Corporate Analytics at ONS
What is Corporate Analytics?

Corporate Analytics refers to the skills, technologies and practices for the exploration and investigation of business performance to gain insight and drive decision making.

It focuses on developing new insights and understanding of business performance based on data and analysis.

It enables decisions to be made to ensure the organization is performing to plan.
ONS has faced a number of challenges to build an effective corporate analytics approach, including:

- Limitations of past tools
- Skills and capability of staff
- Lack of integration in corporate data
- Limited scope of previous key performance indicators
- Different professions (i.e. Finance and HR) pulling in different directions
- Lack of a single vision for change
Establishing a Corporate Analytics Vision

The development of a single joint vision was essential to driving change across different areas as it aligned this broad team around who they wanted to become together, and prompted others to raise their hands to help make it happen.

The ONS vision for corporate analytics was to move from a position where corporate data was used to look back at past trends (a descriptive approach) to one which determines which action will produce the most effective outcome in the future (a prescriptive approach).
Corporate Analytics Maturity

**Descriptive**
Analyze past data to report, visualize, and dynamically explore what has already happened.

**Diagnostic**
Mines past data to understand why something has happened.

**Predictive**
Leverages past data to predict what will happen in the future.

**Prescriptive**
Determines which decision and/or action will produce the most effective outcome against a specific set of objectives and constraints.

Value to the organisation:
- Self-service and data prep
- Dynamic dashboards
- Visualisation
- Integrated corporate data sources
- Exploratory data analytics
- Data blending and enriching
- Data stories
- Planning tools
- Simulation
- Regression

Future Developments:
- ONS January 2018

Foundational  Analytical sophistication  Advanced
### Measuring the Right Thing

#### Results Based Accountability

<table>
<thead>
<tr>
<th>EFFORT</th>
<th>QUANTITY</th>
<th>QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>How much did we do? How much service did we deliver?</td>
<td>How well did we do it? How well did we deliver the service?</td>
</tr>
<tr>
<td>EFFECT</td>
<td>Is anyone better off (#)? How much change for the better did we produce?</td>
<td>Is anyone better off (%)? What quality of change for the better did we produce?</td>
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Measuring the Right Things

As NSIs the impact we have is not easy to measure but if we can focus our KPIs on outcomes and results we can try to get to the heart of our value. We recognised it was difficult for us to measure ‘population accountability’, that is accountability for the well-being of a whole population (as this is bigger than one organisation and removed from the direct line of sight of ONS), however it should be possible to measure ‘performance accountability’ that is the impact of ONS (or other statistical organisations) on the well-being of the client population (those who receive the service and benefit from ONS outputs).
Using Modern Tools and Techniques

We identified **new tools needed to drive improvement** and acquired Alteryx for data processing and Tableau for visualisation.

Both tools have enabled us to fundamentally transform the way our corporate analytics work, creating efficiencies through the automation of processes and allowing staff time to be dedicated to value added work, providing analysis and insight.
Corporate Analytics Tools

**Changing customer expectations** - decision makers expect Corporate Services professionals to dig deeper into what’s happening across the organisations to use data to **optimise** the business and **drive innovation**. This change in demand is reflective of changing expectations across the wider government and private sector landscape.

- **Cost savings** - Operational cost savings within the Finance function; and a changing shape for the Finance workforce. Fewer administrative roles; greater numbers of mid-level professional and analytical roles.

- **Value for money** – relatively low costs to implement with immediate and considerable benefits.

- **People engagement** – research tells us that millennials do not want to be Excel junkies! Our future workforce expects to have access to best-in-class visual and analytical tools; while our existing workforce want better tools to perform their roles.
Conclusions

We have come a long way in two years, but are only just starting to realise the value of improvement.

While what we have achieved so far is good progress, we understand that people and cultural changes will need to follow to further our improvement in this area.

As we continue to build a collaborative community of analysts who understand organisational performance and can provide insight across different areas and data sets, we will further accelerate our maturity and enable the organisation to take effective and timely business decisions.
Questions...?