

Measuring Impact

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Summary

The Geospatial Commission has existed since 2018 delivering across a wide range of areas. A significant amount of our impact has been in intangible benefits such as raising the profile and driving greater coordination across the geospatial community. For measuring more tangible benefits, we follow standard government analytical approaches, supported by our bespoke guidance on measuring the value of location data. For example, we've identified benefits per year of from PSGA, £490mn from NUAR, from NLDP and savings through our commercial contracts. As with many national, cross-cutting policy areas, there are significant challenges in accurately quantifying the realised benefits and impacts of our specific activities.

Purpose: For Discussion

Questions for the Board's Consideration

The Board is asked to consider and provide views on the following:

 How can we improve how we measure and communicate the impact of the Geospatial Commission's activities?

Content

Commitments

- The Geospatial Commission (GC) was established in 2018 by the UK government as an expert committee responsible for setting the UK's geospatial strategy and coordinating public sector geospatial activity.
- 2. The creation of the GC was itself a result of extensive engagement and evidence building including analysis delivered by Boston Consulting Group. They identified that greater use of geospatial data in five broad private sector areas could unlock £6-11 billion per annum of economic value assuming regulatory barriers and uptake would not be an issue (see Annex A).
- 3. Following extensive engagement, including a call for evidence, in June 2020, the Geospatial Commission published the UK's first geospatial strategy, Unlocking the Power of Location. This strategy had 19 commitments across four missions:
 - a. Mission 1: Promote and safeguard the use of location data
 - b. Mission 2: Improve access to better location data
 - c. Mission 3: Enhance capabilities, skills and awareness
 - d. Mission 4: Enable innovation
- 4. The strategy committed the GC to publish annual plans, which we did in 2021 and 2022, reflecting on our deliverables and outlining updated and new commitments.



- 5. In June 2023, we published the UK Geospatial Strategy 2030 reflecting the journey the UK geospatial community had been on over the previous years and updating our missions and commitments. The 2030 strategy sets out 21 commitments over 3 missions:
 - a. Mission 1: Embrace enabling technologies to accelerate geospatial innovation
 - Mission 2: Drive greater use of geospatial applications and insights across the economy
 - c. Mission 3: Build confidence in the future geospatial ecosystem
- 6. Annex B sets out these key public commitments, grouped across 12 areas:
 - Governance: our commitment to publish annual reports and ensure the UK geospatial strategy remains up-to-date and fit for purpose, crucial for maintaining the profile of geospatial.
 - Geospatial policy: these commitments relate to our alignment with wider government data policy with a focus on data access and ethical use.
 - c. Geospatial market: these commitments highlight the crucial role the GC has played in shaping an understanding of the geospatial ecosystem and supporting sustainable investment through a full appreciation of the value geospatial data brings to the economy, society and environment.
 - d. Public sector data improvement: these focus on our projects to support coordination across the geo6 and beyond with a more technical focus, including the PSGA with estimated benefits of
 - e. NUAR: our most developed data improvement programme, with a robust impact assessment highlighting £5bn of benefit over 10 years.

 Land and property: this is a more nascent programme but with potential significant benefits identified of around
 - g. Transport: our transport work to date has focused on two areas identifying and promoting the use of location data and a innovation competition.
 - Remote sensing: this is a live programme to identify the benefits of more coordinated and wide-spread use of earth observation data across the public sector.
 - Population Movement Data (PMD): this is a very nascent programme to identify the benefits of more co-ordinated and wide-spread use of PMD across the public sector.
 - i. Health: this project hasn't started yet.
 - k. Skills: we have undertaken a range of projects to promote the growth of geospatial skills, as an underpinning to realising the broader benefits of greater use of location data and technologies.
 - International: we identify that we cannot achieve our full ambitions on geospatial without working in partnership with international partners.

7. Annex C, copies the Board of Commissioners Foreword from the Geospatial Strategy 2030, outlining 5 key

Impact

deliverables.

- Broadly speaking, we can think about the Geospatial Commission's impact in three areas:
 - a. Public sector savings: these arise from collective purchase agreements.
 Previously, geospatial data or services were procured separately by



numerous public sector organisations. We now negotiate on behalf of (parts of) the public sector driving efficiency savings and better value-for-money driven through a stronger negotiation position as a collective e.g. lower price/better quality service.

We have generated a commercial saving of commercial contracts (PAF, APGB, PSGA)

across our

- Wider economic, social and environmental benefits are wide ranging and are measured by identifying specific use cases for the geospatial data/services procured such as OS data under the PSGA improving ambulance response times
- c. Communication and engagement such as raising the profile, influencing language and policy, and driving greater co-ordination of geospatial activity.
- When estimating the value of benefits (particularly for public sector savings and economic, social and environmental benefits), we use the government's standard approach as set out in the <u>HMT's Green Book</u>, supported by GC published guidance <u>Measuring the Economic</u>, <u>Social and Environmental value of public sector location data</u>.
- 10. The Green Book defines "Impact Evaluation" as an objective test of what changes have occurred, the extent of those changes, an assessment of whether they can be attributed to the intervention and a comparison of benefits to costs. The approach to measuring impact evolves across the policy-delivery timeline.
 - a. Ex-ante impacts are estimated at the business case and impact assessment stage – before a policy has been implemented.
 - During implementation impact is monitored using key performance indicators and other social research methods to ensure expected benefits are arising.
 - Finally, an evaluation process will draw together all available evidence and quantify (where possible) or describe qualitatively the benefits of the policy – ideally compared to a robust counterfactual.
- 11. In August 2022, we published bespoke guidance that builds on applying the Green Book principles to geospatial specific investments, focusing on some of the key <u>challenges relating to measuring location data</u> such as value arises from combining datasets, value differs depending on the application and accurately capturing spillover benefits.
- 12. To help address these challenges, the guidance sets out a proportionate 7-step framework to support organisations to assess investments in location data, including best practice approaches, see Annex D.
- 13. One recent example where we have estimated the economic impacts of our work is the published NUAR Impact Assessment. We estimate benefits of £490m per year, consisting of back-office efficiencies, reduced asset strikes, and reduced delays to people and firms. Following the Impact Assessment, the next stage will be to implement the monitoring and evaluation plan, so we can track and measure the benefits NUAR delivers against our estimates.
- 14. The impacts associated with communication and engagement are much harder to measure but nevertheless have significant impacts, such as:
 - Raising the profile of geospatial: Geospatial data is now recognised as a national asset with references in key government publications such as the National Data Strategy.



- Influencing language, for example use of the term and understanding of geospatial as an ecosystem, rather than a niche technical sector.
- c. Influencing policy, for example maturing discussions on public sector data access models, ethics of use of personal data for public benefit and changing EV charge-point conversation from how many to where.
- d. Driving greater co-ordination of geospatial activity such as the joint projects and shared learnings across the Geo6.
- 15. Although these impacts are less tangible and harder to measure, the impact the GC has and continues to have in these areas should not be underestimated.



Annex A- BCG analysis

BCG analysis of £6-11billion per annum was based on an assessment of 5 broad private sector use cases, with an approximate economic value linked to each one:



^{*}Note – dark blue bars are the "Low" estimate, whilst dark blue and light blue bars together are the "High" estimate.











Annex C- UK Geospatial Strategy 2030, Board of Commissioners Foreword

Location data has proven its enduring value again and again - during the coronavirus (COVID-19) pandemic, tracking outbreaks across the country was critical to inform public health decisions. It will continue to underpin solutions to our biggest challenges including climate change, energy security, economic growth and national security.

The Geospatial Commission and partners are determined to play our part in continuing to enrich the geospatial contribution. Over the three years since we published the UK's first geospatial strategy we have:

Built and launched NUAR as a minimum viable product

We launched the National Underground Asset Register (NUAR) minimum viable product in North East England, Wales and London. This is the result of collaborative work with hundreds of organisations from the public and private sectors. NUAR will make the management of our buried infrastructure safer, faster and cheaper.

Renewed and modernised key public sector contracts

We invested over £1 billion, through the Public Sector Geospatial Agreement (PSGA) with Ordnance Survey, to enable better access to location data for 5,500+ public sector organisations across the country. We agreed a new five year contract for the Postcode Address File Public Sector Licence with Royal Mail, providing public bodies with access to over 30 million business and residential addresses to support delivery of vital public services and combining for the first time previously separate agreements for England and Wales, and Scotland.

Increased coordination around foundational UK datasets in the public sector

We and our six partner bodies supported increased coordination around foundational UK datasets in the public sector, enabling data improvement through the use of FAIR (findability, accessibility, interoperability, and reusability) data standards and alignment in strategic direction, project delivery and international representation.

Established new programmes in key opportunity areas

We set up new programmes in the transport and property sectors and in land use decision making. We invested £5 million in private sector innovation to solve major transport sector challenges through product development and testing. We also explored ground-breaking use cases that will push the boundaries of geospatial applications to support key UK priorities, including the transition to electric vehicles and the building of new homes.

Advanced geospatial policy in the UK and internationally

We surfaced and made progress on central policy considerations, such as how we define and value the growing geospatial marketplace in the UK. We engaged with the public on ethical use of location data and technologies, and published guidance to support investment cases for improved access to geospatial data and technologies. With Great Britain's national mapping agency, Ordnance Survey, and others, we continued to put the UK at the forefront of international geospatial policy and standard setting developments.



Looking to 2030

Of course, our work is not done. Technological innovation has the capacity to surprise and thrill us and the pace of change is not abating. This creates new opportunities to innovate with location data and new applications to explore. In the years ahead we will build on our foundational activity to date and develop our established programmes, as well as exploring new opportunities.

Looking to 2030, the UK government's science and technology agenda sets a compelling vision that will help us meet the challenges of the digital revolution. This strategy aligns with the UK Science and Technology Framework, published in March 2023, which underlines that science and technology will be the major driver of prosperity, power and history-making events this century.

Our missions support the drive towards the adoption of critical technologies and continued investment in UK research and development. We are proud to be part of the new Department of Science, Innovation and Technology, which provides the perfect platform to bring geospatial policy into the heart of this agenda and to support wider government priorities from net zero to levelling up.

Finally, we would like to thank the many people and organisations involved in the work to update the UK Geospatial Strategy, including the numerous Call for Evidence respondents, our geospatial partner bodies and our colleagues in the devolved administrations whose collaborative approach has helped to shape this document and ensure examples of best practice from across the UK. The Strategy, with its refreshed missions, sets us up to realise the opportunities of the future, but it can only be achieved through our collective effort across the UK and across private, public and third sectors.



Annex D- 7-step framework to assess investments in location data

1.	Articulate rationale and strategic fit of investment
2.	Classify type of investment
3.	Set out how the investment will affect data characteristics
4.	Identify data uses or applications
5.	Identify potential benefits
6.	Prioritise high impact benefits for further in-depth analysis
7.	Assess benefits associated with known & unknown uses