

The UK Hydrology Skills and Satisfaction Survey 2023

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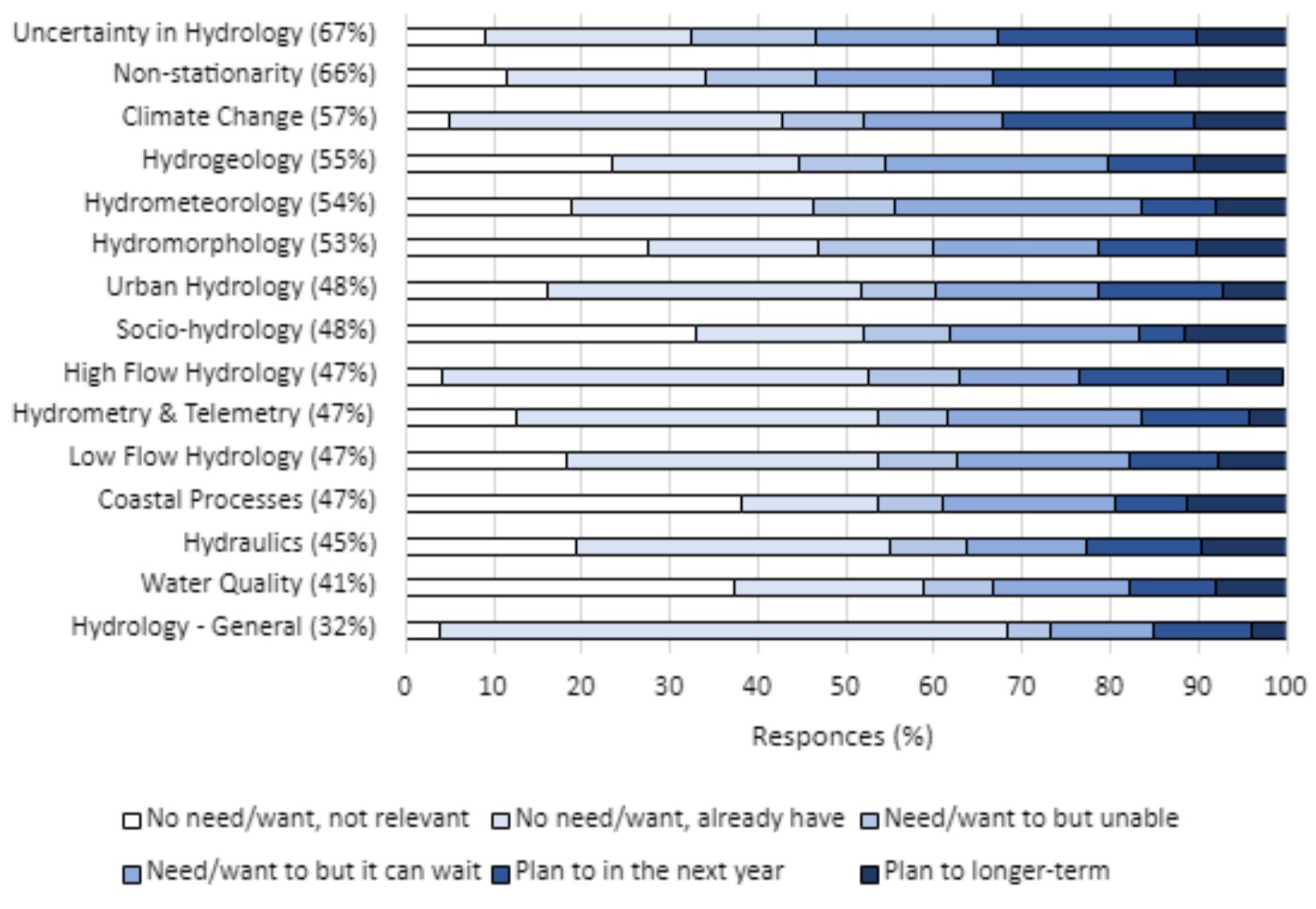
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❖ The 2023 UK Hydrology Skills Survey was conducted by the Environment Agency as a delivery partner of the UK Flood Hydrology Roadmap (UKFHR). The UKFHR is a 25-year plan to improve scientific understanding, methods, data, and ways of working in UK flood hydrology. You can view the Roadmap here: <https://www.gov.uk/flood-and-coastal-erosion-risk-management-research-reports/flood-hydrology-roadmap>

❖ 286 UK users of hydrology responded to questions about themselves, their careers, the skills they have, and the skills they needed to or wanted to learn.

❖ Here we have presented the key topics and concepts that came up in the survey results. The full results will be available on the project webpages in the early summer here: <https://engageenvironmentagency.uk.engagementhq.com/w4-skills-survey>

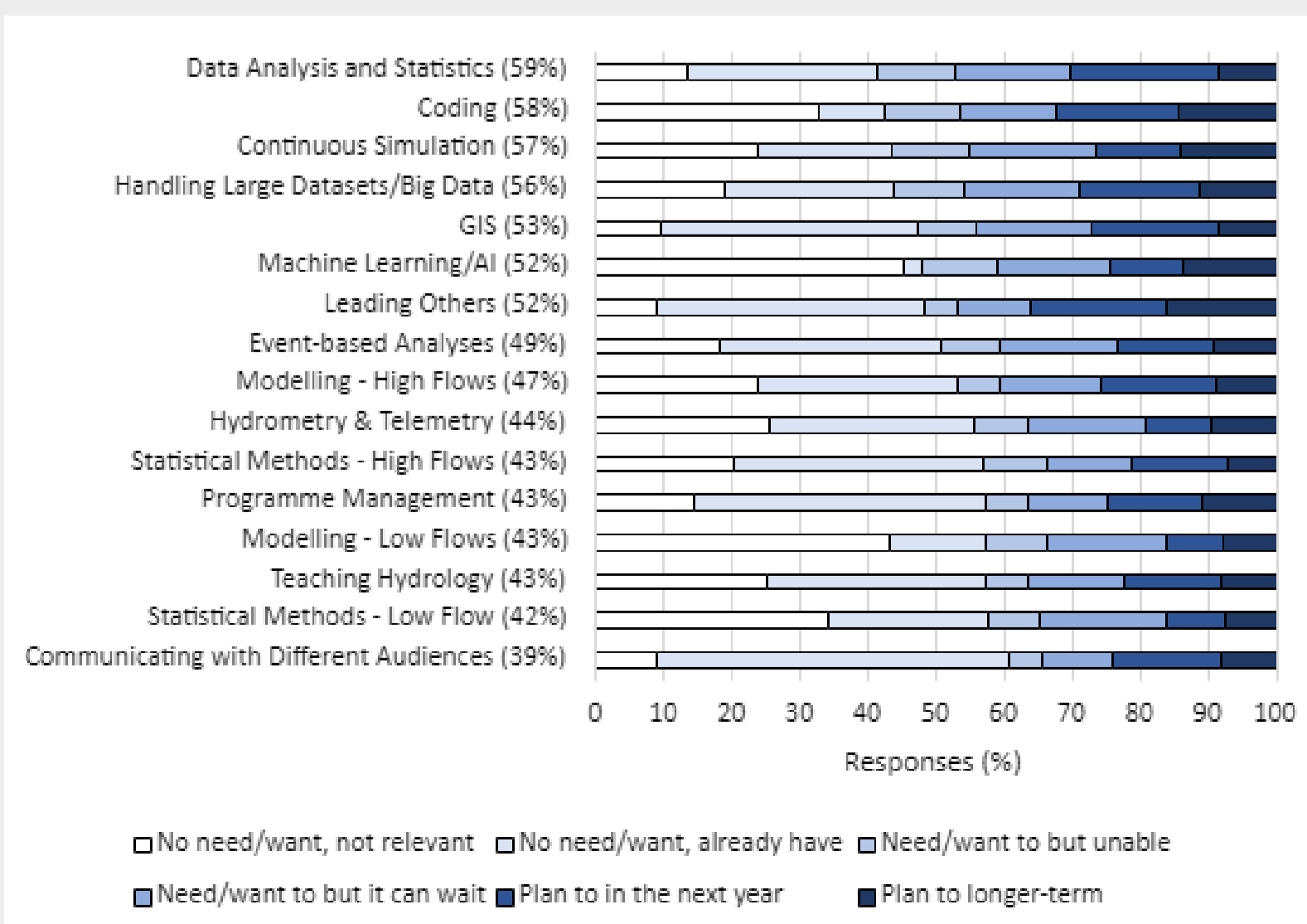


We asked respondents **which topics they needed or wanted to develop their knowledge in, and when.**

Uncertainty, non-stationarity, and climate change were popular topics.

We asked respondents **which topics they needed or wanted to develop their skills in, and when.**

Data Analysis and Statistics, coding, continuous simulation, and handling large data sets were popular topics.



❖ We often refer to a 'hydrological community' and attempt to engage this community as part of actions to improve operational hydrology.

❖ The survey revealed most users of hydrology are **not** hydrologists – only 12% had hydrology in their job title

❖ We should consider the full breadth of users of hydrology to make sure improvements are as useful as possible.

Community

- ❖ The survey showed that there is an under representation of almost every protected characteristic and social mobility indicator across community; this does not reflect the diversity of the UK population.
- ❖ As a community we need to reflect on the reasons for this and work at all career stages and levels of education to improve representation.
- ❖ Individual organizations and leaders in UK hydrology need to develop and implement a strategy to improve representation in the users of hydrology.

Diversity

- ❖ There was strong dissatisfaction at the value/esteem placed on hydrology, both by society and within organisations.
- ❖ Leaders in UK hydrology should initiate and support actions that raise the profile of hydrology. An example could be a grassroots-led project similar to Geoscience for the Future promoting careers and role models in hydrology.

Esteem & Value

- ❖ Respondents expressed a strong desire to develop new knowledge and skills in hydrology.
- ❖ Respondents called for greater access to more local development opportunities. They wanted material suitable for non-hydrologist users of hydrology who are engaging with the topic later in their careers.

Skills

- ❖ Hydrology will change significantly in the future with numerous emerging methods likely to revolutionise the field; these will require a different profile of technical skills from hydrologists.
- ❖ Horizon scanning of the future direction and skills requirements in hydrology will help plan and develop future training provision. The aim should be to produce hydrologists that can harness both the needed technical skills and detailed process understanding

The Future