



Scottish cities and local authorities in the era of COVID-19: data needs, capabilities, and uses

Page 1: Welcome to our survey!

You are being invited to take part in a research study. Before you decide on whether to participate, please take time to read the following information.

The [study](#) aims to identify the 32 Scottish local authorities' data uses, capabilities, and needs in the context of COVID-19. It is led by Prof Simon Joss and Dr Justine Gangneux ([Urban Big Data Centre](#), UBDC), and is **supported by the Digital Office for Scottish Local Government**.

You are invited to take part in an individual (rather than representative) capacity – that is, as a professional working in a Scottish local authority. Participation is **voluntary**; you are free to withdraw your contribution at any point. The information provided will be used for research purposes, and your answers will be treated as confidential and securely kept.

The survey **consists of 20 questions and takes less than 15 minutes to complete**.

The survey - which has received ethical approval from the University of Glasgow - is **anonymous**, and any element allowing direct identification will be deleted. Specific job titles (indirect identifiers) will be replaced by generic occupational categories (e.g. 'data officer') and/or policy domains (e.g. 'officer in transport department'). These generic categories are important, as they will provide essential contextual information for the analysis and interpretation of the research data. **Local authorities and the specific initiatives mentioned in the survey will be identified** in the outputs arising from the research; this **may limit anonymity**.

Findings will be **shared with all local authorities and with the Digital Office**, and made available on the UBDC website. They will also be discussed in academic publications and presentations. **Anonymised survey data will be made available open-access in Enlighten, the University of Glasgow's research data repository for the purpose of future research.**

If you have any questions, please contact us at **Simon.Joss@glasgow.ac.uk** or at **Justine.Gangneux@glasgow.ac.uk**. You can also contact the University of Glasgow's Ethics Officer; Dr Muir Houston at **Muir.Houston@glasgow.ac.uk**.

1. Do you agree to take part in the research study? * *Required*

- I agree to take part in this research study
- I do not agree to take part in the research study

Page 2: Introduction

The survey consists of **20 questions** and takes **less than 15 minutes** to complete:

- Q.3-7: general data response to COVID-19;
- Q.8-12: data uses and needs;
- Q.13: data capabilities;
- Q.14-16: data sharing and collaborations;
- Q.17-19: data challenges and opportunities;
- Q.20: the role of data in the context of COVID-19.

2. Which of the following local authorities do you work for?

- Aberdeen City Council
- Aberdeenshire Council
- Angus Council
- Argyll and Bute Council
- City of Edinburgh Council
- Clackmannanshire Council
- Comhairle nan Eilean Siar
- Dumfries and Galloway Council
- Dundee City Council
- East Ayrshire Council
- East Dunbartonshire Council
- East Lothian Council
- East Renfrewshire Council
- Falkirk Council
- Fife Council
- Glasgow City Council
- Highland Council
- Inverclyde Council
- Midlothian Council
- Moray Council
- North Ayrshire Council

- North Lanarkshire Council
- Orkney Islands Council
- Perth and Kinross Council
- Renfrewshire Council
- Scottish Borders Council
- Shetland Islands Council
- South Ayrshire Council
- South Lanarkshire Council
- Stirling Council
- West Dunbartonshire Council
- West Lothian Council

2.a. Could you please specify the department you are based in and your job title?

Page 3: General data response to COVID-19

Throughout the survey, we will refer to **five different types of data**:

1. **Internal public sector data**: Data collected/ used by local government (e.g. adults in social care, business rates, customer contacts);
2. **External public sector data**: Data provided by the Scottish/ UK government and agencies (e.g. tax records, educational attainment, health records);
3. **Third sector data**: Data provided by charities, voluntary organisations, community groups, and social enterprises (e.g. community services, service users);
4. **Private sector data**: Data provided commercially by private companies and brokers (e.g. retail data, business activity, customers data);
5. **Novel data**: New types of digital data generated via connected infrastructures and sensors, and/or via applications and platforms (e.g. real time traffic data, Internet of Things, social media).

3. Thinking back to **the first month of the lockdown**, how important to your work were the following types of data for managing the COVID-19 crisis?

	Not at All Important	Fairly Unimportant	Neither Important nor Unimportant	Quite Important	Very Important
Internal public sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External public sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Third sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Novel data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Thinking about **the last few weeks**, how important to your work have the following types of data been for managing the COVID-19 crisis?

	Not at All Important	Fairly Unimportant	Neither Important nor Unimportant	Quite Important	Very Important
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Internal public sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External public sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Third sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Novel data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Looking ahead to **next year**, how important to your work do you expect the following types of data to be for managing the COVID-19 crisis?

	Not at All Important	Fairly Unimportant	Neither Important nor Unimportant	Quite Important	Very Important
Internal public sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External public sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Third sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Novel data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 4: General data response to COVID-19

6. Are you aware of your local authority having so far implemented any of the following actions in response to COVID-19? (Please select all that apply)

- Increasing data collection
- Increasing data sharing internally
- Integrating and analysing existing internal data
- Using new sources of data (all types)
- Acquiring additional data software
- Increasing the use of existing data software
- Increasing the use of data visualisation tools (e.g. Tableau, Power BI, ArcGIS)
- Recruiting additional staff with data expertise
- Providing data-related training for staff
- Increasing data sharing externally
- Developing data-centered collaborations with external stakeholders
- None of the above
- Don't know

Page 5: General data response to COVID-19

7. Please indicate if so far you have used data (all types) to do any of the following: (Please select all that apply)

- Tailor local support (e.g. digital services, delivery of food parcels)
- Prioritise essential services
- Support local businesses and economic recovery (e.g. emergency grants)
- Coordinate volunteering and community responses (e.g. mutual aid groups)
- Adapt public transport (e.g. adding cycle lanes, reduced timetables)
- Maintain safety in public spaces
- Measure public compliance with Covid-19 related rules (e.g. lockdown, social distancing)
- Evaluate your local authority's response to the crisis
- Other
- None of the above

7.a. If you selected Other, please specify:

Page 6: Data uses and needs

8. In ranking order, in which of the following policy areas have you so far seen an **increased need** for data (all types) in response to COVID-19? (Please **select and rank up to three areas**)

	1	2	3
Adult Social Care Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Businesses and Corporate Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Children Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cultural and Leisure Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Economic Development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Education	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Housing and Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Roads and Transports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waste Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Don't know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 7: Data uses and needs

Public sector data

- **Internal:** Data collected/ used by local government (e.g. adults in social care, business rates, customer contacts).
- **External:** Data provided by the Scottish/ UK government and agencies (e.g. tax records, educational attainment, health records).

9. In response to COVID-19 so far, have you used **internal public sector data** in relation to... (Please select all that apply)

- Adults in social care
- Air quality
- Anti-social behaviour & Reported crime
- Business Rates
- Children in care
- Council taxes
- Customers contacts with local authority
- Homelessness
- Human resources / operational data
- Pedestrian footfall
- Public CCTV
- Public transport
- Road traffic
- Social benefit recipients (e.g. housing benefits, universal credit, free school meals)
- Social demographics
- Waste
- Other

9.a. If you selected Other, please specify:

10. Please indicate if so far you have used any of the following sources of **external public sector data** in response to COVID-19. (Please select all that apply)

- Other local authorities
- NHS Scotland Health Boards
- Special NHS Boards (e.g. Public Health Scotland, NHS National Services Scotland, NHS Education for Scotland)
- Scottish Government and its executive agencies (e.g. Education Scotland, Transport Scotland, Scottish Prison Service)
- Police Scotland
- Office for National Statistics
- Ordnance Survey
- UK Government and its executives agencies
- Other
- None of the above

10.a. If you selected Other, please specify:

Page 8: Data uses and needs

- **Third sector data:** Data provided by charities, voluntary organisations, community groups, and social enterprises (e.g. community services, service users);
- **Private sector data:** Data provided commercially by private companies and brokers (e.g. retail data, business activity, customers data);
- **Novel data:** New types of digital data generated via connected infrastructures and sensors, and/or via applications and platforms (e.g. real time traffic data, Internet of Things, social media).

11. So far, have you used the following types of data in response to COVID-19?

	Yes	No	Don't know
Third sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private sector data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11.a. If 'Yes', could you give some examples?

12. Please indicate if so far you have used any of the following types of **novel data** in response to COVID-19. (Please select all that apply)

- Cellular and Wi-Fi data
- Crowdsourced data
- Data from connected infrastructures
- Social media data
- None of the above
- Don't know

Page 9: Data capabilities

13. In ranking order, which of the following data capabilities would you like your local authority to develop in the wake of COVID-19? (Please **select and rank the three most important areas**)

	1	2	3
IT infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Internal data harmonisation and integration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data processing (e.g. quality, curation, standards)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data analytics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data storage and maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data governance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Skills (e.g. training, data literacy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Human resources (e.g. data scientists)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 10: Data sharing and collaborations

- **Internal data sharing:** making data available and useable across departments in your local authority.
- **External data sharing:** making data available to other organisations and stakeholders to use (e.g. data sharing agreements, use of open datasets/ Application Programming Interfaces (API)).
- **Data collaborations:** partnering with other organisations and stakeholders to collect, use and/or analyse data.

14. How important have data sharing and collaborations been to your work in the context of COVID-19?

	Not at All Important	Fairly Unimportant	Neither Important nor Unimportant	Quite Important	Very Important
Internal data sharing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External data sharing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data collaborations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. Are you aware of your local authority having so far implemented any of the following data sharing measures in response to COVID-19? (Please select all that apply)

- Data sharing agreements
- Use of open licenses (e.g. Open Government License)
- Publication of open datasets
- Use of Application Programming Interfaces (APIs)
- Public-facing interfaces (e.g. dashboards)
- Other
- None of the above
- Don't know

15.a. If you selected Other, please specify:

16. Are you aware of your local authority having so far collaborated / planning to collaborate in the future with any of the following stakeholders in response to COVID-19? (Please select all that apply)

	Collaborated to date	Collaboration planned
Other Scottish local authorities	<input type="checkbox"/>	<input type="checkbox"/>
Other UK local authorities	<input type="checkbox"/>	<input type="checkbox"/>
Public sector organisations (e.g. NHS Scotland Health Boards, Special Health Boards, Police Scotland)	<input type="checkbox"/>	<input type="checkbox"/>
Scottish Government	<input type="checkbox"/>	<input type="checkbox"/>
Local businesses	<input type="checkbox"/>	<input type="checkbox"/>
Private Corporations (e.g. BT Group, Cisco, Agilisys)	<input type="checkbox"/>	<input type="checkbox"/>
Third sector organisations (e.g. charities, voluntary organisations, community groups, social enterprises)	<input type="checkbox"/>	<input type="checkbox"/>
Research institutions (e.g. universities)	<input type="checkbox"/>	<input type="checkbox"/>
Grassroots organisations (e.g. mutual aid groups, residents' groups)	<input type="checkbox"/>	<input type="checkbox"/>
Citizens	<input type="checkbox"/>	<input type="checkbox"/>

Page 11: Data challenges and opportunities

17. On a scale from 1 to 5, how challenging to your work have the following areas of data engagement been in the context of COVID-19?

	1 (Not at all challenging)	2	3	4	5 (Very challenging)	N/A
Identifying data needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mapping existing internal data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ensuing data quality/ standards (e.g. accuracy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Integrating data (e.g. matching, interoperability)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analysing data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ensuing GDPR compliance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ensuing data security	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Developing data sharing agreements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Obtaining data from the Scottish Government	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 12: Data challenges and opportunities

18. What would you say are the main data-centered **opportunities** for your local authority that have emerged from the COVID-19 crisis ? (Please **select up to four**)

- Increasing data sharing internally
- Harmonising and integrating internal data
- Investing in data software
- Providing data training to staff
- Adopting shared data standards
- Accessing/using novel data
- Developing external data sharing agreements
- Collaborating with other stakeholders to collect, use and/or analyse data
- Increasing the use of data to inform decision and policy making
- Other
- None of the above

18.a. If you selected Other, please specify:

19. Are you aware of any specific data-centered initiatives / projects in which your local authority has been involved in response to COVID-19?

- Yes
- No
- Don't know

19.a. If 'Yes', could you specify what these are?



Page 13: The role of data in the context of COVID-19

20. Thinking about your experience of your local authority's response to COVID-19, how important have data-focused interventions been relative to other approaches to managing the pandemic?

	Less important than data-focused interventions	About the same	More important than data-focused interventions
Provision of emergency funding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Collaboration with third sector organisations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Coordination with other public institutions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local knowledge and connections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Page 14: Thank you for taking part in our survey!

Findings will be summarised in a project report and a policy briefing which will be shared with all Scottish local authorities and the Digital Office for Scottish Local Government, and made available on the Urban Big Data Centre's [website](#).

If you have any questions, please contact us at **Simon.Joss@glasgow.ac.uk** or at **Justine.Gangneux@glasgow.ac.uk**. You can also contact the University of Glasgow's Ethics Officer; Dr Muir Houston at **Muir.Houston@glasgow.ac.uk**.
