



# Vodafone Digital First Investor Open Office

**Nick Read**

Group Chief Executive Officer



# Disclaimer

This presentation along with any oral statement made in connection therewith contains forward-looking statements, including within the meaning of the US Private Securities Litigation Reform Act of 1995, with respect to Vodafone Group Plc's financial condition, results of operations and businesses and certain of Vodafone Group plc's plans and objectives which are subject to risks and uncertainties because they relate to future events. Forward-looking statements are sometimes, but not always, identified by their use of a date in the future or such words as "accelerate", "anticipates", "aims", "believes", "continue", "could", "expects", "gain", "grow", "intends", "may", "plans", "should" or "targets" (including in their negative form). Some of the factors which may cause actual results to differ from these forward-looking statements can be found by referring to the information contained under the headings "Forward-looking statements" and "Risk management" in Vodafone Group Plc's annual report for the year ended 31 March 2019 ([vodafone.com/ar2019](http://vodafone.com/ar2019)). By their nature, forward-looking statements are inherently predictive, speculative and involve risk and uncertainty because they relate to events and depend on circumstances that may or may not occur in the future. No assurances can be given that the forward-looking statements in this presentation will be realised. Any forward-looking statements are made as of the date of this presentation. Except as otherwise stated and as may be required to comply with applicable law and regulations, Vodafone does not intend to update these forward-looking statements and does not undertake any obligation to do so.

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# Agenda

10:30	Digital First	<b>Nick Read</b>
10:50	Technology Digital strategy	<b>Johan Wibergh</b>
11:10	Vodafone UK case study	<b>Nick Jeffery</b>
11:25	Move to breakout sessions	
11:30 – 12:55	Session 1 & 2	
13:00	Lunch	
13:50 – 15:15	Session 3 & 4	
15:15	Break	
15:35 – 17:00	Session 5 & 6	
17:05	Closing Q&A	<b>Nick Read and EXCO</b>
18:00	Pre dinner drinks	
18:30	Dinner	





Our purpose:

# We connect for a better future

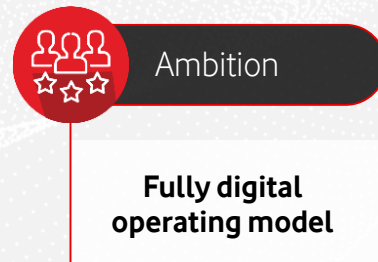
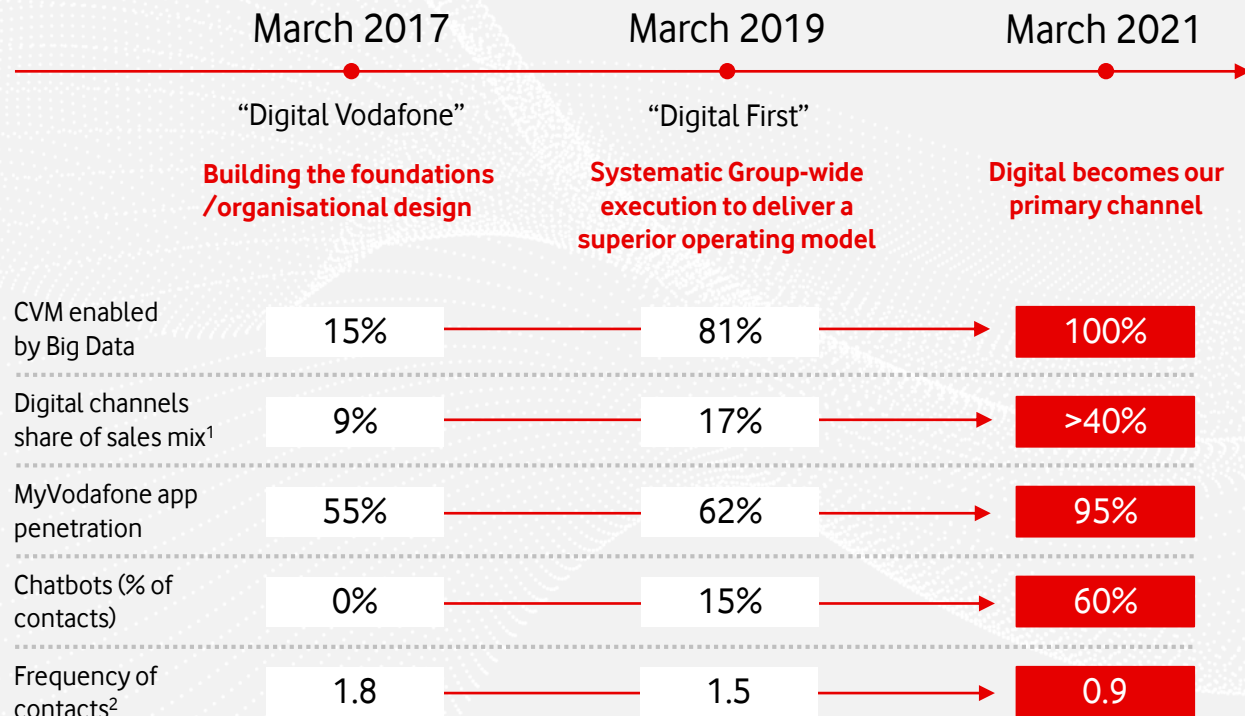
Our strategy



1. Includes VodafoneZiggo and proforma for the acquisition of Liberty Global's Unitymedia asset in Germany and UPC assets in Central and Eastern Europe  
2. Includes JV's and associates



# Our Digital journey: towards a fully Digital operating model



All numbers relate to European markets unless stated otherwise

1. Mobile contract acquisitions and retentions in Germany, Italy, UK and Spain
2. Human interventions per year



# Digital First: transforming our operating model



## Digital Customer Management



## Digital Technology Management



## Digital Operations



1. Acquisition  
Digital marketing



2. Base management  
Always on marketing



3. Channels  
The future of retail  
MyVodafone App



4. Customer Services  
Digital care



5. Digital technology  
Network planning and operations



6. Automation/AI everywhere  
Shared services

...with an addressable cost base of €7.5bn<sup>1</sup>

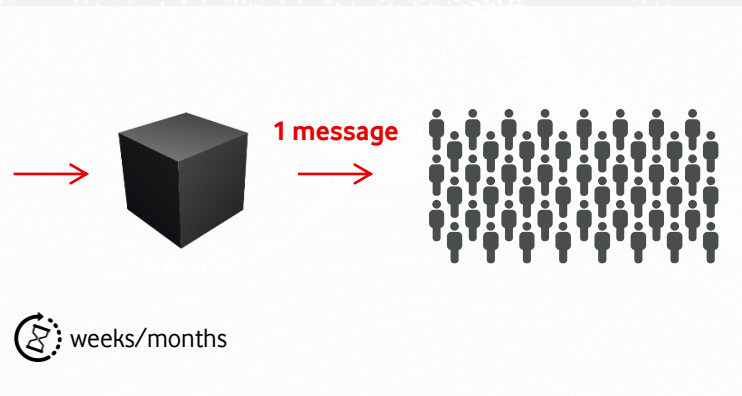
1. FY19 on IAS17/18 basis, including NZ and excluding Liberty assets



# 1. Acquisition: from mass media to personalised marketing



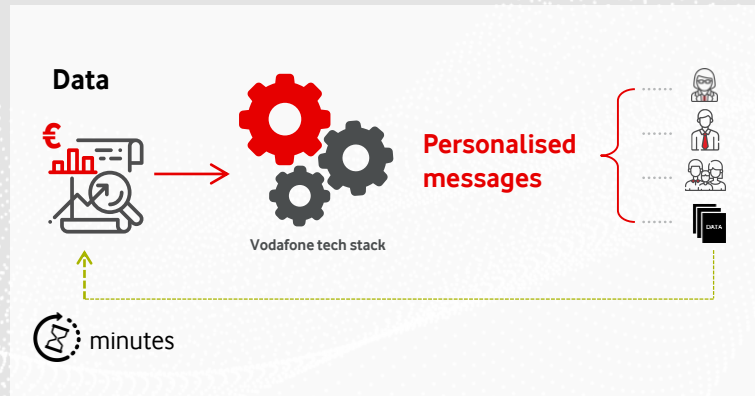
## Before



- One message fits many
- Long cycle, linear / waterfall
- High cost, agency managed black box

**In scope:** €2.5bn in commissions paid to 3<sup>rd</sup> parties<sup>1</sup>

## Vision for tomorrow



- One 2 One, personalised and relevant
- Agile and real time
- High efficiency, Vodafone owned engine

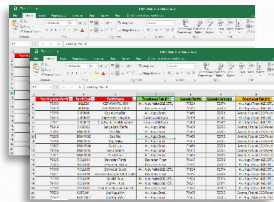
**Ambition:** >40% sales via digital channels by end FY21

1. FY19 on IAS17/18 basis including NZ and excluding Liberty assets

## 2. Base management: from manual to personalised recommendations



### Before



Excel based  
offer matrices

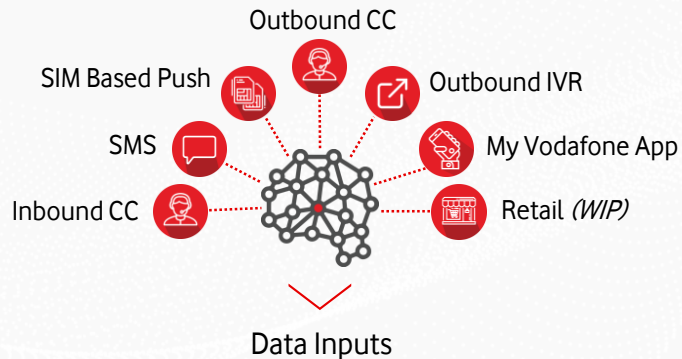


Outbound  
contact centre

- Manual offers, once each month
- Primarily via outbound calling

**In scope:** €2.5bn<sup>1</sup> in commissions paid to 3<sup>rd</sup> parties

### Vision for tomorrow



### “Always on marketing”

- Right channel
- Predictive, relevant and personalised
- Real time and automated

**Ambition:** 11 markets live today, 16 markets by FY21

1. FY19 on IAS17/18 basis including NZ and excluding Liberty assets





# 3. Channels: the future of Retail



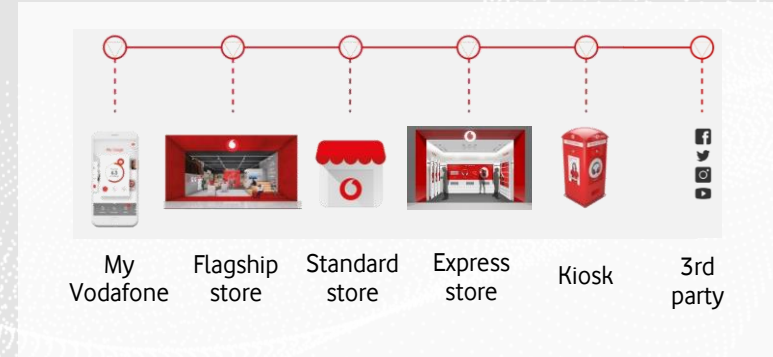
## Before



- c.7,700 stores across the Group
- High cost acquisition channel

**In scope:** €0.8bn retail opex<sup>1</sup>

## Vision for tomorrow



**“Digital, Agile, Smart, Human”**

- 24/7 retail availability, transact within 11 minutes
- AI driven footprint & logistics

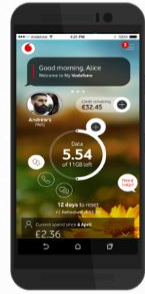
**Ambition:** 15% store reduction, 40% transformed by FY21

1. FY19 on IAS17/18 basis including NZ and excluding Liberty assets

### 3. Channels: New MyVodafone app, end-to-end mobile experience



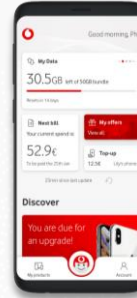
#### Before



- Usage & billing **90%**
- Help via FAQ **5%**
- Everything else **5%**

- App focused on utility
- Significant local customisation

#### Vision for tomorrow



- Usage & billing **50%**
- Sales & multi-product management **15%**
- Discovery & rewards **15%**
- Help via TOBI **10%**
- Everything else **10%**

- End-to-end mobile-first capability
- Prediction driven services and personalisation
- Common experience / code development across markets

**Ambition:** 16 markets to launch by end of FY20



## 4. Customer Service: automating and digitalising



### Before

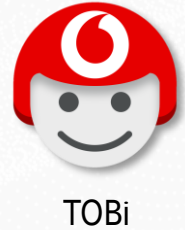


**42m** assisted  
conversations  
every month

- Complex, manual back office processes
- Voice-centric interactions

**In scope:** €1.2bn customer operations opex<sup>1</sup>

### Vision for tomorrow



- Instant, prediction driven interactions
- Automated back-office and service

**Ambition:** 40% reduction in contact frequency by March 21

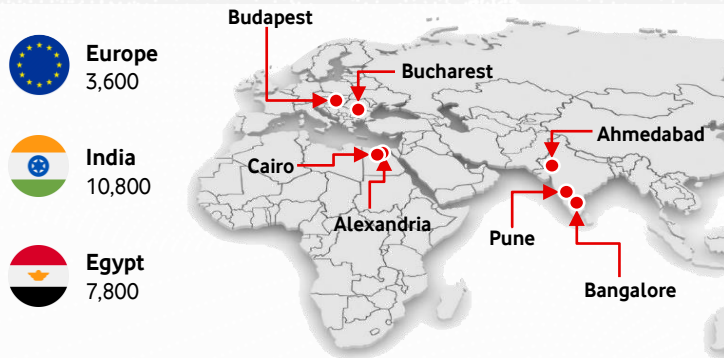
1. FY19 on IAS17/18 basis including NZ and excluding Liberty assets



# 6. Automation / AI everywhere: driven by Vodafone Shared Services



## Today



- 22k employees in low cost Shared Services centres
- Manual, repeatable processes, 9m+ transactions p.a.
- Scale generates best in class cost structure

**In scope:** €2.9bn technology & support operations opex (incl. VSS)<sup>1</sup>

## VSS vision for tomorrow



- Centre of excellence for Robotic Process Automation & AI
- Expanding scope to include network operations and IT testing and maintenance
- c.5,600 roles to be automated by end FY21

**Ambition:** high single digit % decline p.a. in EU & Group<sup>2</sup>

1. FY19 on IAS17/18 basis including NZ and excluding Liberty assets  
2. EU and Common functions technology and support operations opex; Rest of World to grow below local inflation







# Technology Digital Strategy

**Johan Wibergh**

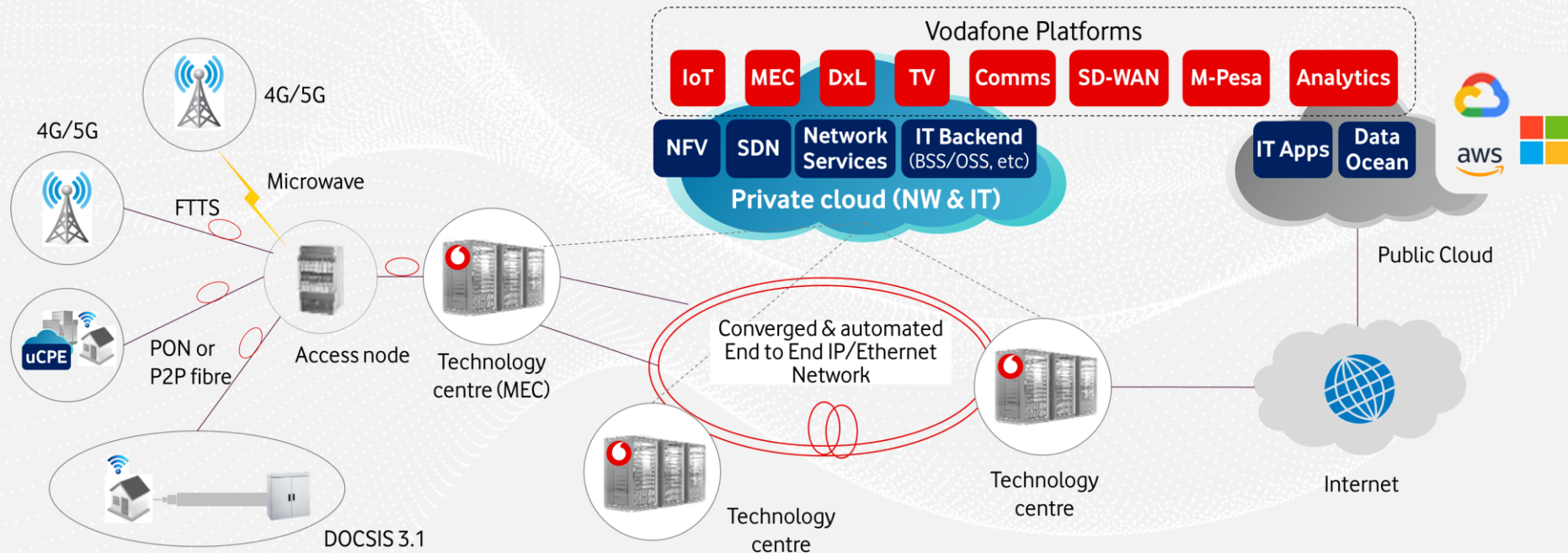
Group Chief Technology Officer



# Target architecture

Consumer and Enterprise products

Standard APIs enabling reuse



Data analytics, AI / machine learning, automated operations

Cyber security




# Digital First: transforming our operating model



## Digital Customer Management

1

IT enablers



## Digital Technology Management

2

Data driven technology decisions



## Digital Operations

3

Automated and simple technology operations

# IT enabling world-class customer experience

## Insourcing



**14,000** Mar '19

## Agile & DevOps



**47%** of all delivery

## Tooling



From **days** to **minutes**



# Digital technology

World-class customer experience, through data insights driving decisions, automation & simplification, also enabling agile ways of working

## Network planning

- Smart planning
- Smart optimisation

## Network deployment

- Smart site management
- Smart site rental

## Network operations

- Automation
- Predictive maintenance
- Smart field services

## IT dev. testing & operations

- Automation
- DevOps and Agile

## Tech. enterprise solutions

- Automation of delivery workflow
- Online capabilities for Business

← Data driven technology decisions →

← Automated and simple operations →





**Vodafone UK**

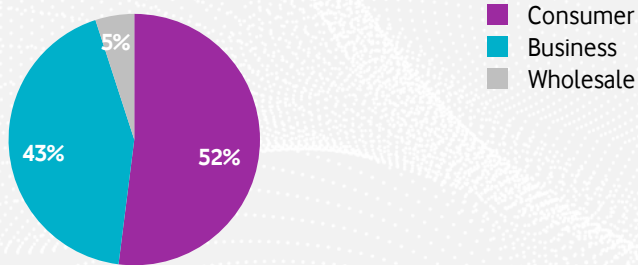
**Nick Jeffery**

Chief Executive of  
Vodafone UK

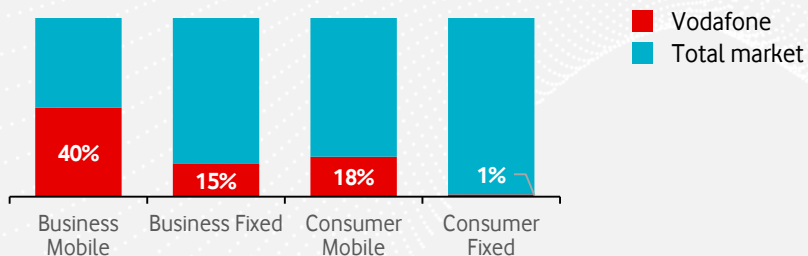


# Vodafone UK: Who we are

## Vodafone UK service revenue (£5.5bn, FY19)



## Vodafone UK service revenue market share (FY19)



- 17m mobile customers
- Market leading 93.9% geographic coverage
- 5G in 19 cities by end of FY20, >60 across Europe
- Fastest growing UK broadband provider, 551k Consumer customers (Q1 FY20)
- NPS leadership in Business, improving in Consumer
- #7 in Sunday Times Best Big Companies 2019

**The UK's comms  
challenger since 1985**

Note: Financials under IAS18, and exclude handset financing impacts



# Our 3 year turnaround journey



1

FY 18

Fix the basics, stabilise  
EBITDA

- NPS leadership in Business, recovery in Consumer
- Regain brand competitiveness
- Customer care recovery
- Cost reduction

2

FY 19

Grow EBITDA, stabilise  
revenue

- NPS leadership in Business, challenger in Consumer
- Market share growth
- Double digit EBITDA growth
- Build a brand with purpose

3

FY 20

Profitable growth and  
customer leadership

- NPS leadership in Business & Top 3 in Consumer
- Brand leader in network and customer experience
- Service revenue & EBITDA growth

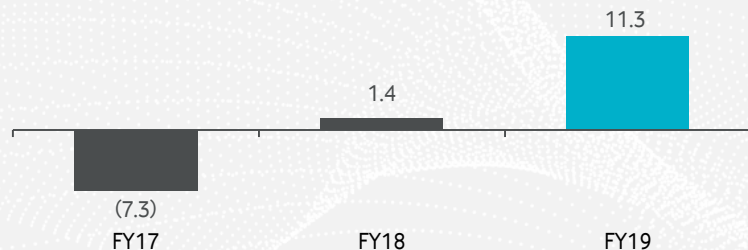




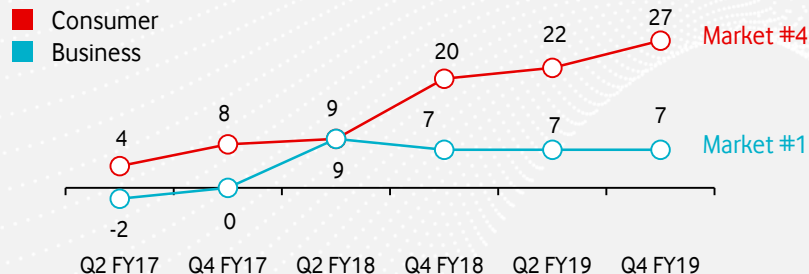
# Vodafone UK: Turnaround in performance



## EBITDA growth (%)<sup>1</sup>



## Customer net promoter score



- Double digit EBITDA growth
- Best ever customer care performance
- Strongest ever network
- Lowest ever mobile contract churn
- Fastest growing fixed broadband provider

**Building commercial & operational momentum**

1. Excludes the impact of UK handset financing and a prior year settlement



# Vodafone UK: Digital First

## Digital Technology

- Micro-services platform architecture
- eShop, App, TOBi and VOXI all deployed on DXL
- Enables >75 releases / month vs 1 / quarter previously

## Digital care

- AI-enabled predictive care
- IVR automation & channel steering
- Enabling removal of 1.4m contact centre calls FY20

## TOBi

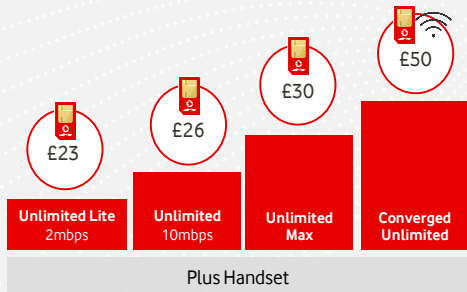
- Digital bot assistant in IVR, co.uk and MyVodafone App
- Over 3.4 million interactions this FY (34% of total)
- Touchpoint NPS of +28

## Future of Retail

- New converged online shop, eShop
- Seamless channel integration e.g. Click & Collect
- Double digit YoY increase in sales conversion (+30%) & Touchpoint NPS (+15pts)

A digital first approach

# Vodafone UK: Shaping the market with Unlimited



Early performance encouraging:

- 3% of base on Unlimited plans in first two months since launch
- 7% gross adds market share increase in SIMO >£20 segment
- Online traffic up 25%, retail footfall and incoming sales calls up 10% month on month

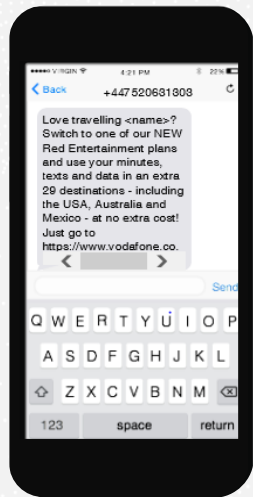


## Be Unlimited



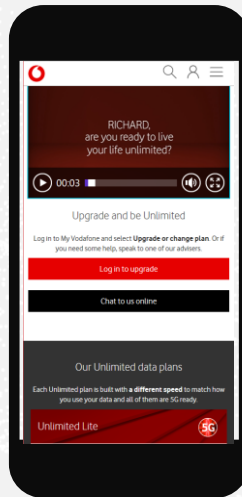
# Vodafone UK: Unlimited, powered by Digital base management

## Before



- Generic offers, driven by broad business rules
- Comms channel defined by us, not the customer
- SMS, email and outbound calls
- No Big Data integration
- Limited digital upgrades

## With Unlimited



- Personalised offers and comms
- Image and video-led channels
- 85% of campaigns powered by Big Data
- 79% of customers choose Unlimited when switching plans
- 26% of customers upgrading online

**Digital, personalised communications**



# Vodafone UK: VOXI, our digital-only youth proposition



- First example of agile working, with concept to launch in c. 6 months
- Digital first proposition design
- Digital-only customer care
- Endless Social Media, unique in the market



- Rapid customer base growth, >400% YoY (Q1 FY20)
- Digital-only care (social and webchat) 30% more efficient than voice
- NPS of +60 (Q1 FY20)

**A future blueprint**





# Vodafone Digital First Investor Open Office

**Nick Read**

Group Chief Executive Officer



# Digital First: A systematic transformation of our operating model

- Clear ambition to lead in digital and strengthen our differentiation – improving customer experience, boosting commercial performance and driving revenue growth
- Consistent execution of our digital operating model increases the benefits of Group scale
- A systematic multi-year opportunity to reduce our cost base; net cost targets to be updated in May

## **Supporting our long-term ambition:**

- Deepening customer engagement, single digit churn rates
- Profitable market share gains in total communications
- Net cost reduction driving sustained margin expansion and return on capital improvement
- FCF growth, delivering our €17.7bn 3-year LTIP goal



## Appendix: c.50% of Group Opex targeted through Digital

Cost Type (€ bn)	Addressable through Digital	Reported FY19 Opex
Customer Service	1.2	1.2
Retail	0.8	0.8
Technology and Support Operations <sup>1</sup>	2.9	2.9
Other <sup>2</sup>	-	5.9
<b>Total Opex</b>	<b>5.0</b>	<b>10.9</b>
Commissions paid to 3 <sup>rd</sup> parties	2.5	
<b>Total Addressable Cost<sup>3</sup></b>	<b>7.5</b>	

1. Includes employment and office accommodation costs in technology and support functions
2. Includes leased lines, site rental, maintenance, energy, publicity and other sales
3. FY19 on IAS17/18 basis including NZ and excluding Liberty assets





# Acquisition: Digital marketing

**Nikos Vlachopoulos**

Group Brand and Marketing Director

**Max Taylor**

UK CBU Director





# 4 big forces are changing the rules of marketing

**360°  
data driven**



**Segment of 1**



**Contextual and  
real time content**

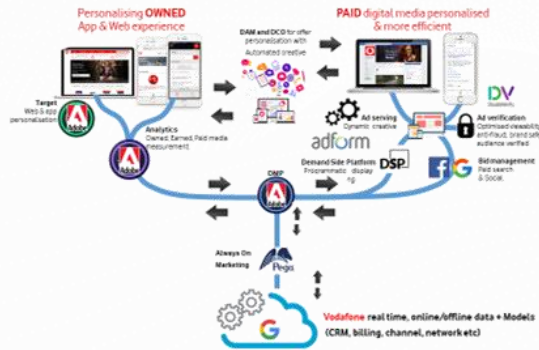


**One channel**



# Marketing @ Digital Vodafone: from Art to Science

## 1 Marketing tech platform



Vodafone marketing tech /  
ad-tech

## 2 Fully operated in-house



New agency model /  
Agile organization

## 3 For Data driven decisions

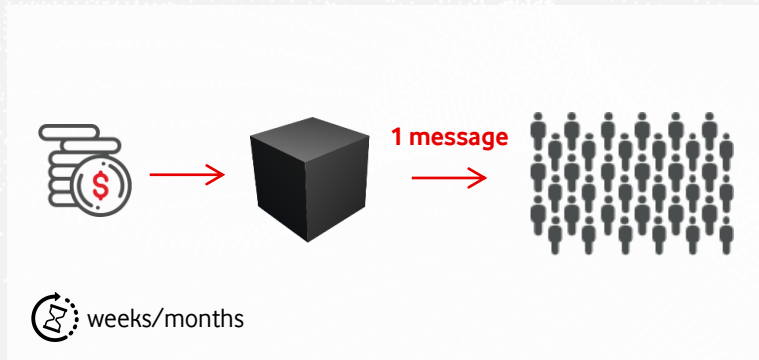
-  Facebook insights
-  Google audience insights
-  Digital IQ index
-  Global insights / trends

Global partnerships, cross -  
industry benchmarks



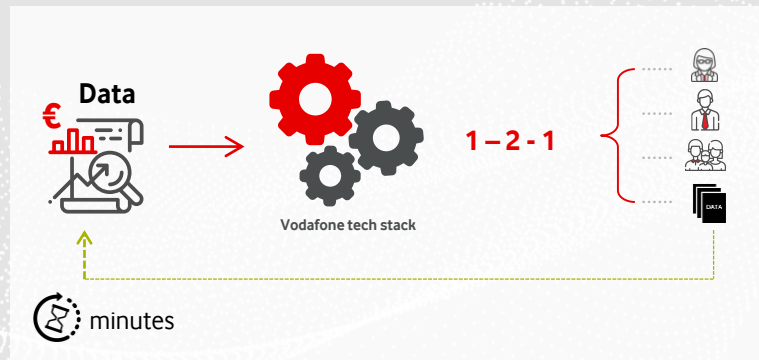
# Always on, effective, contextual, relevant

## Before



- One message fits many
- Long cycle, linear / waterfall
- High cost, agency managed black box
- Channels uncoordinated, reactive

## Vision for tomorrow



- “Real” One 2 One & personalised
- Agile and real time
- High efficiency, Vodafone owned engine
- Predictive & relevant across channels

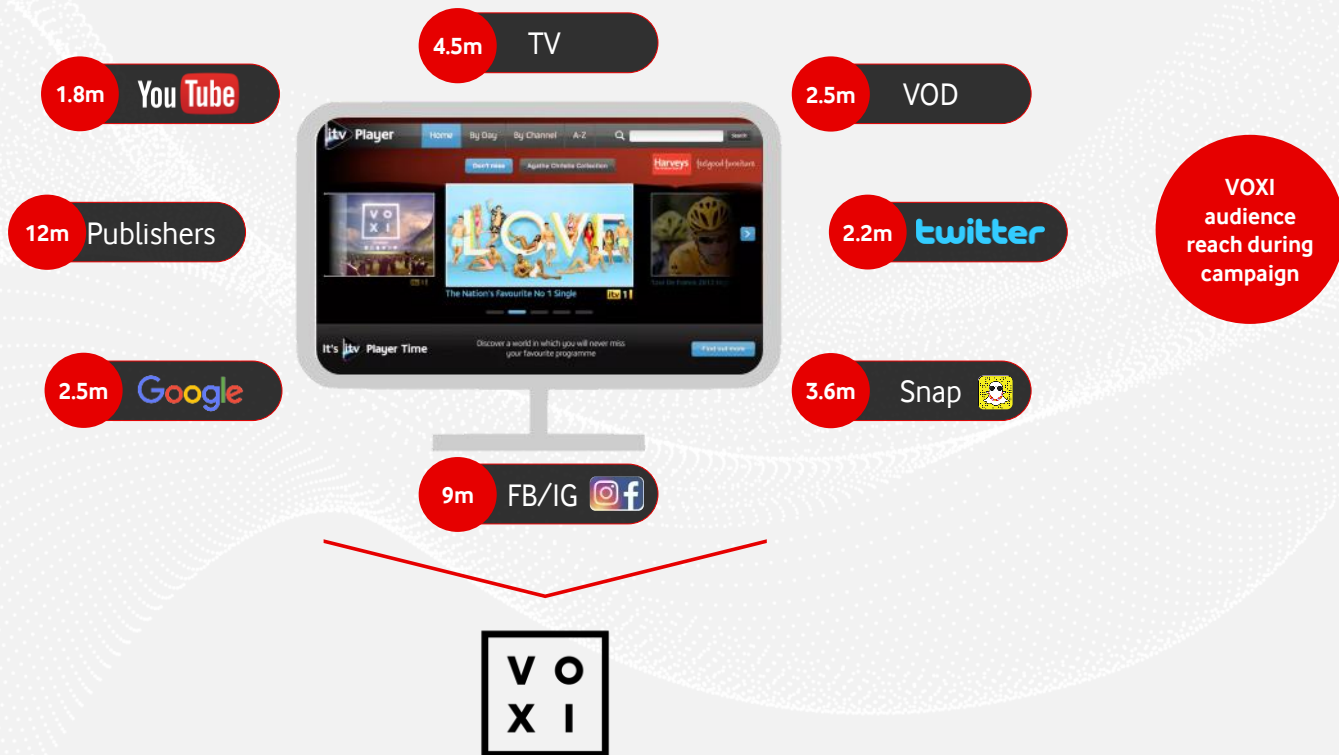


&



# Campaign strategy: Use Love Island moment to grow VOXI awareness & sales

Content  
consumption and  
conversation across  
multiple platforms,  
in real-time



151 creative variants reaching 38m across 59 custom audiences and 8 platforms, right place, right time





# Campaign enablers: Technology, data, people



## Adobe audience manager (DMP)

- Custom audiences & look-a-likes
- sharper targeting & personalised



## Crimson hexagon

- AI powered Social insights: real-time engagement & optimisation



## Adobe analytics

- Channel & creative optimisation
- SEO & Journey optimisation



## Adobe target

- A/B testing onsite & journey optimisation



- Programmatic audience targeting



- Automated bidding & AI optimization



- Onsite behaviour analytics
- Optimise digital media buying



## AGILE team

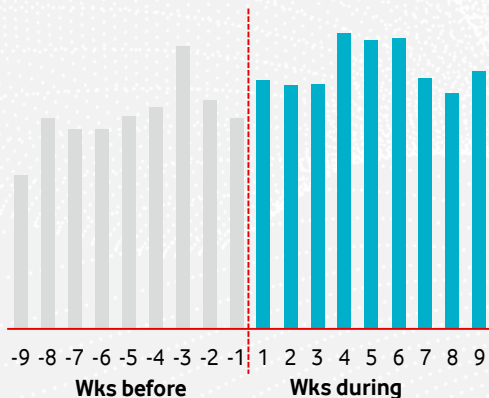
- In house digital media squad
- VOXI digital squad
- VOXI marketing squad
- ATL agency

Fewer people with right skills, using technology tools to get better results and drive cost efficiency



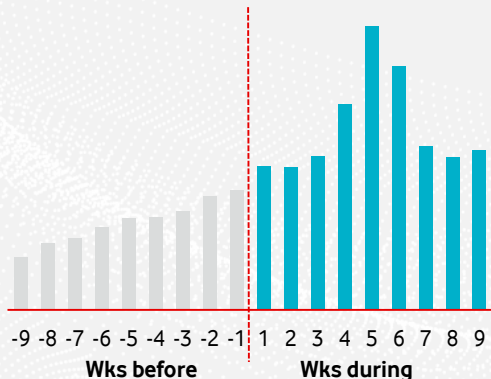
# Campaign results: Higher quality traffic, higher conversion

Traffic - unique



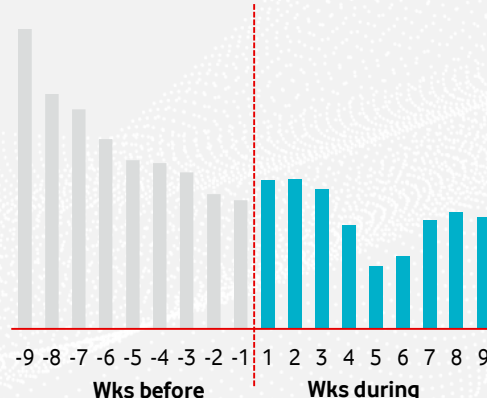
**+23%**  
growth

Sales



**+109%**  
growth

Cost per acquisition



**-40%**  
reduction

All segments are on this journey





# Base Management

**Andrea Rossini**

Italy CBU Director

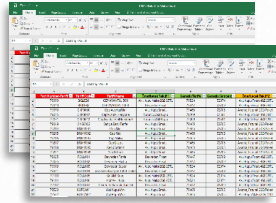
**Jorge Mendes**

Vodacom CBU Director



## 2. Base management: from manual to personalised recommendations

### Before



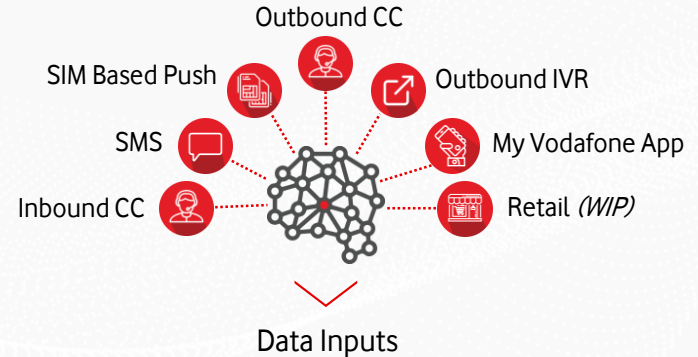
**Excel based  
offer matrices**



**Outbound  
contact centre**

- Manual offers, once each month
- Primarily via outbound calling

### Vision for tomorrow



- Right channel
- Predictive, relevant and personalised
- Real time and automated

# Base Management Vodacom South Africa





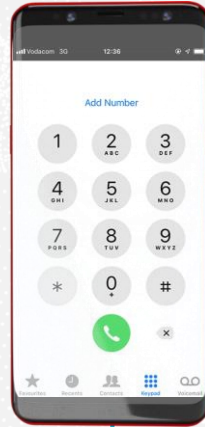
# Evolution of Base Management in South Africa

€250m incremental revenue over the past 5 years from **automated & personalised offers**

**Before 2015**

Basic outbound  
campaigns

**Call Centre & SMS**



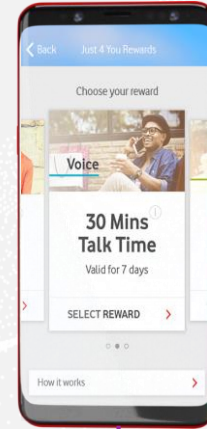
**Just4You**

Personalised  
inbound platform  
**2015**

**2016/17**

Gamification  
of rewards

**Shake Everyday**



**Rewards4You**

Personalised goals  
& rewards  
**2019**

Increased conversion rate



# Highlights from the previous financial year

**+6%**

ARPU stretch on  
engaged base

**>60%**

Engagement on  
personalisation platform

**-1.8pp**

Contract churn  
reduction

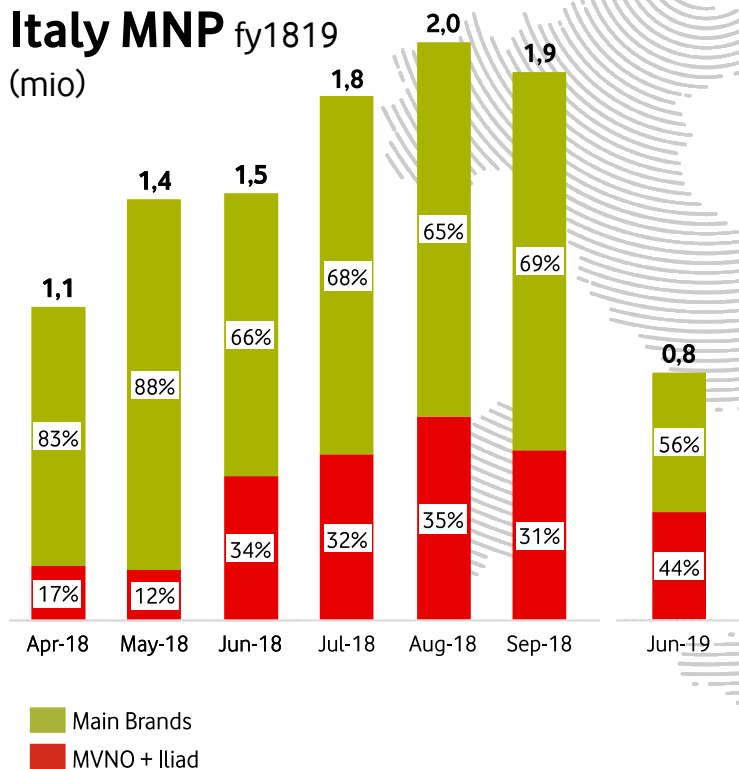
**+ €98m**

Incremental revenue



# VF Italy | A new competitive scenario

## Italy MNP fy1819 (mio)



## iliad

**6,99€** 40 Giga, Unlimited voice and SMS

*No frills, «one size fits all»*

### Our reactions

## ho.

**Second brand to fight**

**7,99€** 50 Giga, Unlimited voice and SMS

*No frills, «one size fits all»*



**New always on marketing strategy**

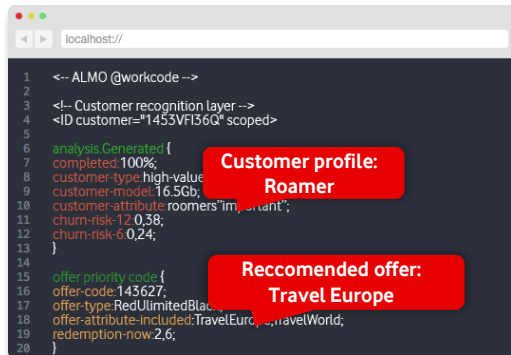
*Personalization fully AI driven*



# VF Italy | How we used 'Always on Marketing' in a competitive market

**Predictive, relevant  
and personalized**

**Advanced Learning  
Marketing Optimizer**



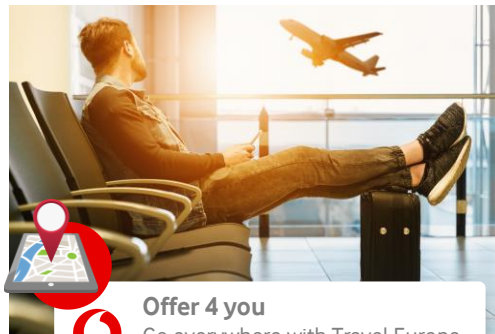
```
1 <-- ALMO @workcode -->
2
3 <!-- Customer recognition layer -->
4 <ID customer="1453VFI36Q" scoped>
5
6 analysis.Generated {
7   completed:100%;
8   customer-type:high-value;
9   customer-model:16.5Gb;
10  customer-attribute:roamers"important";
11  churn-risk:12.038;
12  churn-risk:6.024;
13 }
14
15 offer.priority.code {
16   offer-code:143627;
17   offer-type:RedUnlimitedBlack;
18   offer-attribute-included:TravelEurope,TravelWorld;
19   redemption-now:2,6;
20 }
```

**Customer profile:  
Roamer**

**Recommended offer:  
Travel Europe**

**Real time and automated  
engine**

**Contextual propositions  
and right time AI  
recommendation**

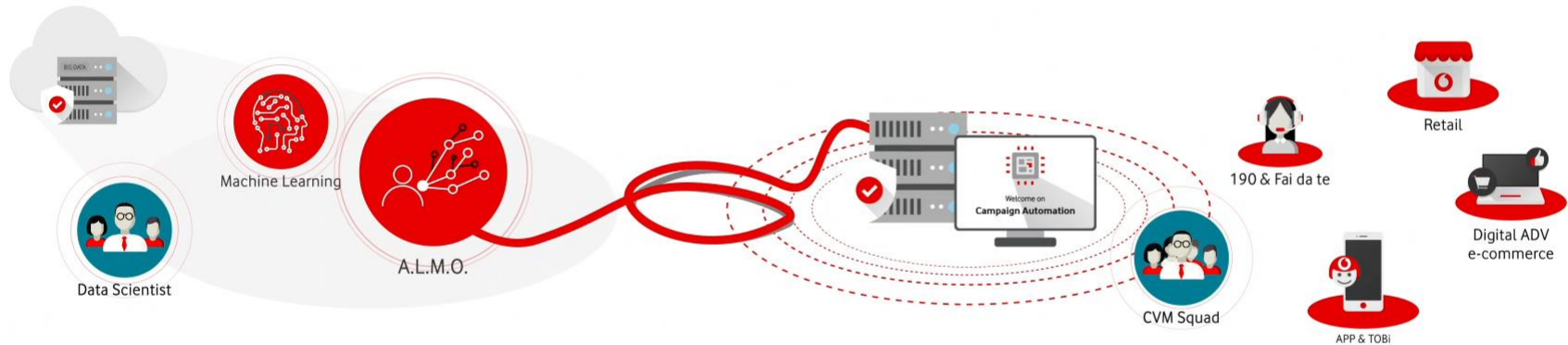


**Offer 4 you**  
Go everywhere with Travel Europe  
and World!

**Omni-channel channel  
experience**

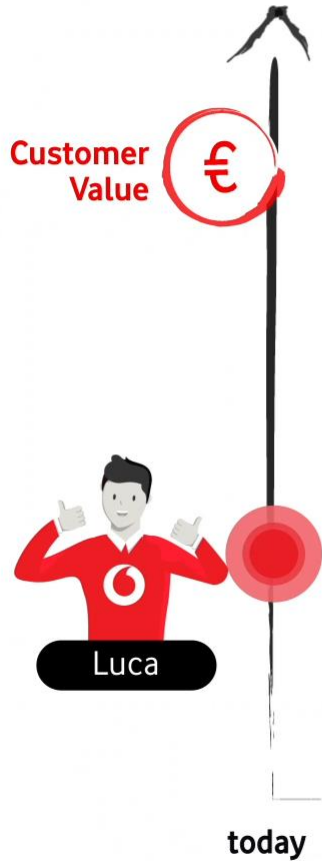
**Right channel AI  
selection**



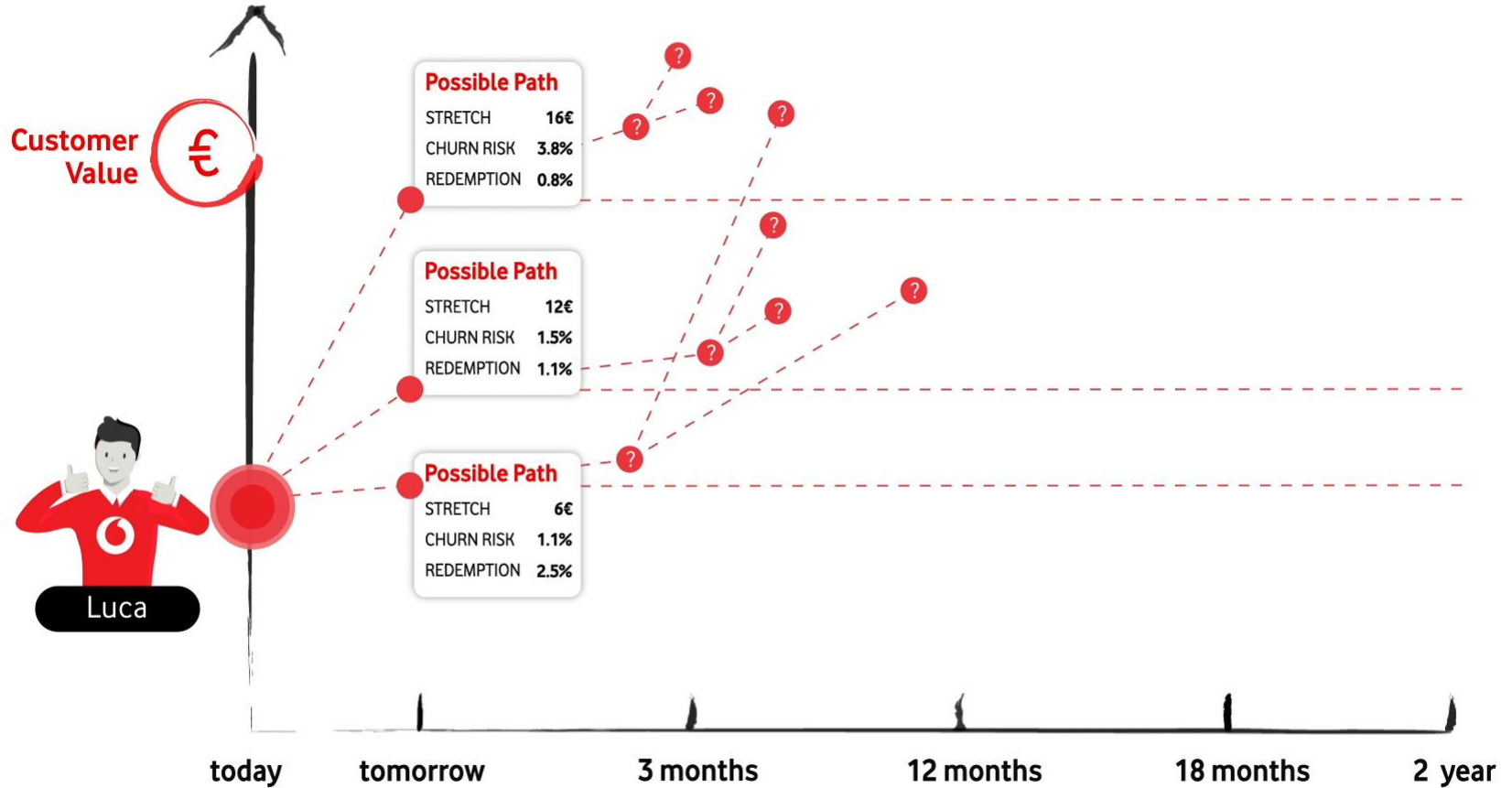


# Vodafone IT Marketing Architecture



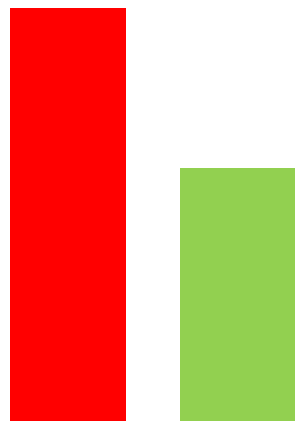


# INSIDE Advanced Learning Marketing Optimizer



# VF Italy | Our 'Always on Marketing' strategy is working

CHURN MOBILE (%)

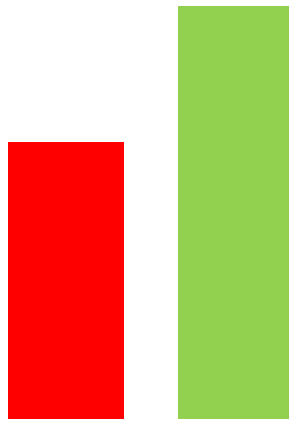


Q1  
FY19

Q1  
FY20

**-7 pp**

UPSELLING MOBILE OFFERS  
ACTIVATIONS (K)

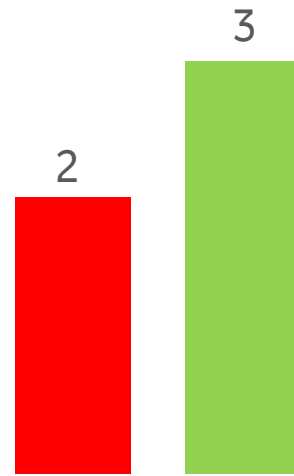


Q1  
FY19

Q1  
FY20

**+48%**  
activations

DELTA ARPU (€)



Q1  
FY19

Q1  
FY20

**+50%**  
delta arpu





# MyVodafone App and the future of Retail

**Phil Patel**

Group Retail and Operations Director

**Andres Vicente**

Spain CBU Director



# Digital First channel transformation





# Digital already progressing towards our primary channel

## Customer Interactions per month

60 million calls

15 million chats

103 million web visits

414 million app interacts

1.3 billion USSD\* interacts

41 million store visits

8 million sales transactions

- Customer preference for digital experience
- Automation in messaging & voice channels
- Real-time interaction capability with big data
- Simplification of proposition design



Use of AI & Real-time interaction to **shift** service & sales



**MyVodafone as the primary interaction channel** for customers



Digitalisation of our **retail channel**

\* Unstructured Supplementary Service Data (USSD) codes with a simple menu structure are used in emerging markets to provide information and offers to customers.

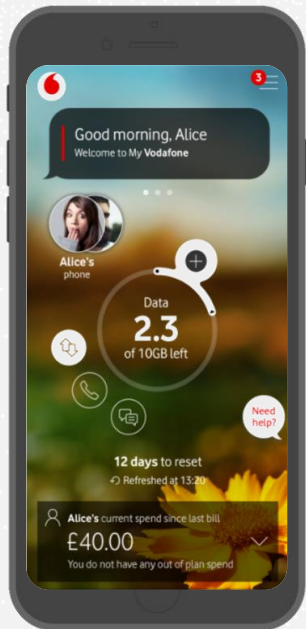


# MyVodafone will deliver end to end digital experiences

**From** MyVodafone

**Driver for change**

**To New** MyVodafone



Usage & billing

90%

Help via FAQ

5%

Everything else

5%

• 414m visits<sup>1</sup>

Unlimited  
45% decrease

Digital self-care  
100% increase

Convergence  
New features

Usage & billing

50%

Help via TOBI

10%

Sales & multi-product  
management

15%

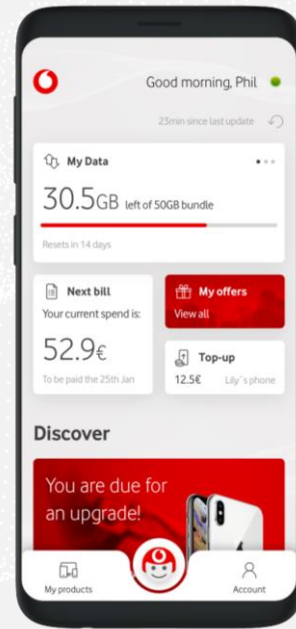
Discovery & rewards

15%

Account

10%

• >1 billion visits  
• 50% transactions

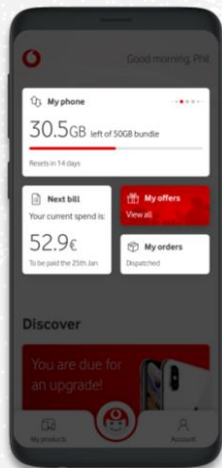


1. Per month currently



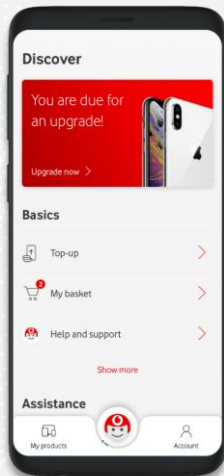
# MyVodafone: The gateway to discover everything Vodafone has to offer

Live Demo!



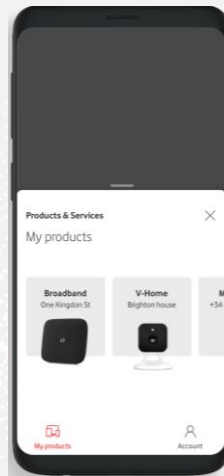
## Dashboard tiles

Things I want to see  
**at a glance**



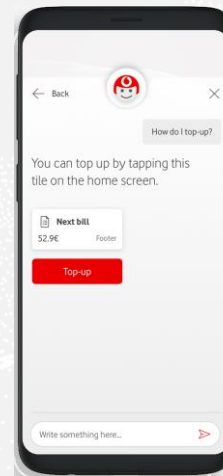
## Discovery flow

Things I might be  
**interested in**



## Navigation tray

Things that I need  
**most often**

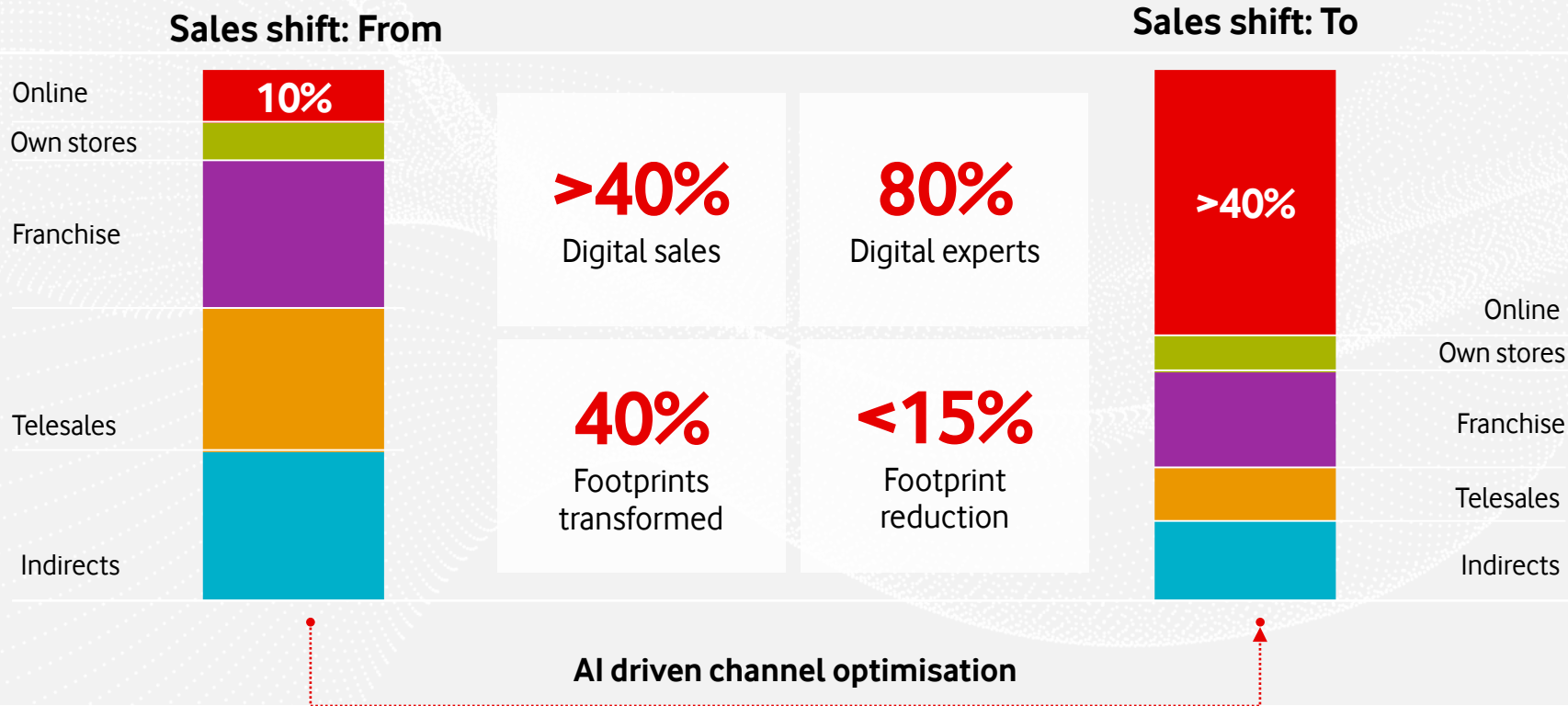


## TOBI

Things that I need  
**support with**



# Digitalising our retail presence



All targets as of end FY21.

# Optimised footprint... differentiated retail experiences

-15% Stores

10 %

Increase from <100  
**Flagship**



Fully- fledged experience hub,  
showcasing state- of-the-art  
digital and immersive tech

60 %

From 7500 to 4000  
**Standard**



Refreshed store with selected  
immersive experiences and  
maximized self service areas

30 %

From <100 to >2000  
**Express formats**



24/7 retail, physical points of  
presence: click & collect lockers,  
self service touchpoints, remote  
assistance...







**Neil Blagden**

UK Customer Service and  
Operations Director

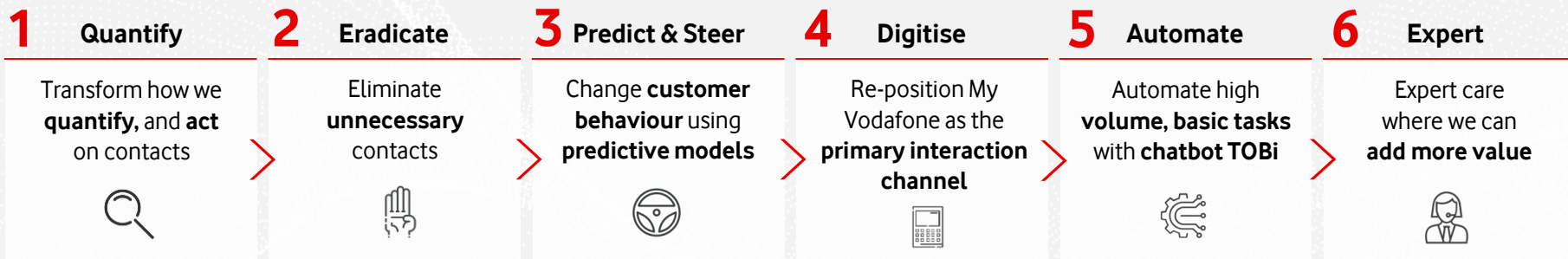
**Gianluca Pasquali**

Italy Commercial  
Operations Director

# Digital customer care



# Digital customer care: Digital operations in 6 Dimensions



## Voice Calls<sup>1</sup>

Jun '18	Jun '19
17.4m	14.2m

Average Cost: **€2.50**

## TOBi Conversations<sup>1</sup>

Jun '19	Mar '20 (est)
4.0m	55.0m

Average Cost: **€0.12**

1. All markets excluding JV's



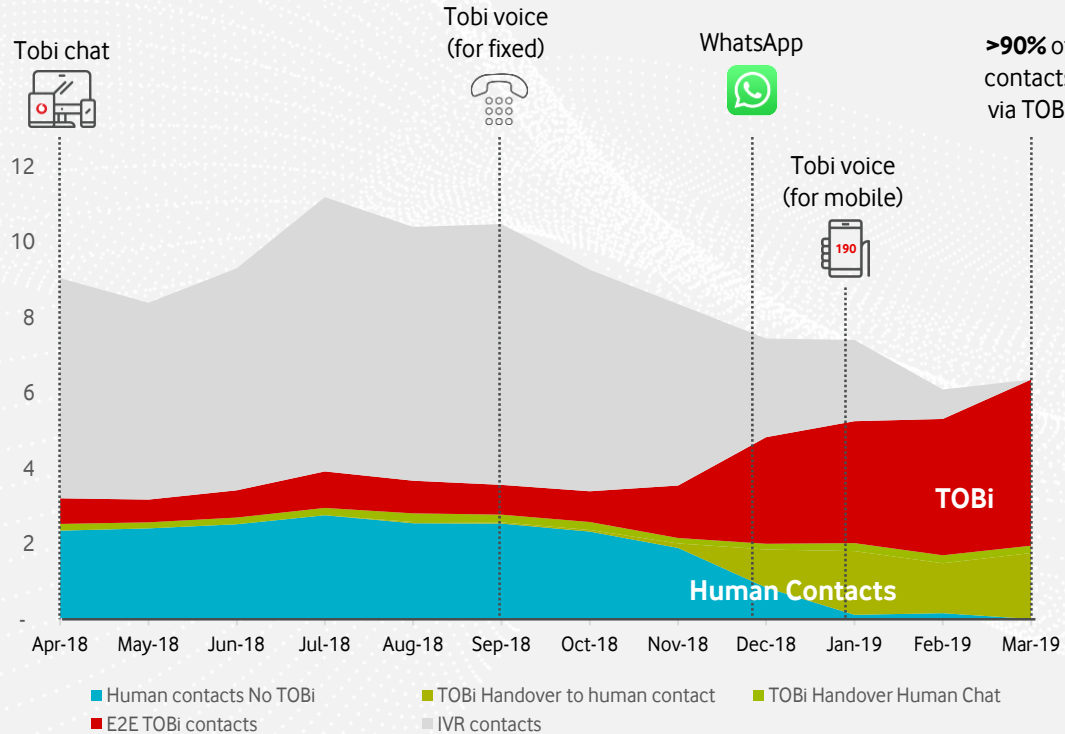




# Italy case study



# Digital customer care: TOBi journey in Italy



	FY19	FY20e
Conversations	29M	55M
Automated contacts	66%	68%

# Digital customer care: Key results in Italy



Customer care  
differentiation

**1<sup>st</sup>**

NPS Customer Care



Sustainable  
cost structure

**€50m**

**FY19 and FY20**

Saving over 2 years



Value  
generation

**€30m**

**FY19**

Sales through service





# UK case study



# Digital customer care: Intelligent care in the UK

Vision

Digital is our primary channel. Enabled by the smart use of AI to guide and personalise.  
With human assistance always available at the **touch of button!**

Strategy



**Eradicate**



**Digitise**



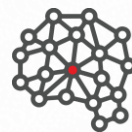
**Automate**



**Steer**



**Expert**



**Predict**

Experience

**Digital**  
as primary  
channel

**Case  
managed**  
outbound  
contact

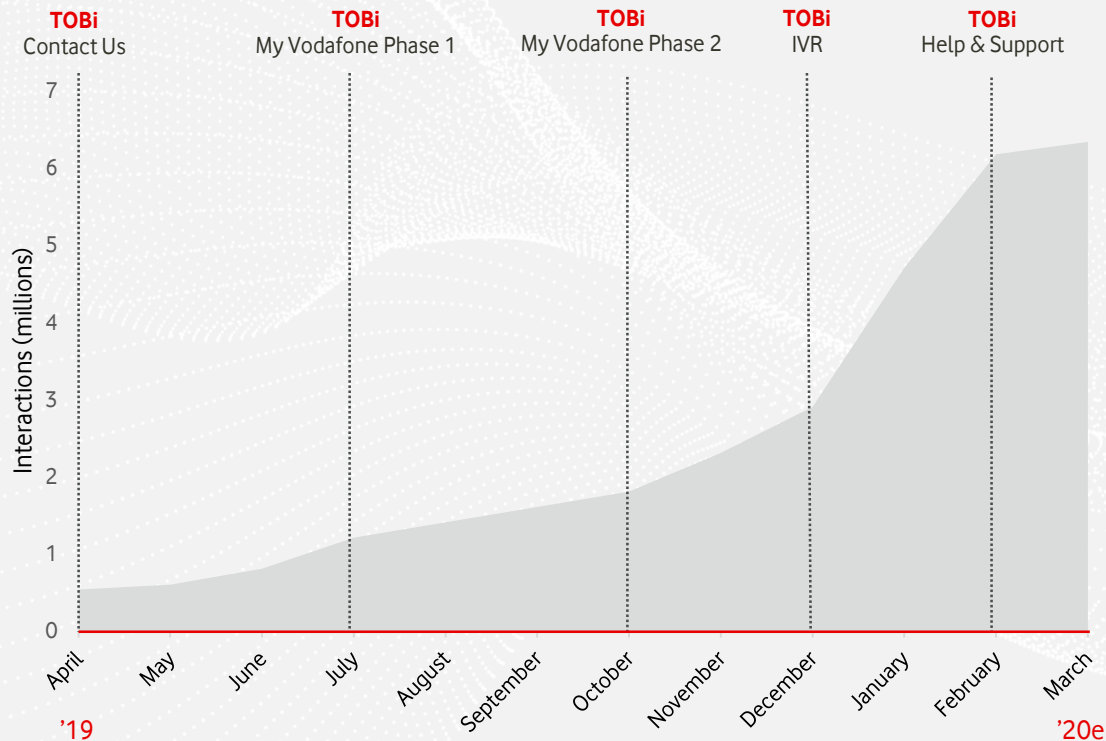
**TOBi**  
as primary  
contact

**Message**  
for digital  
assistance

**AI-led**  
to predict  
& guide



# Digital customer care: Intelligent care in the UK



## Targeted FY20 benefits

**30m** Cumulative interactions

**15%** YoY frequency of contact reduction

**10%** YoY customer care cost reduction

**45** Pay monthly Touchpoint NPS







# Digital Technology

**Nadia Benabdallah**

Group Network Engineering Director

**Gerhard Mack**

Germany Chief Technology Officer



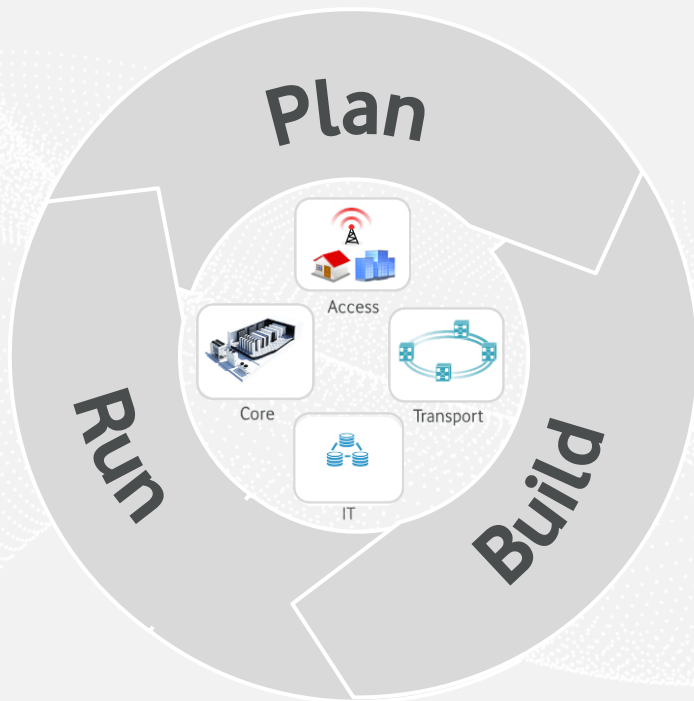
# Digital technology | Transforming the way we manage our networks

## Data-driven planning ...

More intelligent investment decision processes maximising customer value and return on invested capital

## ... operated with the highest level of automation

“Self-aware” networks, capable of handling complex end-to-end operational and optimisation tasks autonomously and in real time



## ... More virtual & flexible infrastructure ...

A simplified and automated technology landscape, cloud based, able to generate significant cost efficiencies as well as greater flexibility in terms of services and capacity



# Digital technology | What it enables

World-class customer experience, through data insights driving decisions, automation & simplification, also enabling agile ways of working

## Network planning

- Smart planning
- Smart optimisation



## Network deployment

- Smart site management
- Smart site rental



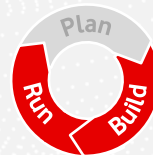
## Network operations

- Automation
- Predictive maintenance
- Smart field services



## IT dev. testing & operations

- Automation
- DevOps and Agile



## Tech. enterprise solutions

- Automation of delivery workflow
- Online capabilities for Business



A Group – Local markets joint program



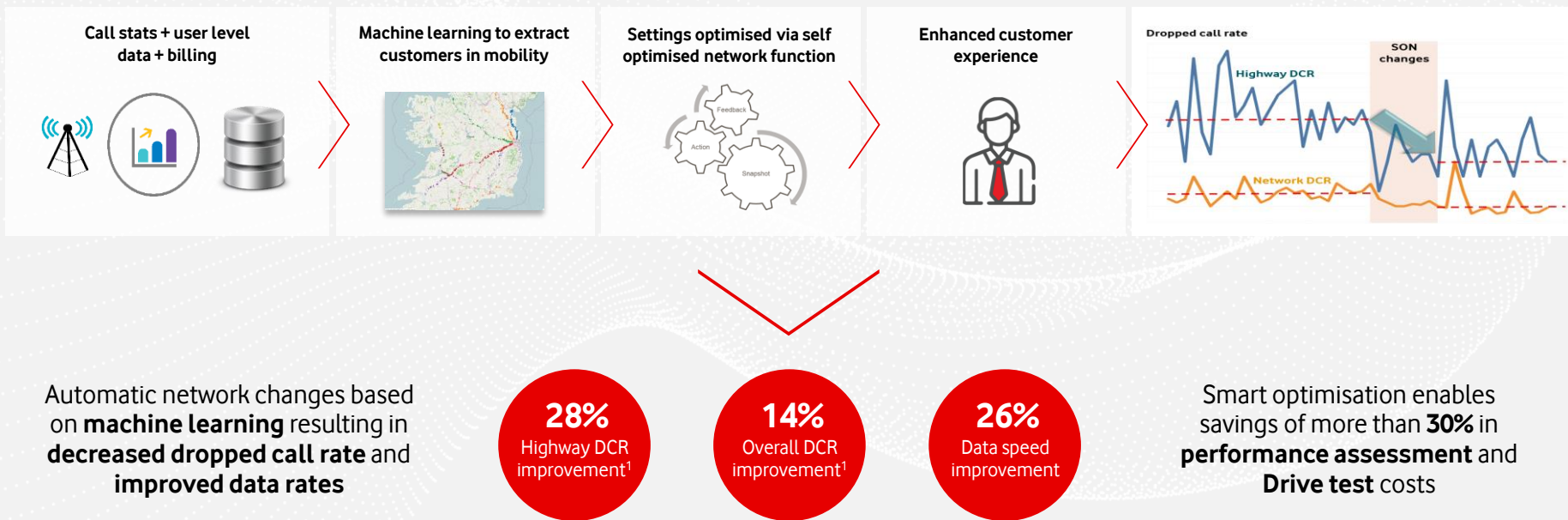
A vibrant, futuristic digital cityscape at night, featuring glowing purple and blue light trails, floating data cubes, and wireframe buildings. The scene is overlaid with a large red circle and a red arrow pointing from the top right towards the center. Various digital terms like 'CONNECT', 'DIGITAL', 'BUSINESS', 'TECHNOLOGY', 'MARKET', 'SOCIAL', 'IDEA', and 'INTERNET' are scattered throughout the scene, suggesting a theme of network planning and digital connectivity.

# Network Planning



# Digital network planning | Smart optimisation: a use case example

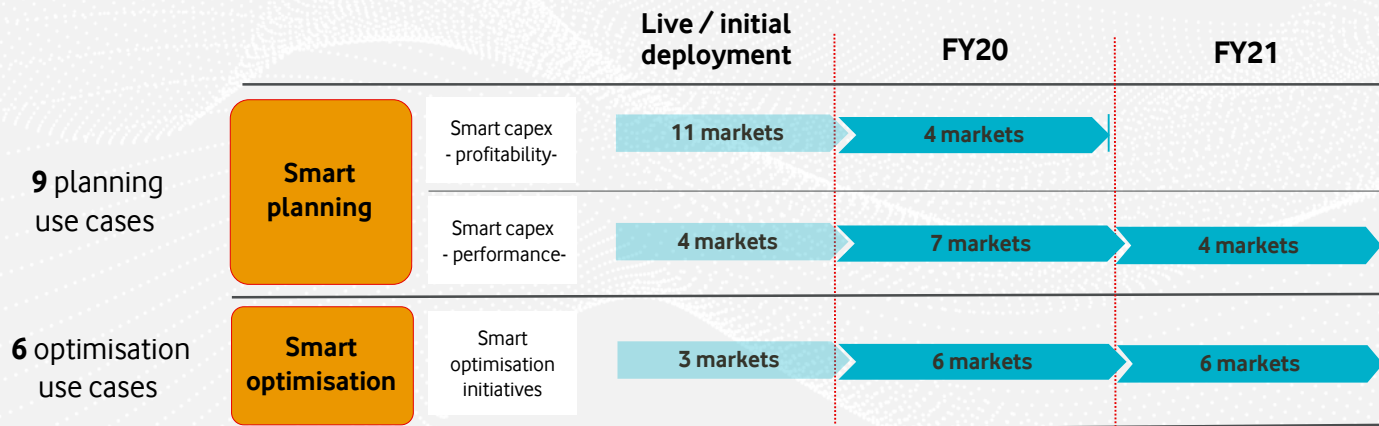
**Analytics + machine learning** to dynamically **tune radio network settings**  
on specific scenarios (like highways – Vodafone Ireland proof of concept)



1. Dropped call rate

# Digital technology | Digital network planning @ a glance

Digital innovation fosters both “Data Driven” decision making and Automation, combining a “best in class” customer experience with efficiency and a more Agile way of working



Ambition to save **€1bn by FY21**<sup>1</sup> to support reinvestment in new technologies

1. Cumulative 3 year gross savings during the period from FY19 to FY21



A vibrant, futuristic digital cityscape at night. The scene is filled with glowing purple and blue light trails, creating a sense of motion and connectivity. In the background, several tall, dark skyscrapers are visible, some with the word "IDEA" on their facades. The foreground and midground are dominated by a complex network of glowing lines and squares. These elements are labeled with various terms related to technology and business, including "CONNECT", "DIGITAL", "BUSINESS", "TECHNOLOGY", "MARKET", "SOCIAL", "INTERNET", and "CONNECTION". A large, thick red circle is superimposed over the center of the image, framing the text. The overall atmosphere is one of high-tech innovation and global communication.

# Network operations





# Digital technology | Network operations

## Zero touch network operations

### Monitor

- ✓ Real time monitoring

### Diagnose

- ✓ Preventive Actions
- ✓ Correlation
- ✓ Root cause Analysis

### Resolve

- ✓ Unassisted automated fixes
- ✓ Remote Operations
- ✓ Field intervention supported by chatbot

### Close

- ✓ Accept the fix
- ✓ Validate the resolution
- ✓ Close the loop



Network



Field Engineer



Supported by cognitive automation, advanced analytics and machine learning, unassisted automation and chatbots.



# Digital technology | Germany fixed network operations case study

## Zero touch network operations

### Monitor



- ✓ Real time monitoring

### Diagnose



- ✓ Preventive Actions
- ✓ Correlation
- ✓ Root cause Analysis

### Resolve



- ✓ Unassisted automated fixes
- ✓ Remote Operations
- ✓ Field intervention supported by chatbot

### Close



- ✓ Accept the fix
- ✓ Validate the resolution
- ✓ Close the loop



Network



Field Engineer

Germany fixed network

76% zero touch today

**87%**

Automatic incident detection

**76%**

Automatic root cause analysis in real time

**76%**

Automatic ticket dispatching and resolution verification

**AI**

based customer problem diagnosis in real time

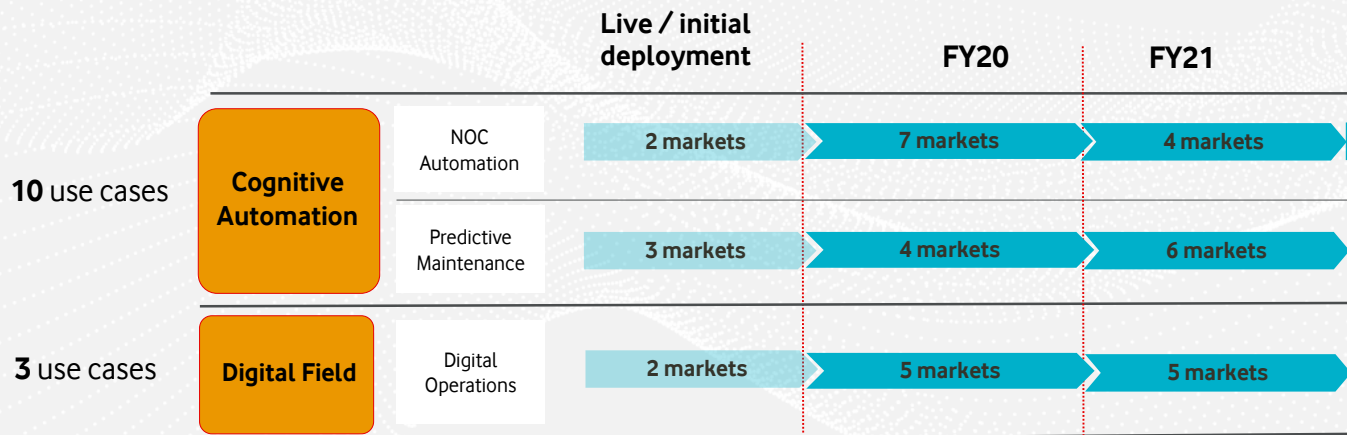
**40%**

Reduction in the truck rolls



# Digital technology | Digital network operations summary

Digital Network Operations deliver a faster and more efficient customer experience



Ambition to save **70% of the cost** of network monitoring and diagnosis, delivering at least €60m in annual run-rate OPEX savings by FY21





**Digital technology...**  
**lets be smart**



# Digital operations



Szia Hungary



Buna ziua Romania



Ahlan Egypt



Namaste India

Welcome to  
**Vodafone**  
Shared Services

**Margherita Della Valle**

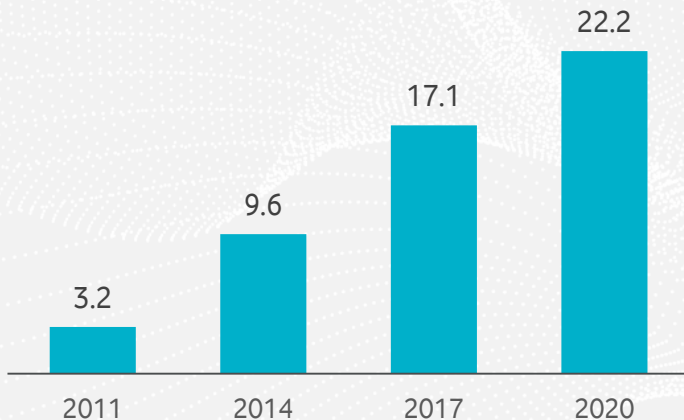
Group Chief Financial Officer





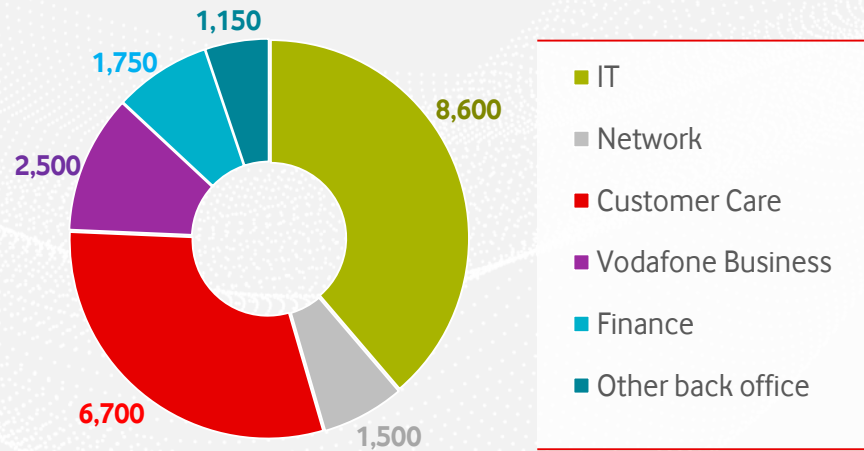
# Introducing Shared Services

FTEs in Vodafone Shared Services (000s)<sup>1</sup>



- Set-up in 2011
- Started with call centres and finance
- Technology driving growth

Activity breakdown



1. Excludes FTEs supporting Vodafone Idea Limited

# Shared Services footprint



**Europe**

3,600



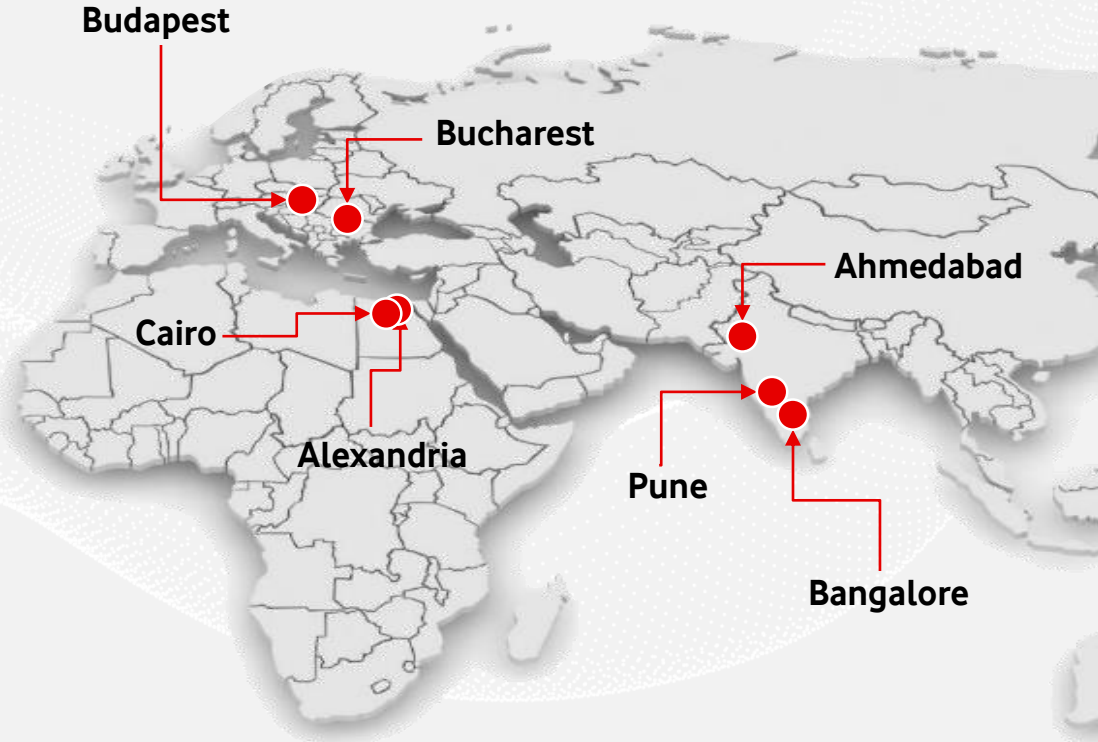
**India**

10,800



**Egypt**

7,800



# Shared Services contribution to Group

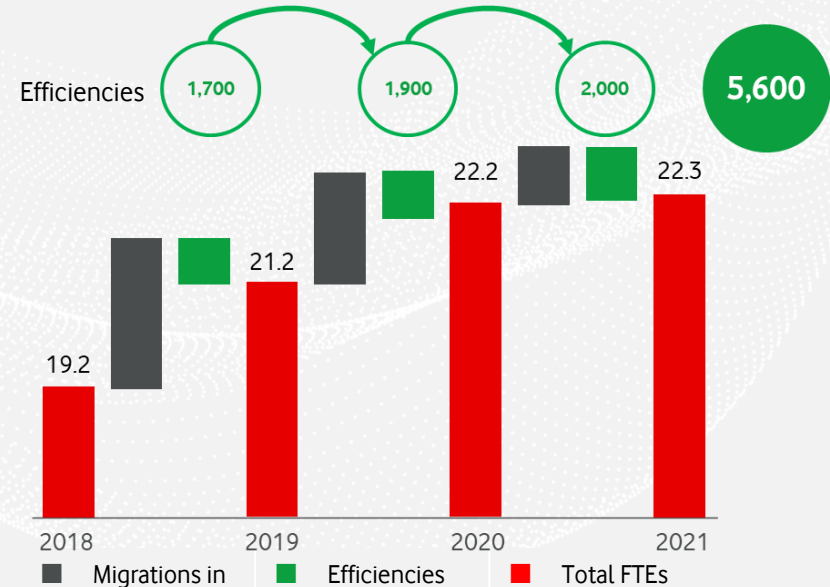
## Value creation

- >€1bn of annual cost savings achieved since inception
- Will contribute c.30% of the FY21 >€1.2bn net opex reduction target in Europe and Common Functions
- High quality service, delivered through internal resource

## Levers

1. Labour arbitrage (€17k p.a. cost per FTE)
2. Scale and standardisation
  - 20-50% reduction in FTEs post migration
3. Digital transformation

## Continued efficiency and expanding scope



# Our digital toolkit

## Character recognition and natural language



Unstructured document automation

- Intelligent optical character recognition (IOCR)
- Language agnostic
- 91% straight through

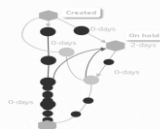
## Robotics farm



Automation of manual, repetitive processes

- c.600 bots
- 1.7 FTE efficiency per bot
- €4k per year maintenance
- Self healing

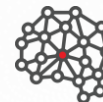
## Process mining



Real time process review

- Identifies trends and issues
- Applied to ERP and CARE
- ↑ 30% quality, ↑ 40% automation

## Cognitive



Business decisions

- Business intelligence analytics, e.g.
  - Smart capex
  - Fraud and margin assurance
  - Sentiment analysis

Acquiring information

Processing

Analysing

Taking decisions



# Applying digital: Purchase to Pay process



2.6m invoices a year



€38bn payments



40K queries

## Process



2.6m  
invoices  
a year

## Traditional approach



Mix of e-  
invoices  
+ paper  
invoices

Manual  
paper  
invoice  
processing



## Digital



Mix of e-  
invoices  
+ paper  
invoices

Intelligent  
OCR and  
robotics

Automatic  
invoice  
processing



- **Before:** > 1,000 FTEs managed supplier payments worldwide
- **Now:** 400 FTEs in Shared Services
- **Target:** <100 next year

