National Network of Regional Coastal Monitoring Programmes (NNRCMP) Stakeholder Consultation Questionnaire

"An essential programme that builds national resilience."

– Local Authority Stakeholder

Background

Purpose of the Questionnaire

The questionnaire aimed to establish how data collected by the National Network of Regional Coastal Monitoring Programmes (NNRCMP) is used, the value of the programme to its end users and stakeholders, and the appetite for additional datasets or products.

Response Rates

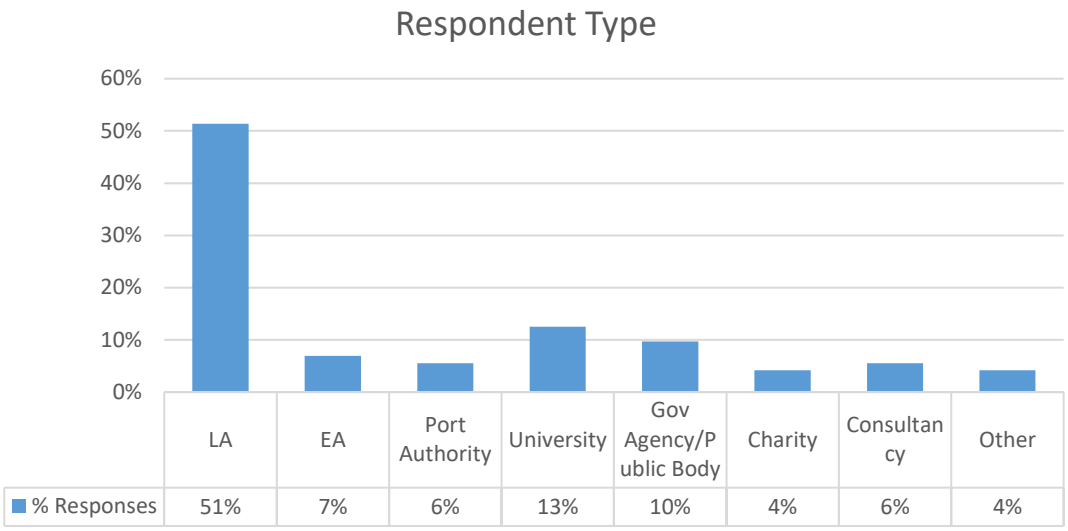
The questionnaire was sent to approximately 326 contacts from 158 organisations or groups, via email. Some contact addresses were no longer current, which reduced the delivery rate to approximately 308.

We received 72 responses (26 answering as individuals, and 45 on behalf of their organisation) from 62 different organisations, giving a minimum response rate of 22% overall (39% of targeted organisations). This is within the expected range of "customer feedback surveys" (10-30%)[1], and is well above the threshold of minimum acceptable response rate (5%) calculated according to the standard deviation of the sample at a confidence level of 95%.

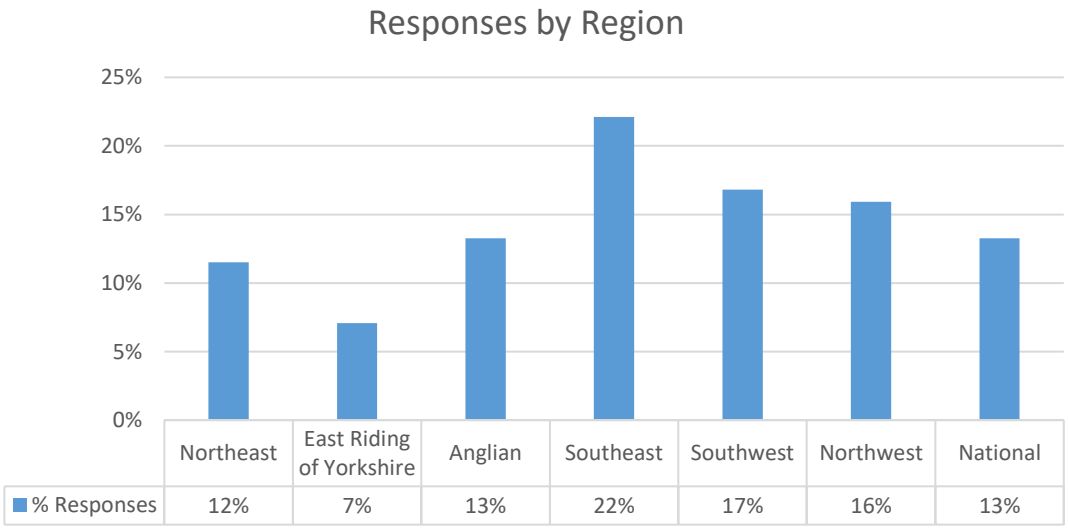
Contents

[1] https://www.genroe.com/blog/acceptable-survey-response-rate-2/11504

Respondent Demographics

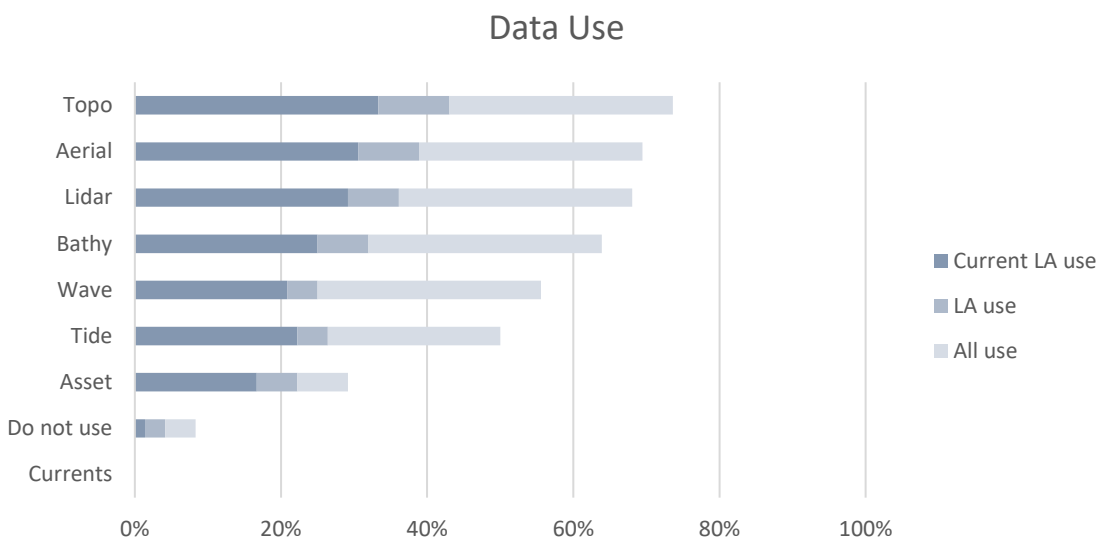


58% of respondents identify as Local Authorities (LA) or the Environment Agency (EA). 10% are government agencies or public bodies. 13% are research based, and 6% are consultants. 4% describe themselves as 'other', which includes water companies and community groups. It should be kept in mind that some responses were compiled, with multiple contributors from a single organisation, without indicating representative numbers of staff. Where respondents were representing an organisation, 76% of these were from large organisations (>250 employees).

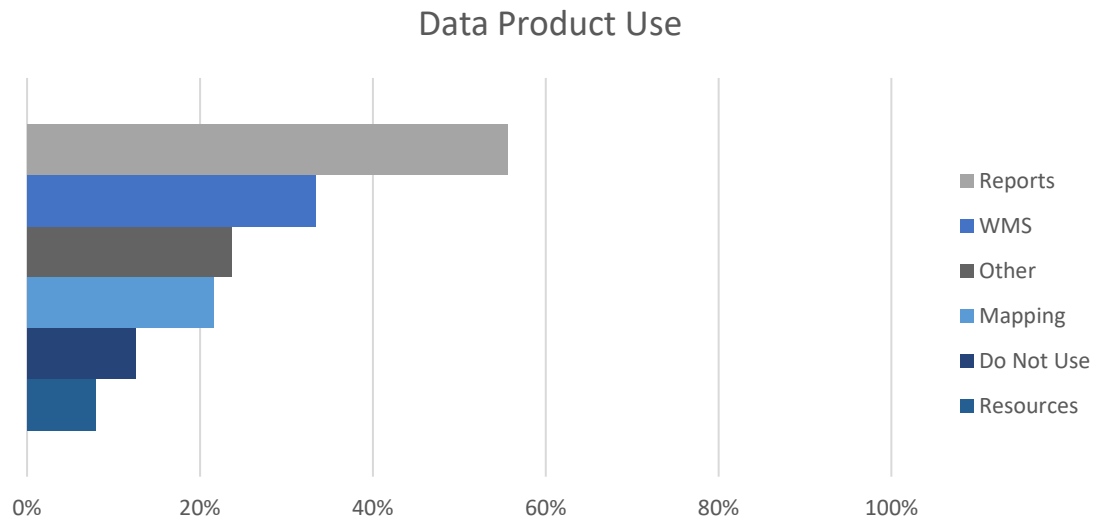


There is a small regional bias for the Southeast (the response rate deviating more than 1 standard deviation from the average), however this is correlated with the number of invitations sent in each region. Many respondents worked in multiple regions (18%).

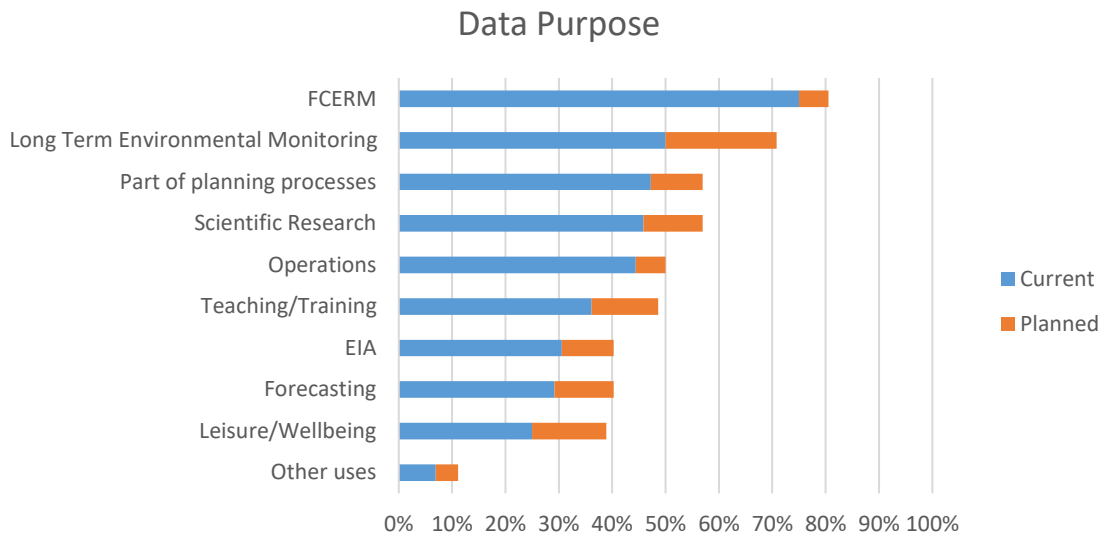
What data is used, and what is it used for?



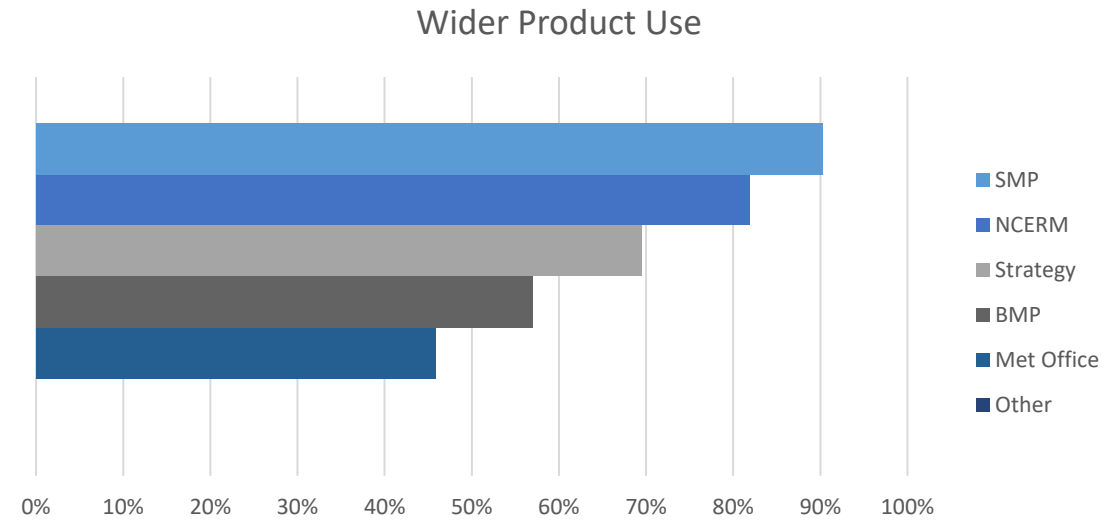
The majority of respondents use or have used multiple **data types** provided by the network (since 2011). The most commonly used data type is topographic (74% of all respondents, 84% of LA respondents).



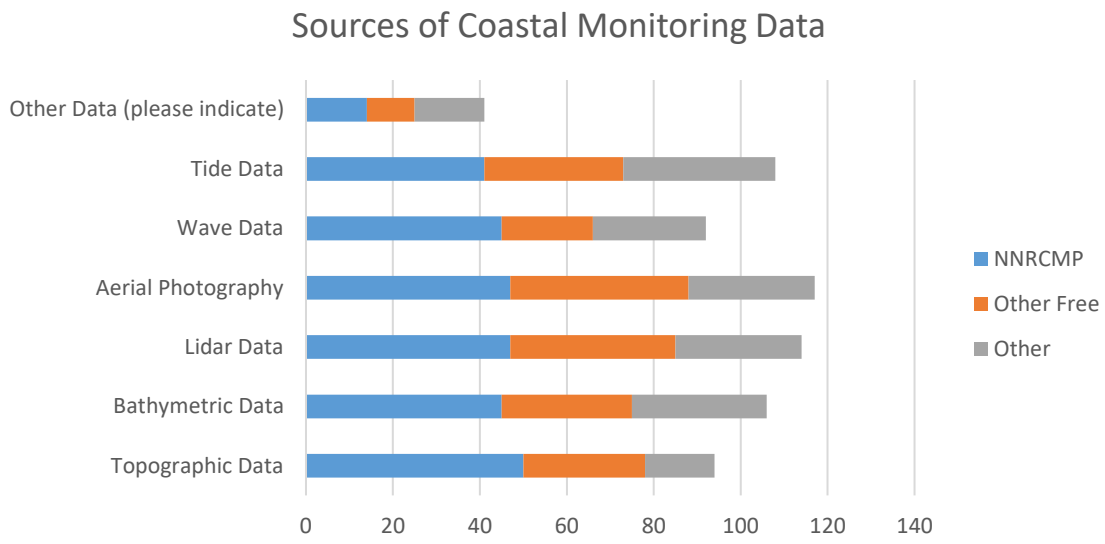
The majority of respondents (87%) used one or more **data product** produced by the network, with 56% using at least one type of report (Annual (56%), Hydrodynamics (54%), Technical (50%), Asset (24%)). This increases to 70% of Local Authority respondents (Annual 70%, Hydrodynamics 57%, Technical 57%, Asset 38%).

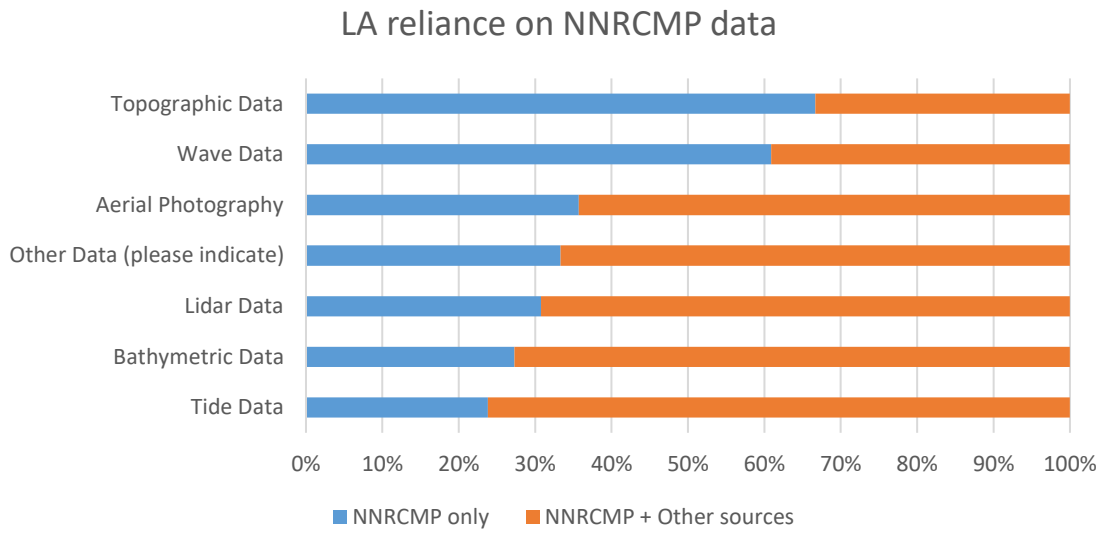


75% of the respondents are currently using the data directly for FCERM, with a further 6% intending to do so in the future. The other most common use of the data is for long-term environmental monitoring (50% currently, 21% Planned), although there is likely to be overlap between these two groups. For Local Authority respondents, 89% are using the data for FCERM (8% planned), and the next most common use is for planning purposes (65% current, 14% planned).



As well as using coastal monitoring data directly, most respondents are also using wider products supported by monitoring data, including Shoreline Management Plans (SMP, 90%), and the National Erosion Risk Map (NCERM, 82%).





82% of respondents are using data provided for free by the network, with each using on average 4 different data types. 71% of respondents are also sourcing data from outside the network, but only 11% (8 respondents) indicated they were paying for additional data.

Maybe more importantly, significant proportions of Local Authority data users who use NNRCMP data, are reliant on it as their only source, in particular for topographic and wave data (67%, 61%)[2]. Some users indicated sources of additional data, most commonly in house surveys, Universities or Consultancies (note that some consultancy reports are likely to be based on NNRCMP data, in particular for wave data). Other sources of tide data are as expected, the National Tide Gauge Facility, EA gauges and forecasts, and modelled predictions.

[2] Percentage of LA users of each NNRCMP data type, who only use NNRCMP data and who also use additional data sources. Note this does not consider LA users who don't use NNRCMP data for each type, so n can be low.

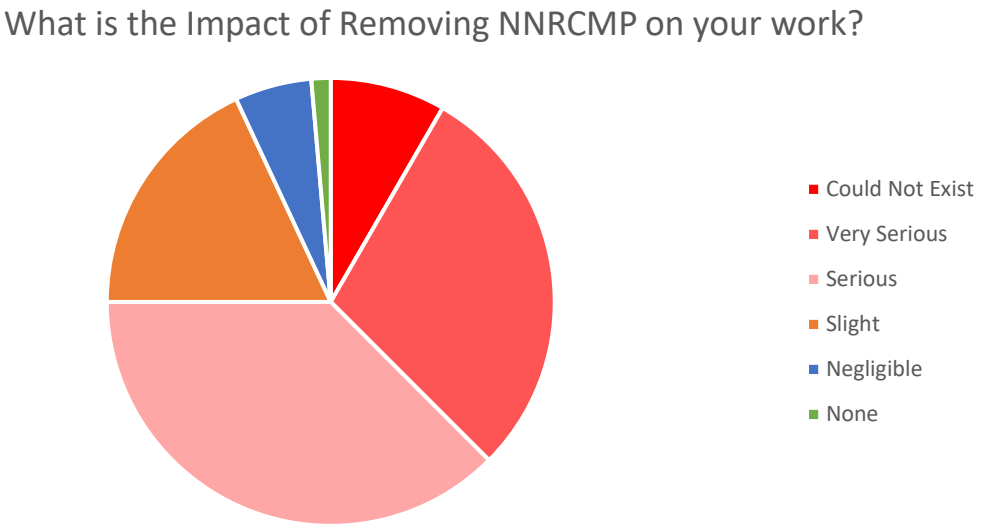
Free text was used to explore how NNRCMP data was integrated into stakeholder processes. Some notable comments include:

"It's an integral part to all my work"

"Monitoring data is the foundation of our approach to managing undefended areas of coast as it is the basis of how we define risk. This in turn impacts the Council's approach to relocating households away from risk, as well as engaging with businesses at risk and managing our own assets."

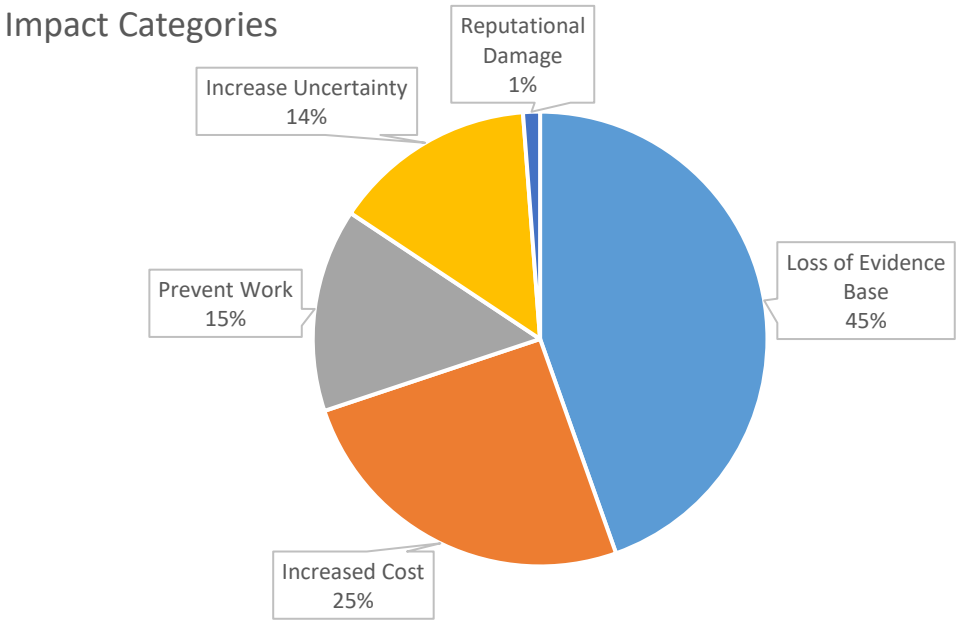
"NNRCMP data is used in all aspects of our project delivery, from coastal analysis, scheme design, environmental considerations, planning, scheme implementation and monitoring. It is used to assist with flood response and understanding of events / coastal damage, and is used regularly for coastal research"

How would discontinuation of the NNRCMP affect the work that respondents carry out?



Only 7% of respondents considered that discontinuing the programme would have no or negligible effects on their business, with 75% considering serious or greater impacts. When considering only LA respondents, this figure increased to 81%.

Free text was used to explore the types of impact that might be felt, and these were grouped into five impact categories: Loss of Evidence Base (45%); Increased Costs (25%); Prevention of Work (15%); Increased Uncertainty (14%) and Reputational Damage (1%).



Some notable comments include:

"There is no in house ability or recourse to fund, to record and monitor to the extremely high level of data that we use daily"

"It would seriously undermine the evidence basis that supports our longer term plans and strategies. Furthermore, it provides the short term justification for project level investment decisions."

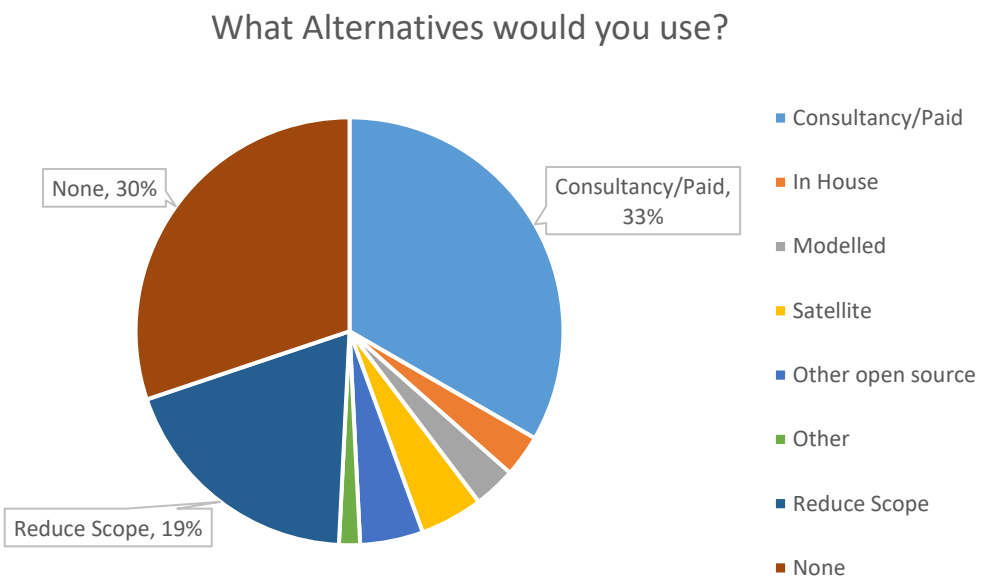
"The data is critical in visualising trends/change. […] Without this data it would be difficult to model change and demonstrate that change has/is occurring."

"The Council is not well placed to collect, QA and interpret this information as its very specialist. Authorities require a one stop shop, the loss of which would be significant. There is a risk that no data would be collected, which would impact on understanding of coastal change and coastal flood risk."

"We would be unable to effectively perform our duties without the monitoring data."

What alternative sources would stakeholders use?

Free text was used to explore what alternative data sources stakeholders might turn to in the absence of NNRCMP data. These were categorised, and the most common responses were consultancy/paid data sources (33%) and none (30%). A significant proportion of respondents (19%) indicated they were likely to need to reduce the scope of monitoring data they used, through reductions in frequency, resolution, coverage or through use of more qualitative methods.



Some notable comments include:

"Unsure of any alternative source that can provide the level of reliable data that is easy to navigate and funded externally. Going forward [redacted] is experiencing difficult economic times along with many other LA's and this would further add financial pressures"

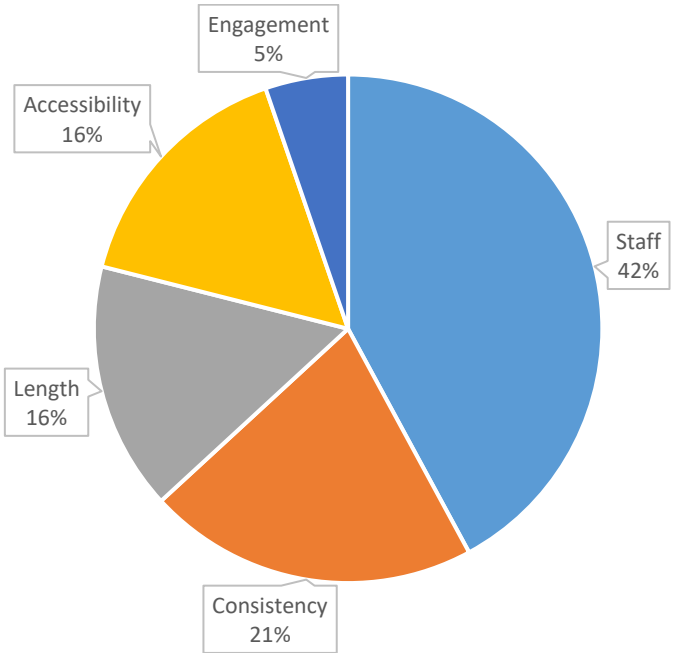
"Do not think we could get the data another way, it would be at best piece meal data gathering, uncoordinated and there would be no economies of scale. Not enough to capture what is happening across the coast."

What are the wider benefits to stakeholder organisations?

Stakeholders were asked to rank the wider benefits provided by long-term strategic coastal monitoring. The top three answers were cost savings based on data collection (57%), data assurance for validation or calibration purposes (51%), and increased confidence in the data or its interpretation (39%).

	Top 3
Cost Saving: data collection	57%
Data assurance	51%
Increased Confidence	39%
Design Efficiency	39%
Adaptation Planning	31%
improved design	25%
Cost saving: data management	22%
Cost saving: operational	15%
Quality control	13%
Data assurance: validation	8%

In addition, 17 stakeholders specified additional benefits using free text. Of these, 42% praised the knowledge, advice and assistance from the staff that make up the monitoring programmes. There was additional praise for the consistency of the data and its collection schedule, the length of the dataset, the ease of access to the data, and the benefits for engagement.



"The other benefits to the NNRCMP is the ability to talk to experts about the data and its uses and management and be able to influence future collection. It is all the staff and their helpfulness that is an unaccounted for benefit to us [redacted]. It is the knowledge sharing and help with production of analysis reports that we also benefit from."

"Reassuring that the data, experience and support from the team is there when required. Even if this is called upon in frequently."

"The historical data is irreplaceable. Regardless of budgets, one can only collect present and future data according to each particular project's requirements and this data would not be available to anyone else. The fact that the NNRCM regularly collect data that can be used any time in the future constitutes its value. This programme, though I appreciate may be costly, is globally unique. Any future work on climate change risk assessment, adaptation planning etc will need to rely on past data to inform future predictions and this data cannot be collected in the future!"

Additional Feedback

Stakeholders were asked if they had any additional feedback, and the follow are some selected responses:

"We are only now getting to see the real value of having invested in collecting coastal monitoring data consistently in that we are starting to detect longer-term trends. It needs to be kept going as to stop now would waste the years of effort to date getting us to this point. "

"This is an incredibly important programme for educational, research, coastal management, coastal adaptation strategy, coastal risk assessment, and a long list of other applications that I imagine are of paramount importance to an island Nation..."

"The NNRCMP provision is unbeatable and the service is so valued by my organisation. The value of this data to us is now increased as the costs of all our projects are so much higher, and to have to procure the data would only increase the funding gap challenges we have. As a local authority we are seeing more variety in the spatiotemporal extent of morphological change at the coast, and as the changing climate progresses, the data that captures these changes is so incredibly important."

"It is important that the NNCMP** [sic] **is continued. With the future focus on adaptation to risk of flooding and coastal change, the data is needed even more to support decisions."

"The NNCMP** [sic] **provide an ever more important function of monitoring change at the coast, as we grapple with increased storminess, sea level rise and ever more vulnerable infrastructure and ever increasing new development, the monitoring programmes give us the data we need to understand the impacts and make the most informed management decisions."

Risk Management Authorities

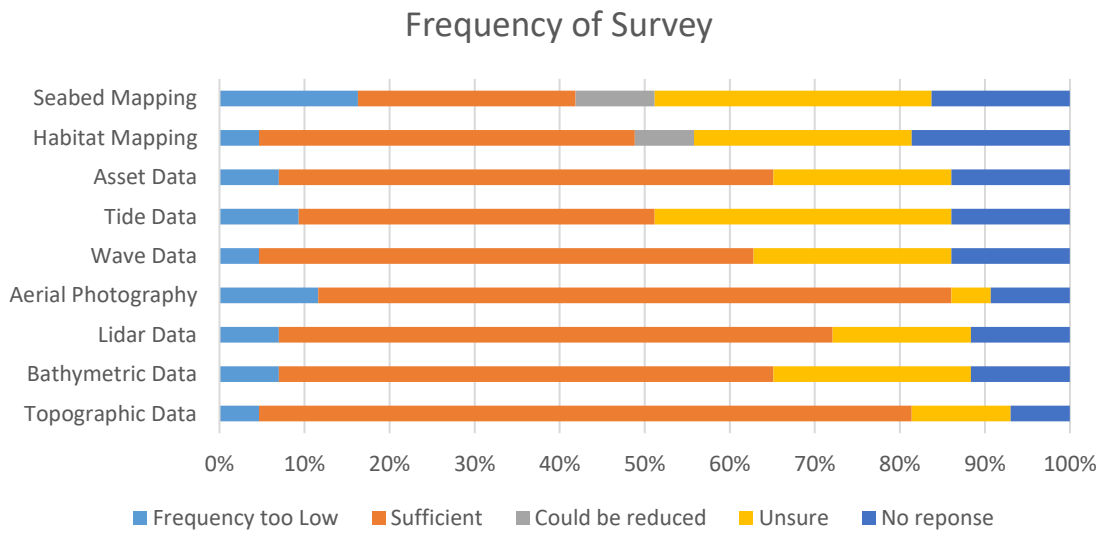
Stakeholders who identified as Risk Management Authorities (RMA), or who undertake works on behalf of RMAs, were asked an additional set of questions which focussed on survey frequencies and coverage, and proposals for additional data products and services.

60% of respondents identified in this way, and 43 stakeholders responded to this section of the questionnaire, 37 of which were Local Authorities (86%).

Frequency of Survey

Stakeholders were asked to identify if the current survey frequencies were adequate. Not all respondents were able to answer this question, but for those who did, over 50% of respondents were satisfied that the survey frequency was sufficient for most data types. The exceptions were tide data, and the mapping products. The mapping products were also the only data type identified where respondents would be happy for a reduction in survey frequency.

Between 5 and 16% felt that survey frequencies were too low across all data types[3].

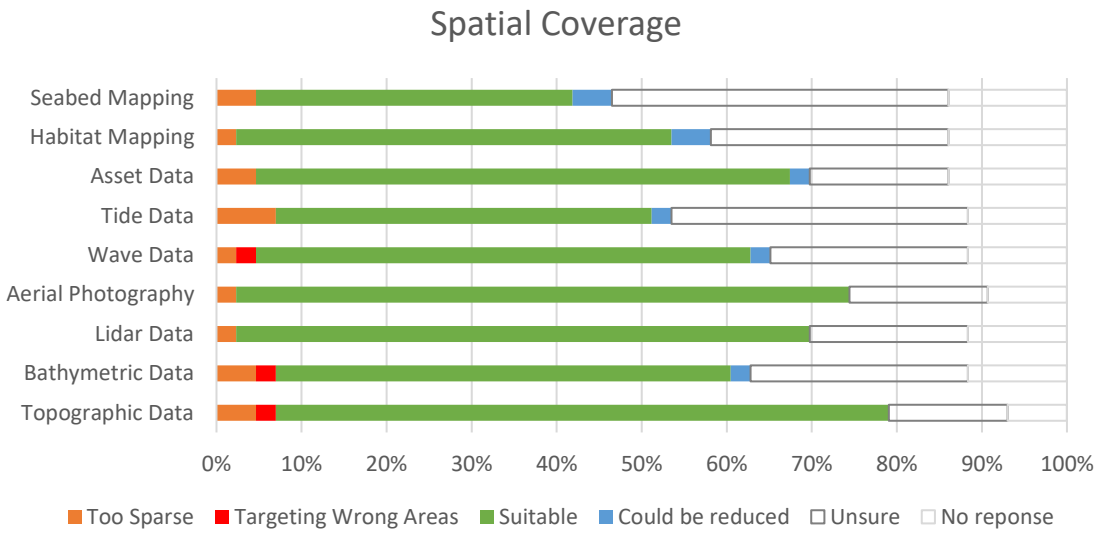


[3] Internal note in case it may support requests for higher funding for certain data types: regionally, the following were identified by key stakeholders as being too infrequent: ANG Aerials & Assets (by EA Lincs and North Hants Area) and Seabed Mapping (by CPE); SE Seabed Mapping (Coastal Partners), Bathymetry (EA (area not specified)), Aerials (IOW SMP lead, Lewis and Eastbourne), Wave and Tides (NFDC); SW Bathymetry (EA (area not specified)); NW Tide data (Sefton, Fylde Council, Natural England), Lidar (West Lancs, Fylde) and Aerial (Cumberland, Fylde) - note that Fylde selected too infrequent for all data types.

Spatial Coverage

When considering spatial coverage of the data, over 50% felt the current coverage of each data type was suitable, with the exceptions of tidal data and seabed mapping.

Between 2 and 5% felt that the data was too sparse, and 2% felt that the wrong areas were targeted for topographic (SE), bathymetric (SW) and wave data (NW)[4].



[4] Internal note, the following specific users identified that data was targeting the wrong areas: SE topo, Canterbury; SW bathy, Dorset Council; NW wave, Cumberland Council.

Requests for alternative data products.

Stakeholders were given the opportunity to note additional data products that would be beneficial. 9 Local Authority[5] stakeholders provided suggestions, which included:

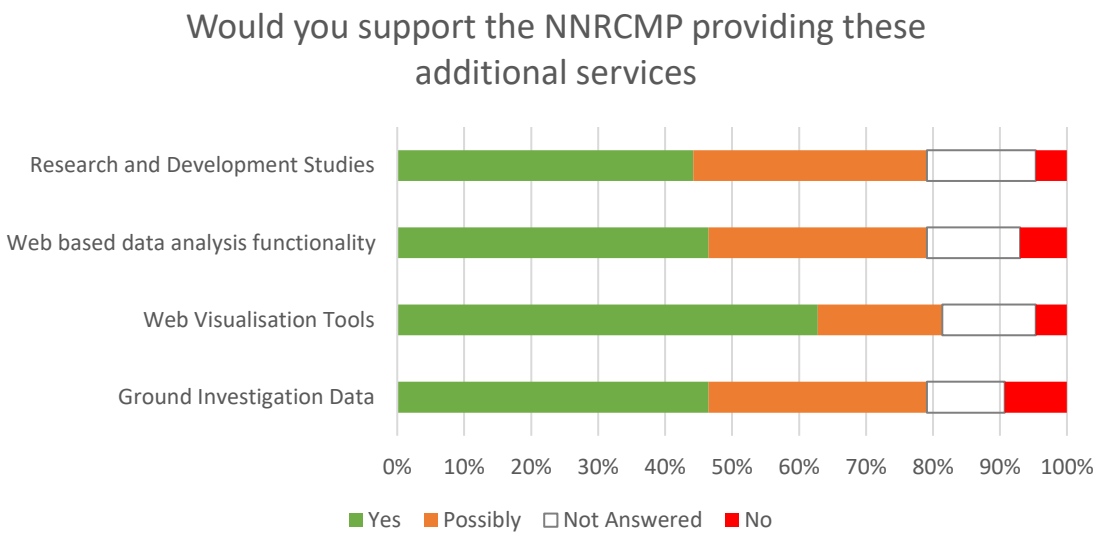
- A national dashboard (ANG)
- Improvements of data visualisation (ANG)
- More meteorological data (NW)
- Sediment transport modelling (NE)
- Webcams for realtime data (SE)
- Topographic and Bathymetric data further up tidally influenced rivers (SE)
- Wave forecasting (SE)
- Satellite imagery outputs (NW)
- Measurements of coastal grain size (SE)

[5] Region of origin are included for reference only

Support for additional services

Stakeholders were also asked whether they support a number of proposed additional services, some of which overlapped with unprompted requests:

- Research and development studies
- Web based data analysis functionality
- Web visualisation tools
- Ground investigation data



All options had a positive majority response ('Yes' or 'Possibly' 79-81%), with web visualisation tools clearly the most popular option ('Yes' 63%).

The strongest negative response was for ground investigation data ('No' 9%). This was justified in the following statements from local authority stakeholders in the Southeast and Southwest regions:

"the British Geological Survey has a large number of borehole data already available on their website so you don't [sic] want to duplicate. The RMA and the EA may have a wide range of borehole data from previous schemes that they can provide (subject to data protection)"

"data is already made available via BGS so does not need to be provided by NNRCMP, other than perhaps providing a GIS layer linked to the BGS data so people know it exists and can find / access it."

The overlaps between the alternative data products requested by Stakeholders, and the support for additional services shows stakeholder support in particular for web visualisation tools (63% Yes, 19% Possibly, 2/9 related requests), and web based data analysis functionality (47% Yes, 33% Possibly, 1/9 related requests).