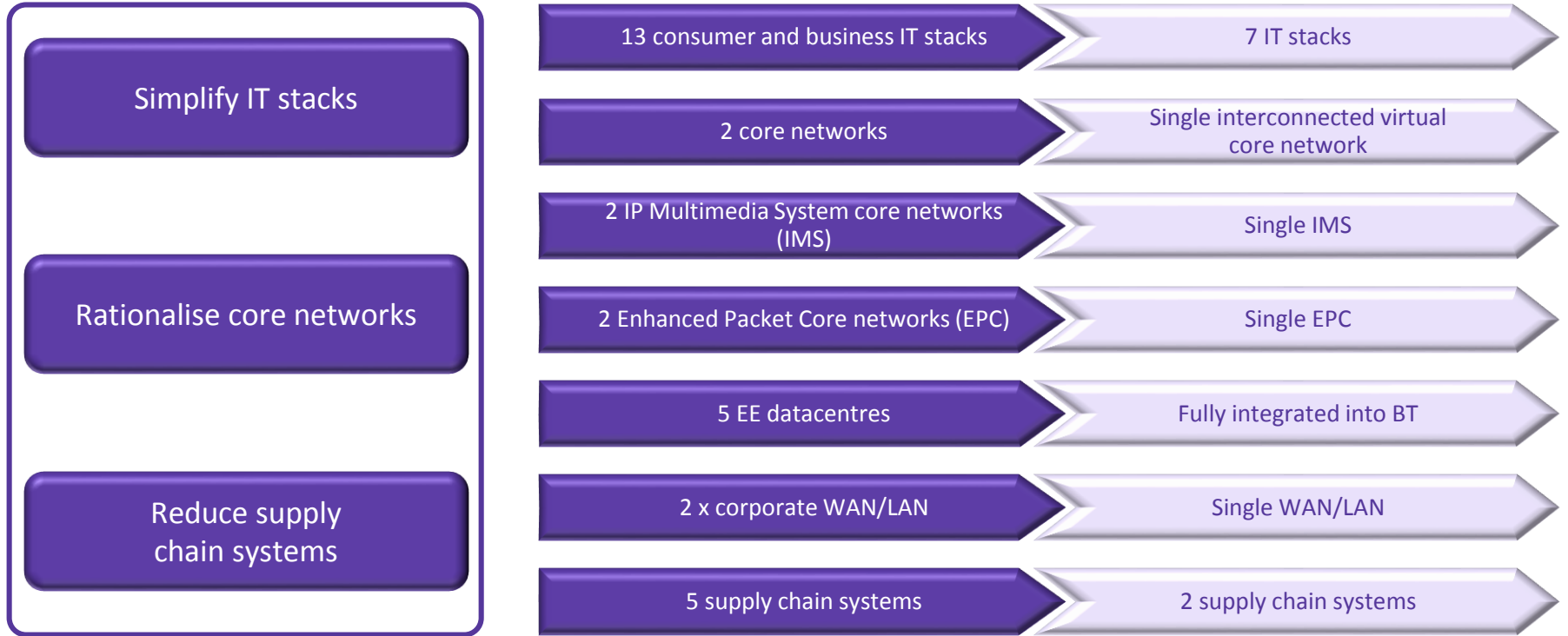
People
investment

Continue to invest in our people and insource to create an optimum mix of deep technical knowledge and innovative thinking

Focused
delivery

Maintain focus on extending 4G coverage, remain the UK's best-quality mobile network, and roll out Emergency Services Network (ESN)

Integration will improve agility through consolidation



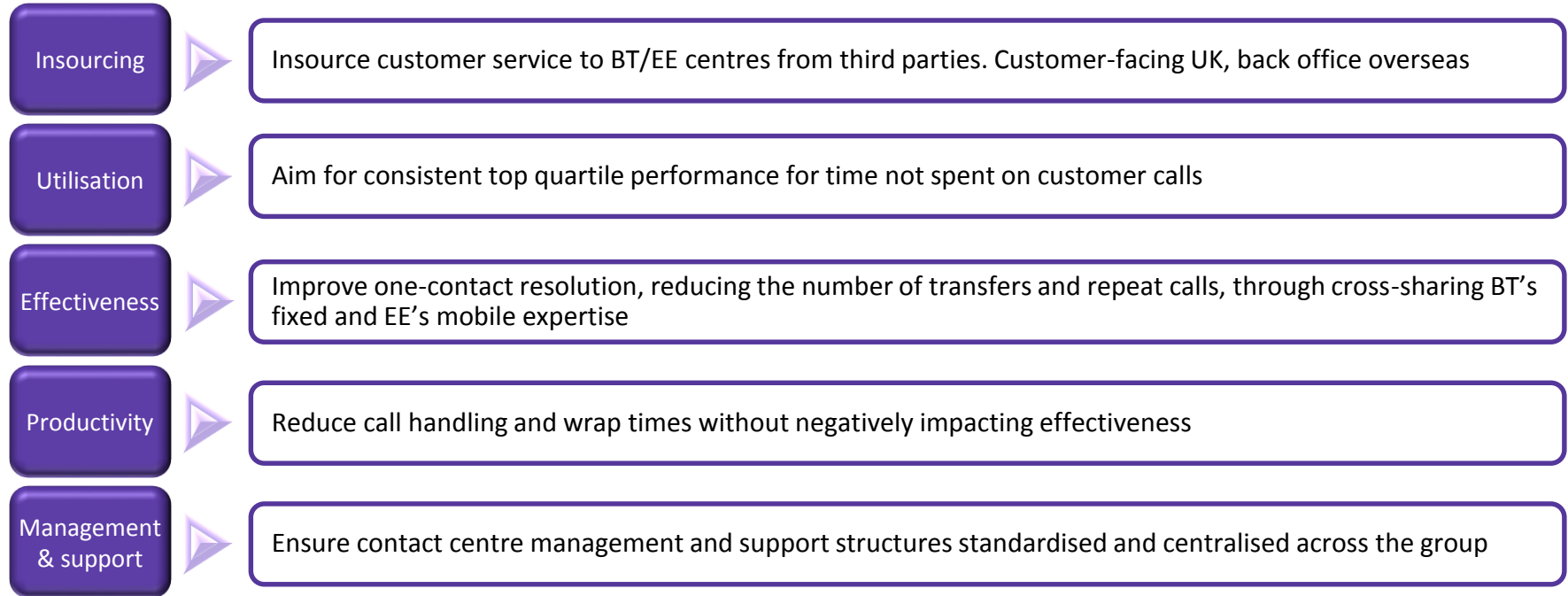


EE integration

Andy Wells – Cost transformation director



Customer service synergies – c.£40m in 2019/20



Property synergies – c.£25m in 2019/20

Office consolidation

Consolidate office locations, utilising spare capacity in BT/EE existing office estate

Insourcing

Insource facilities management and security to BT Facilities Services

Purchasing efficiency

Save capital and maintenance costs through combined procurement efficiency



Technology, Service & Operations

Howard Watson - CEO



Delivering the number one network and stand-out services

TSO

- Number one network, providing seamless connectivity
- Products and services designed for great customer experience
- Best converged services
- Continued cost transformation

To use the power of communications to make a better world

Growth – to deliver sustainable profitable revenue growth

Broaden and deepen our customer relationships

Deliver great customer experience

Invest for growth

Transform our costs

Differentiated content, services and applications

Best network in the UK

Fully converged service provider

Market leadership in all UK segments

Focus on multinational companies globally

Best place to work

Who we are



In 37 countries around the world



c.13,000 people



c.250,000 years of skills and experience



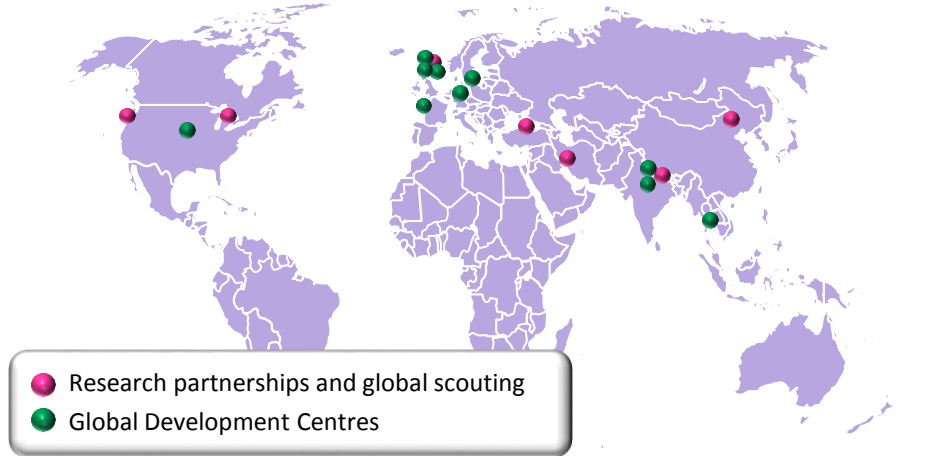
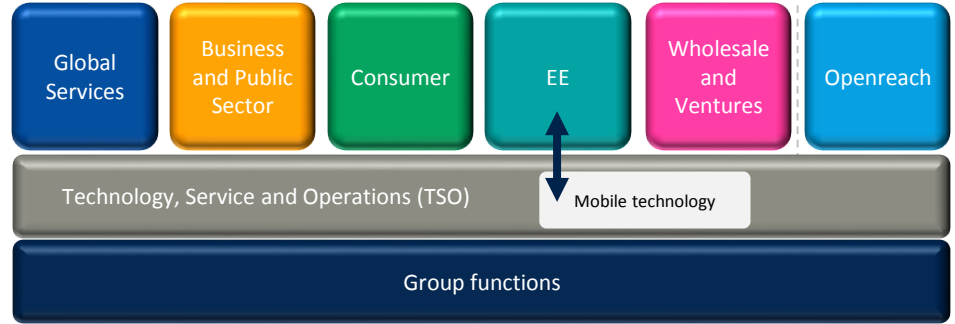
Over 210 graduates and 360 apprentices



£470m invested in R&D in 2015/16

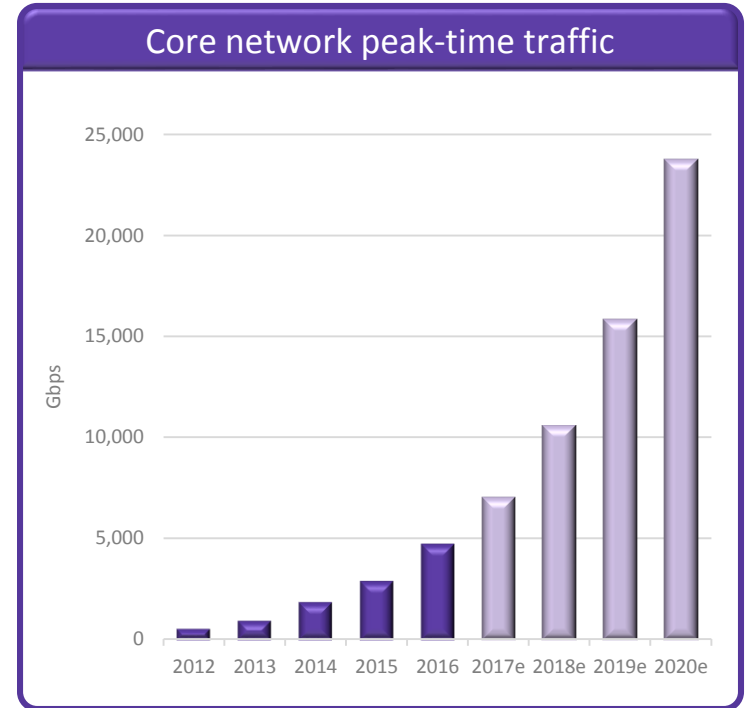
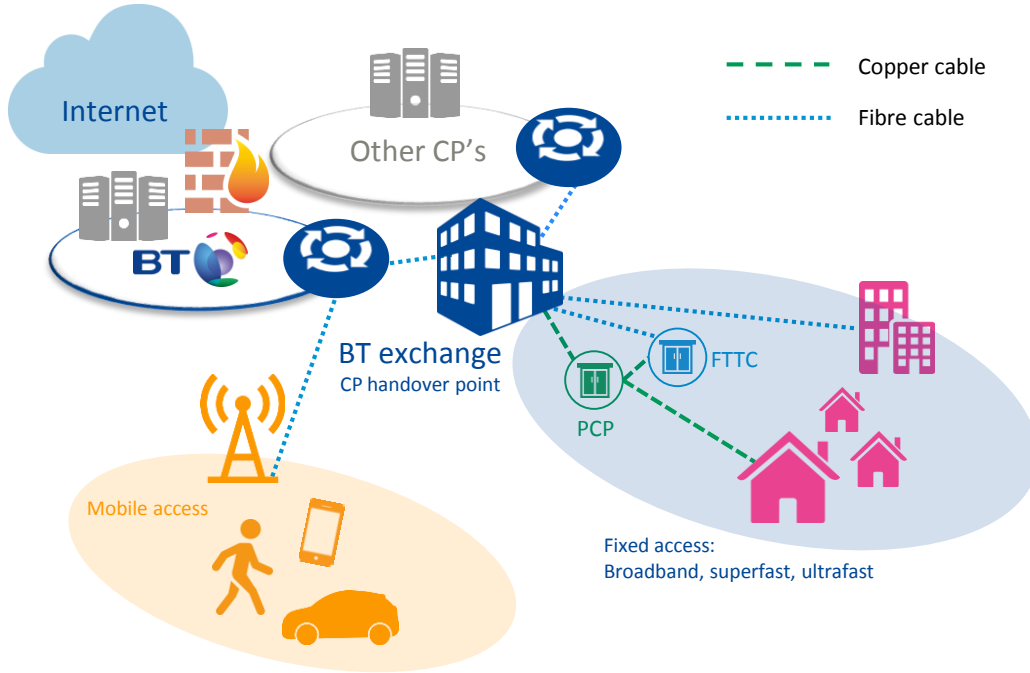


4,700 patents and applications



Customers want seamless connectivity

Convergence requires an end-to-end approach to building and managing networks



So we're bringing ultrafast speeds to the UK

Using cutting-edge technology that's quick and cost effective to deploy

- Driving global standards on G.fast: the core of our ultrafast strategy
- Leading suppliers and industry: they're responding at pace
- New technologies boost UK superfast broadband coverage
- TSO is supporting Openreach's journey towards FTTP



...even when you're on the move

Using the UK's biggest and fastest mobile network

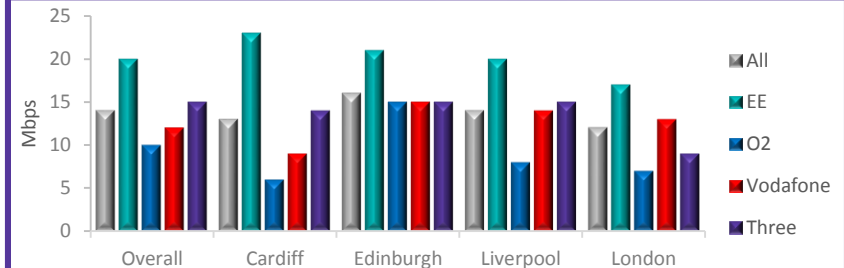
- UK's first 4G network and fastest 4G rollout
- Seamless voice
 - wi-fi (VoWiFi) and 4G calling (VoLTE)
- Extending coverage
 - landmass, road, rail – completing network refresh
 - 4G, 4G Pro, 500 new sites, 800MHz
- Demonstrable network quality
 - ESN contract; most demanding users in the UK
 - EE fastest browsing, download, highest voice success rate
 - Ofcom 'Smartphone Cities' report



4G coverage in
September 2017



Average 4G tariff download speed by city



Source: Ofcom

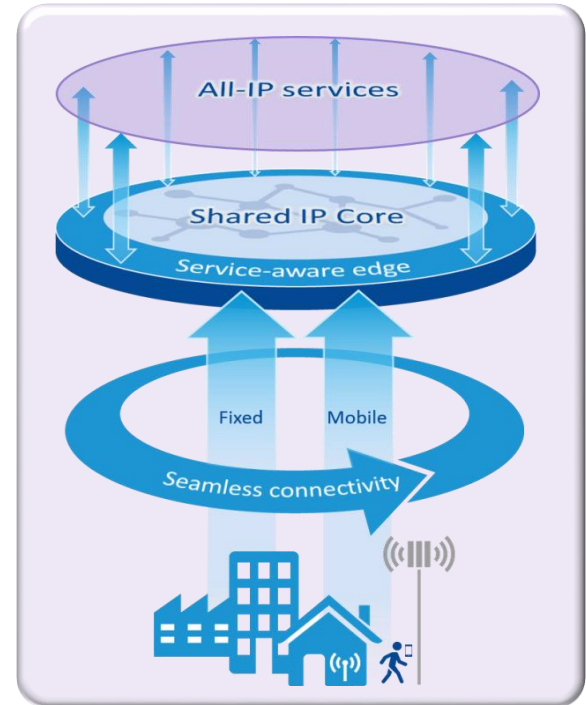
Supported by the UK's best core network

Fast, secure 'motorways': tomorrow's services over a common IP infrastructure

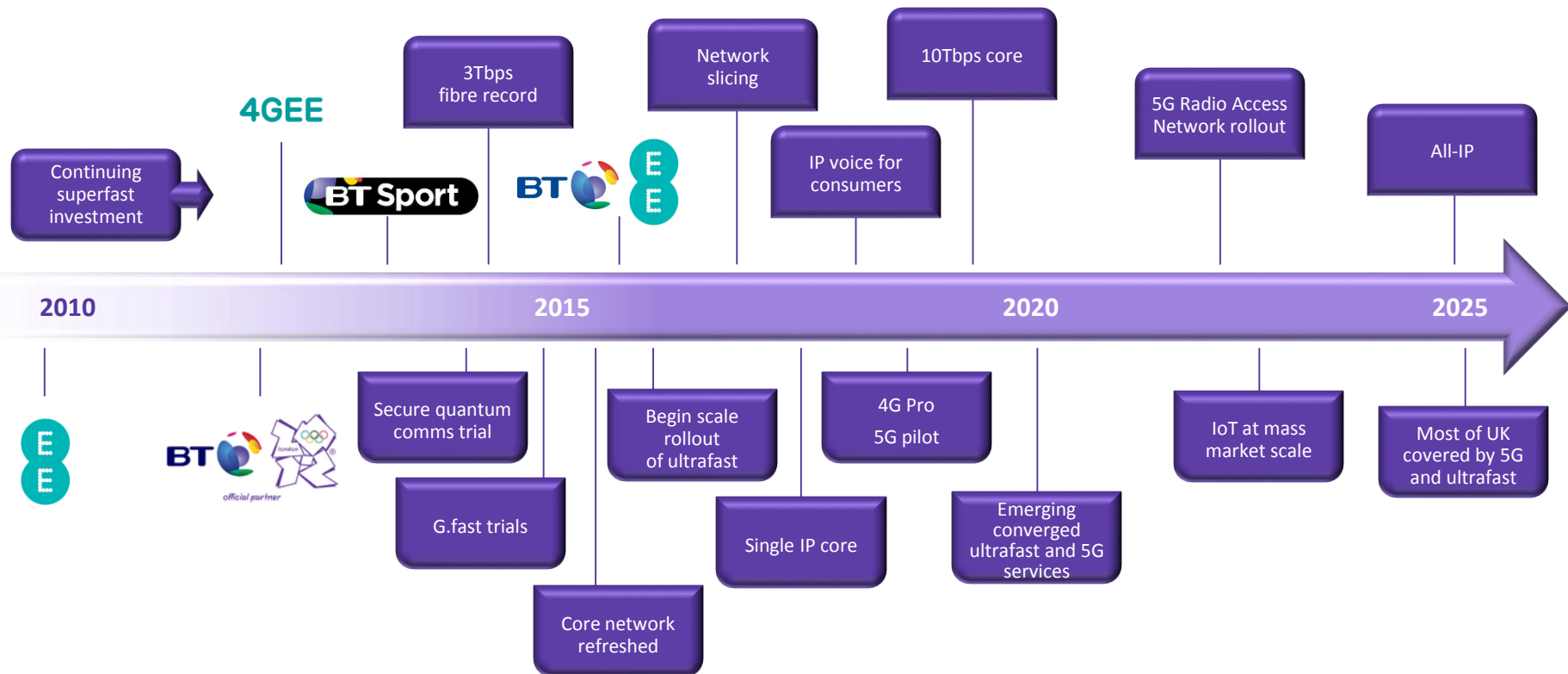
An upgraded core with increased capacity to cope with future demands:

- **10G upgraded to 40G+** with future 'terabit' capability
- **10x the capacity** at less than a fifth of the cost of 21CN
- **No future 'capacity crunch'**: 3Tbps world speed record
- **Resilience and flexibility**: 'Multi-service edge' at 800 sites
- **Significant cost reduction** of 60% per Mb

Managing network traffic intelligently gives our customers the best possible experience



Milestones to all-IP



Best converged services over the best network

Combining the power of fixed and mobile networks

TV



Future voice



5G



Digital customer
experience



Industry-leading technology underpinning exciting customer experiences

BT TV and BT Sport developments



First UK Ultra HD channel
and UHD STB



BT Sport Connected
Red Button



BT Sport Digital App
with enhanced player
for UEFA Champions
League



Lower-cost, entry-level
'Zapper' STB

Changing the way we operate

- Agile IT delivery
- End-to-end monitoring to improve customer experience:
 - TV apps
 - social media
 - operational monitoring
- System and network instrumentation
- Capacity management

Even more exciting things to come



High Dynamic Range

DOLBY

Enhanced audio



Wi-fi enabled STBs
with modular storage



Integrated STB and device capabilities

Future Voice

TV

Future
voice

5G

Digital
customer
experience

Towards a converged IP-based multimedia telephony network

The compelling case for all-IP

Voice as a service over broadband will provide:

- Integration with mobile services for consumer and business customers
- HD voice
- Monitoring features
- Nuisance call blocking
- New generation of IP phones

It makes sense

- Fewer engineer interventions with the cabinet, reducing costs and faults
- PSTN equipment can't be maintained indefinitely as costs rise – it's time for a new generation of technology
- We're comfortable sustaining PSTN out to 2025 but the future is IP



IP contact centre services

It's already happening:

- Contact centre services delivered over IP
- >350k IP lines already in use by UK businesses – a growing trend
- We're starting to trial IP voice with residential customers – scale trial in 2017

Using our expertise to lead the next generation of mobile

- **A step change in performance** building on 4G EE network and our fixed ultrafast ambition
- **BT/EE labs are working on our vision of 5G**; bringing together 4G, 4G Pro, fixed, wi-fi in a system providing:
 - ultra high speed and capacity
 - ultra reliable connectivity
 - ubiquitous coverage, enabling IoT
 - low latency
 - massive numbers of connections
 - low energy usage
- **Collaborating to develop a robust 5G ecosystem of partners**



Digital customer experience

Using our technology to transform the way we deliver service

Digitisation: the bedrock of stand-out services

Cloud
- the future of big business



A consistent digital experience

Wholesale
customer portal



- My Apps
- Business Zone
- Briefings

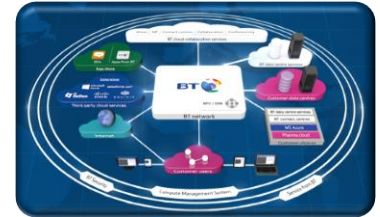
Simple systems

Wi-fi calling
- easier to call and text



Network programmability

Software defined
and virtualisation
capabilities for Cloud



Delivering the number one network and stand-out services

TSO

- Number one network, providing seamless connectivity
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- Best converged services
- Continued cost transformation

To use the power of communications to make a better world

Growth – to deliver sustainable profitable revenue growth

Broaden and deepen our customer relationships

Deliver great customer experience

Invest for growth

Transform our costs

Differentiated content, services and applications

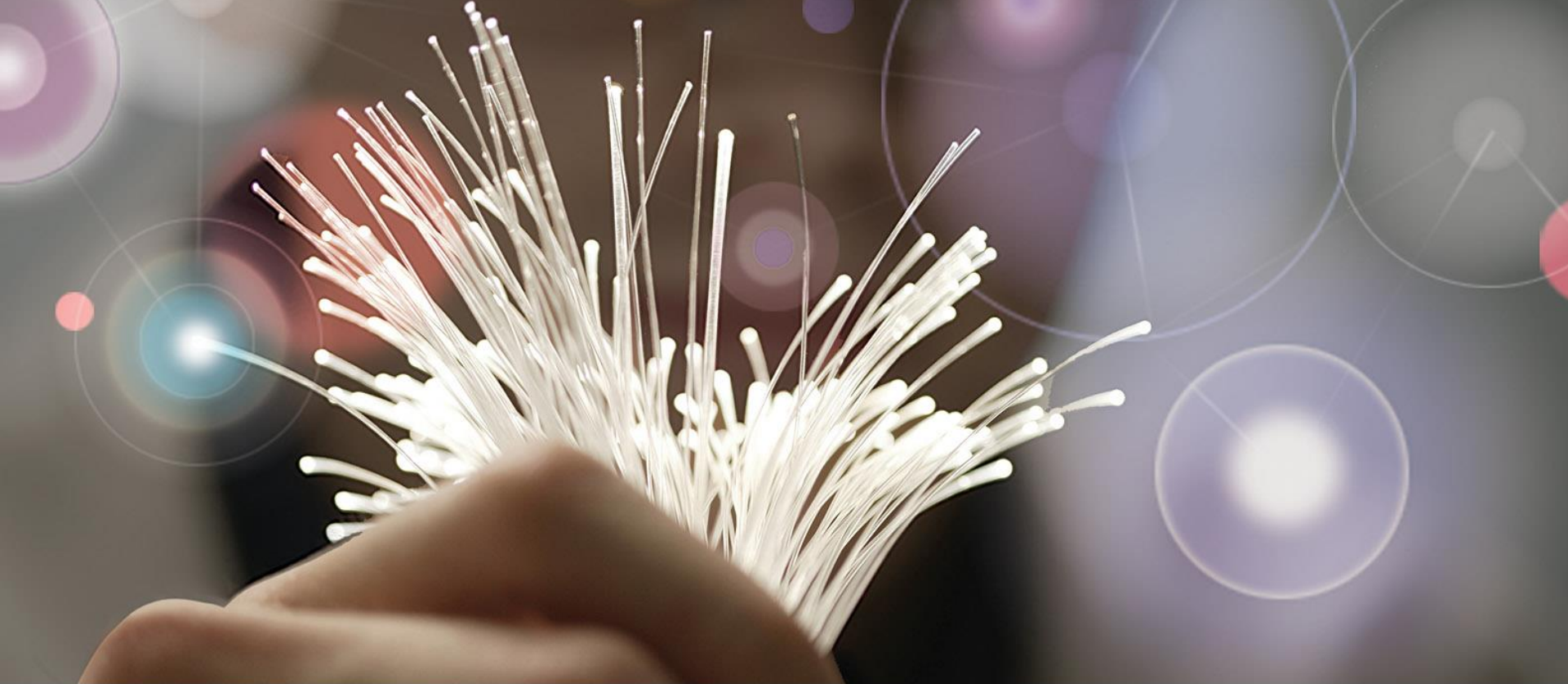
Best network in the UK

Fully converged service provider

Market leadership in all UK segments

Focus on multinational companies globally

Best place to work



Openreach
Clive Selley - CEO



Better, broader, faster

Better service

Deliver step change in customer experience

Broader coverage

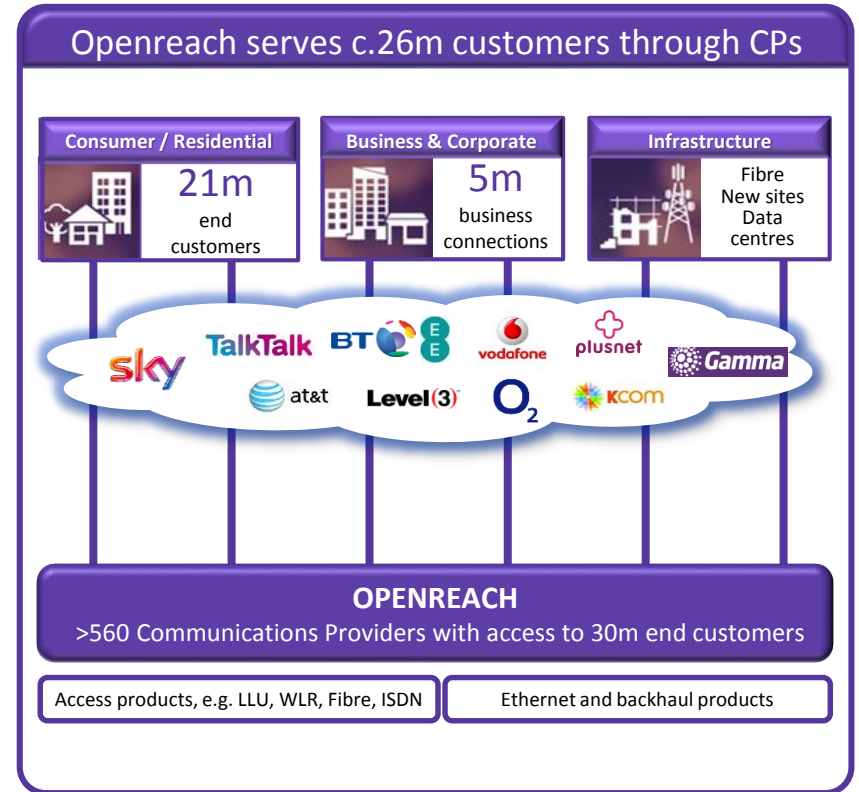
Go beyond Government's 95% superfast coverage target

Faster speeds

Extend ultrafast with mix of G.fast and FTTP

Openreach underpins Britain's digital leadership

- Commitment to serving >560 CPs on equal access terms
- Competitive market delivering value and choice to UK consumers and businesses
- Digital champion - aligned with Government agenda for Digital Britain



Openreach at a glance

- Huge engineering operation
- UK fibre platform growing fast
- Serving customers nationwide

Openreach FY 2015/16

£5.1bn

Revenue

25m

Fibre prems passed

31,500

Employees

28,000

Front-line field & desk roles

£2.7bn

EBITDA

5.9m

Fibre broadband
end customers

↑342%

Since 12/13

290,000

Engineer jobs
per week

£12.3bn

Mean capital
employed
(FY 2014/15)

200,000

Active Ethernet
circuits

↑38%

Since 12/13

c.4m Poles



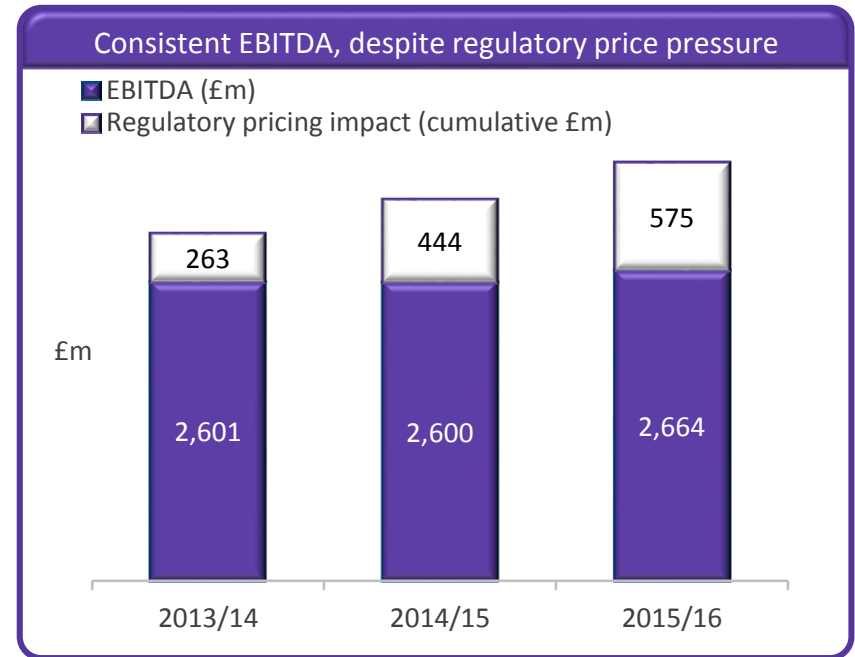
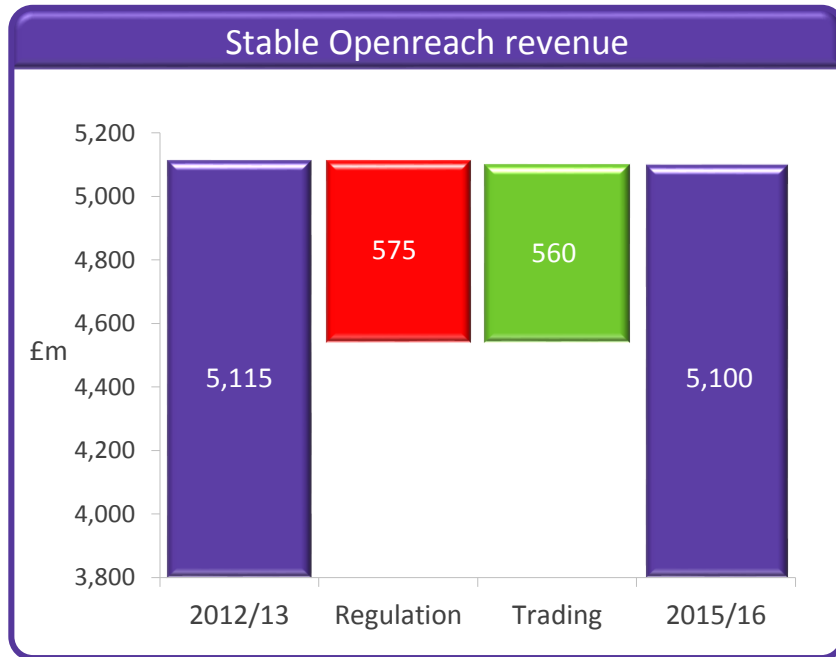
c.101k Cabinets



c.5.5k Exchanges

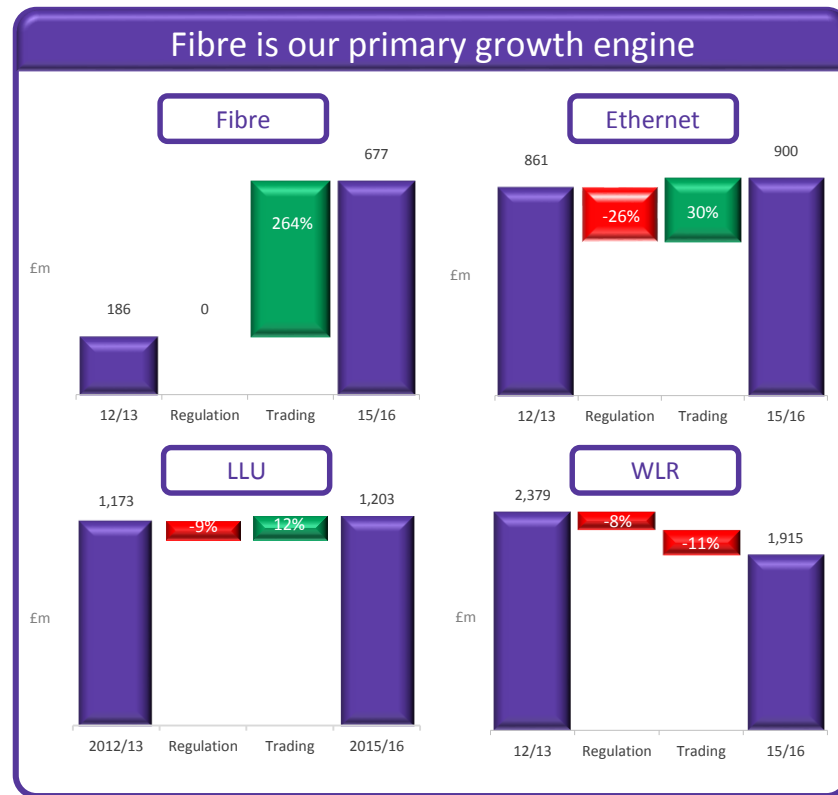
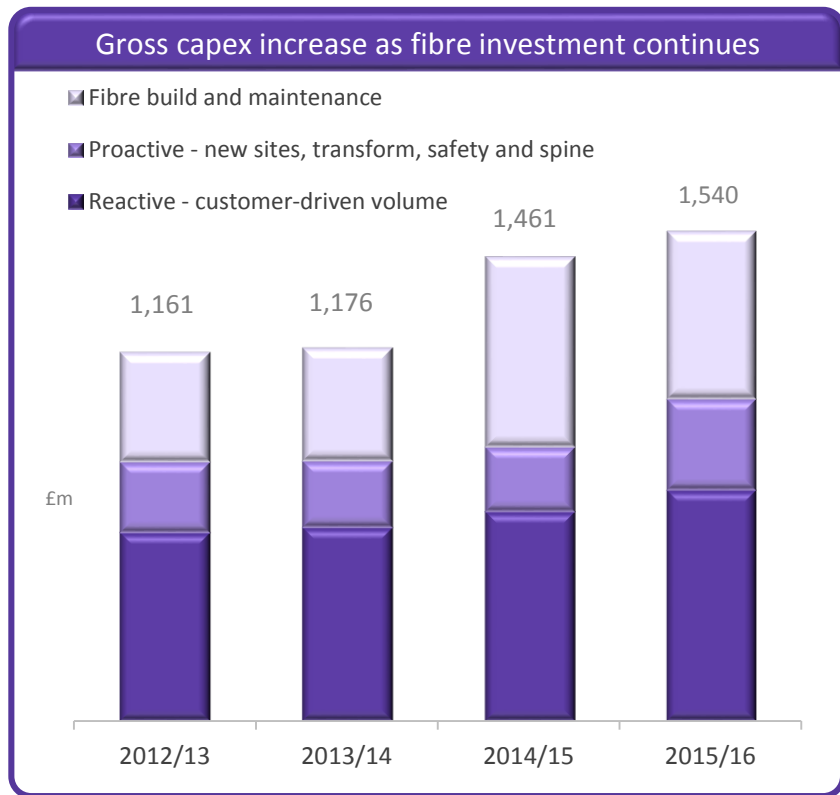


Stable revenue and EBITDA, despite regulation



Volume growth and cost transformation have offset the impact of regulation

Fibre broadband is the focus of our continued investment



Our plan will help manage the regulatory challenge

Regulatory impacts

- 2015/16 c.£130m
- 2016/17e c.£250m

Our plan will help offset these headwinds

- Stimulate demand
- Improve products
- Transform costs

Business Connectivity Market Review

- 2016/17 charge control £175m - £200m impact on Openreach
- Dark Fibre to be introduced in October 2017

Wholesale Local Access Review

- Important to maintain fair bet principle
- Duct & Pole Access
 - process
 - pricing
 - maps

Digital Communications Review

- We are seeking:
 - regulatory certainty
 - clarity
 - fairness

Universal Service Commitment (USC)

- We stand ready to deliver voluntarily; subject to appropriate technology and commercial solutions, rather than by an industry USO

Customer demand driving growth opportunities across the business

Consumer

- Growth in broadband
- Continued migration from copper to superfast
- Improved mix as superfast migrates to ultrafast

Business

- Continued Ethernet volume growth expected
- Improved service will help increase market share
- Business FTTP for SMEs

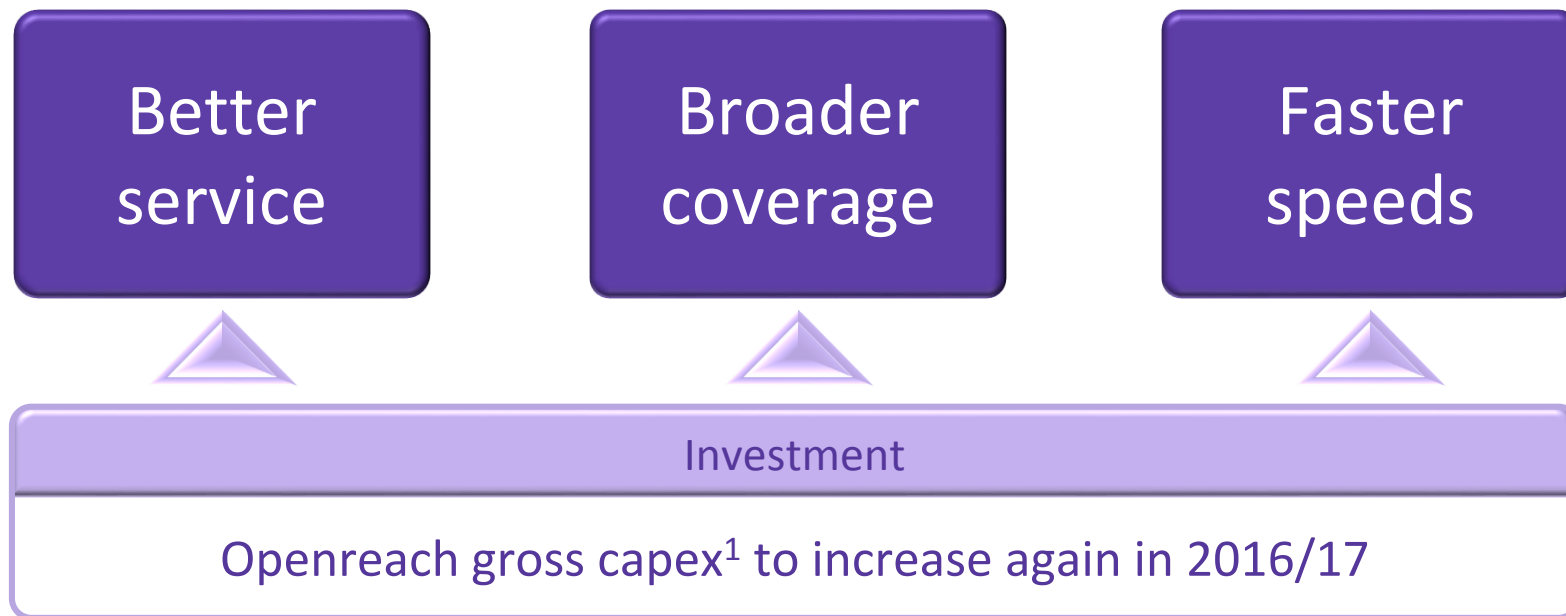
Infrastructure

- New home build continues
- Strong growth in data centres expected
- Backhaul to small cells expected

Openreach fibre broadband network: 40% increase in data usage year on year

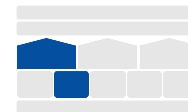


Our strategy



¹ Before any impact of grant funding

Better service – improving but much more to do



Progress in 2015/16

Consumer & Residential

60/60 MSLS met or exceeded in last 2 years



Business & Corporate

16% Increase_YoY in new weekly Ethernet orders completed



Infrastructure

96% Reduction in overdue new site orders



Working with industry for a better service plan and commitments

1

Deliver on-time



2

Right First Time



3

Own it



4

Smarter working



Consumer

- Halve missed appointments
- Complete half of remaining missed appointments within 24 hours

- Multi-skilled engineers able to fix-wider range of issues

- Dedicated case management team to own and resolve problem cases

- Improving network health to reduce fault rate
- Reduce delays caused by street works and wayleaves

Business

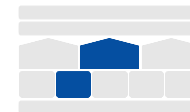
- Ethernet deliveries up 20% YoY
- Achieve 46 working day target for Ethernet delivery

- Achieve 80% target on deliveries by contracted date

- Individual owner accountable for delivery of each complex circuit

- Smarter engineering and innovative techniques to deploy network

Broader coverage – going beyond Government’s 95% target



Go beyond 95%

>95%

- Extend coverage with ‘gain-share’ dividend from BDUK
- Tackle ‘not-spots’ and infill in existing footprint area

More competition



- Provide better access to Openreach’s ducts and poles

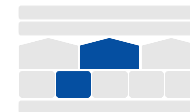
Ready to deliver 10Mbps USC

10m
USC

- Developing and testing technology and commercial options for voluntary delivery of universal broadband



Faster speeds - ambition for 12m ultrafast by 2020



For consumers



- Ambition for >11m homes passed by 2020 through mix of G.fast and FTTP

For businesses



- Ambition for up to 1m to have ultrafast available by 2020 including Business FTTP in high streets and business parks

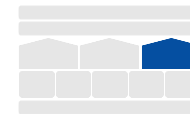
12m ultrafast ambition

G.fast
FTTP

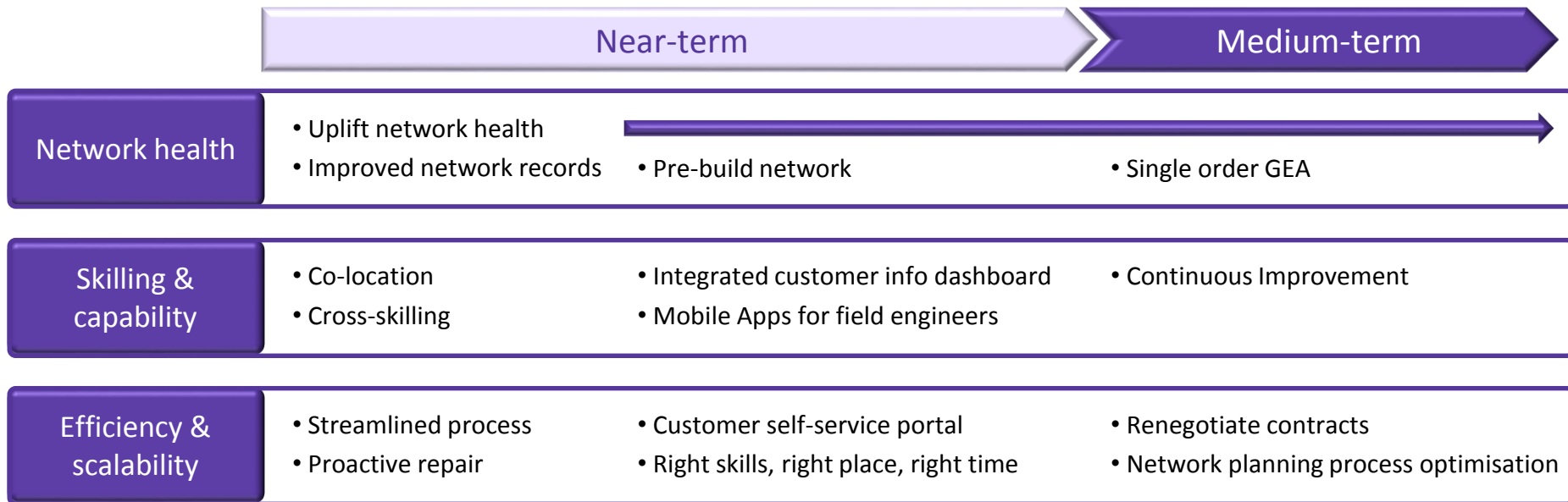
- Commitment for 10m premises passed with G.fast by 2020
- Ambition for up to 2m FTTP by 2020
 - in new build homes, rural areas, apartment blocks and where it makes economic sense



Cost transformation – improving our efficiency



- Our transformation activity is pivotal to delivering our customer experience improvement plan



Our targets to deliver better service, broader coverage, faster speeds

Key messages

- Fibre and Ethernet demand drives growth
- Growing investment in Openreach
- Better service – deliver step change in customer experience
- Broader coverage – go beyond Government’s 95% target
- Faster speeds – more ultrafast with G.fast and FTTP
- Supportive regulatory outcome needed so that Openreach can keep Digital Britain ahead

Key metrics

Service

Fibre coverage

Superfast to ultrafast

Targets

- Reduce network faults YoY
- Deliver on time
- Halve missed appointments in 2016/17

- 95% coverage and beyond
- Extend with ‘gain-share’

- Ambition for 12m ultrafast by 2020
- Includes up to 1m ultrafast for SMEs

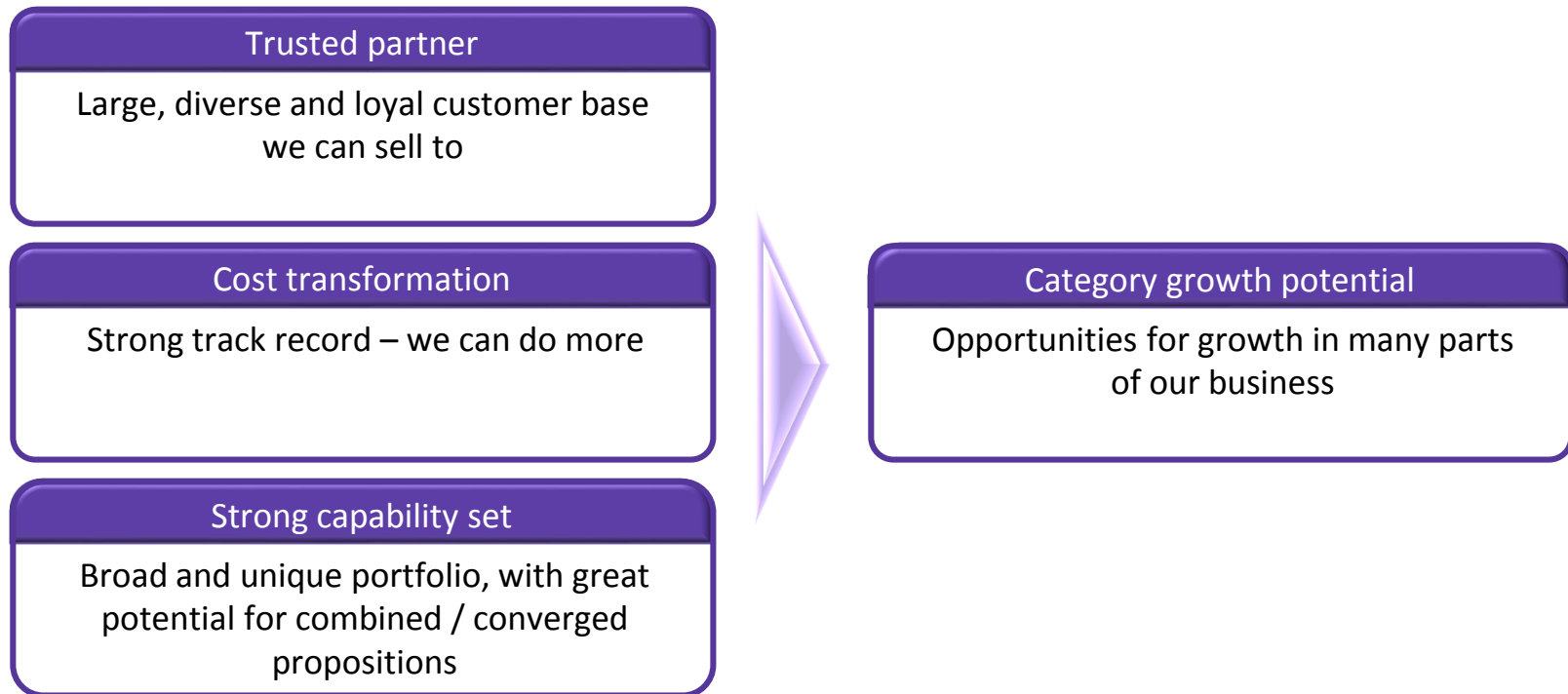


Wholesale & Ventures

Gerry McQuade - CEO



Opportunities from strong portfolio of converged propositions



We serve fixed and mobile CPs, plus a wide range of UK businesses

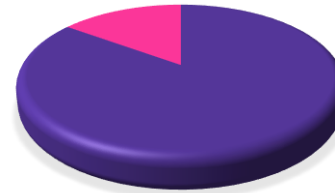
We serve:

- UK communications providers
 - c.1,200 fixed communication providers
 - c.30 mobile communication providers (MVNOs)
- Media companies and broadcasters, in the UK and worldwide
 - c.200 organisations
- Over 3,000 other vertical business markets
 - legal firms, vehicle fleet owners, etc.
- All UK citizens
 - 999, Directories, Payphones

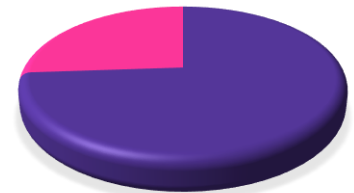
We create economies of scale for BT

Revenue and EBITDA split¹

c.£2.2bn revenue



c.£0.8bn EBITDA



Wholesale Ventures

c.3,600 employees²



BTB
Wholesale
Group
EE

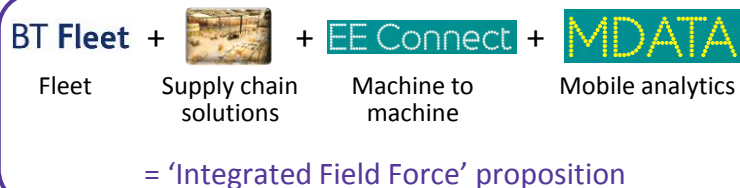
where employees came from

¹ Estimate for new organisational structure
² Employees as at 01/04/16. Direct labour only

Introducing Ventures: its portfolio and rationale

- Rationale for new organisation

- broader Ventures portfolio with greater management visibility
- revenue and cost synergies across Ventures and with Wholesale. Example:



- Competitive advantage

- BT brand
- well-established customer base
- large sunk investments
- rich capability set
- technology and scale

Our Ventures portfolio



- 999 call handling



- Directory enquiries and operator assistance



- Street and managed payphones

BT Fleet

- Fleet management & maintenance



- Fire and security alarm services



- Managed IT solutions for law firms



- Manufacture of cabling



- Supply chain solutions

EE Connect

- Machine-to-machine solutions

MDATA

- Aggregated mobile analytics

We're in a strong position to provide innovative, converged services

What we believe

- We can grow by improving our customers' experience, by reducing our costs and by developing innovative solutions
- Our unique assets mean we're well placed to create new value and differentiation
- Convergence is our customers' key challenge

A market-leading position to build on

In wholesale fixed networks

"BT Wholesale continues to lead the local market as a provider of wholesale connectivity, communications, and media services"¹

In wholesale mobile networks

"The largest provider to MVNOs"²

In our Ventures



¹ Current Analysis, October 2015 ² Competition and Markets Authority, June 2015

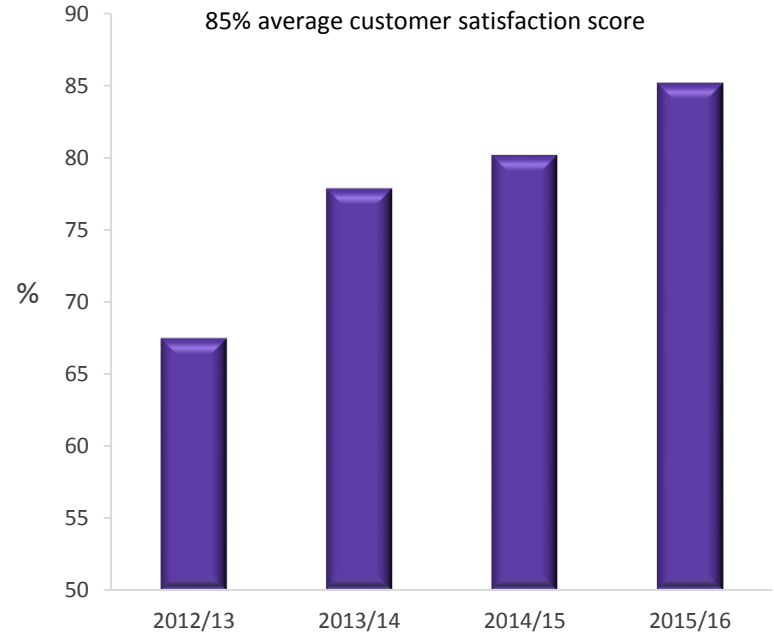
We're focused on improving customer experience



Strategy – easy to do business with

- Predictable delivery
 - proactive order and repair management
 - much faster completion times
 - service innovation
- Skilled, helpful support
 - skilled people, tailored experience
 - great tools and processes
 - one-contact resolution
- Digital by default
 - web portals
 - automated interfaces

The majority of our customers¹ are highly satisfied

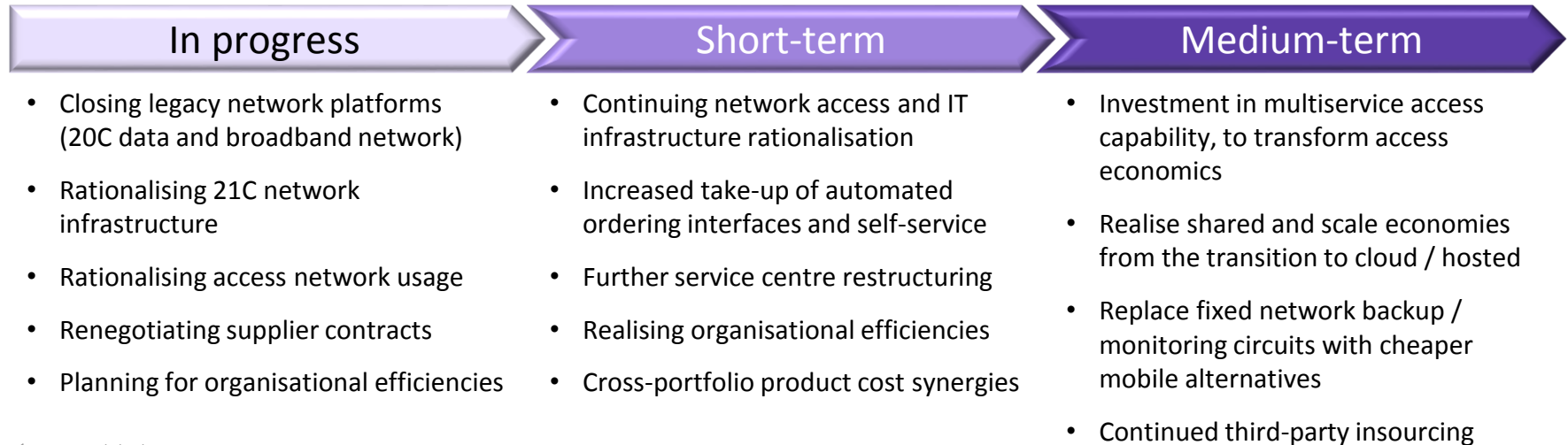


¹ BT Wholesale customers

We'll extend our strong track record on cost transformation



- Strong track record over last 3 years¹
 - SG&A ↓ 39%
 - Third-party spend ↓ 58%
 - Network unit costs ↓ 61%



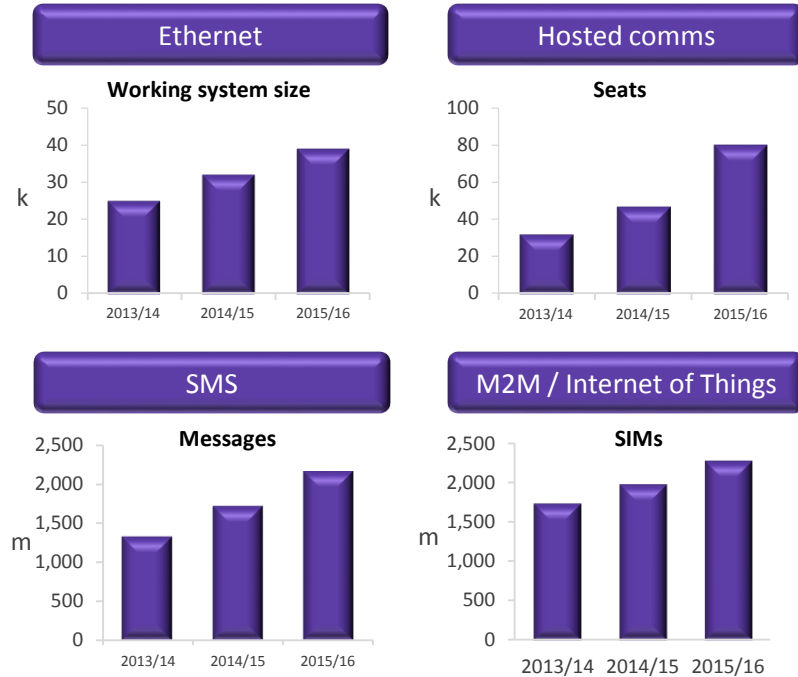
¹ Former BT Wholesale

We're continuing to invest in our product portfolio



- Ethernet & MEAS
 - expanded network coverage
 - faster delivery
 - additional network access options
- Hosted Communications
 - broader portfolio
 - new channel partnerships
 - convergence
- Mobile portfolio
 - EE Connect
 - mobile data analytics
- Ventures
 - Payphones rationalisation & monetisation
 - Fleet expansion
 - next-generation IP software (Tikit)

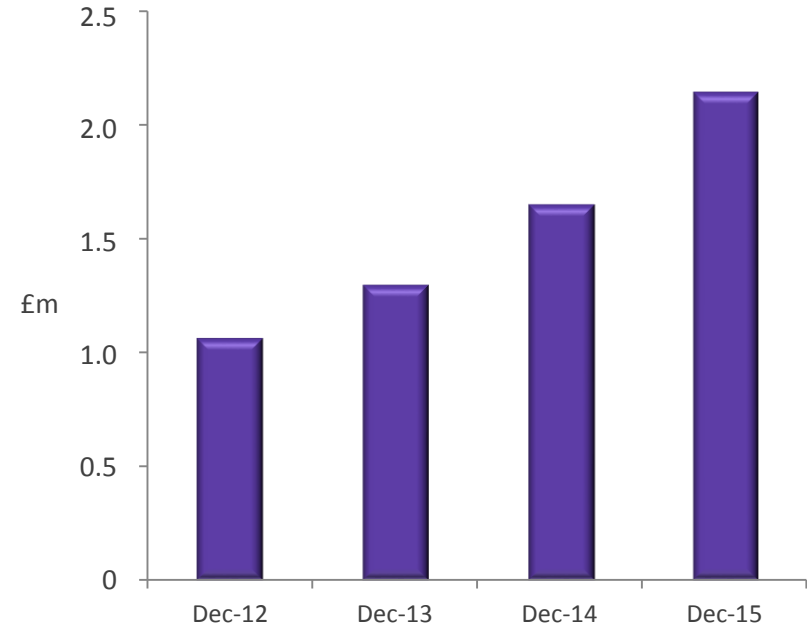
Strategic investments have paid off in the past



We'll support BT's top line by meeting customer demand

- The market is adopting IP-based and converged services. We will meet that need
- Our customers want mobile for their portfolios
- The 'Internet of Things' enables differentiation in our proposition set
- Our Ventures create a platform for growth
- Improvements to our operating model and customer experience will help secure our base

Market growth in Hosted VoIP (users)



Source: Cavell Group, February 2016. Users = licensed users in UK

Opportunities from strong portfolio of converged propositions

Key messages

- Customer relationships are strong
 - trusted partner
 - offering value
- Cost transformation
 - continuing previous themes
 - new operating model, new opportunities
- Focused investment has delivered
 - new ways to differentiate
 - unique assets to support convergence

Key metrics

Ethernet

4G

Service

3-year ambitions

- Grow base by 50%

- Increase proportion of MVNO brands on 4G from <5% to $\geq 80\%$

- $\geq 95\%$ on-time delivery for all products



Q&A