onecom

Samsung Rugged:

The Power of Technology in Construction & Manufacturing

Agenda

- The Latest from Onecom – Helena Marston

- Samsung – Industry & Rugged Overview – Paul Harris & Jarrod Crouch

- Samsung Quiz

- Coffee & Snack Break

- Vodafone – Network & Connectivity – Alison Wickens

- IoT in Manufacturing & Construction – Michele Gardiner & Carrie Townsend

- Close & Tour of Samsung KX

- Lunch

EXPERTS IN BUSINESS COMMUNICATIONS

Introduction

Helena Marston
Chief Operating Officer

vodafone

PURPLE
BRICKS

Onecom Group Overview

onecom

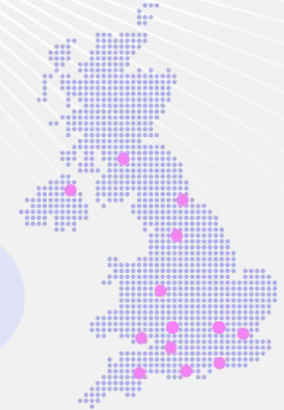**700 employees**

- People Focused
- Environmentally Focused
- Socially Focused
- Customer Focused
- Broad Proposition

- Integrity
- Inspiring
- Ambitious
- Innovative
- Knowledgeable

14 UK office locations, plus Operations Centre in India

Over 70,000 customers with over 750k services

Strong Strategic Partnerships

Microsoft Gold Partner

Five9

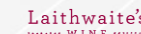SAMSUNG

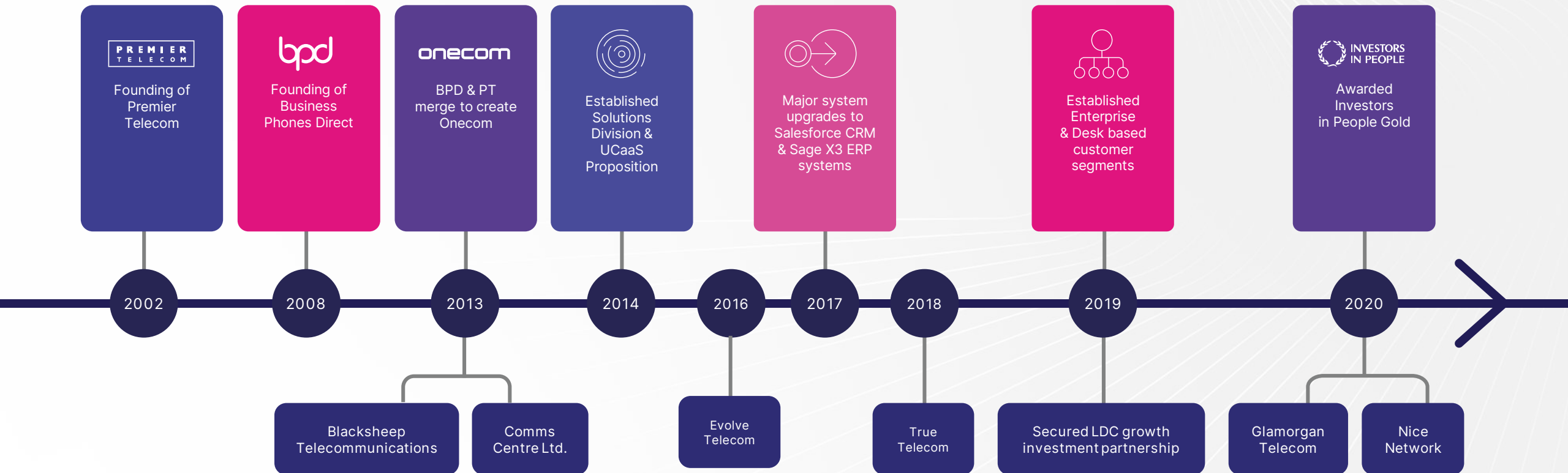Gamma

Mitel

Apple

TalkTalk Wholesale Services

vodafone

"To be recognised as THE provider of communications technology, trusted by UK organisations to deliver unparalleled expertise & simply brilliant customer experiences"
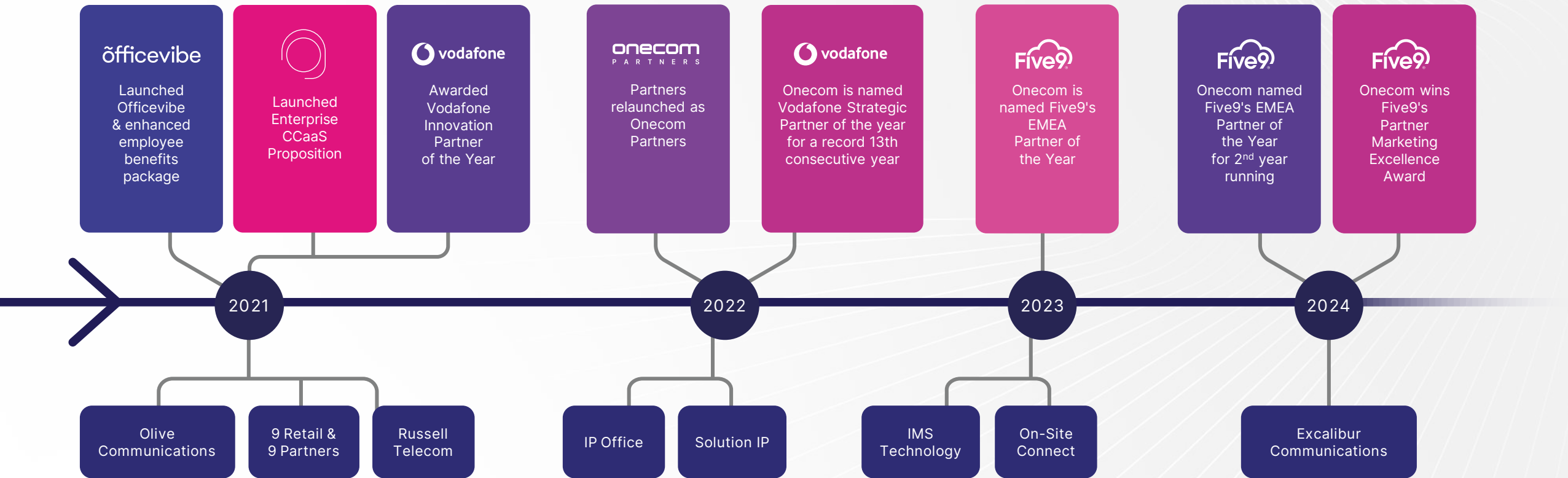
Well-known Customer Brands

YORKSHIRE BUILDING SOCIETY

Countrywide

SKANSKA

brakes
a Sysco company

CLARKSON evans

COULSON BUILDING GROUP

OSBORNE

AECOM

Laithwaite's WINE

ReAssure

TOTTENHAM HOTSPUR

The co-operative
Central England Co-operative

Onecom – 22 Years of Heritage

onecom

Founding of Premier Telecom

Founding of Business Phones Direct

BPD & PT merge to create Onecom

Established Solutions Division & UCaaS Proposition

Major system upgrades to Salesforce CRM & Sage X3 ERP systems

Established Enterprise & Desk based customer segments

Awarded Investors in People Gold

| 2002 | 2008 | 2013 | 2014 | 2016 | 2017 | 2018 | 2019 | 2020 |

Blacksheep Telecommunications

Comms Centre Ltd.

Evolve Telecom

True Telecom

Secured LDC growth investment partnership

Glamorgan Telecom

Nice Network

Onecom Evolution

onecom

officevibe
Launched Officevibe & enhanced employee benefits package

(logo)
Launched Enterprise CCaaS Proposition

vodafone
Awarded Vodafone Innovation Partner of the Year

onecom PARTNERS
Partners relaunched as Onecom Partners

vodafone
Onecom is named Vodafone Strategic Partner of the year for a record 13th consecutive year

Five9
Onecom is named Five9's EMEA Partner of the Year

Five9
Onecom named Five9's EMEA Partner of the Year for 2nd year running

Five9
Onecom wins Five9's Partner Marketing Excellence Award

2021 — **2022** — **2023** — **2024**

Olive Communications

9 Retail & 9 Partners

Russell Telecom

IP Office

Solution IP

IMS Technology

On-Site Connect

Excalibur Communications

Our Changing World [Workplace]

"We are entering a new era with the advent of the fourth industrial revolution..."

- Machine learning and A.I.

- IoT - Big Data & Analytics

- Augmented Reality (AR) & Virtual Reality (VR)

- 5G Connectivity

- Cyber security measures

- Sustainable practices

- Wearables

onecom

Delivering Continual Improvement

- Bringing Industry & market-wide insight to address real business challenges

- Regular workshops to align technology to proximity of customer need

- Work in true partnership with our global market leaders to evolve our customer partnerships and add ongoing value

- Align innovation to business outcomes

Propose
Prove
Measure ROI
Deliver
Design
Identify Opportunity
Concept
Build & Test
Quantify

Art of the Possible workshops

Market & Technology Insights

EXPERTS IN BUSINESS COMMUNICATIONS
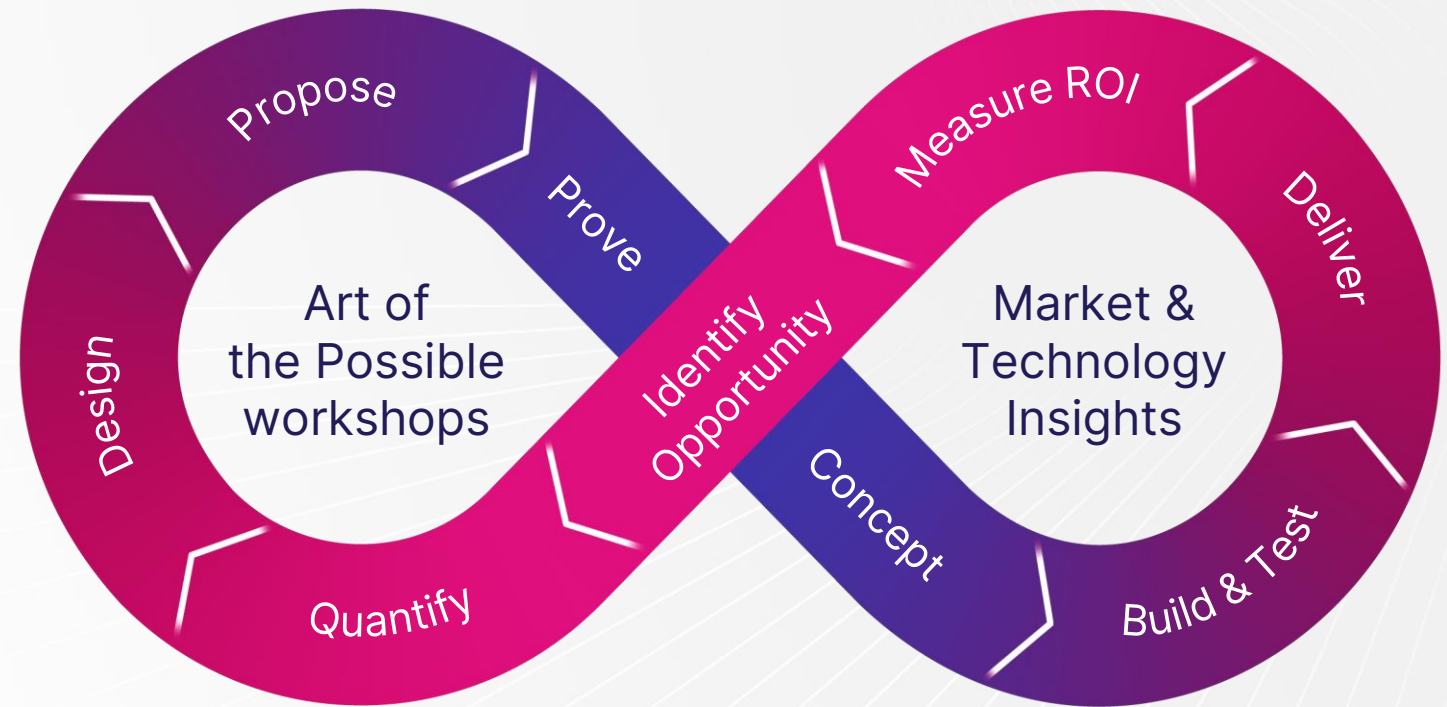
Industry & Rugged Overview

Construction & Manufacturing

Paul Harris, Account Director
Jarrod Crouch - Enterprise Business Manager

1. Industry insights
2. Zero trust
3. Mobile first workforce
4. Remote expert
5. Site safety and productivity.

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Industry
Insights

Market trend for rugged devices

Rugged Devices Market

7.4%

CAGR

$6.0B — 2023
$6.5B — 2024
$7.1B — 2025
$7.6B — 2026
$8.0B — 2027

Rugged Devices by Vertical

	2023	2024	2025	2026	2027
Transportation/Distribution	25%	25%	26%	26%	27%
Retail Services	21%	22%	23%	23%	24%
Construction/Manufacturing	19%	19%	19%	19%	19%
Government	18%	18%	17%	16%	16%

Transportation/Distribution

Construction/Manufacturing

Government

Retail Services

Others
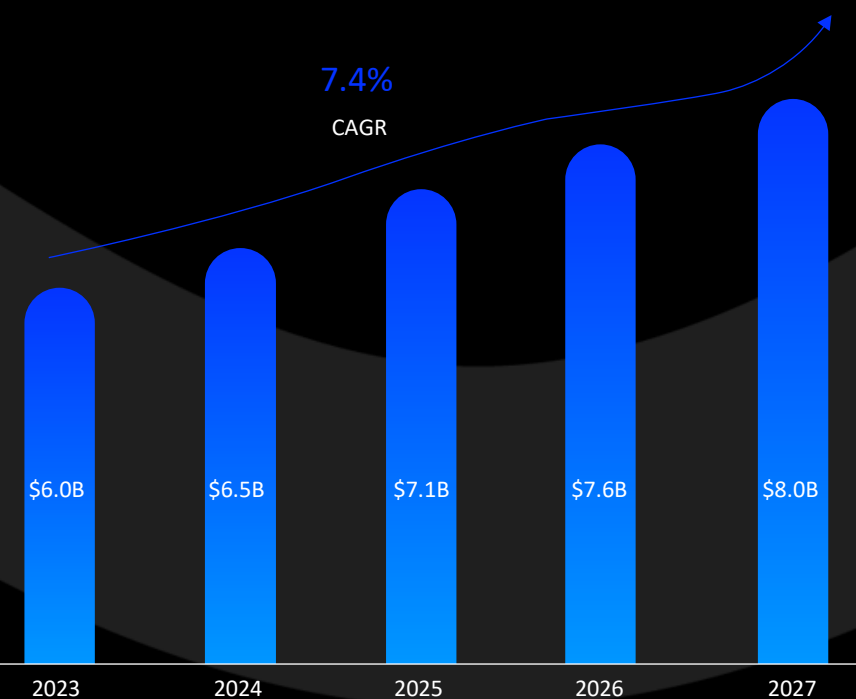
Source: VDC, 2023 Mobile Device Dataset

SAMSUNG
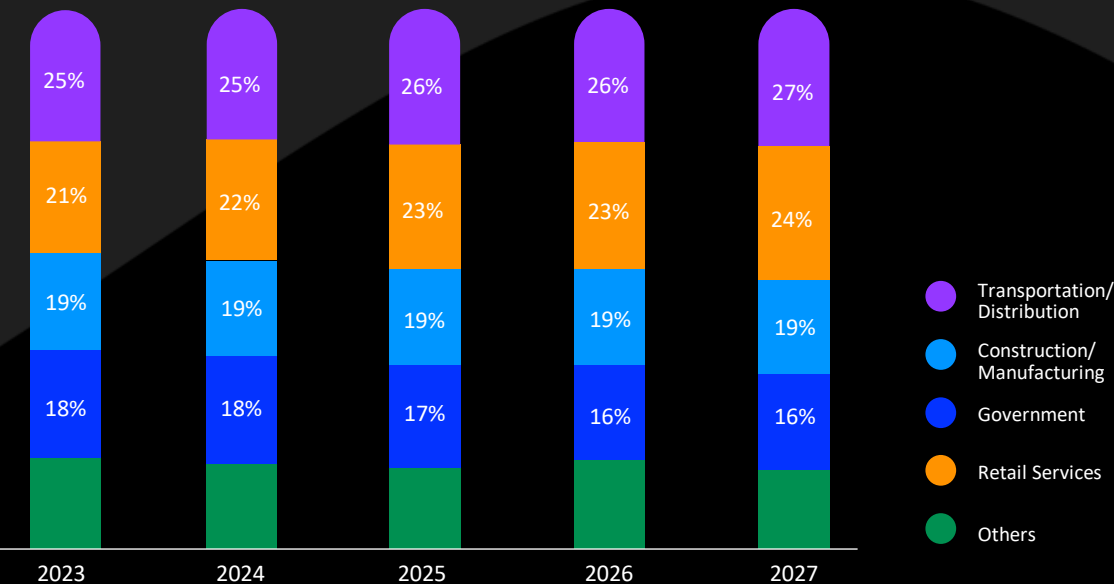
Frontline workers need reliable and durable devices

Top 5 mobile device selection criteria for frontline workers

No. 1	Reliability of hardware	53%
No. 2	Ease of use	45%
No. 3	Integrated features and data capture capability	38%
No. 4	Device features (I/O parts, accessories, etc.)	33%
No. 5	Availability of rugged devices for this OS	29%
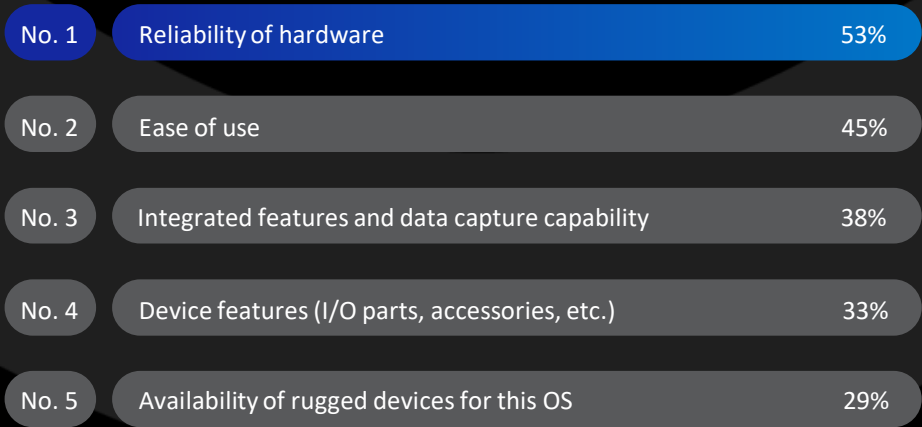
Businesses need rugged devices for protection

Top factors causing physical issues with mobile devices

Dropping device	60%
Water exposure	34%
Excessive temp	24%
Dust exposure	22%
Battery issues	17%
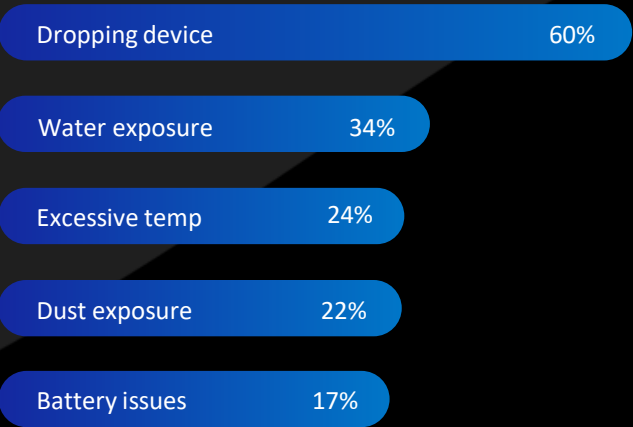
Rugged devices have to be optimised for work

Rugged device environmental exposure

Use in industrial environments	55%
Use with gloved hands	52%
Use in dusty conditions	52%
Use in extreme temperatures	51%
Use in wet conditions	45%
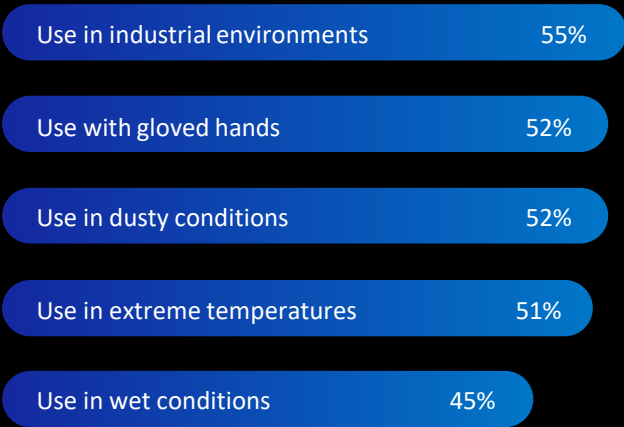
Workers need to remain connected and productive at all times to be efficient

Monitoring network connectivity and battery health are leading use cases

Network connectivity	44.1%
Battery health	43.1%
Mobile device location	40.7%
Application use	38.2%
Mobile device up/down time	34.3%
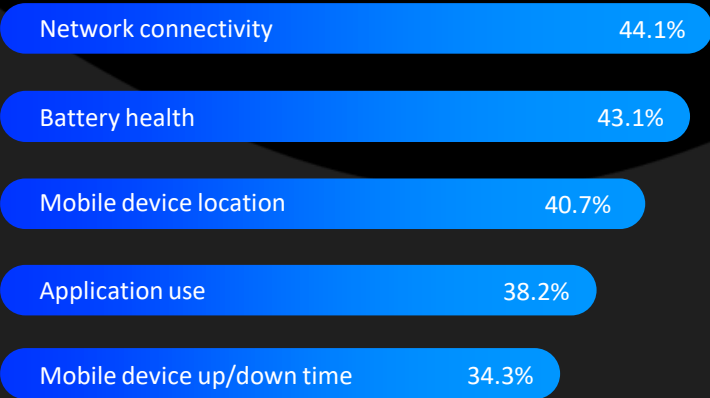
Businesses want secure and capable devices with advanced features

No. 1	Strong security	40%
No. 2	Advanced features	30%
No. 3	Device capability/reliability	30%
No. 4	App availability for required work	29%
No. 5	Affordable price	26%

Knox provides secure protection for work devices

27 / 30

Samsung Knox platform receives 27 strong ratings out of 30 from Gartner

Zero Trust

As workplace flexibility becomes the norm, cyber security attacks are more sophisticated. Zero Trust model emerges as a new security standard and the customers such as U.S. government mandate Zero Trust implementation*

Zero Trust Principles

Always Assume Breach

Verify Explicitly

Provide Least Privilege Access

Continuously Monitor

Samsung Knox Zero Trust with Partners

Zero Trust On-Device Attestation

Samsung Knox enables Intune to perform on-device health checks by providing device context for Zero Trust policy decisions

- By leveraging Samsung's secure supply chain, this hardware-based device attestation meets the security requirements of the most highly regulated organizations

- Enables high security assurance on even the most flexible deployment models such as Microsoft Intune MAM

- Enforce access to enterprise resources even without network connectivity

- Works on both managed and unmanaged devices regardless of ownership

SAMSUNG | ■ Microsoft

Zero Trust Network Access (ZTNA)

Samsung Knox is working with Cisco Secure Access(SSE) to enable trust assessment of the device

- Dramatic increase in attack surface and growing sophistication of cyberattacks have provided a strong motivation for replacing VPN with a more secure remote access solution

- VPNs fail to provide secure remote access based on granular access control policies

- Samsung is working with Cisco Secure Access(SSE) to enable trust assessment of the device, including device posture, deep inspection of network constructs (e.g., IP address), and precise access control at the app/sub-app levels

SAMSUNG | cisco

SAMSUNG

1 billion+
Devices secured
by Knox

35,000+
Enterprise customers
using Knox solutions

70 Million+
Devices Managed
by Knox

SAMSUNG Knox Suite

Secure	Deploy	Manage	Maintain	Productivity

Knox Platform for Enterprise

Access advanced security and management features

Knox Mobile Enrollment

Bulk enroll devices to your MDM/EMM

Knox Mobile Enrollment Advanced

Block access to devices that are not enrolled.

Knox Manage

Remotely manage devices and enforce policies

Knox E-FOTA

Schedule and control firmware updates and security patches

Knox Remote Support

Remotely take control or troubleshoot devices

Knox Asset Intelligence

Cloud Based data analytics for operational insights and productivity

Knox Capture

Transform Samsung mobile devices into business-grade scanners

Knox Authentication Manager

Sign-in automation for shared device

Zero cost solution

Can be purchased as standalone product

Mobile First Workforce

A mobile first generation

- Generational change between resisting technology and demanding it

- IT demand is driven by consumerisation

- Expectation that the device will work like their own

- Single device for all

- Attraction and retention of talent is challenging

- A new era of mobile device technology - powered by Galaxy AI

Galaxy Rugged Range

Rugged on the outside, smart on the inside.

Make tough work feel easier than ever while staying connected, productive and secure with Samsung's latest Rugged Range devices.

New

New

Galaxy XCover7

Galaxy Tab Active5

Galaxy XCover6 Pro

Galaxy Tab Active4 Pro

Rugged Range

Intuitive productivity

- Programmable hot key
- Touch sensitivity
- Enhanced display
- Barcode scanning[1]
- S Pen[2]

Protected against the unpredictable

- MIL-STD certification
- IP68 rating[3]
- Enhanced security
- Replaceable and fast charging battery[4]
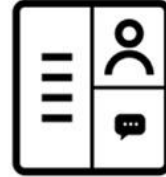
Quickly connected to the essentials

- Fast network support
- Microsoft Teams Push-to-talk[5]
- Business features: mPOS[6] (mobile point of sale) and Barcode scanner
- Samsung DeX[7]
- Accessories[8]

1. Barcode scanning may require app remapping to programmable key to use full feature. 2. S Pen available on Tab Active5 and Tab Active 4 Pro. 3. Resistant to dust and up to 1.5 metres of fresh water for up to 30 minutes (IP68). Rinse residue/dry after wet. Not advised for beach or pool use. 4. Additional battery sold separately. In the case of extra replaceable batteries, only Samsung-certified products are compatible for use. 5. Additional licenses may be required. 6. MPOS payment possible with NFC-enabled device. 7. Samsung Dex is only available on Tab Active4 Pro, Tab Active5 and XCover6 Pro Rugged devices. 8. Accessories sold separately.

Microsoft Teams Push-to-talk.

Press
Flashlight on/off

Push-To-Talk

Tap into teamwork.

Vital communications at your fingertips.

Samsung has teamed up with Microsoft, combining leading hardware and software to unlock new ways for workers to connect in a wide variety of environments.

This combination is a game-changer for busy, travelling teams[1].

Plus, with programmable keys, you can send private location data or alerts—keeping you in constant contact using walkie-talkie capability throughout your day—even if the network is down[2].

1. Additional licenses may be required.
2. Requires Samsung D2D Service.

Quickly connect to the essentials

Samsung DeX.

Enjoy a PC-like experience wherever you are. [1]
Connect to a monitor with just one cable[2] or go wireless for a PC-like experience, seamlessly transitioning from outdoor to office tasks.

Accessories.

Gear up for rough tasks. The Samsung Rugged Range is fully supported with a complete ecosystem of equally tough accessories[3] including cases, docks, mounts, chargers and keyboards.

1. Samsung DeX is only available on Tab Active4 Pro, Tab Active5 and XCover6 Pro Rugged devices.
2. USB-C to HDMI cable and accessories sold separately.
3. Accessories sold separately.

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Remote
Expert

Remote Expert

Enables on-field technicians to connect, share information, and receive real-time support from one or more remote experts.

- Augmented Reality enhances communication by placing virtual objects within the operator's field of view, guiding it when completing field operations.

- Improves communication between employees by reducing the need to deploy experts on field;

- Produces video and photographic documentation supported by contextual information (sensor data, GPS coordinates, environmental data)

- Decreases transaction costs

- Reduces downtime
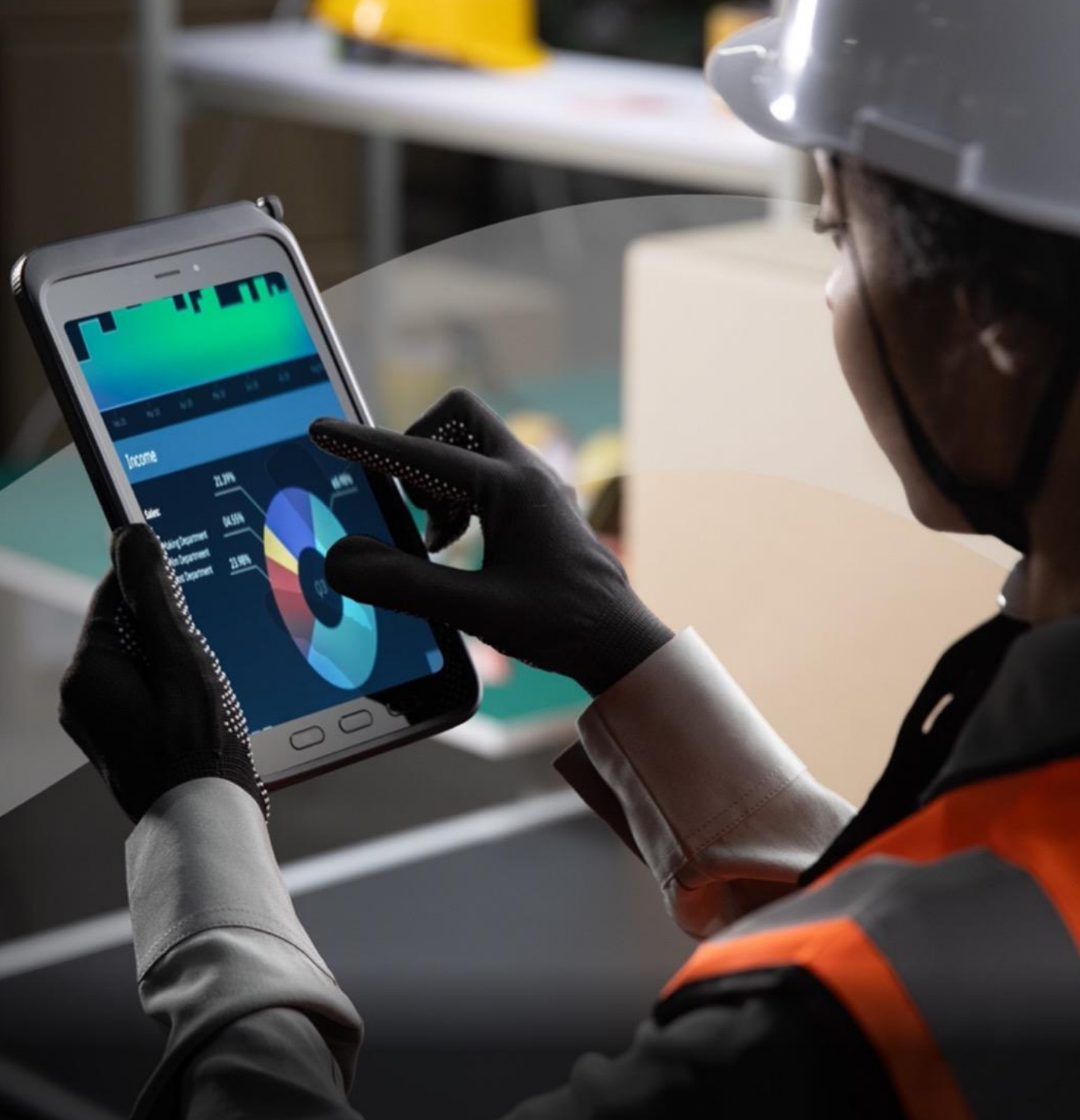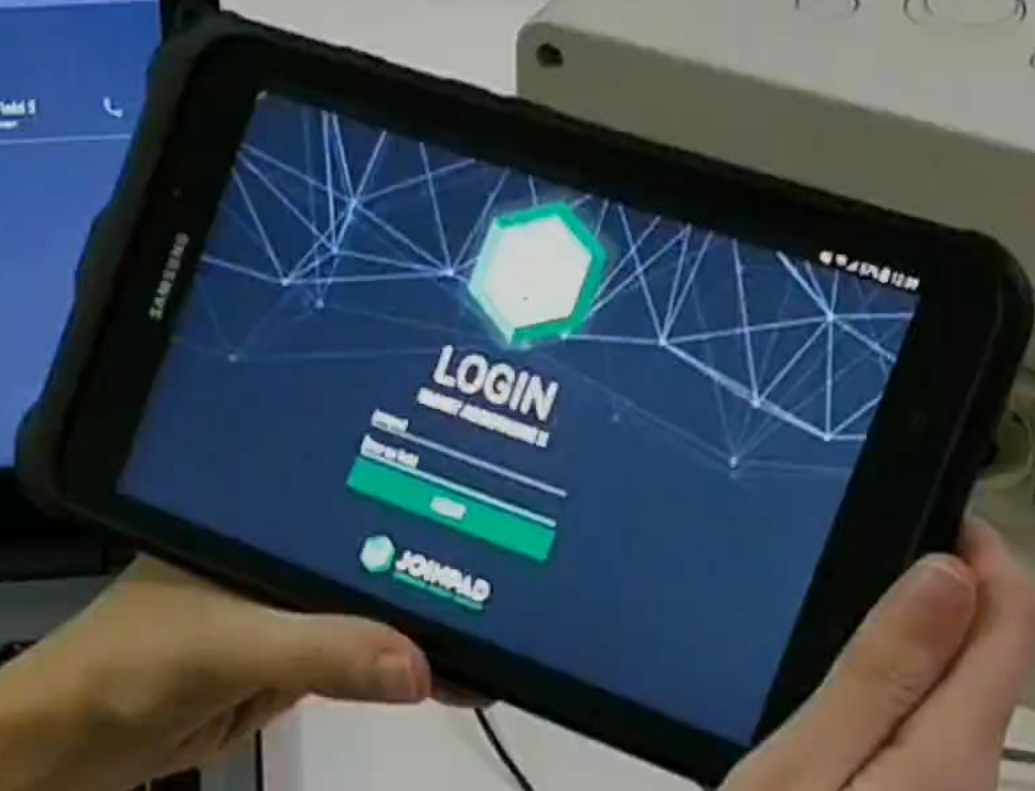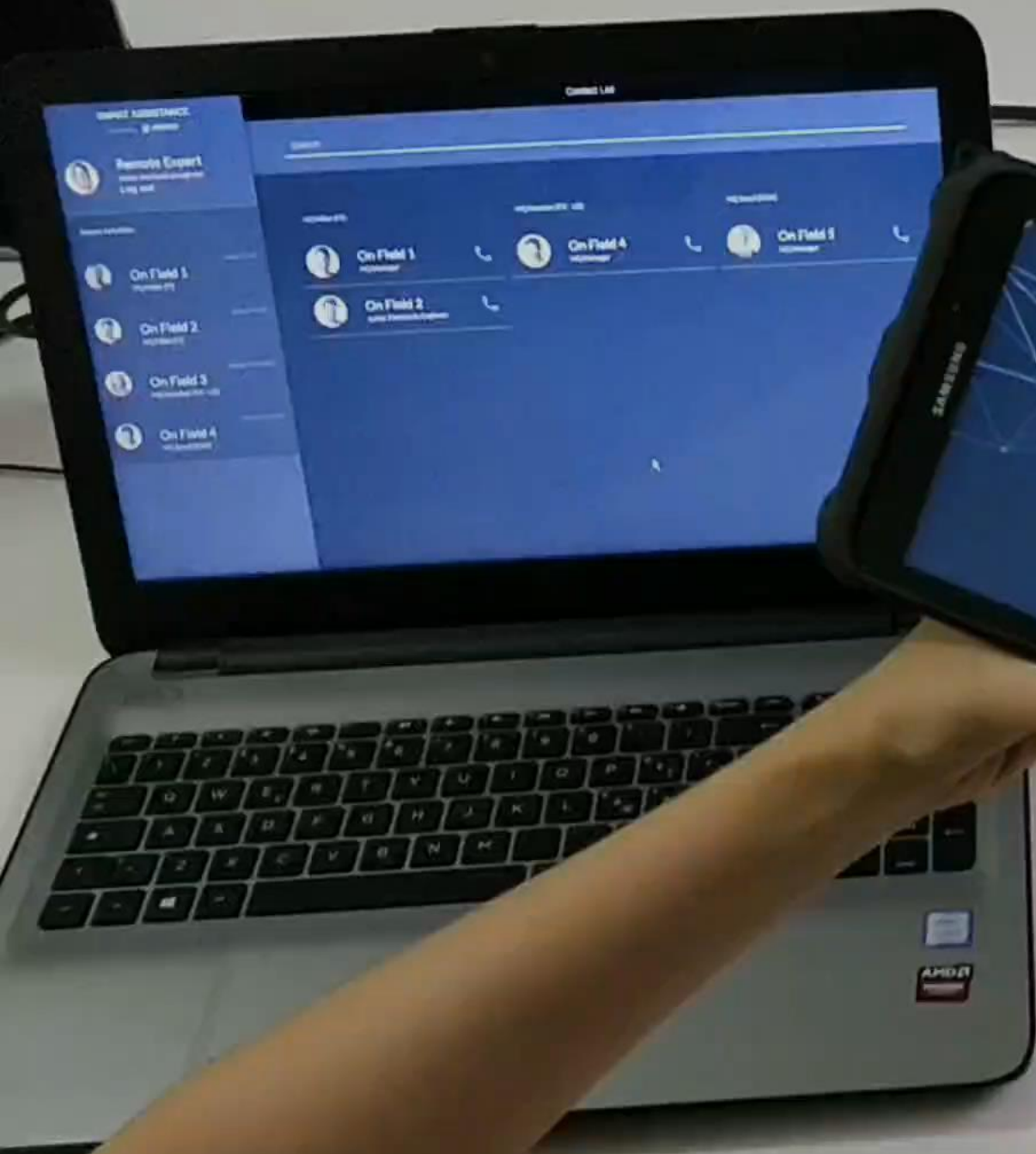
SAMSUNG

Site Safety
& Productivity

A lifeline for the frontline

Stay connected when you most need it.

- **Site safety is a top concern**

- **Wearables remove the need to carry another device**

- **Standalone with eSIM or pair to mobile device.**

- **Live monitoring and reporting , integrated into existing systems**

GearUP+ Features

SAFETY

- Geo Fencing
- Person-down
- Auto-fall detection
- Location Services
- Indoor tracking#
- Site Boundary
- Proximity
- Custom Map
- Tracking IoT integration

#will need additional hardware setup

WELLNESS

- Sensor Data Collection & tracking – Steps, Heart rate, Sleep, SpO2
- Thermal stress dehydration
- Fatigue Management
- Work fitness
- Mental stress
- Perceived exertion

PRODUCTIVITY

- Text/Voice Message
- Message Scheduler
- Task Management
- Voice messaging b/w watches (1 to many)
- Voice commands
- Time Clocking
- Workflow management

✓ Existing

β Beta

Roadmap

GearUP+ man down & auto fall detection

- **Emergency alert & notification**

- **Auto fall detection & manual trigger**

- **Man-Down alert with worker location**

- **Automatic hands-free call to emergency contact**

- **Man-Down alert on admin dashboard with location**

- **Live location on map**

- **Real-time status update on dashboard**

- **Voice and Text messaging**

- **Man-Down event historical data**

- **Man-Down can be triggered by pressing the Home button 4 times**
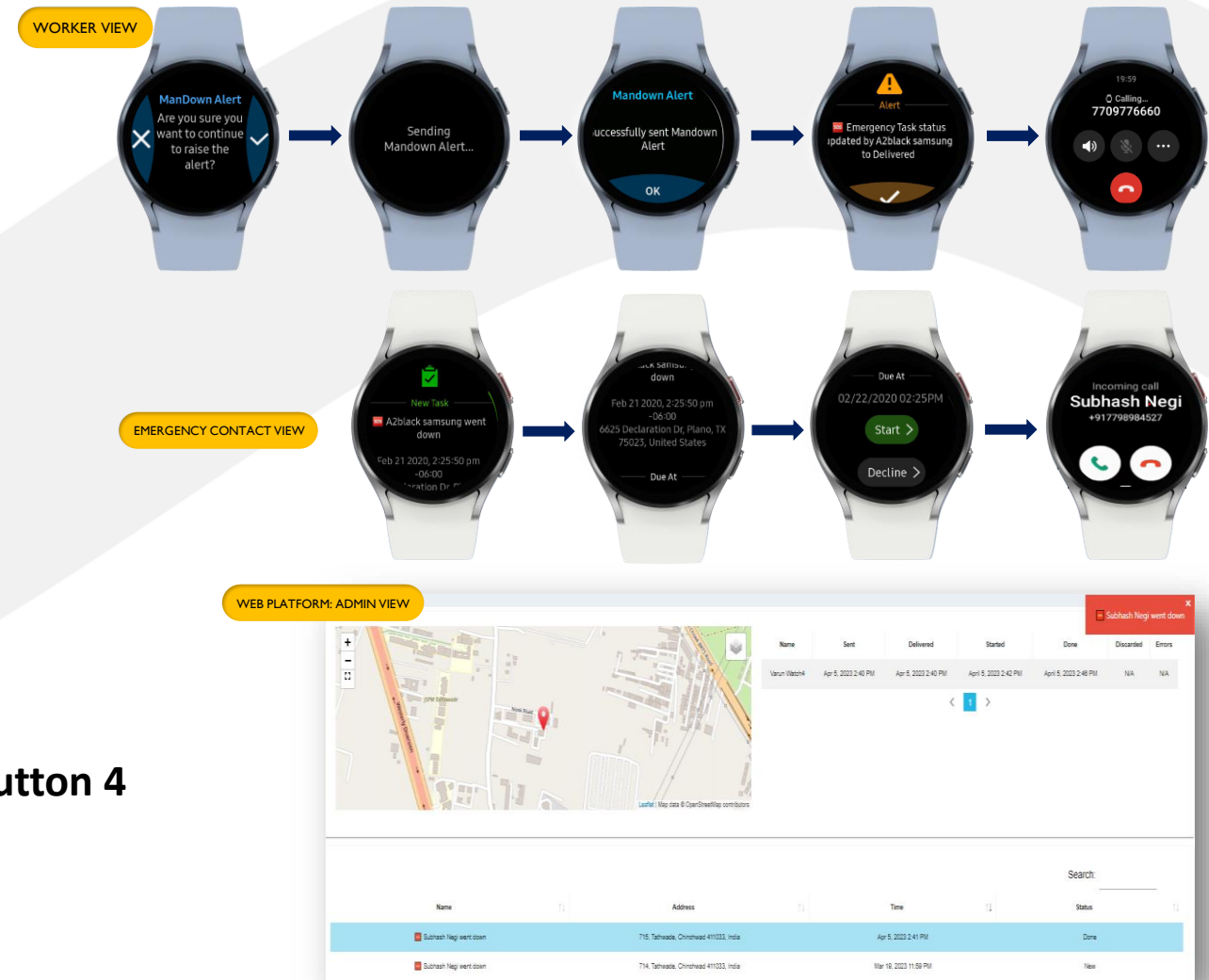
GearUP+ Task Management

- **Create tasks for users / group**

- **Real time task delivery and tracking**

- **Task status is updated on dashboard with timestamp**

- **Calculate the response time and task duration**

- **Historical data on dashboard**

GearUP+ Health Data

- **Sensor data is captured from the watch and sent to platform.**

- **Sensor data includes:**

  - **Step Count**

  - **Heart Rate**

  - **Sleep Data etc.**

- **Sensor data can be viewed on admin dashboard.**
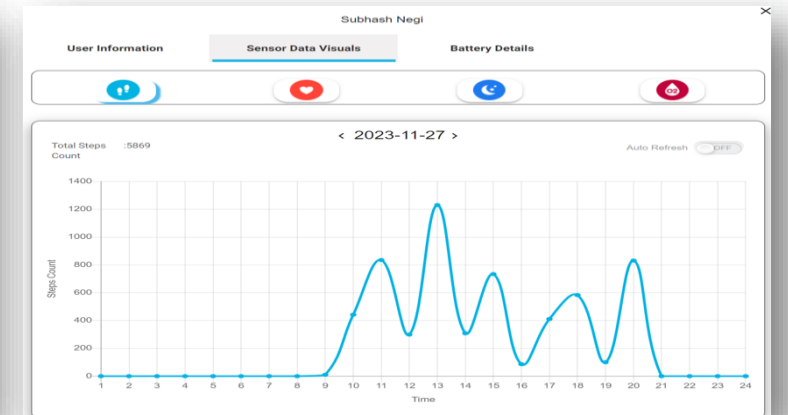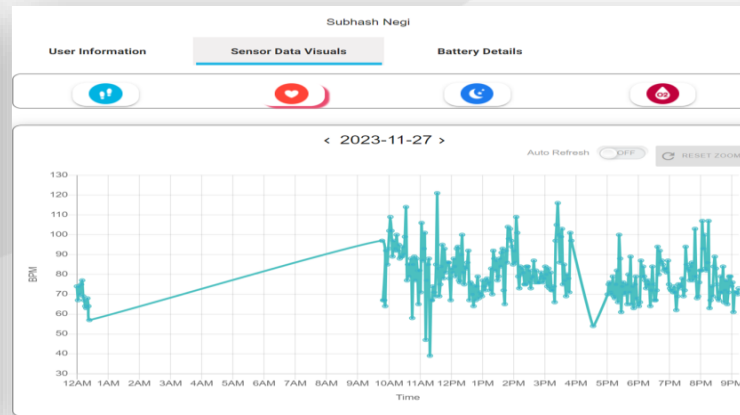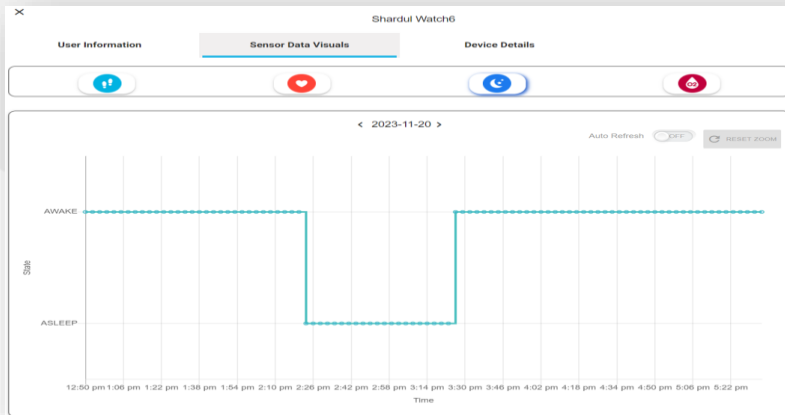
GearUP+ Dashboard
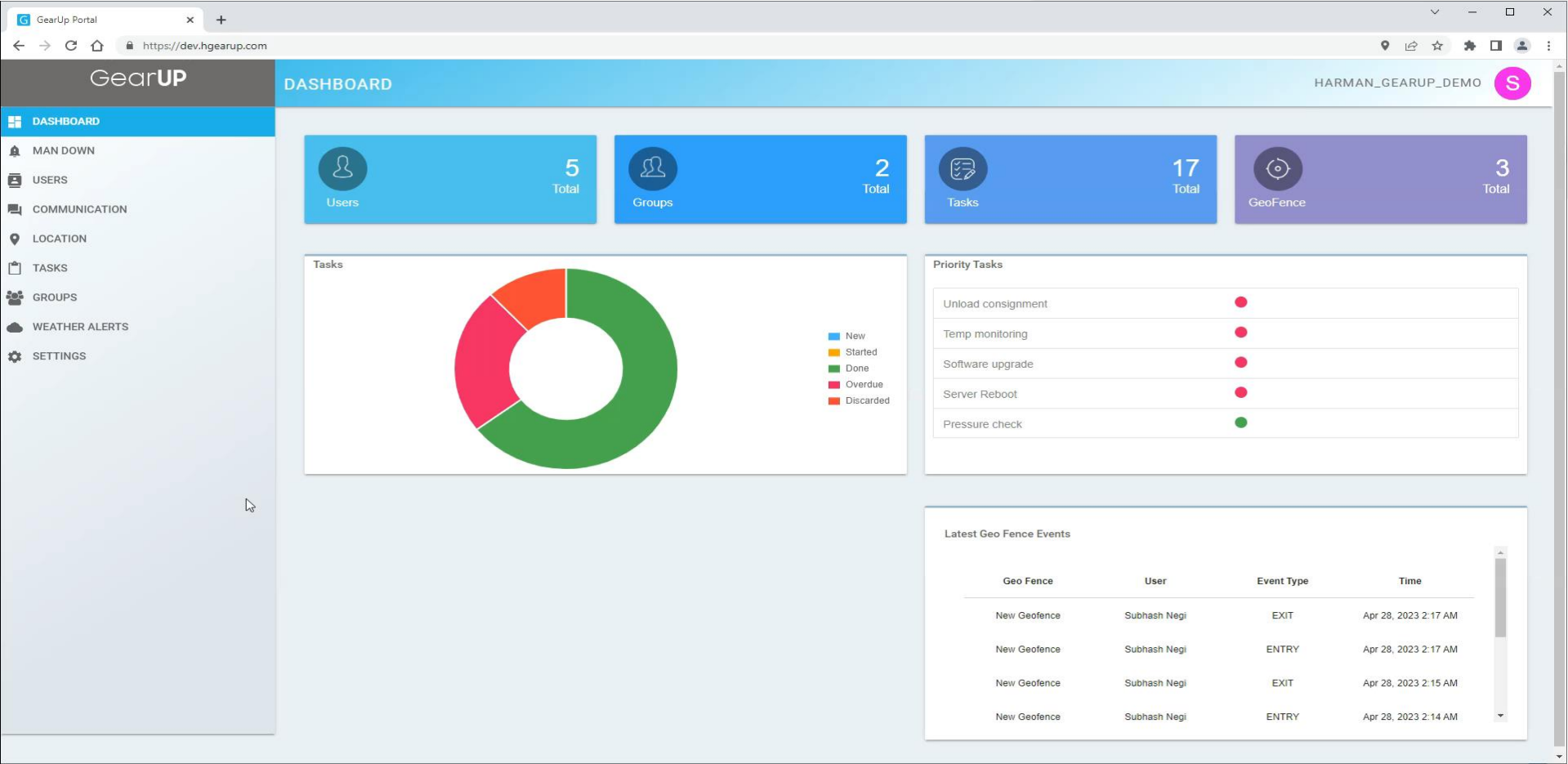
Thank You

Vodafone Network

Ali Wickens

Our Network

1

EXPERTS IN BUSINESS COMMUNICATIONS

UK Networks Strategic Priorities

Customer

Simplicity

Growth

Most Reliable Network

- Deliver best customer experience
- 5G roll out
- Huawei swap to Ericsson and OpenRan
- Unwind (London and East)
- Focus on deep detractors
- Further enhance special events and strategic locations
- Shared Rural Network
- Cyber Security

Operational Effectiveness & Efficiency

- Legacy to New Tech Conversion (3GSO)
- Network modernization and removal of legacy kit
- Energy, emissions & innovation
- 5G Stand alone
- Messaging Evolution
- Data Centre Consolidation
- Zero touch Network

Enabling Converged Products & Services

- Focus on innovation (5G SA, OpenRAN, etc.)
- Growth of network use cases
- Network Slicing
- IoT & CAT-M
- Satellite Connectivity
- Redstream evolution
- New Product development

Underpinned with a focus on people and making Vodafone the best place to work (fun and safe)

Our Spectrum and how we use it

5G
3400 Mhz

4G
2600 Mhz

4G
2100 Mhz

2G/4G /5G
900 Mhz

4G
800 Mhz
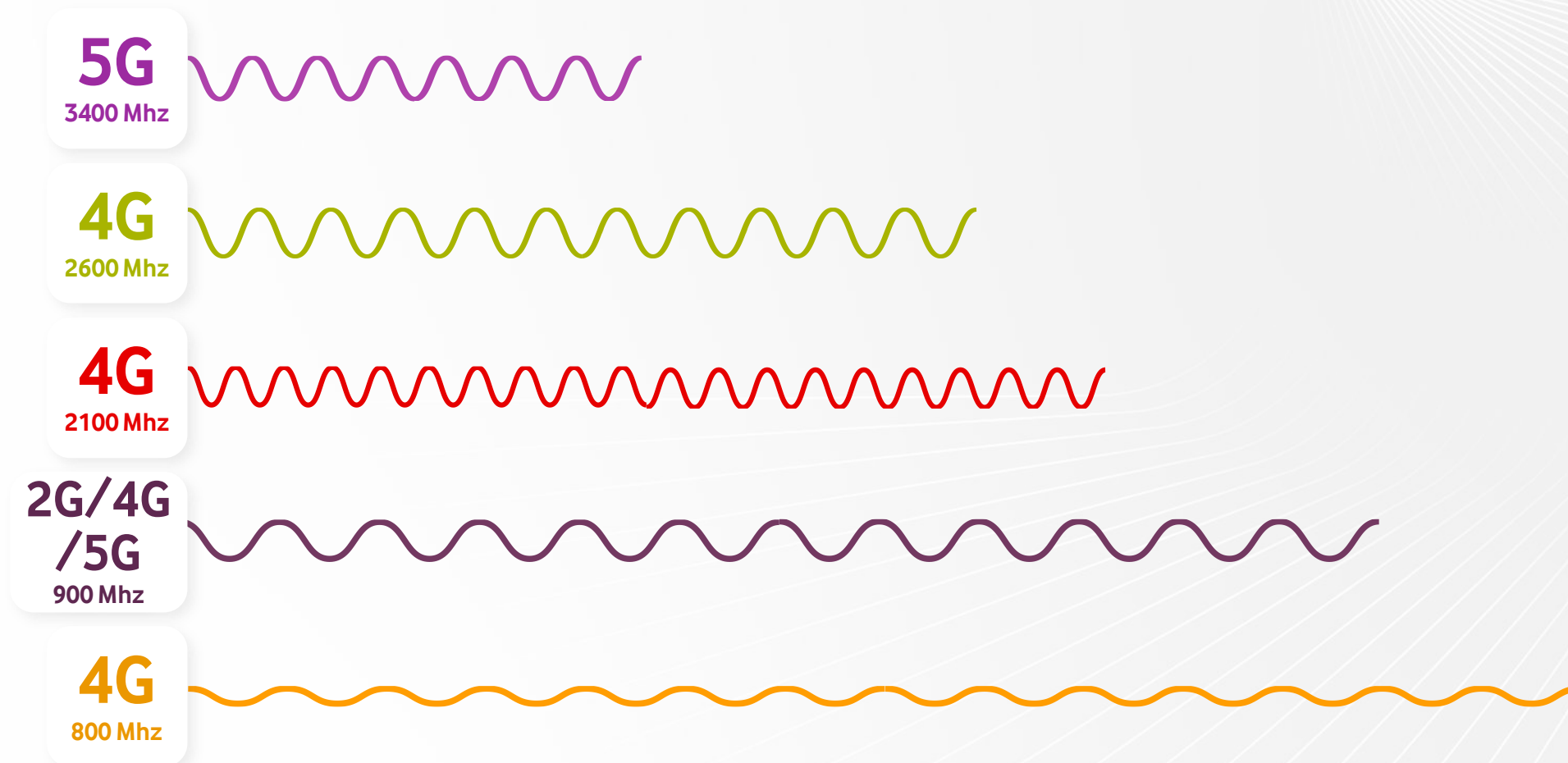
Our unique spectrum offering enables our coverage to reach further geographically than ever before, serving over 99% of the population (soon to be 95% landmass post SRN)

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Innovation

2

EXPERTS IN BUSINESS COMMUNICATIONS

We have been investing heavily in our Innovative Network

We've invested over £3 billion in our network and services over the past five years and over half a billion on 5G spectrum and we will continue to invest in our network.
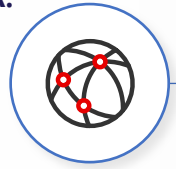
Protecting the Planet
Powered by 100% Renewable Energy. !00% network waste recycled or reused by end 2025. Net zero by 2027 in UK
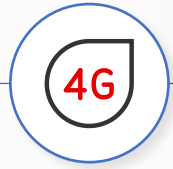
4G/5G capacity upgrades
Making more 4G & 5G available with higher download speed
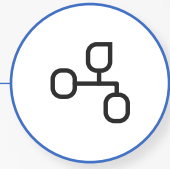
Network virtualisation
Improving resilience & flexibility for the future
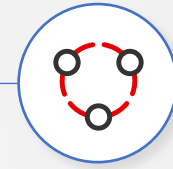
5G Ultra
First UK operator to launch 5G standalone commercially

Scotland 5G Centre in Aberdeen and Kilmarnock
Vodafone MPN is enabling new opportunities for Scottish businesses
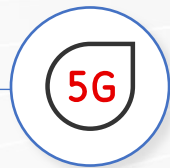
Full Fibre Broadband
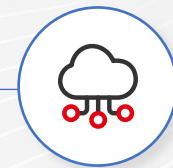Available in over 15 million premises

Expanding core & fixed network
Delivering seamlessly-converged fixed & mobile services

5G Factory of the future
Vodafone Business has partnered with Ford to implement 5G connectivity in its new E:PriME

Global leader for Internet of Things
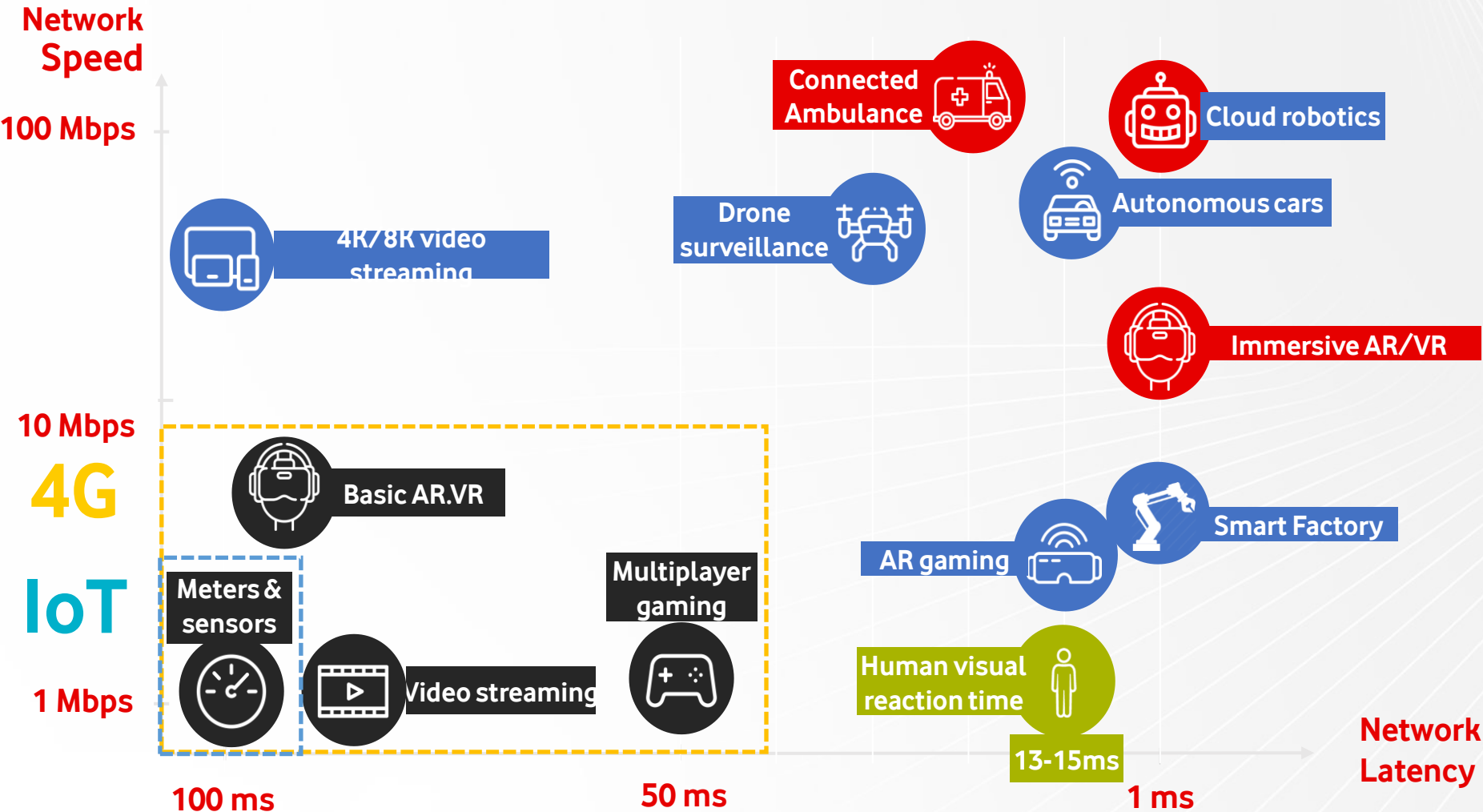Gartner Magic Quadrant Leader for 10th consecutive year.

Providing coverage to key locations
Outperforming compeiutors and porviding mobility soluitons e.g. London Underground

Future proofing our network to be resilient and available to more customers in more places, throughout the UK, offering the latest products and service for our customers to be successful in their business

40

5G | Combines Speed, Latency, Bandwidth & Capacity into Transformational Capabilities

Network Speed

100 Mbps

4K/8K video streaming

Connected Ambulance

Cloud robotics

Drone surveillance

Autonomous cars

Immersive AR/VR

10 Mbps

4G

Basic AR.VR

Smart Factory

IoT

Meters & sensors

Multiplayer gaming

AR gaming

Video streaming

Human visual reaction time

1 Mbps

13-15ms

Network Latency

100 ms

50 ms

1 ms

Vodafone is spearheading the future of 5G in the UK

1

First 5G Network Slice

Vodafone completed a successful lab trial demonstrating 5G network slicing with on-demand quality of service control for a virtual reality use case.

2

Future Proof 5G Capacity

Vodafone's 64x64 Massive MIMO deployments are focused on being more future proof and more cost efficient, but are slower to roll-out

3

UK's First 5G SA

5G Standalone networks unleash the true potential of 5G, and Vodafone UK is pioneering the move with the only 5G SA network in the country and first 5G SA Slice

4

Integration of 5G, MPN, MEC & IoT

Enable complete industrial transformation through combining award-winning 5G MPN, Europe's only Distributed MEC network and World-leading IoT platform

5

UK's OpenRAN Pioneer

First UK operator to pioneer OpenRAN, support Government policy for more vendor diversity, and ultimately enable better rural connectivity

...and committing to an Industry leading Climate Target of a Carbon Neutral Network by 2027

Through our innovation and investment we are first to market in the UK, showcasing the new capabilities and applications that 5G can bring, which previously has not been available over previous technologies.

Key Verticalised Use-Cases Enabled by 5G Slicing

Construction
- **Verify Quality of work**
- **Manage assets**
- **New Value Add Efficiencies**

Energy & Utilities
- **Virtual Power plants**
- **Connected substations/windfarms**
- **Smart Grids & Grid Monitoring**

Government
- **Surveillance & Monitoring**
- **MC-PTT/PTV**
- **Assisted living**

Media
- **Remote Broadcasting & Production**
- **Second scene broadcast**
- **On-site immersive experiences**

Transport & Logistics
- **Autonomous vehicles**
- **Real-time situational awareness**
- **Smart Traffic management**

Manufacturing
- **Improving Factory Efficiency**
- **Effective use of IoT sensors and data**
- **AI Driven Automation**

- **Fit for a king: ITN Coronation broadcast to use Vodafone 5G SA**

- **Vodafone and ITN make TV broadcast history during King's Coronation**

IoT Trends in the Construction Industry

Michele Gardiner & Carrie Townsend
IoT Market Insights Team
Vodafone IoT

onecom

Agenda

01

Introduction

02

IoT Trends in the Construction Industry

03

Key Takeaway

#1

Introduction

AUTOMATE

Introduction

Michele Gardiner

IoT Market Research & Insights Manager

Joined Vodafone November 2022, prior to joining, Michele was a telecoms market analyst for 26 years

Carrie Townsend

IoT Market Research & Insights Manager

Joined Vodafone April 2021, prior to joining, Carrie was a telecoms market analyst for 24 years

When it comes to IoT, we're established leaders

We provide

183 million IoT connections

in 190 countries

We have

1400 dedicated IoT experts

working around the world
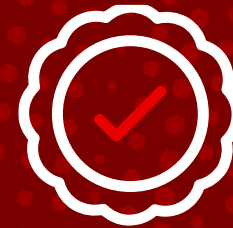
We collaborate to

set industry standards

for IoT innovation

#2

IoT Trends in the construction industry

IoT in Construction | Enterprise survey

Global Data's 2021 survey of the Construction sector highlighted that over 60% of enterprises planned to invest in IoT in 2021, up slightly from pre-COVID 2018 intentions to invest.

Global Data's latest enterprise survey on the Construction sector indicates that 69% of enterprises in the sector increased their IoT budget/spending between 2022 and 2023.

1. Global Data, Construction Enterprise ICT Vertical Intelligence Report 2023 - GlobalData Intelligence Center - Technology

IoT-enabled equipment, Plans to Invest vs No Plans to invest

Legend: ■ Plans to invest ■ No plans to invest

Years: 2018, 2019, 2020, 2021
Axis: 0% 20% 40% 60% 80% 100%

% of Respondents

21.0%

9.8%

69.2%
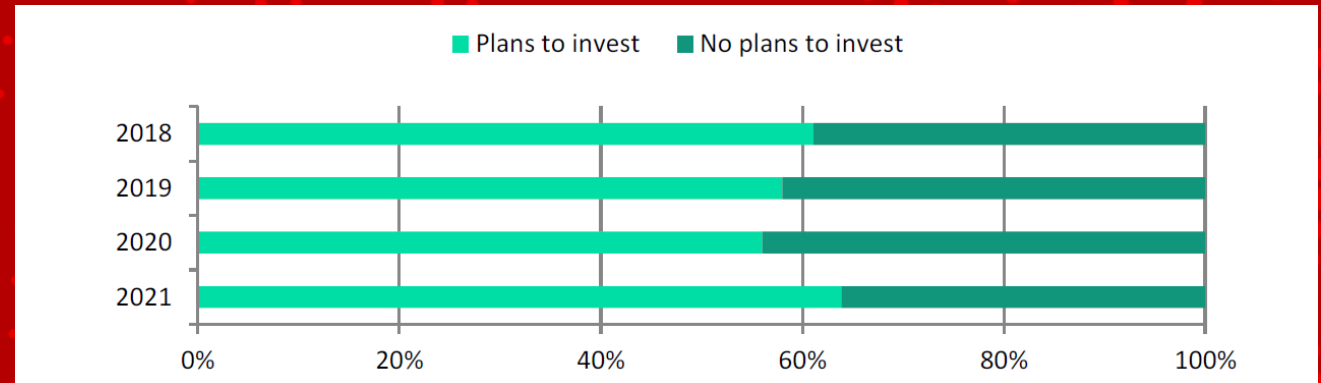
Legend: ■ Increase ■ Decrease ■ Flat
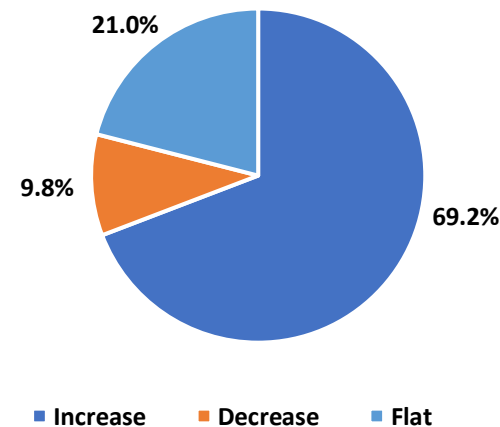
How has your total IoT budget/spending changed (increased or decreased) from 2022 - 2023
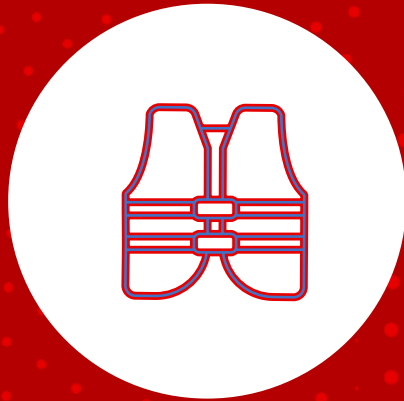
IoT in Construction | Drivers for IoT adoption

RoI

Regulation & compliance
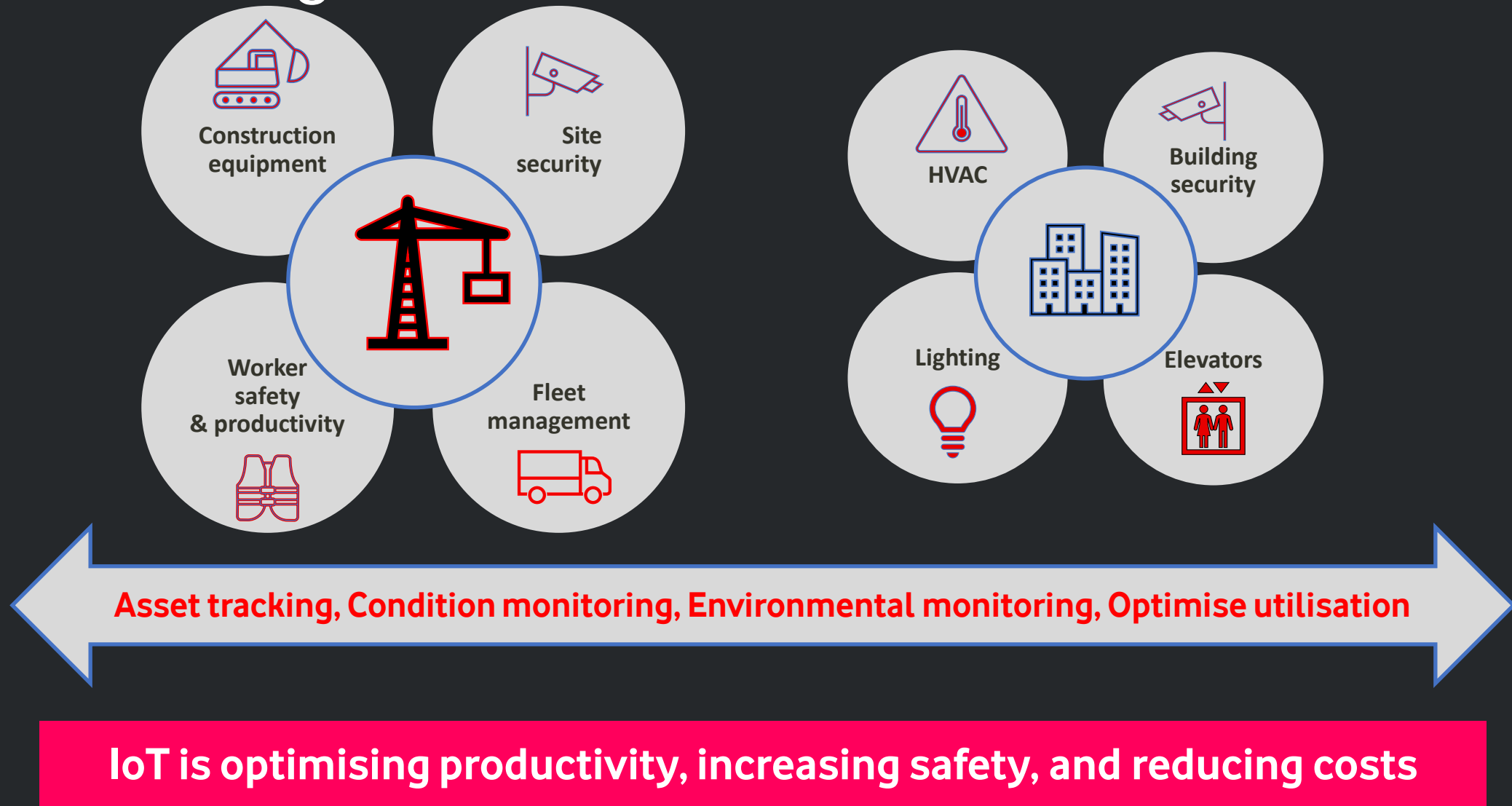
Improve worker safety

Enhance security

Differentiation

Regulation and compliance is a key driver for IoT adoption

IoT in Construction │ Key use cases in construction and smart buildings

Asset tracking, Condition monitoring, Environmental monitoring, Optimise utilisation

IoT is optimising productivity, increasing safety, and reducing costs

#3

Key Takeaway

IoT in Construction | Key Takeaway
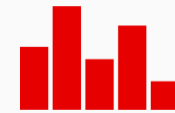
IoT addresses the industry's key pain points

Safety
Increase worker safety and site security

Quality
Ensure build quality and compliance

Efficiency
Drive down costs and increase productivity

C2 General

Thank you!

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