

Medtronic

Engineering the extraordinary

State of Surgery in the UK

Technology and efficiency in patient care

JULY 2023

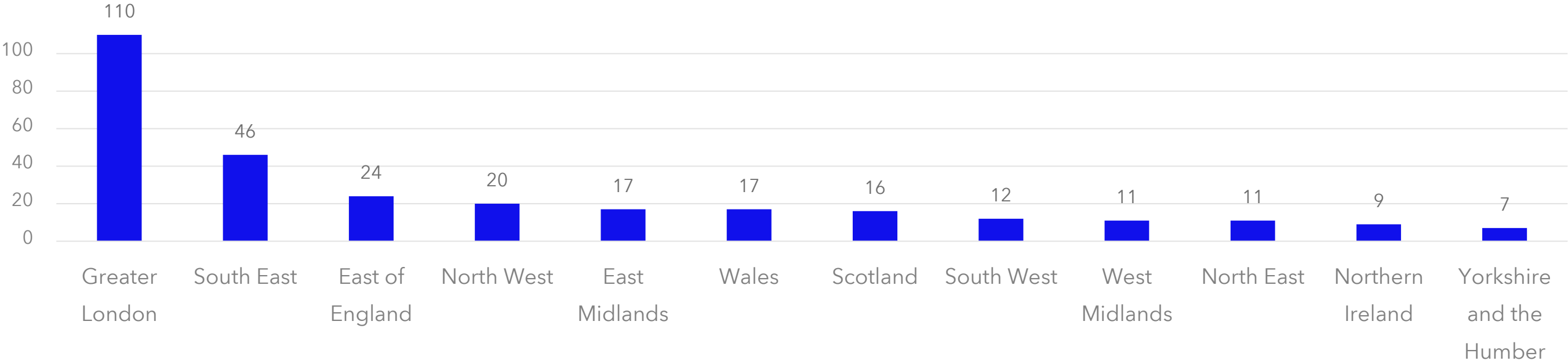


Overview of survey

The aim of our 2023 State of Surgery in the UK survey was to assess the perspectives of healthcare professionals on the current technology in use in hospitals across various regions of the UK, and to identify potential areas for improvement. Key topics of interest included ease of care delivery, technological innovation, and the impact of these tools on their professional practice.

The survey was conducted from 1st March to 15th April 2023, with a target audience of surgeons and medical practitioners from various specialisations within both public and private healthcare sectors. We received responses from 300 individuals across 21 regions and cities. The top 15 regions by number of respondents are detailed in the report.

Number of surgeons surveyed per region



Key findings

There is significant potential for patient care to be enhanced through improvements in technology:

- Nearly 8 in 10 (78.7%) of surgeons believed that technology could be improved.
- Surgeons in Northern Ireland (100%) and North East (90.91%) showed the highest belief that technology could be improved.
- Surgeons with under a year of experience (82.84%) saw the greatest potential for improvements.

A high majority of surgeons believe that their performance is limited by the technology they have available to them:

- Over three quarters (77%) of surgeons said they find the technology they use in their role limits them from performing to the best of their ability,
- Surgeons in Northern Ireland (100%) and South East of England (86.96%) showed the highest belief that their performance is limited by the technology available to them.
- Surgeons with between 16-20 years experience (85.71%) felt most limited by the technology available to them.

More than an entire working month is lost per surgeon per year due to inefficient technology:

- On average, surgeons lose or waste 4.1 hours a week due to outdated and inefficient technology.
- Surgeons who have been in the profession for 11 or more years lose or waste 4.2 hours a week.
- Almost one third of surgeons (27.27%) of surgeons in the North East lose up to 10 hours a week due to outdated or inefficient technology.

Inefficient technologies cause more than half of surgeons to complete administrative tasks outside of the hospital:

- Over half of of surgeons in the North East (63.64%) say that inefficient technology is the reason they spend time outside of the hospital completing administrative tasks.
- 60% of surgeons with a practice area in urology say that inefficient technology slows them down in the operating room.
- Over three quarters (76.47%) of surgeons in the East Midlands say that technology in the operating room lags behind the technology they experience in their personal life

Q1 summary: The potential for technology improvement to enhance patient care

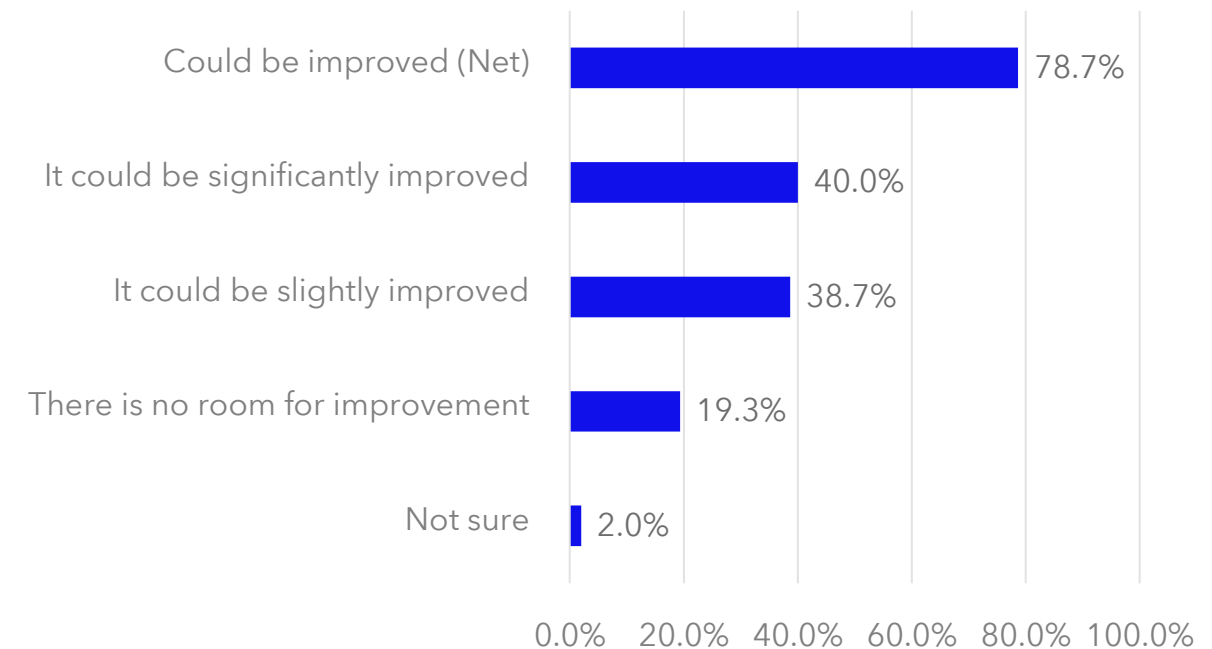
“Thinking about the current technology you use (at the hospital), how much, if at all, do you think it could be improved to make it easier to deliver care?”

KEY FINDINGS:

- **Region:** Surgeons in Northern Ireland (100%) and the North East (90.91%) showed the highest belief that technology could be improved. The Greater London region was least convinced with 65.45% expressing a need for improvement.
- **Length of Service:** Surgeons with over 20 years of experience are slightly less inclined to see room for improvement (76.70%), compared to those with under a year of experience (82.84%).
- **Practice Area:** Surgeons in various practice areas such as Cardiothoracic surgery, Obstetrics & Gynaecology, and Otorhinolaryngology (ENT) surgery showed high agreement (82% to 91.3%) on the need for technology improvement. Plastic surgery specialists showed the lowest agreement (73.33%).
- **Public or Private Practice:** Surgeons in public practice are slightly more inclined to see room for improvement (82.80%) compared to those in private practice (74.13%).

TOTAL SAMPLE

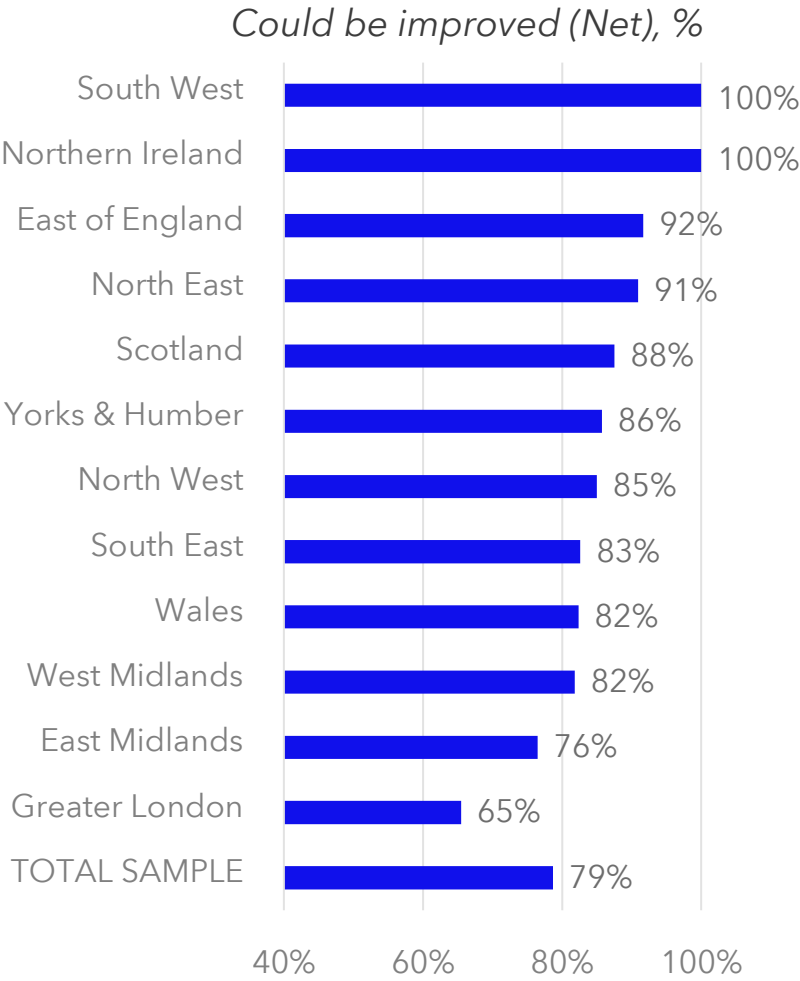
Response	%	Count
Could be improved (Net)	78.7%	236
<i>It could be significantly improved</i>	40.0%	120
<i>It could be slightly improved</i>	38.7%	116
There is no room for improvement	19.3%	58
Not sure	2.0%	6



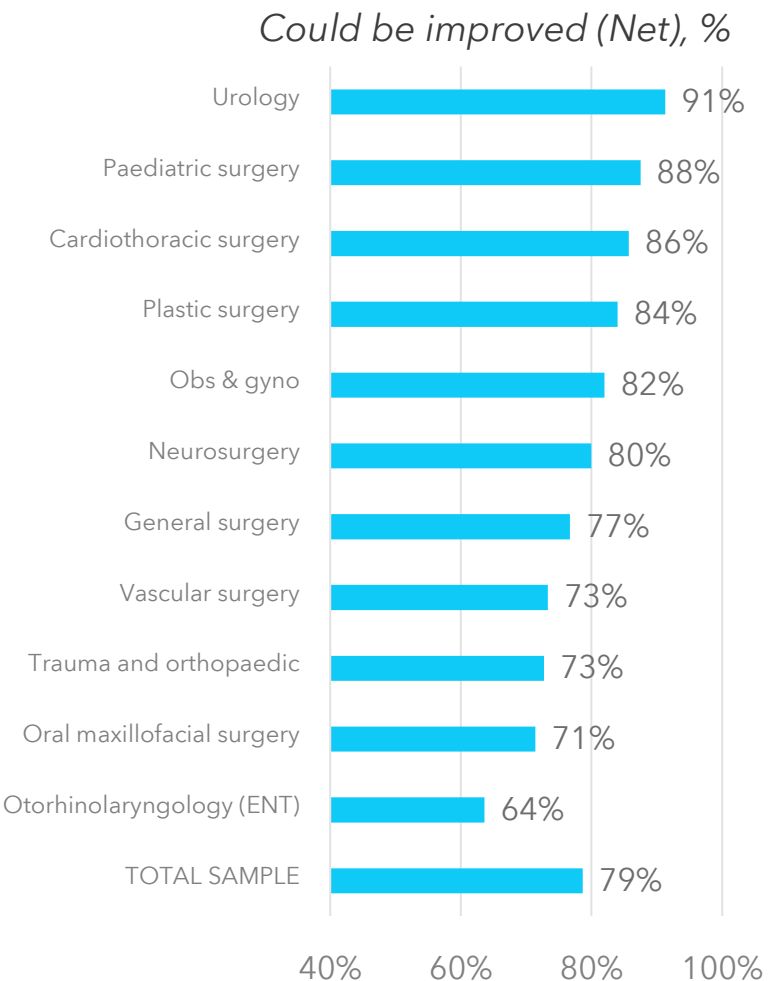
Q1 breakdown: The potential for technology improvement to enhance patient care

“Thinking about the current technology you use (at the hospital), how much, if at all, do you think it could be improved to make it easier to deliver care?”

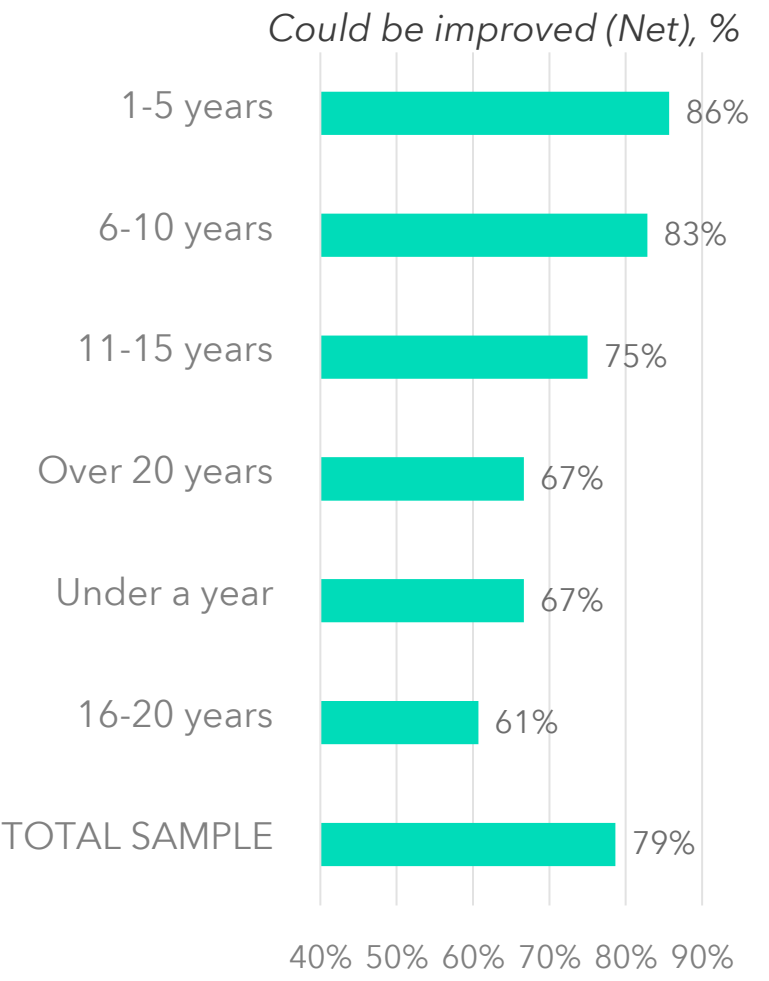
Regional



Area of practice



Length of service



Q2 summary: The performance impact of inefficient technology

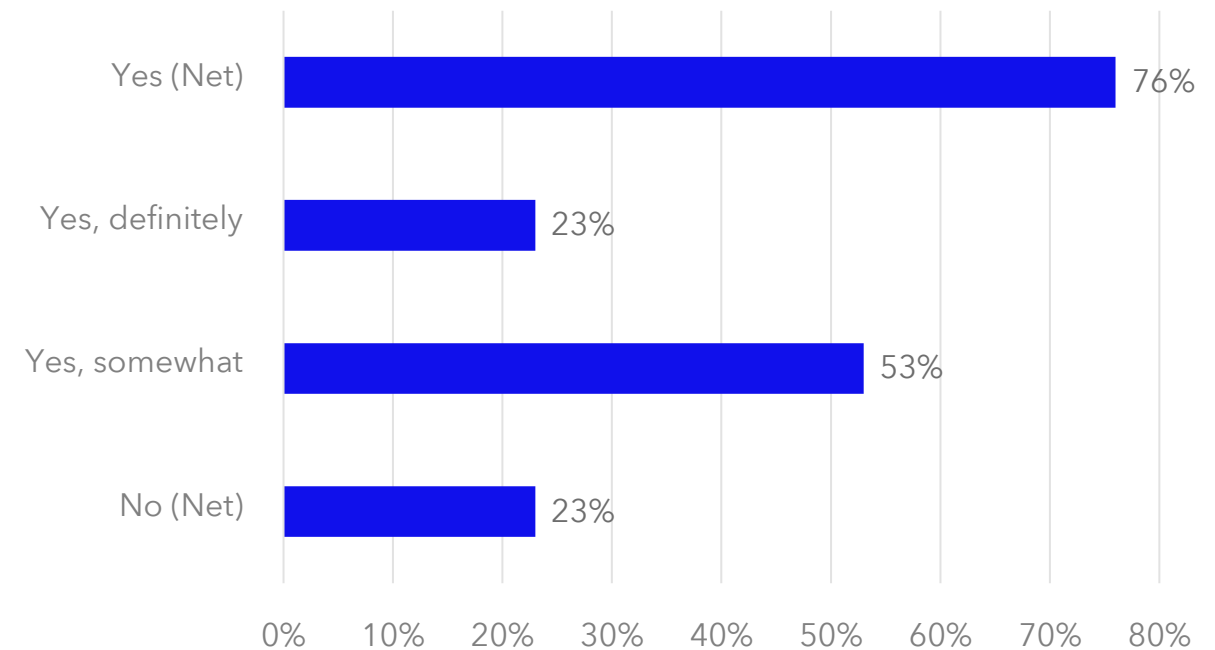
"Do you find the technology you use in your role limits you from performing to the best of your ability?"

KEY FINDINGS:

- **Region:** Surgeons in Northern Ireland (100%) and South East (86.96%) show the highest belief that the technology they use limits them from performing to the best of their ability.
- **Length of Service:** One hundred per cent of surgeons with under one year of experience reported a performance impact from using inefficient technology. Surgeons with 1-5 years of experience (71.43%) feel that their performance is the least impacted by inefficient technology.
- **Practice Area:** Paediatric surgeons report the highest belief that their performance is limited by inefficient technologies, compared to vascular surgeons of whom just 60% report the same.
- **Public or Private Practice:** Surgeons in private practice (79.01%) are more inclined to agree that their performance is limited by inefficient technologies, with just under three quarters of surgeons in public practice (74.52%) expressing the same view.

TOTAL SAMPLE

Response	%	Count
Yes (Net)	76	120
Yes, definitely	23	116
Yes, somewhat	53	58
No (Net)	23	6

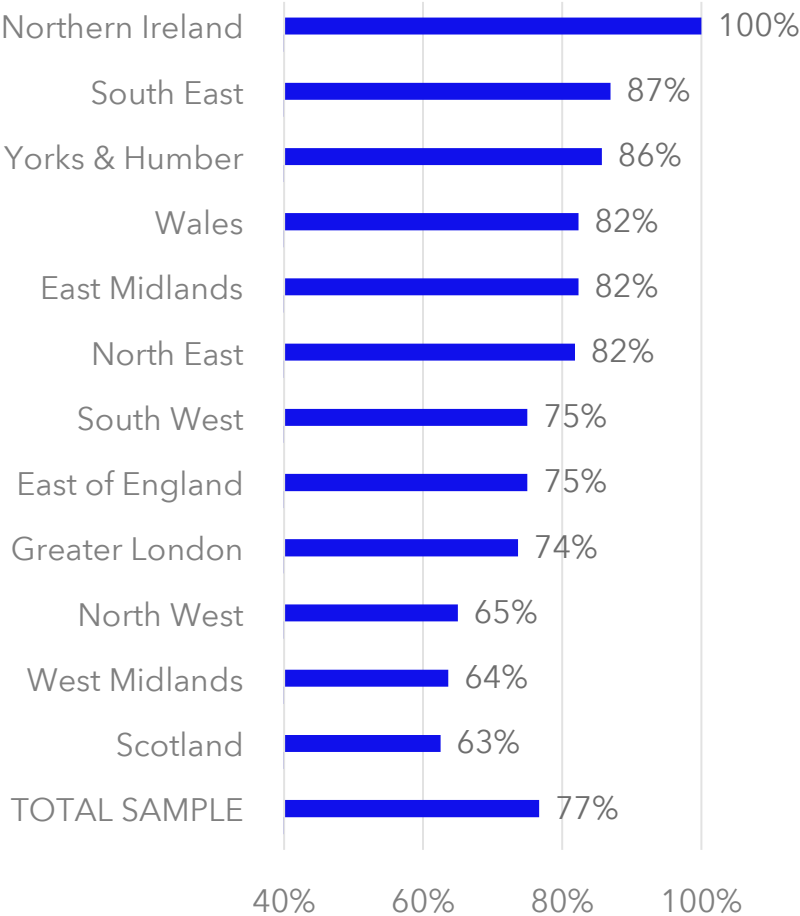


Q2 breakdown: The performance impact of inefficient technology

“Do you find the technology you use in your role limits you from performing to the best of your ability?”

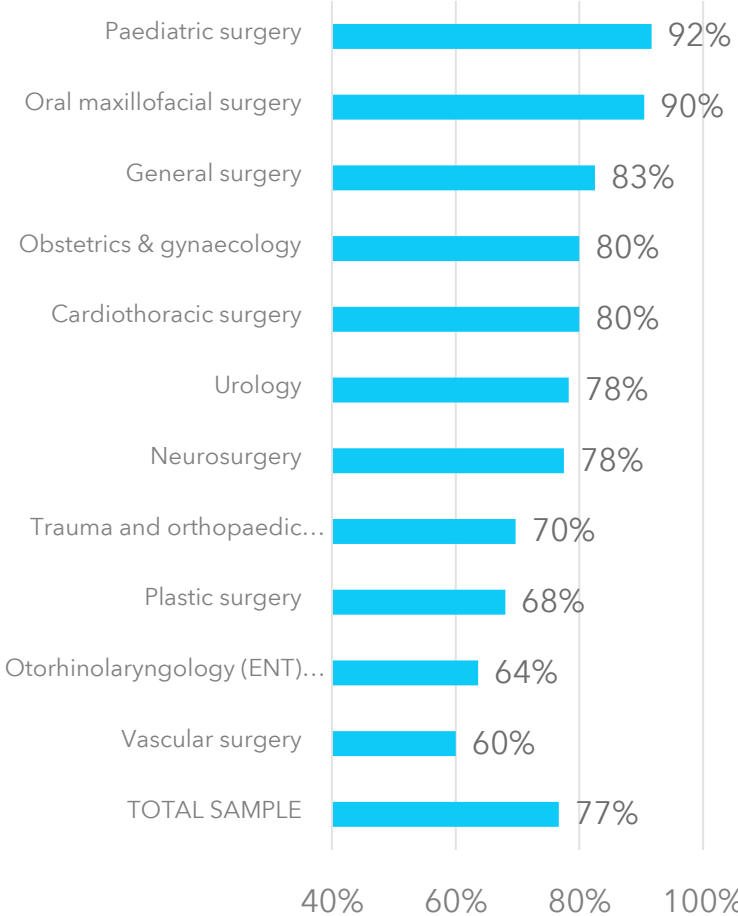
Regional

Yes (Net), %



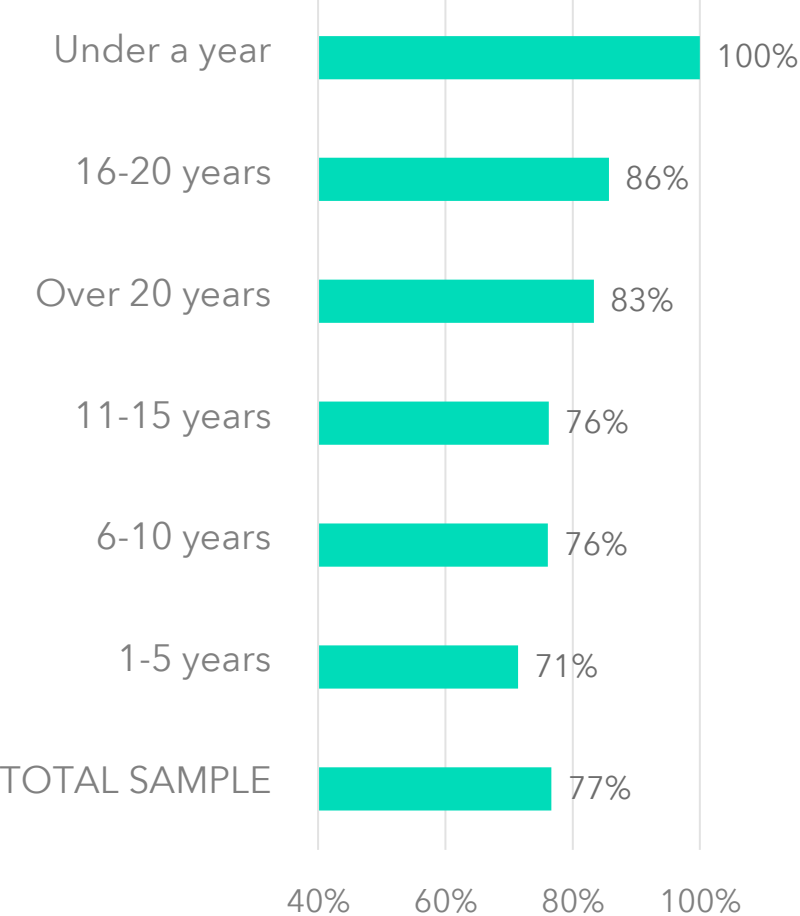
Area of practice

Yes (Net), %



Length of service

Yes (Net), %



Q3 summary: Time lost to technological inefficiencies

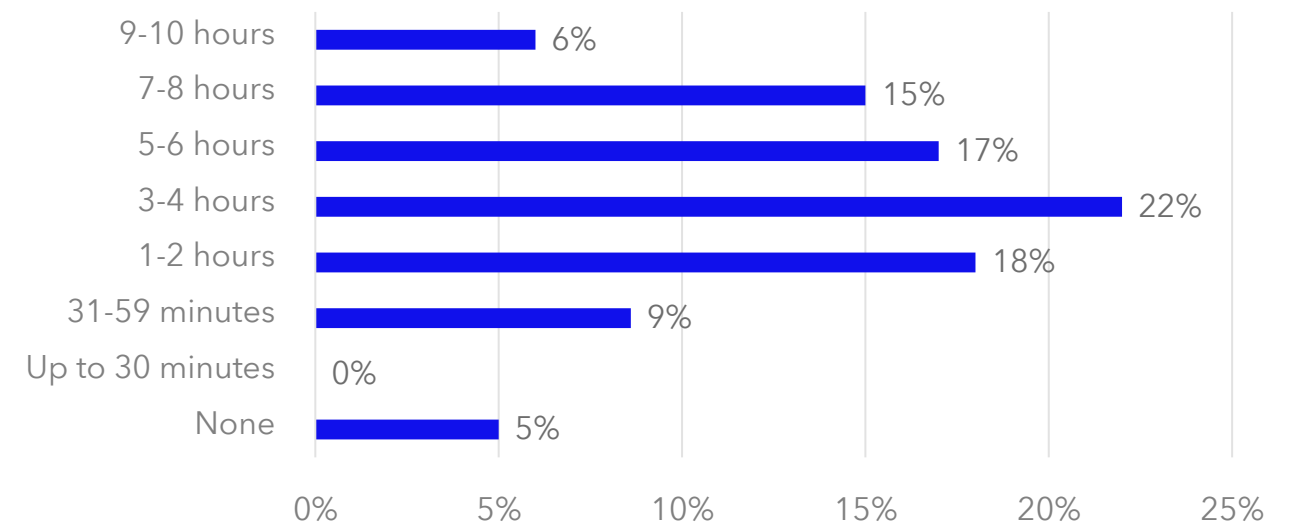
How much time, if any, do you believe is lost or wasted due to outdated/inefficient technology in an average week?

KEY FINDINGS:

- Region:** Surgeons in the North East (27.27%) report the most time lost to inefficient technology, at 9-10 hours a week. Just over one in 10 surgeons (11.82%) in Greater London say that no time is wasted due to inefficient technologies.
- Length of Service:** Surgeons who have been in the profession 11 or more years lose 4.2 hours a week, whereas those who have been in the profession for five or less years said they lose 3.7 hours.
- Practice Area:** Just over one-third of trauma and orthopaedic surgeons and paediatric surgeons (33.33%) believe that 3-4 hours a week is wasted due to inefficient technologies. This is in contrast to just under 1 in 10 (9.71%) general surgeons who don't believe any time is wasted.
- Public or Private Practice:** Oral maxillofacial surgeons report the most time lost, at an average of 5.9 hours. General surgeons report the least time lost per week, though this figure still stands at an average of 3.5 hours per week.

TOTAL SAMPLE

Response	%	Count
None	5%	15
Up to 30 minutes	0%	0
31-59 minutes	8.7%	26
1-2 hours	18%	54
3-4 hours	22.7%	68
5-6 hours	17%	51
7-8 hours	15%	45
9-10 hours	6.3%	19

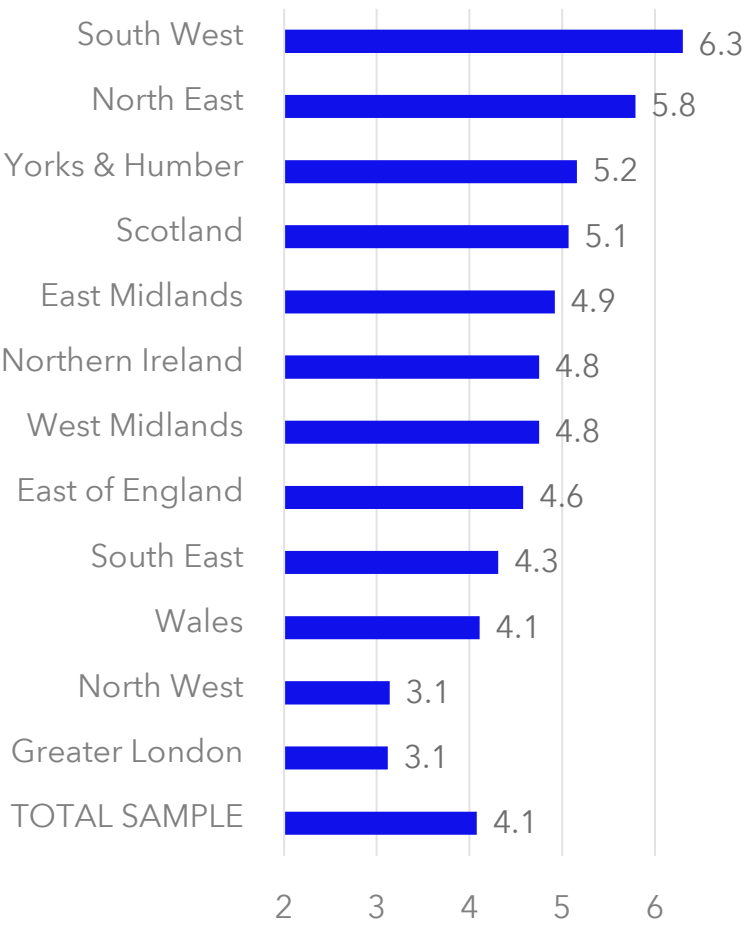


Q3 breakdown: Time lost to technological inefficiencies

How much time, if any, do you believe is lost or wasted due to outdated/inefficient technology in an average week?

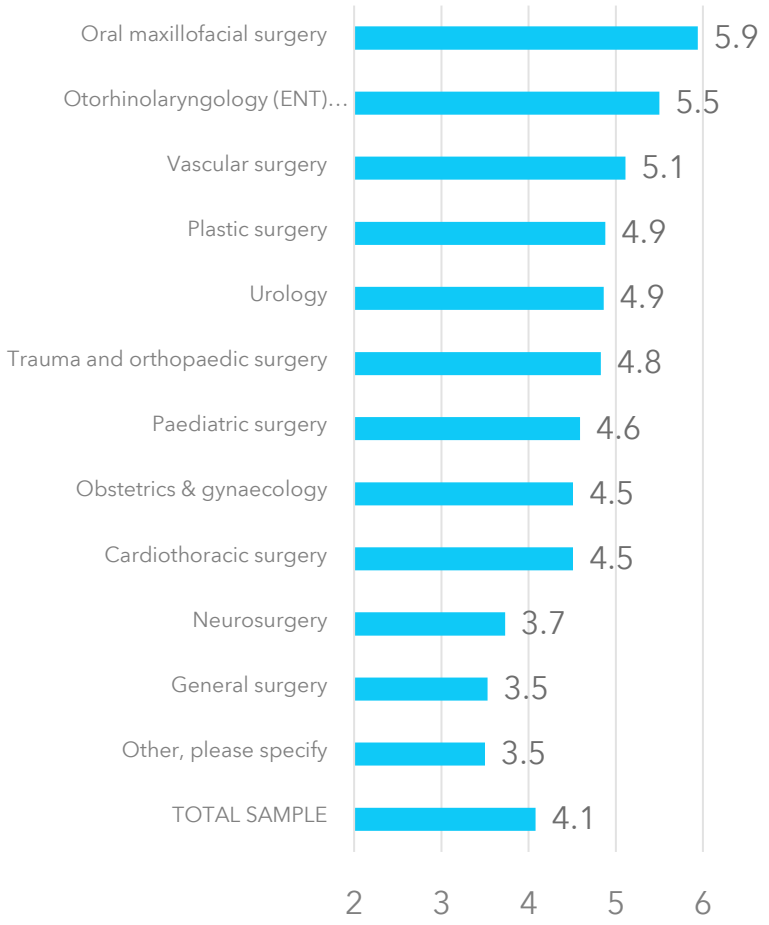
Regional

Time lost per week, hours



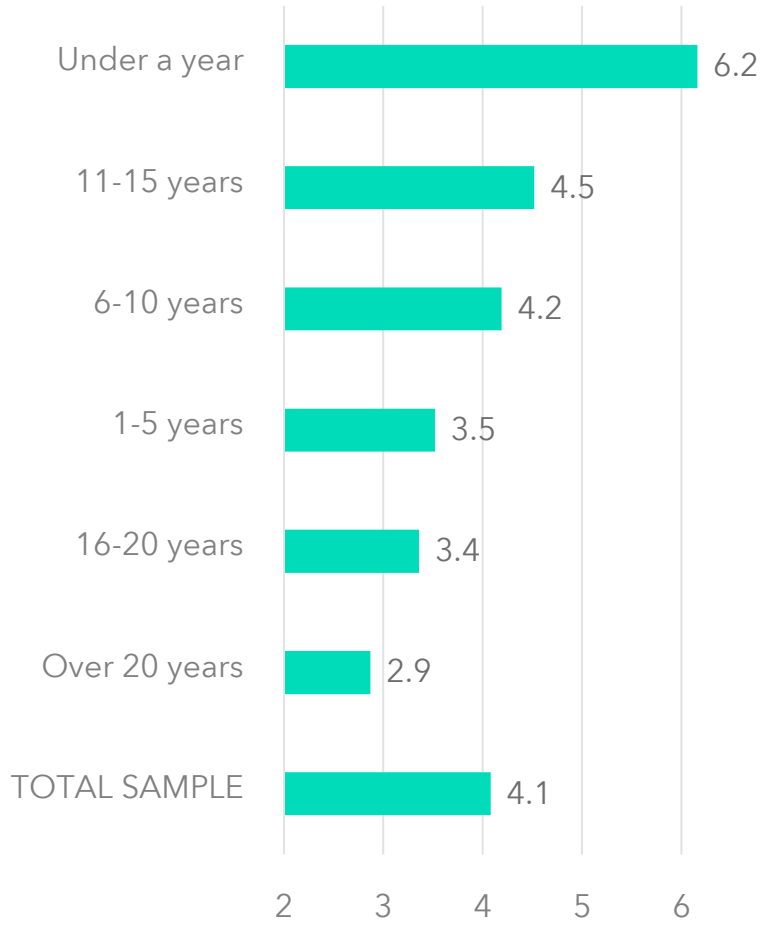
Area of practice

Time lost per week, hours



Length of service

Time lost per week, hours



Q4 summary: The impact of inefficient technologies on length of operations

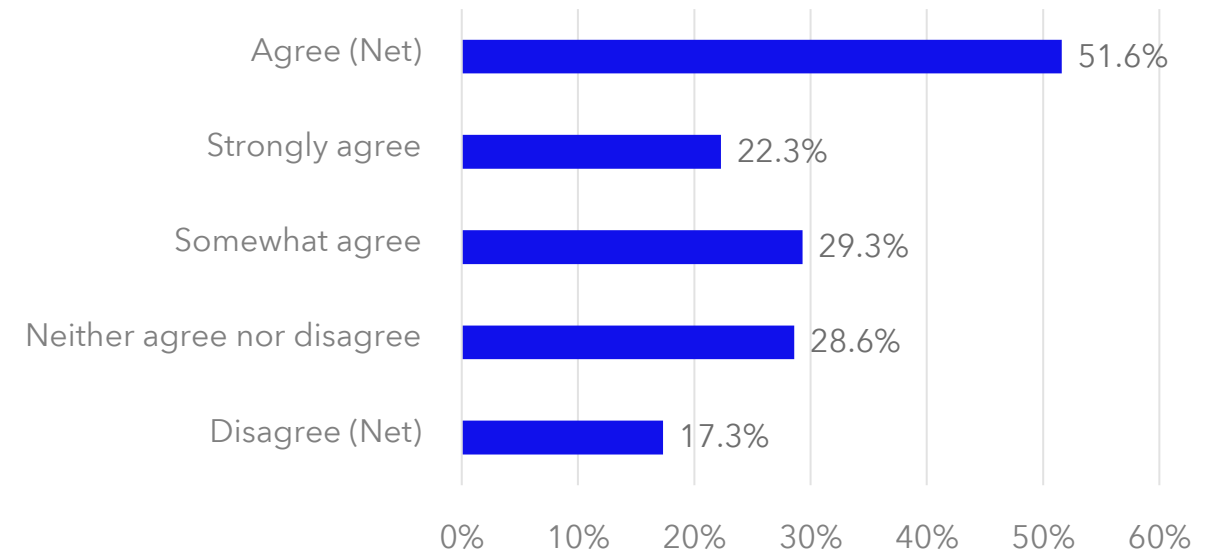
To what extent do you believe that 'inefficient technologies in the OR slow me down'.

KEY FINDINGS:

- **Region:** Surgeons from the South West (83.33%) and the North East (81.82%) report being most hindered by inefficient technology. This sentiment is also shared by the majority of surgeons in the East of England (70.83%), West Midlands (63.64%), South East (63.04%), North West (60.00%), Northern Ireland (55.56%), and Wales (58.82%).
- **Length of Service:** Interestingly, one's years in the field reflect their view on technology. Only a third of surgeons in their first year regard technology as a significant issue, yet this attitude shifts considerably as they garner experience. Specifically, 60.00% of surgeons with 11-15 years' service agree about the inefficiencies of existing technologies.
- **Practice Area:** Among different areas of practice, Otorhinolaryngology and Cardiothoracic Surgery bear the brunt most, with 63.63% and 62.86% of surgeons, respectively, flagging concerns over inefficiencies. On the other hand, Obstetrics and Gynaecology seems least affected, with just 46.00% of its surgeons acknowledging technology-related slowdowns.
- **Public or Private Practice:** The effect of inefficient technology has a slightly larger impact in the public sector, with 54.78% of surgeons reporting slowdowns, compared to 48.25% in private practice, showing a fairly even distribution across the two sectors.

TOTAL SAMPLE

Response	%	Count
Agree (Net)	51.7%	155
Strongly agree	22.3%	67
Somewhat agree	29.3%	88
Neither agree nor disagree	28.7%	86
Disagree (Net)	17.3%	52
Not applicable	2%	6

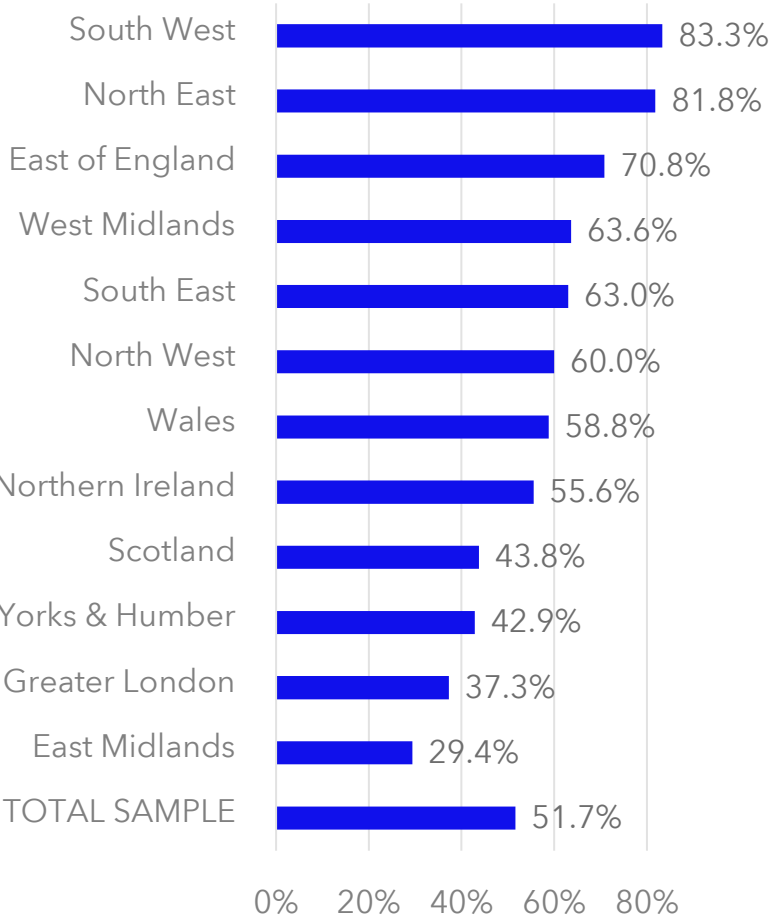


Q4 breakdown: The impact of inefficient technologies on length of operations

To what extent do you believe that 'inefficient technologies in the OR slow me down'.

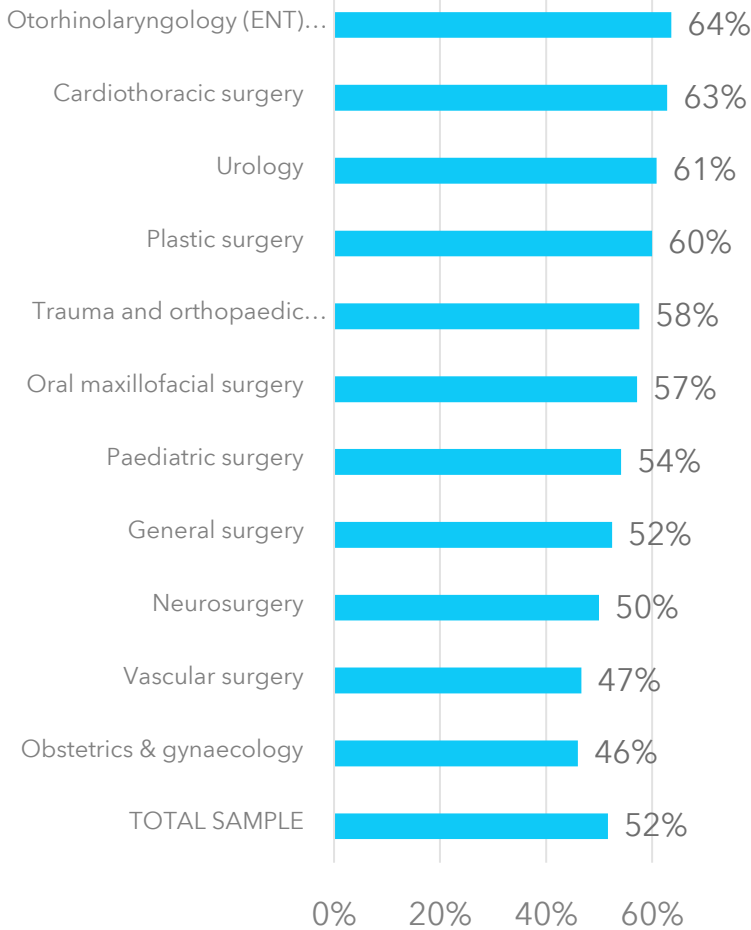
Regional

Agree (Net), %



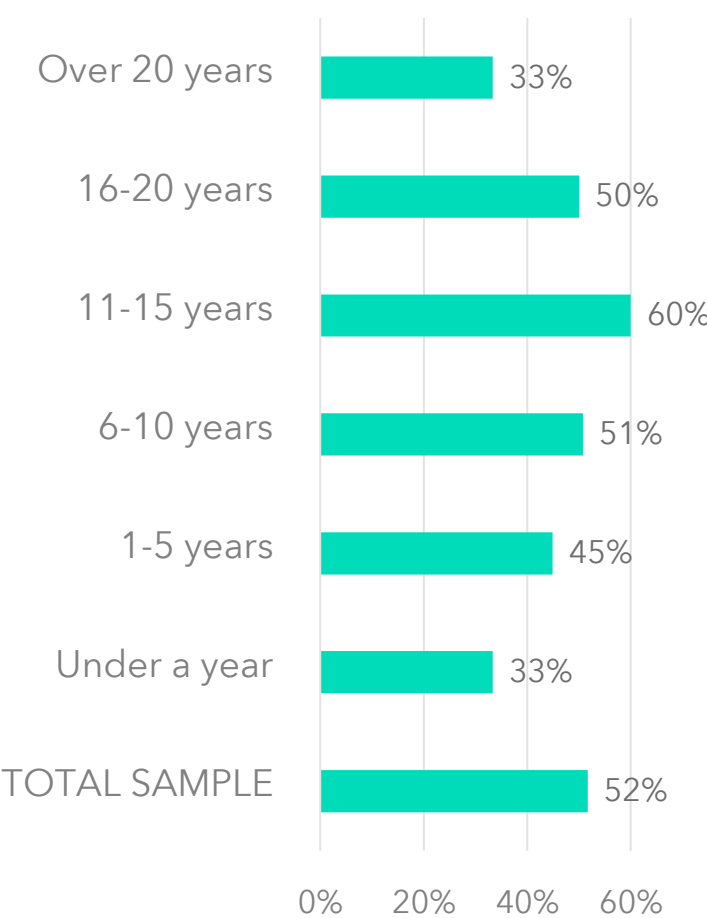
Area of practice

Agree (Net), %



Length of service

Agree (Net), %



Q4(a) summary: The impact of inefficient technologies on delivery of care

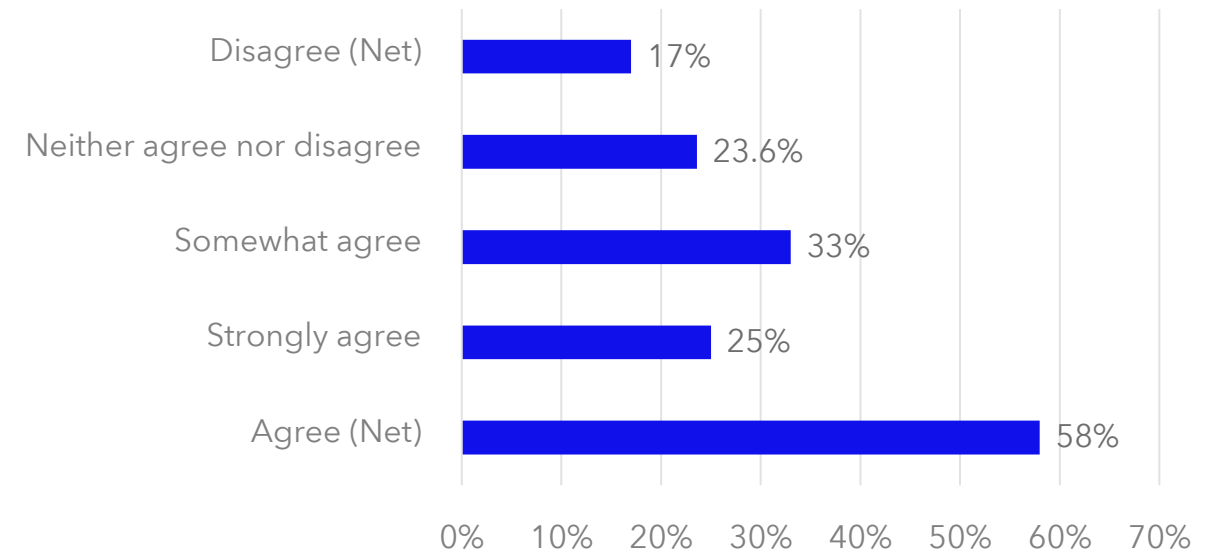
To what extent do you believe that 'Technology in the OR is inefficient and could impact the delivery of patient care'.

KEY FINDINGS:

- Region:** Surgeons from the North East lead in expressing their agreement with the statement, with a high 90.91% agreeing. However, it's not isolated to the North, as a significant portion of surgeons from Greater London (54.55%) also share this view.
- Length of Service:** There is remarkable consistency in the response across different experience levels. Surgeons with less than a year's experience (66.67%) are virtually on par with those possessing 11-15 years of experience (67.50%). Even those in the 16-20-year range show substantial agreement at 60.71%. However, there is a significant dip for surgeons with over 20 years of experience, with a mere 16.67% in agreement.
- Practice Area:** Paediatric Surgery appears to be the most affected by inefficient technology, with a significant 83.33% agreeing, and a third of those strongly so. More than half of General Surgery professionals (59.22%) also share this view, while Neurosurgery emerges as the least affected, with slightly over a third (37.50%) in agreement.
- Public or Private Practice:** The response trend appears more pronounced in the public sector, where nearly two-thirds (62.42%) agree about the technology-related issues, compared to just over half (53.15%) in the private sector.

TOTAL SAMPLE

Response	%	Count
Agree (Net)	58%	174
Strongly agree	25%	75
Somewhat agree	33%	99
Neither agree nor disagree	23.7%	71
Disagree (Net)	17%	51
Not applicable	1.3%	4

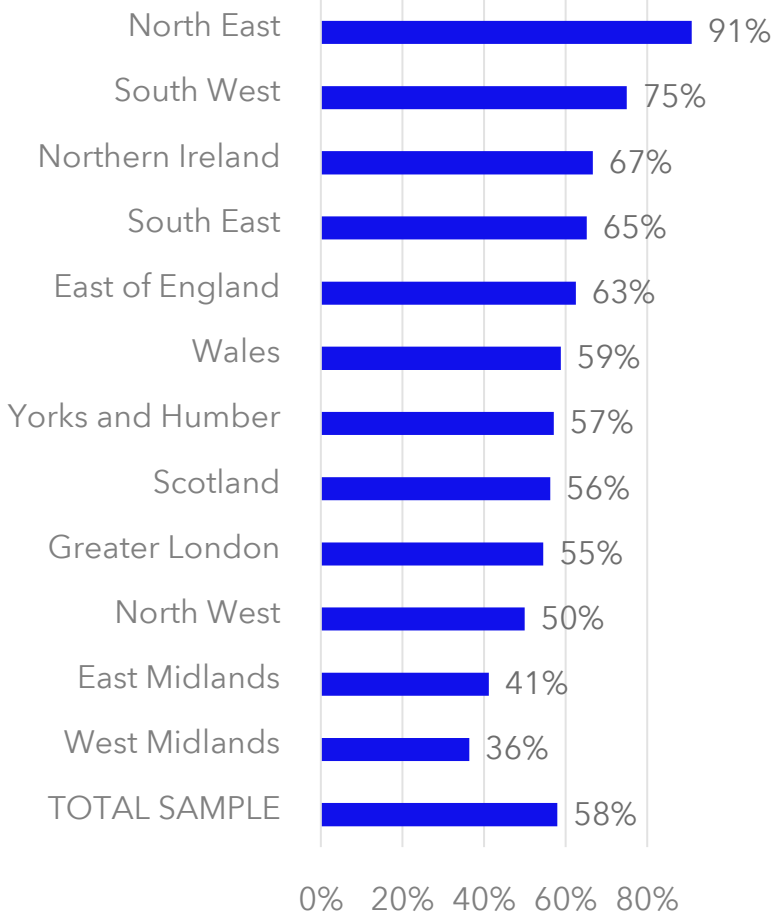


Q4(a) breakdown: The impact of inefficient technologies on delivery of care

To what extent do you believe that 'Technology in the OR is inefficient and could impact the delivery of patient care'.

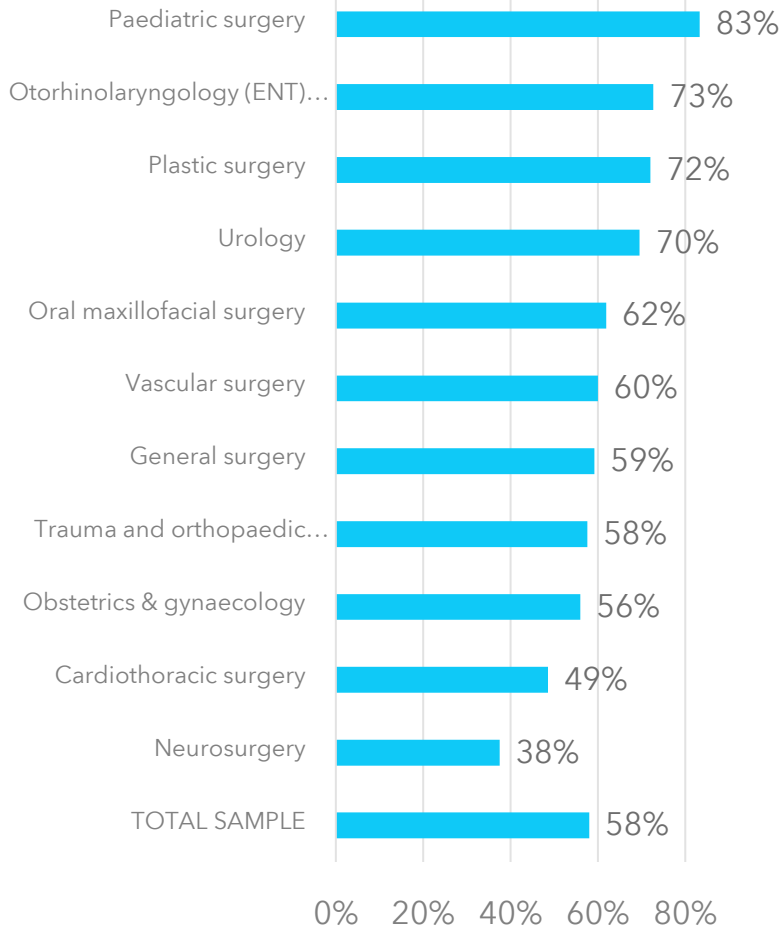
Regional

Agree (Net), %



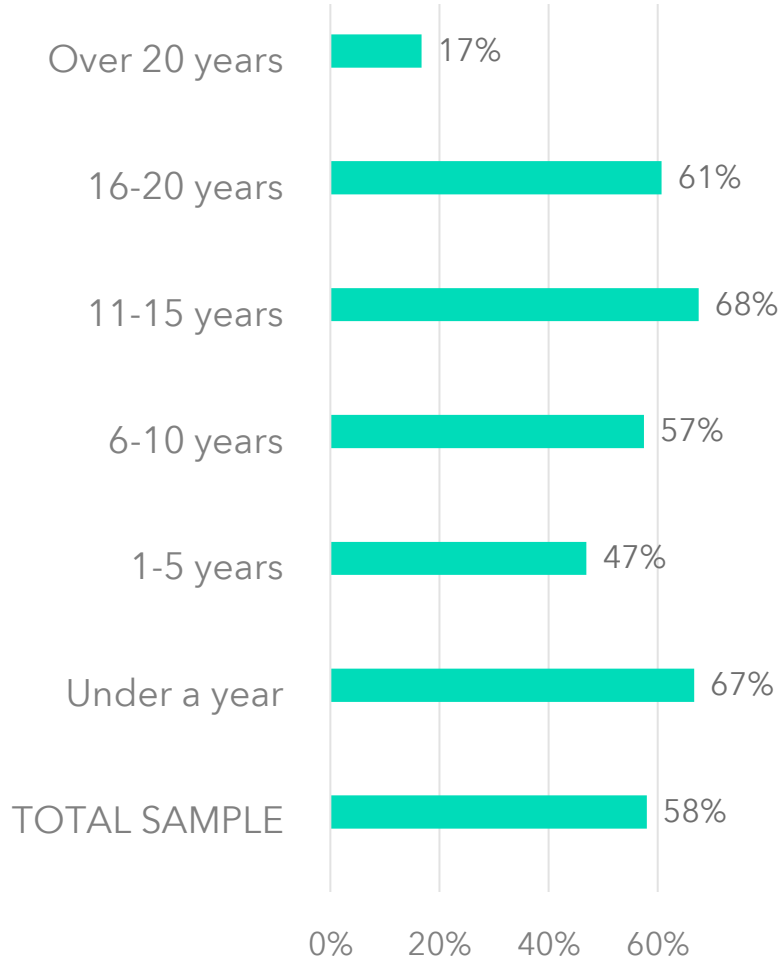
Area of practice

Agree (Net), %



Length of service

Agree (Net), %

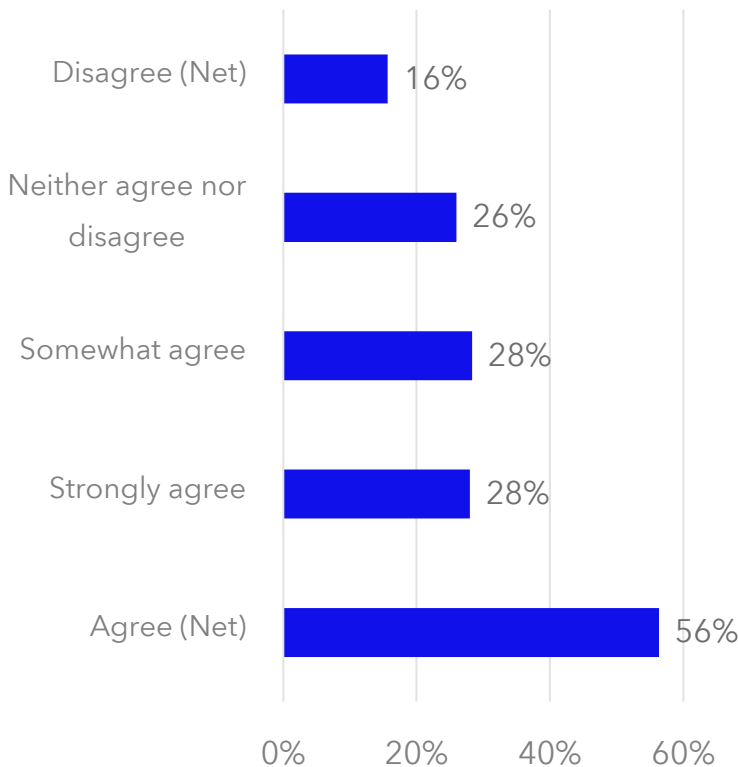


Q4(b,c,d) summary: General attitudes to various technologies' impact on time

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

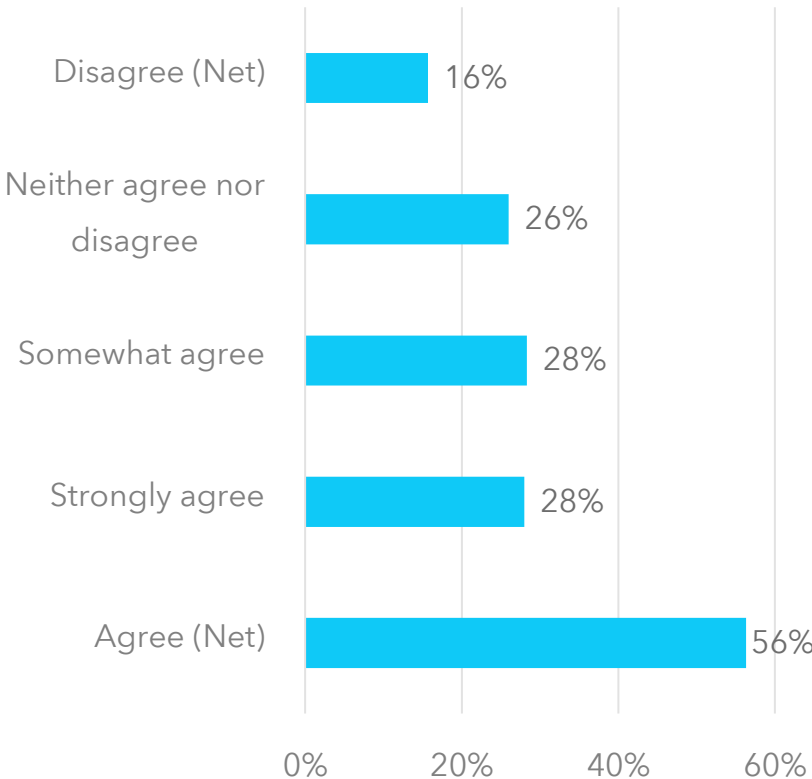
Time spent on administrative and logistical tasks could be reduced with updated technology

Agree (Net), %



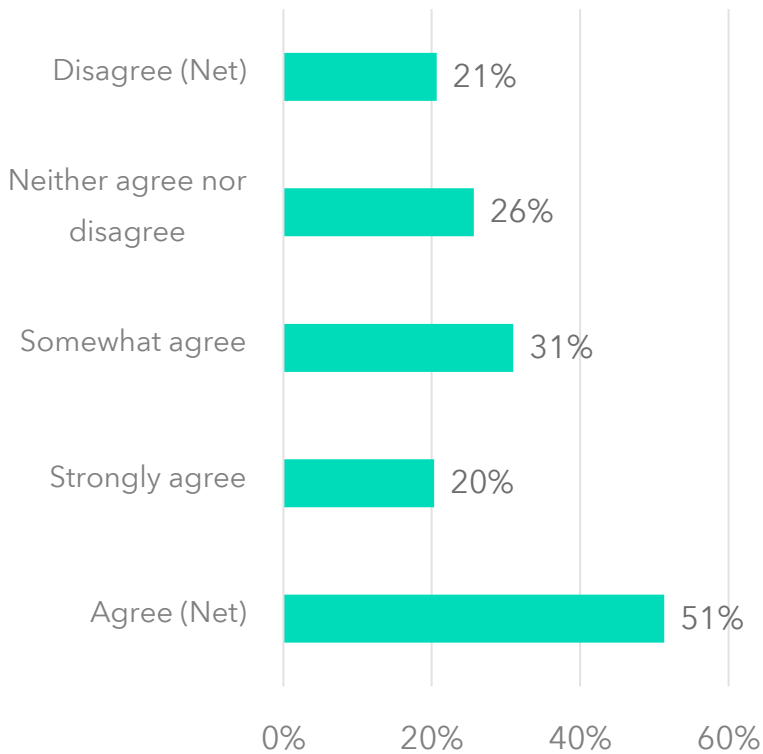
Technology in the OR lags behind the technological advances I experience in my personal life

Agree (Net), %



I often spend time outside of the hospital completing administrative tasks because the technology I use is inefficient

Agree (Net), %



Methodology and demographics

The survey was conducted from 1st March to 15th April 2023, with a target audience of surgeons and medical practitioners from various specialisations within both public and private healthcare sectors. Responses were received from 300 surgeons across 21 regions and cities. The survey was carried out by CensusWide on behalf of Medtronic.

SURGEON COUNT: REGION

Region	Count
East of England	24
Greater London	110
East Midlands	17
West Midlands	11
North East	11
North West	20
Northern Ireland	9
Scotland	16
South East	46
South West	12
Wales	17
Yorkshire and the Humber	7

SURGEON COUNT: PRIVATE/PUBLIC

Public or private practice	Count
Public	157
Private	143

SURGEON COUNT: LENGTH OF SERVICE

Length of service	Count
Under a year	3
1-5 years	49
6-10 years	134
11-15 years	80
16-20 years	28
Over 20 years	6

SURGEON COUNT: AREA OF PRACTICE

Area of practice	Count
Cardiothoracic surgery	35
General surgery	103
Neurosurgery	40
Obstetrics & gynaecology	50
Oral maxillofacial surgery	21
Otorhinolaryngology (ENT) surgery	11
Paediatric surgery	24
Plastic surgery	25
Trauma and orthopaedic surgery	33
Urology	23
Vascular surgery	15
Other	1

About Medtronic

Bold thinking. Bolder actions. We are Medtronic. Medtronic plc, headquartered in Dublin, Ireland, is the leading global healthcare technology company that boldly attacks the most challenging health problems facing humanity by searching out and finding solutions. Our Mission – to alleviate pain, restore health, and extend life – unites a global team of 95,000+ passionate people across 150 countries. Our technologies and therapies treat 70 health conditions and include cardiac devices, surgical robotics, insulin pumps, surgical tools, patient monitoring systems, and more. Powered by our diverse knowledge, insatiable curiosity, and desire to help all those who need it, we deliver innovative technologies that transform the lives of two people every second, every hour, every day. Expect more from us as we empower insight-driven care, experiences that put people first, and better outcomes for our world. In everything we do, we are engineering the extraordinary. For more information on Medtronic (NYSE:MDT), visit www.Medtronic.com and follow @Medtronic on [Twitter](#) and [LinkedIn](#).

For more information and to request
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For survey data, data summary and media assets, [click here](#).