Connecting today for tomorrow

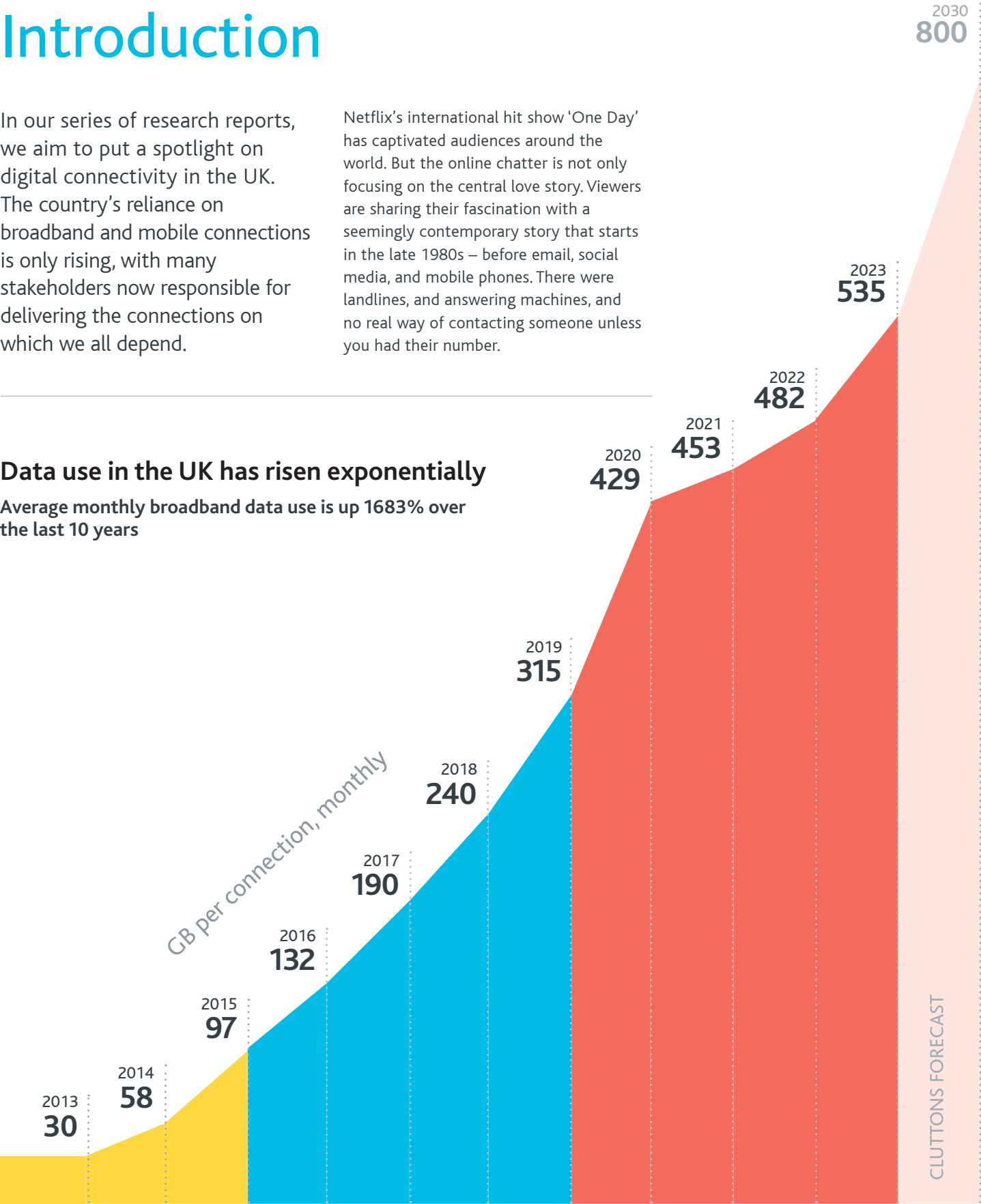## Digital capability, capacity and the infrastructure to support it

Introduction

In our series of research reports, we aim to put a spotlight on digital connectivity in the UK. The country's reliance on broadband and mobile connections is only rising, with many stakeholders now responsible for delivering the connections on which we all depend.

Netflix's international hit show 'One Day' has captivated audiences around the world. But the online chatter is not only focusing on the central love story. Viewers are sharing their fascination with a seemingly contemporary story that starts in the late 1980s – before email, social media, and mobile phones. There were landlines, and answering machines, and no real way of contacting someone unless you had their number.

Data use in the UK has risen exponentially

Average monthly broadband data use is up 1683% over the last 10 years

GB per connection, monthly

2013 **30**

2014 **58**

2015 **97**

2016 **132**

2017 **190**

2018 **240**

2019 **315**

2020 **429**

2021 **453**

2022 **482**

2023 **535**

2030 **800**

CLUTTONS FORECAST

Source: Ofcom analysis of operator data 2023

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Fast forward to today, and it's impossible to imagine life without a phone that lets us contact anyone at any time, read a map, take a photo, order a new jacket or pay money into our bank account. Or life without a laptop that allows us to chat to colleagues, hold meetings and work anywhere.

Connectivity has not only enhanced our lifestyle. There are large-scale economic implications too. Connectivity is now tightly woven into the fabric of business. In its latest report, Ofcom said: "Mobile services extend beyond serving the general public; they play a pivotal role in supporting business connectivity and facilitating device-to-device communication. In today's digital landscape, many businesses rely on broadband services for the actual delivery of their products and services." As we look to the future, digital connectivity will also be crucial in helping businesses achieve their net zero goals – as outlined in more detail in our *last report.*

The appetite for digital data has grown exponentially over the last 15 years, and the technology that delivers it has become increasingly advanced. The UK's consumption of data has risen by more than 1600% over the last decade, as illustrated in the chart on page 2. The average UK data use was 535GB per connection per month in 2023. We predict the appetite for data will continue to rise, and, if the supply side keeps up, this measure of data usage will increase to 800GB by 2030.

However, connectivity does not work without the infrastructure to deliver it. Our challenge in the UK is our ability to develop the infrastructure to support this rapid rate of growth. In this report we aim to highlight the factors holding back the country's connectivity, including infrastructure delivery, and suggest some ways to help address these.

Key findings

To get the best insight into how policymakers are thinking about the issue of connectivity, we have conducted a wide-ranging survey of **100 MPs and more than 500 local councillors.** The findings, which are shared in more detail throughout the report, show that:

- The majority of MPs and councillors believe connectivity is crucial for job creation and boosting the economy

- Only 25% of MPs are confident that the UK will meet targets for gigabit-capable broadband coverage, while 33% are not confident.

- There is confusion among councillors around what a Local Authority Digital Champion does, or should do

- Funding is a stumbling block for creating a local strategic approach to connectivity

- Connectivity is a significant issue for constituents across the country, but policymakers feel the understanding of the benefits of connectivity and support for infrastructure is not strong.

Why is connectivity important?

Accelerating towards the UK's connectivity goals will deliver tangible economic effects.

Small and medium-sized businesses using work mobile phones are losing an hour a week due to bad connectivity according to research conducted by Three UK, YouGov and Development Economics. This translates into £7.7 billion in lost output which could be reversed with better connectivity.

Looking to the future, Vodafone has calculated that speeding up the roll-out of 5G would deliver an additional £7.4 billion in economic value by 2030. The Government has also calculated its own figures, signalling that breaking down barriers to wider adoption of 5G and the associated technologies that use it, could bring additional economic benefits of between £41 billion and £159 billion by 2035.

Better connectivity will bring substantial economic benefits to local regions and to the country. A significant portion of this additional value will come through investment into the UK by businesses keen to operate in an environment where they are guaranteed the highest level of digital connectivity.

However, at present, the UK is falling behind when it comes to the international stage, underlining the importance of keeping the rollout of high speed broadband and 5G on track.

A recent review by ISPreview shows that in 2023 the UK fell from 44th place to 51st place in the global rankings for mobile download speeds and is in 56th place for the speed of fixed-line broadband. While the UK's speeds have improved over the year, the increased coverage and take-up of high-speed broadband and 5G connections in other countries means they have overtaken the UK.

Looking at Europe; Denmark, France, Romania, Spain, Monaco, Switzerland and the Netherlands all make the top 20 in the global rankings. A separate report from Ookla released early 2023 showed that London ranked only 76th for broadband download speeds compared to other global cities, with speeds twice as slow as those in Lyon and Madrid.

It's worth noting that speed is also about capacity — the faster the speeds, the more data a connection can cope with. As ISPreview notes, countries which top the chart (Singapore, Hong Kong, Chile, UAE and China) have higher coverage for gigabit-capable broadband and 5G.

That said, the UK scores well when it comes to cost. A recent report from Broadband Genie says that the UK is the 5th most affordable in the world for mobile data.
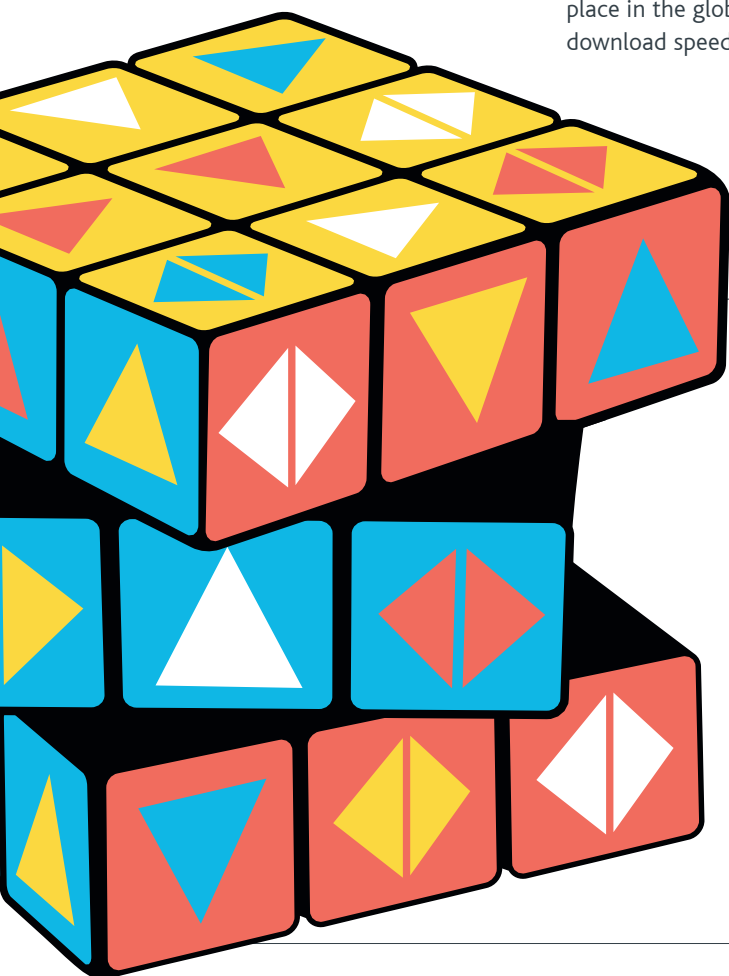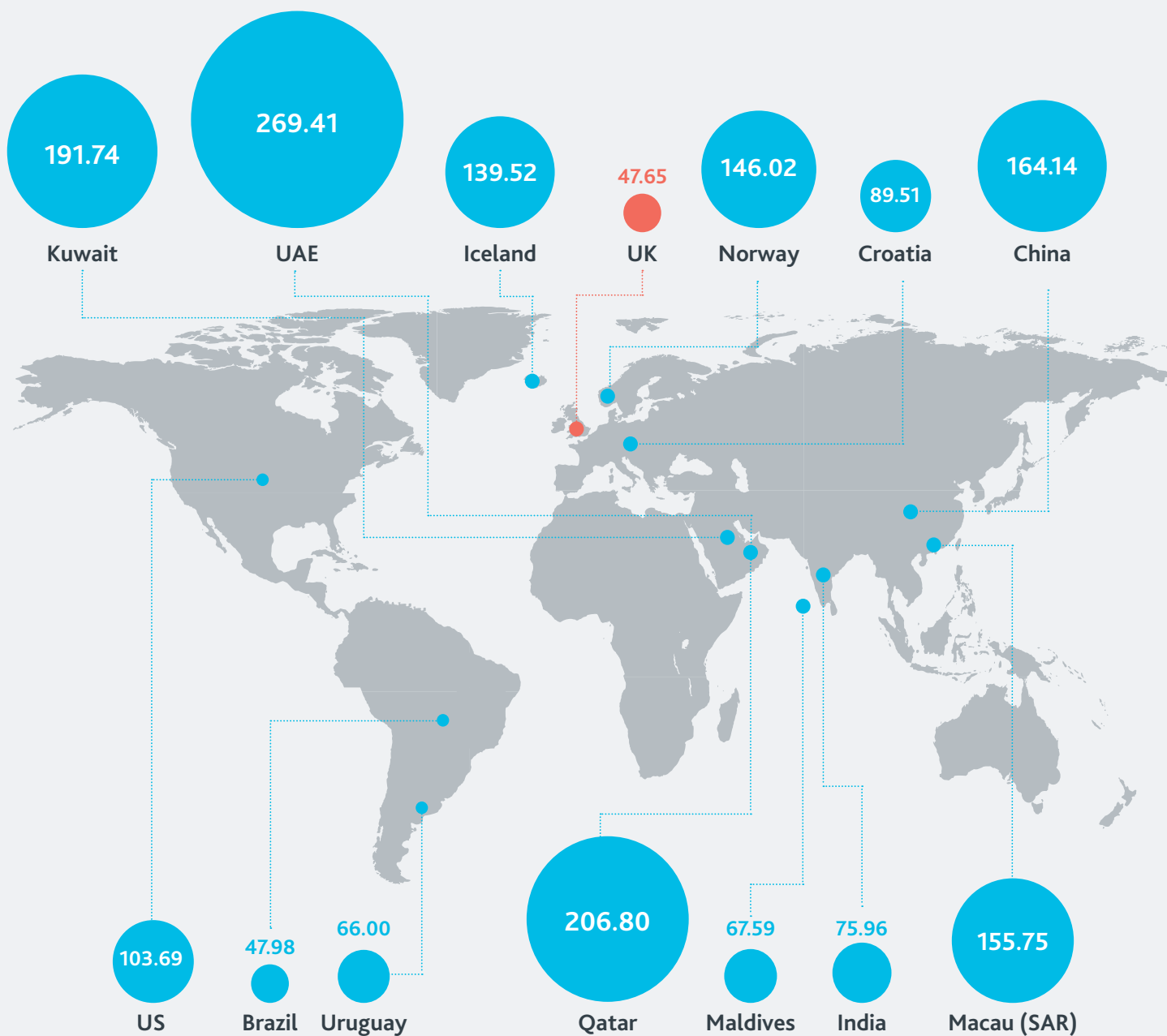
51st

UK's global ranking for mobile (4G & 5G) download speeds, 2023
Source: ISPreview, Ookla

56th

UK's global ranking for download speeds of fixed-line broadband, 2023
Source: ISPreview, Ookla

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UK 51st in global rankings for mobile data speeds

2023 UK mobile speeds (download) Mbps vs The World

191.74
Kuwait

269.41
UAE

139.52
Iceland

47.65
UK

146.02
Norway

89.51
Croatia

164.14
China

103.69
US

47.98
Brazil

66.00
Uruguay

206.80
Qatar

67.59
Maldives

75.96
India

155.75
Macau (SAR)

Source: ISPreview analysis of Ookla data, 2023

Where are we now?

The UK has made progress against its own targets in rolling out gigabit-capable broadband and 5G, but the regulator's own data shows there is much further to go, and as we can see from international comparisons, any slowing in progress will have economic repercussions.

Meeting the UK targets for Gigabit-capable broadband

The latest targets from the Government are 85% of premises will have access to gigabit-capable broadband by next year, and that this will extend to every (99%+) premises by 2030. Gigabit broadband allows download speeds of at least 1 gigabit-per-second Gbps (or 1,000 megabits per second Mbps).

At the end of 2023, around 78% of premises, or 23.2 million homes, had access to gigabit-capable broadband, up from 70% in 2022. While this is a substantial jump in the course of a year, the pace of growth has slowed, and the rise is slightly less than was anticipated.

A third of medium-sized businesses still do not have access to gigabit-capable broadband, while Ofcom does not monitor the connections of large businesses.

Meeting the UK targets for 5G

The Government's target is that all populated areas in the UK, including rural populations, should have standalone 5G coverage by 2030. Standalone coverage means that the 5G networks are built for 5G alone, and not built on 4G equipment.

Coverage for 5G is measured by Ofcom in 'confidence' levels, and the availability of 5G outside premises, or 'outdoor' has risen to a high confidence level of 93%, up from 78% in 2022 and 57% in 2021. Very high confidence levels have risen to 85%, up from 42% in 2021.

However, much of this 5G is still being delivered via 4G sites. There are around 2,000 5G standalone sites so far, a small fraction of the tens of thousands of sites across the UK.

There has been good progress towards the Government's targets for the availability of gigabit-capable broadband, as can be seen on the bottom left chart but the roll-out is slowing as it moves towards harder to reach areas.

The roll-out of 5G has been slower, across the board, especially for stand-alone 5G.

Accelerating the move to 5G will not only bring economic benefits, but as 2G and 3G technology is retired, and landlines are disconnected in the next few years, having a country-wide reliable service with enough capacity will be crucial. Add to this the additional pressure that will be put onto network capacity by emerging technologies such as Artificial Intelligence (AI), the Internet of Things (IoT) and Virtual Reality (VR), and the case for ensuring the UK's connectivity is ahead of the curve is clear.

Proportion of SMEs with access to gigabit-capable broadband
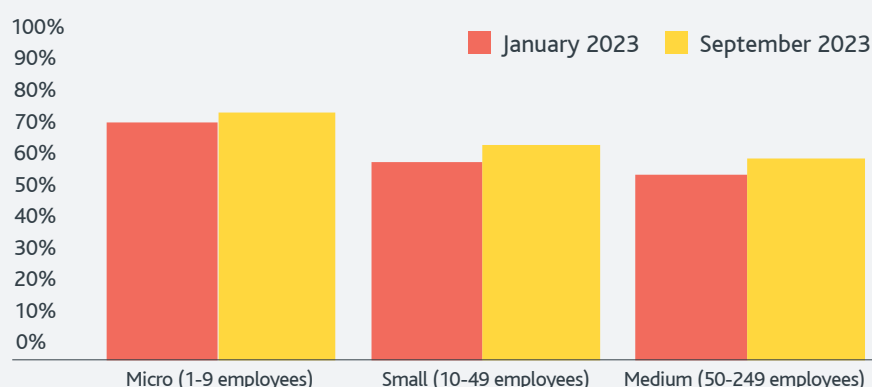
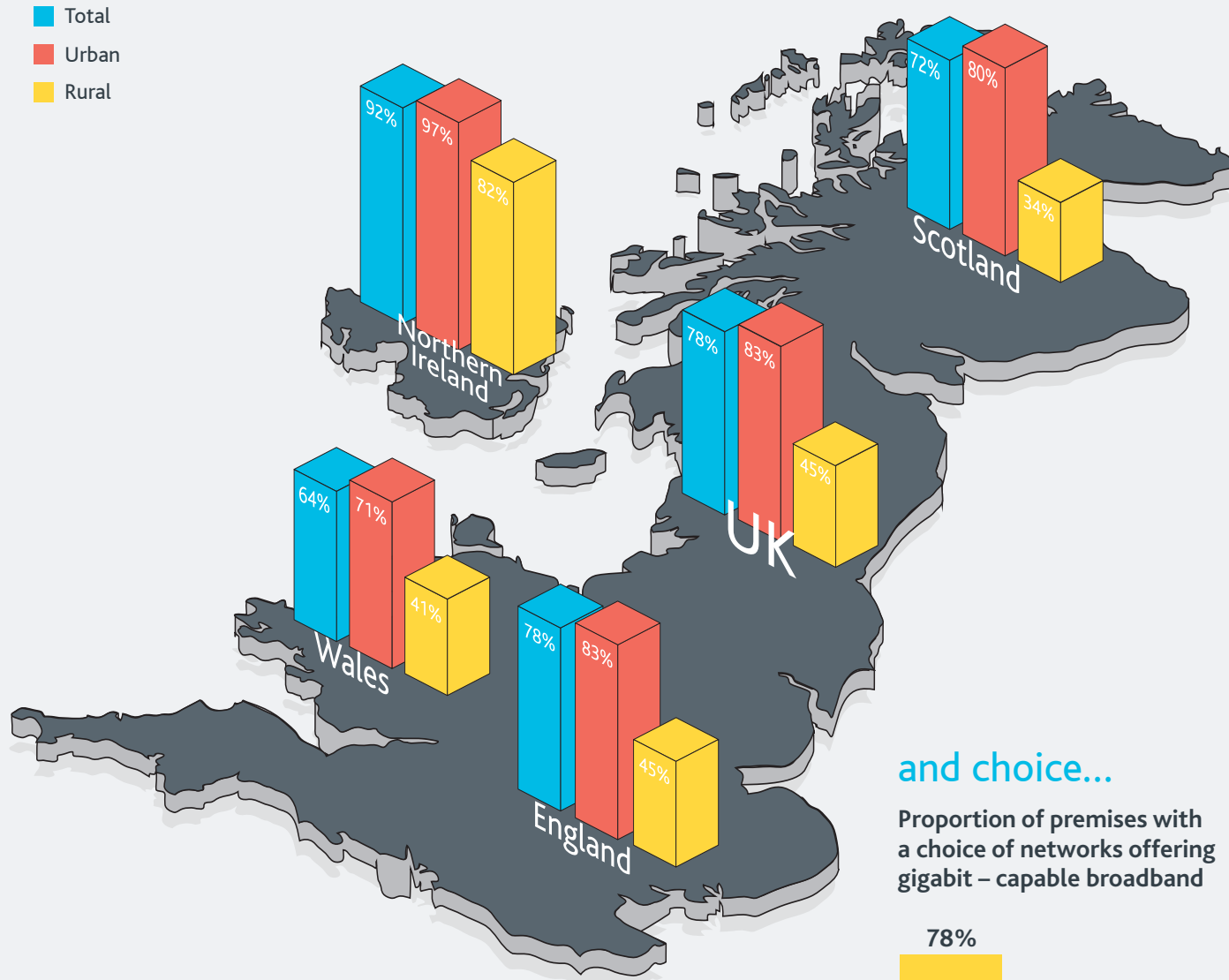Source: Ofcom Connected Nations 2023

5G availability
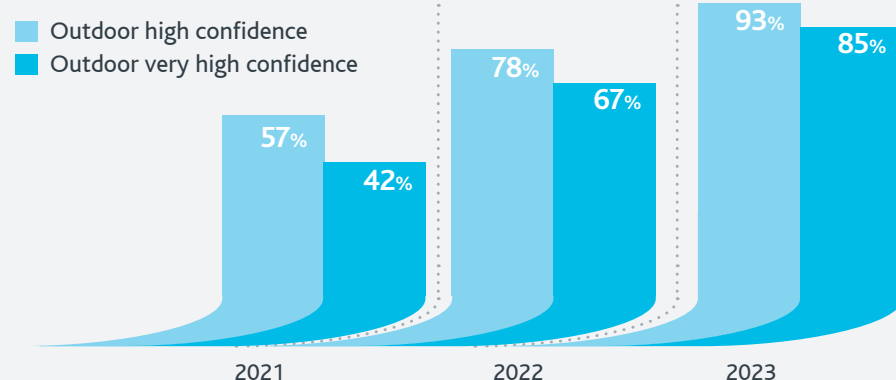
Source: Ofcom Connected Nations 2023

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Coverage increasing… but some way to go

Gigabit-capable broadband coverage
% of residential properties

- Total
- Urban
- Rural

Northern Ireland
92% 97% 82%

Scotland
72% 80% 34%

Wales
64% 71% 41%

UK
78% 83% 45%

England
78% 83% 45%

and choice…

Proportion of premises with a choice of networks offering gigabit – capable broadband

% of premises

78% — 1
35% — 2
7% — 3

Number of networks
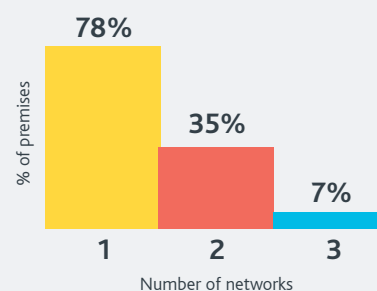
Source: Ofcom Connected Nations 2023 (September 2023 operator data)

The Survey

Planning and delivering large-scale necessary infrastructure across the UK is not a simple business. This has been illustrated many times in the last few years alone. And there should be no confusion around this, *the delivery of digital connectivity is a large-scale infrastructure project.* Some would even argue that connectivity should be viewed as a utility rather than a service, emphasizing its importance. Here, we look at each of the key stakeholders involved in rolling out gigabit-capable fixed-line broadband and 5G across the UK in turn:

Central Government sets national strategy and targets, and has also released funding for projects to help boost the roll-out across the UK. The funding schemes include Project Gigabit where the Government has already allocated £1.2 billion of a total £5 billion to target hard to reach properties.

The opportunities for 5G are being supported by the Department for Science, Innovation and Technology (DSIT) which has recently awarded a share of £40 million to selected regions around the UK who establish themselves as 5G Innovation Regions, to promote the development and adoption of 5G to generate value in business and public services in the local area.

Local Government, typically local authorities, also have a key role to play, as they control many areas where digital infrastructure is deployed. These include the highways department, which typically operate the permit scheme which allows providers to lay fibre optic cables, and the planning team which is responsible for development plans and which feeds into committees which ultimately grant or refuse planning permission. Local Authorities also play a key role in co-ordinating a strategic local approach which ensures their area has the best connectivity possible as part of the levelling up agenda, and ensuring that help is given to those who need support to access connectivity.

Mobile and broadband operators and infrastructure providers enable the physical delivery, and mobile operators have coverage obligations stitched into the licences which allow them to use the spectrum. They also have commercial considerations.

Landlords of residential or commercial properties want to provide best in class connectivity for their residents and tenants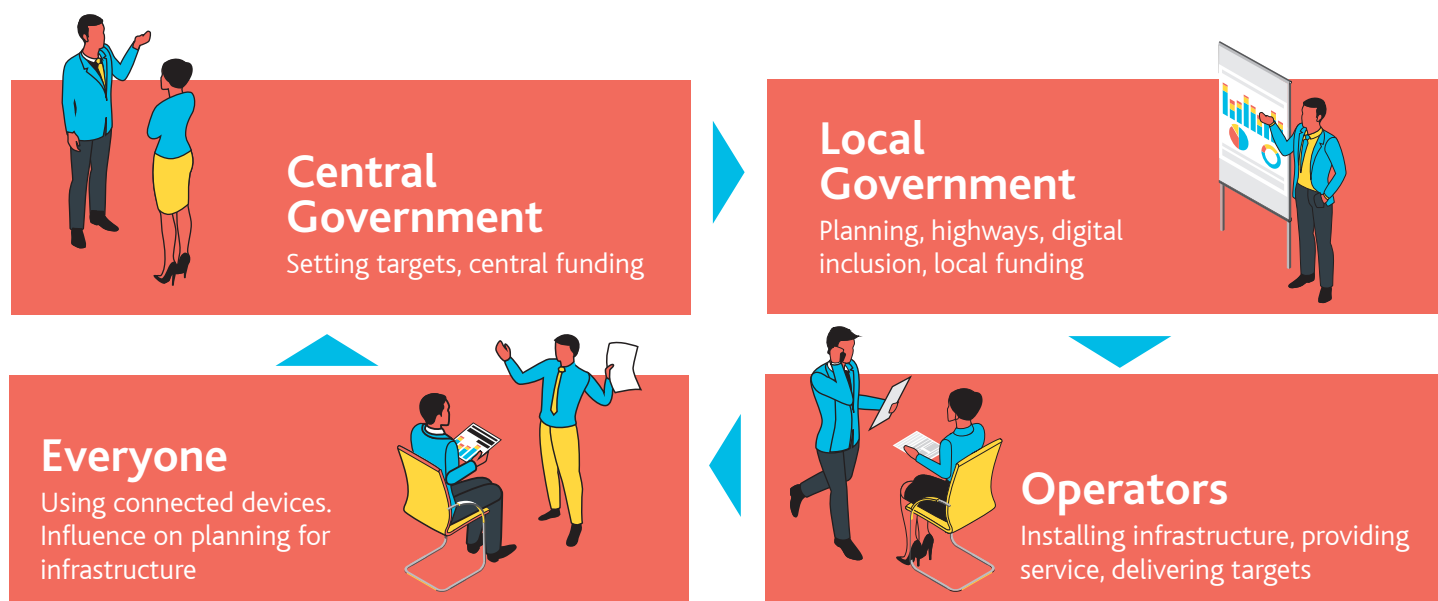, creating attractive places and communities for people to work and live in as well as creating commercial advantage. Landlords will also want to ensure the highest level of connectivity help meet their net-zero targets.

Finally, **everyone** is involved in digital connectivity. Not only do we all rely on it in every aspect of our lives, but we also have a role to play especially when it comes to supporting the roll-out of infrastructure which underpins it.

Only when all these participants are pulling in the same direction will the roll-out of crucial digital connectivity be accelerated.

To get a comprehensive understanding of policymakers' views on digital connectivity; progress towards targets, the challenges, and the outlook for the market, **we surveyed more than 100 MPs and more than 500 councillors from across England, Scotland, Wales and Northern Ireland.**

The survey, which was conducted by YouGov, encompasses MPs and councillors from all major parties. Councillors are a mix from the two tiers of English local authorities, encompassing English non-metropolitan districts, English unitary authorities, metropolitan councils, London boroughs, and English county councils. The results were compiled before the local elections in May 2024. There are also respondents from Welsh unitary authorities, Scottish unitary authorities, and Northern Irish district councils.

Central Government
Setting targets, central funding

Local Government
Planning, highways, digital inclusion, local funding

Operators
Installing infrastructure, providing service, delivering targets

Everyone
Using connected devices. Influence on planning for infrastructure

Understanding the benefits of good connectivity

An encouraging start to the survey showed that the majority of MP respondents felt there were a range of key 'important' benefits of ensuring the whole country has access to gigabit broadband and 5G.

Some 87% of respondents said that creating and accessing jobs was important when considering the roll-out of connectivity – making this the top-ranking benefit. But this was closely followed by quality of living (83%), augmenting medical care (79%), boosting the economy (79%) and increasing

innovation (79%). More than half of MPs also felt that reaching net zero would be a benefit when thinking about ensuring the roll-out of best-in-class connectivity.

The majority of local councillors were also confident that they understood the benefits of gigabit broadband and standalone 5G, with two-thirds of respondents (68%) saying they understood the benefits of gigabit capable broadband, and 57% saying they understood the benefits of 5G.

Our respondents from local councils also felt that their colleagues had a good understanding of the benefits of gigabit broadband and 5G, with a net proportion of 55% saying that decision-makers at the council understood the benefits of this
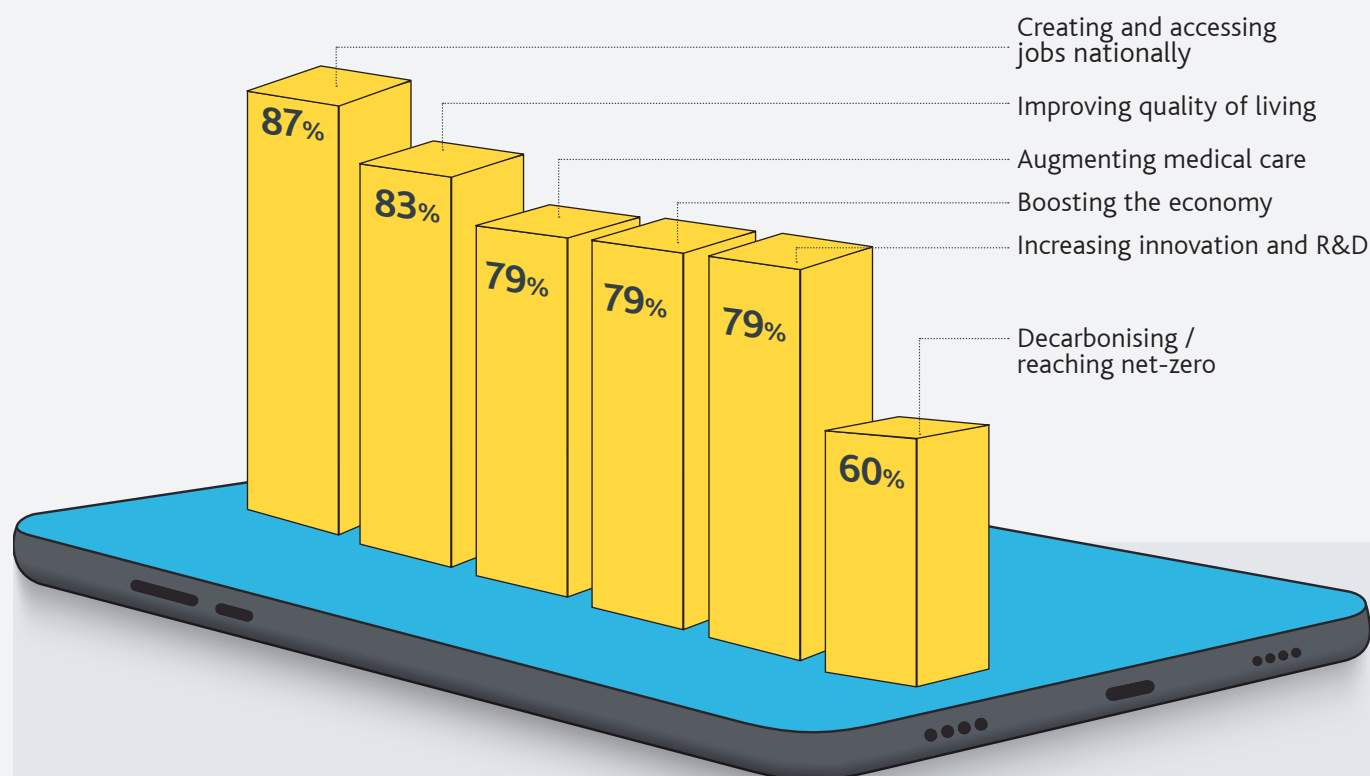
technology. More than half of respondents also said they felt that local businesses understand the benefit of gigabit broadband and 46% said that businesses in their area understood the benefits of 5G.

73%

Proportion of MP respondents who said nationwide roll out of gigabit broadband and 5G is vital to ensure the UK remains competitive

MPs clear on the benefits of good connectivity

Net % of MP respondents identifying these benefits as important

87%
83%
79%
79%
79%
60%

Creating and accessing jobs nationally

Improving quality of living

Augmenting medical care

Boosting the economy

Increasing innovation and R&D

Decarbonising / reaching net-zero

Survey question: How important, if at all, are each of the following benefits when ensuring the whole of the UK has access to gigabit broadband and 5G mobile?

Source: Cluttons, YouGov

MPs believe benefits are less clear to residents and constituents

There was a stark difference among MPs and councillors when it came to how they perceived the understanding of their constituents and residents.

Fewer than one in three (28%) councillors said their residents understood the benefits of gigabit broadband while fewer than one in five (19%) said those living in the local area understood the advantages of 5G.

This perceived lack of understanding could be due to a number of factors. Another factor highlighted in the survey is the challenge around putting the infrastructure in place for these technologies – cables or masts. There may be a lack of information on the benefits of this latest technology compared to slower broadband connections or wireless connections via 4G.

When MPs were asked if they thought their constituents understood the benefits of this connectivity – and then also supported the roll out – the results were striking. Only 12% of respondents said they were confident that their constituents had that understanding and would support the roll out – while 46% said they were not confident that this was the case.

Only one in five (19%) MPs were confident that Local Authorities understood the full benefits of digital connectivity and would support its roll out.

The survey throws a clear light on the disconnect among the key stakeholders when it comes to understanding the benefits of upgraded technology, which will make it more challenging to smooth the path for accelerated progress.

The data also points to there being more challenges when it comes to the roll out of gigabit broadband and 5G – with the infrastructure upgrades that would entail. It is clear that a large segment of MPs do not think their constituents would be supportive of roll out. And while the majority of MP's identified key benefits of improved connectivity (page 9), when asked if they understood the benefits, and *supported the roll out,* this proportion fell to just 40%.

MPs believe constituents understanding of benefits of gigabit broadband and 5G and support for roll out are lower
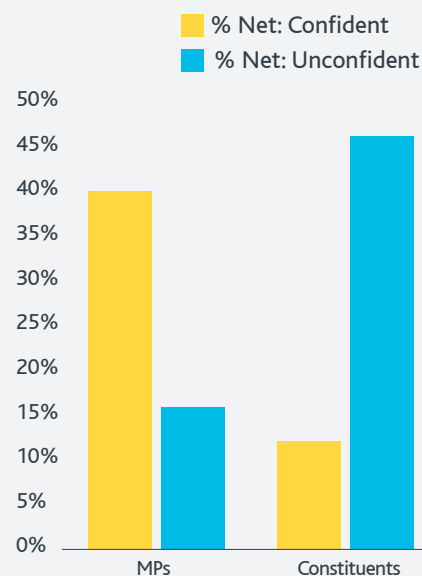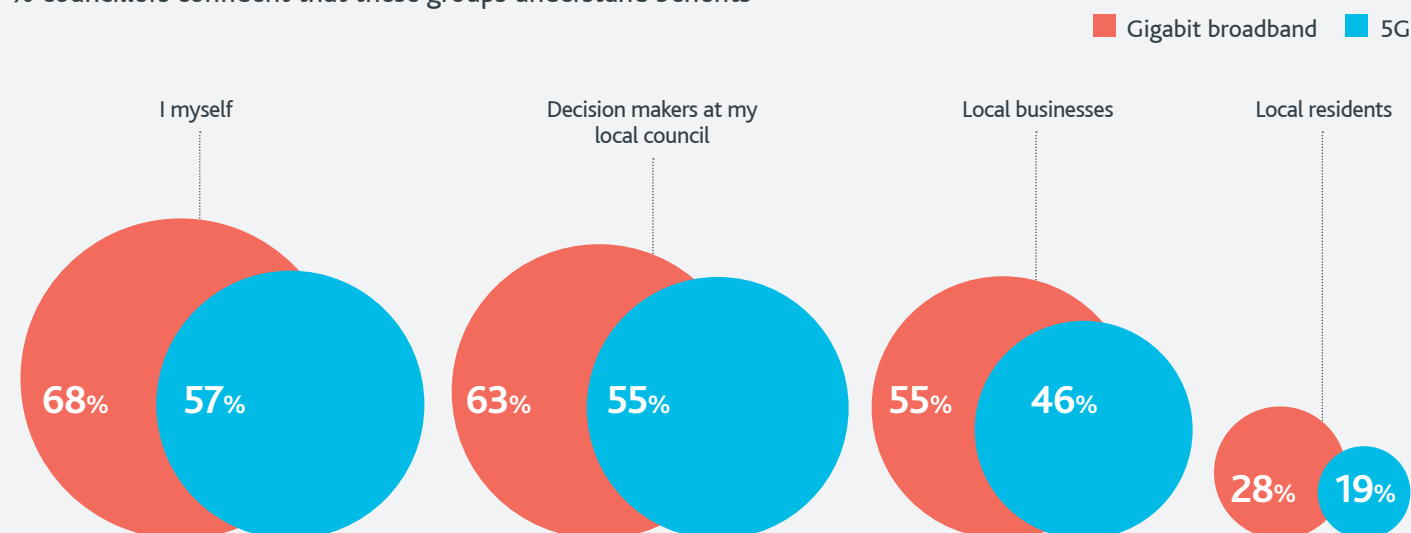

Source: Cluttons, YouGov

Survey question: To what extent, if at all, are you confident that 1. you, 2. your constituents, understand the benefits and support the roll out of gigabit broadband and 5G mobile

Councillor's believe understanding of the benefits of gigabit broadband is lower among local residents than among policymakers and local businesses

% councillors confident that these groups understand benefits

Source: Cluttons, YouGov

Survey question: The Government's target is for gigabit broadband to be available nationwide (99% of premises) by 2030 and 5G across the UK. To what extent are you confident that each of the following understand the benefits of this technology?

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A national campaign

The lack of understanding on the benefits of increased speeds and increased capacity provided by better connectivity will cause problems when it comes to the planning process as we examine later in the report. The misleading information around 5G especially at the start of the pandemic, where there was a link drawn between telephone masts and coronavirus, means that this lack of information is not benign in some instances. There is work to be done in reversing some of the lingering misunderstandings about the technology and its possibilities. Proactive communication will be key, especially as 2G and 3G continue to be switched off, and 'landline' phones (copper lines) are switched off in 2025.

There is already some key work being done in this area. Mobile Operators support Mobile UK which shares information and campaigns on the benefits of better mobile connectivity.

There is room for a larger national campaign to make more information available to many more people across the country, and it will have most impact coming from a party that is not commercially involved in this sector – i.e. local or central Government. MPs agree.

"Some 61% of MPs said a Government-led information campaign on the benefits of enhanced digital connectivity was important when ensuring the roll out of gigabit broadband and meeting 5G targets."

"Misinformation about 5G is a serious issue."

Councillor, Cluttons Connectivity Survey 2023/24

Missing targets?

The Government has set targets for connectivity:

- The majority (99%) of premises should have access to gigabit-capable broadband by 2030
- Nationwide coverage of 'standalone' 5G in populated areas by 2030

But when asked if they thought the UK would meet these targets only one in five MPs said they were confident this could be achieved for 5G, and only one in four said it would happen for gigabit-capable broadband. A third (33%) were not confident that the broadband target could be reached by 2030 and 28% said they were not confident that the 5G threshold would be met.

There is clearly a problem when MPs are not convinced that the UK will meet its own targets for augmenting digital connectivity. As examined earlier in the report, the UK is already lagging globally, and these targets are the minimum we should be aiming for.
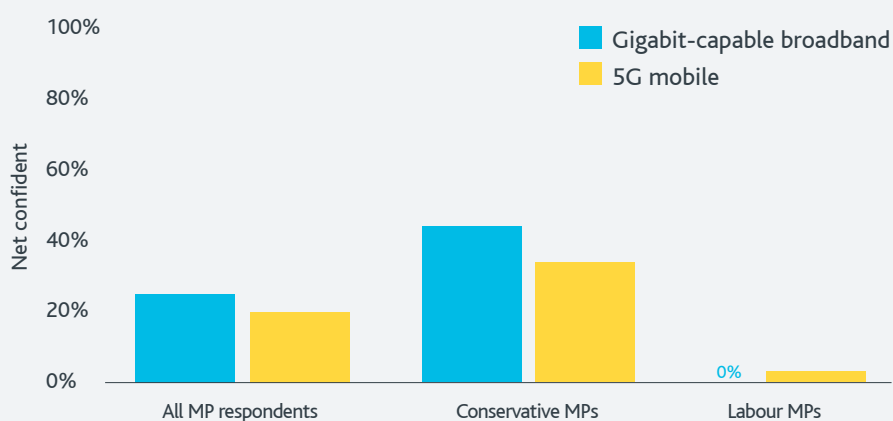
The survey results are affected by a very low percentage of Labour MPs saying the Government will meet its targets (Labour:

Broadband 0%, 5G 3%) but only a third of Conservative MPs are confident that the 5G targets will be met, and less than half (44%) are confident that the gigabit-capable broadband targets will be reached.

The rest of the survey investigates why this may be the case, but referring back to our

findings on general understanding may also be instructive. Not all MPs need to be tech experts, but digital connectivity increasingly underpins everything we do, and there is a recognised need to ensure we remain competitive in this area. Policymakers should aware that there are targets, and be clear how and why they will be met.

How confident are you that the UK will meet targets for connectivity?

Legend: Gigabit-capable broadband (blue), 5G mobile (yellow)

Y-axis: Net confident (0% to 100%)

	Gigabit-capable broadband	5G mobile
All MP respondents	~25%	~20%
Conservative MPs	~44%	~34%
Labour MPs	0%	~3%

Source: Cluttons, YouGov

Survey question: To what extent, if at all, are you confident that the UK will be able to achieve the Government's target that the majority (99% of premises) have access to gigabit broadband and 5G by 2030?

20%

proportion of MPs confident that Government can meet own targets for nationwide standalone 5G coverage in populated areas by 2030

25%

proportion of MPs confident that Government can meet own targets for gigabit-capable broadband available to 99%+ of properties by 2030

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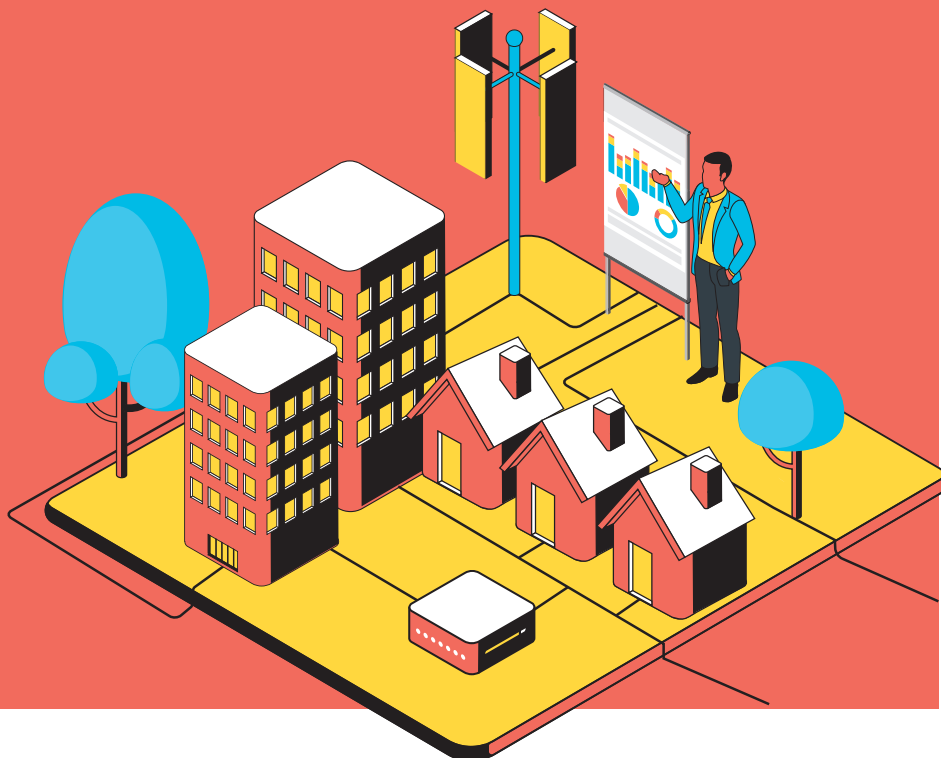
Digital Champions

In August 2020, two Government departments wrote to Local Authorities about the importance of infrastructure for digital connectivity. As can be seen in the box to the right, one of its suggestions was to create a 'Digital Champion' to act as a central point for multiple teams that are involved in all aspects of connectivity and the infrastructure needed to deliver it.

Our *research report in 2021* echoed the call for Digital Champions, as our survey found that Local Authorities with a digital strategy in place were more positive about the outlook for digital connectivity.

The role is important, as it acts as a touchpoint for all the stakeholders listed on page 08. Different mobile or broadband operators may be operating in different areas of a Local Authority, and all will be trying to liaise with highways teams about access and planning teams about planning applications.

This is where Cluttons is often called into help, acting as a project manager or coordinator, using well established contacts to bring all stakeholders together.

Without having a single point of contact, no one at a local Government level has an overview of how connections are rolling out across their geography – where the gaps are, or where there is congestion from too many operators. In this way, the role can be a pro-active strategic one, as well as being a 'touch point' for all interested parties.

Our survey shows that there is confusion about Digital Champions – whether Local Authorities have them, what they do, or should do and what they could achieve.
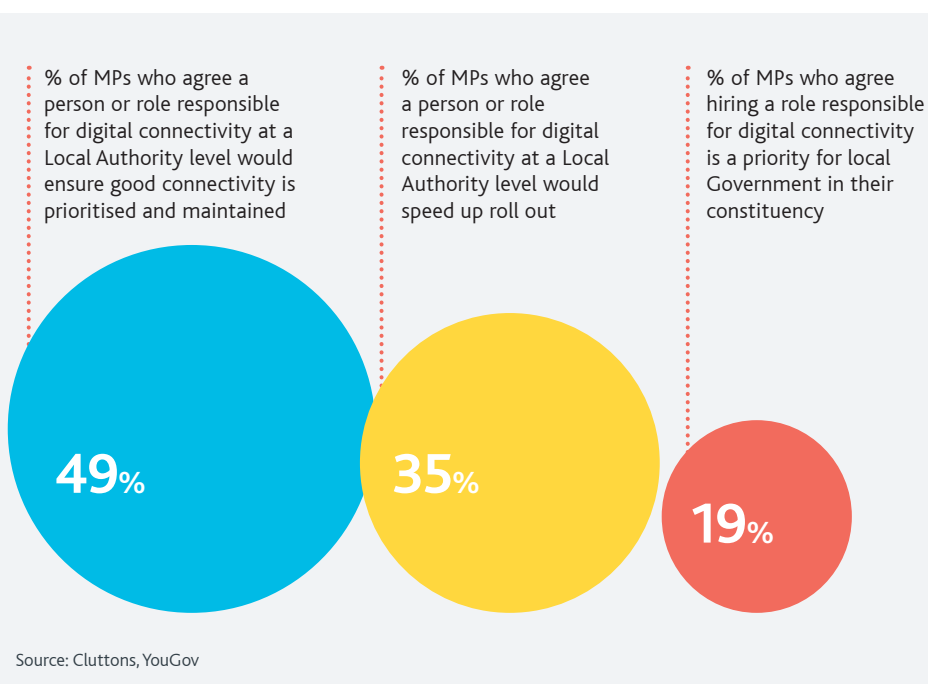
Nearly half (49%) of MPs said that having a person responsible for digital connectivity in local authorities would ensure that good connectivity is prioritised and maintained, while more than a third (35%) said having such a role would help speed up roll out. However, only 19% of MPs said that hiring this role was a priority for local Government in their constituency.

"Next-generation fixed-line and mobile infrastructure brings fast and reliable connectivity, and will drive faster local economic growth and greater social inclusion.

"Local Authorities play a critical role in delivering gigabit broadband. Councils are in an excellent position to support investment and roll out by ensuring that effective policies and procedures are in place to promote engagement with industry.

"As a senior leader within your council, there are a number of ways in which you can promote investment in and roll out of next-generation networks in your local area… Identify a senior executive within your council to act as a 'Digital Champion' within the authority to work across multiple teams to ensure a cohesive digital infrastructure strategy."

Letter from Department for Digital, Culture, Media & Sport and Ministry of Housing, Communities & Local Government to Local Authorities, August 2020

% of MPs who agree a person or role responsible for digital connectivity at a Local Authority level would ensure good connectivity is prioritised and maintained

% of MPs who agree a person or role responsible for digital connectivity at a Local Authority level would speed up roll out

% of MPs who agree hiring a role responsible for digital connectivity is a priority for local Government in their constituency

49%

35%
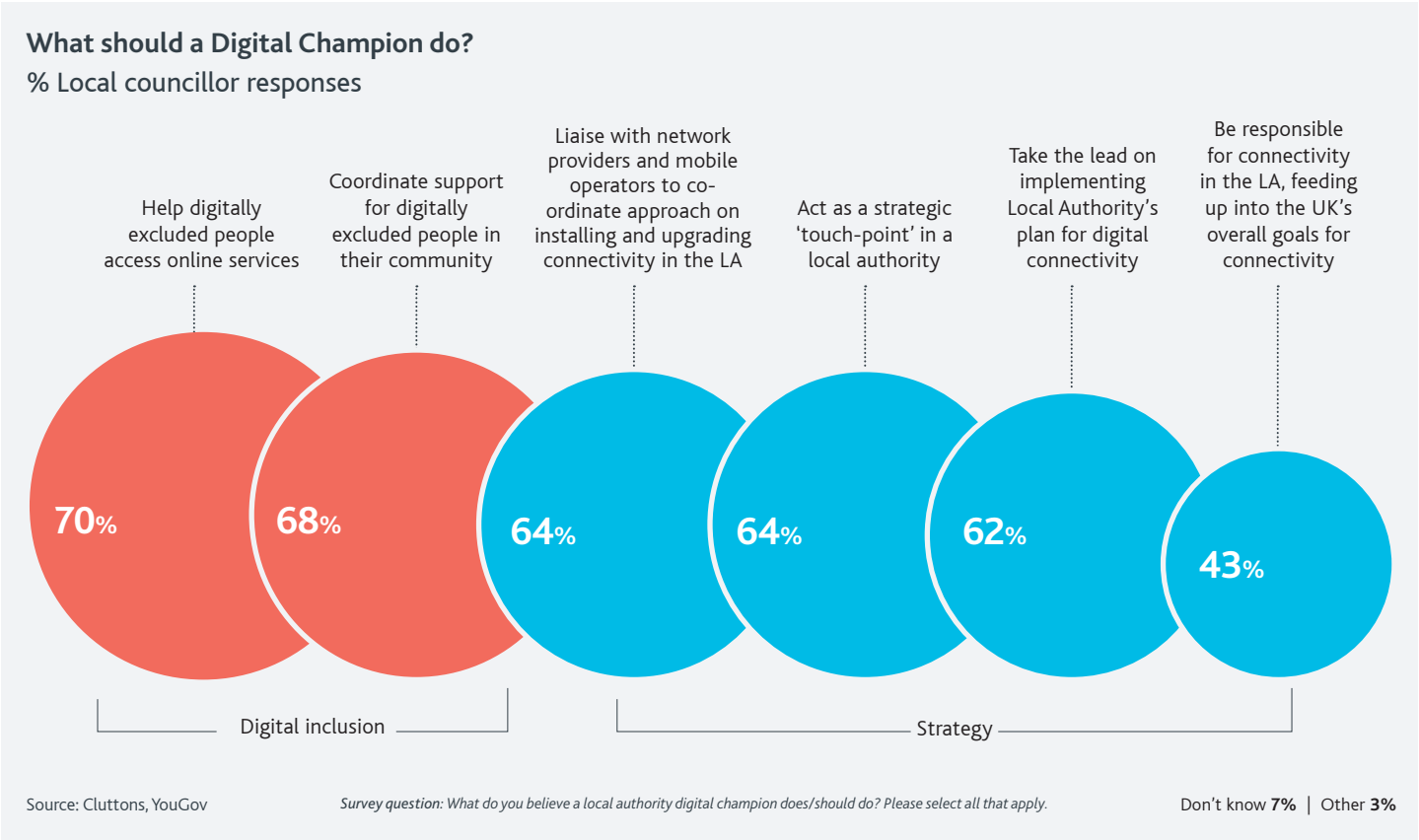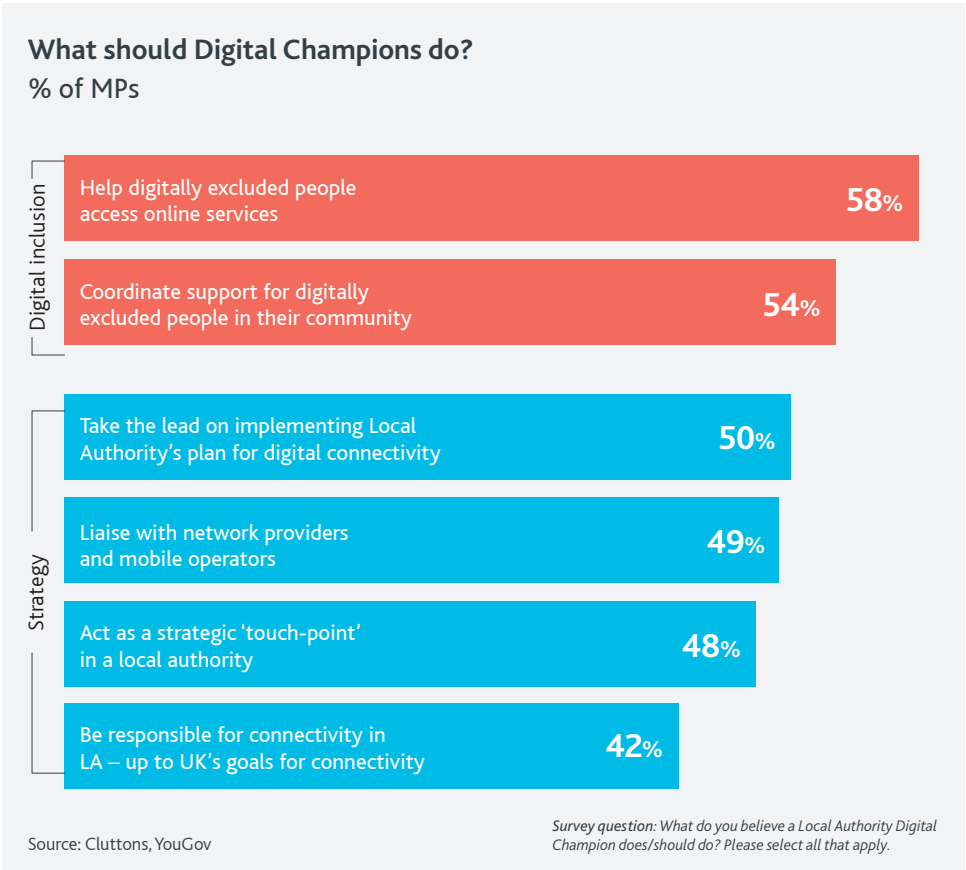
19%

Source: Cluttons, YouGov

When asked what they believed a Digital Champion should do, the most popular responses were around digital inclusion. While the strategic aspects of the role were also deemed important, more than half of respondents did not think acting as a strategic 'touch point' in a Local Authority should be included in the job spec.

Some 58% of MPs said that a Digital Champion should help digitally excluded people access online services, while only 42% said they should be responsible for connectivity in the Local Authority.

Digital inclusion is an important and key responsibility for a Digital Champion, as it enables the take up of the enhanced connectivity on offer, but the strategic role is also crucial in smoothing the path for multiple stakeholders.

The same trend emerges when we asked local councillors what a Digital Champion should do, although an average of two-thirds of respondents still identified the importance of the strategic role such a position should have. Again, the importance of digital inclusion is clear.

What should Digital Champions do?
% of MPs

Digital inclusion

Help digitally excluded people access online services	**58**%
Coordinate support for digitally excluded people in their community	**54**%

Strategy

Take the lead on implementing Local Authority's plan for digital connectivity	**50**%
Liaise with network providers and mobile operators	**49**%
Act as a strategic 'touch-point' in a local authority	**48**%
Be responsible for connectivity in LA – up to UK's goals for connectivity	**42**%

Source: Cluttons, YouGov

Survey question: What do you believe a Local Authority Digital Champion does/should do? Please select all that apply.

What should a Digital Champion do?
% Local councillor responses

Help digitally excluded people access online services — **70**%

Coordinate support for digitally excluded people in their community — **68**%

Liaise with network providers and mobile operators to co-ordinate approach on installing and upgrading connectivity in the LA — **64**%

Act as a strategic 'touch-point' in a local authority — **64**%

Take the lead on implementing Local Authority's plan for digital connectivity — **62**%

Be responsible for connectivity in the LA, feeding up into the UK's overall goals for connectivity — **43**%

Digital inclusion | Strategy

Source: Cluttons, YouGov

Survey question: What do you believe a local authority digital champion does/should do? Please select all that apply.

Don't know **7%** | Other **3%**

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But when it comes to whether a Local Authority has a Digital Champion, the responses are much less clear. Three quarters of respondents (76%) said either their Local Authority did not have a Digital Champion, or that they did not know. Even 10% of respondents who said there was a Digital Champion said they were unclear what the role actually entailed.

When we asked the reasons why the Local Authority might not have a Digital Champion, lack of funding emerged as a theme, with one in five councillors identifying this as a factor. Nearly a third (32%) said that there were other priorities within the Local Authority.

> "Council funding is so problematic that 'good' ideas like Digital Champions etc are shelved due to funding priorities."

Councillor, Cluttons Connectivity Survey 2023/24

> "The budget priority for my local authority is providing the statutory basics. Telecoms are almost certainly important but, without extra funding, they are low priority."
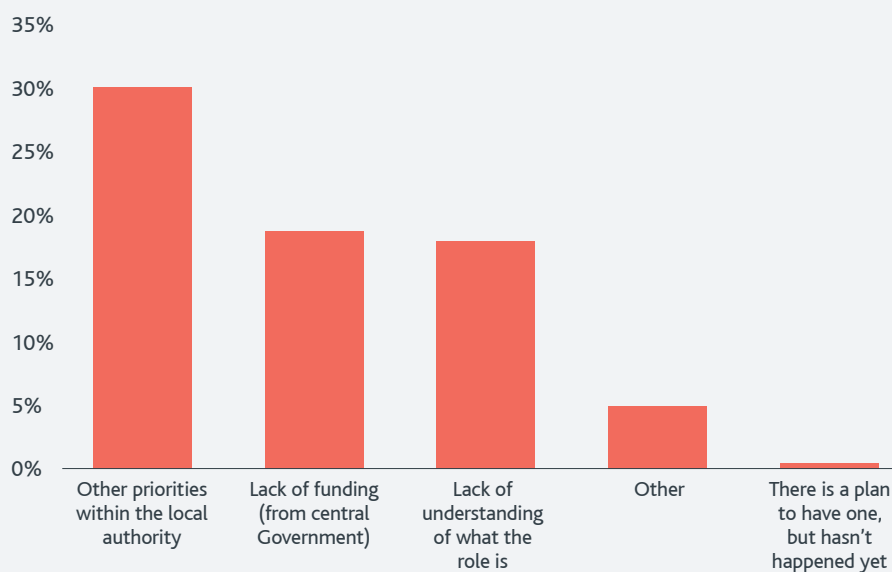
Councillor, Cluttons Connectivity Survey 2023/24

Does your Local Authority have a Digital Champion?
% Local councillor responses

Yes, a leader or coordinator in charge of digital inclusion in the community

2% Other

5%

8% Yes, a strategic role

9% Yes, but I am not sure what their role is

41% Don't know

36% No
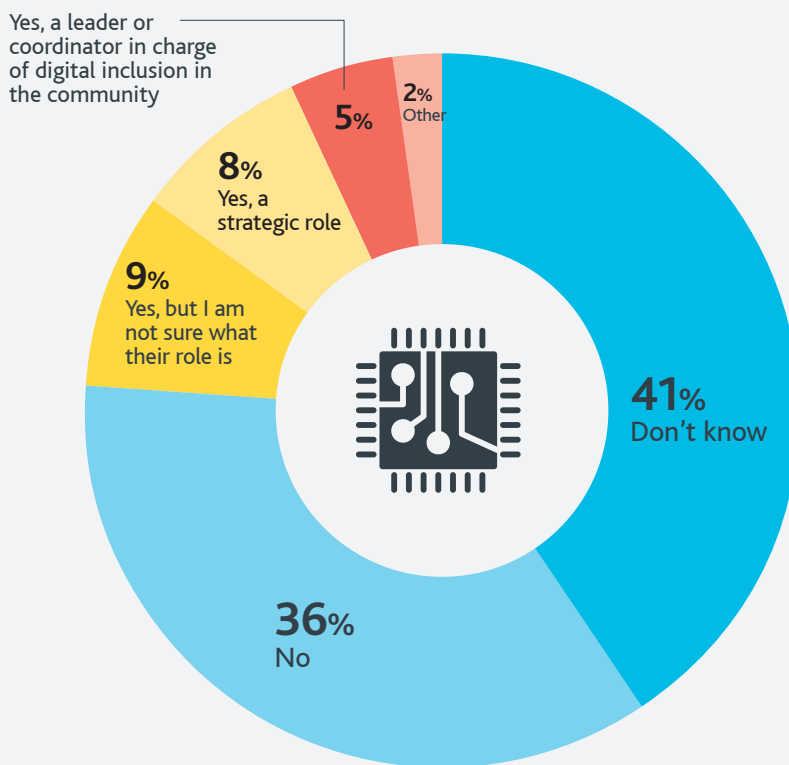
Source: Cluttons, YouGov

Why doesn't your Local Authority have a Digital Champion?
% Local councillors said

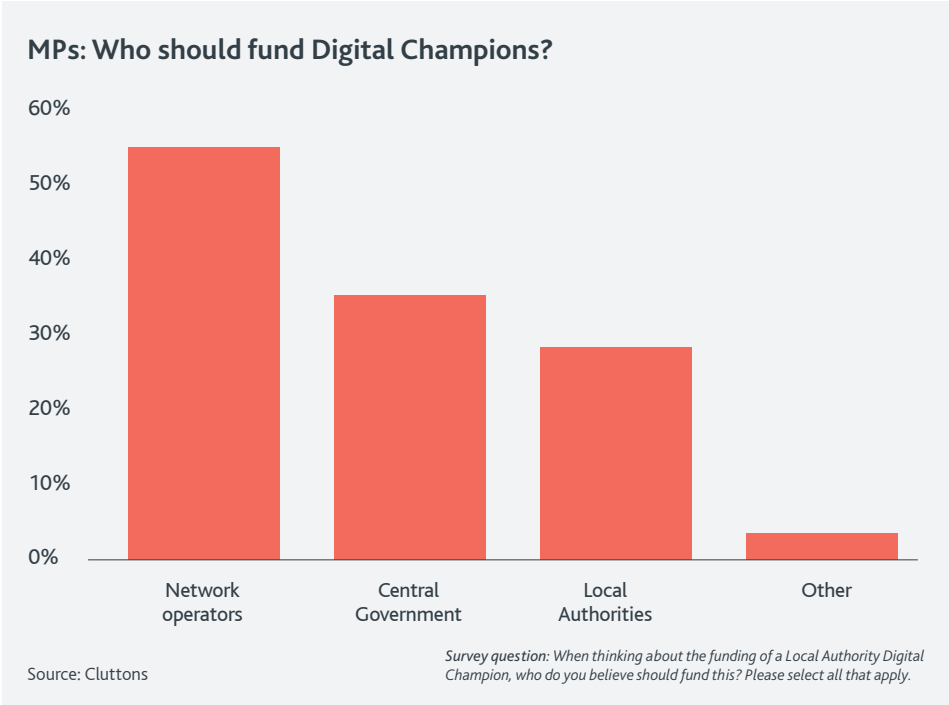| Category	%
Other priorities within the local authority	30%
Lack of funding (from central Government)	19%
Lack of understanding of what the role is	18%
Other	5%
There is a plan to have one, but hasn't happened yet	<1%

Source: Cluttons, YouGov

Survey question: If you do not have a digital champion/connectivity champion/ digital infrastructure lead who sits in a strategic role in your local authority, please list the reasons why you think this is the case (select all that apply).

50%

of council leaders said their council is at risk of bankruptcy in the next five years due to a dramatic rise in the need and cost for children's and adult social care and housing

Local Government Information Unit Survey 2024

In February 2024, a new report warned that nearly one in ten councils would effectively go bankrupt during the year. The Local Government Information Unit surveyed councillors and found that half of council leaders said their council could go bust in the next five years amid a dramatic rise in the need and cost for children's and adult social care and housing. Eight English councils have already declared bankruptcy, illustrating how funding is now the central question at a local Government level. However, some investment in digital connectivity could result in a fillip to the local economy, ultimately increasing revenues. Digital connectivity is already playing a role in adult social care with digital devices helping people live independently

MPs: Who should fund Digital Champions?

Source: Cluttons

Survey question: When thinking about the funding of a Local Authority Digital Champion, who do you believe should fund this? Please select all that apply.

for longer, and there is more opportunity for growth here.

When asked who should fund Digital Champions, MPs gave a range of answers, but the majority (55%) of respondents said this should be funded by network operators. This raises a range of questions, but it's also worth noting that more MPs think the onus for

funding lies with central Government than with Local Authorities, underlining that they understand the current funding pressures at a Local Authority level.

However, the suggestion that network operators fund Digital Champions throws up some issues. The main problem is conflict of interest. Can commercially interested

CLUTTONS
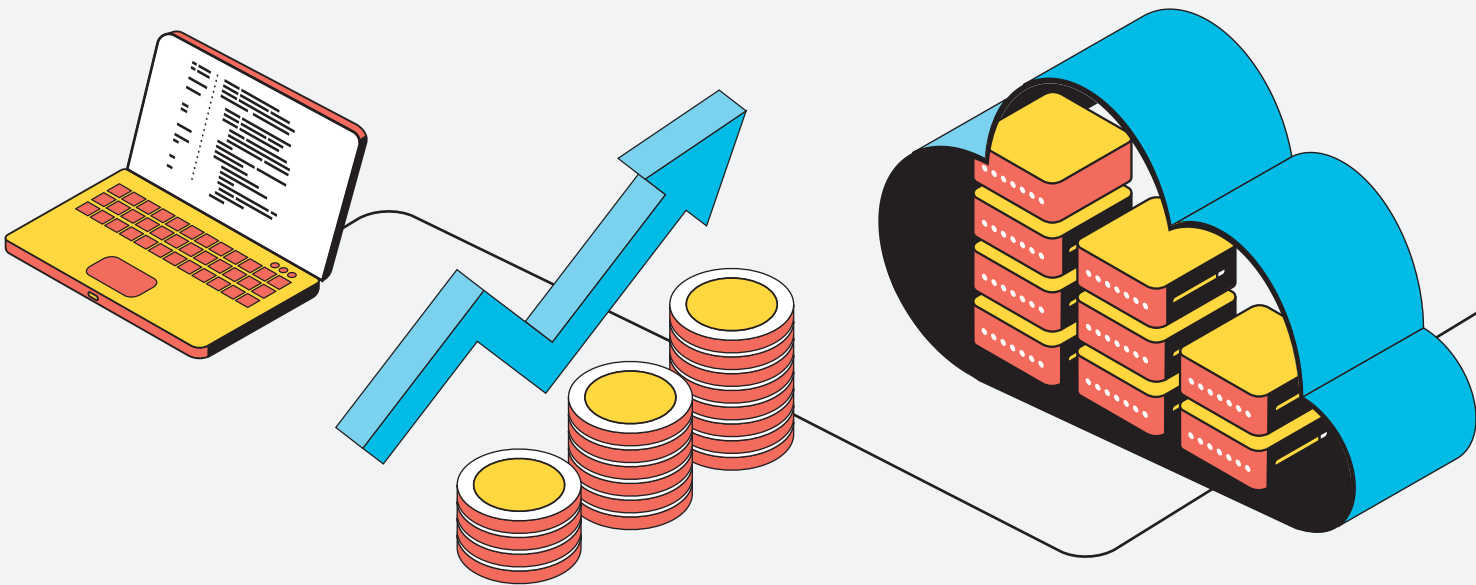
parties really fund a role which would have an active role in working with those parties as well as others?

This is an issue which has also been seen in the housebuilding sector. Developers are struggling with a very long planning process due to pressurised planning departments, and have offered to help fund recruitment into Local Authority planning teams, but the conflict of interest point remains.

A ringfenced pot of funding with no link between companies donating and areas where they are active could be one solution, but as tax-paying commercial companies with shareholders there could be difficulties in clearing additional payments to fund a role which has been designed to overcome the short-comings of the current system.

Around a third of MPs say that central Government should play a role in funding Digital Champions. This was echoed by Mobile UK, which represents the UK's four main mobile companies, who called for full Government funding of Digital Champions in 2022.

Finding cash in the Treasury is a febrile issue especially in an election year. But one way to approach this could be to ringfence some of the income from the upcoming auction for licenses to use both 26 GHz and 40 GHz

which will happen at the end of 2024 or early 2025. The minimum reserve prices for the total auction are £40 million, but the sum raised could be much higher.

Alternatively, the Government could look at ringfencing the income from annual licenses for using spectrum, which currently raise £318 million a year.

The total funding bill could be streamlined by using one Digital Champion to coordinate resources across more than one Local Authority, especially for more rural councils or those with smaller tax bases. Ultimately, diverting funds for Digital Champions could improve connectivity on a national basis, and boost the economies of these local areas, which would, in turn, lead to more economic benefit in the long-run.

55%

When asked who should fund Digital Champions, MPs gave a range of answers, but the majority (55%) of respondents said this should be funded by network operators

CLUTTONS SAYS

The scope for Digital Champions to act as a touchpoint for stakeholders at a Local Authority level, and to smooth the path for the roll-out of the infrastructure that supports high-calibre digital connectivity, as well as to ensure that the most people possible can access the connections, is largely recognised by policymakers. But the stumbling blocks to installing a Digital Champion is clear, with funding being a primary issue – one which is not easily solved.

If central Government supported this role, there would be immediate benefits for local communities, and ultimately the UK as a whole, as Digital Champions could help break down local bottlenecks, and use their oversight to proactively manage getting the best connectivity for their area.

One way to approach this is outlined in our case study of Digital Essex, which shows the 'Digital Champion' can be a brand powered by a team, rather than an individual.

"Our survey showed that more than two-thirds (68%) of MPs said that central Government should support Local Authorities to promote and improve digital connectivity. But while 53% of Conservative MPs felt this was the case, a large majority (89%) of Labour MPs said that central government should provide support, a distinction that could be important as we move closer to a General Election in the UK."
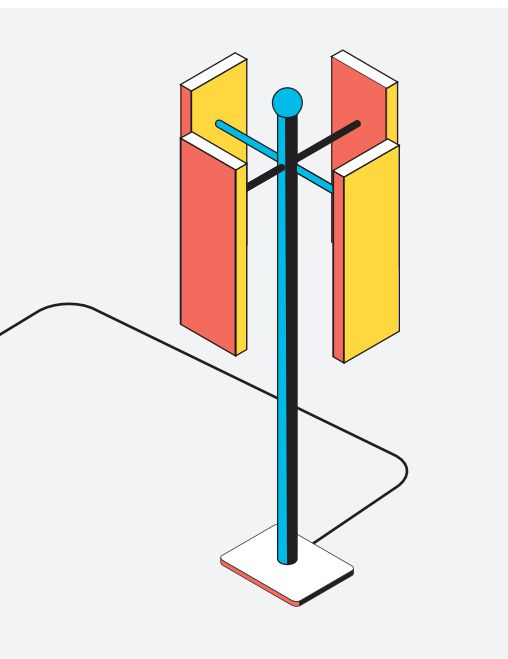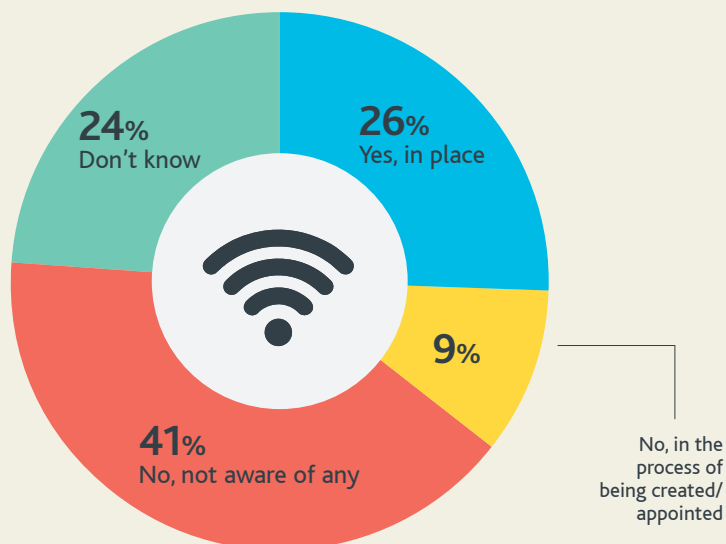
Strategy

Even if a Local Authority doesn't have a Digital Champion, a clear, accessible digital strategy focusing on infrastructure could help aid understanding. However, only a quarter (26%) of local councillors said their Local Authority had such a strategy, with more than half (50%) saying they did not yet have one, and the remaining 24% saying they didn't know.

For those who said there was a digital strategy in place, some 40% were confident that the local community could find and access it, while nearly a quarter (23%) were not confident that this was the case – signalling that even for those Local Authorities where there is a strategy, local residents interested enough to look for it may not be able to find it in some cases. As we discussed earlier in the report, changing perceptions may well be a case of pushing out information as well as making it easier to find and navigate.

Does your Local Authority have explicit strategy for development of digital and mobile connectivity infrastructure, including industry engagement?

24% Don't know

26% Yes, in place

9%

41% No, not aware of any

No, in the process of being created/ appointed

Source: Cluttons

Survey question: Does your Local Authority have an explicit strategy for development of digital and mobile connectivity infrastructure, including industry engagement?

LOCAL AUTHORITIES LEADING THE WAY

Digital Essex

Doug Parrant, Head of Digital Connectivity at Digital Essex

Digital Essex, Essex County Council's connectivity and digital inclusion programme, has evolved since its start in 2012.

This team operates within and for the council, but has established its own brand and online and social media presence, allowing it to very effectively act as a

'doorway' to different parts of the council that touch connectivity: Highways, Planning, Funding, Inclusion and Innovation.

In this way, it positions Essex as a joined-up and easy council to operate with for other public sector and private stakeholders.

Doug Parrant, Head of Digital Connectivity at Digital Essex, explains: "There was a conscious decision to make us accessible. In 2012, we started out sitting in the council's Tech Services team. We have since moved to the Sustainable Growth directorate within the Policy, Economy, Public Health, People and Organisation Development function – and we are very much outward rather than inward looking.

"Having a brand that sits alongside the council means we can operate clearly with all our stakeholders. Sometimes we are simply connecting people – stakeholders and those within the council. People know where to find us and we can do the rest. But the focus on the economic benefits also forces us to think wider than cables in the ground. More than a sixth of our Essex workforce commutes to London, and if we want people to travel the opposite

direction – to come to Essex to work, we need to have great connectivity," Mr Parrant says.

As well as funding and infrastructure, the Digital Essex team also focuses on sharing the benefits of good connectivity.

"We realised we had to focus not only on delivery, but on the benefits of better connectivity to encourage take-up, using marketing to share this message, which augments the benefits as well as smoothing the path to delivery."

"It isn't good enough to just have connectivity. People have to use it, otherwise there is limited benefit," Mr Parrant adds. Digital inclusion is a large strand of this work, given that around a fifth of the population is offline and millions of people are also struggling to afford communications services.

In terms of what operators can do around planning, Mr Parrant says there is room for more dialogue between councillors and operators to get to a shared understanding of where the problems are, but ultimately where the benefits lie for local residents.

CLUTTONS

Improving relationships

One reason for Digital Champions would be to create working relationships with all the stakeholders involved in installing and upgrading a community's digital connections. This could help the next hurdle – as councillors say that their Local Authorities' relationships with digital infrastructure providers (whether that is fibre or mobile operators or network operators) leave something to be desired. Only a quarter (26%) said that relationships were effective – meaning interactions are quick and collaborative with few issues encountered. A similar proportion said that the relationships were not effective.

Difficulties in these relationships will mean that rolling out infrastructure is not as smooth, or as fast, as it could be. To identify how to approach these difficulties, we enquired further as to what the stumbling blocks are. More than half

How effective is Local Authority's relationship with digital infrastructure providers?

% Local councillors

Legend: ■ Effective ■ Uneffective

	Effective	Uneffective
Mobile	26%	24%
Fixed-line	26%	25%
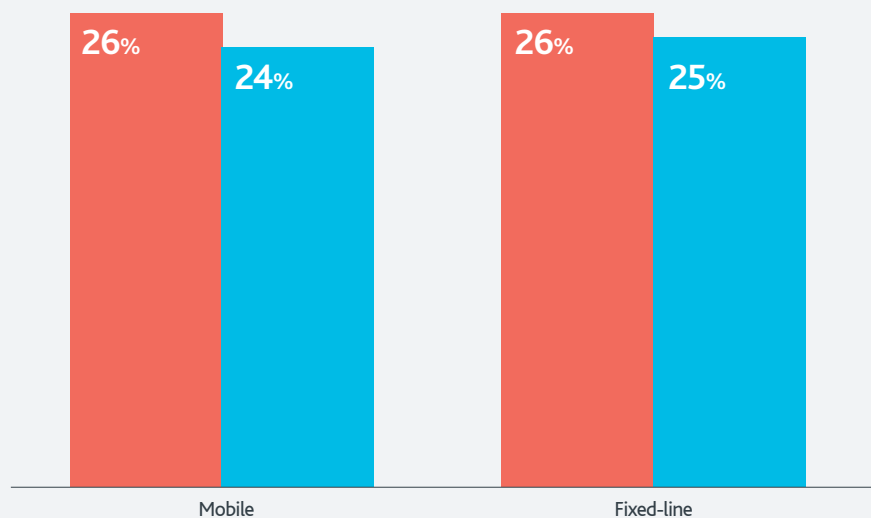
Source: Cluttons

Survey question: How effective is your Local Authority's relationship with Telecommunication and Digital Infrastructure Providers when it comes to rolling out telecommunications infrastructure and equipment?

LOCAL AUTHORITIES LEADING THE WAY

Glasgow City Council: Connectivity is a strategic priority

Councillor Susan Aitken, Leader of Glasgow City Council

Councillor Susan Aitken, Leader of Glasgow City Council, says that digital connectivity has been a priority for Glasgow City Council ever since the SNP became the majority party in 2017. "We quite quickly realised there was a connectivity gap. This was creating problems in terms of social justice and equality, so we really focused on digital inclusion. As a local authority we wanted to replicate Estonia where there are high levels of online citizen engagement – and for that you need connectivity. We also realised that poor connectivity was evident in all parts of the city, even relatively affluent areas."

"We recognised that digital connectivity is a basic infrastructure issue. It enables the infrastructure that then allows economic growth, which in turn can help address inequality," Councillor Aitken says. "We also build affordable housing as a council and see the benefit of installing fibre broadband at the start of the process, just like every other utility."

This emphasis on the economic benefits of the myriad uses of digital connectivity means the City Council alongside the other seven Glasgow City Region councils, were recently recognised by central Government as one of 10 5G Innovation Regions and awarded a share of £36 million in funding for projects to deliver societal changes and improvements.

Susan explains that Glasgow City Council appointed a Digital Champion quite early on – an elected member of the council who took on responsibility for this area of work. "Creating this role and having leadership who are buying into the importance of digital connectivity means that officials are empowered to make decisions that support the Council's strategic goal for Glasgow to have the best connectivity," Councillor Aitken says.

The resulting increase in connectivity across the City over the last seven years has been very large.

Councillor Aitken adds: "We are also able to work in partnership with fibre and mobile operators, and through our work offer opportunities to a range of providers. Working with them, and our own teams, all having the same goal, means that the path for the delivery of these services is smoother."

(54%) of councillors said that community objections were the main issue between infrastructure providers and Local Authorities, closely followed (45%) by concerns regarding risk and disruption to residents. We examine the 'disconnect' between residents and connectivity in the next section, looking at ways that community objections could be addressed.

The next issues are also key. Nearly two in five (39%) of councillors said that a lack of engagement from providers was an issue – with 28% saying a lack of understanding of proposed work and wayleaves was a problem. These problems are understandable – digital connectivity touches so many parts of a Local Authority, there may be several different people dealing with different operators, some on planning, some on wayleaves (the legal agreements needed to gain access to privately owned buildings). This means there is no 'one' central repository of knowledge among teams, which is where a Digital Champion can come in.

Planning regulations are also identified as an issue by councillors, and this is an issue as most major infrastructure requires planning permission. The difficulties around planning are usually related to community concerns, although Doug Parrant, from Digital Essex, also says there is more room for 'more nuance' in planning applications from operators making it clear why a site has been chosen, and what benefits it will bring for the local community.

At the same time, local councillors were not clear that the Local Authority had prioritised digital connectivity in its local plan, with only 28% agreeing that this was the case. A quarter (24%) said they did not agree that the Local Authority had prioritised digital connectivity in the local plan, although given the challenges around the policy landscape for local plans currently, developing the plan more widely may also be a factor.

Those involved in infrastructure within the industry have already started to take action. Telecoms and infrastructure
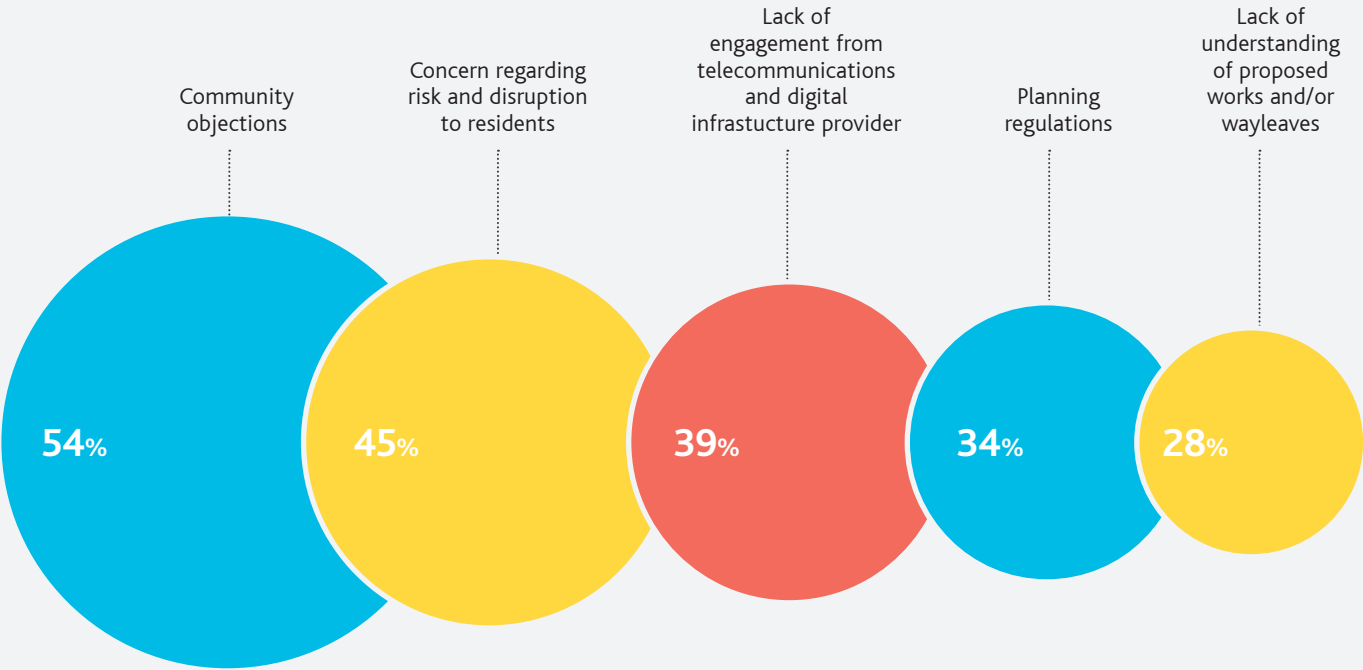
39%

of councillors said that a lack of engagement from providers was an issue – with 28% saying a lack of understanding of proposed work and wayleaves was a problem

providers, landowners and advisers set up the National Connectivity Alliance (NCA) in 2022, and there are plans to work more closely with local Government during the course of this year, which can only help create better relationships.

Main issues between infrastructure providers and local authorities
% Local councillors

Community objections

Concern regarding risk and disruption to residents

Lack of engagement from telecommunications and digital infrastucture provider

Planning regulations

Lack of understanding of proposed works and/or wayleaves

54% **45%** **39%** **34%** **28%**

Source: Cluttons, YouGov

Survey question: What are the main issues, if any, that arise between your local authority and telecommunication and digital infrastructure providers when it comes to deployment of telecommunications infrastructure and equipment?

CLUTTONS

Interview: Belinda Fawcett, Cornerstone

Belinda Fawcett, Director of Property and Estates and General Counsel at Cornerstone, the largest mobile infrastructure provider in the UK.

What do you see as the biggest opportunity for the UK if we can meet or exceed targets for connectivity?

There will be so many benefits both economically and socially. If we reach the targets the Government has set of standalone 5G coverage in populated areas by 2030, the country will be able to generate billions in investment as it will be able to boast the coverage and capacity to support global businesses looking for a home.

Coverage is a significant issue in rural areas as there are still large swathes of the UK which either have no mobile coverage or coverage from only one mobile network operator. The Shared Rural Network is trying to address this imbalance and give rural areas the same opportunities for connectivity as their urban counterparts. In urban areas capacity is the key factor, which is why making sure the infrastructure is in place to provide this is a priority.

Conversely, if the UK doesn't meet its targets, I don't see how we will be able to compete on the world stage. We are already behind many of our competitors so have some catching up to do. To do this – we need ubiquitous connectivity across the whole of the UK.

What are the main challenges to meeting the UK's connectivity goals?

As I see it, it's a multi-layered issue covering planning, communication with local and regional stakeholders, and central government funding to create the right environment for the operators to invest. One of the key challenges however is educating the users of mobile phones that this connectivity and great service they all want all of the time can only be provided if the infrastructure is there to host the equipment. There are perhaps some negative perceptions around installing and maintaining infrastructure for mobile connectivity. Without this infrastructure there can be no connectivity and lifestyles and businesses will be affected, as will the introduction of new technologies such as EV charging for electric cars as EV chargers increasingly need to be connected to share real-time data and connect with charging and payment apps.

You mentioned planning as an issue – this is something that has also been identified in our research as a sticking point. From an operators point of view, what could help overcome this issue?

There are two sides to this issue. The first is planning teams across the UK. After funding cuts for Local Authorities, planning teams are becoming more stretched, and understandably are taking longer to get through applications that come to them. We have had an example of one planning application taking two years to be put forward for a decision. There needs to be more support for planning departments so they can help speed up delivery of infrastructure (and all other types of development) to help the UK meet its own targets.

The second part of this is that when it comes to making planning decisions, we are finding that many applications are being rejected and we are then forced to appeal, where they are often then approved. If there was some way to streamline this process, so that both parties didn't have to spend money and time on the appeals process, there could be more funding for planning teams. Plus the industry could also re-invest savings to help speed up the roll-out of 5G while also maintaining the essential 4G network. It's also worth remembering that we are often required to compile substantial environmental reports for many of the applications, especially for the Shared Rural Network, where they can be quite lengthy. These reports are necessary – and are a reminder of the upfront investment needed to even get to the point of a planning decision.

There is also a real need to raise awareness within the local community to ensure they understand the fundamental relationship between mobile infrastructure and the levels of connectivity they need and expect.

Is this where a Digital Champion could come in?

Definitely. A Digital Champion could be the focus point for one or several Local Authorities, connecting all the stakeholders within the LA as well as the industry. Sometimes, as infrastructure providers, it is not clear who to approach at a Local Authority to open up engagement. Digital Champions are the key to unlocking the benefits of digital connectivity by working inside local authorities to encourage development in this area.

That is interesting, as our survey results show that local councillors say that relationships with operators could be improved.

Yes, having someone as a special point of contact would help – and there is also a role for Digital Champions to help promote the message to the local area that without the right infrastructure in place, connectivity may not be as good as it could be.

The onus must also be on central Government to get behind a campaign to share this message more widely across the UK. The message needs to land with the public and the users of connectivity not just the planners and Local Authorities.

Another key question emerging from our report was where the funding for Digital Champions should come from.

There are many Government pots of money on offer under different banners for accelerating digital connectivity, including £100 million to put the UK at the forefront of future research, and £40 million to boost 5G tech take-up by businesses and public services. There is a case that Digital Champions could effectively smooth the path of the challenges some of this funding is designed to address – and could achieve similar effects by different means. A review of all these funding pots, and perhaps slicing them differently could free up funding to support Digital Champions for Local Authorities.

> "I don't think that residents understand the importance of high speed internet services in the future and are therefore not happy with the disruption of roadworks when installing fibre infrastructure."
>
> Councillor, Cluttons Connectivity Survey 2023/24

The 'disconnect'

The survey results have touched upon the major disconnect between the need and appetite for connectivity, and the challenges in pushing through the infrastructure needed to deliver it, whether that is a lack of understanding of the benefits, or a lack of clarity around planning or a lack of communication between operators and local policymakers.

But there is one major disconnect that needs to be addressed before progress can be made. And that is the disconnect among all of us, the wider population, of wanting brilliant connectivity but not linking that to the infrastructure needed to provide it.

Some 42% of MPs said that constituents frequently asked them questions about the broadband and mobile connections for their homes and businesses, and well over two-thirds (71%) of MPs said that their constituents believed connectivity needed to be improved.

However, when asked about installing infrastructure to deliver better connections (e.g. masts), a quarter (26%) said that more constituents would oppose this rather than support it. This was balanced slightly by the 21% who said that more constituents would support than oppose the construction of infrastructure.

Councillors are also clear that their residents would like better connectivity, with 68% responding that their constituents believe connectivity should be improved. But just like MPs, some 27% of respondents said more of their constituents would oppose than support

> "My residents are likely to complain about poor internet connectivity AND complain about the disruption improving it causes."
>
> Councillor, Cluttons Connectivity Survey 2023/24

the construction of digital infrastructure. This is matched by 27% who said their residents would be more supportive.

However, the support across the country varies – with constituents most supportive in the North East, the South West and Scotland, all regions with more rural areas.

This highlights the geographical nuance between the need for coverage (ie getting a signal or connection vs not getting any) and capacity – which is often an issue in more urban areas. The Shared Rural Network (SRN) is a scheme jointly funded by Government and the four Mobile Network Operators (MNOs) to reduce 'not-spots' and level up connectivity right across the country. The SRN aims to bring 95% 4G mobile coverage across the UK landmass by 2025, but the National Audit

71%

proportion of MPs who say their constituents want to improve connectivity

68%

proportion of local councillors who said local residents believed connectivity needed to be improved

"More help needed for local authorities to quantify the benefits involved…"

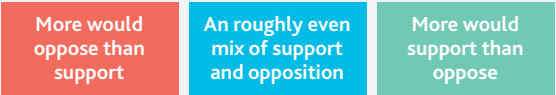Councillor, Cluttons Connectivity Survey 2023/24

"People don't understand the trade-offs. Want better connectivity. Don't like masts."

Councillor, Cluttons Connectivity Survey 2023/24
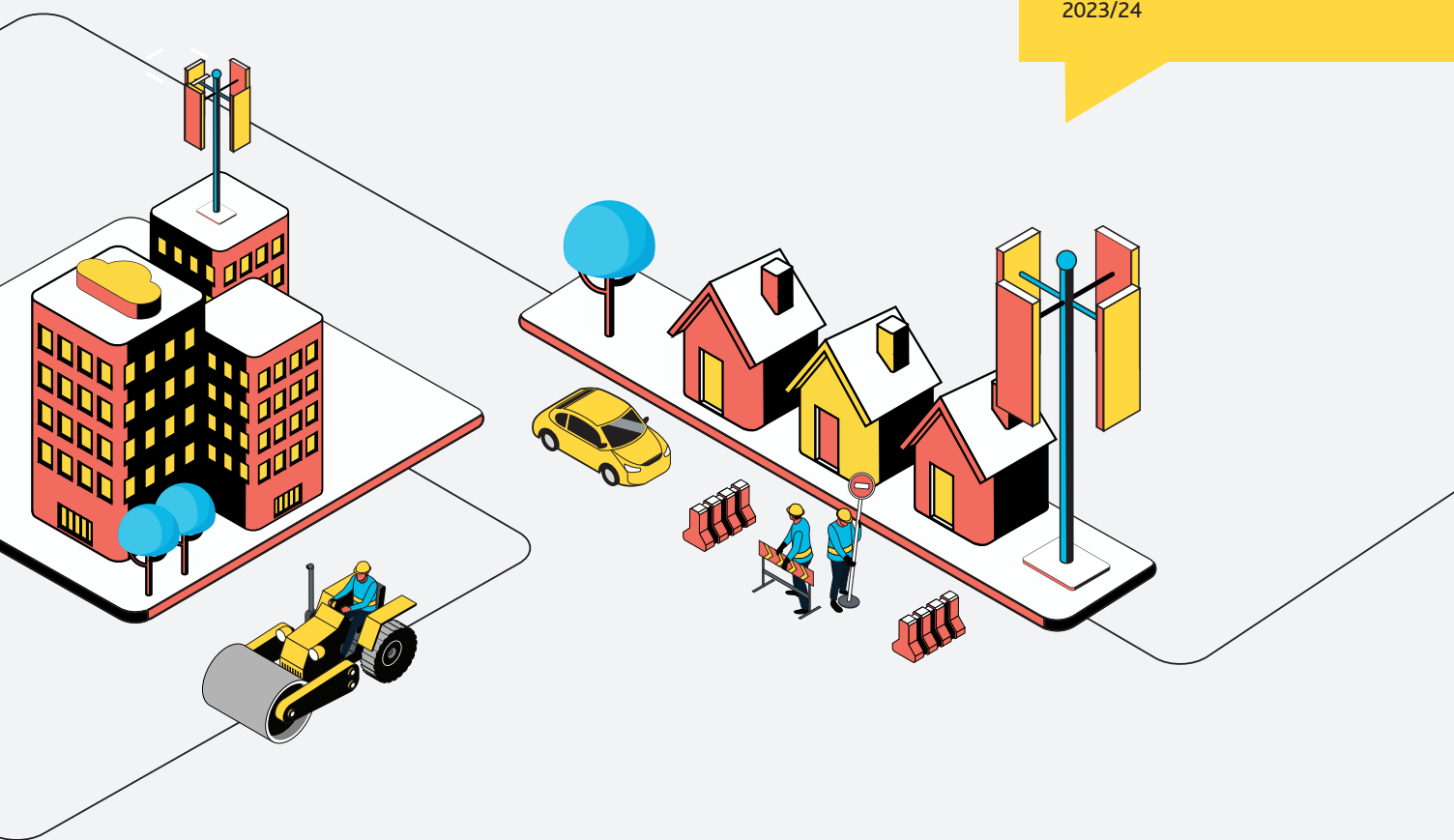
Support for digital infrastructure across the UK

% of councillors' constituents who would wsupport or oppose installation of digital infrastructure

More would oppose than support	An roughly even mix of support and opposition	More would support than oppose

NET: England

18%	45%	37%

Scotland

18%	45%	37%

Northern Ireland

33%	37%	23%

North West

32%	45%	18%

West Midlands

33%	37%	27%

Wales

29%	33%	32%

North East

12%	43%	38%

Yorkshire and Humber

33%	33%	27%

East Midlands

31%	40%	28%

Eastern

21%	47%	27%

London

30%	45%	21%

South West

16%	42%	38%

South East

27%	48%	21%

Source: Cluttons, YouGov

Survey question: When thinking about the improvement of internet connectivity through construction of digital infrastructure (e.g., masts) in your ward, which of the following best applies to your constituents?

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26%

proportion of MPs who said more of their constituents would oppose than support infrastructure to deliver digital connectivity

27%

proportion of councillors in England who said more constituents would oppose rather than support new infrastructure to deliver digital connectivity

> "My ward already has gigabit and 5G, there were no issues during transition."
>
> Councillor, Cluttons Connectivity Survey 2023/24

Office's latest report highlighted that the scheme was currently behind schedule.

As Belinda Fawcett, from Cornerstone, says on page 21, the current planning system is slowing down progress, with both sides having to invest more than perhaps might be necessary to reach a conclusion on applications. A streamlining of the system could be effective, as could a wider understanding that without infrastructure, digital connectivity cannot be achieved, improved or maintained.

One local councillor responding to our survey said: "Everyone wants to be better connected as long as the masts are not in their area!" while another adds "Everyone in my rural area complains about no connectivity, but they also complain about ugly infrastructure." This sums up the disconnect we have identified, and by introducing a Government-sponsored national information campaign about the benefits of connectivity – and making the link to infrastructure explicit, and by supporting Digital Champions to smooth roll-out at a Local Authority level, we can start to accelerate the step up to gigabit broadband and 5G connectivity.

"It is hard to escape from the theme of funding."

CLUTTONS SAYS

Connecting the dots

This disconnect between residents when it comes to connectivity is crucial, as it is residents, and communities, and all of us who can create an acceleration in the roll-out of connectivity by supporting the infrastructure to provide it. Once we understand that without cables and masts – in the right place and installed at the right time – we are more likely to be hampered by slow connections or even 'not spots'.

As identified at the start of the report, there is room for much more information to be shared, to counter some of the misinformation around 5G particularly, and also to help everyone to understand all the stages and players in the intricate road to delivering the best digital connectivity.

Seen purely through the lens of Local Authorities, focusing on better connectivity would make the current shift to online portals to provide services (such as paying bills or registering for services) easier – bringing in funds more quickly and ultimately freeing up resources.

It is hard to escape from the theme of funding here, as once again it is clear that Local Authority funding in many parts of the country will not stretch to wider education campaigns around the benefits of connectivity. When asked if the Local Authority had the funding it needed to prioritise the importance of digital connectivity and 5G for consumers, families and businesses, only 7% of councillors agreed.

It's not only funding, as only 15% of councillors agreed that their Local Authority had the support it needed from broadband and mobile operators to highlight the importance of connectivity for consumers, families and businesses.

Yet again, the answer here seems to point to closer working relationships between local authorities and operators, and a boost of central Government funding, which will ultimately support the UK meeting its own connectivity targets.

The final word

**Darren Zitren, Head of Infrastructure**
Cluttons

"Our new survey shows a noticeable disconnect amongst key stakeholders across digital connectivity, and the results highlight that what we truly need is more collaboration between policymakers and across all parts of the industry.

Additional funding would act as an enabler by bringing in adequate and skilled resource to support and manage largescale rollout with all stakeholders – providers, Local Authorities and local communities.

By working together, we can accelerate connectivity for the collective benefit – from boosting the UK's economic productivity to ensuring those who rely on connectivity for medical or even lifestyle needs can always access high-speed connections.

The case studies in this report are real examples of this, and it's worth highlighting that the progress in Essex, and Glasgow, has been due to a mindset among policymakers as well as allocating funding. I was particularly struck by Councillor Susan Aitken's comment that the officials at Glasgow City Council felt empowered to make decisions that would support the council's stated aim to be a highly digitally connected city. This strategy is underpinned by a recognition that digital connectivity is a basic infrastructure, that has the power to address big problems such as inequality. Likewise, in Essex, Doug Parrant and his team recognised the importance of lifting digital connectivity out of an inward-facing IT team, and into an outward-facing team focused on the economy and inclusion. Lifting digital connectivity up the local policy agenda costs nothing, and as these examples show, when supported properly,
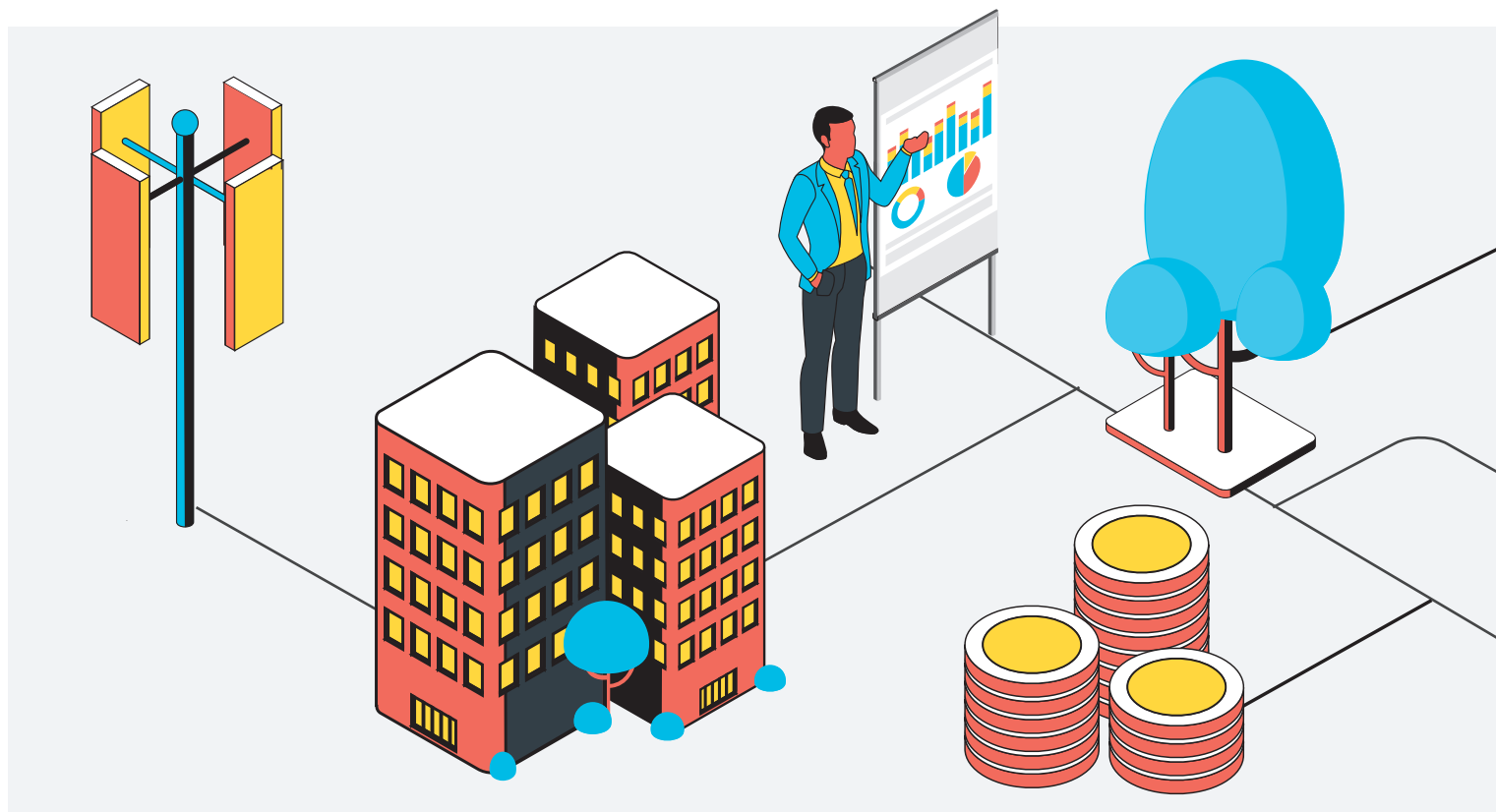
can support smooth decision-making and create collaboration.

There is another side to this equation too, and that is the need for connectivity to underpin the increasing focus on Net Zero. As a nation, we have undertaken climate pledges which bring a focus onto the built environment – both residential and commercial. All businesses rightly now have a focus on their sustainability profile and goals, and landlords now need to be able to deliver the standard of buildings required to meet these needs. The monitoring of buildings needed to collate and record outputs for ESG purposes does not work without connectivity, just as it doesn't for homes where people want to monitor their energy use. To demonstrate their sustainability credentials, companies need to be able to show how they are operating in the most energy efficient way in their offices, to their employees and to their shareholders. Monitoring and recording this is only achievable with good and constant connectivity. The current divergence in the UK office market, between buildings which are meeting the highest standards of sustainability – including top quality connectivity – and those which are lagging and won't meet new EPC criteria by the end of the decade is a sign of how fast these trends are moving, and how anyone involved in the delivery of buildings – residential, commercial, industrial or leisure should ensure that the connectivity sits at the top of the agenda to support Net Zero goals.

It is our shared responsibility to ensure that everyone has the right and the ability to access both 5G and gigabit capable connectivity."

> "It is our shared responsibility to ensure that everyone has the right and the ability to access both 5G and gigabit capable connectivity."

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Survey data based on YOUGOV poll of 104 MPs and 556 local councillors carried out between 1-15 December 2023, and 8-29 March 2024

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