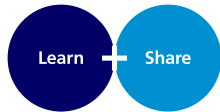O₂

The **Network Story**

How to use **the Network Story**

Learn — **Share**

Take a look at the icons in the **top left hand corner** of this content to see exactly how you should use it.

Learn

If the **Learn** circle is present, then this content is designed to help you have more informed conversations about our network with customers, friends and family.

Share

If the **Share** circle is also included, then this content can be shared with customers.

Plus, you'll find links with more information throughout the presentation – wherever you see a button like the one shown below or the words 'Find out more' within one of the blue bubbles.

Find out more

These links will help you learn more by reading through our press releases and whitepapers.
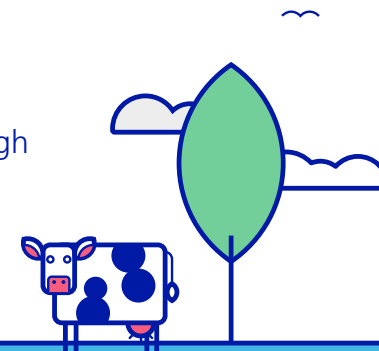
The power of our **network.**

We're the **Best Network for Coverage**

O₂

uSwitch
Best Network
for Coverage
2018, 2019 & 2020

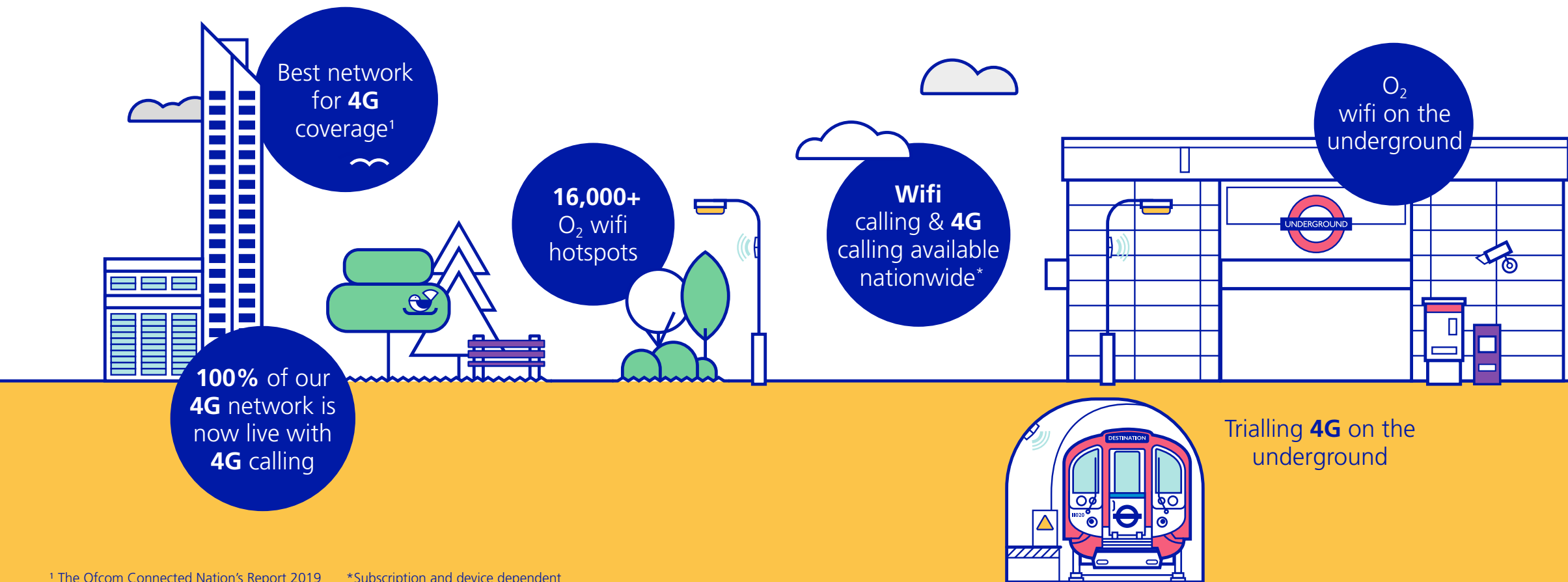Uswitch
Broadband
& Mobile
Awards

Our network won **Best Network Coverage** in the **uSwitch Broadband & Mobile Awards 2020**. It's the third year in a row that we've won the award. uSwitch uses real customer satisfaction survey data as a key factor to determine their winner, which means that our customers' satisfaction played a huge part in us being awarded.

And here's just some of the reasons why…

We're the **Best Network for Coverage**

O₂

## Over **99%** indoor population coverage on our **3G** and **4G** networks

Best network for **4G** coverage[1]

16,000+ O₂ wifi hotspots

Wifi calling & **4G** calling available nationwide*

O₂ wifi on the underground

100% of our **4G** network is now live with **4G** calling

DESTINATION

Trialling **4G** on the underground

UNDERGROUND

[1] The Ofcom Connected Nation's Report 2019   *Subscription and device dependent

The power of our **network.**

5

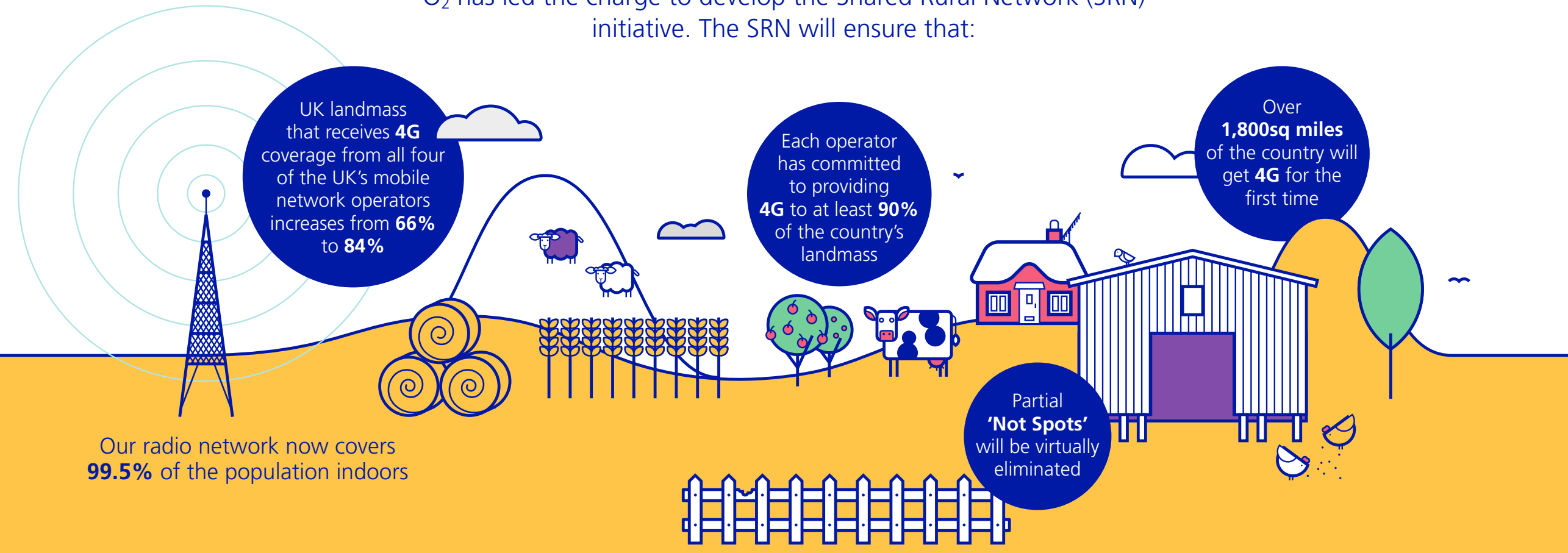# We're the **Best Network for Coverage**

O₂

While our **3G** roaming agreements mean customers can use their data allowance in the Europe Zone, we are working with mobile operators across the world to roll out **4G** roaming as quickly as possible. **4G** roaming is now available in 140 countries across the globe.

4G Roaming
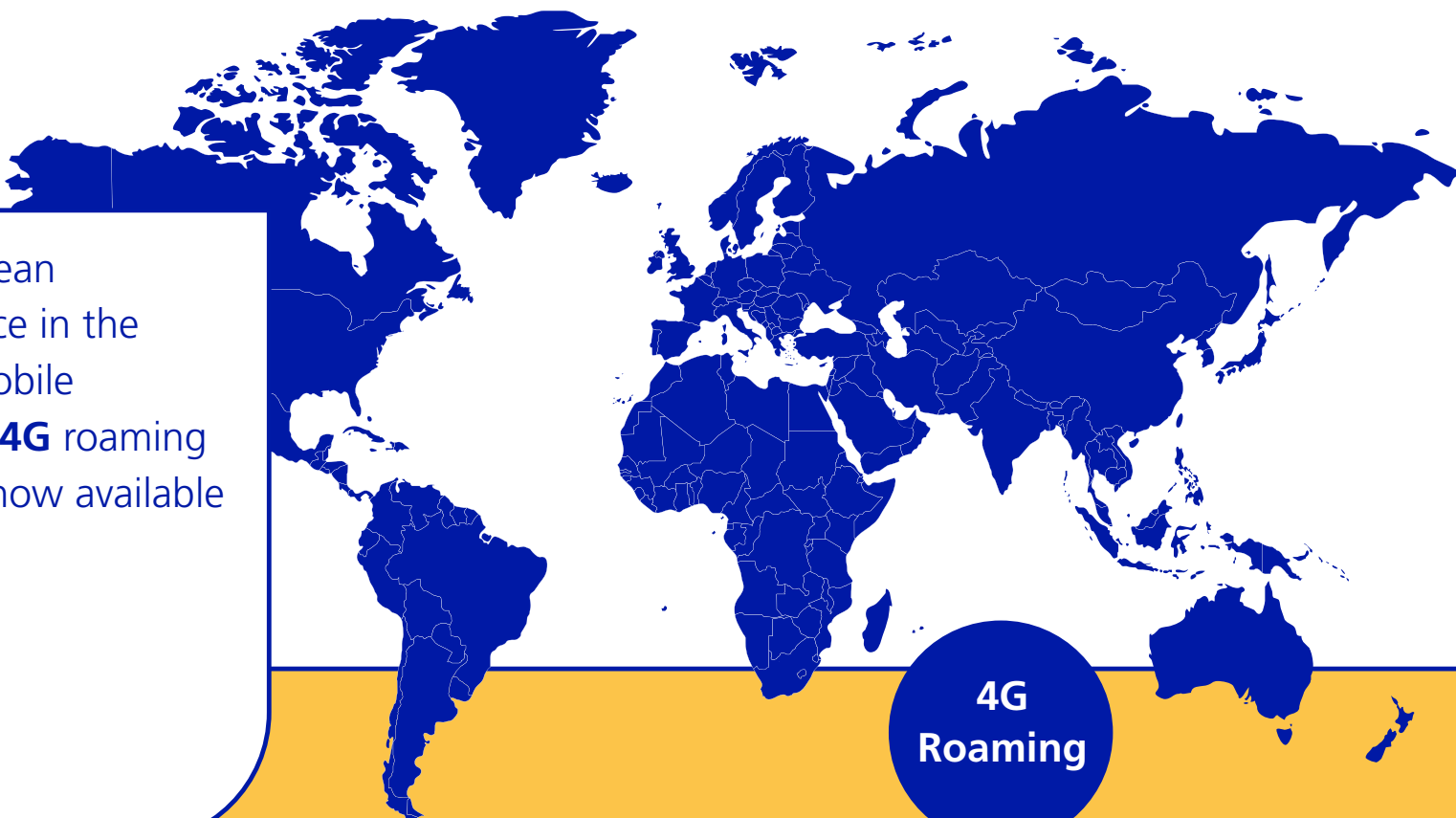
We're the **Best Network for Coverage**

That's why we're committed to improving **4G** connectivity for rural Britain.

O$_2$ has led the charge to develop the Shared Rural Network (SRN)
initiative. The SRN will ensure that:

UK landmass that receives **4G** coverage from all four of the UK's mobile network operators increases from **66%** to **84%**

Each operator has committed to providing **4G** to at least **90%** of the country's landmass

Over **1,800sq miles** of the country will get **4G** for the first time

Partial **'Not Spots'** will be virtually eliminated

Our radio network now covers **99.5%** of the population indoors

We're the **Best Network for Reliability**

O₂

Global Wireless Solutions (GWS) awarded us the **Best Network for Reliability in 2020** as well as **2019.** They tested the network for reliability across the country and worked with YouGov and Vanson Bourne to conduct focus group sessions. These results were used to create a final score. The GWS Reliability OneScore results confirmed that O₂ is the best operator for reliability, coming top in 18 out of the 36 cities tested in 2020.

GWS
Best Network
for Reliability
2019 & 2020

gws Global Wireless Solutions, Inc

Here are some of the reasons why our network is so reliable…

We're the **Best Network for Reliability**

O₂

We measure our Network in a **customer-centric way**

We pride ourselves on putting the customer first. This means that we focus on creating
the network that our customers expect, rather than having the latest technology
for technologies sake. And our customers want a reliable network. To create reliability within
our network we measure ourselves against 5 key criteria:

Coverage

Availability

Retainability

Accessibility

Quality

Does the customer have coverage where and when they need it?
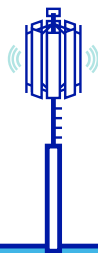
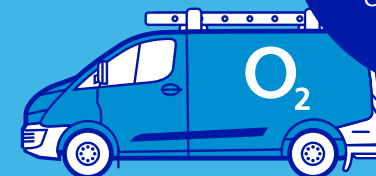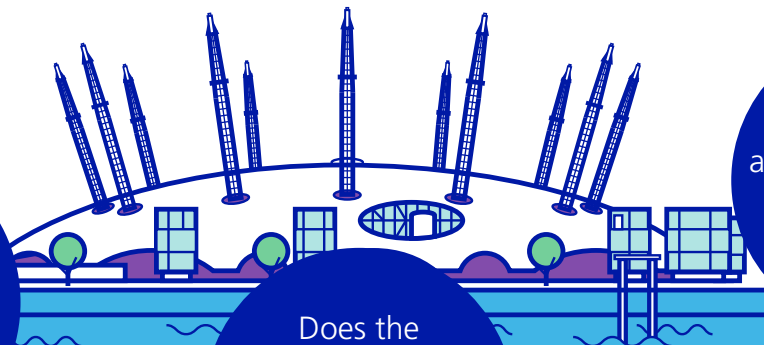Is the network available for customers to use, and are cell sites running as they should be?

Does the network retain the calls or does the customer lose the connection?

Can a customer access the network straight away, without issue?

Did the quality of the call (clarity) or data session (speed) meet our customers expectations?

O₂

We invest in the **right technology**

Service Assurance

As a network, we have an unrelenting focus on service assurance. This involves continuously reviewing our processes and engaging in scenario planning, to deliver a reliable and uninterrupted service to our customers and ensure that when incidents do occur, we minimise the customer impact and recover quickly.

We also hold post incident reviews to ensure we learn from these and improve our response. This approach helped us to reduce major incidents by **27%** in 2019.

Learn + Share

WELCOME

We're the **Best Network for Reliability**

We invest in the **right technology**

Self Organising Network (SON)

- We were the first UK operator to integrate Self Organising Network (SON) into our 2G and 3G ecosystem. The system makes 22,000 autonomous customer-led network decisions daily, including moving customers between our **3G** and **4G** network, dependant on which would offer the best customer experience.

- This enables easier and faster set up of cells to minimise disruption and engineer resources.

- We were the first UK operator to launch SON on our **5G** Network in 2020.

We're the **Best Network for Reliability**

We invest in the **right technology**

In-building solutions

- We're investing heavily in reliable connectivity where our customers need it most, by installing bespoke indoor solutions into transportation hubs such as airports and train stations, to provide extra coverage and capacity.

- In the last 12 months we've installed or upgraded in-building systems across UK travel hubs including Heathrow, Gatwick, Bristol and Newcastle Airports. In addition we now have dedicated **4G** systems at Kings Cross and Victoria train stations and are starting to rollout **5G** in-building systems at venues across the UK.

O₂

The Network Story

We're the **Best Network for Reliability**

But don't just take our word for it… **hover** over the businesses below
to find out why we're the network that's trusted by UK PLC

We're the **Best Network for Performance**

O₂

Mobile News Awards
Best Network Performance
2019 & 2020

mobile news **awards**

Our network won **Best Network Performance** at the **Mobile News Awards 2020** as well as in **2019**. The award is judged using independent data about our network from Global Wireless Solutions and that score is then combined with the judge's score for a written award submission.

# Here are some of the ways we drive excellent network performance…

We're the **Best Network for Performance**

We take a customer-led approach to making sure our network delivers the best possible experience for customers, including:

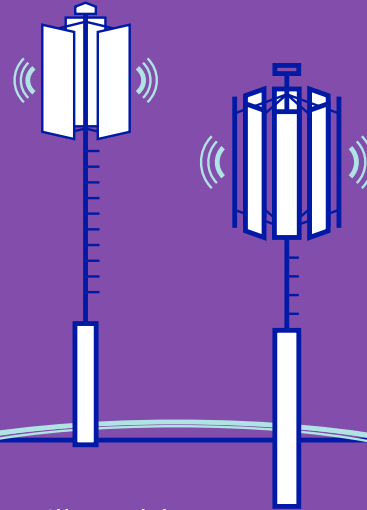# We're investing in **technologies for the future**
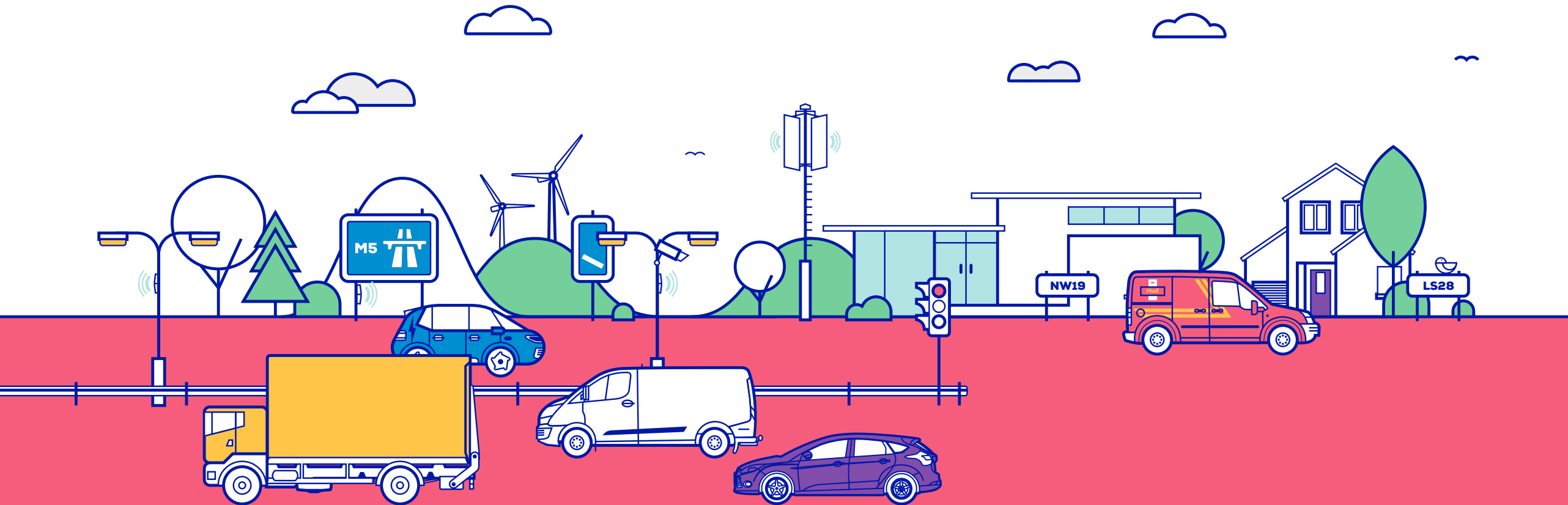
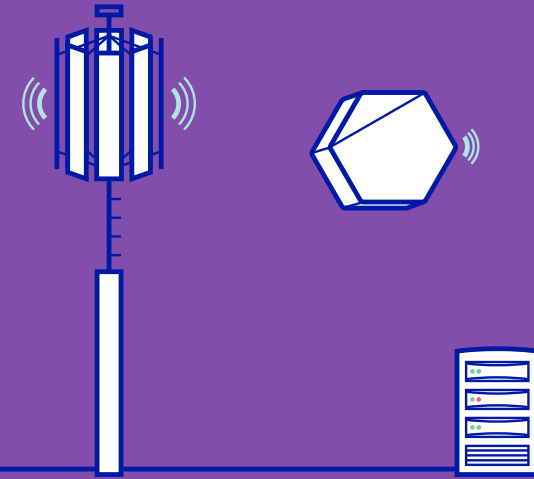We invest over **2 million pounds a day** to grow and improve our network.

Hover over the new technologies below to see what we are investing in and trialling.
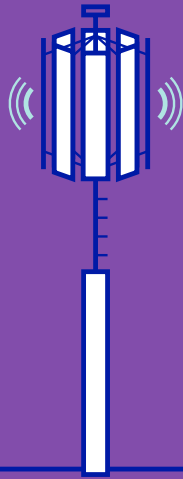
We're investing in **Massive MiMo** as part of our **5G** rollout

DSS will enable us to move our spectrum between **4G** and **5G** technologies

O-RAN is an open software-defined network technology that enables operators to broaden their network infrastructure partners

We're investing in **technologies for the future**

O₂

We're the first operator to roll out an **LTE-M network**.

This low-power wide-area (LPWA) network technology offers enhanced network coverage, longer battery life and massive scalability. It's ideal for providing IoT connectivity in most use cases, even when it's needed in hard-to-reach locations – like rural areas and underground. LTE-M will create new opportunities for Businesses and help them realise the benefits of IoT solutions. IoT will make the world smarter and unlock new ways to live and work more efficiently and sustainably.

Take a look below at some of the use cases that LTE-M can enable.

We're investing in **technologies for the future**

O₂

5G. **What is 5G?**

5G is the **5th generation** of mobile networks, which has been designed to connect people and machines; whilst delivering faster data speeds, ultra-low latency, better network capacity and increased reliability.

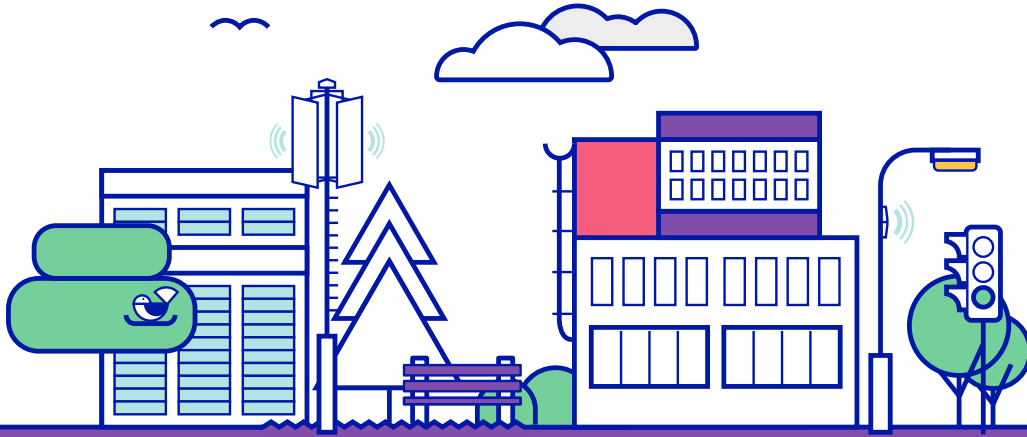**5G will evolve across two phases:**

WELCOME
TO THE
FUTURE
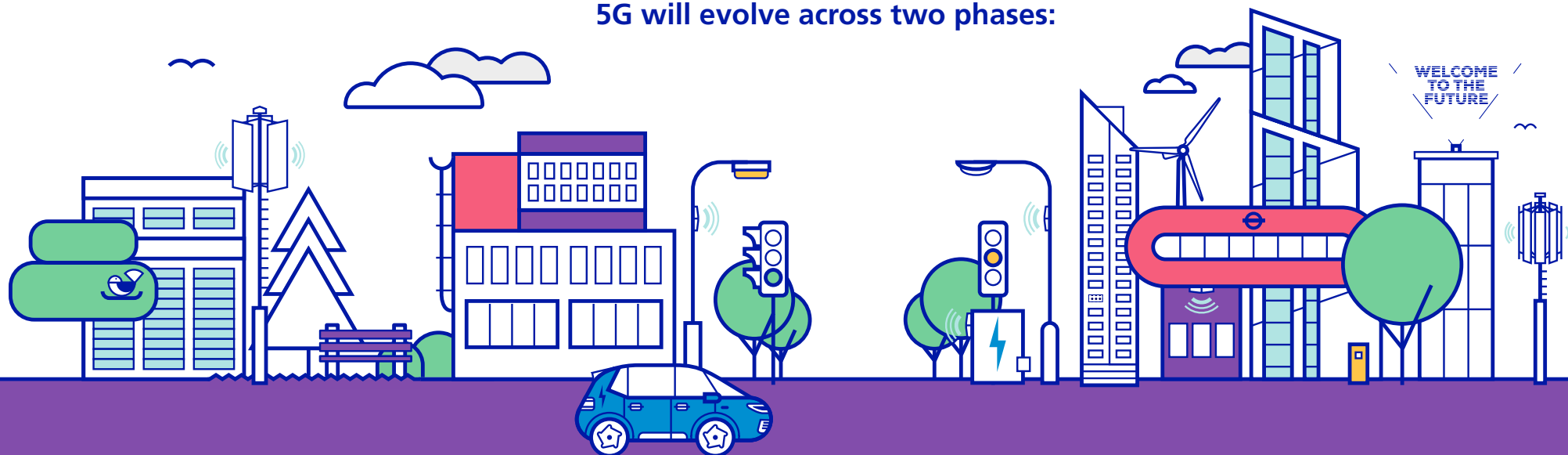
Phase one:
**5G non-standalone (5GNSA)
the 5G network of today**

Phase two:
**5G standalone (5GSA)
the 5G network of tomorrow**

We're investing in **technologies for the future**

Phase one: **5G non-standalone** (5GNSA)
the 5G network of today

O_2

- Reliant on the existing **4G** core network.

- Provides access to the new **5G** spectrum for our **5G** customers.

- Delivers an Enhanced Mobile Broadband experience providing faster speeds for customers.

- Support for high definition video and mixed reality.

We're investing in **technologies for the future**

O₂

Phase two: **5G standalone** (5GSA)
the 5G network of tomorrow

5GSA will have a new core network (NGC) that provides direct access to **5G**, removing the dependence on **4G**.

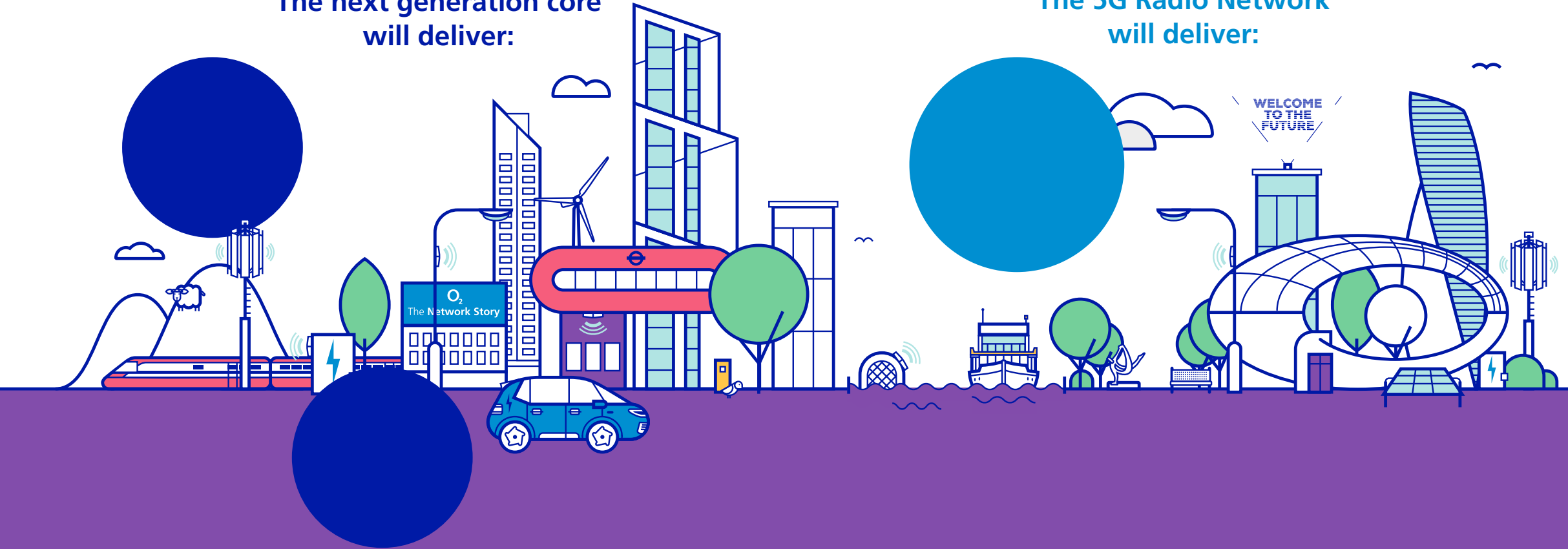The future promise of this **5G** network relies on a number of new technologies.

WELCOME
TO THE
FUTURE

Learn   Understand   Share

Hover over items to see what **5GSA** will bring:

The next generation core will deliver:

The 5G Radio Network will deliver:

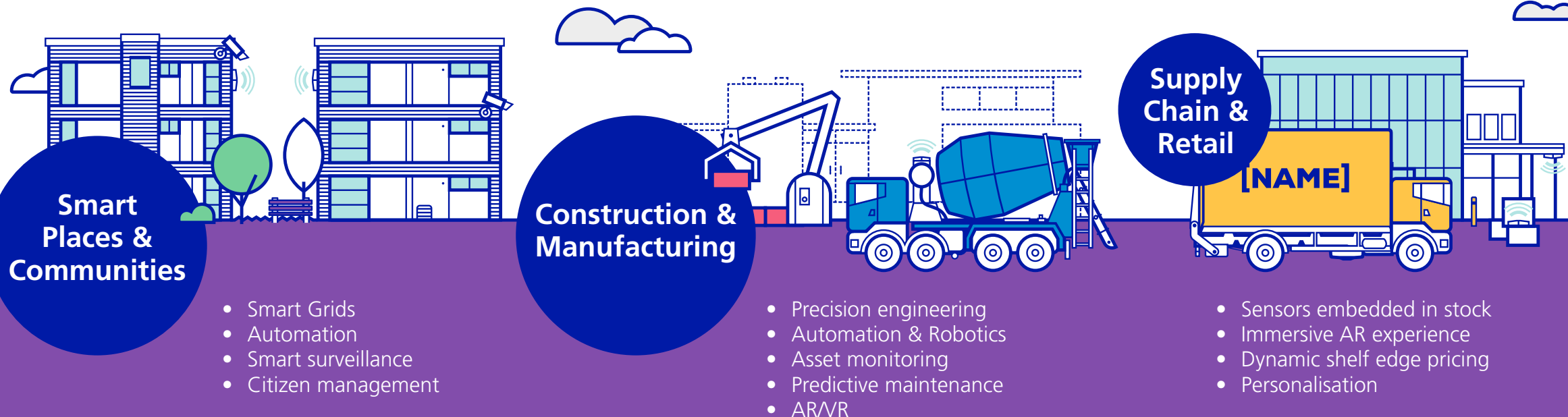WELCOME TO THE FUTURE

O₂
The Network Story

We're investing in **technologies for the future**
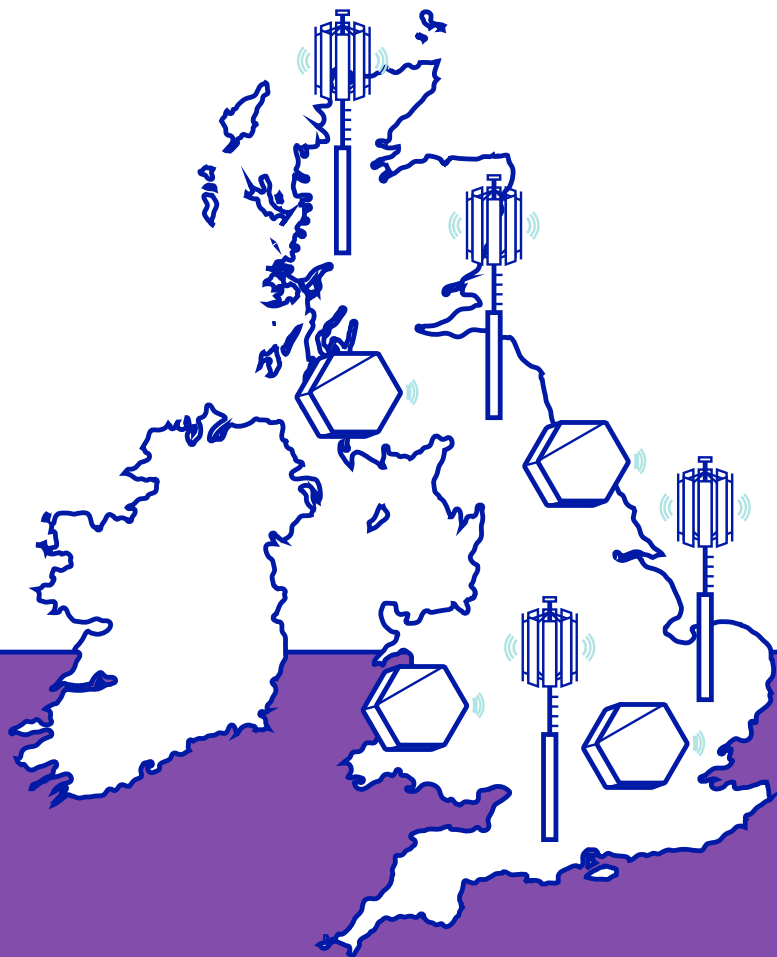
O₂

What will **5G** enable you to do?

5G has the power to change the way our society and economy functions. It could connect buildings, transport and services in ways we've never seen, completely revolutionising everything from the way traffic flows on our roads, to the way we receive health care.

We are working in partnership with organisations, Government and partners, as well as world-leading experts in network technologies, on many different **5G** use cases, including:

Smart Places & Communities

Construction & Manufacturing

Supply Chain & Retail

[NAME]

- Smart Grids
- Automation
- Smart surveillance
- Citizen management

- Precision engineering
- Automation & Robotics
- Asset monitoring
- Predictive maintenance
- AR/VR

- Sensors embedded in stock
- Immersive AR experience
- Dynamic shelf edge pricing
- Personalisation

We're investing in **technologies for the future**

O₂

How are we rolling out **5G**?

Our **5G** network is now live in parts of **60 towns and cities** across the UK. Where possible, we prioritise our **5G** network rollout by the places that need it most and have reached our commitment to be live in over **50 locations** by Summer of 2020.

As our **5G** network rolls out, we will create network densification by adding additional cell sites, including macro sites, in-building solutions and small cell deployments. Building an ultra-dense **5G** network will be particularly important in highly populated urban areas, where more customers means that more capacity will be needed.

Our network response to **Covid'19**

O₂

How we've helped the wider response:

Our Radio teams have assessed every hospital identified to us by the NHS trusts across the UK. This includes every Nightingale location, to ensure our coverage and capacity is sufficient to cover these areas.

We deployed 3 temporary masts and enhanced the capacity of existing in-building solutions for many hospitals around the UK.

We have a list of priority sites around the country, including government facilities, and food logistics sites that we have been monitoring carefully to ensure connectivity is maintained.

We provided extra network capacity for 2000 boostboxes that were already installed at NHS and other Emergency Service locations.

We're committed to **building a greener network**

Learn + Share

We're set to become UK's first **net zero mobile network**
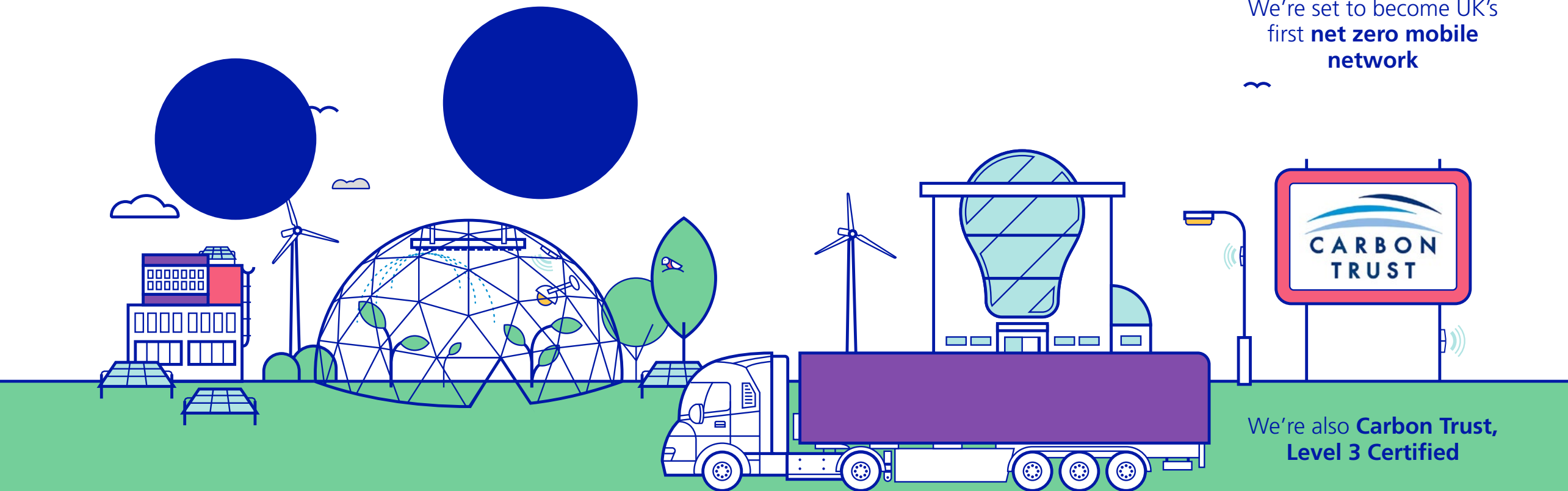
CARBON TRUST

We're also **Carbon Trust, Level 3 Certified**