Using Enterprise Architecture, Digital transformation and an Agile approach in the transformation of statistical production

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The implementation of an effective digital and technology infrastructure to support the production of Official Statistics is a challenge confronted by most if not all National Statistical Institutions (NSIs). The enterprise architecture embedded in the Generic Statistical Business Process Model should underpin such an infrastructure. The problem faced by NSIs is how to combine the EA, which is a logical construct, with the new approaches to building software applications within a Service Oriented Approach to deliver timely and functional products and services.
This paper will describe the approach to solving this problem developed by ONS, the process followed by the Office in developing this approach and the early experience of its use.

Like many NSIs, ONS has an extensive and expensive estate of computer systems and methods that has developed historically and which in some case is now at or beyond its design lifetime. There is a pressing need to replace this with more effective, efficient and economic systems, that are both fit for purpose and which facilitate the move to online surveys, more extensive use of survey and non survey data sources (administrative data, commercial or other third party data). These new platforms also need to support the development and dissemination not only of the existing range of Official Statistics, but also an increasing range of data publication, experimental statistical publication and data science outcomes.

This is the challenge that confronted us in mid 2015. The paper describes the use of the GSBPM, the Government Digital Service (GDS) product and service model, and Agile project approaches to the development and implementation of new platforms.

It elaborates how this approach was used to develop a platform and product architecture based on the services set out in the GSBPM, the ways in which these are illustrated and combined to provide statistical services covering survey and non survey data collection, statistical data processing, and dissemination. The accompanying and facilitating governance and funding approaches are also described as essential features of a successful programme.
The paper is illustrated with the ways in which we have made progress reporting and design and development progress available across the Office.

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