

## Using Design Principles to Deliver Strategy in a New Organisational Structure

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Keywords: Collaboration, Design Authority, Integration, Restructure

The UK Office for National Statistics' (ONS) vision is to be widely respected for informing debate and improving decision-making through high quality, easy to use statistics and analyses on the UK's economy and society. ONS is responsible for the collection, compilation, analysis and dissemination of a range of statistics in line with the UK Code of Practice for Official Statistics. However, like other statistical organisations, ONS faces increasing pressures for more data, available in less time, in more accessible formats, while maintaining high quality standards and coping with an increasingly difficult financial situation. To address these challenges and help the organisation meet these demands, the office instigated the ONS 2012 programme which brought about changes to the way the office functions, including major changes to its internal organisational structure. The programme aimed to reshape ONS to better meet its future challenges. The motivation behind this restructure can be linked back to the original design principles of the ONS Design Authority; for example moving away from a stovepipe model, and designing solutions that can be shared and integrated across ONS. With regard to integration, one of the key organisational changes made was to bring together the Methodology and Information Management directorates to create a new directorate, Strategy and Standards. This directorate brings together the methodologists who specify the statistical methods with the Information Technology (IT) teams that build and maintain the systems, and provides the opportunity for new ways of working. Design Authority principles are also embedded into the aims of the new directorate; for example providing common standards for statistics and statistical systems. At the heart of the new Strategy and Standards directorate is the ONS Strategy, which has been developed by a new Strategy Division. The ONS Strategy sets out the vision for the organisation; what it aspires to and how this will be achieved. The strategy also aligns with IT architectural design and Design Authority principles. One of the key aims of the new directorate is to deliver this strategy, and ONS methodologists and IT experts are working together to achieve this. This paper sets out ONS's experience so far in developing and implementing the strategy in the new organisational structure, plus some key successes and challenges.

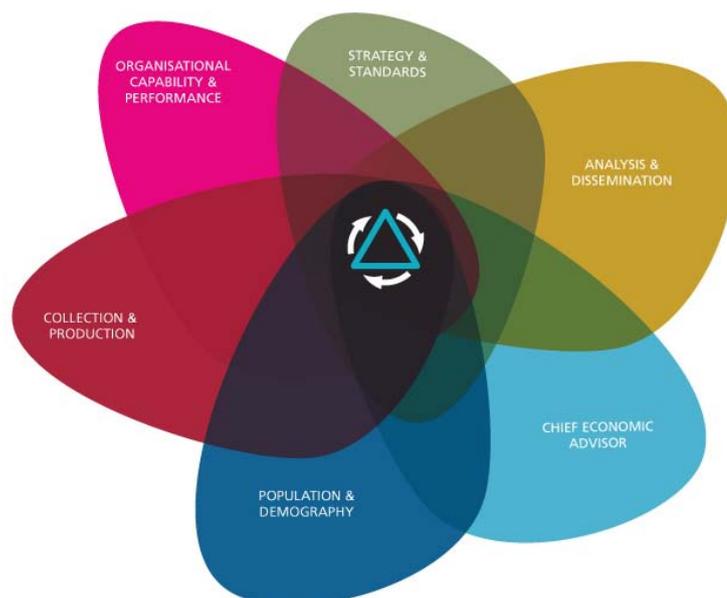
### 1. Introduction

In August 2011, at the 58<sup>th</sup> World Statistics Congress of the International Statistical Institute (ISI), Hannah Finselbach (Finselbach, 2011) presented work being carried out at the Office for National Statistics concerning the creation of a Design Authority. A key part of this work was to set out a Design Charter consisting of strategic principles for systems, processes, tools and methods, which all ONS projects and programmes should align to in order to ensure a fit with the overall strategic statistical model for the office. For example, the Design Charter states that the Design Authority will support solutions that comply with the ONS strategic architecture, and that 'all new solutions must consider how they fit into our long-term, strategic business, methodology, and

Information Technology (IT) plans'. Since then, the internal organisational structure of ONS has changed significantly, but the underlying design principles have not. These principles link to the motivation behind the restructure and the drivers behind the new ONS Strategy. This paper will explain how ONS has moved forward since Finselbach's 2011 paper, and the work that has been carried out in developing and implementing a new strategy in the new organisational structure.

## 2. Restructuring the organisation

ONS is responsible for the collection, compilation, analysis and dissemination of a range of statistics in line with the UK Code of Practice for Official Statistics. However, like other statistical organisations, ONS faces increasing pressures for more data, available in less time, in more accessible formats, while maintaining high quality standards and coping with an increasingly difficult financial situation. At the 58<sup>th</sup> ISI World Statistics Congress in 2011, Stephen Penneck (Penneck, 2011), then Director General of ONS, outlined the challenges facing the organisation, particularly in terms of financial constraints, and how these required ONS to carefully consider its activities and how these are carried out. Later that year the 'ONS 2012: Delivering the Vision' change programme was initiated. The aim of this programme was to address some of the challenges facing ONS, ensure the office could respond better to future demands, and achieve the original ONS vision more rapidly. One of the major elements of the programme was to examine the structure of the office and consider how its activities and functions could best be brought together to achieve ONS's objectives. The motivation behind the restructure can be linked to the original design principles of the ONS Design Authority, for example moving away from a stovepipe model. The new organisational structure was designed to allow better management of risks affecting the office as a whole, and to counteract the tendency to work in silos. The diagram below illustrates the six different directorates in ONS's new organisational structure.



**Figure 1: The ONS Organisational Structure**

### 3. The creation of Strategy and Standards Directorate

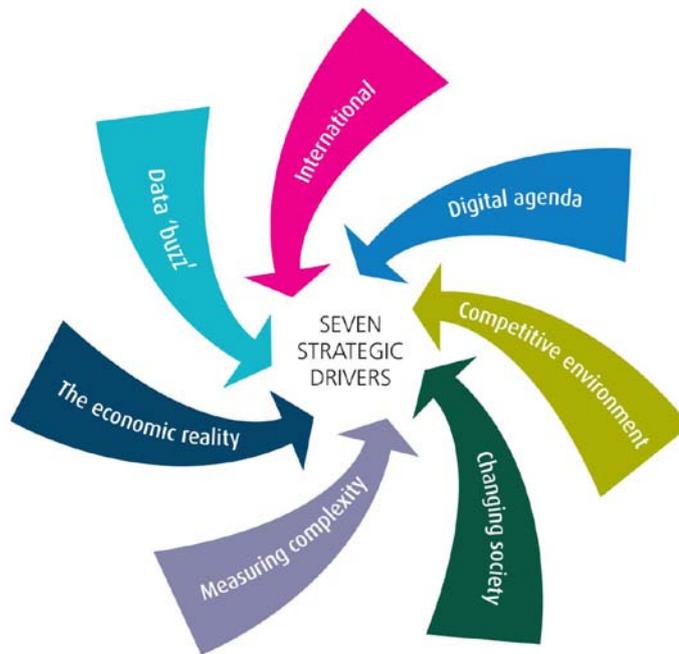
In early 2012 ONS's organisational structure was remodelled as part of the ONS 2012: Delivering the Vision change programme. Strategy and Standards Directorate was created to bring together the methodologists who specify the statistical methods with the IT teams that build and maintain the systems, and provide the opportunity for new ways of working. Bringing together the previous IT and Methodology directorates in this way means that the specification and build stages are not considered as separate activities, but are fully integrated; the outcome being a better understanding of system requirements, and consequently systems that meet the user need at minimum cost.

Most of the teams within the original Methodology and IT directorates moved into the new combined directorate, with some exceptions. For example, the Information Security and Legal Services Division (originally located in the Methodology Directorate) moved into the new Organisational Capability and Performance Directorate as it was felt that the work of this division fitted better within this area, alongside functions such as security and procurement. With the new directorate now in place, Strategy and Standards Directorate has set out its key goals and objectives. These objectives can also be linked to the original Design Authority principles; for example to provide common standards for statistics and statistical systems. One of the key aims of the Strategy and Standards Directorate is to deliver the ONS Strategy.

### 4. Developing the ONS Strategy

Within Strategy and Standards Directorate, the Strategy Division was created to develop and drive forward the ONS Strategy. The ONS Strategy is a ten-year strategy that sets out ONS's mission, vision, values, and strategic aims, and also aligns with other key strategies such as those developed by the UK Statistics Authority, the UK Government Statistical Service, and the European Statistical System. In developing the strategy, the Strategy Division have worked collaboratively with staff across all directorates in ONS. It is important to note that although the Strategy Division led this work, collaboration with other teams was key to the strategy's development, in addition to endorsement from ONS's Executive Leadership Team. The Strategy Division also ensured alignment with IT architectural design and Design Authority principles. The ONS Vision, as set out in the new strategy, is to be widely respected for informing debate and improving decision-making through high quality, easy to use statistics and analyses on the UK's economy and society; the Strategy Division will set out a strategic roadmap detailing what needs to be achieved in order to deliver this vision.

As previously noted, the world is rapidly changing and, like other statistical organisations, ONS faces increasing pressures and expectations. Reflecting these demands, seven strategic drivers behind the ONS Strategy have been identified; these are the longer-term influences that the strategy needed to address. Figure 2 below illustrates the seven strategic drivers:



**Figure 2: The seven strategic drivers behind the ONS Strategy**

These drivers are important in understanding why ONS needed to change; for example, in terms of the digital agenda, customers, users and data suppliers already expect to be able to provide, access and interact with data online and this means that ONS will need to develop the infrastructure, methods, processes and skills to enable this.

To help achieve the ONS Vision, nine strategic aims have been identified. These will guide business planning, prioritisation and investment decisions, and address the changes that ONS needs to make to ensure that the demands of the future can be met. The strategic aims are:

- Inform debate and have greater impact on decision making.
- Dramatically improve the communication of our statistics and analyses.
- Be highly regarded by our customers for producing trustworthy statistics and analyses that anticipate their needs.
- Be at the forefront of integrating and exploiting data from multiple sources.
- Have flexible and efficient processes and systems for statistical production, underpinned by sound methodology.
- Improve quality and minimise the risk of errors.
- Keep the data we hold secure.
- Be a statistical powerhouse at the heart of the Government Statistical Service and the European Statistical System.
- Have skilled and motivated people who are enthusiastic for change.

These nine aims will be taken forward through a number of priority actions. These actions alone, once agreed, will not deliver the ten-year strategy, but they will ensure that ONS sets out in the right direction. Success criteria have also been identified in order to monitor the implementation of the strategy, and to take action if progress is

not being made towards achieving the vision. Ultimately, the aim is to move from an organisation that relies on paper-based surveys, has been inclined to work in silos and can be inward-looking, to an organisation that makes full use of administrative data and online data collection, works collaboratively to deliver high quality products and uses customer engagement to drive continuous improvements. None of this can happen without collaboration between staff across ONS.

## 5. Collaboration between IT and Methodology

One of the first organisational changes within the new Strategy and Standards Directorate was the creation of the Statistical Computing Branch (SCB). The formation of this branch has provided a real opportunity for IT staff and methodologists to work together; SCB brings together both areas of expertise to build robust, efficient and effective statistical systems. The branch has two major roles; firstly, to provide a 'bridge' between business areas and IT developers to facilitate and quality assure statistical system developments, and secondly in terms of programming parts of systems, particularly towards the end of the statistical process. Regarding the latter, a number of these projects are currently underway.

The way SCB operates is unique to ONS. The branch is resourced by using 'nodes', who work for SCB on a part-time basis. Although it is expected that these will be sourced largely from the methodology and IT teams, nodes may come from anywhere across the office depending on the skills required for particular tasks. These nodes are coordinated by a smaller 'hub' of people (who work for SCB full-time) within the Survey Methodology and Statistical Computing Division. This enables the utilisation of knowledge from across the office in the Generic Statistical Business Process Model where it is needed. Work is currently taking place to formalise this method of working, and also develop training for the nodes in order to establish best practice in programming and minimum standards for all such developments.

SCB has established close links with the new Strategy Division, and is working collaboratively with IT staff (for example the SAS development team). SCB also interacts with the Solution Design Centre (SDC), which was traditionally based in the previous IT directorate. SDC fields requests from across the office for new IT work; now that SCB is part of this process, consideration can also be given to any methodological requirements for this work at an early stage.

One of the aims of SCB is to drive forward the ONS Strategy by providing a sound statistical infrastructure for the future of the office. The unique resource model used by the branch also promotes collaborative working across the Strategy and Standards Directorate. Although the branch is currently relatively small, it is intended that the team will expand as it builds on the success experienced so far.

## 6. The next steps

The next major step is to move from strategy to implementation; addressing the issues of 'who', 'where', 'when' and 'how' that is needed in order to meet the identified

strategic aims. As with the development of the strategy itself, this will be a collaborative effort across all ONS directorates, coordinated by the Strategy Division. A strategic roadmap will be developed to show the activities that will need to be completed to achieve success. One of the key principles of the strategic roadmap is that it will drive the investment portfolio for the office, ensuring that investment decisions align with ONS's long-term goals.

## 7. Conclusions

In late 2011, ONS instigated a change programme in order to address increasing challenges and demands facing the office, ensure it could respond better to future demands, and ultimately achieve its original vision more rapidly. A major aspect of this programme involved changes to the internal organisational structure of ONS, including bringing together the previous Methodology and IT directorates into a single directorate. Bringing together two large directorates, across three sites, involving around 500 staff, has inevitably brought some challenges, but has also provided the opportunity for new ways of working and has resulted in some key achievements; for example the introduction of a new Statistical Computing Branch and a Strategy Division. A new ONS Strategy has been developed, setting out the vision for the organisation; what it aspires to and how this will be achieved. This strategy sets out ONS's direction and 'where we want to be' but this is an initial step; further collaborative work is required in order to realise the ONS Vision.

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