



High Level Delivery Plan for Data

Introduction

In September 2018 Scotland published its Programme for Government, outlining our commitments to ensure digital and data innovation is at the heart of our economic policy. These commitments will be realised through activities such as continued support for our innovation centres, programmes to encourage entrepreneurship, making more of our data open and available for exploitation, and the development of a common approach to online identity assurance.

Scotland is already at the forefront of the use of data to boost productivity and improve public services and is well placed to become a global centre of excellence. There are clear economic gains for business and through highly-skilled jobs, but this area also has potential to transform our everyday lives. This delivery plan sets out our programme of activities to improve productivity, competitiveness and effectiveness of both business and the public sector over the next 5 years.

Partnerships

Delivery of our plan is dependent on strong partnerships built and maintained between public sector, academia and industry. This plan has been developed via input from key stakeholders including Central, Local Government and wider public sector agencies, the National Health Service, Edinburgh and Glasgow Universities, Scottish Enterprise, Scotland IS and The Data Lab.

Scotland's Data Opportunity

Scotland is fortunate to have some of the best data in the world, including data about its people, their characteristics, behaviours and requirements; and non-personal data such as climate environment and infrastructure. While public sector and business may make use of this data every day, it is not always used as effectively as it could be – either in terms of how it is collected, managed and distributed, or how it is employed for the purposes of decision making or used innovatively to return value.

There is potential for significant benefit to both the public and private sector in terms of our efficient use of data. A recent study suggests data innovation could potentially benefit Scotland by £20bn¹ by using data better to improving productivity and efficiency of organisations, and attracting new businesses and highly paid jobs to Scotland. This backs up previous work that suggests there are £1bn in public sector efficiencies possible annually through better use of data.

To add...public, private and geospatial opportunity...

¹ Current trajectory inferred from Scottish Enterprise/Optimat analysis of CEBR/SAS report: The Value of Big Data and the Internet of Things to the UK Economy Feb 2016.

Challenges to the Opportunity

To take full advantage of the opportunities around data, our plan must address some of the challenges that prevent its effective use.

We have legislative frameworks, controls and guidance which seek to ensure that, at all times, we treat personal data responsibly. However, too many organisations and decision makers find caution easier than recognising the benefits which can be achieved by using data in a responsible, safe fashion. There is an opportunity to provide guidance and leadership that will transform current practices so that effective use of data is engrained in all of our public services.

Forecasts predict the impact on the basis that businesses embrace the tools, technologies and business models that facilitate their participation in and successful exploitation of the data revolution. Currently some businesses are beginning to do this, but it should not be taken for granted that all, if indeed the majority, are equipped to respond. There are real gaps in the knowledge, skills and capacity of businesses (of all sizes and in all sectors) which may prevent them from responding to this opportunity and competitive threat.

Strategic Alignment

Our plan shall be aligned to the government's overall purpose, strategies and legal commitments already in place with regards to data and innovation, and assist in delivering the ambitions of these strategies.

The Scottish Government's purpose is 'to focus on creating a more successful country with opportunities for all of Scotland to flourish through increased wellbeing, and sustainable and inclusive economic growth.' To achieve this, eleven [National Outcomes](#) have been set that describe the kind of Scotland it aims to create. Relevant outcomes to data and innovation are:

- We have a globally competitive, entrepreneurial, inclusive and sustainable economy
- We are well educated, skilled and able to contribute to society
- We have thriving and innovative businesses, with quality jobs and fair work for everyone
- We live in communities that are inclusive, empowered, resilient and safe

[Realising Scotland's full potential in a digital world: a digital strategy for Scotland](#) sets out a vision for Scotland as a vibrant, inclusive, open and outward looking digital nation. Included in the strategy are commitments to public sector digital transformation following a digital ecosystem approach, but also to manage data in a way that supports businesses, provides new business opportunities and contributes to economic growth.

[Scotland's Economic Strategy](#) sets out the approach to achieve a more productive, cohesive and fairer Scotland, and forms the strategic plan for existing and all future Scottish Government policy. Included in its priorities are on investing in people and infrastructure and fostering a culture of innovation, entrepreneurship and research and development.



Following the lead provided by the Digital Strategy, [Scotland's Digital Health and Care Strategy](#) focuses on how digital and data will be used appropriately and innovatively to help plan and improve health and care services, enable research and economic development, and ultimately improve outcomes.

Open Data Strategy...

The UK Industrial strategy sets out a number of [Grand Challenges](#) to put the UK at the forefront of the industries of the future, ensuring that the UK takes advantage of major global changes, improving people's lives and the country's productivity. One of these aims to embed AI across the UK, creating thousands of good quality jobs and drive economic growth.

Lastly, the UK Government has established a [Geospatial Commission](#) to provide strategic oversight on geospatial data and develop a UK wide geospatial strategy. The 2017 budget provided £40 million a year over the next two years (2018/19 and 2019/20) to support the Commission's work.

Our Vision For Data

We will use Scotland's data to its full potential by driving innovation, improving public services and unlocking economic value - saving time, money and lives.

How We Will Achieve Our Vision

We will deliver our plan for data through the following identified work streams. These work streams have been identified and developed in terms of addressing the challenges to the data opportunity.

Capacity and Capability

We will establish enduring education and capacity building programmes such that data quality, entrepreneurship and innovation can be sustained over the longer term. The aim here is to increase the awareness and understanding of data science by developing and strengthening skills, abilities and resources required to utilise Scotland's data for effective decision making.

Key objectives for this work stream are:

- Increase opportunities for the existing workforce to develop appropriate digital skills
- Increase the data science talent pool through development of programmes for university, secondary and primary levels
- Increase participation and skills opportunity to empower all citizens of Scotland to participate in an open and innovative society

High Quality Data

We will establish best practice collection and management of our data, ensuring that it meets a specified standard of quality, is accessible and reusable. This work stream will also

include adherence to defined standards, enabling the communication and exchange of data between systems and organisations

Key objectives for this work stream are:

- Improve the management, collection and accessibility of our data by setting best practice protocols and adhering to defined standards
- Increase accessibility of resources via a contemporary cloud/digital platforms
- Make more of our data open, focussing on key user needs, and make all of our data more discoverable.

Innovation and Entrepreneurship

We will employ modern, cost effective technologies, process improvements and data innovations to maximise efficiency. We will also create a supportive environment wherein the development and implementation of new data-driven business models are encouraged.

Key objectives for this work stream are:

- Expand and create programmes to allow enterprises to explore possibilities through data innovation (e.g. data accelerator)
- Develop our Scottish Data and Informatics Partnership to drive forward trustworthy research to generate public and economic value

Partnerships, Collaboration and Engagement

This work stream establishes effective cooperation and communication between industry, public sector and academia. Stakeholder buy in and commitment will be critical to the delivery of the plan. We will create and sustain the value of our data through a culture based on trusted partnerships that recognise common needs, aspirations and priorities.

Key objectives for this work stream are:

- Develop in conjunction with industry a world-leading research capability in data science
- Improving the cost benefit of collaborative procurements and projects

Governance, Policy and Legal

We will establish a leadership model which aims to attain political endorsement, strengthen institutional mandates, build a cooperative sharing environment and address current legal issues around how data is managed and its innovative use.

Key objectives for this work stream are:

- Improve the way in which people access Scottish public services online, such that it is safe, secure, and accessible.
- Develop a plan for information governance and ethical use of data in Scotland

Driver Diagram

The following diagram maps current and planned activities that will work to achieve our objectives and overall vision.

[Insert Driver Diagram]

Oversight of the Delivery Plan

Our plan shall undergo continuous monitoring, challenge and review. Work streams will be regularly reviewed to ensure they continue to fit with strategic aims and the delivery of our vision for data.

Annex 1: Tasks

[To be populated from responses spreadsheet]

<i>Workstream</i>	<i>Activity</i>	<i>Who</i>	<i>Links</i>	<i>Timescales</i>