

## **Policy Briefing: The Transportation Digital Skills Gap**

The transportation digital skills gap refers to the growing disparity between the technological advancements of the highways and transportation industry and the existing skill sets of its workforce.

It is estimated that a shortage of digital skills is costing the UK [£63 billion annually](#).<sup>1</sup>

New technological advancements are constantly being made in the transportation sector, however the potential of these technologies will be limited if the average transport professional does not know how to use them.

The purpose of this Policy Briefing is to identify the five key digital skills the Chartered Institution of Highways and Transportation (CIHT) believes will be essential to the future of transport, assess the current ability of the sector in each of these skills, and provide recommendations to help close the transportation digital skills gap.

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### **Background**

This Policy Briefing was developed with a working group made up of CIHT [Technical Champions](#) and [Emerging Professionals](#). The group initially met to discuss what they believed to be the five most important digital skills the average transport professional would need to help them utilise both existing and emerging technology in their day-to-day work tasks.

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<sup>1</sup> House of Lords, Communications and Digital Committee, 2023, 'Digital Exclusion'. Available online: <https://committees.parliament.uk/publications/40662/documents/198365/default/>

These five skills were:

- **Cyber Security** - technology that protects the work you do on electronic devices from unauthorised access.
- **Data Handling** – collecting, cleaning (fixing or removing incorrect, corrupted, incorrectly formatted, duplicate, or incomplete data), analysing and storing data.
- **Artificial Intelligence (AI)** – technology that can perform human-like tasks, such as perception, creativity, logic and reasoning.
- **Stakeholder Engagement** – communicating with groups of people who have significant influence on a topic and/or will be affected by a decision/proposal using digital solutions (such as social media, design tools, engagement tools etc.).
- **Geographic Information System (GIS)** – a computer system for capturing, storing, checking and displaying data related to positions on Earth's surface.

The working group then co-designed a survey targeted at transport professionals, asking respondents to rank their current ability in specific tasks associated with the five skills outlined above.

This survey received a total of 364 responses from both CIHT Members (87%) and Non-Members (13%).

A summary of the survey results is given in this policy briefing and the full survey results can be seen in the Appendix.

The working group then met for a second time to discuss the results of the survey and to set recommendations to help close the transportation digital skills gap.

**The recommendations from the working group were:**

1. **Transport professionals need to be more aware of the consequences of a cyber-attack on the UK's transport network.**
  2. **Transport professionals should be aware of the data they have access to and know what questions to ask of that data.**
  3. **More collaboration is needed between transport professionals and AI professionals to build effective transport AI tools.**
  4. **Transport professionals should ensure that they do not digitally exclude members of society.**
  5. **Transport professionals should appreciate and cultivate all the relevant skillsets required to use GIS to its full potential.**
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1. **Transport professionals need to be more aware of the consequences of a cyber-attack on the UK's transport network**

The UK is one of the [most cyber-attacked nations](#)<sup>2</sup> in the world, and our critical national infrastructure (which includes transport) [could face a crippling cyber-attack at any moment](#).<sup>3</sup>

[The National Risk Register 2023](#),<sup>4</sup> predicted that a cyber-attack on the transport sector could result in an immediate outage to services and systems, with the potential for this outage to last several hours and require multiple days for services to return to normal. An attack of this nature would result in economic and reputational damage, as well as an increased threat to personal safety for those that work for, or use, transport infrastructure and services.

Examples of cyber-attacks to the UK's transport sector in the last three years include:

- July 2021, [Northern Rail shut down its self-service ticket machines, for at least a week, following a suspected ransomware cyber-attack](#).<sup>5</sup>
- May 2022, [Port of London experienced a distributed denial-of-service attack](#), where their website was flooded with fake traffic to overwhelm its servers to stop them from working.<sup>6</sup>
- September 2022, [bus operator Go-Ahead suffered a cyber-attack that affected software to schedule bus drivers, bus services and payroll](#).<sup>7</sup>
- September 2022, [Edinburgh Trams website was also the target of a distributed denial-of-service attack](#).<sup>8</sup>

Clearly, the risk of a cyber-attack on our transport network is high and it is important that transport professionals are suitably prepared for this.

In the CIHT Digital Skills Survey, the tasks relating to cyber security received the most responses from transport professionals ranking themselves as either proficient, advanced, or expert (Figures 1 and 2).

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<sup>2</sup> UK Parliament, National Security Strategy (Joint Committee), 2023. 'A hostage to fortune: ransomware and UK national security'. Available online: <https://committees.parliament.uk/committee/111/national-security-strategy-joint-committee/news/198995/a-hostage-to-fortune-ransomware-and-uk-national-security/>

<sup>3</sup> The Guardian, 2023. 'UK at high risk of 'catastrophic ransomware attack', report says'. Available online: [www.theguardian.com/technology/2023/dec/13/uk-at-high-risk-of-catastrophic-ransomware-attack-report-says#:~:text=In%20a%20damning%20report%2C%20the,\(CNI\)%20at%20any%20moment](http://www.theguardian.com/technology/2023/dec/13/uk-at-high-risk-of-catastrophic-ransomware-attack-report-says#:~:text=In%20a%20damning%20report%2C%20the,(CNI)%20at%20any%20moment).

<sup>4</sup> HM Government, 2023, 'National Risk Register'. Available online: [https://assets.publishing.service.gov.uk/media/64ca1dfe19f5622669f3c1b1/2023\\_NATIONAL\\_RISK\\_REGISTER\\_NRR.pdf](https://assets.publishing.service.gov.uk/media/64ca1dfe19f5622669f3c1b1/2023_NATIONAL_RISK_REGISTER_NRR.pdf)

<sup>5</sup> BBC News, 2021, 'Northern's ticket machines hit by ransomware cyber attack'. Available online: [www.bbc.co.uk/news/uk-england-57892711](http://www.bbc.co.uk/news/uk-england-57892711)

<sup>6</sup> Highway News, 2022, 'Port of London Authority hit by cyberattack'. Available online: <https://highways-news.com/port-of-london-authority-hit-by-cyberattack/>

<sup>7</sup> The Guardian, 2022, 'Major UK transport company Go-Ahead battles cyber-attack'. Available online: [www.theguardian.com/business/2022/sep/06/go-ahead-cyberattack-bus-services-thameslink-rail](http://www.theguardian.com/business/2022/sep/06/go-ahead-cyberattack-bus-services-thameslink-rail)

<sup>8</sup> STV News, 2023, 'Edinburgh Trams website attacked by Russian group for supporting Ukraine'. Available online: <https://news.stv.tv/east-central/edinburgh-trams-website-attacked-by-russian-hacker-group-for-supporting-ukraine>

### Respondent's ranking for tasks associated with each digital skill

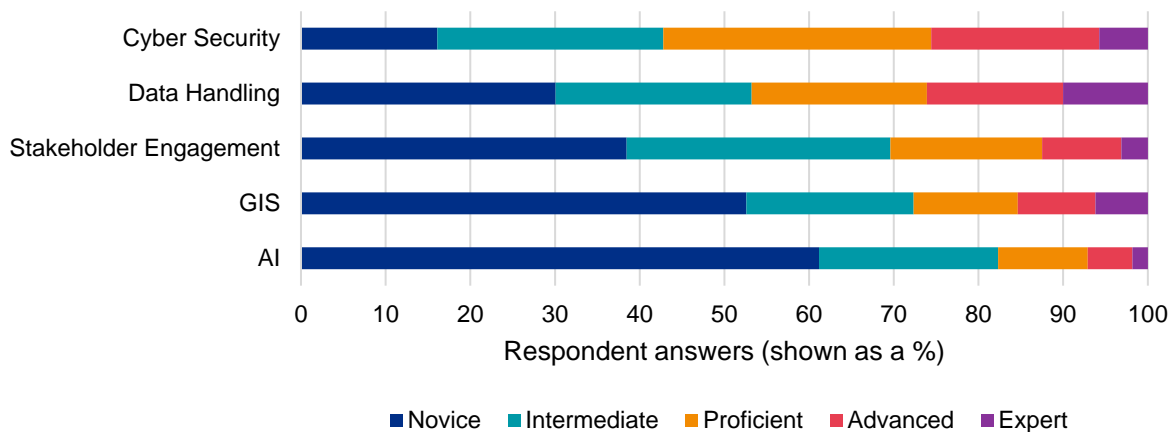


Figure 1: Combined results for all the individual task questions asked for each skill - AI (325 responses), data handling (285 responses), stakeholder engagement (304 responses), GIS (302 responses) and cyber security (301 responses).

### Cyber Security

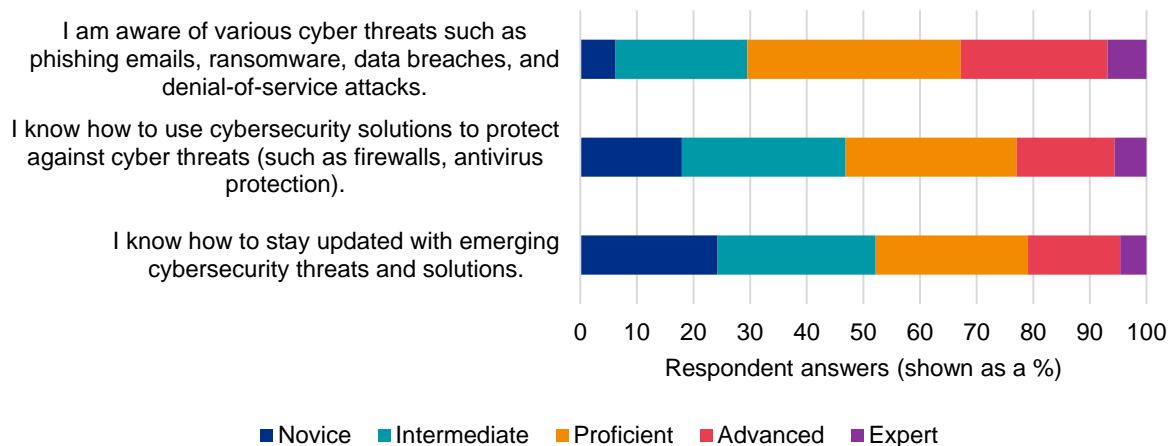


Figure 2: Answers to the question 'How would you best describe your ability in each of these tasks?' (301 responses).

However, these results could be misleading, as cyber security is often included in mandatory training for many companies, unlike the other digital skills explored in this policy briefing.

It is possible that this mandatory training could lead to a 'false sense of cyber-security' where people believe they are more proficient than they are, especially as recent research by CybSafe has shown that only 1 in 10 workers remember all their cyber security training.<sup>9</sup>

The working group therefore recommended that instead of increasing mandatory training, that work should be done to raise awareness of the consequences of a cyber-attack on the UK's transport network.

<sup>9</sup> CybSafe, 2023, 'Only 1 in 10 workers remembers all their cyber security training'. Available online: [www.cybsafe.com/press-releases/only-1-in-10-workers-remembers-all-their-cyber-security-training/](http://www.cybsafe.com/press-releases/only-1-in-10-workers-remembers-all-their-cyber-security-training/)

It is hoped that by highlighting a ‘worst case scenario’ to the transport sector, professionals will be more aware of the risks that threaten transport networks, which should encourage more active participation and recall of cyber-security training.

## **2. Transport professionals should be aware of the data they have access to and know what questions to ask of that data**

In 2023, CIHT published a report on ‘[The role of data and artificial intelligence in achieving transport decarbonisation](#)’<sup>10</sup> in which we recommended that the highways and transportation sector must harness the power of data, especially when it comes to enhancing the experience of transport users.

Data is not only powerful, but it is valuable too.

[Anmut](#), a company that measures the impact data has on the valuation of an organisation, calculated the [value of National Highways’ data at £60 billion](#),<sup>11</sup> which is more than half the value of their physical assets.

However, as stated in the Department for Transport’s (DfT) [Transport Data Strategy](#),<sup>12</sup> ‘*too often, transport data resides in silos and is not shared, which prevents the value of data being realised and opportunities unlocked.*’

Hence why it is so important for transport professionals to have data handling skills, to ensure that data is collected, cleaned, analysed and stored appropriately.

The Digital Skills Survey results revealed that data handling was the skill in which respondents ranked themselves as ‘expert’ the most (Figure 1).

However, 39% of respondents also stated they didn’t want to use more data handling in their work (Figure 3). The working group found this particular result very surprising, especially given how valuable data is and how many transport professionals rely on data to assist them in their work.

Further analysis was taken to understand why so many respondents did not want to use more data handling processes.

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<sup>10</sup> The Chartered Institution of Highways and Transportation, 2022, ‘*The role of data and artificial intelligence in achieving transport decarbonisation*’. Available online: [www.ciht.org.uk/data&ai](http://www.ciht.org.uk/data&ai)

<sup>11</sup> Anmut, 2021, ‘*Transforming Highways England’s approach to data*’. Available online: [www.anmut.co.uk/wp-content/uploads/2021/03/Anmut-Data-Transformation-Case-Study.pdf](http://www.anmut.co.uk/wp-content/uploads/2021/03/Anmut-Data-Transformation-Case-Study.pdf)

<sup>12</sup> The Department for Transport, 2022, ‘*Transport Data Strategy*’. Available online: <https://assets.publishing.service.gov.uk/media/63eb62c9d3bf7f62e21c274a/dft-transport-data-strategy.pdf>

### Increasing the use of Digital Skills

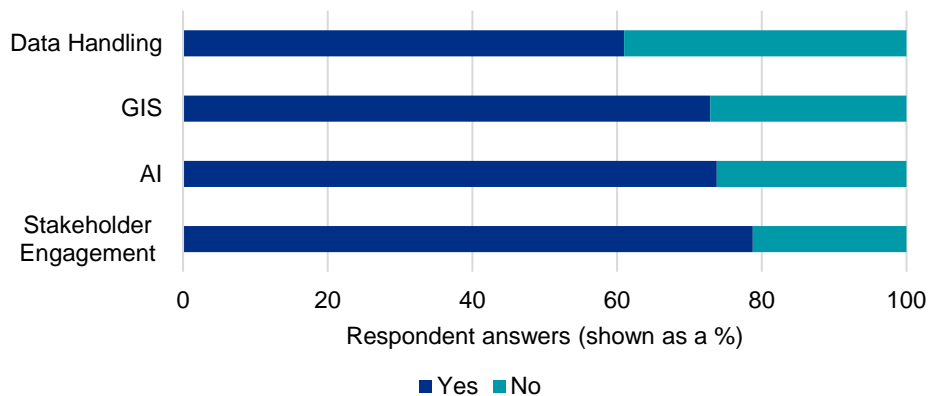


Figure 3: Combined results from the questions ‘Would you like to use X more in your work’; where X was: data handling (287 responses), GIS (306 responses), AI (328 responses) and stakeholder engagement (306 responses).

### How often respondents use data handling processes

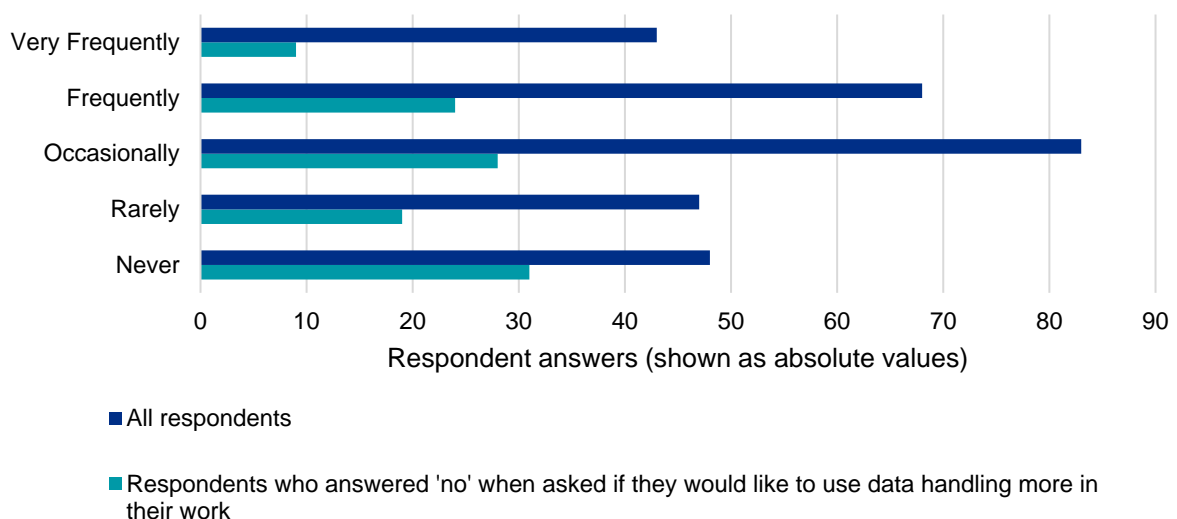


Figure 4: Answers to the question ‘How often do you use data handling processes to help you deliver work-related outcomes?’ The graph shows the answers given by all the respondents (289 total responses, dark blue) and the answers given by the respondents who also answered ‘no’ when asked if they would like to use data handling more in their work (112 ‘no’ responses, teal).

Looking at how often the respondents use data handling processes to help them deliver work-related outcomes (Figure 4), we can see that those who already use data handling frequently would like to use it more. Whereas those who never use data handling processes had the least desire to use the skill more.

From this information, it could be suggested that those who already know the value of data, (i.e. those who use it very frequently) realise its potential and want to utilise this as much as possible.

Whereas those who never handle data in their day-to-day work, either have a job where this is not required or they don’t see themselves as responsible for data handling. However,

there could be a proportion of people who do handle data, but do not wish to explore using it more because they are not aware of the value it could bring.

The working group therefore recommended that work be done to ensure all transport professionals are aware of the data they have access to and are trained to know what questions to ask of that data. This work should be led by The Department for Transport, who have already pledged in their Transport Data Strategy to *'promote a data driven culture across the transport sector by improving data literacy and providing targeted support to raise the skills base, as well as creating clear visions for the data programmes and services'*.

### **3. More collaboration is needed between transport professionals and AI professionals to build transport AI tools**

During the process of writing the [data and AI report](#),<sup>10</sup> it became noticeable that many CIHT members weren't aware of how many AI products were already available to be used by transportation professionals.

The [data and AI report](#)<sup>10</sup> therefore included a total of 21 case studies to highlight the multiple ways that AI is already being used in the highways and transportation industry.

These case studies included examples such as:

- SchemeFlow, used for automating data collection, analysis and report drafting for transport planning reports.
- Global Roads by Agilysis used to remotely measure traffic speed and flow.
- Gaist used to map and analyse the state of an active travel network.

And there are many more examples, beyond CIHT's report, which show how prevalent AI already is, with [around one in six UK organisations \(432,000 organisations in total\) embracing at least one AI technology](#) in 2022.<sup>13</sup>

In comparison to the other digital skills included in this policy briefing, AI is still a relatively new concept to many transportation professionals. This was clear in the Digital Skills Survey as the respondents rated themselves 'novice' for the tasks related to AI more than any of the other digital skills (Figures 1 and 5).

Specifically, the AI task 'I can use coding languages to develop AI algorithms and applications' received the most 'novice' responses compared to all the tasks included in the entire Digital Skills Survey.

This had been anticipated by the working group, but the task had been included in the survey as we wanted to assess if the transportation sector is ready to be AI creators (those who design and build AI tools), or whether transport professionals would mainly be AI users (those who use existing AI tools).

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<sup>10</sup> The Chartered Institution of Highways and Transportation, 2022, *'The role of data and artificial intelligence in achieving transport decarbonisation'*. Available online: [www.ciht.org.uk/data&ai](http://www.ciht.org.uk/data&ai)

<sup>13</sup> The Department for Digital, Culture, Media & Sport, 2022, *'AI activity in UK businesses: Executive Summary'*. Available online: <https://www.gov.uk/government/publications/ai-activity-in-uk-businesses/ai-activity-in-uk-businesses-executive-summary>

The survey results show that currently, transportation professionals' ability tends more towards AI users than creators. However, it was noted by the working group that the most benefit could be gleaned from a middle ground between these two groups.

Many transport professionals know the large-scale problems that need fixing – Net Zero, climate change and road safety to name a few. AI professionals have the skills and expertise to develop tools to autonomously measure, monitor and predict key factors which will help in developing solutions to these large-scale problems (such as pollution levels, extreme weather events and collision hot spots).

Therefore, by encouraging collaboration between transportation professionals and AI professionals to discuss key transportation problems, and where AI can be most effective in overcoming them, we can ensure that AI is developed in the most helpful, purposeful way possible.

### Artificial Intelligence

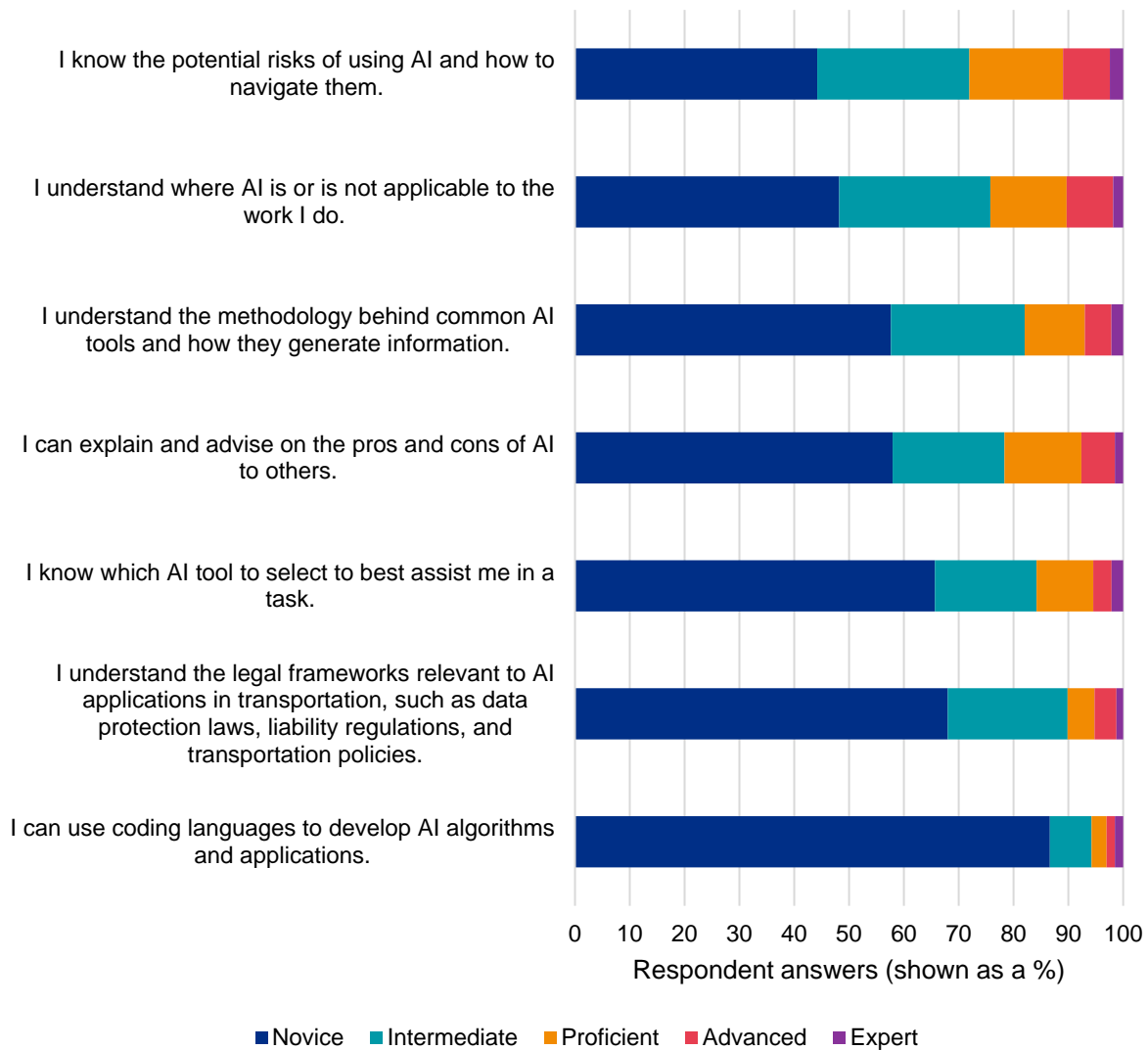


Figure 5: Answers to the question 'How would you best describe your ability in each of these tasks?' (325 responses).



#### 4. Transport professionals should ensure that they do not digitally exclude members of society.

As stated in CIHT's 2019 report ['Involving the Public and Other Stakeholders'](#) <sup>14</sup> :

*"The skills of transport professionals are essential, but transport schemes are also social and political decisions as much as technical, and participation is about understanding such issues to develop a better scheme.*

*Moreover, public realm and transport projects benefit significantly from engaging with the statutory stakeholders, operators, landowners, tenants and crucially day-to-day users of the street, as both a place and a link.*

*Provided this process is transparent, this is actually a sign of a healthy democracy. In the complex world we live in, no one is able to make the 'best' decisions on their own."*

Digital stakeholder engagement tools such as social media, video conferencing, interactive meeting tools, as well as software to create infographics and videos are all incredibly important for increasing the effectiveness of stakeholder engagement.

It was therefore encouraging to see that stakeholder engagement was the most popular digital skill that respondents wanted to use more (Figure 3 – 79% of respondents wanted to use digital stakeholder engagement more).

Using digital stakeholder engagement tools such as visualisations can simplify a complex project, helping to make public consultations more transparent and accessible. Online surveying tools and interactive meeting software (such as Teams whiteboard, mentipoll etc.) can also help to save time, by collating large volumes of data quickly and efficiently in one place.

The working group also noted the additional benefits of transportation professionals using social media and infographics more will increase the transportation sector's reach when it comes to recruiting the next generation of transportation professionals. If young people have a greater chance of seeing and understanding what transportation professionals do, this should help to make the transportation profession more accessible and encourage a broader range of people to want to enter our sector.

However, it is also important to remember that as we progress towards using more digital solutions in stakeholder engagement, there are still sections of the population who are not able to use the internet in ways that are needed to participate fully in modern society (known as digital exclusion).

For example:

- 1.7 million UK households had no broadband or mobile internet access in 2021.
- 2.4 million adults are unable to complete a single basic task to get online such as opening an internet browser or using a mouse.

(Source: [Digital Exclusion, House of Lords Communications and Digital Committee](#)). <sup>1</sup>

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<sup>14</sup> The Chartered Institution of Highways and Transportation, 2015, *'Involving the Public and Other Stakeholders'*. Available online:

[www.ciht.org.uk/media/4464/involving\\_the\\_public\\_and\\_othe\\_stakeholders\\_-\\_june\\_2015\\_11049.pdf](http://www.ciht.org.uk/media/4464/involving_the_public_and_othe_stakeholders_-_june_2015_11049.pdf)

<sup>1</sup> House of Lords, Communications and Digital Committee, 2023, *'Digital Exclusion'*. Available online: <https://committees.parliament.uk/publications/40662/documents/198365/default/>

As digital exclusion is an important factor to consider when engaging with stakeholders, the survey asked respondents to rank their ability to ‘know how to adapt digital tools for engagement in a way that will be accessible for vulnerable users, or those who are not digitally proficient’. However, out of all the stakeholder engagement tasks included in the survey, the respondents ranked themselves as ‘novice’ the most for this task (Figure 6).

The working group therefore recommends that more training or guidance needs to be issued to ensure that transportation professionals are equipped to engage with members of society who are not digitally proficient.

### Stakeholder Engagement

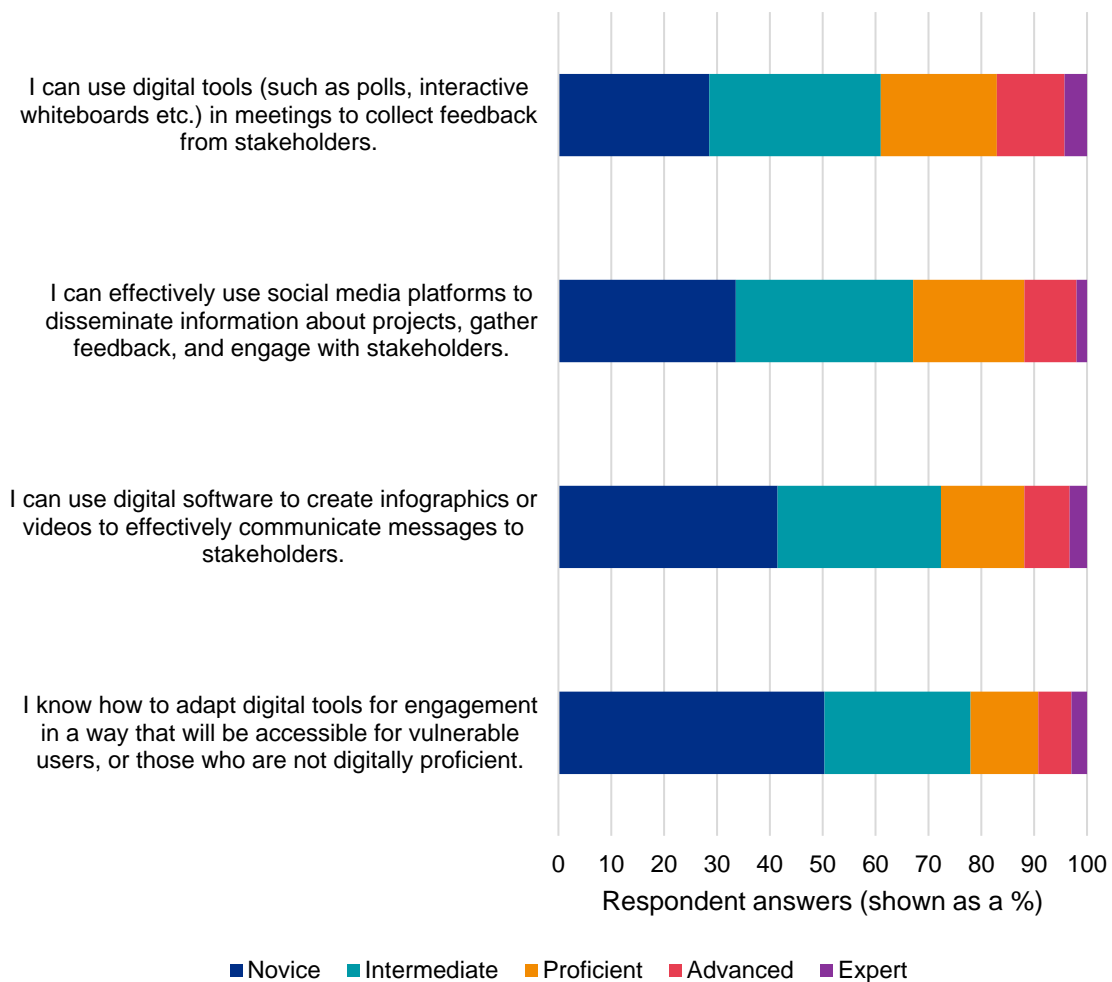


Figure 6: Answers to the question ‘How would you best describe your ability in each of these tasks?’ (304 responses).

## 5. Transport professionals should appreciate and cultivate all the relevant skillsets required to use GIS to its full potential

Geospatial data skills, which commonly require the use of geographic information system (GIS) software, are an important sub-set of the broader ‘data handling’ skill.

According to an independent report for the Geospatial Commission on the [demand for geospatial skills](#) <sup>15</sup> :

*‘The importance of geospatial skills is expected to increase over time, as more geospatial data is collected and shown to be useful, and where open-source geospatial software packages make analysis of that data more accessible.’*

It has also [been reported](#) <sup>16</sup> that GIS is becoming more valuable as geospatial data becomes more important for technological evolutions, including everything from smart cities and digital twins, all the way to augmented reality.

However, despite a foreseen need for GIS skills in the UK, almost half of the Digital Skills Survey respondents stated they had little to no experience in using GIS software such as ArcGIS or QGIS (Figure 7).

### Geographic system information

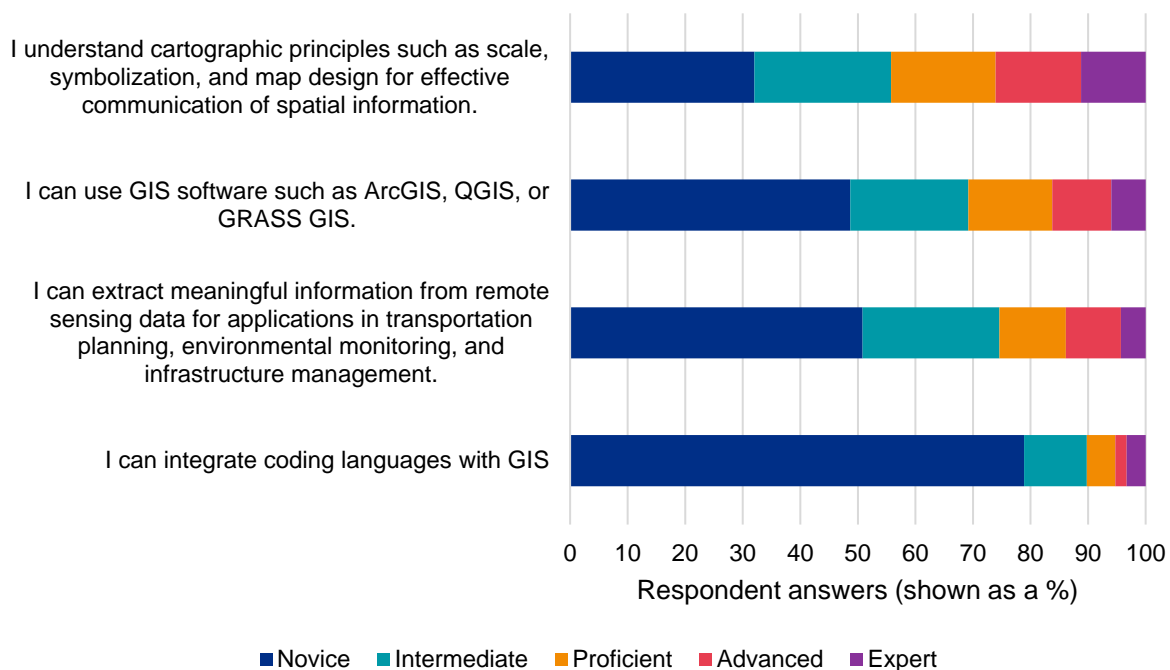


Figure 7: Answers to the question ‘How would you best describe your ability in each of these tasks?’ (302 responses).

<sup>15</sup> Cabinet Office, 2022, ‘Demand for geospatial skills’. Available online: <https://www.gov.uk/government/publications/demand-for-geospatial-skills-report-for-the-geospatial-commission/demand-for-geospatial-skills-report-for-the-geospatial-commission-executive-summary>  
<sup>16</sup> MGISS, 2023, ‘The future of GIS: Trends and Innovations in Geospatial Technology’. Available online: <https://mgiss.co.uk/the-future-of-gis-trends-and-innovations-in-geospatial-technology/>



Some members of the working group believed that GIS is not being properly combined with other necessary data handling skills such as advanced statistics, computer programming and the integration of geospatial database analytics, to use GIS to its full potential.

The working group therefore recommended that transport professionals appreciate and cultivate all the relevant skillsets required to use GIS to its full potential, so that it can be used to effectively analyse geospatial enriched data, identify potential vulnerabilities in the transport network and implement solutions.

To support those transport professionals who must use GIS as part of their job role, efforts must be intensified to promote training initiatives aimed at increasing their skills in GIS software to meet the growing demand for geospatial data skills.

## **Conclusions**

Overall, the survey results suggest that transportation professionals have a good understanding when it comes to broad digital skills such as data handling and stakeholder engagement, but are less experienced when it comes to more specialised skills like AI and GIS.

However, as this policy briefing has shown, specialist digital skills will likely increase in demand as new technologies (such as digital twins, wayfinding apps etc.) come to rely on the use of GIS and AI more frequently.

It is therefore promising to see that, broadly speaking, the survey respondents wanted to increase their use of digital skills.

We hope that the recommendations in this report help to further the future education of transport professionals, and the CIHT policy team will be using the survey results and recommendations from the working group when considering future research projects.

## Appendix

### Definitions used in survey

**Never** – never use

**Rarely** – use on a quarterly/yearly basis

**Occasionally** – use on a monthly/quarterly basis

**Frequently** – use on a monthly/weekly basis

**Very frequently** – use on a weekly/daily basis

**Novice** – little to no experience

**Intermediate** – basic understanding but still learning

**Proficient** – can perform the task confidently and independently, but with room for improvement

**Advanced** – highly skilled and can perform the task in complex scenarios

**Expert** – mastered the skill and would be able to train others to do it

**Artificial Intelligence (AI)** – technology that can perform human-like tasks, such as perception, creativity, logic, and reasoning

**Data Handling** – collecting, cleaning (fixing or removing incorrect, corrupted, incorrectly formatted, duplicate, or incomplete data), analysing and storing data).

**Stakeholder Engagement** – communicating with groups of people who have significant influence on a topic and/or will be affected by a decision/proposal.

**Geographic Information System (GIS)** – a computer system for capturing, storing, checking, and displaying data related to positions on Earth's surface.

**Cyber Security** - technology that protects the work you do on electronic devices from unauthorised access.

### Survey Summary

The CIHT Digital Skills Survey was open from 11 – 22 March 2024.

The survey was directly emailed to CIHT Members and advertised to the wider transportation sector through LinkedIn.

The survey received a total of 364 responses.

## Respondent information

Are you a CIHT member?

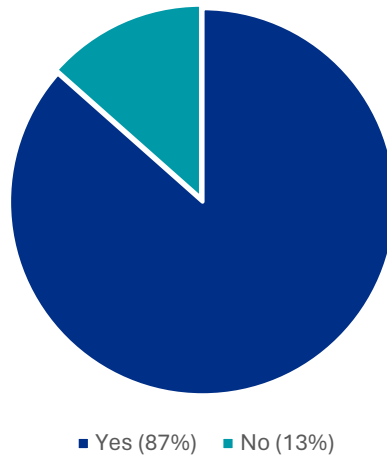


Figure A1: Answers to the question 'Are you a CIHT member?' (364 responses).

Which country do you primarily operate in?

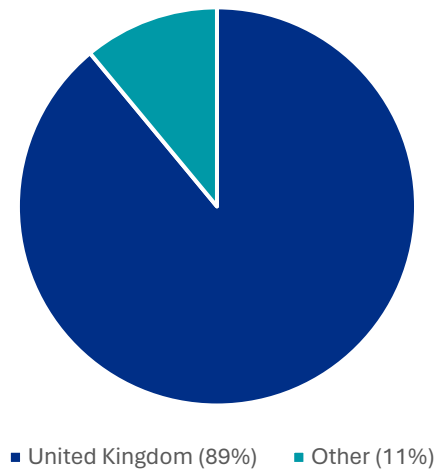


Figure A2: Answers to the question 'Which of the following best describes the area you work in?' (327 responses). Countries under other are: India (6 responses), UAE (6 responses), Ireland (4 responses), China (4 responses), Australia (2 responses), Nepal (2 responses), Uganda (2 responses), Malta (1 response), Eswatini (1 response), Kenya (1 response), United States (1 response), Netherlands (1 response), Bahamas (1 response), New Zealand (1 response), Trinidad & Tobago (1 response), Malaysia (1 response) and Gambia (1 response).

Which of the following best describes your current job role within the sector?

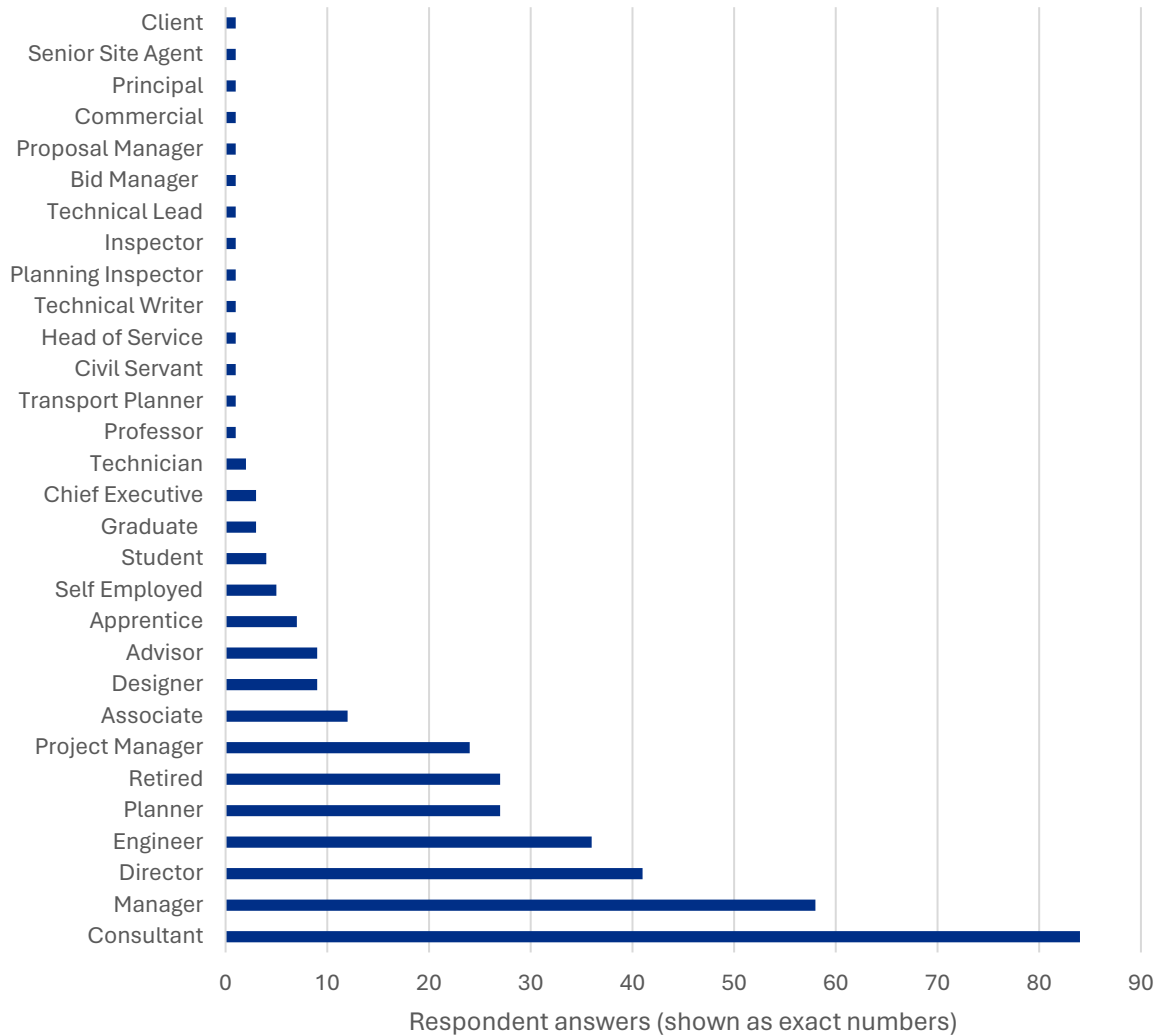


Figure A3: Answers to the question 'Which of the following best describes your current job role within the sector?' (365 responses).

Which of the following best describes the area you work in?

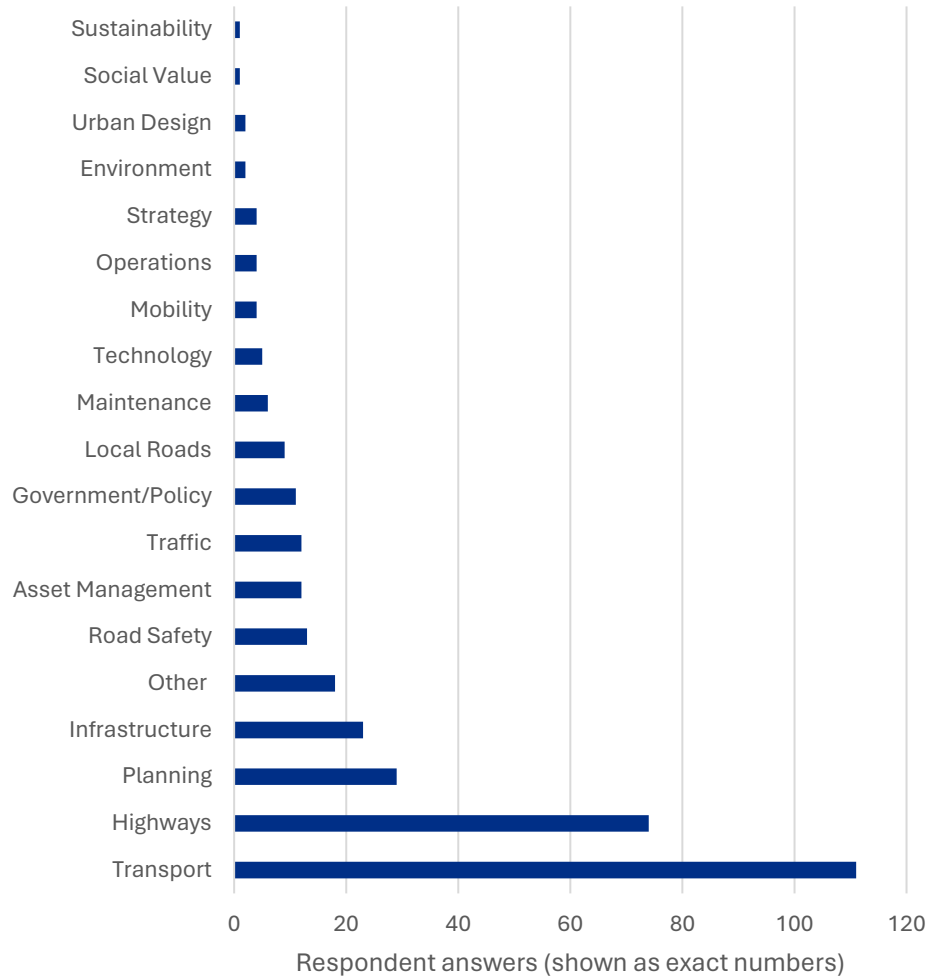


Figure A4: Answers to the question 'Which of the following best describes the area you work in?' (341 responses).



## Artificial Intelligence

How often do you use AI to help deliver work-related outcomes?

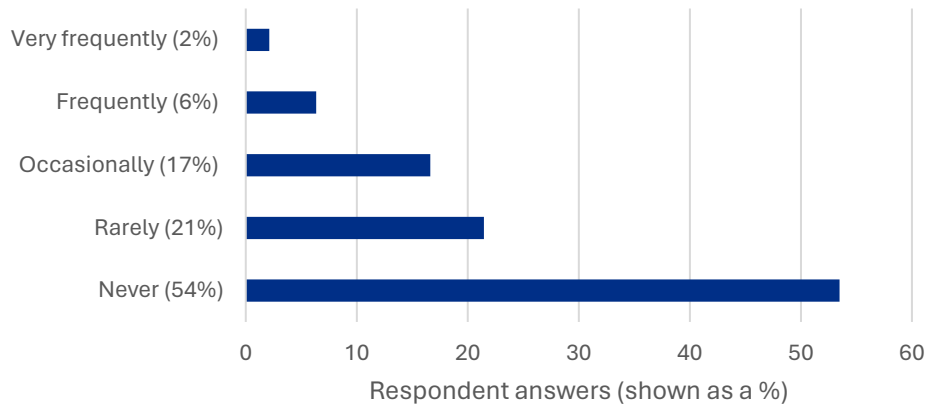


Figure A5: Answers to the question 'How often do you use AI to help deliver work-related outcomes?' (331 responses).

Would you like to use AI more in your work?

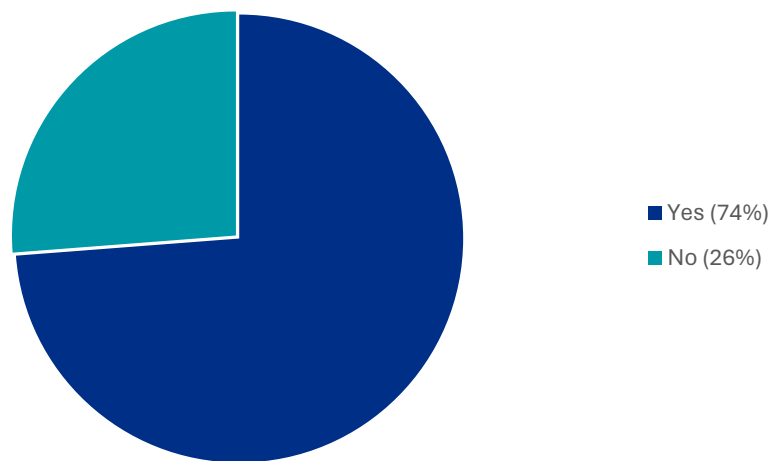


Figure A6: Answers to the question 'Would you like to use AI more in your work?' (328 responses).

## How would you best describe your ability in each of these tasks?

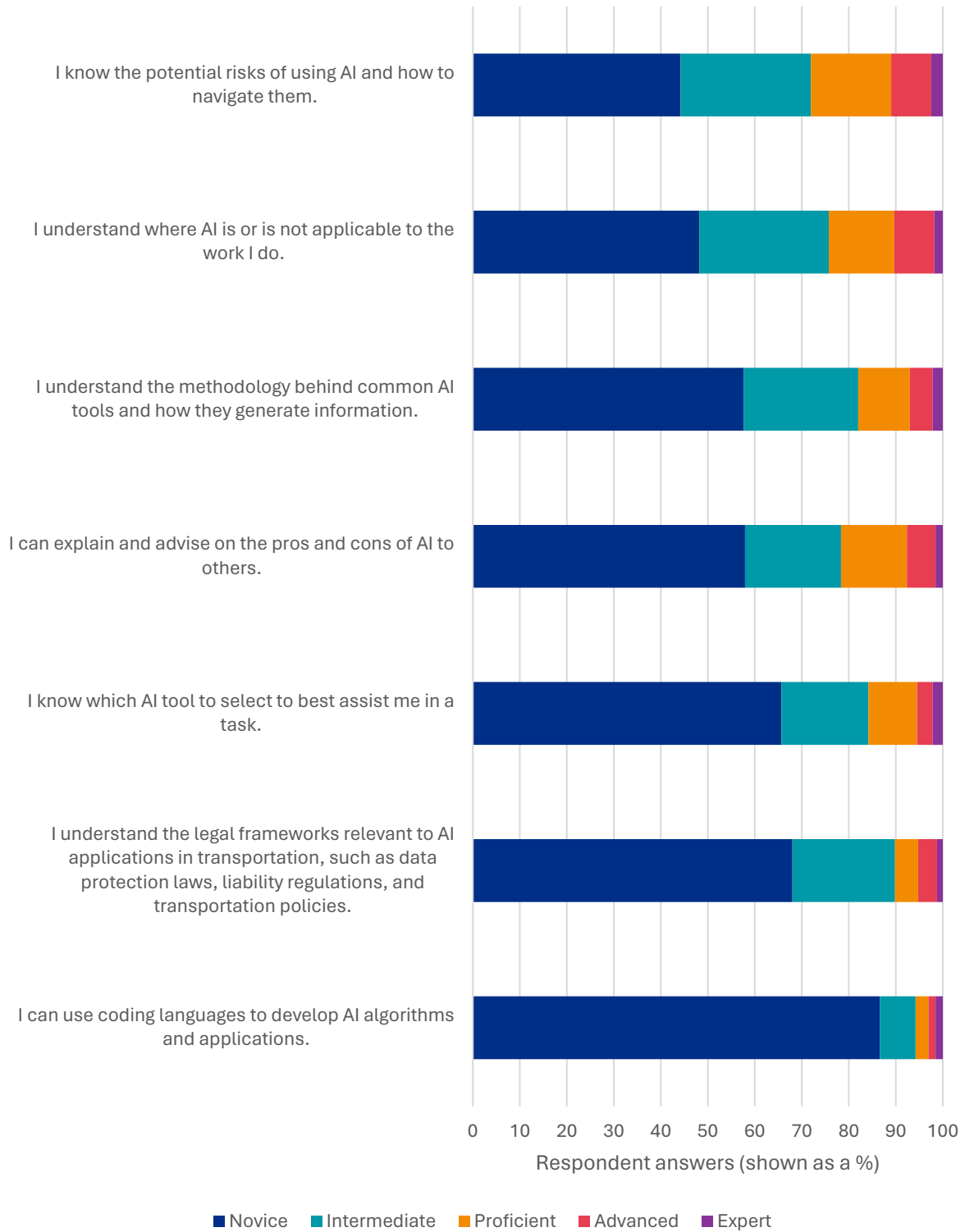


Figure A7: Answers to the question ‘How would you best describe your ability in each of these tasks?’ (325 responses).

## Data Handling

How often do you use data handling processes to help you deliver work-related outcomes?

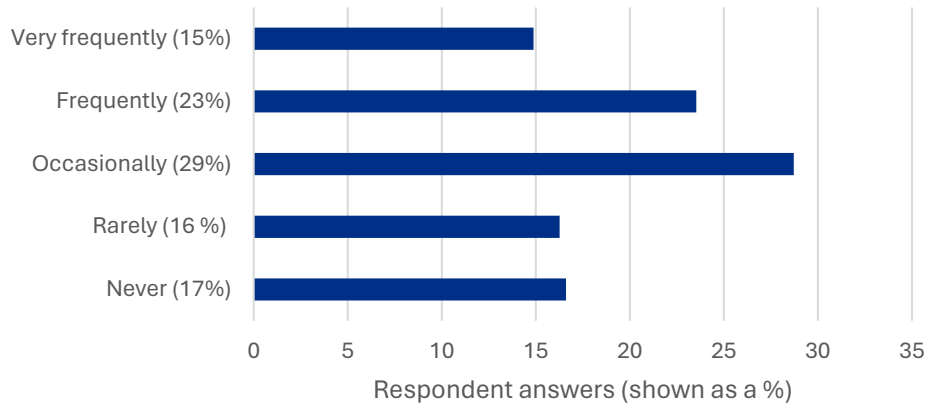


Figure A8: Answers to the question 'How often do you use data handling processes to help you deliver work-related outcomes?' (289 responses).

Would you like to use more data handling processes in your work?

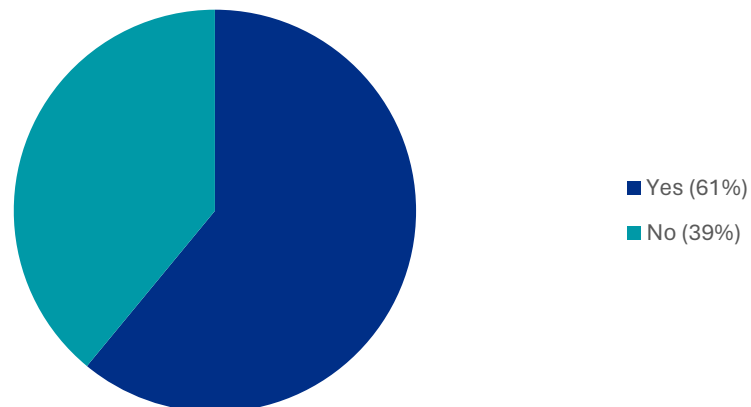


Figure A9: Answers to the question 'Would you like to use more data handling processes in your work?' (287 responses).

### How would you best describe your ability in each of these tasks?

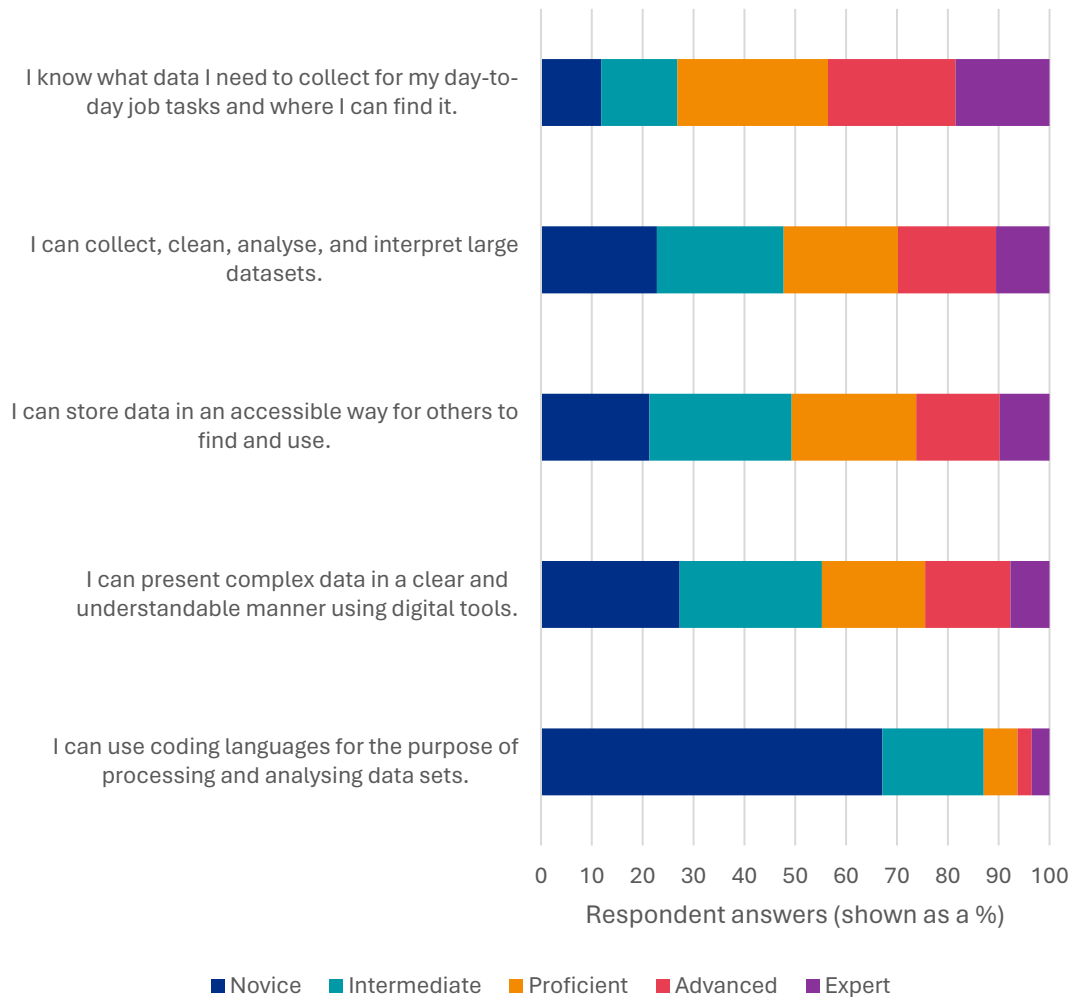


Figure A10: Answers to the question 'How would you best describe your ability in each of these tasks?' (285 responses).

## Stakeholder Engagement

How often do you use stakeholder engagement to help you deliver work-related outcomes?

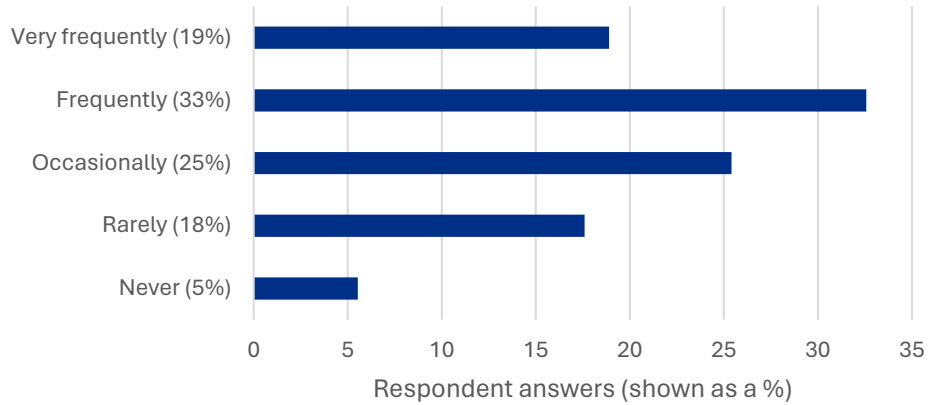


Figure A11: Answers to the question 'How often do you use stakeholder engagement to help you deliver work-related outcomes?' (307 responses).

Would you like to use more digital solutions (such as social media, design tools, engagement tools etc.) when engaging with stakeholders?

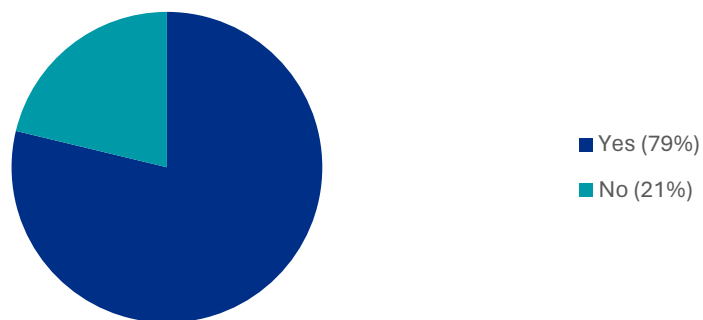


Figure A12: Answers to the question 'Would you like to use more digital solutions (such as social media, design tools, engagement tools etc.) when engaging with stakeholders?' (306 responses).

## How would you best describe your ability in each of these tasks?

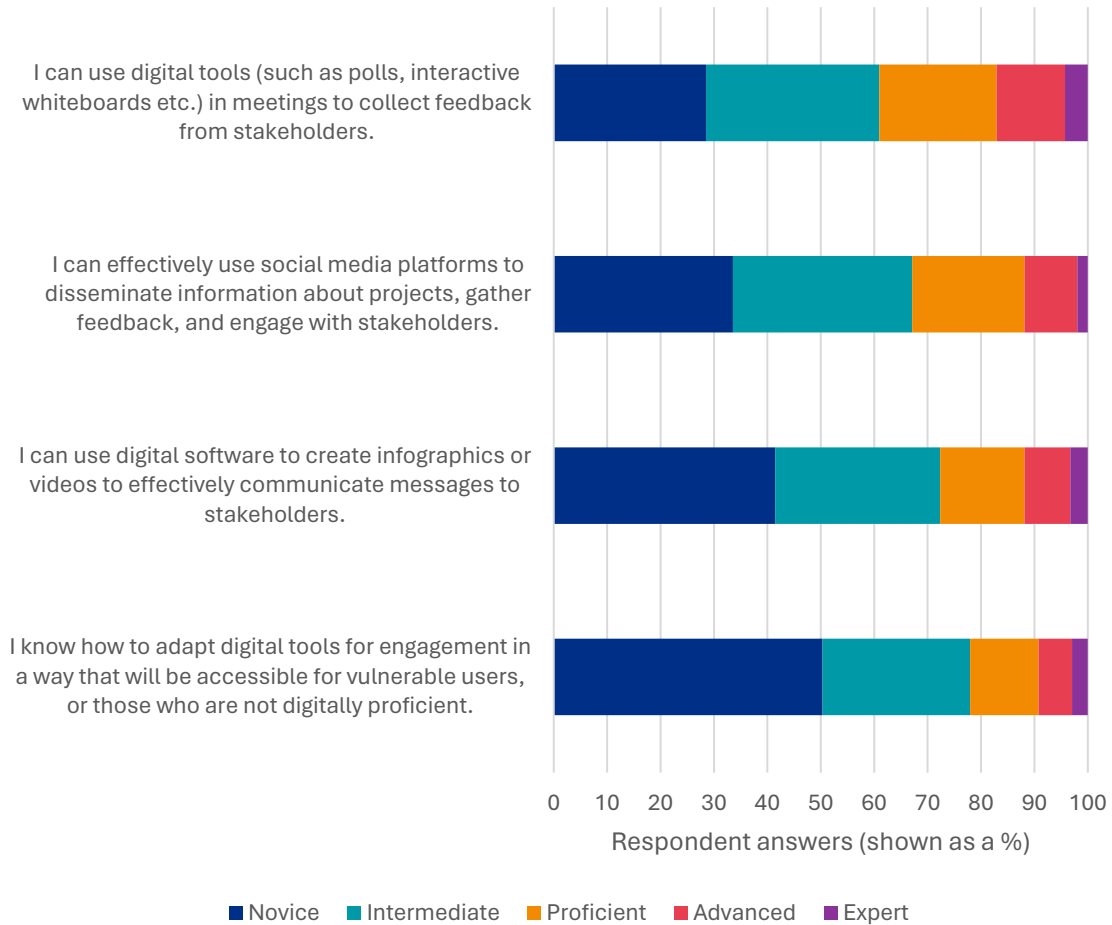


Figure A13: Answers to the question 'How would you best describe your ability in each of these tasks?' (304 responses).

## Geographic Information System

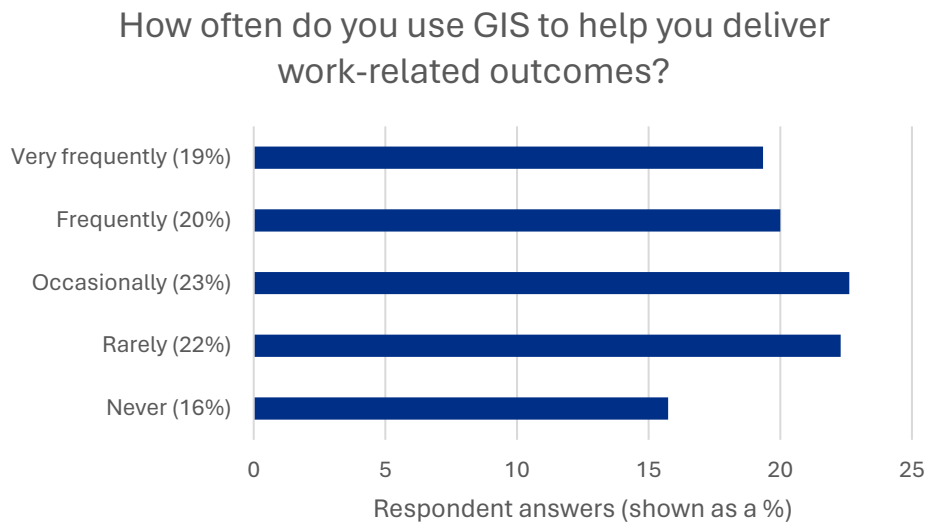


Figure A14: Answers to the question 'How often do you use GIS to help you deliver work-related outcomes?' (305 responses).

Would you like to use GIS more often in your work?

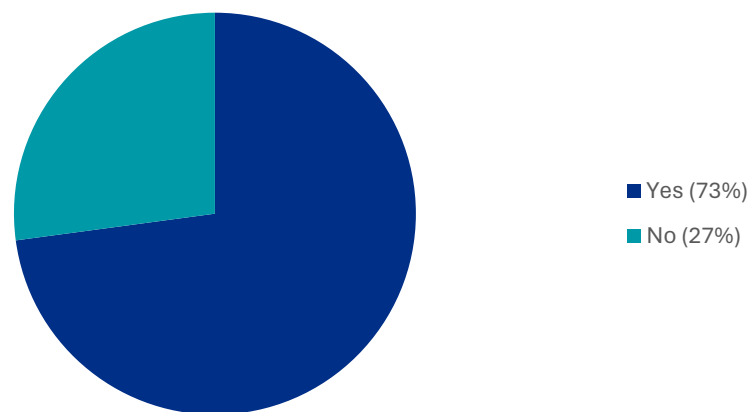


Figure A15: Answers to the question 'Would you like to use GIS more often in your work?' (306 responses).

### How would you best describe your ability in each of these tasks?

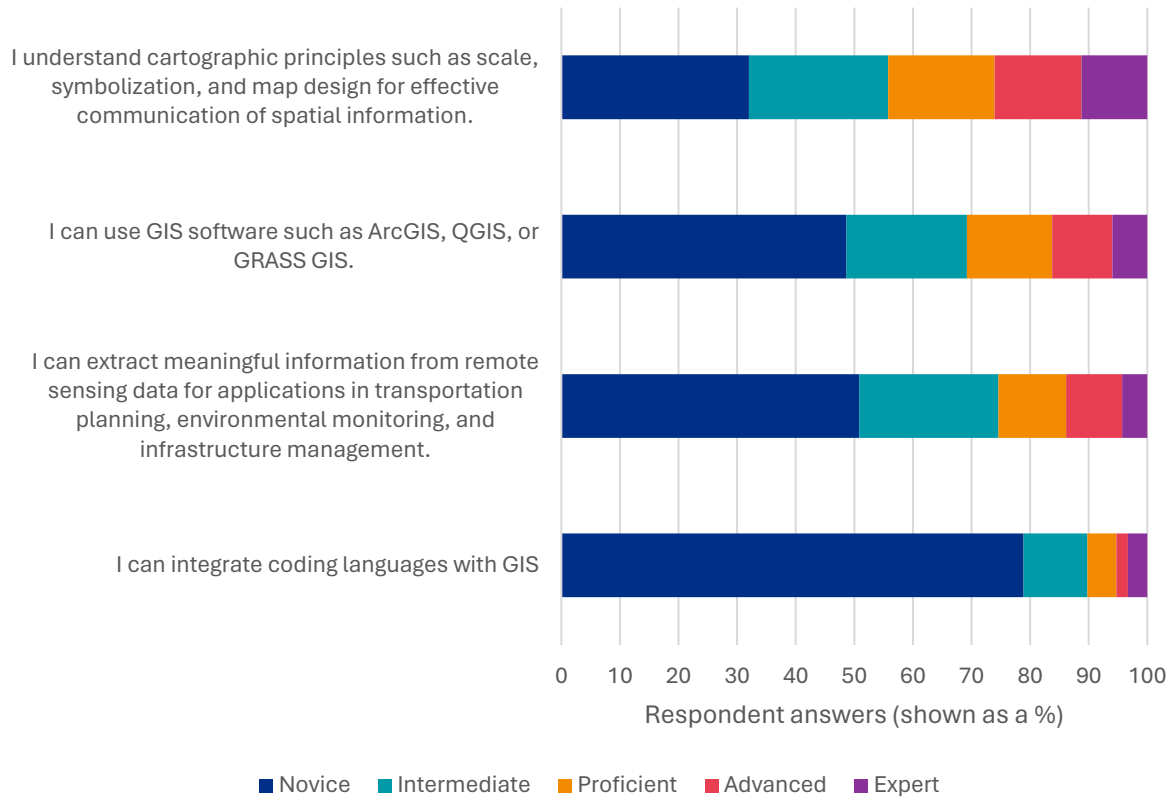


Figure A16: Answers to the question 'How would you best describe your ability in each of these tasks?' (302 responses).



## Cyber Security

How would you best describe your ability in each of these tasks?

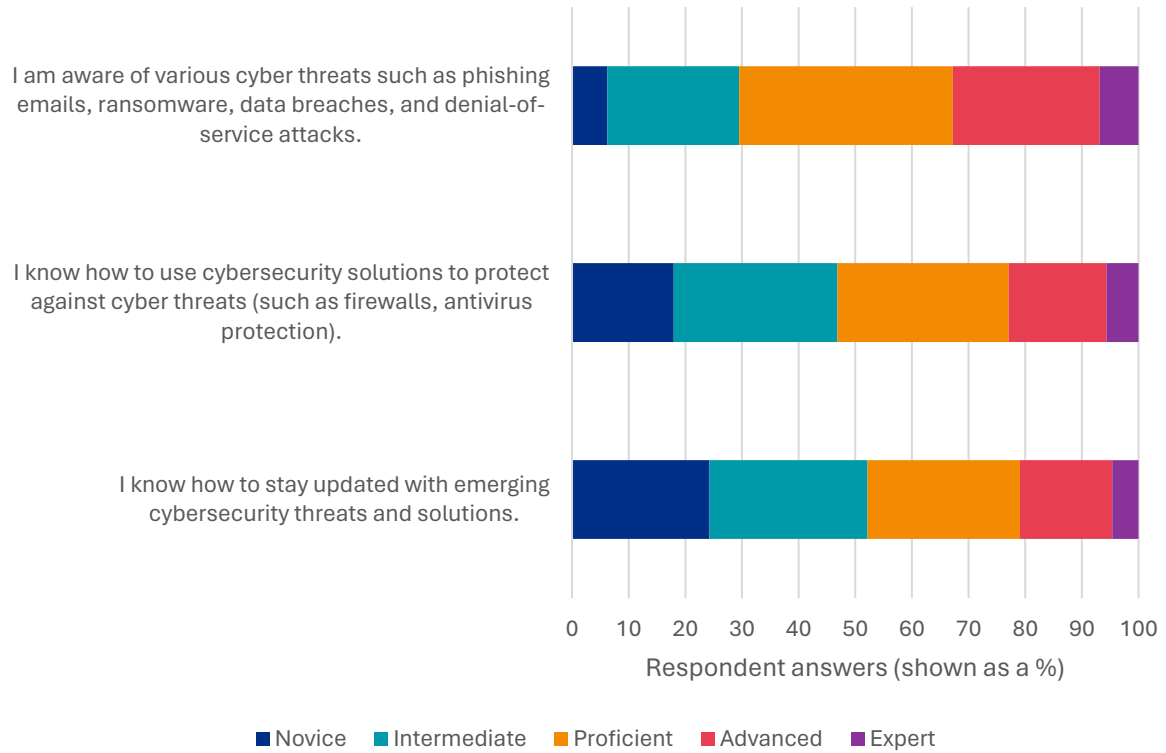


Figure A17: Answers to the question 'How would you best describe your ability in each of these tasks?' (301 responses).



## About CIHT

CIHT provides strategic leadership and support to help our members develop, deliver, and maintain sustainable solutions for highways, transport infrastructure, and services that:

- Address the challenges of climate change
- Support the economy
- Help address societal inequalities
- Reduce environmental degradation
- Respond to a changing world

We bring members together to share, learn, and feel confident about addressing these challenges through the application of good practice, by embracing innovation and by acting with integrity. It is through this and the values that CIHT can demonstrate and deliver on thought leadership and shaping the highways and transportation sector for the public benefit.

Whether you are a student, apprentice, work in the private or public sectors or are a company director, CIHT has a place for you and a commitment to fulfilling your professional development needs throughout your career.

[www.ciht.org.uk](http://www.ciht.org.uk)