

Friday 25th October 2019

National Infrastructure Commission

Social Research: Regulation & Resilience

Final report

britainthinks.com

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01 Background and introduction

Introduction from the Commission

The Commission is undertaking two studies, looking at the regulation and resilience of the UK's economic infrastructure sectors.

The **Regulation Study** will make recommendations to government on changes to the regulatory framework which may be necessary to facilitate future investment needs, promote greater competition and increase innovation, and meet the needs of both current and future consumers.

The Terms of Reference* requested the Commission to consider:

- The future changes that will affect the regulated sectors
- Competition and innovation
- Regulatory consistency
- How government and regulators work together

The scope of the study is the key regulated infrastructure sectors: telecoms, energy, and water.

The **Resilience Study** will enable the Commission to make recommendations to improve the overall resilience of the UK's economic infrastructure.

The Terms of Reference** requested the Commission to:

- Review UK and international knowledge and approaches relating to the resilience of current and future economic infrastructure systems
- Develop an understanding of public expectations and response to the potential loss of infrastructure services
- Develop an analytical approach that can be used to better understand the resilience of economic infrastructure systems
- Undertake pilot analysis of infrastructure systems

The study will focus on the digital, energy, transport and water sectors.

* <https://www.nic.org.uk/wp-content/uploads/National-Infrastructure-Commission-Regulation-study-Terms-of-Reference.pdf>; <https://www.nic.org.uk/our-work/regulation/>

** https://www.nic.org.uk/wp-content/uploads/CX_letter_resilience_study_and_terms_or_reference_29102018-002_final-digi.pdf; <https://www.nic.org.uk/our-work/resilience/>

Background to the research

- The Commission appointed BritainThinks to undertake social research to understand public perceptions and expectations of sector performance, satisfaction, and reliability. These factors were seen as important in informing the specification of a future regulatory framework and making assessments on the appropriate level of resilience for each sector.
- Specifically, the aims of the two social research strands are:



Regulation

1. Understand how satisfied consumers are with the service delivery from their utility providers.
2. Assess how concerned the public is with the behaviour of private utilities companies.
3. Explore how people see the future of utility service provision.



Resilience

1. Assess how aware users are of the resilience issues facing the UK's economic infrastructure.
2. Understand base expectations of service levels and under what circumstances, if any, the public would be willing to tolerate service interruptions.
3. Explore what infrastructure users believe is the most appropriate balance between different aspects of, and responsibility for, resilience.

Methodology

This research follows a two-stage approach:

- Phase 1: Qualitative exploration
- Phase 2: Quantitative verification

1. Qualitative exploration	
12 full-day workshops	12 interviews with vulnerable users
<ul style="list-style-type: none"> • Each with 8-12 participants split into 2 tables. • 4 workshops dedicated to each of the 3 utilities sectors for regulation (AM), and all taking a cross-sector approach to resilience (PM). • Participants recruited from local areas to reflect a spread in terms of age, sex, ethnicity, family status and location (urban, suburban and rural). <ul style="list-style-type: none"> • 3 workshops included a dedicated rural table. • 4 workshops were dedicated to future customers, aged 18-25. • Locations chosen to provide good coverage of regions across the UK. 	<ul style="list-style-type: none"> • One-on-one in-home extended interviews. • Participants recruited to reflect a spread of vulnerable users, including: <ul style="list-style-type: none"> • Those aged 80+, those with a long-term / chronic health condition, those with a mental or physical disability.

We visited 5 locations across England and 1 location in each of the devolved nations:



Methodology

This research follows a two-stage approach:

- Phase 1: Qualitative exploration
- Phase 2: Quantitative verification

2. Quantitative verification

Nationally representative, online survey of 2,000 adults aged 18+ living in the UK

- Fieldwork conducted 5th – 6th August 2019.
- Data weighted to be nationally representative by factors including age, gender, socio-economic grade (SEG) and region.
- Where we have pulled out differences between sub-groups in this report, we have done so because these differences are statistically significant (unless explicitly stated otherwise). These findings indicate a correlation, but we cannot say for each if there is a causal link or the direction of causality. We have not reported on all statistically significant findings unless they are part of a broader pattern or trend.
- Wherever differences are identified as ‘significant’ within the report, they have been tested and found statistically significant at a 95% confidence interval.
- Survey questions and sample sizes (denoted by n) are noted at the bottom of each page.



All figures in this report are rounded to the nearest whole number. As a result of this figures on some charts may not add up to exactly 100%.

02 Regulation

- Key findings
- Satisfaction with service delivery
- Corporate behaviour of utility companies
- Responses to future scenarios

Regulation: key findings

1

In the qualitative workshops, **few participants appeared to be actively engaged with their water or energy services**. However, the quantitative survey found that **majorities of the public are satisfied with these services**, and see them as generally reliable, although there are more mixed views of affordability.

2

During the workshops **telecoms appeared to be more 'front-of-mind'** for participants than water or energy, driven both by more frequent experiences of issues (e.g. poorer reliability and customer service), as well as positive active engagements with the sector (e.g. upgrading mobile handsets). In contrast, the quantitative survey revealed that **overall customer satisfaction is similar across all sectors**.

3

There was **limited spontaneous awareness of, or interest in, the corporate behaviour of utility companies** amongst participants in the workshops. This was also borne out in the quantitative survey, with only 2% of the public saying that 'corporate behaviour' is their number one priority when thinking about utility companies. In both the workshops and the survey, consumers prioritised reliability and affordability, and tended to use these criteria to judge how 'good' a utility company is, rather than seeking out information about their business practices.

4

Participants in the workshops tended to assume that the regulation of utilities ensures key legal and 'common sense' interests are already being looked after. Whilst they expect that utilities providers (like any large company) will try to maximise profits, they also assume regulation will oversee and set targets on broader societal concerns in the public interest like investment in infrastructure, particularly to reduce environmental impact, as well as setting acceptable baselines for corporate behaviour like staff treatment (which is assumed to be covered by UK law).

02 Regulation

- Key findings
- Satisfaction with service delivery
- Corporate behaviour of utility companies
- Responses to future scenarios

Overview of consumer satisfaction with service provision

Service area	Water	Energy	Broadband / landline	Mobile
Context (qualitative)	Many consumers saw it as a fundamentally reliable service, which can be taken for granted.	Seen as reliable, where firms ‘keep the lights on’ – very few recalled major problems with energy supply.	Telecoms was more front-of-mind than other services – reflecting more regular engagement with the sector (particularly for mobile).	
Overall satisfaction	75%	74%	77%	83%
Reliability & quality of service	80%	81%	71%	79%
Value for money	50%*	50%*	54%*	70%
Bill clarity	60%	63%	70%	72%
Bill accuracy	61%	67%	73%	75%
Customer service	49%*	57%*	57%*	65%
Helping customers understand and reduce usage	47%*	52%*	n/a	69%

■ Under 60%

■ 60-74%

■ 75% or over

**There were significant proportions of survey respondents who selected ‘neither satisfied or dissatisfied’ or ‘don’t know’, reflecting low salience and day-to-day engagement with utilities observed in the workshops.*

Overview of consumer dissatisfaction with service provision

Service area	Water	Energy	Broadband / landline	Mobile
Context (qualitative)	Many consumers saw it as a fundamentally reliable service, which can be taken for granted.	Seen as reliable, where firms ‘keep the lights on’ – very few recalled major problems with energy supply.	Telecoms was more front-of-mind than other services – reflecting more regular engagement with the sector (particularly for mobile).	
Overall dissatisfaction	6%	7%	7%	4%
Reliability & quality of service	2%	3%	11%	6%
Value for money	16%	18%	17%	9%
Bill clarity	6%	10%	6%	3%
Bill accuracy	4%	7%	4%	2%
Customer service	4%	7%	11%	6%
Helping customers understand and reduce usage	8%	11%	n/a	5%

■ Under 10% ■ 10-15% ■ Over 15%

There were significant proportions of survey respondents who selected ‘neither satisfied or dissatisfied’ or ‘don’t know’, reflecting low salience and day-to-day engagement with utilities observed in the workshops.

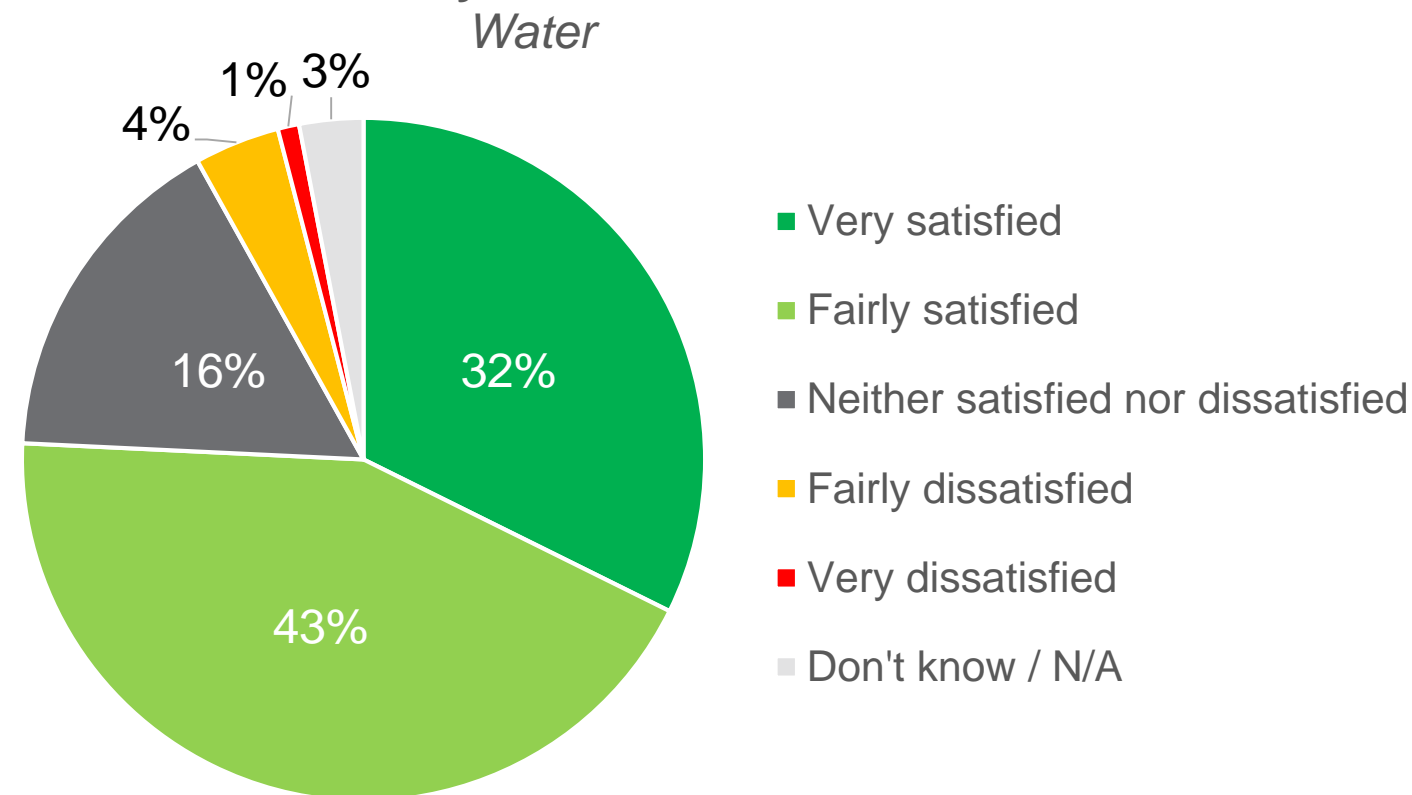


Deep-dive: water

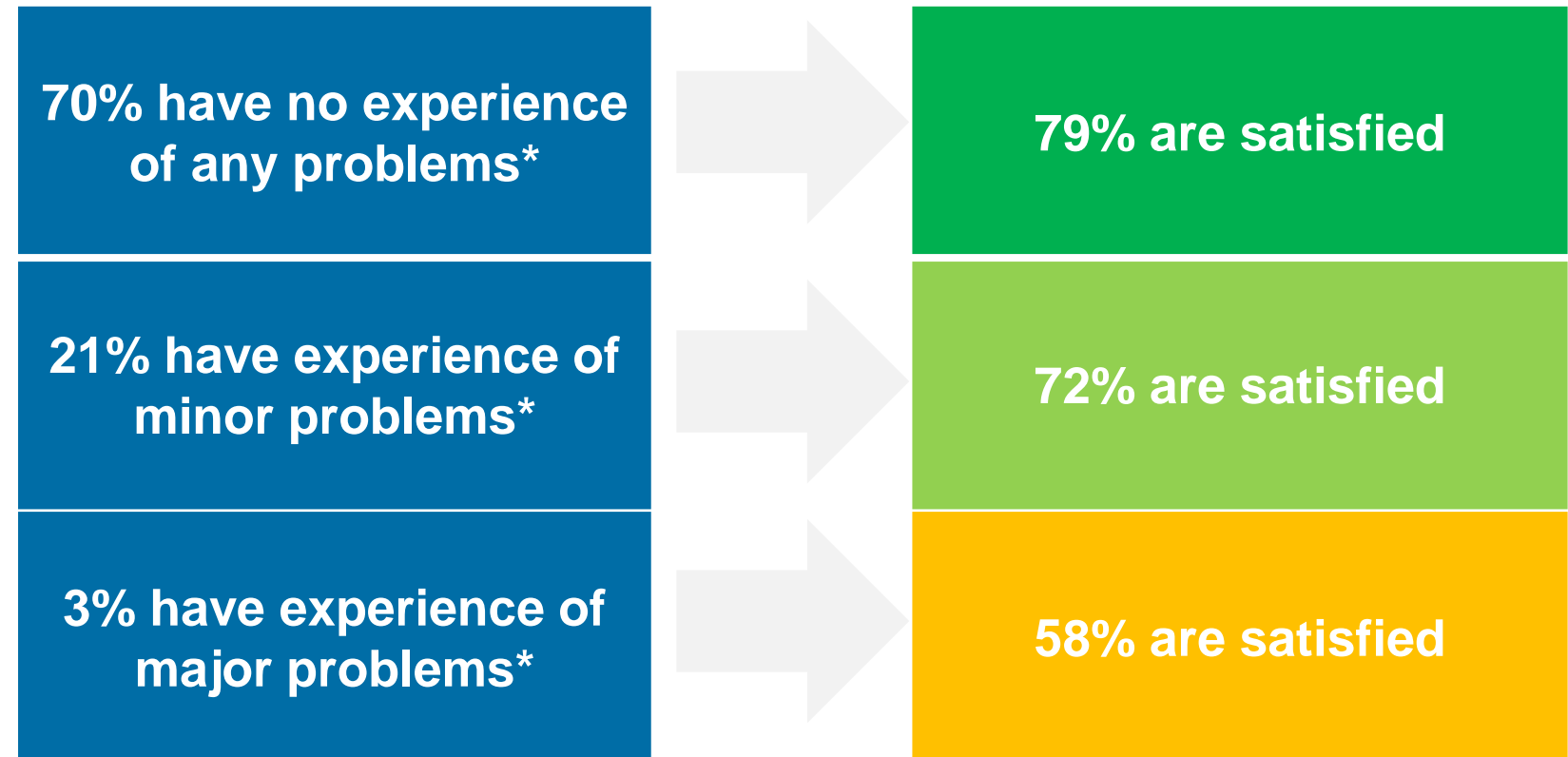
Few workshop participants were particularly engaged with their water service. For the most part, this is a low salience issue and few think about their water supply on a day-to-day basis.

The vast majority of the public are satisfied with their water service.

Thinking of the following services, how satisfied or dissatisfied are you with the service that you receive from each of them?



Experience of issues with the water service is rare. However, those with claimed experience of problems are significantly less likely to say they are satisfied.



Demographic differences

- **Region:** those in the North-East are most satisfied with their water service (86% satisfied) with those in Northern Ireland being least satisfied (63%).
- **Age:** those aged 65+ are significantly more likely than all other age brackets to say they are satisfied with the water service, with 83% saying they are satisfied.



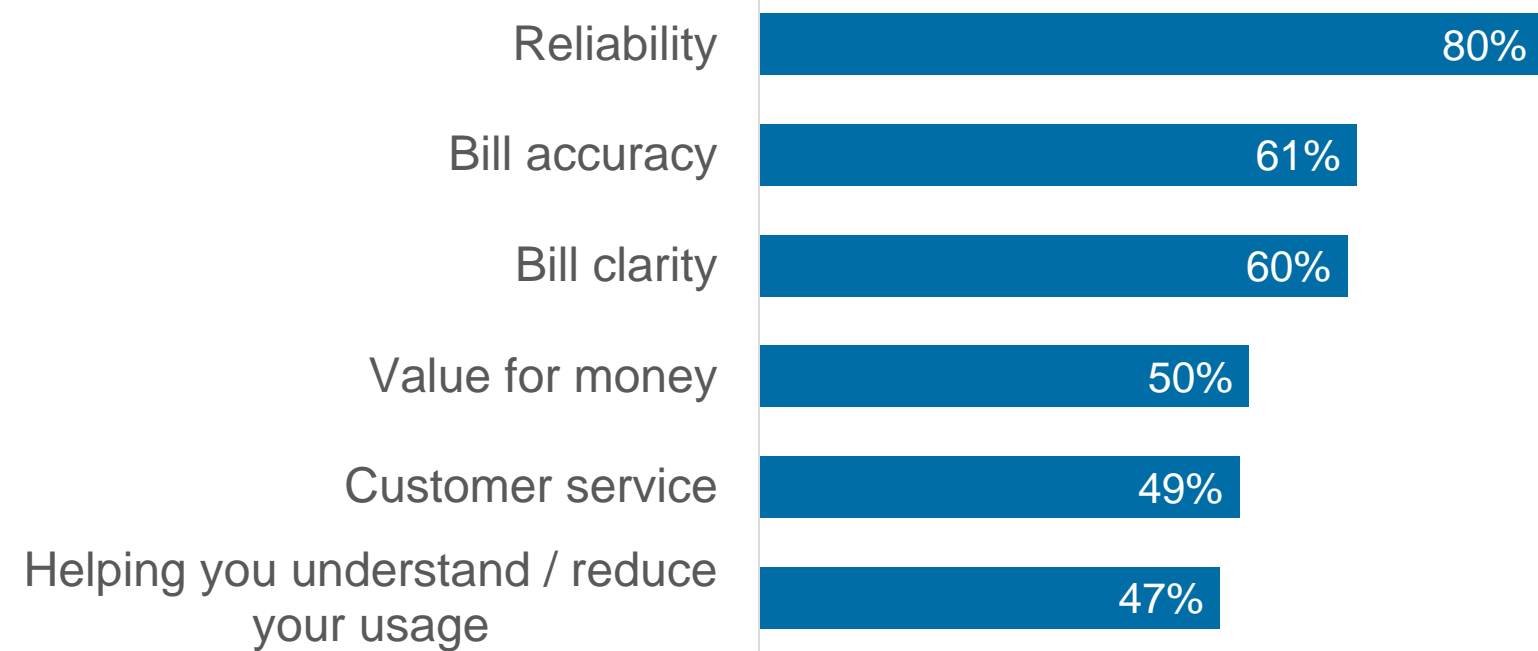


Deep-dive: water

As in the workshops, the vast majority of the general public view the water service as reliable. However, less than half say they are satisfied with customer service or help to reduce usage.

Thinking specifically about the water service you receive, how satisfied or dissatisfied are you with each of the following aspects?

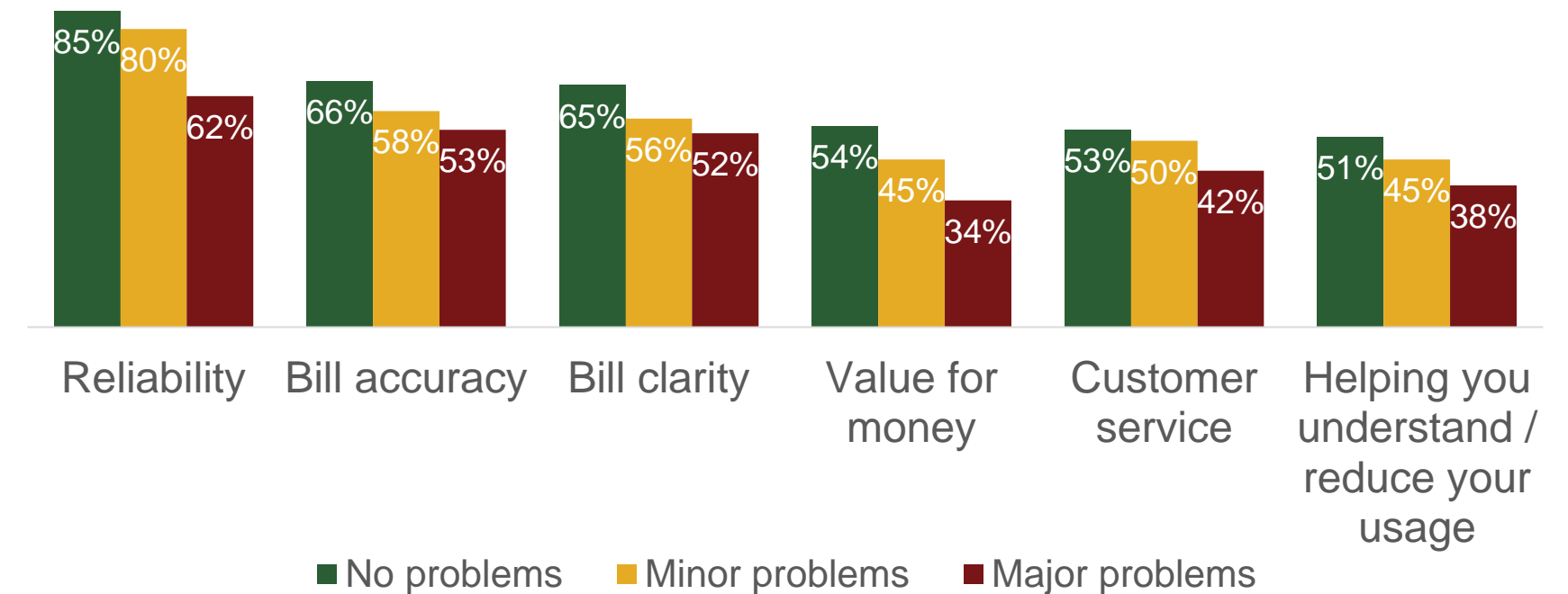
Showing percentage saying they are satisfied (very satisfied + fairly satisfied)



Those who say they have experienced major problems with their water service are significantly less likely to be satisfied with most of the tested elements of the water service.

Thinking specifically about the water service you receive, how satisfied or dissatisfied are you with each of the following aspects?

Showing percentage saying they are satisfied (very satisfied + fairly satisfied)



Demographic differences

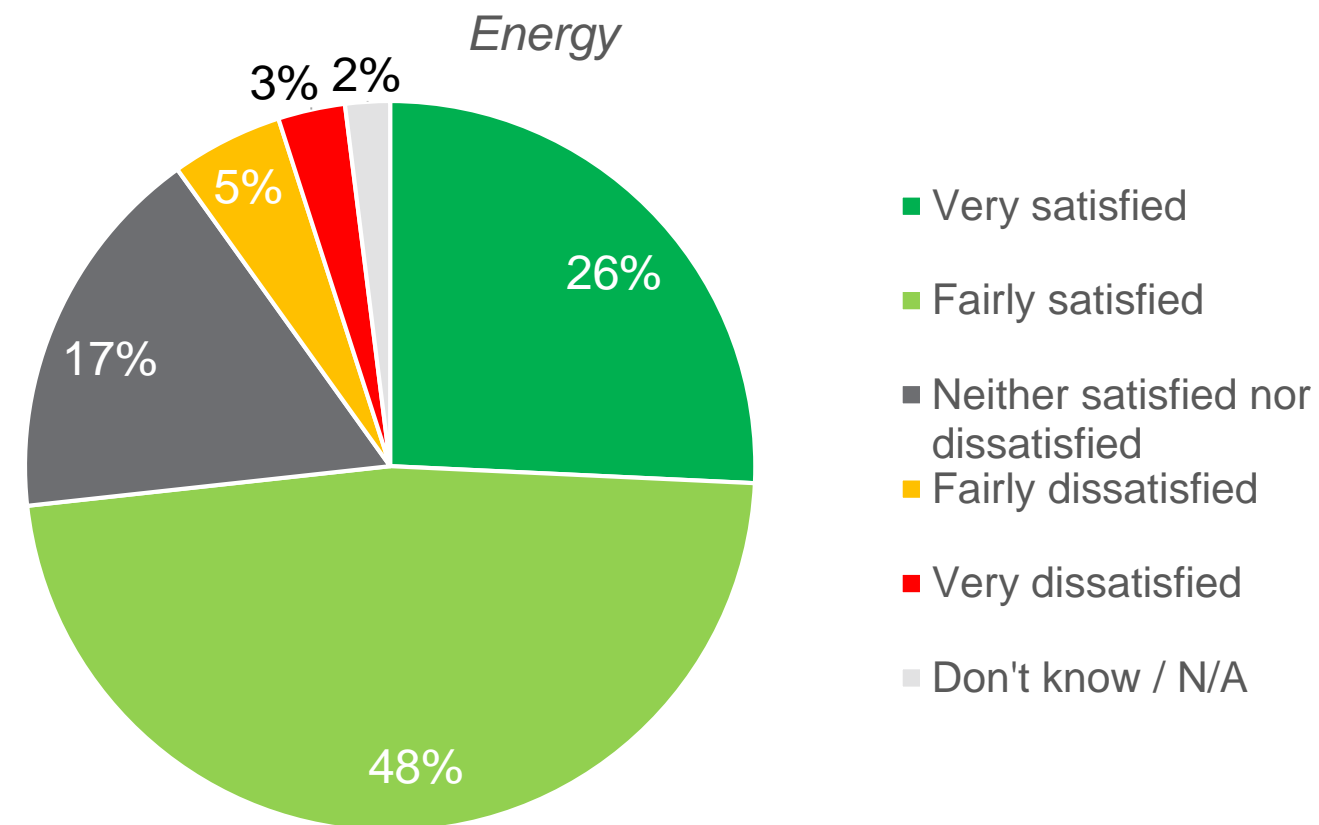
- Region:** those in Northern Ireland are the least likely to say they are satisfied with each of the tested elements of service, for example only 27% say that their water service is value for money, compared to 50% of the general public.
- Age:** there are notable differences by age with those aged 65+ most likely to be satisfied with each of the tested elements of service (83% of 65+ compared to 71% of 18-24 year olds, on average).



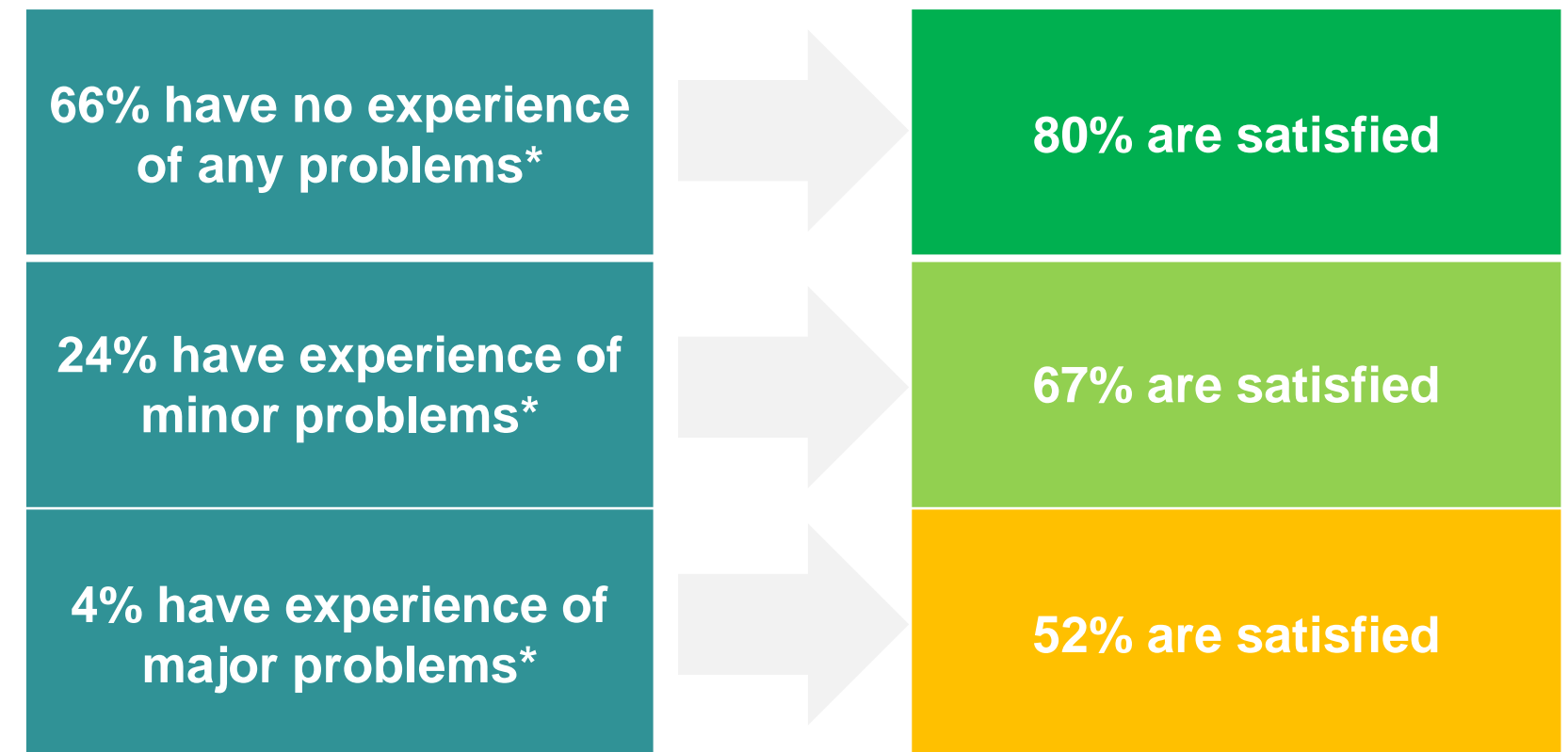
Deep-dive: energy

The vast majority of the public are satisfied with their energy service.

Thinking of the following services, how satisfied or dissatisfied are you with the service that you receive from each of them?



A quarter (25%) of the public say they have experienced problems with their energy service. Those who say they have experienced a problem are significantly less likely to say they are satisfied.



Demographic differences

- **Age:** those aged 65+ are significantly more likely than all other age brackets to say they are satisfied with their energy service, with 81% saying they are satisfied, compared with the next most satisfied group 35-44 year olds (74%) and the least satisfied group, 18-24 year olds (68%).
- **Smart meter usage:** those with smart meters are more likely to describe themselves as very satisfied than those without a smart meter (29% vs. 24%).
- **Gender:** women are more likely than men to say they are satisfied (77% vs. 71%).





Deep-dive: energy

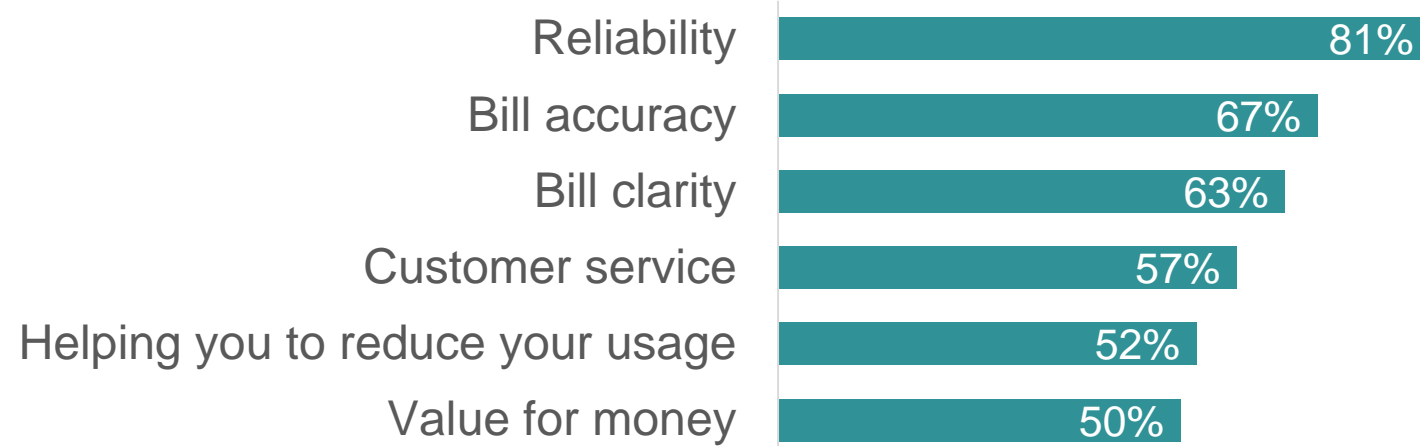
Whilst the public feel that their energy service is reliable, there is much lower satisfaction with ‘value for money’ and help reducing usage.

- This reflects the qualitative findings, where disenchantment with the need for ‘active consumerism’ to get the best deals and lack of understanding around smart metering affected overall views of the sector.

There is high satisfaction with the reliability of the energy service, but only slim majorities are satisfied with ‘value for money’ and helping understand and reduce usage.

Thinking specifically about the energy service you receive, how satisfied or dissatisfied are you with each of the following aspects?

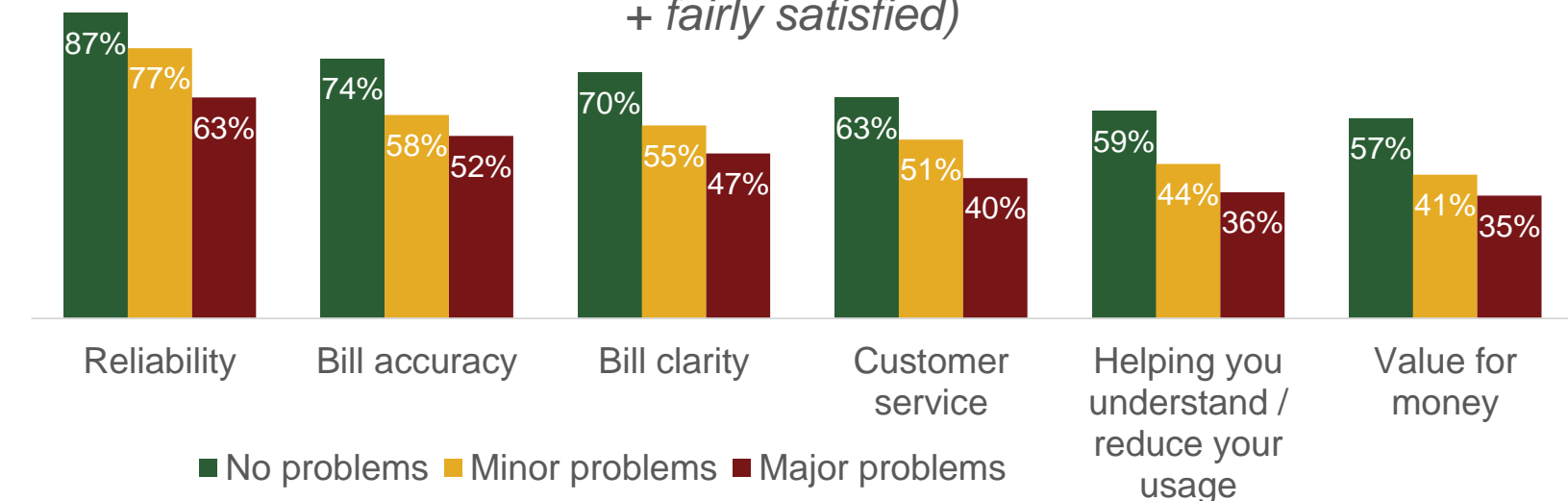
Showing percentage saying they are satisfied (very satisfied + fairly satisfied)



Further, those who say they have experienced major problems with their energy service are significantly less likely to be satisfied with most of the tested elements of the energy service.

Thinking specifically about the energy service you receive, how satisfied or dissatisfied are you with each of the following aspects?

Showing percentage saying they are satisfied (very satisfied + fairly satisfied)



Demographic differences

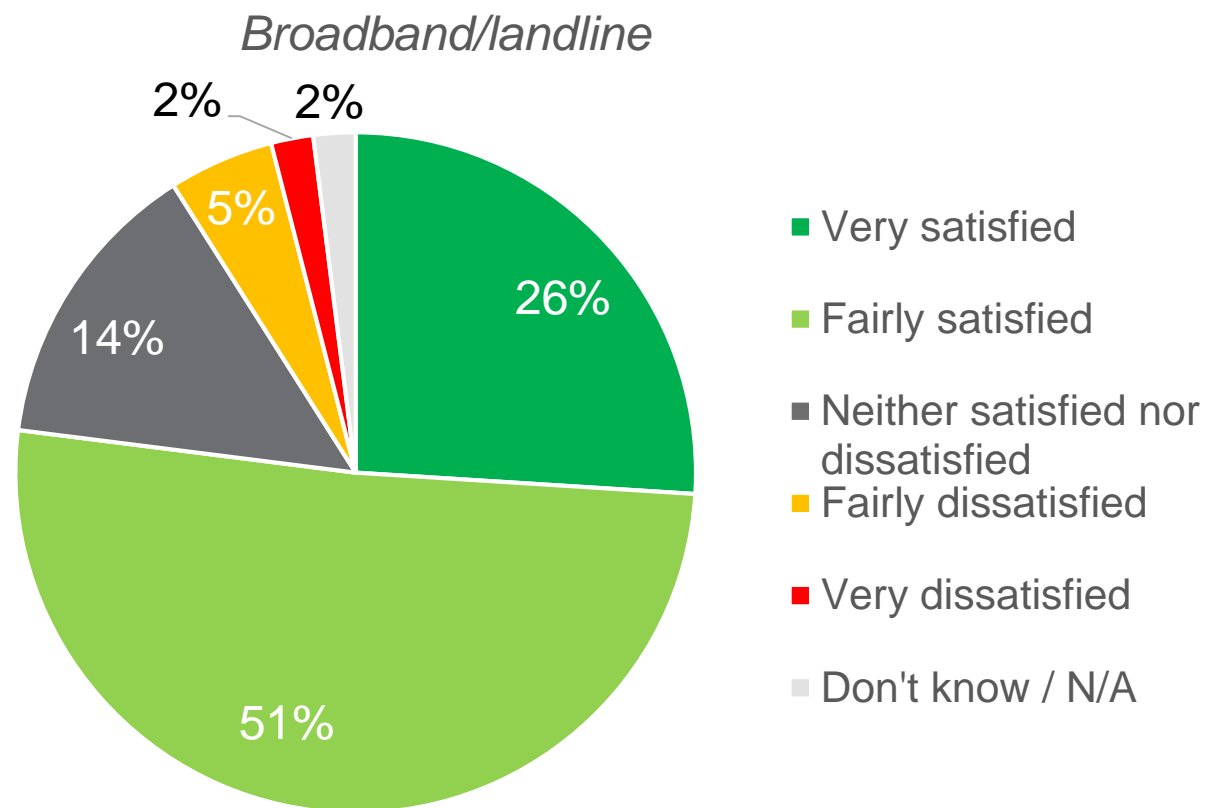
- **Age:** those aged 65+ are the most satisfied with all the tested elements of the service, e.g. 91% of those aged 65+ are satisfied with the reliability of their service, compared to 81% of the general public.
- **Smart meter usage:** those with smart meters (35% of respondents) are more likely to say they are satisfied with the value for money, customer service, bill accuracy and clarity from their energy service. 61% of those with a smart meter say they are satisfied with their energy provider helping them understand and reduce their usage, vs. 48% of those without a smart meter.



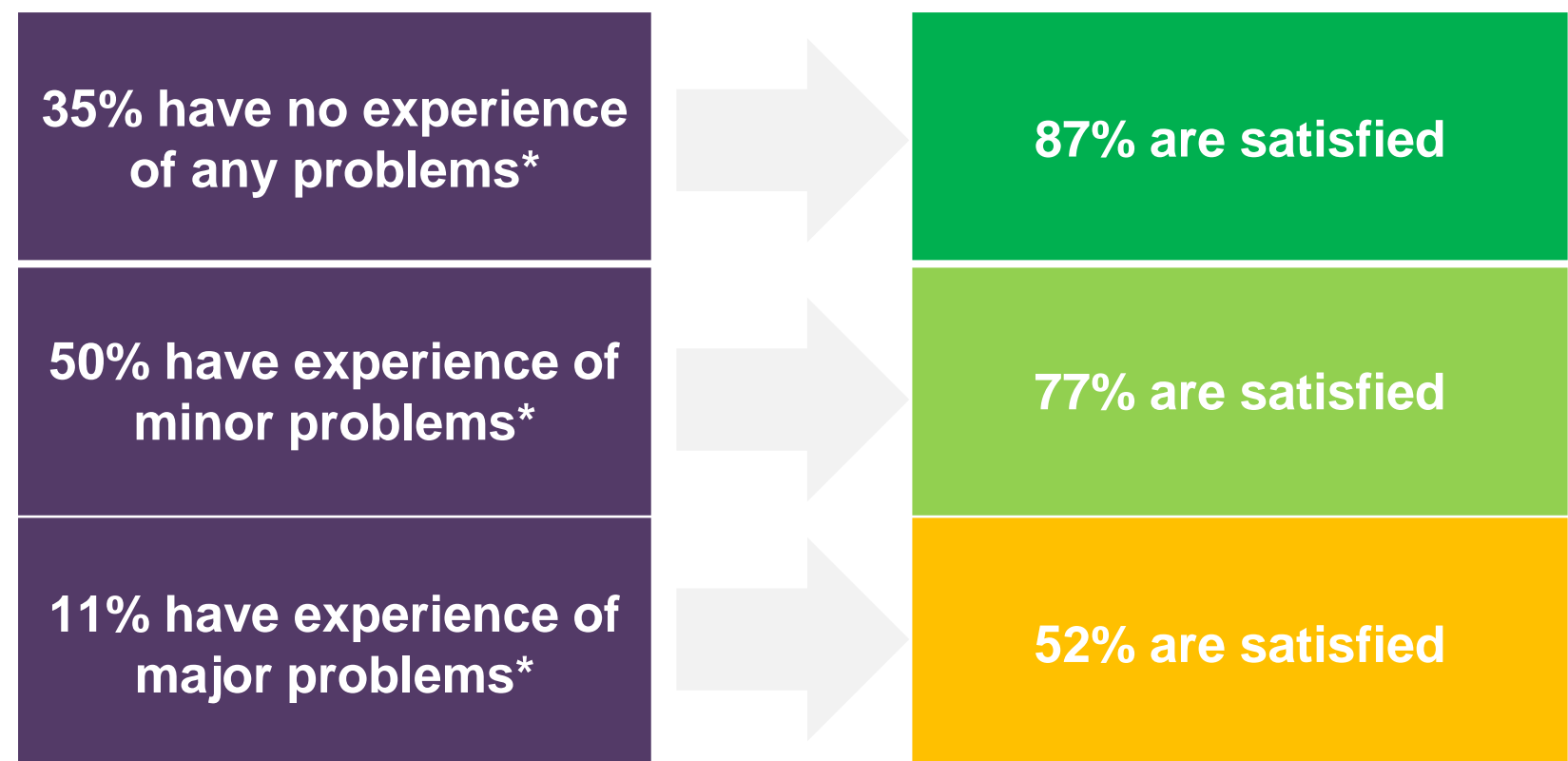
Deep-dive: broadband/landline

The vast majority of the public are satisfied with their broadband/landline service.

Thinking of the following services, how satisfied or dissatisfied are you with the service that you receive from each of them?



Half (50%) of the public say they have experienced a minor problem with their broadband. Those who have experienced a major problem are significantly less likely to say they are satisfied with their service.



Demographic differences

- Region:** those in Yorkshire (83%) and in Northern Ireland (82%) are most satisfied, and those in London (67%) are least satisfied with their broadband service. Londoners are also significantly more likely to say they have experienced problems (70% vs. 61% for the total population).
- Age:** those aged 65+ are significantly more likely than all other age brackets to say they are satisfied with the broadband service, with 86% saying they are satisfied.



Deep-dive: broadband/landline

As in the workshops, broadband and landline are less likely than energy and water to be seen as reliable.

- Experience of outages and periods of low speed were common in the workshops, with individuals in rural areas particularly likely to raise this as an issue.

Reflecting findings in the workshops, only a slim majority say that they are satisfied they get value for money from their broadband and landline.

This may be related to dissatisfaction with having to pay for landline services which few now use – a common participant complaint in the qualitative workshops.

Thinking specifically about the broadband/landline service you receive, how satisfied or dissatisfied are you with each of the following aspects?

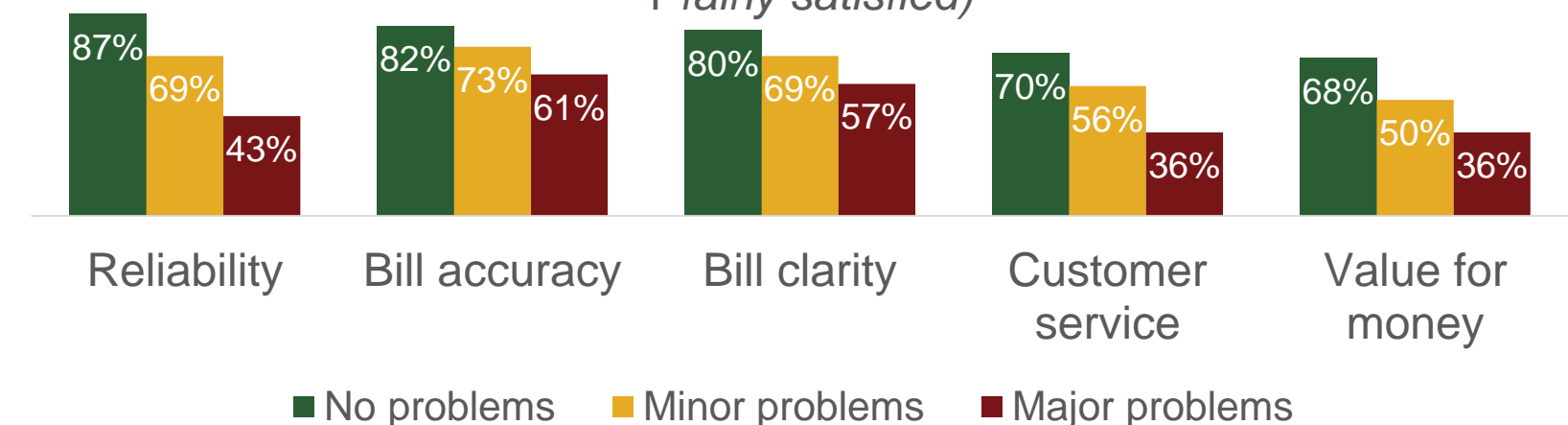
Showing percentage saying they are satisfied (very satisfied + fairly satisfied)



Further, those who say they have experienced major problems with their broadband service are significantly less likely to be satisfied with each of the tested elements of the service.

Thinking specifically about the broadband/landline service you receive, how satisfied or dissatisfied are you with each of the following aspects?

Showing percentage saying they are satisfied (very satisfied + fairly satisfied)



Demographic differences

- **Region:** those in Yorkshire are most likely to say they are satisfied with the reliability of their service (83%), those in London are least likely to say they are satisfied (59%).
- **Age:** those aged 65+ are the most likely to say they are satisfied with all the different elements of broadband/landline, for example 83% say they are satisfied with their bill accuracy compared to 73% of the public.



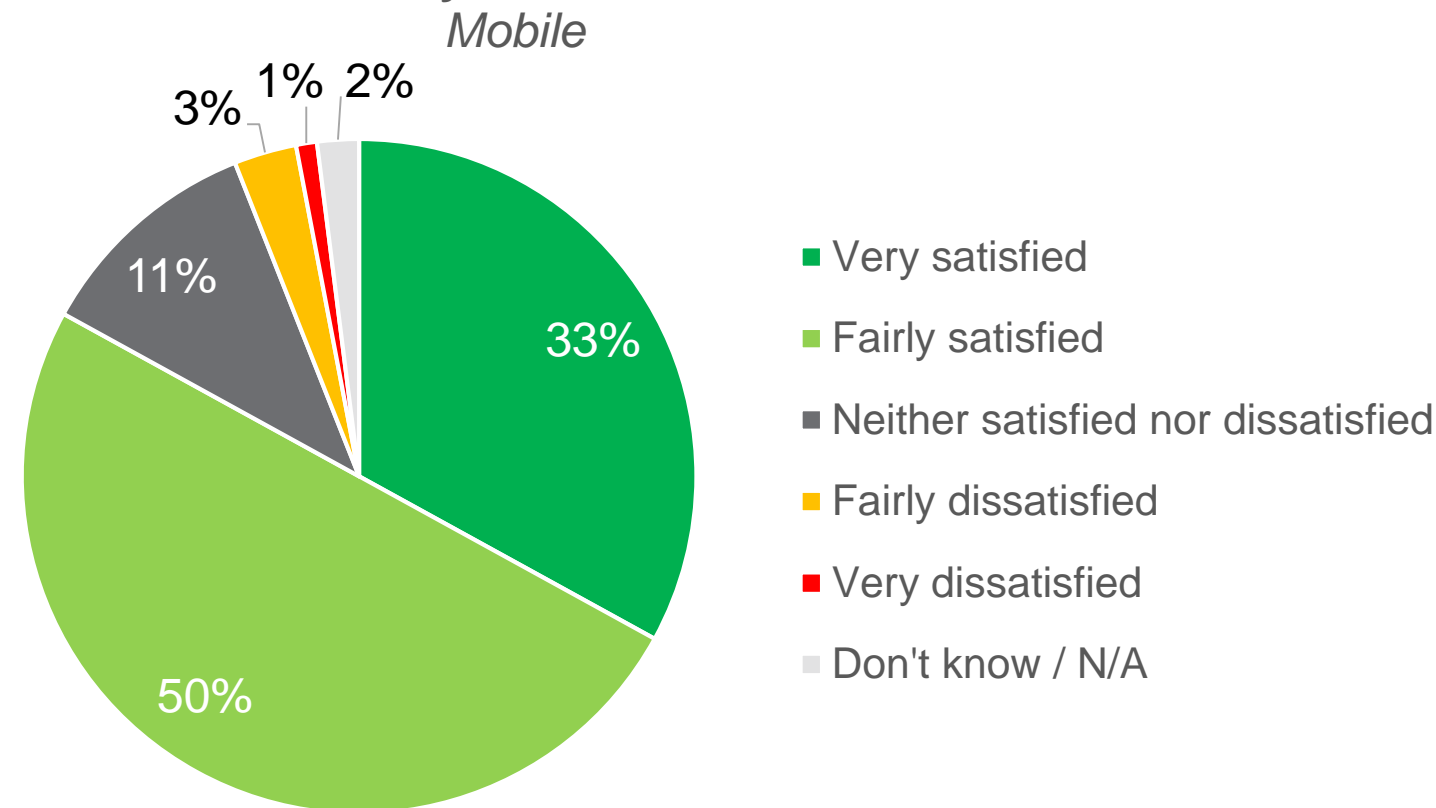
Deep-dive: mobile

Workshop participants tended to view mobile service as a more 'front-of-mind' service than energy or water.

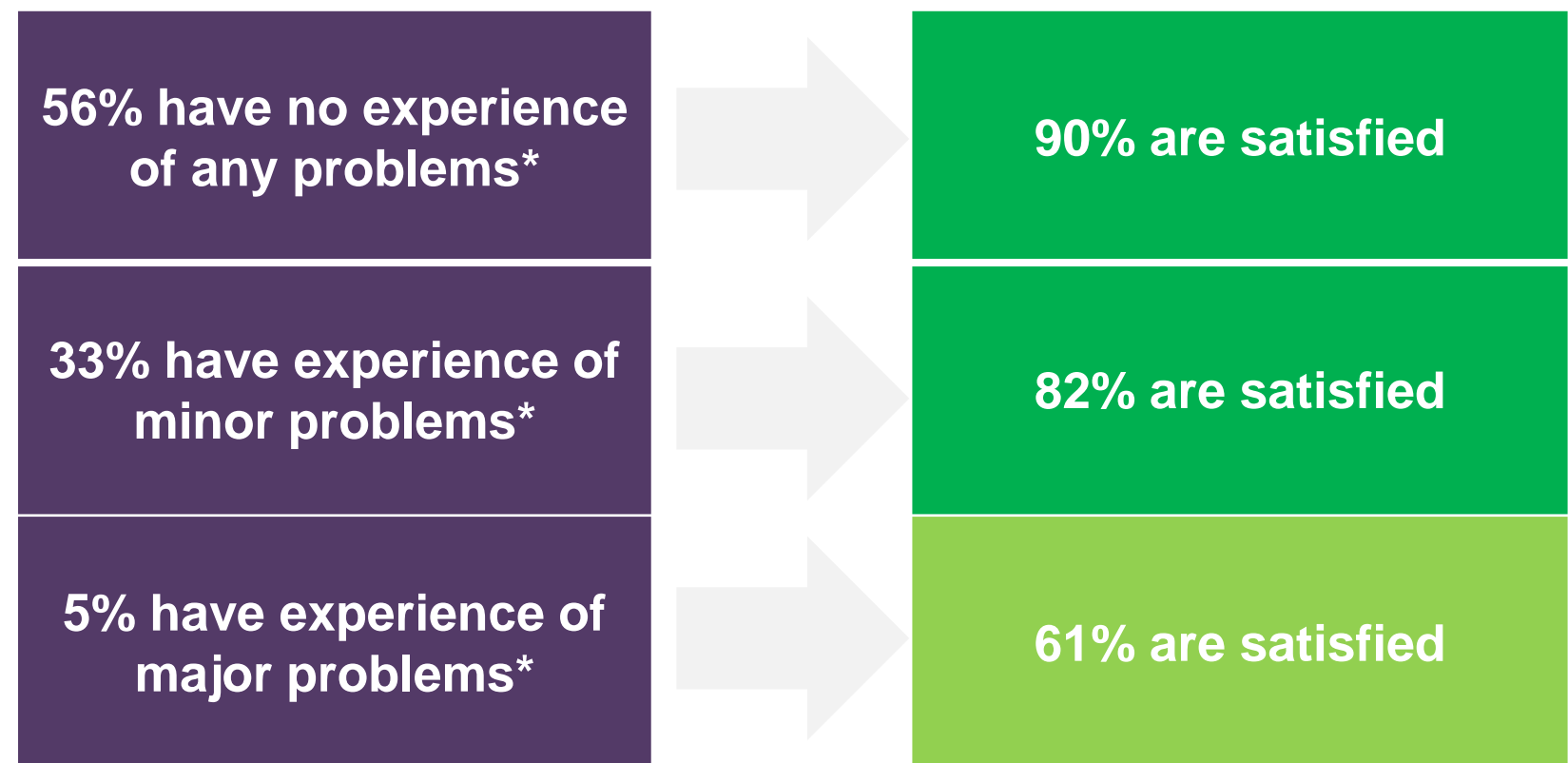
- In part this appeared to be due to experience of switching providers, but also a sense that this is a more 'exciting' sector, where new technology delivers significant improvements to people's lives.

The vast majority of the public appears satisfied with their mobile service.

Thinking of the following services, how satisfied or dissatisfied are you with the service that you receive from each of them?



Similarly to all other sectors, those with claimed experience of major problems are significantly less satisfied with their service than others.



Demographic differences

- Gender:** women are more likely to say they are satisfied than men (85% vs. 81%).
- Age:** mobile is the only sector where older members of the public are no more likely to say they are satisfied than younger members. However, they are also significantly less likely to use the internet on their mobile phone (57% vs. 81% for the total population).

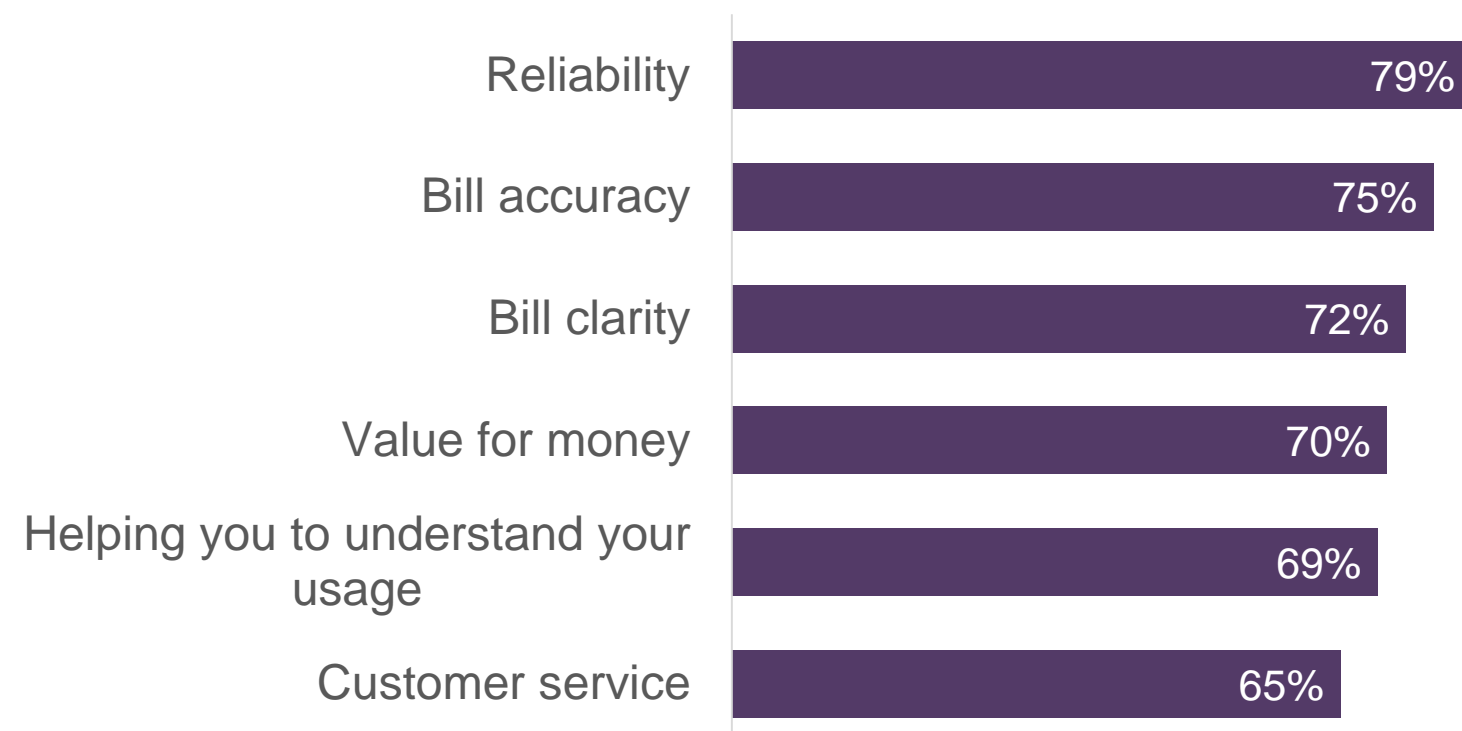


Deep-dive: mobile

Compared to other sectors, the public are more likely to say that they are satisfied with the value for money they get from their mobile service.

Thinking specifically about the mobile service you receive, how satisfied or dissatisfied are you with each of the following aspects?

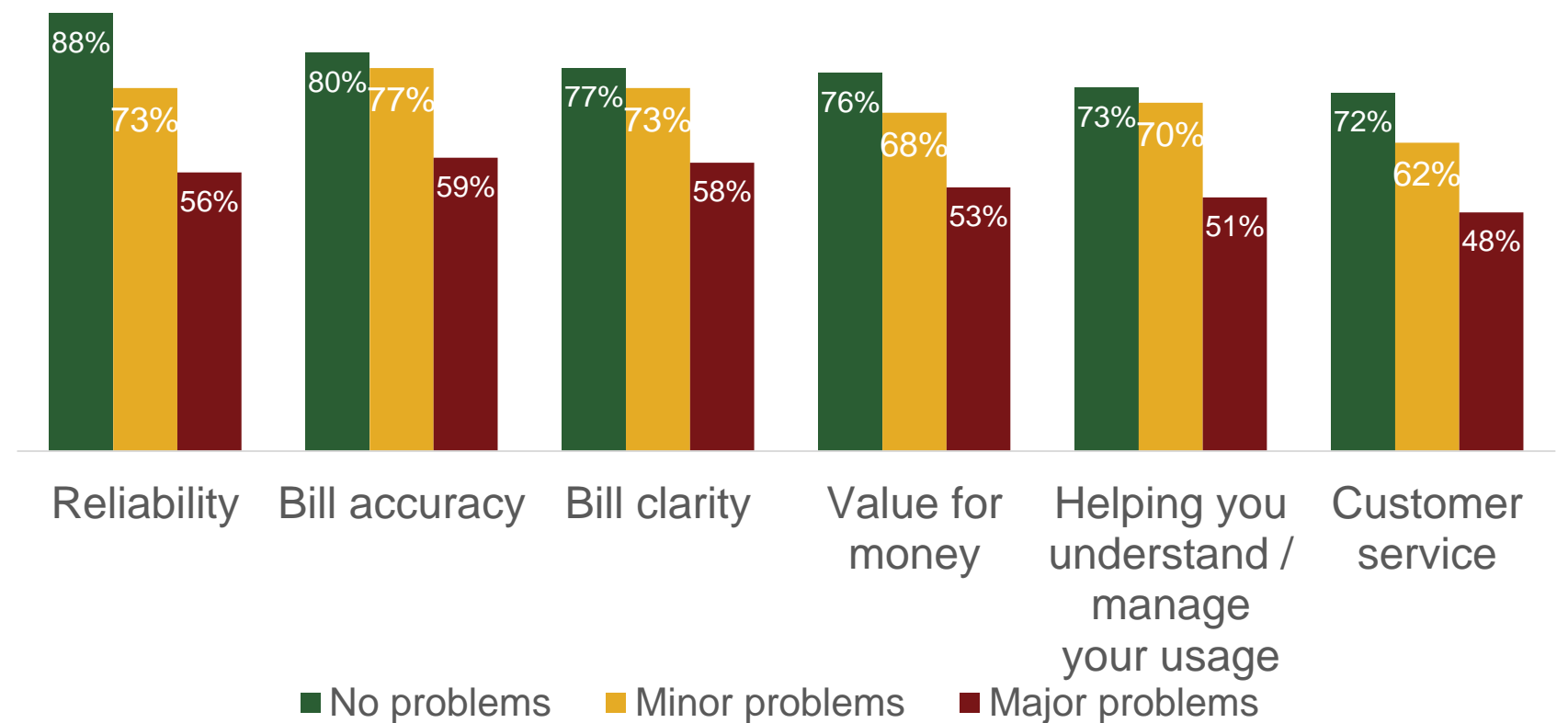
Showing percentage saying they are satisfied (very satisfied + fairly satisfied)



Similarly to all other sectors, those who claim experience of problems have more negative perceptions of all aspects of the mobile service.

Thinking specifically about the mobile service you receive, how satisfied or dissatisfied are you with each of the following aspects?

Showing percentage saying they are satisfied (very satisfied + fairly satisfied)



Demographic differences

- Age:** mobile service is the only sector where older members of the public are no more likely to say they are satisfied with any of the tested elements of the service than younger members.

We have drawn out an additional summary of differences by audience from the qualitative workshops:



Urban / suburban

- **Had few specific concerns or differences of opinion.**
- **Were generally content with the service that they receive, across all three sectors.**



Rural

- **Had particularly negative views of telecoms companies.**
 - Were more likely than urban consumers to be dissatisfied with quality of broadband and mobile service.
 - Often experienced very weak signal / slow speeds, frequent interruptions to service.
 - Frustrated and feel like 'second-class citizens' in comparison to urban / suburban consumers.



Future customers

- **Not as engaged in the markets,** and had fewer strong opinions about providers in each sector.
- **Had very limited impressions of water and energy companies.**
- **Had mixed impressions of telecoms companies,** they valued service advances (e.g. 4G) but criticised 'unfair' pricing practises like loyalty penalties.



Vulnerable

- Tended to struggle with bill accuracy/clarity and with dealing with customer service.
- Several had experienced issues with higher bills than expected and finding it difficult to understand customer service to get help.

02 Regulation

- Key findings
- Satisfaction with service delivery
- Corporate behaviour of utility companies
- Responses to future scenarios

In the workshops, corporate behaviour of utility companies was not a top-of-mind concern for the vast majority of consumers

Low engagement with the corporate behaviour of utility companies was driven by three key beliefs...

1

“I don’t know how utility companies operate.”

- The vast majority of participants had very little knowledge of how utility companies operate.
- Consequently, it was harder for them to think about their corporate behaviour than for other businesses they understand better (such as retail).

2

“All large businesses behave badly.”

- Many participants felt that most large businesses act against the interests of consumers (e.g. by avoiding paying their fair share of tax).
- They therefore assumed that utility companies were probably also doing this and that they had little in the way of choice between providers.

3

“The most unethical behaviours are already regulated.”

- Finally, there was an unattributed, uninformed belief that regulation and legal standards mean that all companies – including utilities – are behaving above an expected ‘decent’ baseline.
- It was assumed regulators would be on top of any flagrant abuses.

There was limited knowledge of specific regulators, particularly for water and energy, but consumers assumed “they” have it covered

- Many workshop participants were **unable to name water and energy regulators**, even when presented with a list of the 3 regulators across all sectors.
- However, across all 3 sectors there was an idea that “someone” would be overseeing utilities companies to **ensure they operate at a basic, minimum standard of good behaviour**.
 - Again, few workshop participants had a specific idea of what this behaviour would look like, but tended to believe that “someone” has assessed and set this on their behalf.
- **This perception was strengthened by the fact that few utility companies market themselves on their broader corporate behaviour**.
 - This was seen as different to other sectors (such as retail) where companies actively discuss their corporate behaviours (such as supply chains and treatment of staff)
 - The one exception to this was Bulb in the energy sector, which some had chosen for its environmental credentials.

“We live in the UK, they have to pay staff fairly – they’re not allowed to do really unethical things.”

Norwich

“John Lewis have always had a good reputation with employees, well partners, and I would support something like that over some big corporate with its bosses.”

Nottingham

Most participants were only aware of ethical or unethical behaviours when clearly highlighted in the media or advertised by brands

Poor corporate behaviour

- Most workshop participants found out about poor corporate behaviour via scandals and coverage in mass media, e.g. most were spontaneously aware of Starbucks' and Amazon's high-profile tax avoidance.
- However, the vast majority of participants admitted that price and convenience meant they continue to use both brands.
- In general, most were not spending much (or any) time researching or considering ethical behaviours of brands they use day-to-day.

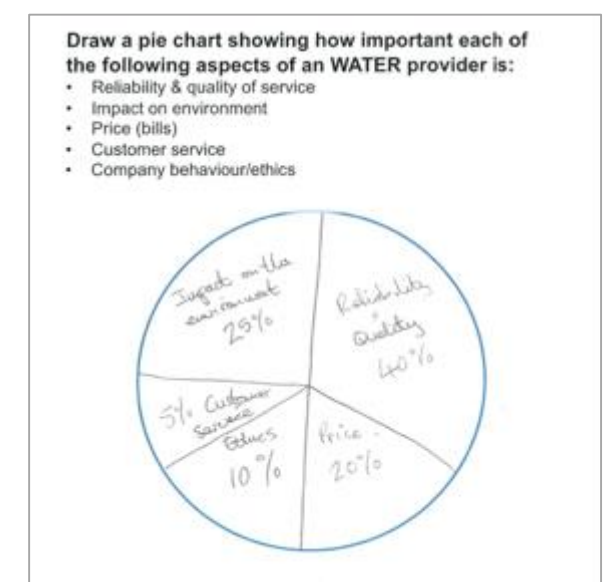
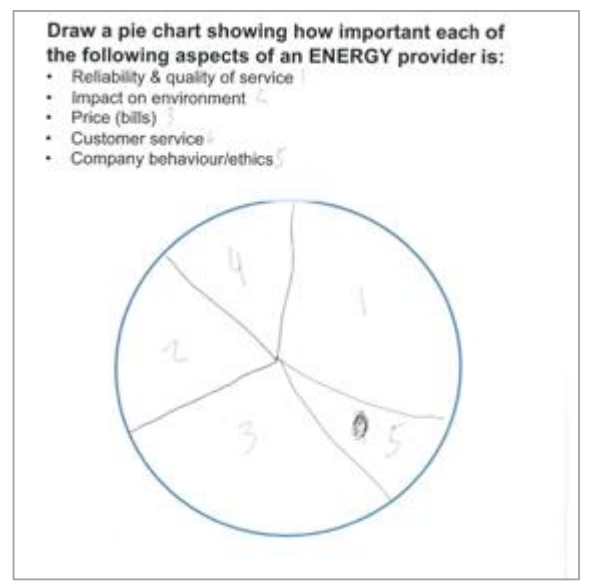
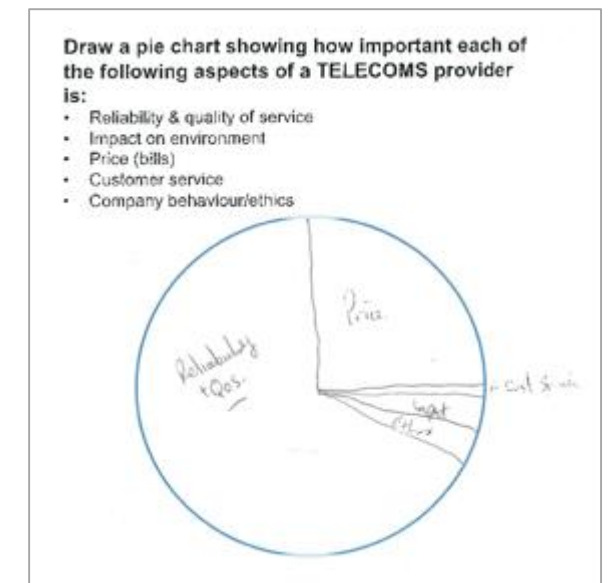
Good corporate behaviour

- Some participants in each workshop were able to spontaneously name brands which are relatively common household / high-street names who actively advertise their ethical principals.
- However, the vast majority of participants were not engaged with their utility suppliers in the same way as they are with retailers and other brands they identify as 'good' companies.
 - There were a handful of exceptions to this across all 12 workshops, where participants had actively selected eco-friendly brands (usually in the energy sector).

Consumers wanted reliable and affordable essential infrastructure services – company behaviours were rarely mentioned spontaneously



- Reliability and price were key priorities – consumers saw these as essential services that needed to be consistent and affordable.
- Environmental impact was seen to be more important in the energy sector, where workshop participants found it easier to make a direct link between usage and impact.
- Company behaviours were rarely mentioned spontaneously as a core measure of performance.






This qualitative ranking closely matches the ranking that came out of the quantitative research (slide 33).

Low prices and reliability were seen as the key measures of how good utility companies are, rather than company ethics

Whilst workshop participants were not engaged with the broader behaviours of utility companies, they were interested in how **reliable the service is** and **how much the service costs them**.

Perceptions of these factors varied by sector:

 Water	 Energy	 Telecoms
<p>Water services were seen as being very reliable across the country.</p> <p>However, perceptions of cost varied by location and group.</p> <ul style="list-style-type: none">• Most participants felt the cost of water was low, however future customers in Nottingham felt it was too high.	<p>Energy provision was also seen as being very reliable.</p> <p>Energy costs were seen as being too high by many participants.</p> <ul style="list-style-type: none">• This was driven in part by a perception that costs are rising.	<p>Digital telecoms were seen as being relatively unreliable.</p> <p>Views of pricing differed between mobile and broadband.</p> <ul style="list-style-type: none">• Mobile pricing was generally seen as competitive, whereas broadband pricing practices (e.g. loyalty penalties) were regarded as unfair and frustrating.

The standard of customer service and 'fairness' in pricing were important, albeit secondary concerns



Good customer service is seen as vital for when things go wrong.

- **Workshop participants felt that good utility companies took customer service seriously:** answering questions promptly, taking responsibility for issues and fixing them in a timely manner.
- **Poor customer service was often seen as a sign that a company 'didn't care'** and was therefore a proxy for a company being bad.



There is a strong sense that customers shouldn't have to haggle for a 'fair' price.

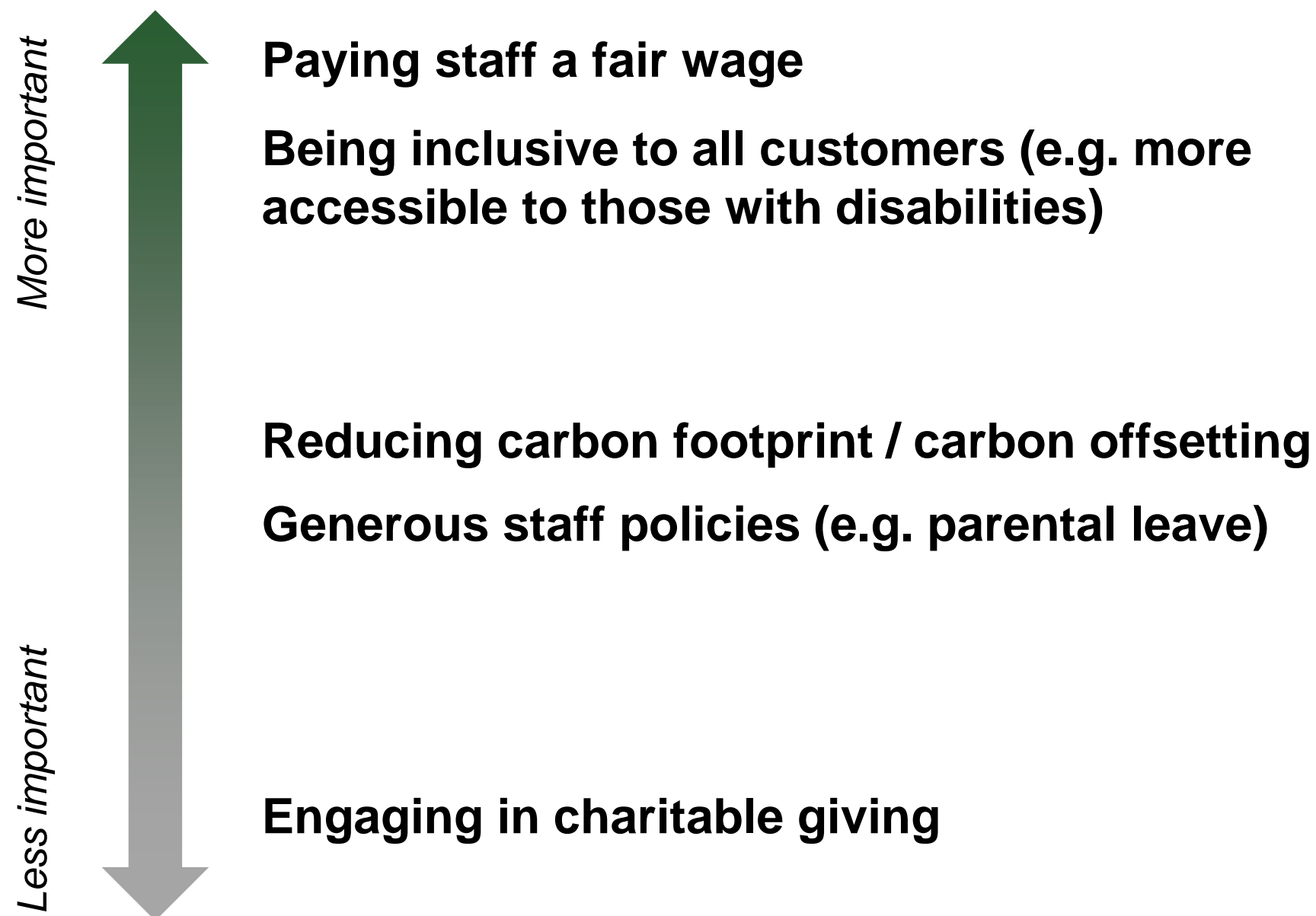
- **Workshop participants felt they needed to haggle to get the best deals in the energy and telecoms sectors:** this was seen at best as a hassle and at worst as unfair, as less savvy consumers or those less able to 'work the system' end up paying more money for the same services as other people.

We showed workshop participants a set of positive and negative corporate behaviours to prompt further discussion

- 😊 Paying staff a fair wage
- 😊 Generous staff policies (e.g. parental leave)
- 😊 Being inclusive to all customers (e.g. more accessible to those with disabilities)
- 😊 Reducing carbon footprint / carbon offsetting
- 😊 Engaging in charitable giving

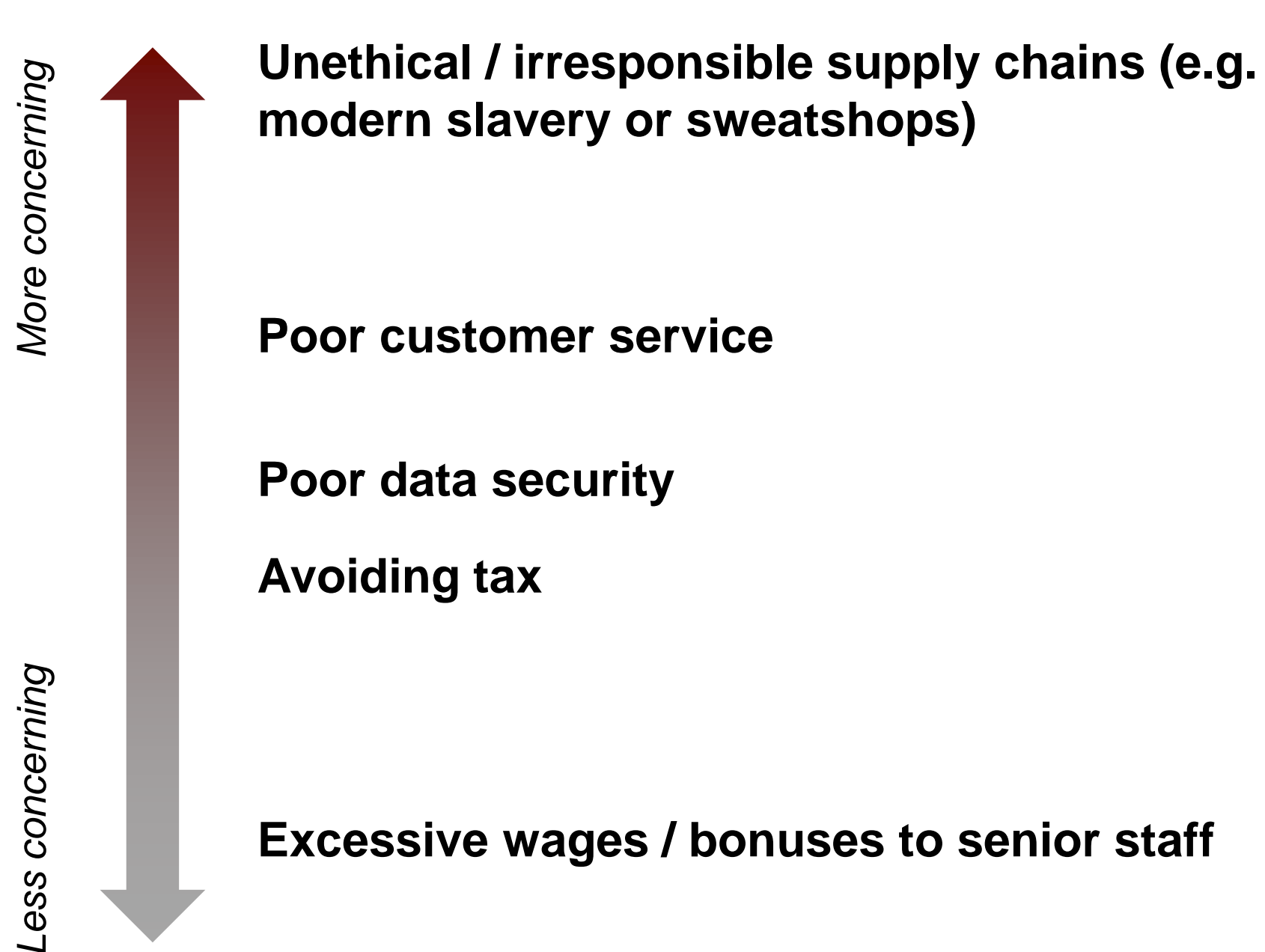
- 😞 Avoiding tax
- 😞 Unethical / irresponsible supply chains (e.g. modern slavery or sweatshops)
- 😞 Poor customer service
- 😞 Poor data security
- 😞 Excessive wages / bonuses to senior staff

Workshop participants felt that many of the positive behaviours were ‘nice to have’ on top of already regulated and legislated for baselines



- Participants **assumed that staff payment and treatment is already governed and regulated**, meaning all private companies pay a fair wage (taken to mean minimum wage) and offer benefits expected by UK law.
- Likewise, there was a degree of uninformed assumption amongst many participants that some level of **oversight exists to assess and encourage reduction of environmental impact**.
- Given these assumptions, **most of these behaviours were considered non-essentials rather than a pressing, urgent requirement**.
- Most participants admitted **they don't look out for these kinds of behaviours** and that they, alone, would be **unlikely to influence** their choice of provider.

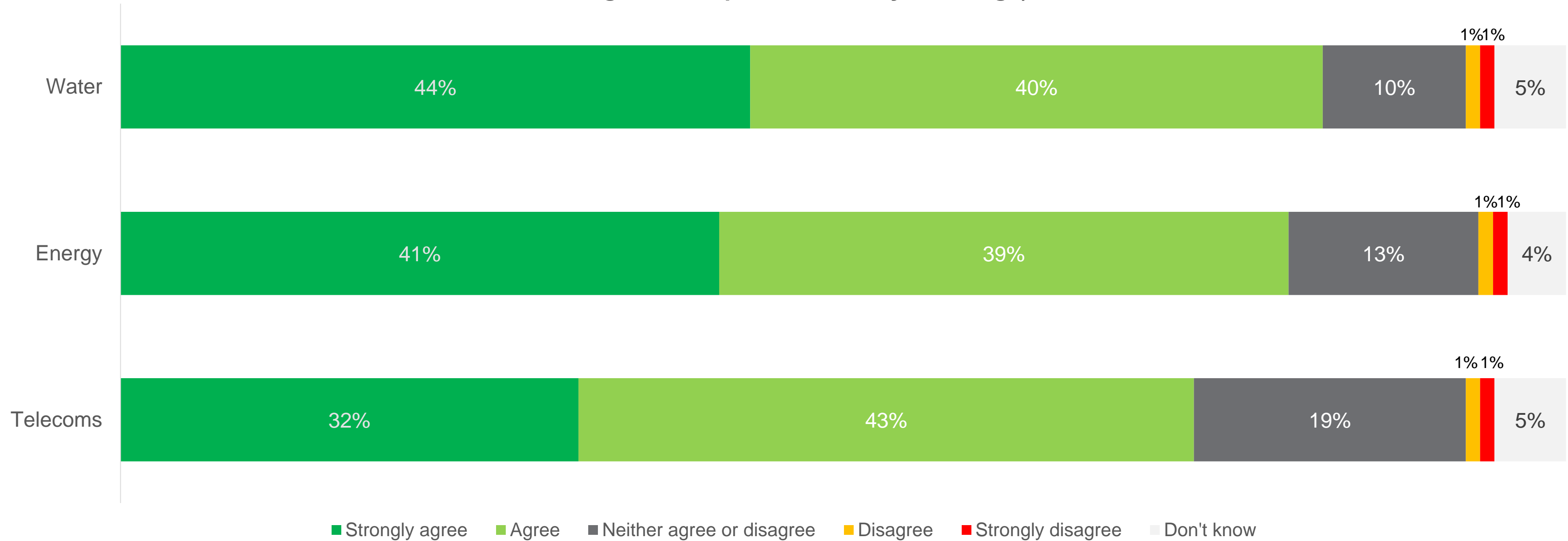
Workshop participants expected companies to act in their own interest but assumed the very worst behaviours are already regulated



- Participants felt that unacceptably poor business practices that endanger life would be most concerning, but assumed that there is **already legislation to prevent them** from happening.
- Tax avoidance and bonuses were seen as **expected and normal amongst private companies**, and also less important *if* quality of service and price for customers is good. However, this becomes relevant when quality of service does not meet expectations and when deliberating how resilience improvements should be paid for.
- Most participants admitted **they don't look out for or know about these kinds of behaviours** in their utility providers, but tended to assume most would **already be regulated**.

There is a strong agreement across the public that companies should do their bit to improve the environment

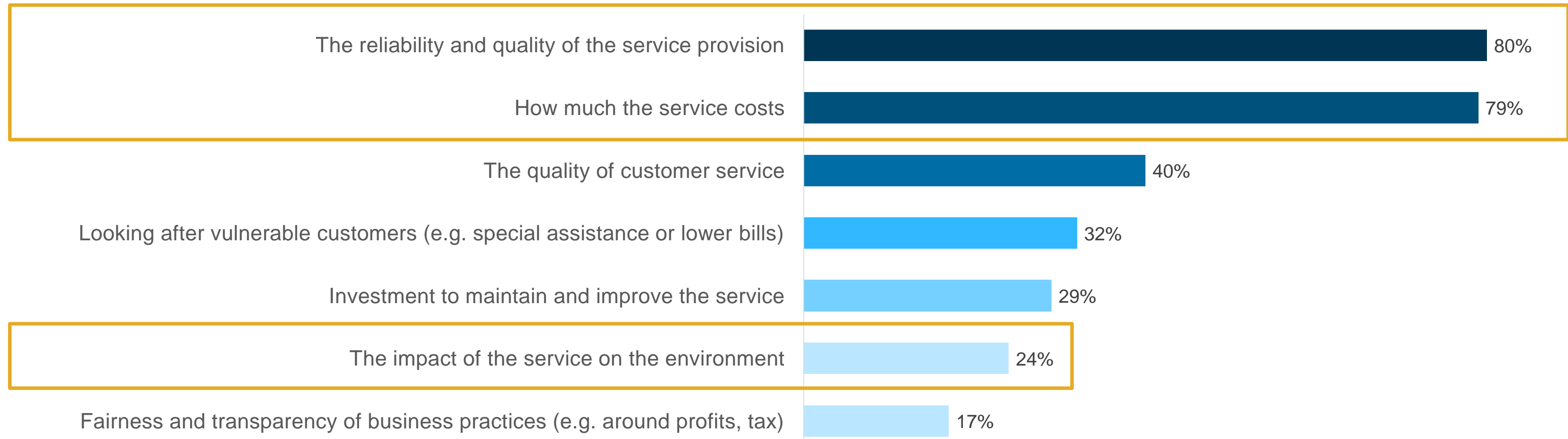
“[SECTOR] companies should do their part to improve the environment (e.g. using resources more efficiently, reducing visual impact on scenery/ buildings)”



However, when asked to rank what is important in a utility provider, reliability and cost of service are by far the most important elements

When thinking about your utilities providers (including water, energy, and telecoms), which of these elements do you feel are most important? Please rank from 1 - 7, with 1 being the most important and 7 being the least important.

Showing percentage placing each option in their top three priorities

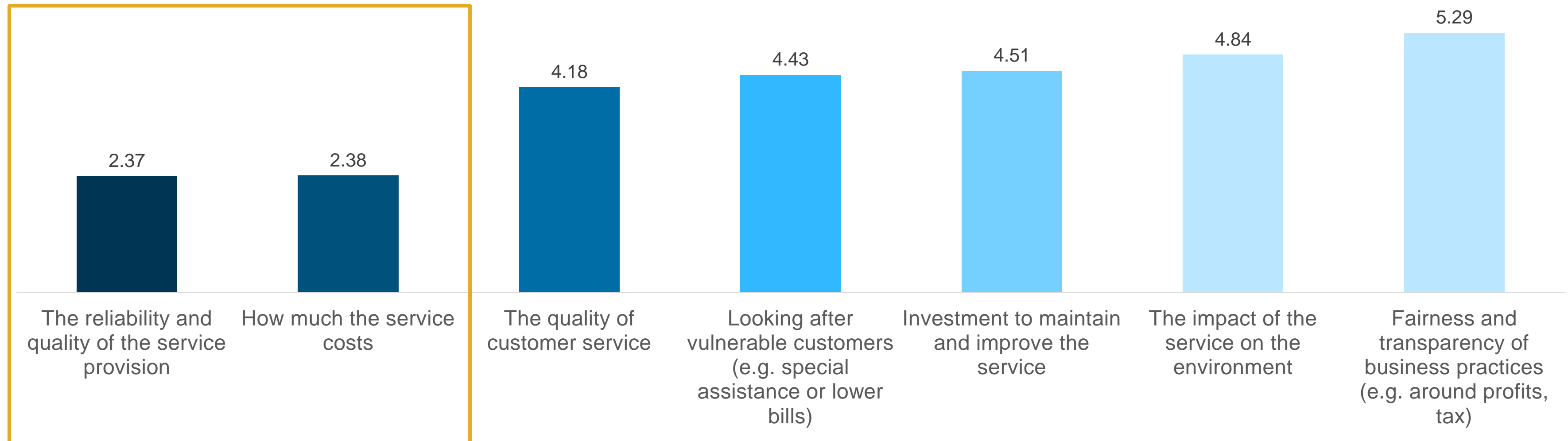


This mirrors findings in the workshops, where (despite viewing the environment as highly important) participants' low knowledge of how utility companies can affect the environment meant they were unlikely to view it as an important element of the service.

When looking at the mean ranking for each sector, cost and reliability again emerge as the most important factors

When thinking about your utilities providers (including water, energy, and telecoms), which of these elements do you feel are most important? Please rank from 1 - 7, with 1 being the most important and 7 being the least important.

Showing mean ranking for each option



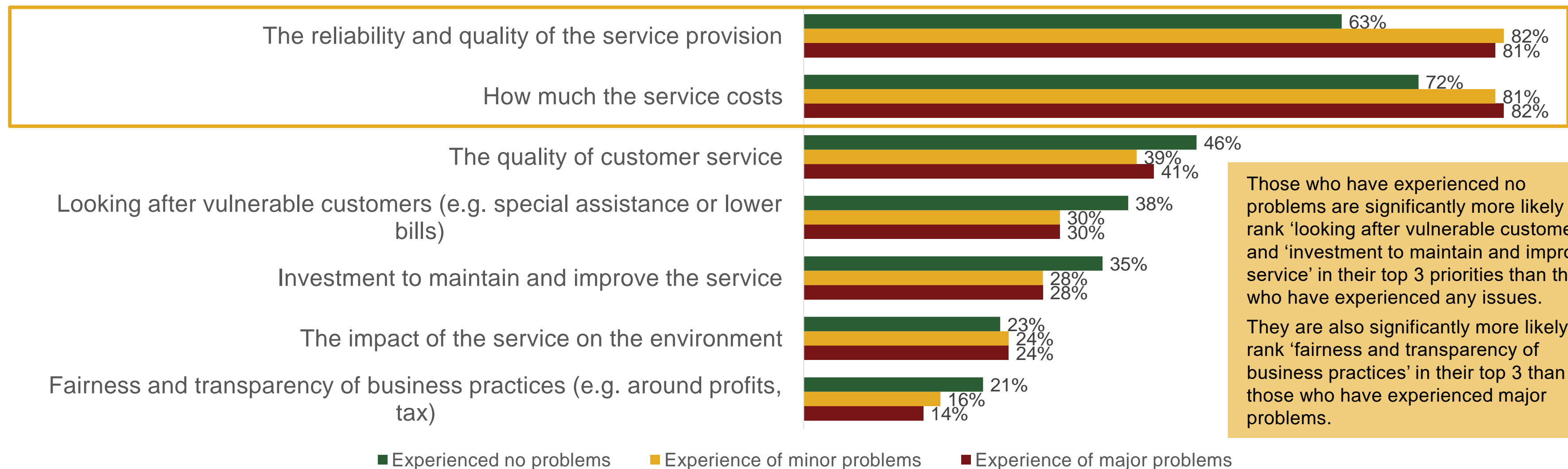
When looking at the full breakdown of where each factor was ranked, reliability and cost again emerge as most important

	1st	2nd	3rd	4th	5th	6th	7th
The reliability and quality of the service provision	38%	29%	12%	8%	5%	5%	3%
How much the service costs	38%	29%	12%	8%	5%	4%	3%
The quality of customer service	6%	11%	23%	18%	16%	12%	13%
Looking after vulnerable customers	7%	10%	15%	17%	19%	18%	14%
Investment to maintain and improve the service	3%	10%	16%	20%	20%	18%	13%
The impact of the service on the environment	6%	6%	12%	15%	18%	22%	21%
Fairness and transparency of business practices	2%	5%	10%	13%	17%	20%	33%

Customers who haven't experienced problems are more likely to think other issues are also important

When thinking about your utilities providers (including water, energy, and telecoms), which of these elements do you feel are most important? Please rank from 1 - 7, with 1 being the most important and 7 being the least important.

Showing percentage placing each option in their top three priorities

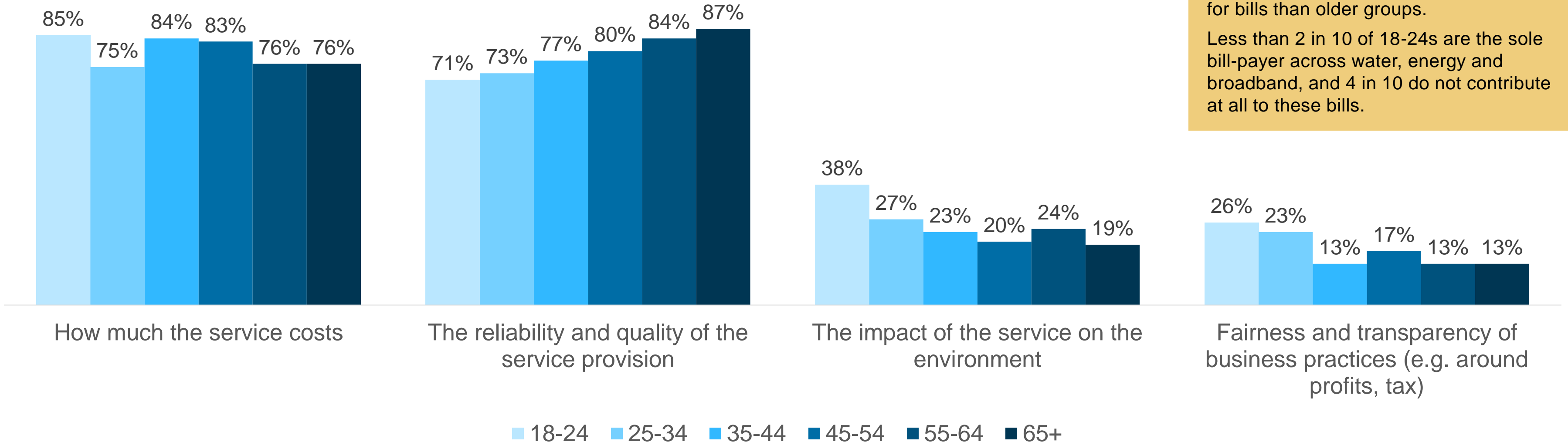


Those who have experienced no problems are significantly more likely to rank 'looking after vulnerable customers' and 'investment to maintain and improve service' in their top 3 priorities than those who have experienced any issues. They are also significantly more likely to rank 'fairness and transparency of business practices' in their top 3 than those who have experienced major problems.

Older people are more likely than younger people to prioritise reliability, but less likely to prioritise the environment

When thinking about your utilities providers (including water, energy, and telecoms), which of these elements do you feel are most important? Please rank from 1 - 7, with 1 being the most important and 7 being the least important.

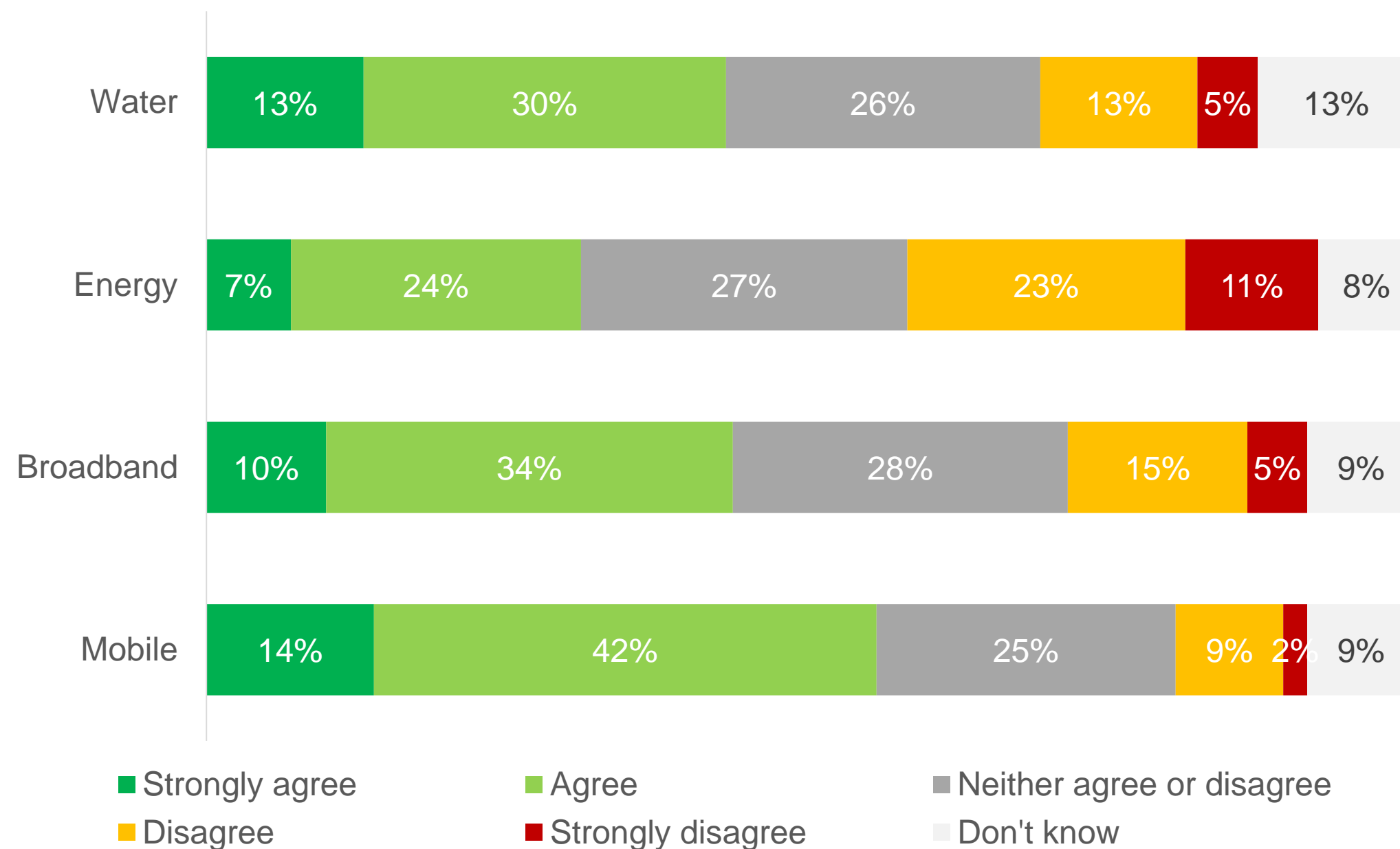
Showing percentage placing each option in their top three priorities



Outside of mobile, younger groups have significantly lower responsibility for paying for bills than older groups. Less than 2 in 10 of 18-24s are the sole bill-payer across water, energy and broadband, and 4 in 10 do not contribute at all to these bills.

Perceptions of affordability are mixed across sectors, with a substantial segment of the public viewing energy bills as unaffordable

“Current [SECTOR] bills are generally affordable for most people in the UK”



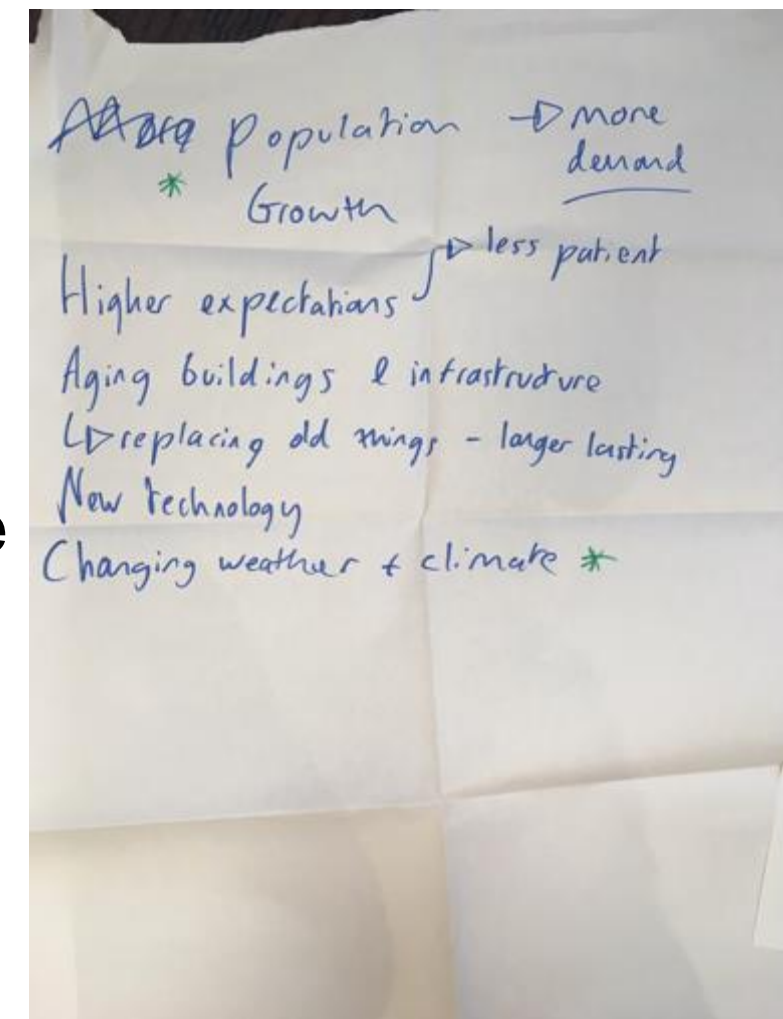
- **Water is seen as affordable by a plurality of people** (43% agree vs. 18% disagree).
 - There are some regional differences, with those in the North West (25%) and South West (30%) more likely to disagree.
- **Over a third (34%) of the public disagree that energy bills are affordable.**
 - Those with a smart meter are more likely to perceive energy bills as affordable (35% compared to 28%).
- **Views of the affordability of telecoms vary by broadband/landline and mobile.**
 - A majority (56%) of the public view mobile as affordable, whilst only a minority (44%) view broadband as affordable.

02 Regulation

- Key findings
- Satisfaction with service delivery
- Corporate behaviour of utility companies
- Responses to future scenarios

Qualitative research suggests there is limited spontaneous awareness of changes to the provision of utility services, recent or anticipated

- In the workshops, few were able to easily identify any significant recent **changes** to how services are provided, particularly in water and energy sectors:
 - A handful of more engaged participants were able to reference smart metering, increasing use of renewables and faster broadband/mobile data connectivity (e.g. 5G).
- Participants also **struggled to envisage ways in which service provision is likely to change** in future. The most engaged participants were able to make some predictions, though these tended to be uninformed and vague:
 - Increasing reliance on renewables and other 'green' initiatives.
 - Increasing emphasis on 'digital'.
- Often, talking about future changes **tended to drive the conversation towards challenges and threats**, rather than opportunities and improvements:
 - E.g. increased demand due to population growth, price increases, climate change, ageing infrastructure and increasing reliance on foreign countries (energy and telecoms companies).



Flipchart of future changes
Glasgow, Energy, General public

In the workshops, we shared some examples of future sector scenarios with participants



WS4 Energy

Creation of 'smart homes' that require less energy to run

- Encouraging the building of homes that are more energy efficient
- Using the 'internet of things' and interconnected devices to help consumers save energy and reduce bills

WS4 Energy

'Bundling' of services

- Buying your utility services as a single package from one retailer, thereby reducing consumer interaction with multiple retailers
- These already exist (e.g. combined tariffs for energy/gas, getting a deal on fixed wifi with your mobile provider), but not across two sectors

WS4 Energy

Time of use tariffs

- Paying different amounts for using energy at different times of day. Time of use tariffs are used in the commercial sector to manage load on the national grid (which needs to be kept in equilibrium)
- In practice, it means that energy is more expensive in the mornings and evenings, because that's when most people use energy (for lighting, heating, having showers, cooking, watching TV, boiling the kettle, etc)
- Variable tariffs are used to incentivise people to reduce or shift their energy use if they are able to. This will make the average bill lower (due to system efficiency), but has distributional impact (ie some people's bills will be much lower and others much higher, depending on the extent to which people can reduce or shift their demand)

WS4 Digital

'Flippers' and digital platforms

- Flippers are applications which automatically switch your provider/tariff to maximise savings, eliminating all contact between the consumer and utilities provider
- These are currently used for electricity and gas

WS4 Energy

Increasing use of digital platforms

- E.g. service-specific apps for bills, customer service, and meter readings; or third party apps to help integrate various services into one place
- E.g. Whatsapp or other chat services for customer services / notifications
- E.g. using alert systems and tips to help consumers reduce energy use

WS4 Water

Internet of Things

- Refers to the connection of the internet into physical devices, thereby increasing connectivity between different objects to create a network of 'things'
- Important developments in this area will be things like smart homes (eg using voice recognition devices to control lighting, heating and appliances) and connected autonomous vehicles (driverless cars)
- All of this will be highly dependent on super-fast speeds delivered by 5G, which is anticipated to generate around a 10-fold increase in the number of connected devices on the network when compared to 4G

Responses to the future scenarios were mixed and there was considerable cynicism, particularly among older consumers

Cynicism and resistance towards the future scenarios in the workshops tended to be driven by three elements:

1

Lack of engagement with and appetite for change.

- Since most customers were broadly satisfied with the provision of utility services, the scenarios were not regarded as solutions to particularly pressing problems.
- Participants struggled to understand the intricacies of distributional consequences.

2

Resistance to and scepticism about cost implications.

- Many – particularly older customers – were initially sceptical about the scenarios and the implications for them in terms of increased costs.
- This cynicism tended to be underpinned by a lack of trust in companies to ‘do the right thing’ and make changes for customer benefits.

3

Concerns over loss of control and reduction in reliability.

- Participants were concerned that changes to distributional models (e.g. flippers and bundling) would limit their ability to ‘vote with their purse’, and reduce incentive to provide exceptional service.
- For telecoms, consumers wanted to be able to choose from a variety of personalised packages.

More active consumers could see some potential benefits, if their concerns are assuaged

Positivity towards the future scenarios in the workshops tended to be driven by two elements:



Increased convenience




- Changes that increase convenience for customers by giving them easier access to information and control of services, or reduce their need to be in contact with suppliers, were seen as positive.
- Future customers, in particular, were more positive about flippers and bundling – which they saw as a good solution to spending a long time finding the best deals in each sector.





Increased efficiency and/or reduced costs

- Although many were concerned that the changes would be aimed at increasing charges, and therefore company profits, they liked ideas which would either reduce costs or give them a better ability to reduce demand and save money (like controlling services via apps).

Consumer reactions to future scenarios: overview (1/2)

	 Flippers	 Bundling	 Time of use tariffs
Positive responses	<ul style="list-style-type: none"> Liked in principal. Greater enthusiasm if flippers had trusted reputation (e.g. regulation). Would be good if flippers could select for factors other than price (e.g. eco-friendliness). 	<ul style="list-style-type: none"> The convenience of only interacting with one retailer was welcomed, mainly by future customers. 	<ul style="list-style-type: none"> 'Societal' rationale for these understood and accepted (e.g. reducing demand, climate change). Some already pay variable rates, including off-peak tariffs (e.g. cheaper energy on Saturdays).
Negative responses	<ul style="list-style-type: none"> Lack of trust in flipper finding best available deal. Some preferred greater control, particularly for telecoms where service levels vary. Concerns about where you would go with complaints or to get fixes for disruptions. 	<ul style="list-style-type: none"> Some concern about lack of choice or control over supplier, particularly for sectors with service differentiation. Reluctance among most to pay a premium for minor increase in convenience. 	<ul style="list-style-type: none"> Default assumption was that they would lose out. Regarded as particularly unfair for shift workers and low-income families. Few thought they would change their behaviour as a result, so would just be increasing company profits.

Consumer reactions to future scenarios: overview (2/2)

	 Digital platforms	 IoT / Smart homes
Positive responses	<ul style="list-style-type: none">• Most were broadly supportive of a move in this direction, feeling it would be more convenient and also aid in reducing demand and saving money.• Future customers and younger customers were more enthusiastic.	<ul style="list-style-type: none">• Some interest in this concept but only a minority, mainly future customers, were very enthusiastic.
Negative responses	<ul style="list-style-type: none">• Older and vulnerable participants tended to be less keen, and some had concerns about their ability to engage in a digital-only world.	<ul style="list-style-type: none">• Concerns about privacy and cyber security were voiced by several participants.• Assumption that it would be expensive to install the devices required.

03 Resilience

- Key findings
- Experiences and expectations
- Priorities for ensuring resilience
- Balance of responsibility

Resilience: key findings (1/2)

1

In the qualitative workshops, **participants judged the acceptability of service disruptions using three criteria:**

1. The **level of impact** the disruption will have on their lives.
2. The **feasibility of working around** the disruption.
3. How well the disruption is **communicated**.

2

Few workshop participants had experienced disruption to their water or energy services and felt that a **constant, uninterrupted supply is the norm for these sectors**. Similarly, the quantitative survey showed that relatively low proportions of the public have experienced any problems with their water (24%) or energy service (27%).

3

In both the workshops and the survey, **the public were more likely to say they have experienced disruption with their broadband service (61%) and with transport (53% for car and 39% for rail)**. Workshop participants described disruption as being normal and expected in these sectors.

4

In the workshops, there was very low tolerance of disruption to the water or energy service. Participants felt there would be a high impact on them and others in the UK if these services were disrupted. They also believed that the UK's infrastructure should be able to withstand any issues which would cause long-term outages.

Resilience: key findings (2/2)

5

In the workshops, **participants felt strongly that providers have responsibility for providing adequate service levels**, including ensuring their service is resilient.

6

There were high levels of resistance to the idea of increases to bills or ticket prices to cover additional investment in the workshops. During discussions, many referred to their perception that companies were making large profits and that they should be investing some of these profits into improving resilience, rather than increasing costs for customers.

7

However, when forced to make a trade-off between price and service levels in the survey, majorities said they would **rather pay more to maintain service levels than pay the same and see a decrease, for water and energy.**






8

In contrast, **fewer than half of survey respondents said they would pay more to maintain service levels for telecoms and transport.** This is reflective of what we saw in the workshops, where many participants felt transport services currently offer poor value for money, a perception driven by greater experience of disruption.




03 Resilience

- Key findings
- Experiences and expectations
- Priorities for ensuring resilience
- Balance of responsibility






In the workshops, participants voiced an expectation of a constant supply of water and energy, but expected disruption in telecoms

Service	Expected service level (qualitative)
 Water	A constant, clean, reliable supply of water was taken for granted by most and had come to represent a bare minimum 'normal', expected service.
 Energy	A constant, reliable supply of energy had also come to be taken as 'normal' service for most.
 Landline	Participants were more likely to have experienced low impact, day-to-day disruptions , e.g.: <ul style="list-style-type: none"> • Signal, broadband and data drop-outs and 'black-spots'. • Slow broadband, especially during peak times. • Wireless broadband not covering full home.
 Broadband	
 Mobile	

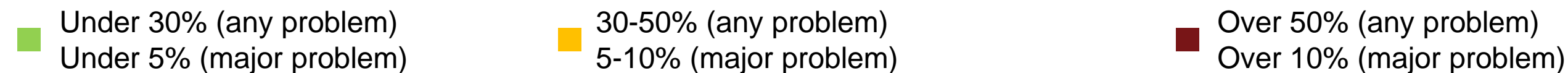
Participants in the workshops were also more likely to expect and see disruptions as 'normal' for transport sectors

Service	Expected service level (qualitative)
 Car	<p>Consumers were likely to have experienced low and high impact disruptions, e.g.:</p> <ul style="list-style-type: none">• Cancellations and strikes on public transport.• Unpredictable timings and delays on public transport.• Frequent congestion on key roads and junctions, particularly at peak times. <p>As a result, disruptions had become more normalised and were expected to a degree.</p>
 Bus	
 Rail	




The survey showed experience of problems was relatively rare for water, energy, landline and mobile, but more widespread for broadband

Service	Experience of problems* (any)	Experience of problems* (major)
 Water	24%	3%
 Energy	27%	4%
 Landline	25%	4%
 Broadband	61%	11%
 Mobile	39%	5%

**Respondents self-defined whether they had experienced problems (and if they were major or minor) meaning results should only be taken as indicative.*







The survey also revealed that over 1 in 10 members of the public say they have experienced major problems when travelling by road or rail

Service	Experience of problems* (any)	Experience of problems* (major)
 Car	53%	12%
 Bus	30%	5%
 Rail	39%	11%

■ Under 30% (any problem)
■ Under 5% (major problem)
 ■ 30-50% (any problem)
■ 5-10% (major problem)
 ■ Over 50% (any problem)
■ Over 10% (major problem)





**Respondents self-defined whether they had experienced problems (and if they were major or minor) meaning results should only be taken as indicative.*

Overview of experiences and expectations (utilities)

Service	My supply/connectivity is continuous with minimal disruptions	I have never had any issues with my provider	Companies should do their part to improve the environment	The quality and reliability of the service is in line with what I expect
 Water	86%	68%	84%	76%
 Energy	84%	63%	80%	76%
 Broadband/landline	64%	41%	75%	64%
 Mobile	66%	57%	75%	64%




80-89% agree
 70-79% agree
 60-69% agree
 50-59% agree
 40-49% agree
 30-39% agree

Overview of experiences and expectations (utilities)

Service	If disruptions occur, my provider is good at communicating what the problem is and when it will be resolved	If there is going to be a disruption, I am generally made aware of this	My provider is clear about what steps they are taking to maintain the reliability of, or improve, my service
 Water	52%	56%	49%
 Energy	40%	44%	40%
 Broadband/landline	41%	37%	37%
 Mobile	37%		

■ 80-89% agree
 ■ 70-79% agree
 ■ 60-69% agree
 ■ 50-59% agree
 ■ 40-49% agree
 ■ 30-39% agree

Overview of experiences and expectations (transport)

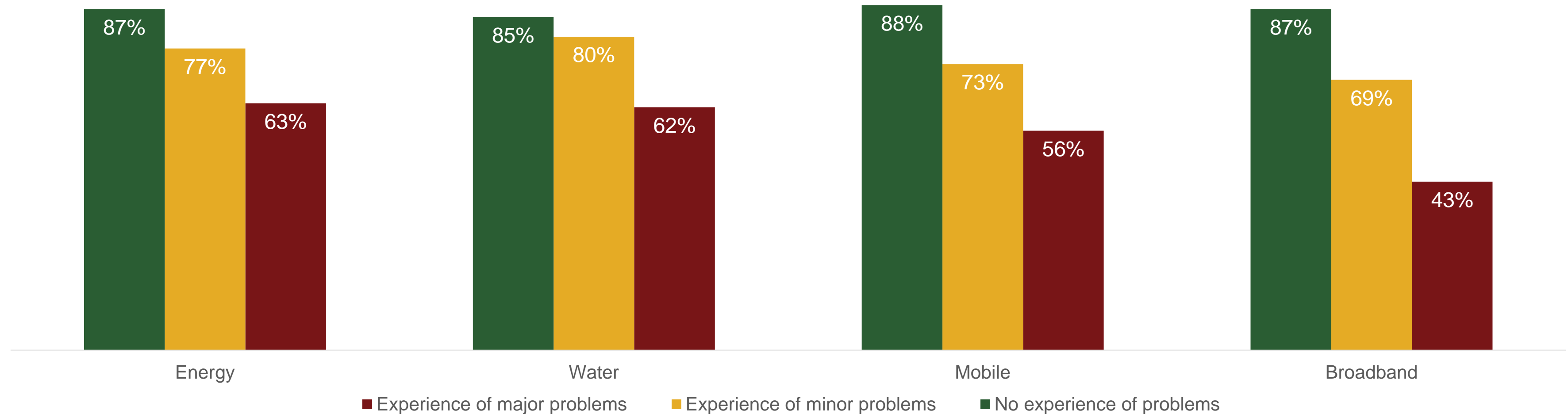
Service	At the moment, there are usually minimal disruptions and delays when travelling by [car/bus/rail] in the UK	When there are [road works/delays to bus/rail] in the UK, these are usually communicated well to me	[Rail/Bus] travel in the UK is currently good value for money
 Car	30%	28%	-
 Bus	49%	30%	47%
 Rail	34%	40%	25%

■ 80-89% agree
 ■ 70-79% agree
 ■ 60-69% agree
 ■ 50-59% agree
 ■ 40-49% agree
 ■ 30-39% agree
 ■ 20-29% agree

Across the water, energy and telecoms sectors, those who say they have experienced a problem with their service were significantly less likely to say they are satisfied with reliability

How satisfied or dissatisfied are you with this service aspect?
Reliability

Showing percentage satisfied with this service aspect by experience of problems



Workshop participants were more tolerant of disruptions they can feasibly work around, if communicated well

The workshops showed that tolerance and perceived acceptability of service disruptions depend on three key components:

1

Fundamental impact on lives

- Understandably, the main judgement of acceptability rested upon how much the disruption will personally affect the individual.
- Disruptions which could impact basic human rights, job security, communication and entertainment were seen as least acceptable.

2

Feasibility to work around

- The availability of substitutes (e.g. mobile data for broadband, or a different mode of transport) was a key element to perceived acceptability.
- Participants felt that even significant loss of service could be tolerated if they find ways to replace needs (e.g. use gym showers for energy loss).

3

Communication

- Lack of communication, leaving participants feeling out of control and unable to plan, was cited as a huge frustration of service disruptions.
- Advance notice, where possible, and accurate information about the length of disruption tended to lead to more tolerant attitudes.



- **Planned service disruptions were usually seen as being infrequent and well communicated and managed.**
 - Many workshop participants felt water companies give adequate notice ahead of a planned shut-off, usually via text or post, with accurate timings. This enabled them to plan ahead and around the loss of service.
- **Unplanned service disruptions had a greater impact but were seen as a fact of life – frustration was driven by poor response.**
 - Amongst those who had experienced leaks and long-term issues, frustration was usually at the speed of reaction and fixing rather than the initial cause of the problem, even when it was due to incorrect installation.
 - Workshop participants expected issues to occur from time to time, and were tolerant so long as there was an adequate response and communication.
 - When there was monetary damage and impact, participants also tended to expect compensation.

“With water you get advanced warning so you can prepare yourself, which doesn’t happen with internet.”

Norwich

“It’s when you don’t know [what’s going on] that it’s really frustrating.”

Norwich

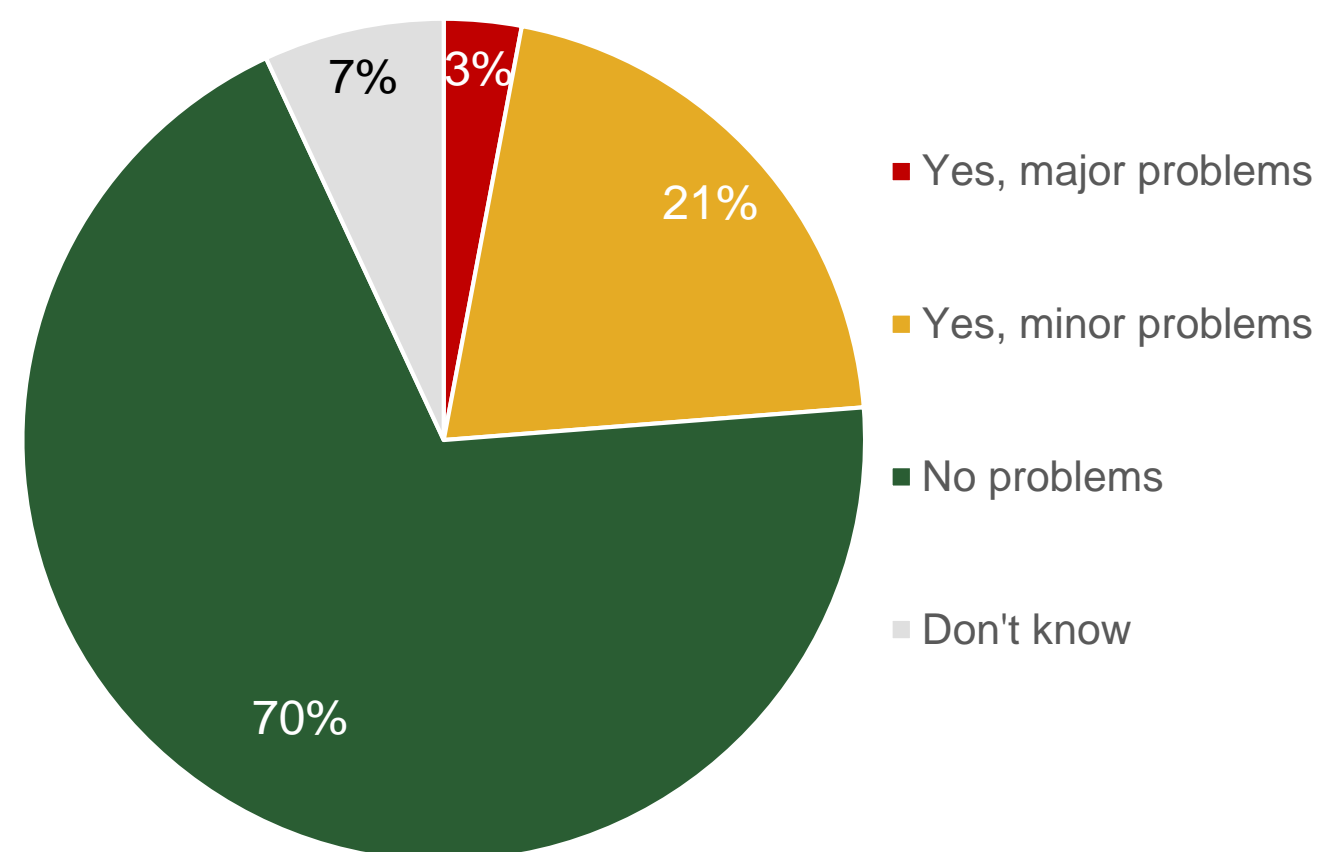


Deep-dive: water service disruptions (quantitative)

Perceived experience of problems with the water service are relatively rare, with only 3% of the public saying that they have experienced 'major problems'.*

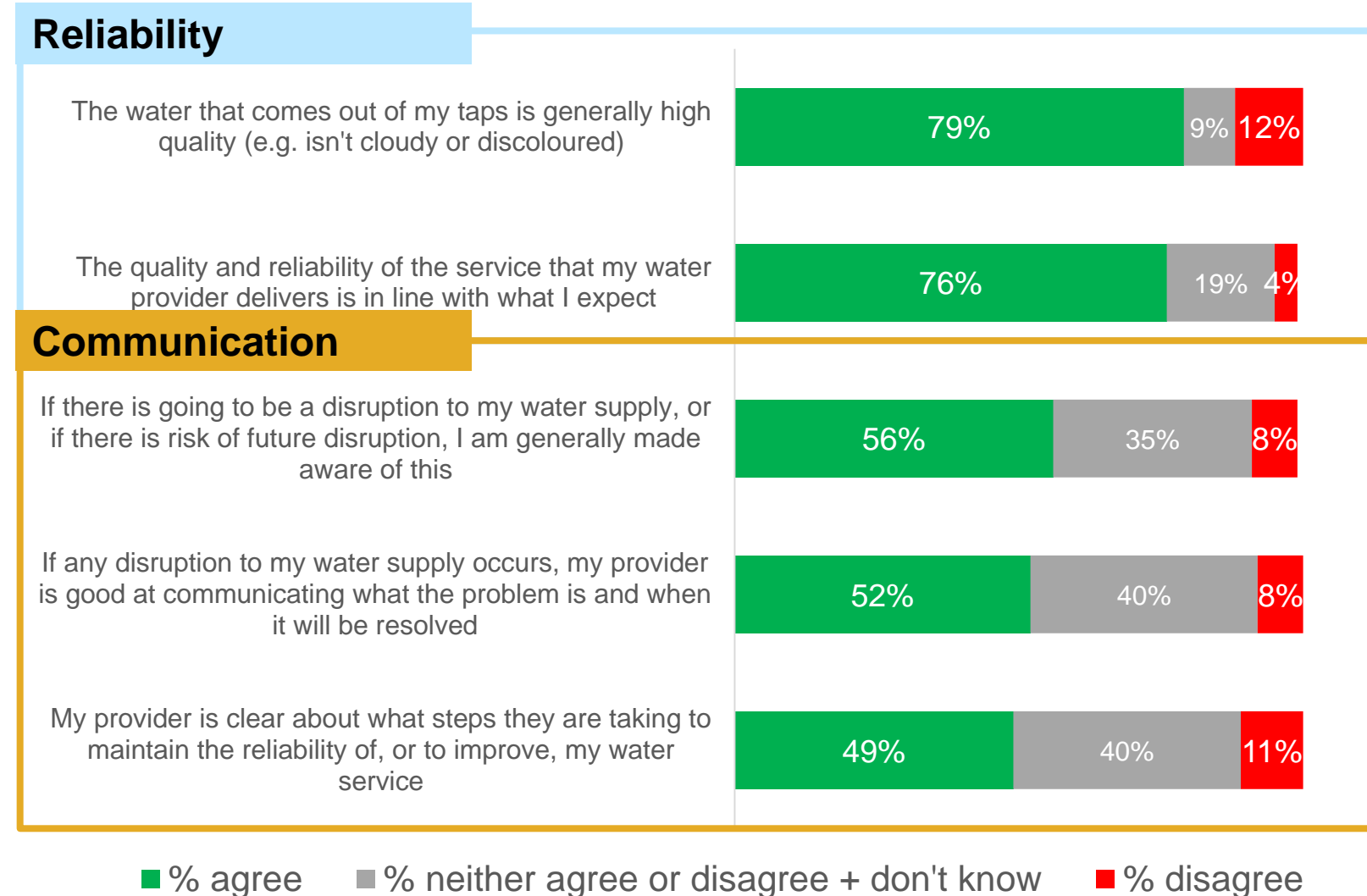
In the last 5 years, have you experienced any problems with or disruptions to the following services?

Water



Only slim majorities of the public agree that their water supplier's communication around disruptions is good, and that they are clear about the steps being taken to maintain or improve the water service.

To what extent do you agree with the following statements?





Deep-dive: energy service disruptions (qualitative)

- **Common, low-level disruptions in this sector were often seen as normal annoyances rather than a loss of service.**
 - For example, small delays to hot water when showering or running taps were not seen as having significant enough impact to count as a disruption.
- **Significant service disruptions like power cuts were seen as being less frequent than in previous years.**
 - Workshop participants, particularly those who are older, felt reliability in this sector has significantly improved and that power cuts are far less frequent than in the past.
- **Long-term issues were rare but could be tolerated if there are substitutes.**
 - Few participants had experienced any issues, but those who had seemed accepting of relatively long-term disruptions (i.e. several weeks) as long as there were substitutes available (e.g. showering at a local gym / friends house).
- **Participants tended not to distinguish between issues caused by their energy supplier and those that are unrelated.**
 - For example, several workshop participants mentioned loss of energy service due failure of appliances and issues with their boiler.

“Growing up, we used to have power cuts all the time now they don’t happen anymore.”
Nottingham

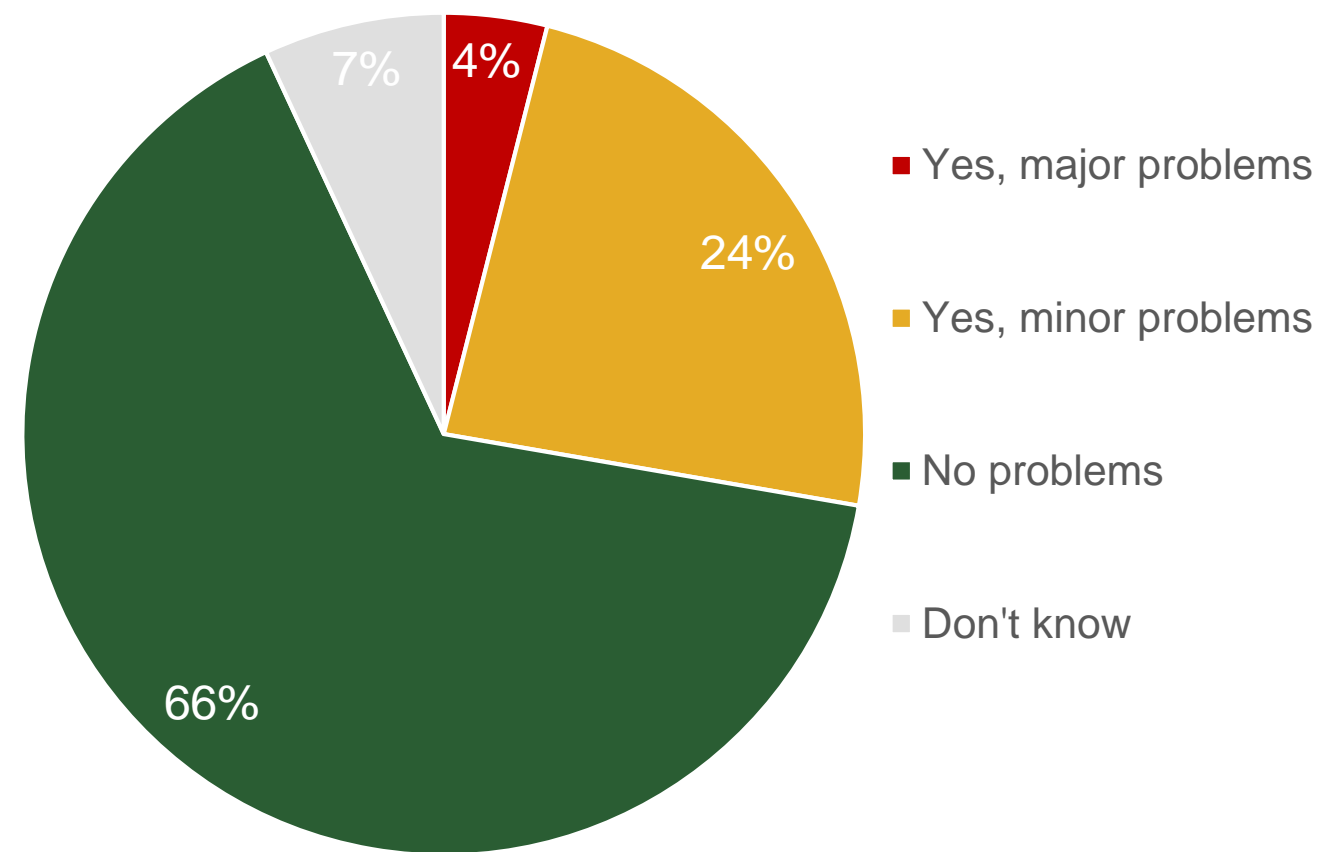
“I would just go in the pub.”
Norwich



Deep-dive: energy service disruptions (quantitative)

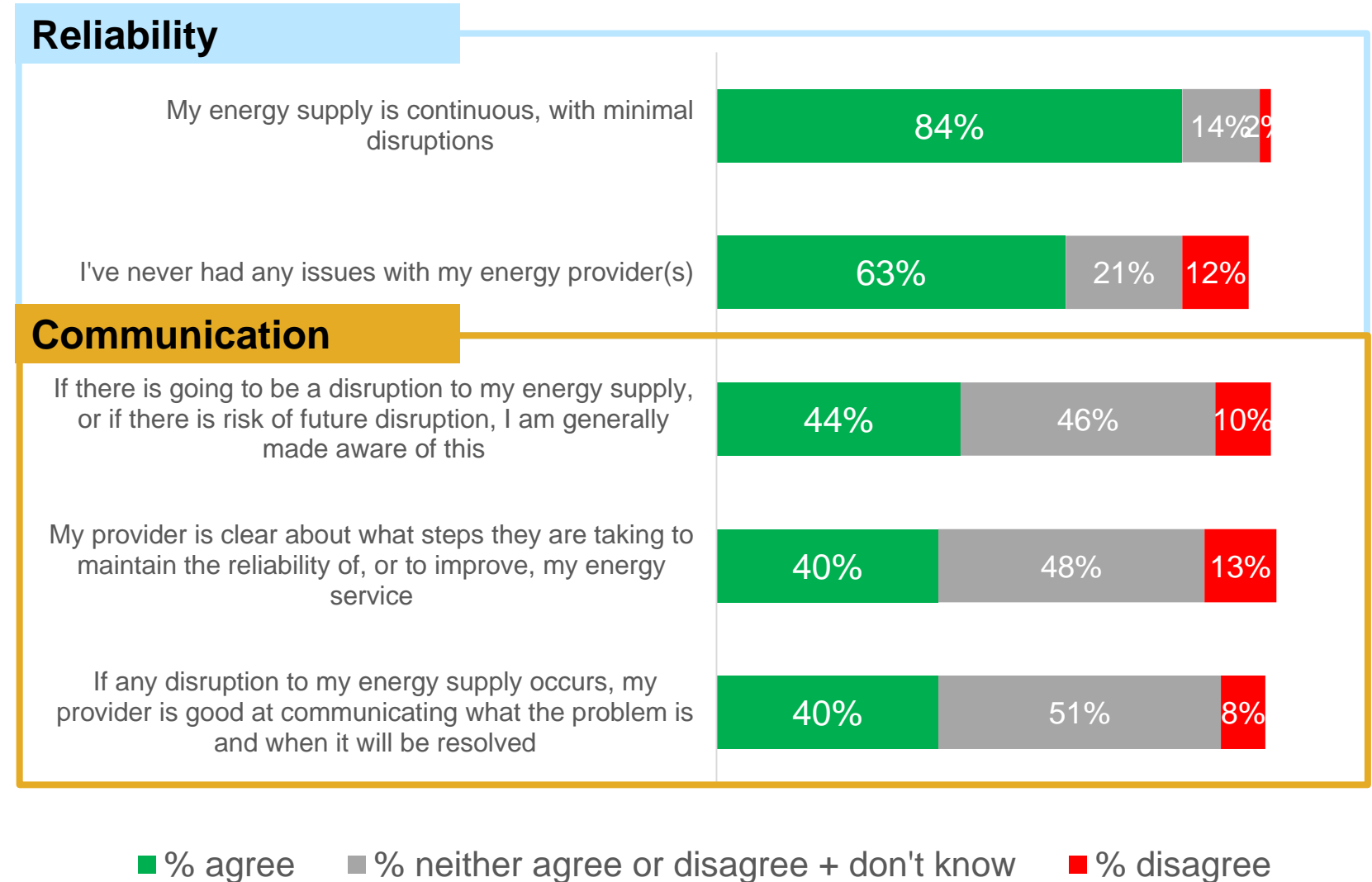
One in four members of the public (27%) say they have experienced a problem with their energy service, with 4% of the public saying they have experienced a 'major problem'.*

In the last 5 years, have you experienced any problems with or disruptions to the following services?
Energy



Compared to water providers, the public are less likely to agree that energy providers' communication around disruptions and proactive steps to improve the energy service are good.

To what extent do you agree with the following statements?





- **The vast majority of workshop participants had experienced some kind of disruption recently.**
 - Relatively frequent, low impact disruptions such as no signal and mobile data ‘black-spot’ locations were generally accepted as normal.
- **Competition in the mobile industry was seen as driving generally good reliability.**
 - Out of all the sectors, participants seemed to be most likely to switch mobile providers (aided by the norm of upgrading every 1-2 years) in order to ensure good service. Poor signal and data coverage drove switching in particular.
- **Consistently poor broadband speeds and reliability was a source of frustration as it drove a perception of poor value for money.**
- **In rural areas, service was significantly less reliable and a lack of choice exacerbated the problem.**
 - In some rural areas, participants said they had only one broadband provider, leaving consumers feeling helpless and isolated by poor service.

“I think with telecommunications you wait longer before you report it. If there’s no water coming out of your tap you think you have to let them know because there’s something wrong.”

Nottingham

“There’s a difference between hope and expectation. I hope to get it when I’m in the middle of nowhere but I don’t expect it.”

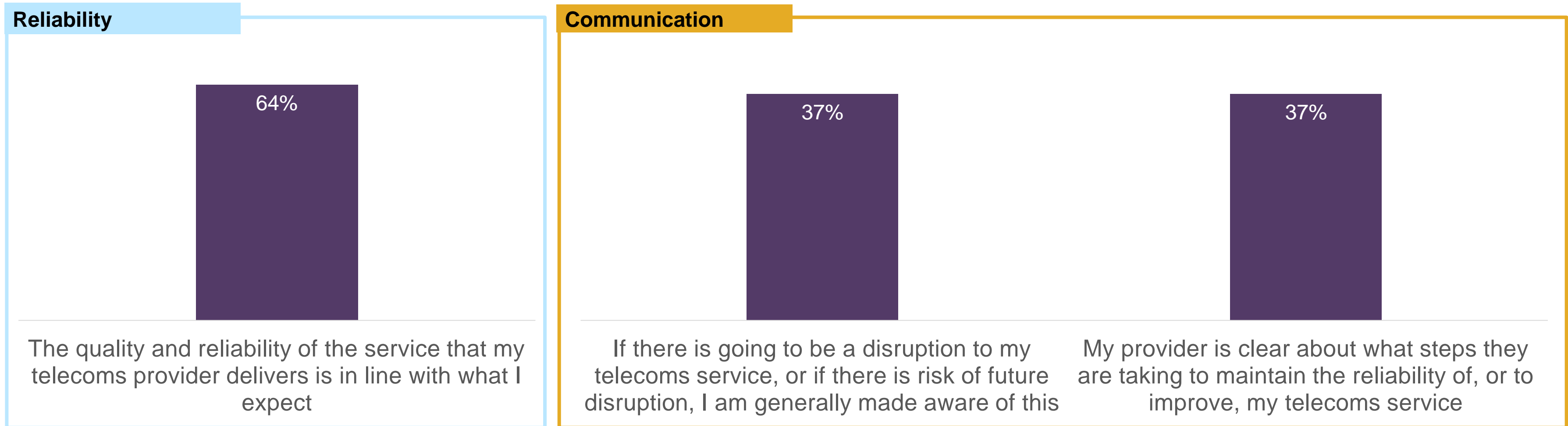
Glasgow



Deep-dive: telecoms service disruptions (quantitative)

A majority of the public believe their telecoms providers deliver the quality and reliability they expect. However, only minorities agree that their telecoms providers make them aware of future disruption or make it clear what steps they are taking to maintain or improve the reliability of their service.

To what extent do you agree with the following statements?
Showing percentage saying they agree (strongly agree + agree)

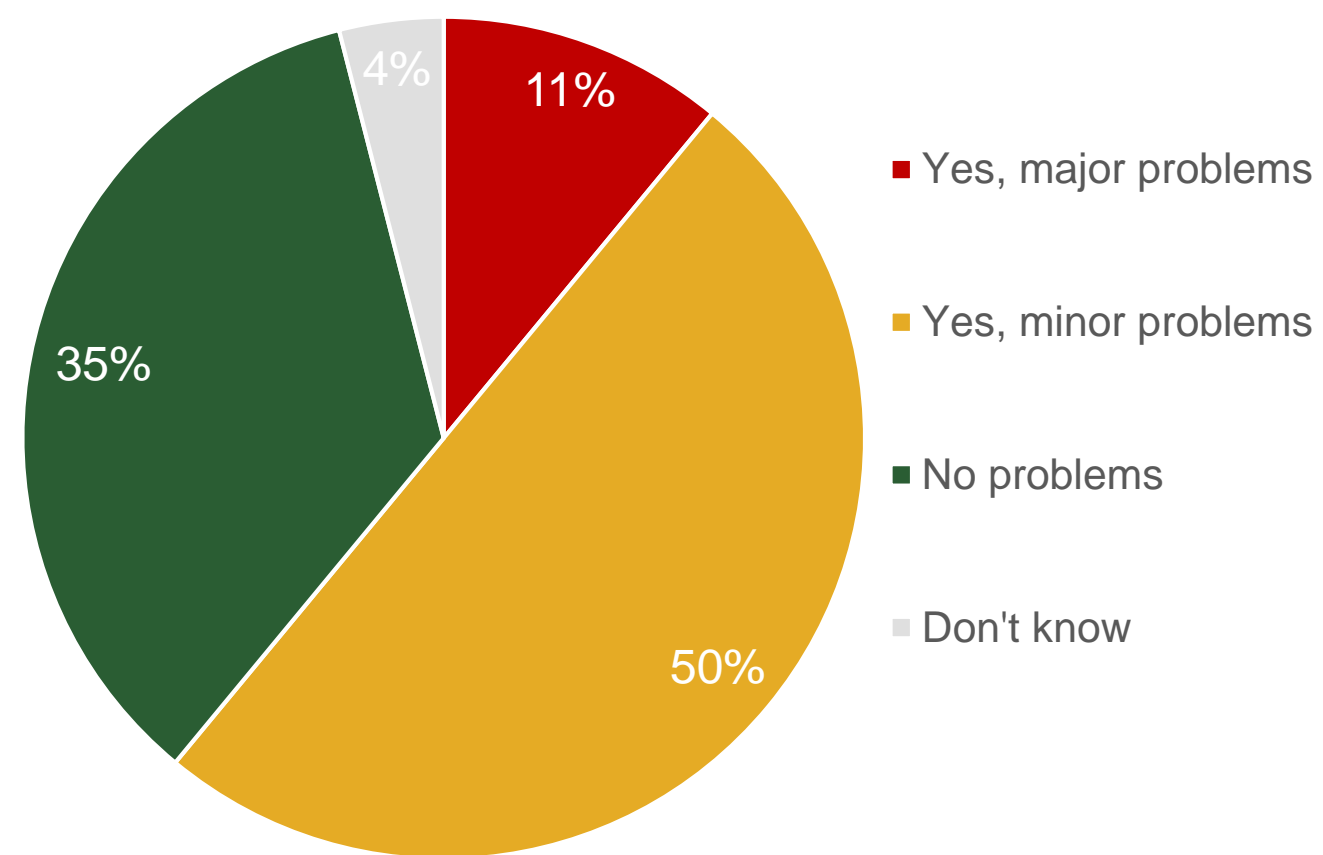




Deep-dive: broadband and landline service disruptions (quantitative)

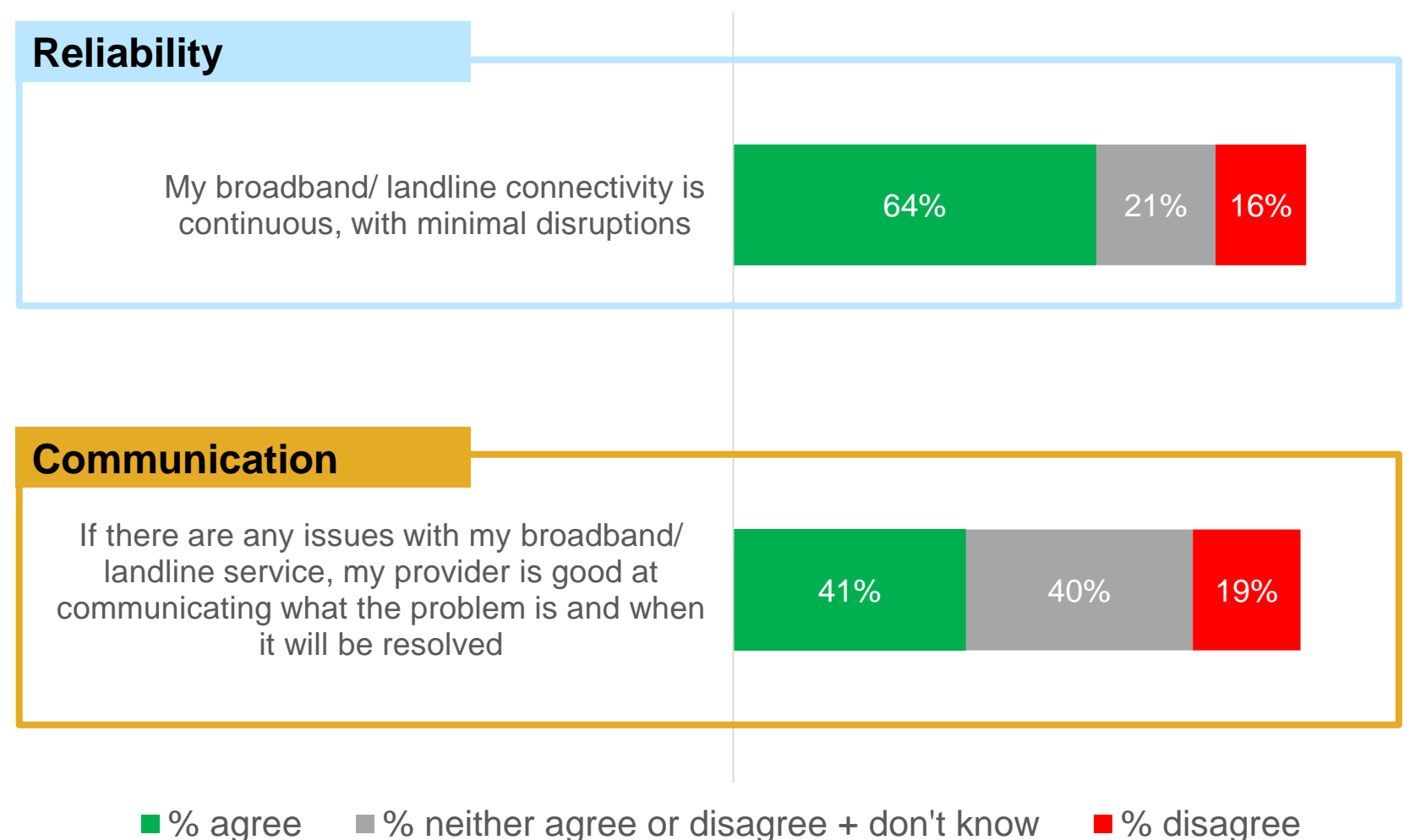
A majority of the public (61%) say they have experienced a problem with their broadband, with one in nine (11%) describing the problem they experienced as 'major'.*

In the last 5 years, have you experienced any problems with or disruptions to the following services?
Broadband



Around two thirds (64%) say their broadband and landline connection is continuous. However, only a minority (41%) agree that their service provider is good communicating about problems when they arise.

To what extent do you agree with the following statements?

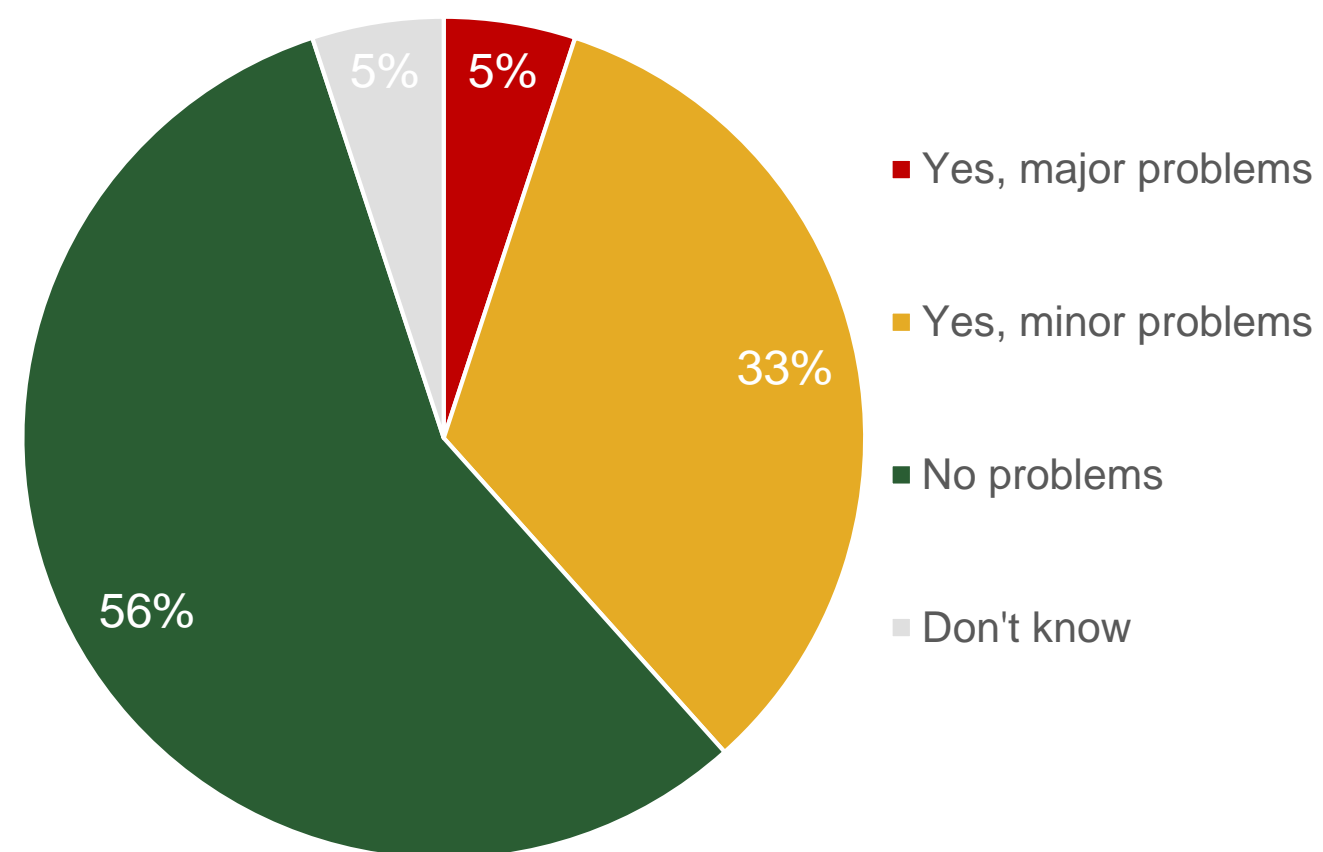




Deep-dive: mobile service disruptions (quantitative)

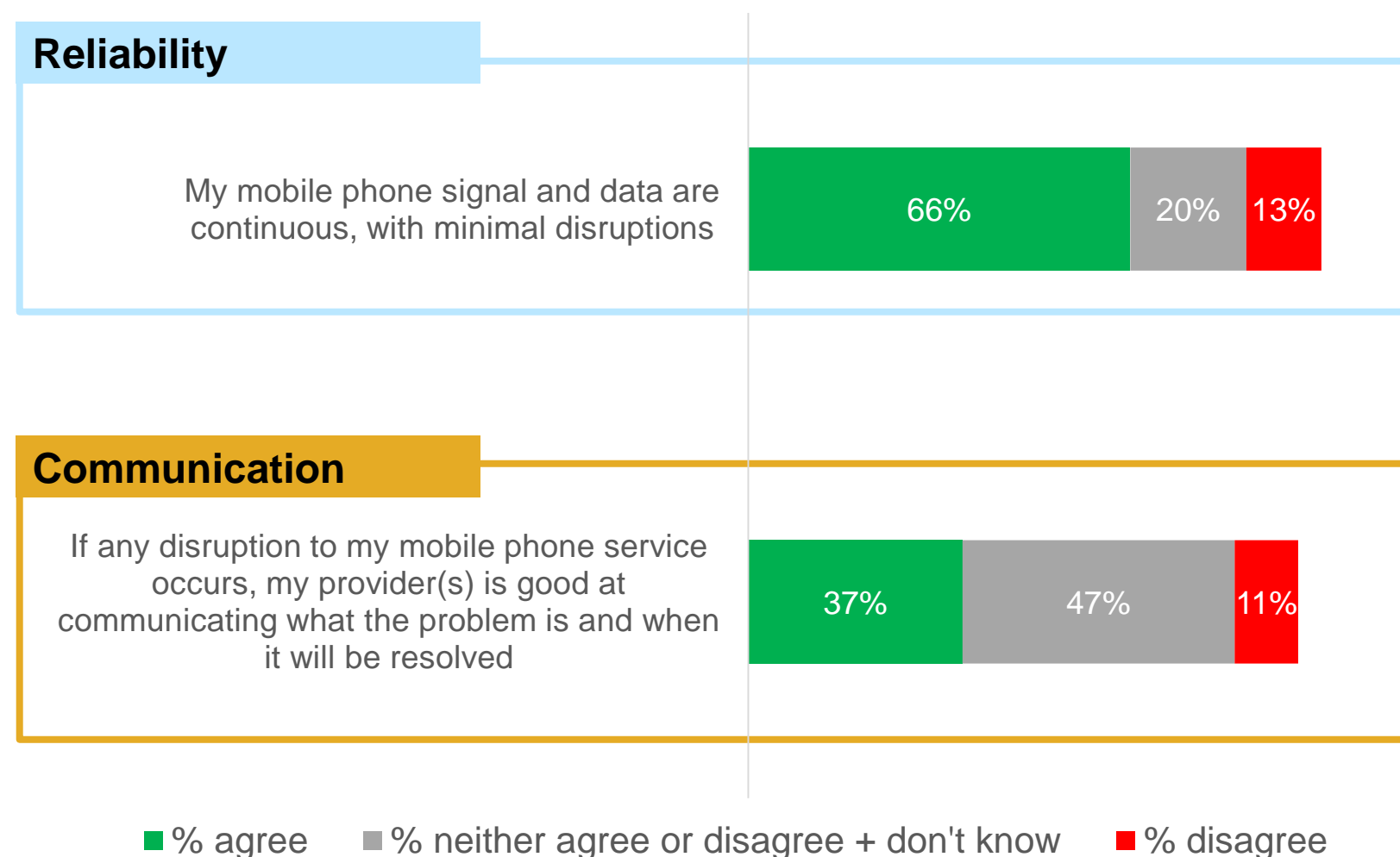
Two in five (39%) say they have experienced a problem with their mobile service, although only 5% say they have experienced a 'major' problem.*

In the last 5 years, have you experienced any problems with or disruptions to the following services?
Mobile



Similar to broadband/landline, two thirds (66%) say their mobile phone signal and data are continuous. However, only a minority (37%) say their mobile phone provider is good at communicating about issues when they arise.

To what extent do you agree with the following statements?





- **Relatively frequent delays and cancellations were considered part of the normal road and public transport service.**
 - There was a lot of variation by region, with Londoners expressing more positive views due to volume of choice.
 - In many places, public transport was considered poor value for money due to poor service reliability.
 - Frequent road congestion was considered normal.
- **In rural regions, lack of choice and availability meant disruptions had a much greater impact.**
 - Public transport delays and cancellations had a much bigger impact on rural participants as there was a lack of other modes or services available. This led many rural participants to be reliant on driving.
 - There was also lower availability of weekend and evening services.
- **Transport apps and live tracking have made consumers more resilient to disruption.**

“Reliability is fairly to very bad, the money just isn’t in the area, it’s a rural city, when we get new vehicles they’re all London’s old buses.”

Nottingham

“If you're from a rural area, particularly the islands, you literally can't get around without public transport.”

Glasgow

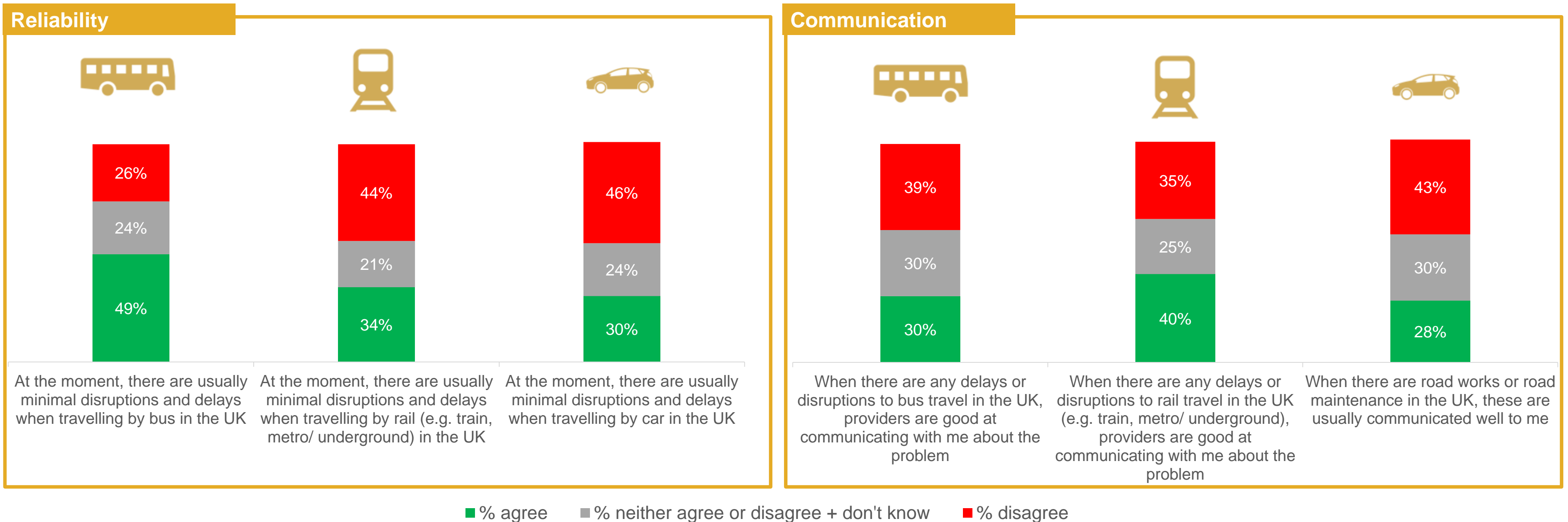


Deep-dive: transport service disruptions (quantitative)

Perceptions of the reliability of transport in the UK are less positive than for the other sectors, with only minorities agreeing there are minimal disruptions when travelling by any of the tested forms of transport.

The quality of communication around these disruptions is also seen as poor. For rail travel, only two in five (40%) say this is good. For travel by bus and road, this figure is even lower.

To what extent do you agree or disagree with the following statements?

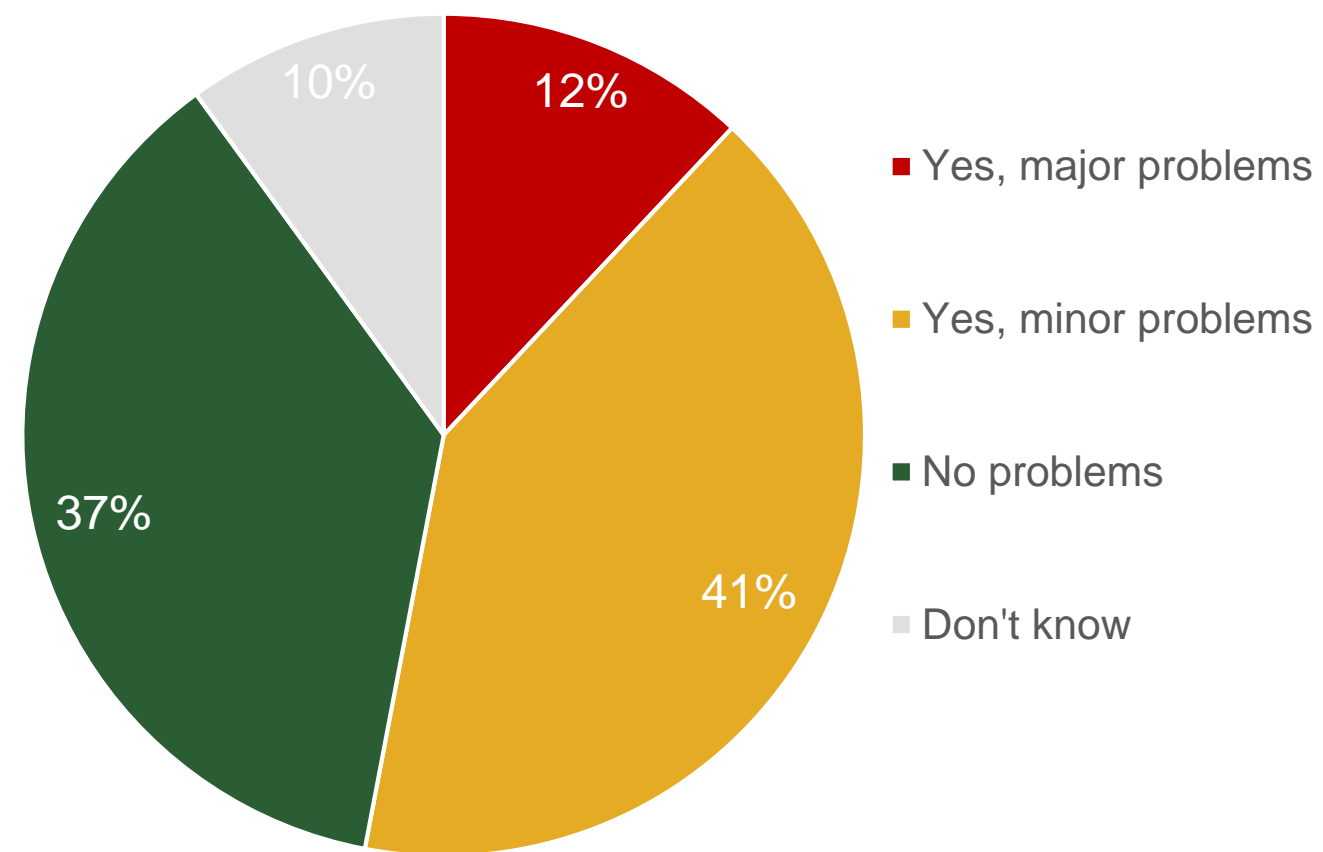




Deep-dive: car service disruptions (quantitative)

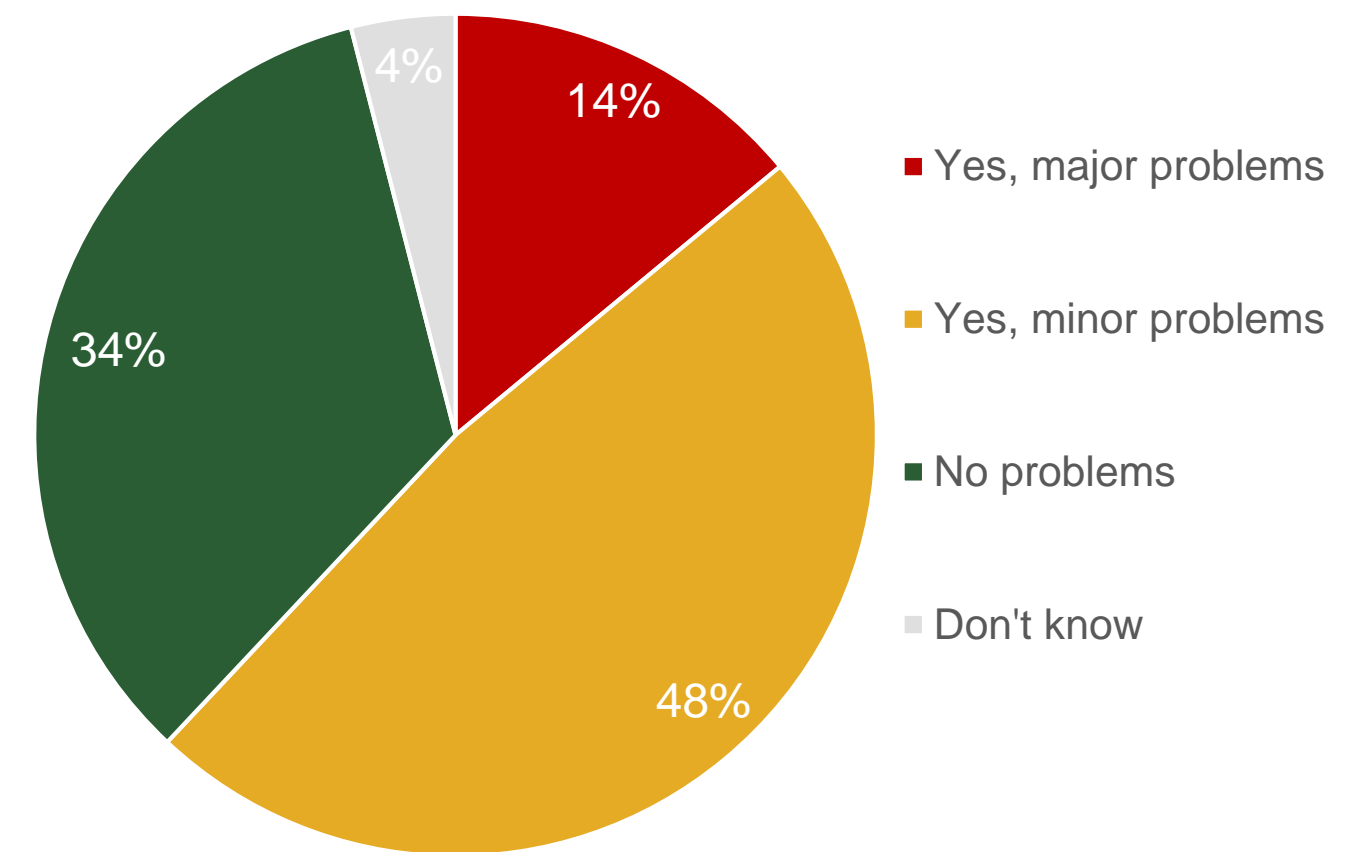
A majority of the public (53%) say they have experienced a problem when travelling by car, with more than one in ten saying they have experienced a major problem.*

In the last 5 years, have you experienced any problems with or disruptions to the following services?
Car



Those who use a car to travel at least once a fortnight are significantly more likely to say they have experienced a problem in the past five years, with three in five (62%) saying they have experienced a problem.*

In the last 5 years, have you experienced any problems with or disruptions to the following services?
Frequent car users

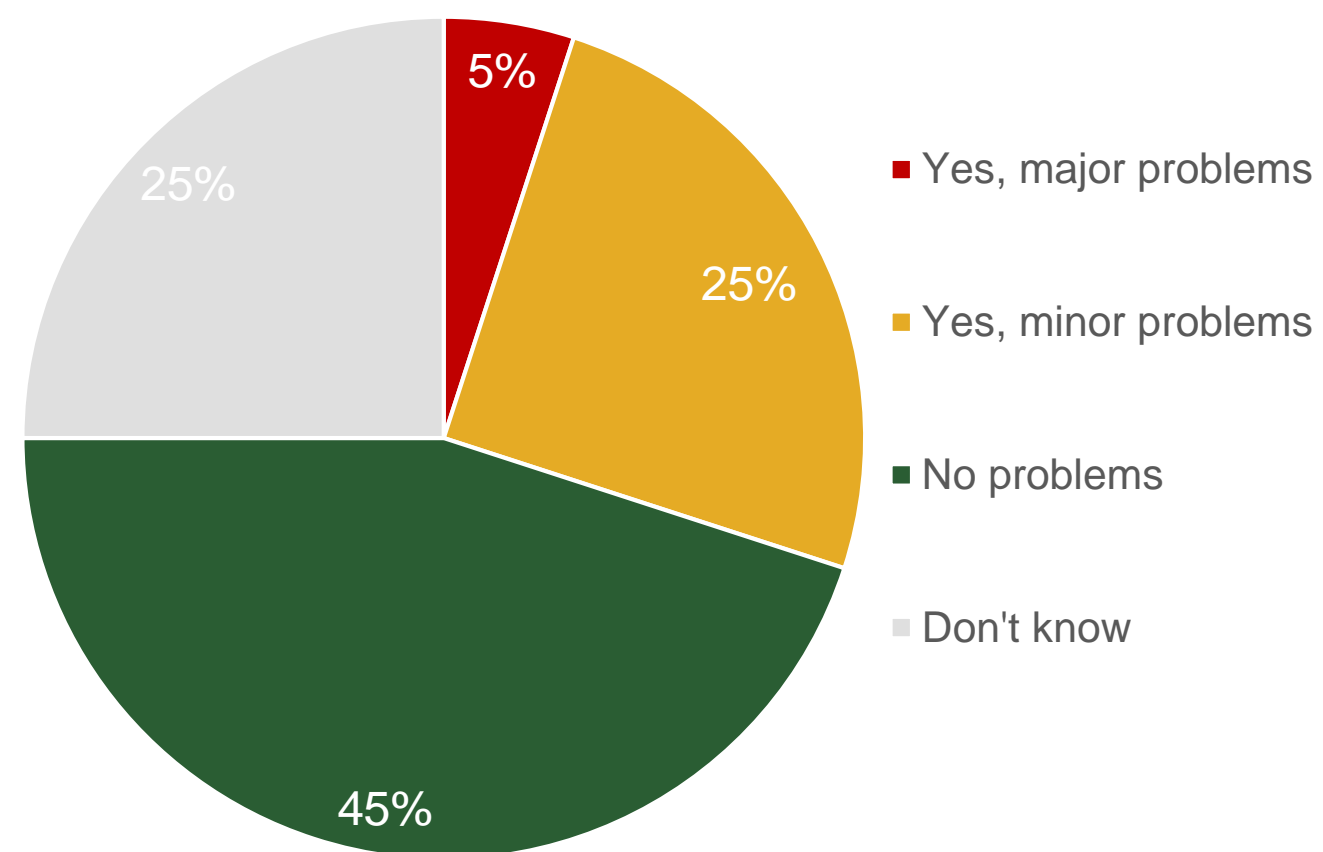




Deep-dive: bus service disruptions (quantitative)

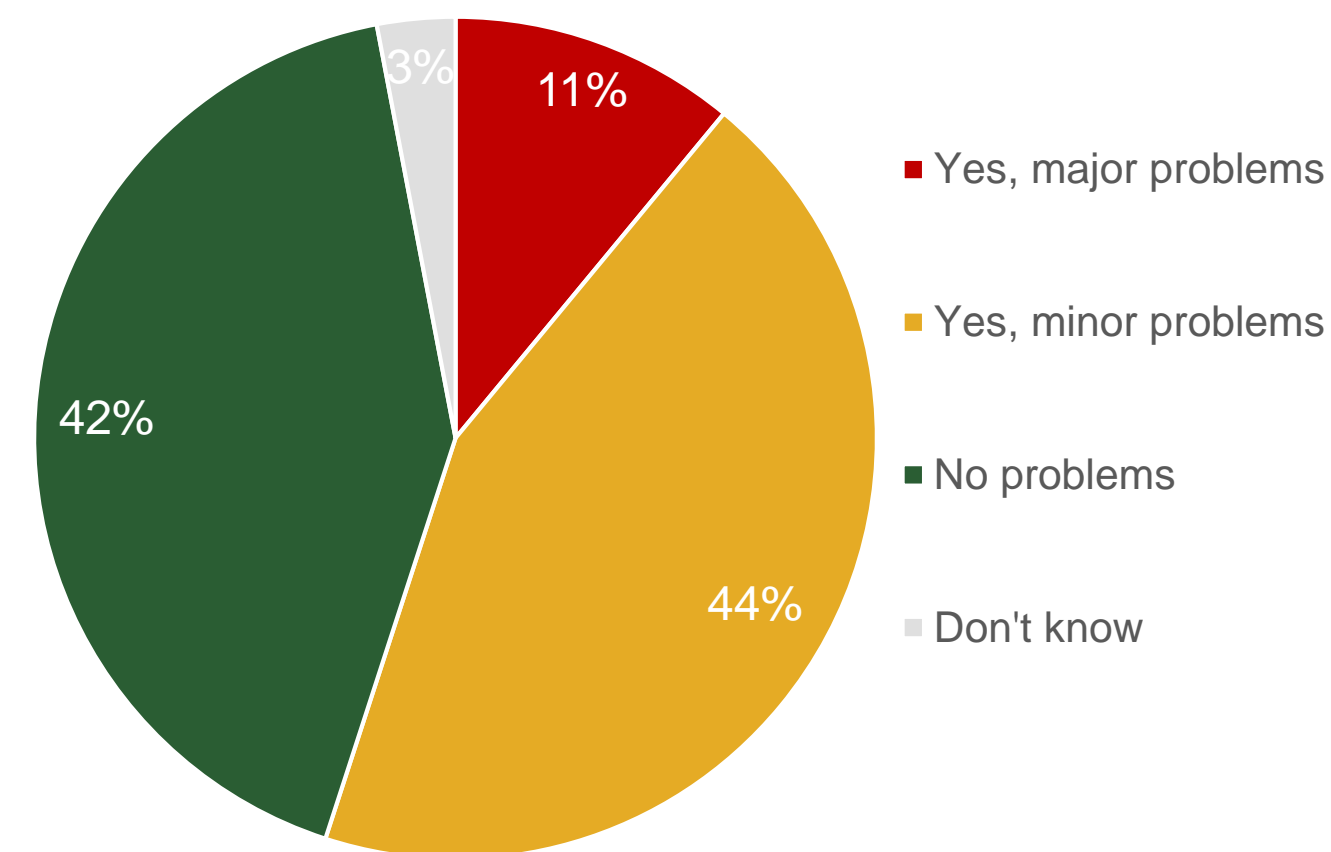
30% of the public say they have experienced an issue when travelling by bus in the past 5 years.*

In the last 5 years, have you experienced any problems with or disruptions to the following services?
Bus



A majority of frequent bus users (55%) say they have experienced a problem when using the bus in the past 5 years, with one in nine (11%) saying they have experienced a major problem.*

In the last 5 years, have you experienced any problems with or disruptions to the following services?
Frequent bus users

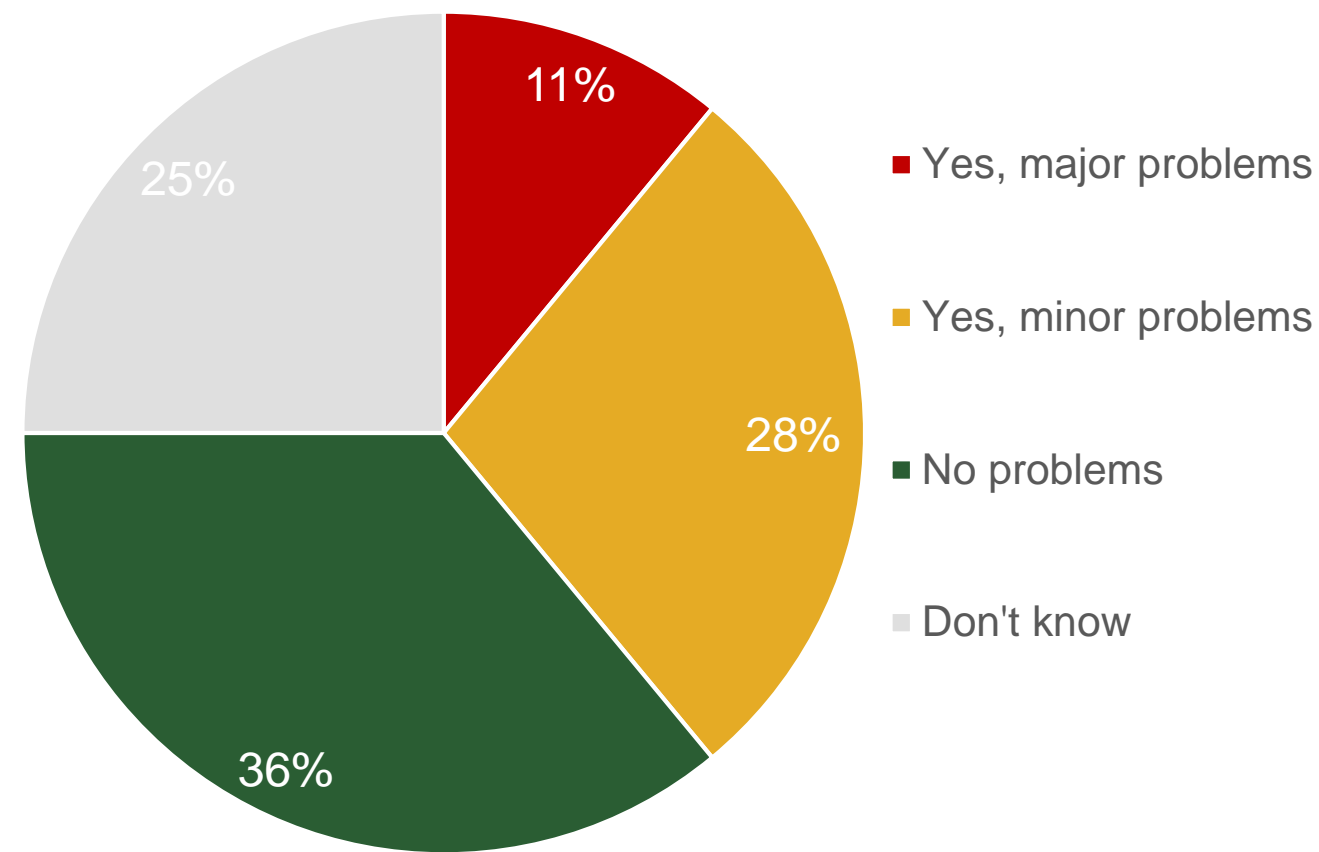




Deep-dive: rail service disruptions (quantitative)

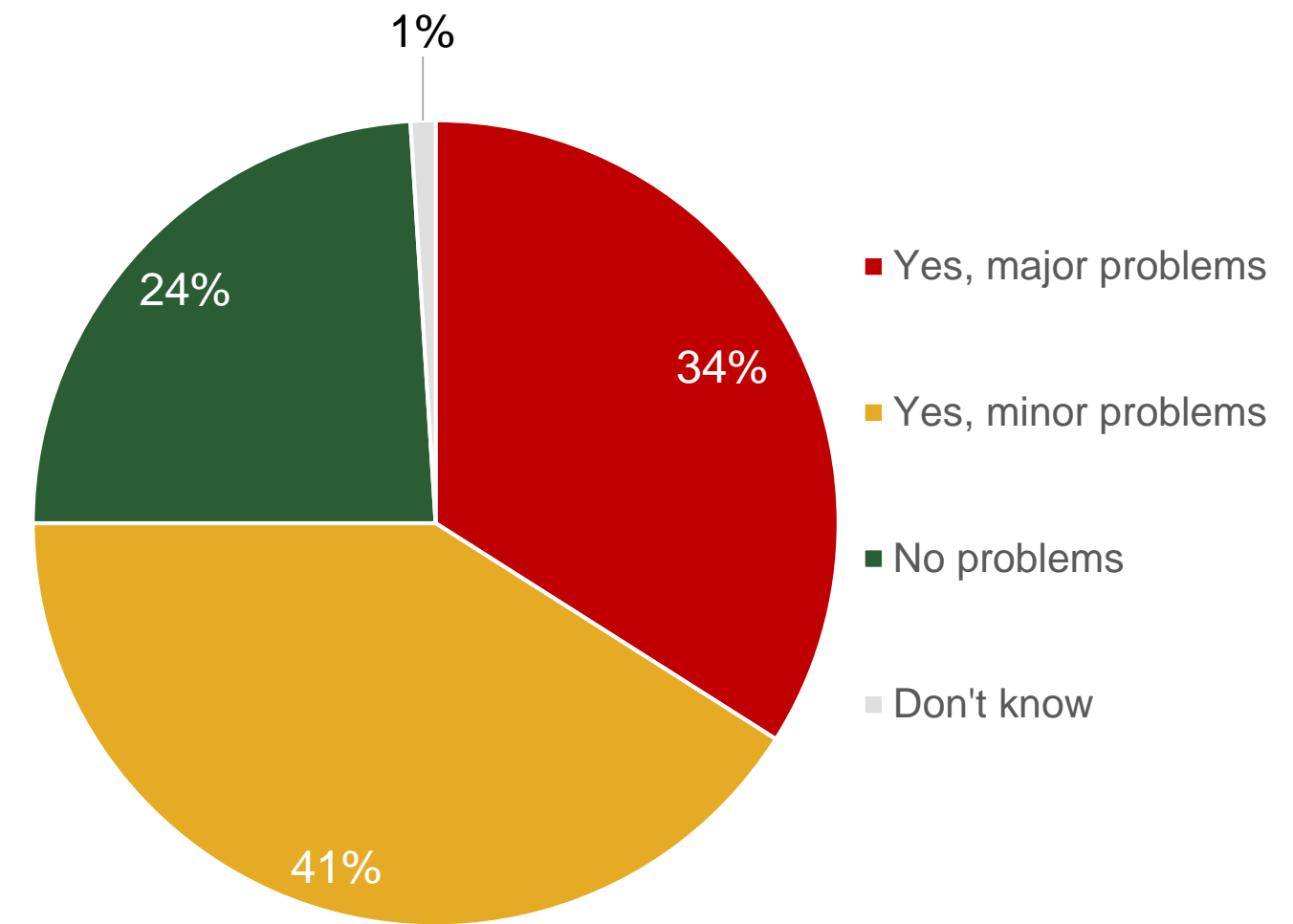
Two in five (39%) say they have experienced an issue when travelling by train in the past 5 years, with one in nine (11%) saying they experienced a major issue.*

In the last 5 years, have you experienced any problems with or disruptions to the following services?
Rail



Three-quarters of those who travel by rail at least once a fortnight (75%) say they have experienced a problem in the past five years, with a third (34%) saying they have experienced a major problem. Only a quarter (24%) say they have experienced no problems.*

In the last 5 years, have you experienced any problems with or disruptions to the following services?
Frequent rail users

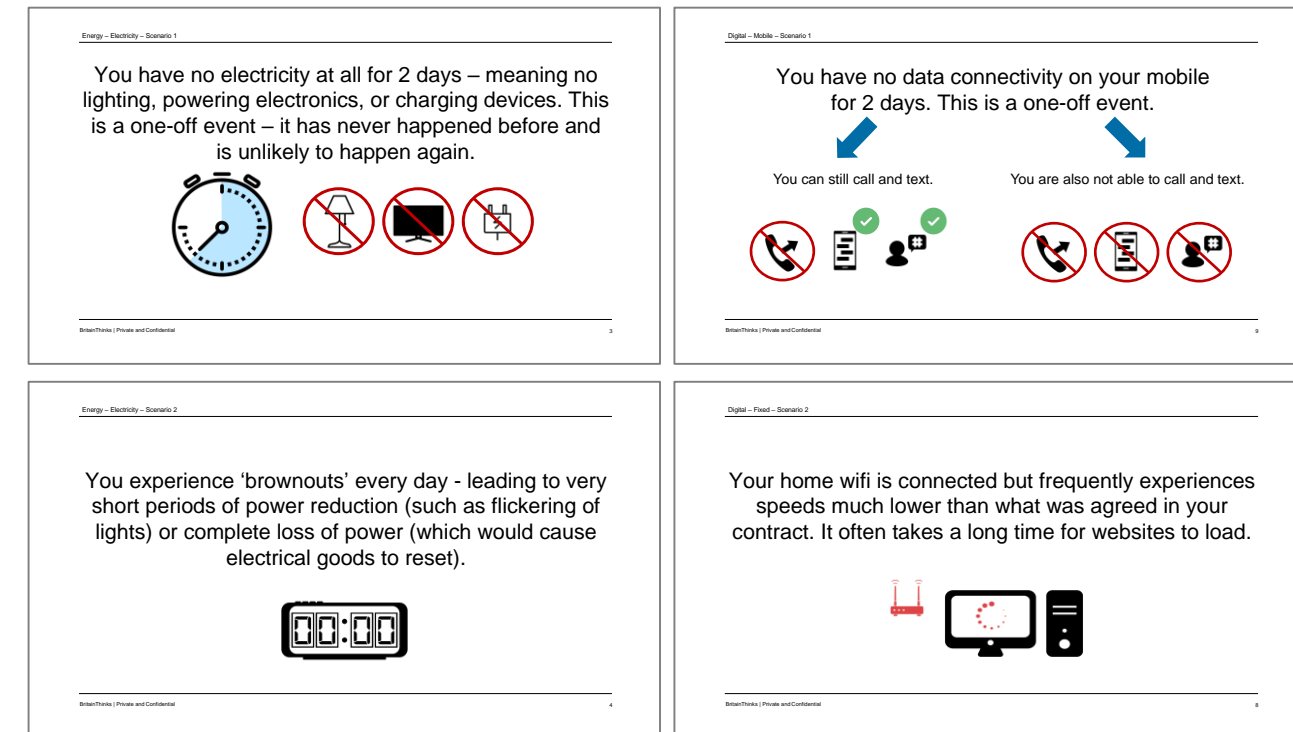


03 Resilience

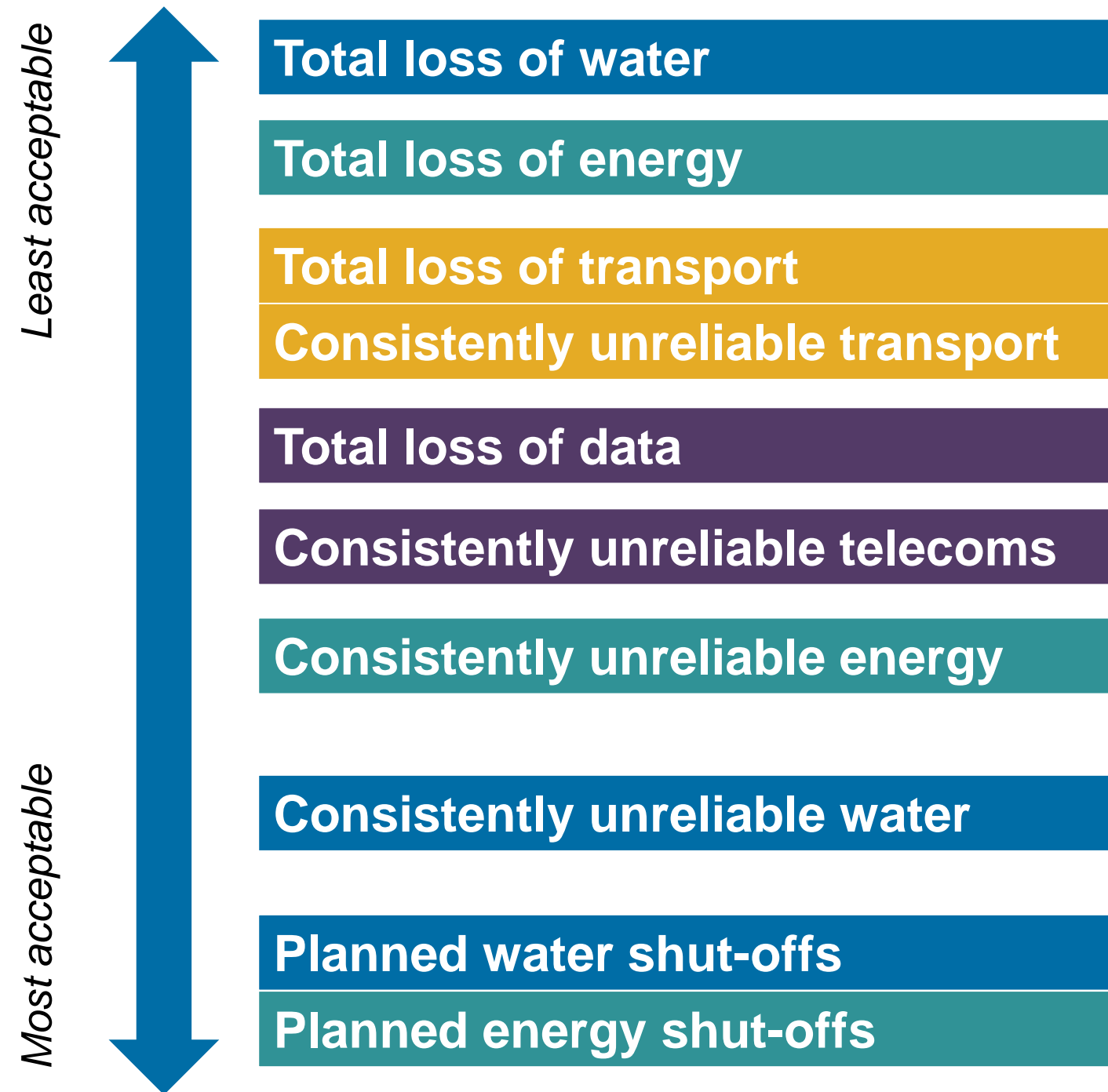
- Key findings
- Experiences and expectations
- Priorities for ensuring resilience
- Balance of responsibility

During the workshops we shared some examples of disruptions and loss of service across the sectors, and asked participants to prioritise which ones to mitigate

- We shared a variety of scenarios ranging across different levels of perceived impact and frequency per sector.
- Participants were given 10 poker chips each and tasked with budgeting resilience spend to ensure their expected levels of service, or prevent these kinds of issues from happening.



High impact, low frequency disruptions were generally seen as least acceptable, particularly total loss of water and energy services



Workshop participants generally ranked **high impact, low frequency** disruptions such as total losses of service as least acceptable, due to their:

- Likelihood to have a high impact, both personally and on the community.
 - Difficulty to work around or substitute for (assuming lack of notice).
- High frequency, low impact issues like frequent brown-outs or slow speeds were seen as annoyances but easier to get on with on a day-to-day basis.

“The brown-out thing would do my head in, but you can’t live without water.”
Nottingham



Vulnerable users

- Older vulnerable users had experience of extended water disruptions and ranked this as less of a priority.
- They tended to see energy (for heat) and telecoms (lifeline to world) as most vital.

Workshop participants believed that water and energy services to UK citizens should never be disrupted in a significant way

Service disruption scenarios	Times in top 3 resilience priorities (/18*)
You have no water for 2 days. This is a one-off event.	17
You have no electricity for 2 days. This is a one-off event.	12
All trains and buses cancelled for 2 days. This is a one-off event.	8
Every day, your train or bus to work is highly unpredictable.	8
You have no data connectivity on your mobile for 2 days. This is a one-off event.	6
Roads are congested a couple of times a week.	5
You experience 'brownouts' every day - leading to very short periods of power reduction	4
You have no fuel for 2 days. This is a one-off event.	3
You have no fixed landline or broadband for 2 days. This is a one off-event.	3
Every day, you find that you are unable to get signal or use your mobile data when you expect you to.	2
Your broadband is connected but frequently experiences speeds much lower than in your contract.	1
A road is closed and congested, causing significant delays of up to 10 hours.	1
You experience periods of low water pressure or complete interruption to supply every week, for up to an hour.	0
Your gas/heating fuel is shut off for 2 hours	0

A complete loss of water was considered unacceptable by the vast majority of participants. Consumers see water as a basic human right and expect UK infrastructure to be sufficiently resilient to avoid total loss of service. They also have limited experience of disruptions, which makes reliable service the norm.

"I'm assuming this would be a sudden disaster - you can't really work around it, and you NEED water for so many things."
Swansea

Prioritising resilience tended to rest on two elements:



Level of perceived impact and emergency

- Almost all workshop participants felt UK infrastructure **should be able to withstand and react** to issues that might **lead to loss of life**, e.g. loss of power in a hospital or care home.
- **Most participants tended to have a lack of personal experience with significant disruption, particularly for water and energy**, meaning a constant supply was seen as the norm and that there was little familiarity with resilience measures.



Current personal frustrations with service disruption

- **Rural participants were much more likely than urban/suburban** to 'spend' their chips on **transport and telecoms** scenarios.
- On an individual level, **participants frequently dedicated large 'spends' to personal bugbears**, e.g. one participant allocated all 10 of their chips initially to frequently having broadband speeds that were slower than contracted.

Impact, communication, response and availability of alternatives all affected how tolerant participants were of disruptions

↑ Increase public tolerance of disruptions

- Availability or provision of substitutes.
- Good communication (e.g. advanced notice and detail on length of disruption).
- Short-term disruption for long-term improvement (e.g. upgrades).
- Caused by crisis (e.g. terrorism, natural disaster).

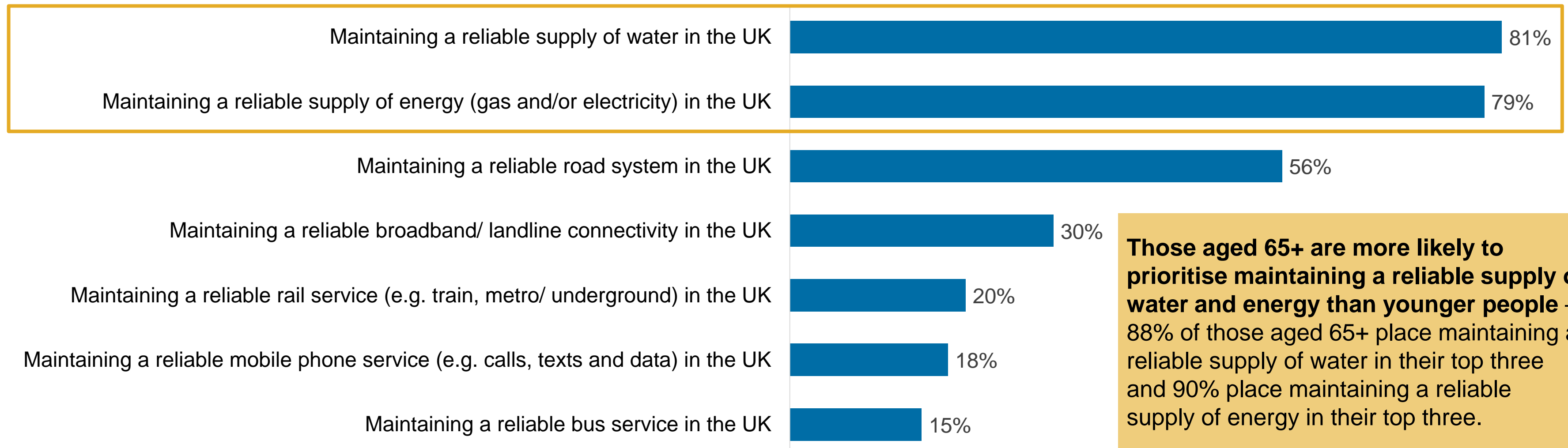
↓ Reduce public tolerance of disruptions

- Leads to loss of life.
- Significant impact on quality of life or essentials (e.g. human rights, job security, entertainment).
- Perception that the length of disruption is being caused by unreasonably slow response from suppliers.
- Lack of alternatives or substitutes.
- Ongoing or repetitive issue.
- Caused by poor maintenance and failure of proactive prevention from service providers.

Water and energy are the clear priorities for preventing infrequent but major outages

Imagine you were in charge of prioritising budgets across the water, energy, telecoms and transport sectors, to prevent infrequent but major outages or disruptions to service. Please rank from 1-7, with 1 being the most important and 7 being the least important.

Showing percentage placing each option in their top three priorities

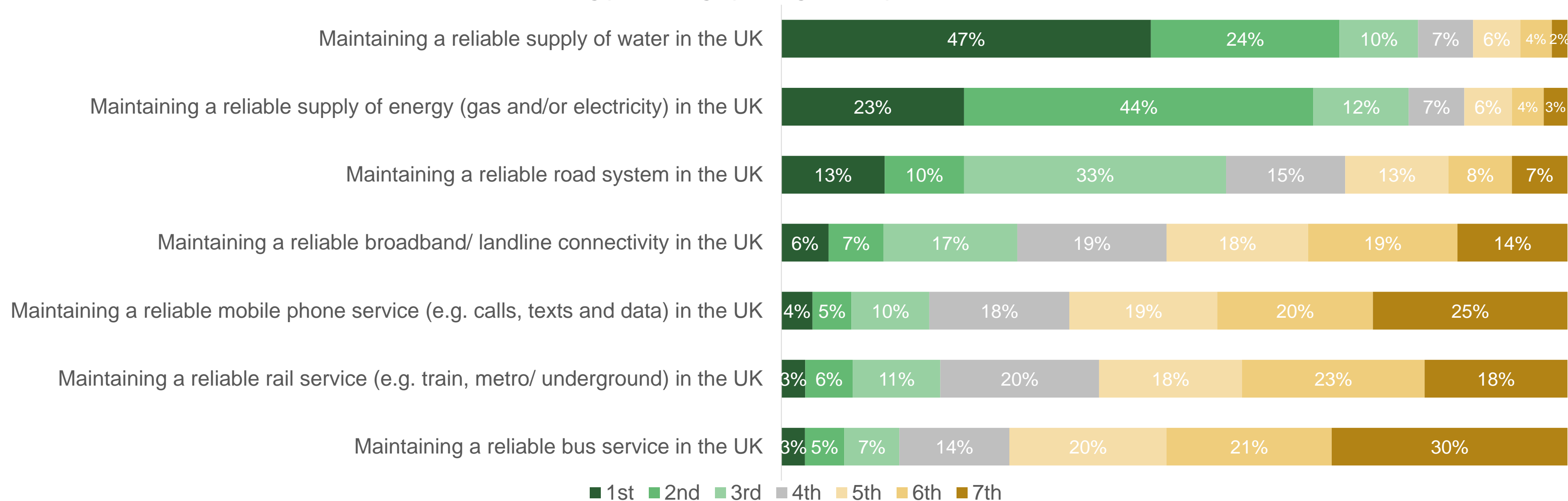


These results should be taken as indicative, as we did not provide any information on the relative costs required to achieve each objective.

Just under half (47%) select maintaining a reliable supply of water in the UK as their top priority for resilience

Imagine you were in charge of prioritising budgets across the water, energy, telecoms and transport sectors - to prevent infrequent but major outages or disruptions to service. Please rank from 1-7, with 1 being the most important and 7 being the least important.

Showing percentage placing each option in each rank

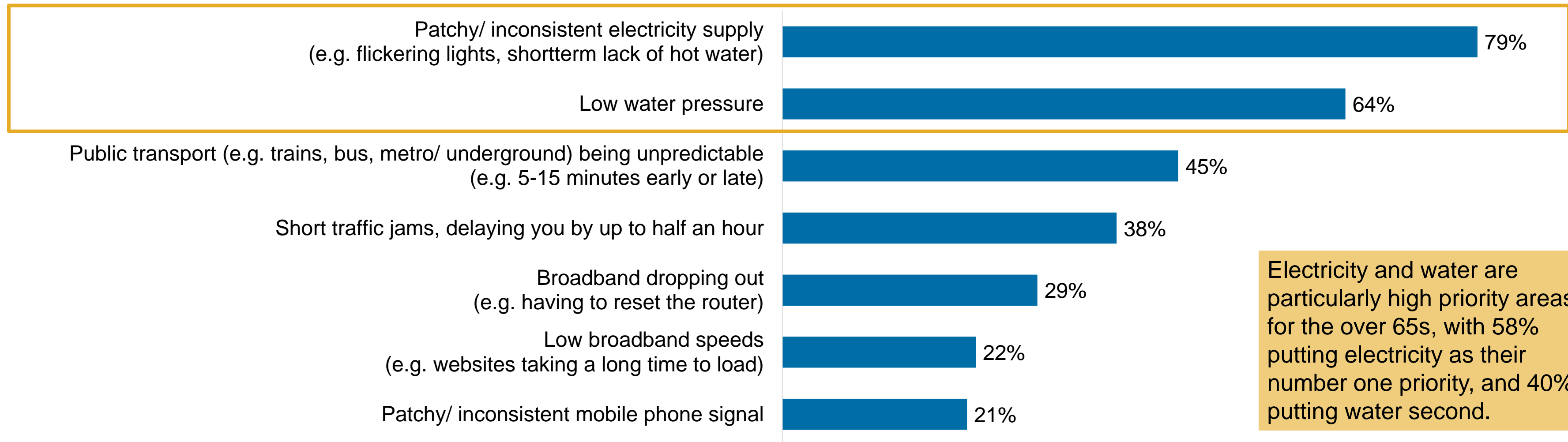


These results should be taken as indicative, as we did not provide any information on the relative costs required to achieve each objective.

On the prevention of smaller, high frequency issues, energy and water again emerge as the key concerns

Imagine the following scenarios happened to you around once a week. Please rank the options below to indicate how you would allocate UK's budget to solve these issues from 1-7.

Showing percentage placing each option in their top three priorities



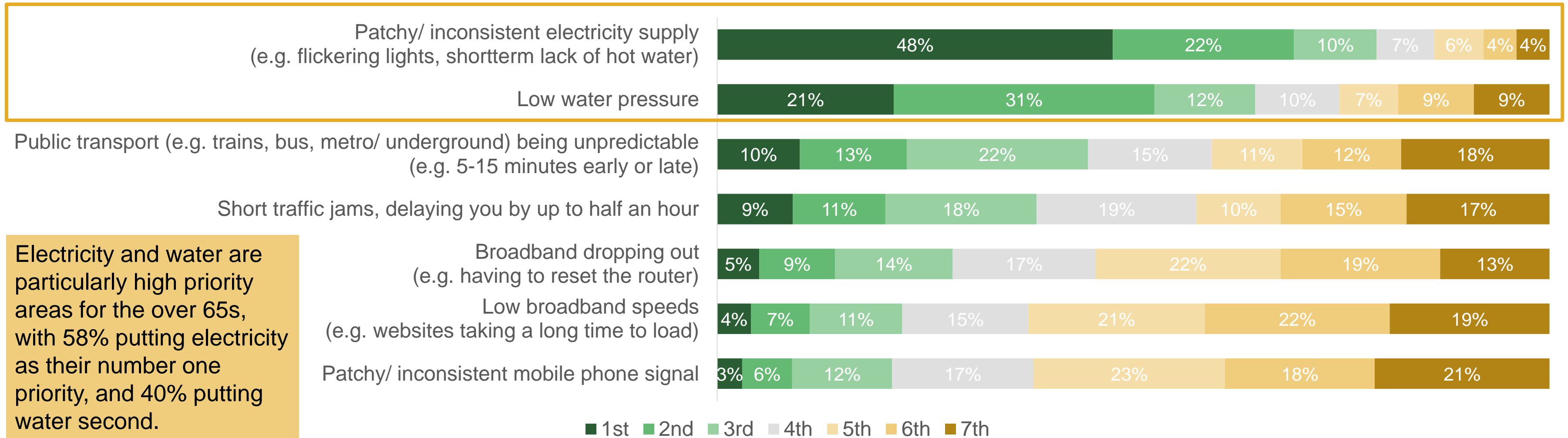
Electricity and water are particularly high priority areas for the over 65s, with 58% putting electricity as their number one priority, and 40% putting water second.

These results should be taken as indicative, as we did not provide any information on the relative costs required to achieve each objective.

Just under half select preventing patchy electricity supply as their top priority for prevention amongst the smaller, higher frequency issues

Imagine the following scenarios happened to you around once a week. Please rank the options below to indicate how you would allocate UK's budget to solve these issues from 1-7.

Showing percentage placing each option in each rank



Electricity and water are particularly high priority areas for the over 65s, with 58% putting electricity as their number one priority, and 40% putting water second.

These results should be taken as indicative, as we did not provide any information on the relative costs required to achieve each objective.

03 Resilience

- Key findings
- Experiences and expectations
- Priorities for ensuring resilience
- Balance of responsibility

Workshop participants tended to say the responsibility for ensuring resilience rests with the service provider

Workshop participants tended to have a strong gut reaction to conversations about responsibility for ensuring expected levels of service:



Service provider

*“It’s **their responsibility** to provide a certain level of service.”*



Government / Regulator

*“They’re there to **oversee** the provider and ensure they’re providing adequate service.”*



Individual

*“I **pay** to receive a service.”*
*“We **could be doing more** to save water and energy, but there needs to be an **incentive.**”*



More responsible for resilience

Less responsible for resilience

In the workshops we shared some case studies of resilience issues and different roles and responsibilities for prevention and response

Water

It has been a long, hot summer, and it hasn't rained for many weeks. There are **significant water shortages** across the most of the UK.

Government/regulator:

- Prevent: Legislation to allow **compulsory metering**, to help companies to manage their demand more actively
- React: Mandate **interregional transfers** from water abundant to stressed regions.

Service providers:

- Prevent: **build new storage reservoirs** or **invest in technologies** like desalination
 - significant cost to the bill payer*
 - additional measures, like metering, might be required*
- React: The operator could introduce **hosepipe bans** and **rota cuts to usage**
 - less costly but less effective long-term*
- React: Distribute bottled water

Individuals:

- Prevent: **reduce demand** on water resources (e.g. shorter showers, only washing full loads of laundry, waterbutts for gardening, water efficient appliances).

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Energy

Changes to the energy network (e.g. renewables, EVs) have made it a lot less stable and **half your town/city is facing 24 hours without any power**. This means you can't turn on the lights, heating, etc.

Government/regulator:

- Prevent: legislate to introduce **time of use tariffs**, to reduce demand in peak times

Service providers:

- Prevent: invest more in **energy storage technologies**
 - Increasing customer bills significantly*
- React: **controlled black outs** (shorter periods of time where people get actively cut off) to manage the situation

Individuals:

- Prevent: **change behaviours** (e.g. using energy at different times of day)
- Prevent: **reduce demand** on energy resources (e.g. not over filling the kettle)

BritainThinks | Private and Confidential 3

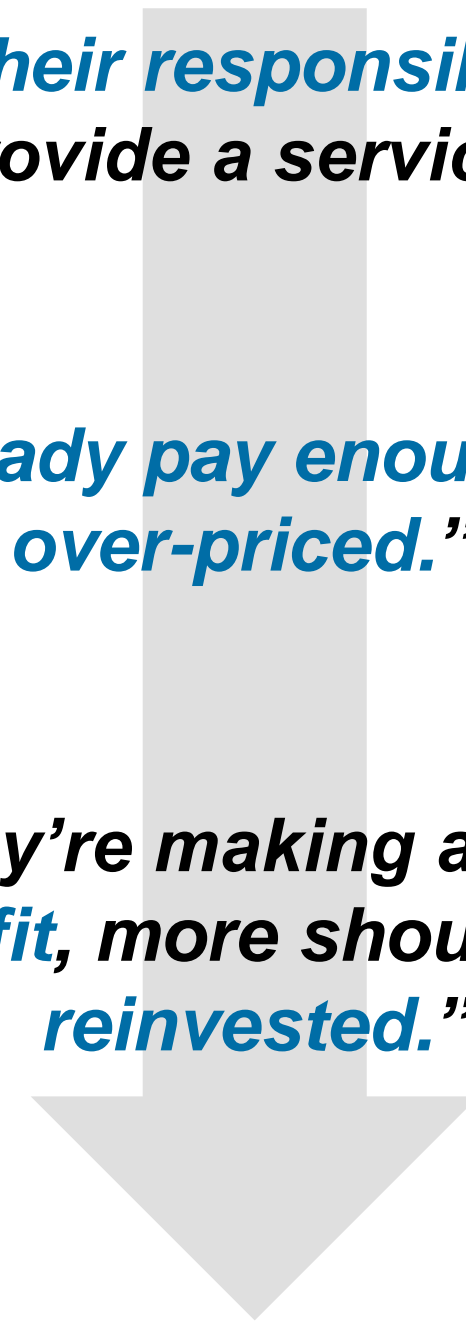
Talking through specific ideas and funding of resilience tended to reinforce workshop participants' belief that providers should do more

- Fundamentally, workshop participants had **very limited knowledge of the need for additional investment in infrastructure** simply to maintain the current level of service (i.e. of the concept that, in infrastructure terms, we must 'run to stand still').
- Participants were **very resistant to the idea of bill and ticket price increases** to cover resilience investment and response.
- Suggestion of price increases to cover resilience costs was most likely to bring out **frustrations with the levels of profits** companies make and led participants to assume they were **likely not reinvesting enough in infrastructure**.
 - The issue of high profits was not something typically mentioned spontaneously in our regulation session on corporate behaviour and ethics.

*"It's **their responsibility** to provide a service."*

*"I **already pay enough / it's over-priced.**"**

*"They're making a **lot of profit**, more should be **reinvested.**"*



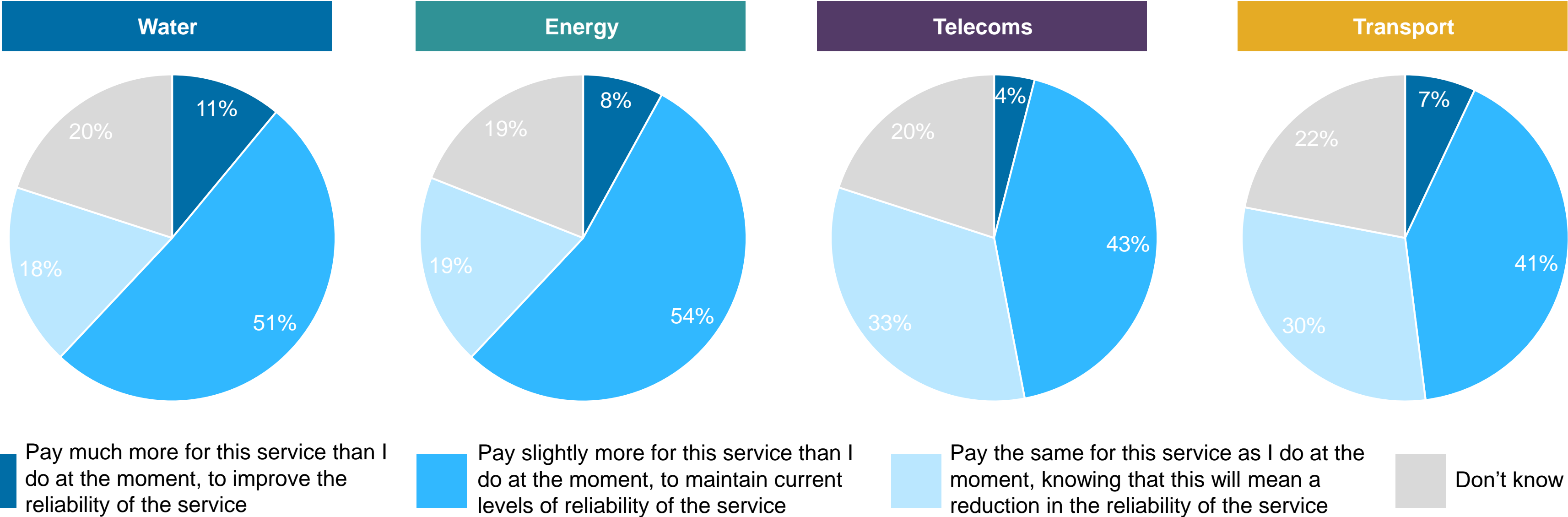
Workshop participants were willing to accept some responsibility, particularly reactive, but expected to see this matched by their providers

Consumers did not tend to fully engage with the distinction between preventative and reactive resilience methods. They simply want to receive a normal service as much as possible with limited impact on themselves. More detailed responses to the measures are included below:

Prevent: investment	Prevent: legislation	Prevent: reduce demand	React: reduction of service	React: substitutes
<ul style="list-style-type: none"> Strong feeling service providers should be reinvesting. Government was seen as having more of a role in water and energy. Participants were less resistant to tax increases, due to the lack of connection to profit. 	<ul style="list-style-type: none"> Mixed opinions, some feel paying for usage is fair but there's resistance where it penalises people for things beyond their control (e.g. time of use). Feeling there should be stronger regulation over profit reinvestment to cover prevention methods. 	<ul style="list-style-type: none"> The vast majority acknowledge or accept they could do more. Many feel better incentives, education and help is needed to overcome inertia. The public are more willing to act during periods of crisis, when it becomes the norm and the issue is in the public eye. 	<ul style="list-style-type: none"> There is acceptance of the necessity of 'common sense' temporary service reductions in periods of crisis (e.g. hosepipe bans during drought). Participants' resistance to bill/ticket increases pushes them to consider occasional reductions in service as more acceptable in theory. 	<ul style="list-style-type: none"> Individuals are already familiar and tolerant of making occasional substitutes to deal with disruption and using technology to reduce impact (e.g. transport apps).

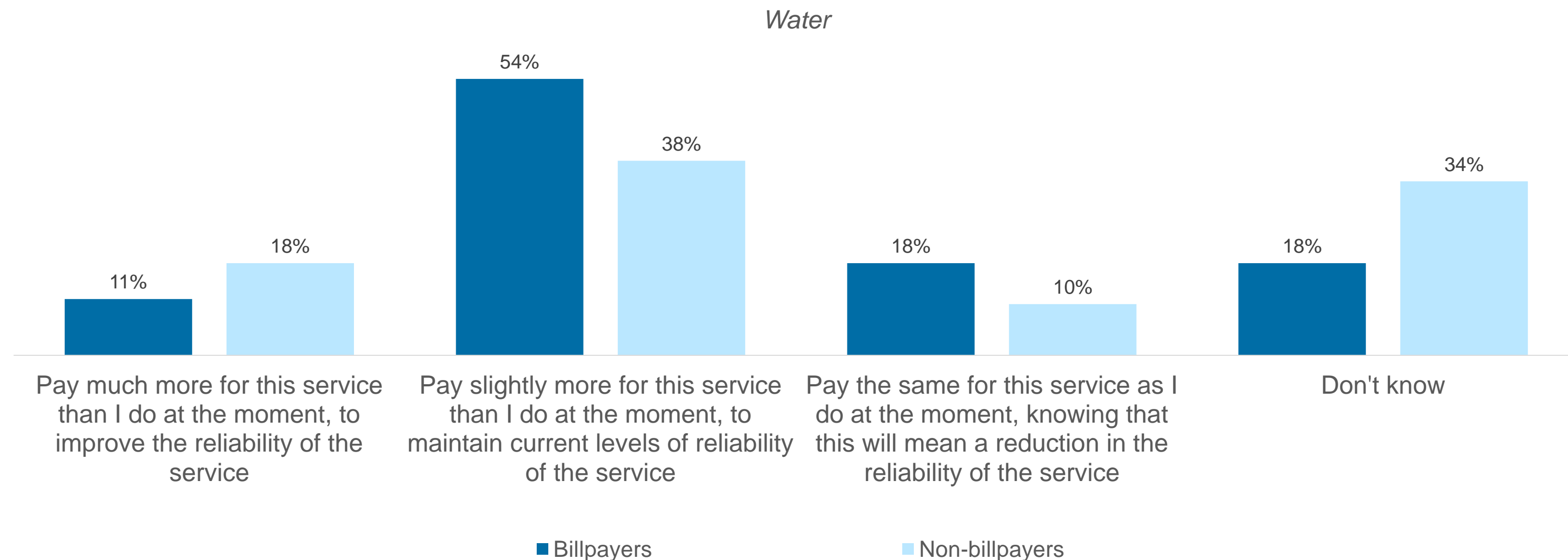
Majorities are willing to pay more to maintain or improve service levels for water and energy, whilst only two in five say they would do this for transport and telecoms

If you knew that each of these services would become less reliable without major additional investment, which of the following best describes what you would want to do?



Billpayers are significantly more likely to say they would pay slightly more to maintain their water service than non-billpayers

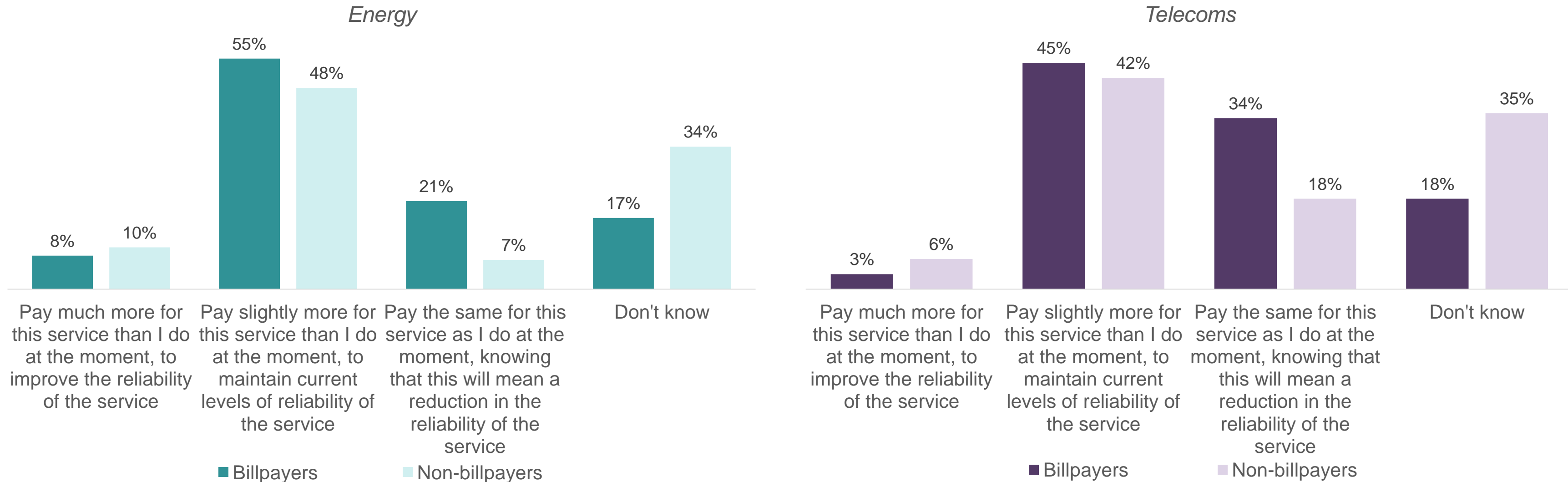
If you knew that transport services would become less reliable without major additional investment, which of the following best describes what you would want to do?



Non-billpayers were also significantly less likely to feel able to answer this question, with significantly more selecting 'don't know' than billpayers.

Whilst for energy and telecoms, non-billpayers were as likely as billpayers to say they would pay more to maintain a reliable service

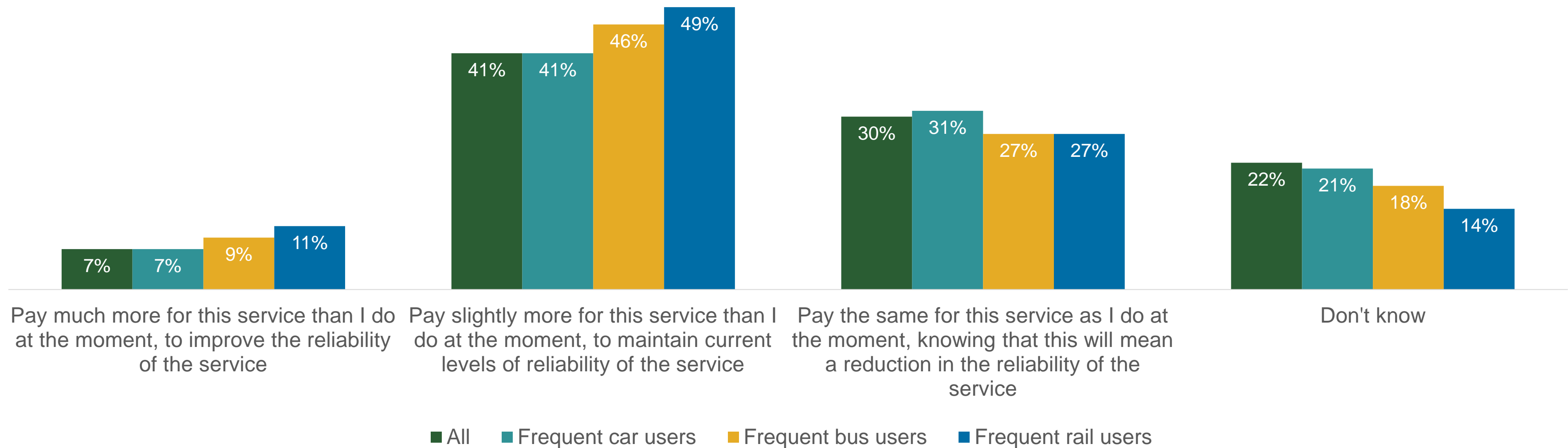
If you knew that transport services would become less reliable without major additional investment, which of the following best describes what you would want to do?



However, non-billpayers were still less likely to feel able to answer this question, with significantly more selecting 'don't know' than billpayers.

When it comes to transport, frequent bus and rail users are slightly more willing than car users to pay to maintain service levels

If you knew that transport services would become less reliable without major additional investment, which of the following best describes what you would want to do?
Showing percentage selecting each option



However, discussions during the workshops indicated that there is very low awareness that additional infrastructure investment may be necessary simply to maintain current service levels

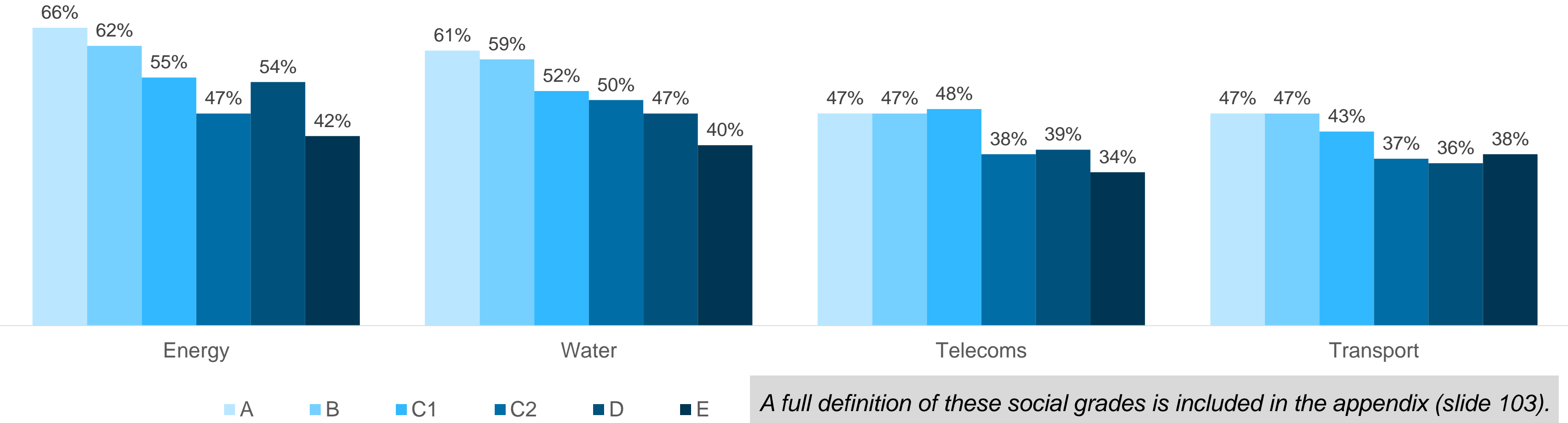
The idea that current levels of service across infrastructure will decrease without further investment is neither intuitive nor well known among consumers. The workshops indicated that most consumers know very little about the pressure that macro-trends such as population growth and climate change will put on the UK's infrastructure.

As a result, a major communications effort will be required to explain this broader context around potential bill increases in the future. While the previous slide indicates that there is support among consumers for paying slightly more to maintain the current level of service, in reality there is little consensus around the fundamental premise underpinning this question.

Members of the public from lower social grades are less likely to say they would be happy to pay slightly more to maintain current service levels

If you knew that each of these services would become less reliable without major additional investment, which of the following best describes what you would want to do?

Showing percentage of each SEG selecting 'pay slightly more for this service than I do at the moment, to maintain current levels of reliability of the service'

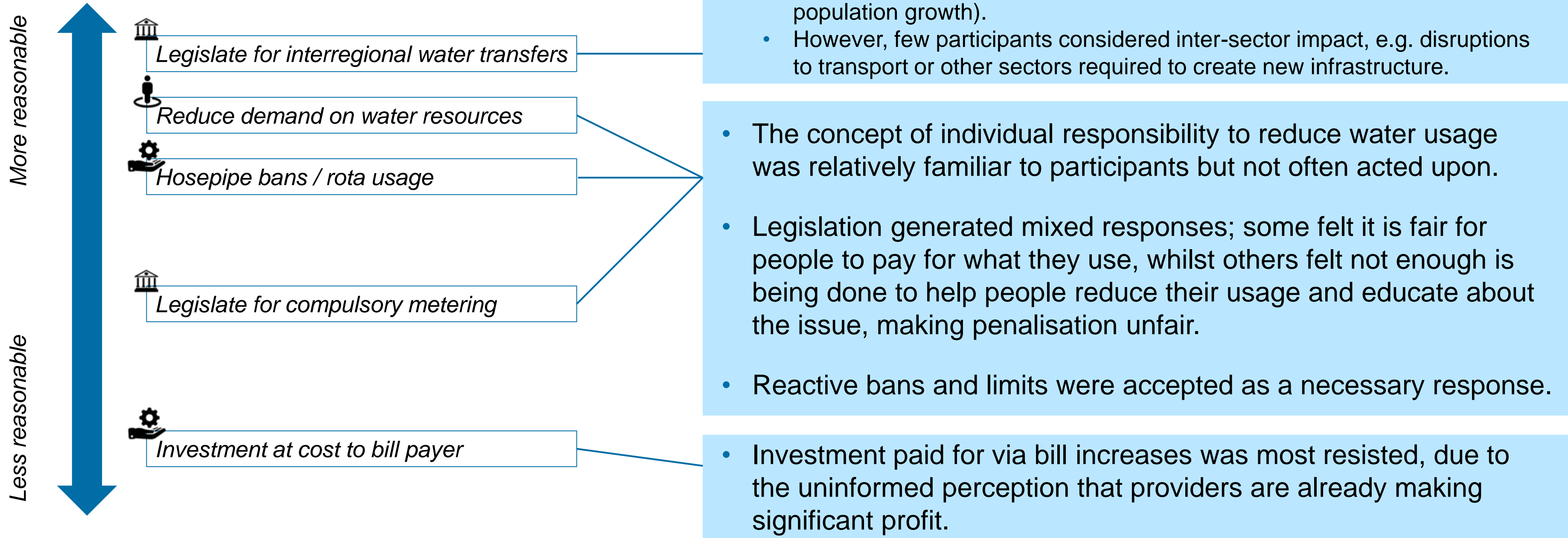




Deep-dive: water resilience measures

In the qualitative workshops we explored a variety of potential solutions (detailed below) to a resilience challenge and explored how reasonable participants found each.

It has been a long, hot summer, and it hasn't rained for many weeks. There are **significant water shortages** across most of the UK.





Deep-dive: energy resilience measures

In the qualitative workshops we explored a variety of potential solutions (detailed below) to a resilience challenge and explored how reasonable participants found each.

Changes to the energy network have made it a lot less stable and **half your town/city is facing 24 hours without any power. This means you can't turn on the lights, heating, etc.**

More reasonable

Less reasonable



Use energy at different times



Reduce demand on energy resources



Controlled black-outs



Legislation to introduce time of use tariffs



Investment at cost to bill payer

- Some participants were already familiar with incentivised energy tariffs to encourage non-peak usage, many saw this as fair and feasible if it helps them save money.
- Familiarity with the concept is stacked against inertia.

- Time of use tariffs were seen as less fair than water metering, as it would see consumers paying different prices for the same usage levels and unfairly target those with normal working hours. Asking people to pay a premium for usage after work felt particularly unfair.
- There were also suspicions it would be a method to increase costs and profits.

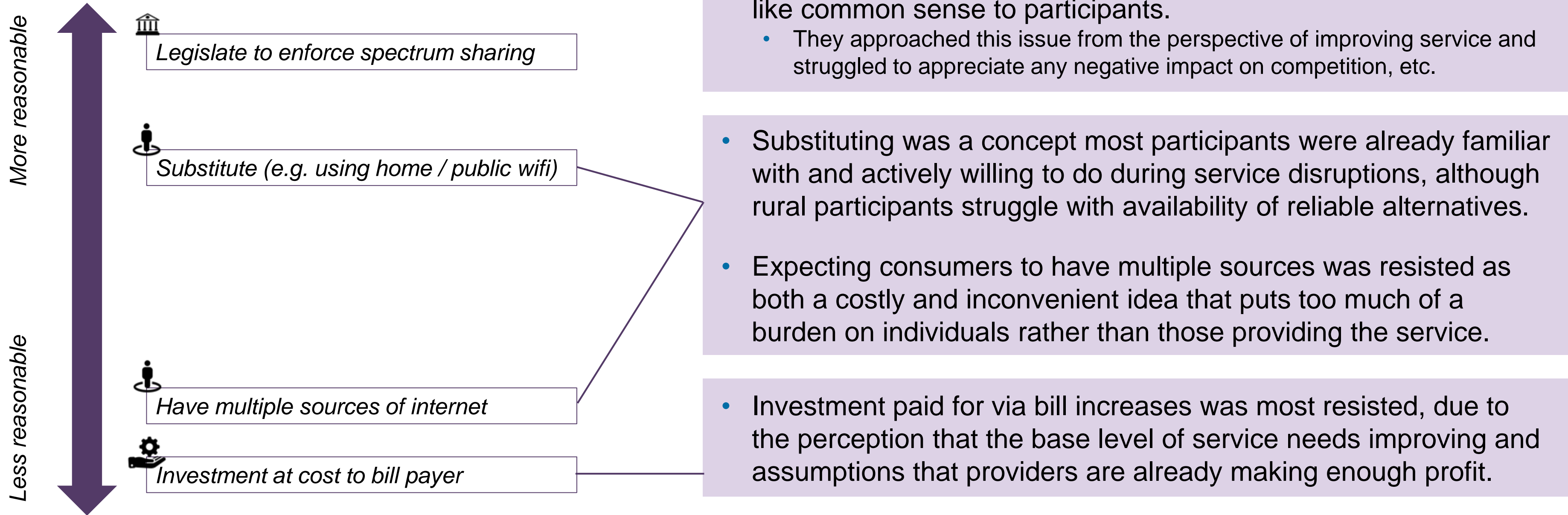
- Investment paid for via bill increases was most resisted, due to the uninformed perception that providers are already making significant profit.



Deep-dive: telecoms resilience measures

In the qualitative workshops we explored a variety of potential solutions (detailed below) to a resilience challenge and explored how reasonable participants found each.

One of the Big 4's mobile network goes down, leaving **all customers without data**. The precise cause of the outage is not yet known, but the telecoms company is troubleshooting the issue and has warned that it might take 24 hours to fix.





Deep-dive: transport resilience measures

In the qualitative workshops we explored a variety of potential solutions (detailed below) to a resilience challenge and explored how reasonable participants found each.

A fault on the train line a few miles outside your local station means that **all trains are cancelled, preventing you getting to work**. The cause of the fault is unknown, and the train company hasn't told you how long it will take to fix.

More reasonable

Less reasonable

- Check routes before travelling
- Provision of alternative transport

- Checking routes and public transport has become routine, particularly in urban areas where apps have live transport data.
 - However, some in rural areas struggled to access accurate information.
- Replacement buses (etc.) were a frustration consumers were usually willing to live with, despite irritation over perceived loss of value.

- Assess need to travel / work from home

- The need to travel was considered non-negotiable for many, particularly for future customers, who were likely to have jobs which couldn't be done from home and pay tied to actual hours worked.

- Introduce a parallel train track (taxes)

- More so than in water and energy, participants saw rail infrastructure as the responsibility of providers and resisted the idea of government taxes being used.

- Investment funded through increased ticket prices

- There was the feeling that transport is not currently delivering value for money and more investment should be required.

04 Recap of key findings

Regulation: key findings

1

In the qualitative workshops, **few participants appeared to be actively engaged with their water or energy services**. However, the quantitative survey found that **majorities of the public are satisfied with these services**, and see them as generally reliable, although there are more mixed views of affordability.

2

During the workshops **telecoms appeared to be more 'front-of-mind'** for participants than water or energy, driven both by more frequent experiences of issues (e.g. poorer reliability and customer service), as well as positive active engagements with the sector (e.g. upgrading mobile handsets). In contrast, the quantitative survey revealed that **overall customer satisfaction is similar across all sectors**.

3

There was **limited spontaneous awareness of, or interest in, the corporate behaviour of utility companies** amongst participants in the workshops. This was also borne out in the quantitative survey, with only 2% of the public saying that 'corporate behaviour' is their number one priority when thinking about utility companies. In both the workshops and the survey, consumers prioritised reliability and affordability, and tended to use these criteria to judge how 'good' a utility company is, rather than seeking out information about their business practices.

4

Participants in the workshops tended to assume that the regulation of utilities ensures key legal and 'common sense' interests are already being looked after. Whilst they expect that utilities providers (like any large company) will try to maximise profits, they also assume regulation will oversee and set targets on broader societal concerns in the public interest like investment in infrastructure, particularly to reduce environmental impact, as well as setting acceptable baselines for corporate behaviour like staff treatment (which is assumed to be covered by UK law).

Resilience: key findings (1/2)

1

In the qualitative workshops, **participants judged the acceptability of service disruptions using three criteria:**

1. The **level of impact** the disruption will have on their lives.
2. The **feasibility of working around** the disruption.
3. How well the disruption is **communicated**.

2

Few workshop participants had experienced disruption to their water or energy services and felt that a **constant, uninterrupted supply is the norm for these sectors**. Similarly, the quantitative survey showed that relatively low proportions of the public have experienced any problems with their water (24%) or energy service (27%).

3

In both the workshops and the survey, **the public were more likely to say they have experienced disruption with their broadband service (61%) and with transport (53% for car and 39% for rail)**. Workshop participants described disruption as being normal and expected in these sectors.

4

In the workshops, there was very low tolerance of disruption to the water or energy service. Participants felt there would be a high impact on them and others in the UK if these services were disrupted. They also believed that the UK's infrastructure should be able to withstand any issues which would cause long-term outages.

Resilience: key findings (2/2)

5

In the workshops, **participants felt strongly that providers have responsibility for providing adequate service levels**, including ensuring their service is resilient.

6

There were high levels of resistance to the idea of increases to bills or ticket prices to cover additional investment in the workshops. During discussions, many referred to their perception that companies were making large profits and that they should be investing some of these profits into improving resilience, rather than increasing costs for customers.

7

However, when forced to make a trade-off between price and service levels in the survey, majorities said they would **rather pay more to maintain service levels than pay the same and see a decrease, for water and energy.**

8

In contrast, **fewer than half of survey respondents said they would pay more to maintain service levels for telecoms and transport.** This is reflective of what we saw in the workshops, where many participants felt transport services currently offer poor value for money, a perception driven by greater experience of disruption.

Thank you

BritainThinks
Somerset House
Strand
London
WC2R 1LA

+44 (0)207 8455880

britainthinks.com