

Using “Value Engineering” tools to risk assess ONS survey outputs

James Searle
Continuous Improvement Zone
ONS, UK
James.searle@ons.gsi.gov.uk

Problem & goal statements

The problem

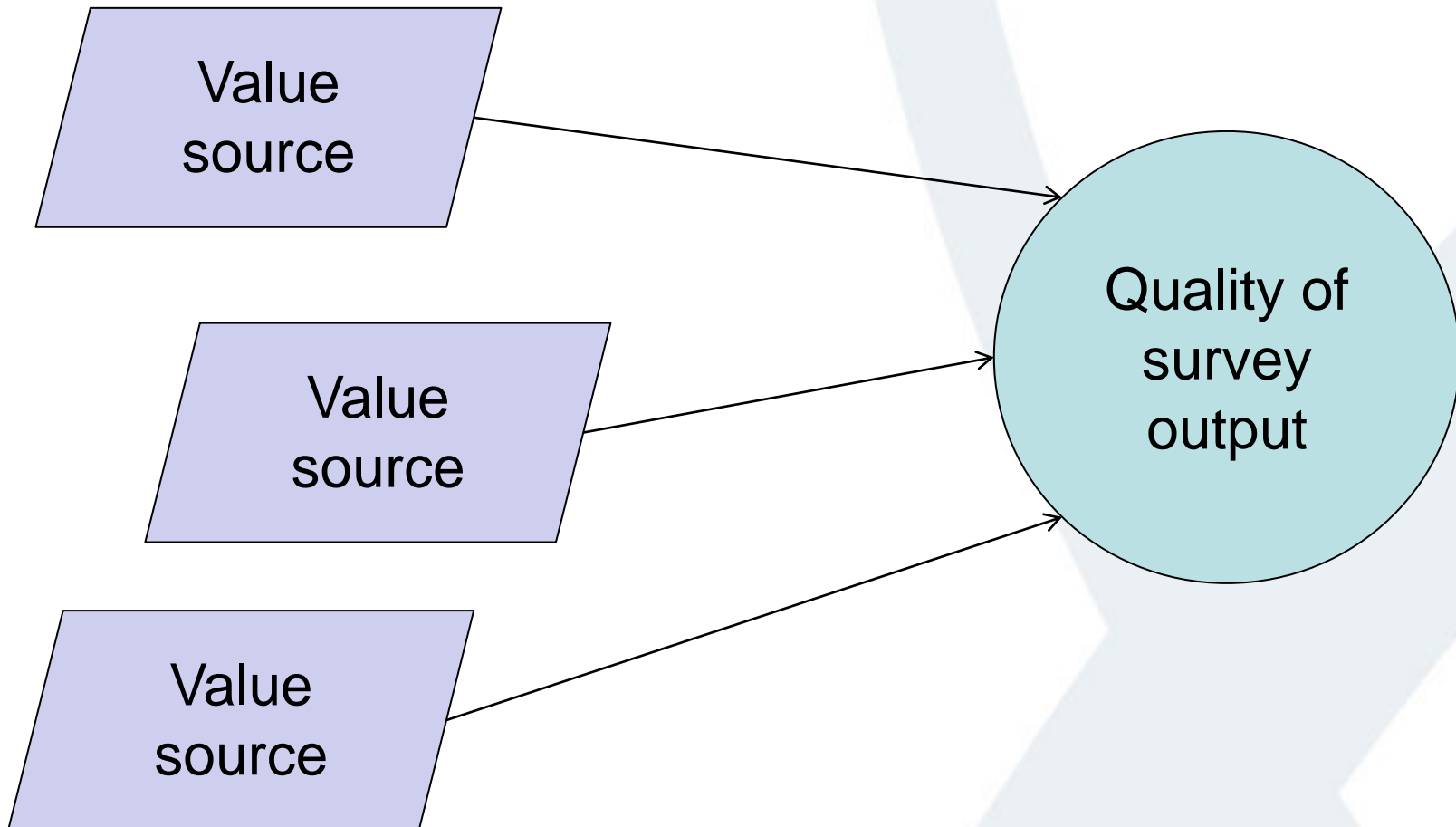
- No consistent means of assessing the risks of our statistical outputs in a standardised way
- Need a strategic approach to be taken to prioritise improvements

Goal Statement

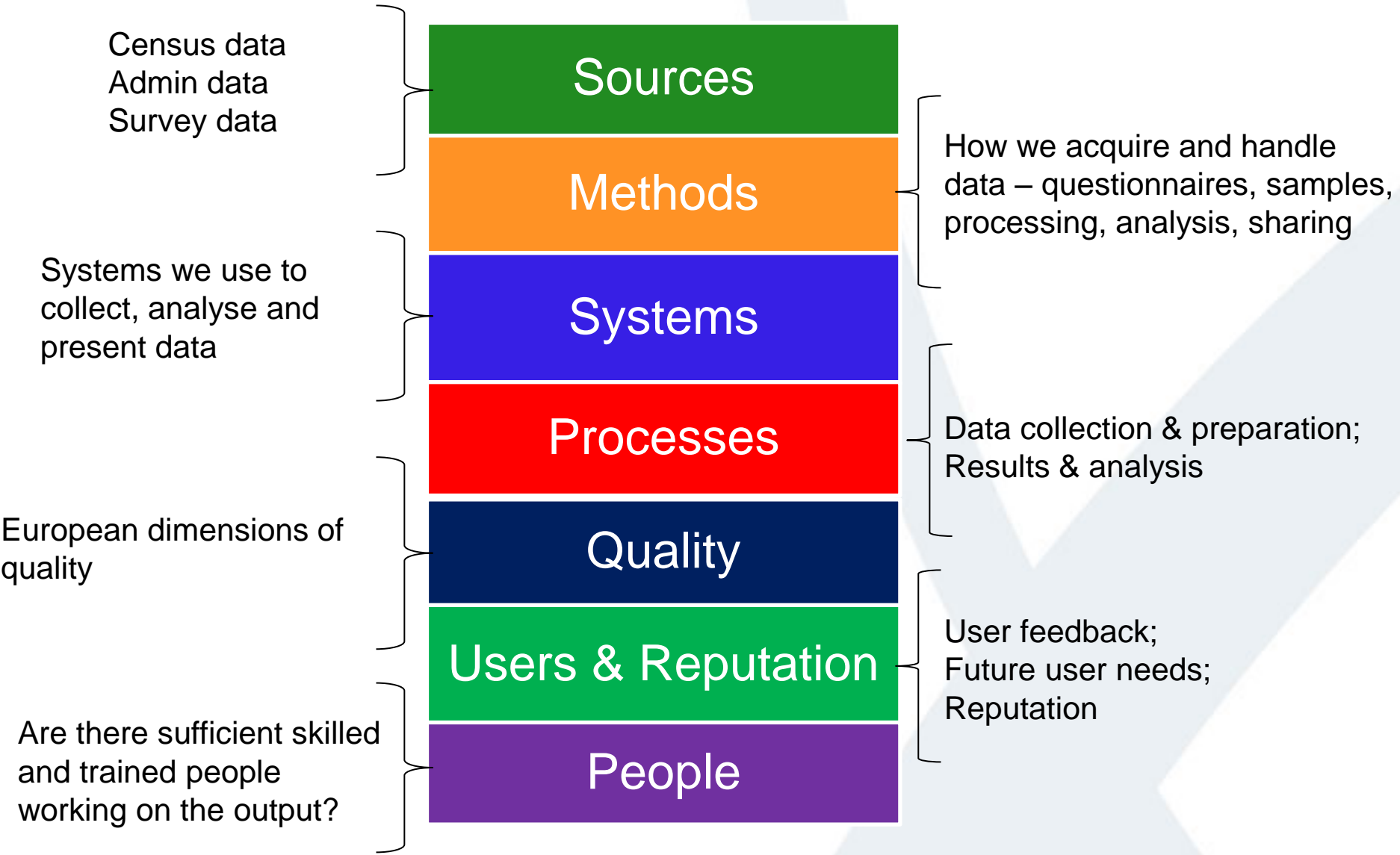
To develop a risk assessment methodology and deliver a scored risk assessment of ONS statistical outputs by the end of 2012.

Value Engineering

Understanding the sources of value in a product



Dimensions of output risks



Process for first implementation

Template reviewed and piloted

Risks self assessed by output managers

Scores are assured by Deputy Directors,
data collection areas and Methodologists

Importance weights reviewed by Directors

Challenges responded to by output
managers/DDs

Scoring process

No issues or N/A	0	N/A
Some improvements possible	3	Comments
In need of attention	9	Comments

Output	Systems			Summary score
A	Sub 1	Sub 2	Sub 3	9

Output	Sources	Methods	Systems	Processes	Quality	Users & Reputatio	People	Summary score	Weighting	Composite score
A	0	3	9	3	3	0	0	18	3	54

Deputy Directors weight the importance of each output

- Low = 1
- Med = 2
- High = 3



Overall assessment

We present a range of findings, starting with the top level measure of Red/Amber/Green (RAG) scores:

	2014	2013	2012
% Red	17.0	18.7	21.4
% Amber	51.9	48.1	32.0
% Green	31.0	33.2	46.6

Baseline measure of ‘% red overall’ used as a Key Performance Indicator in ONS business planning

Highest scoring outputs

We identify and highlight the highest scoring outputs each year.

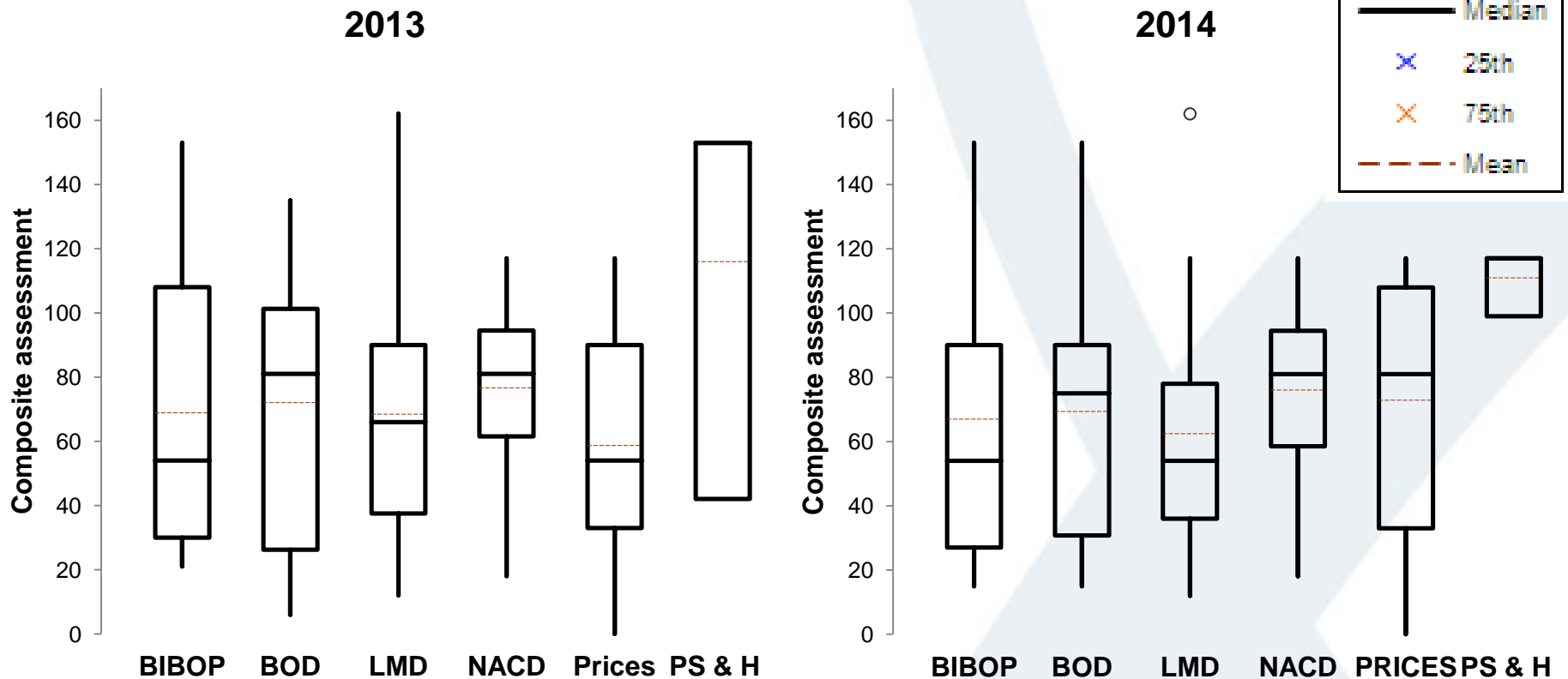
Reasons for movements over the year are analysed to identify existing mitigating actions and help identify what still needs to be addressed

Division	Output	2014	2014 Rank	2013 Rank
LMD	Claimant Count	162	1	2
BIBOP	Business investment-provisional results (first release)	153	2=	3=
BIBOP	Business investment-revised results (first release)	153	2=	3=
BIBOP	Capital stocks, capital consumption	153	2=	3=
BOD	UK trade (first release)	153	2=	10=
BIBOP	UK Balance sheets	144	6	8=
SSD	EU-SILC	135	7	1
BOD	Annual Business Survey	117	8=	10=
LMD	Labour Force Survey Results	117	8=	12=
NACD	Input - Output - Supply & use tables for the United Kingdom	117	8=	12=
PRICES	Index of Private Housing Rental Prices	117	8=	21=
PS & H	Public Sector Finances (First Release) and related data and tables	117	8=	3=

Analyse - Boxplots

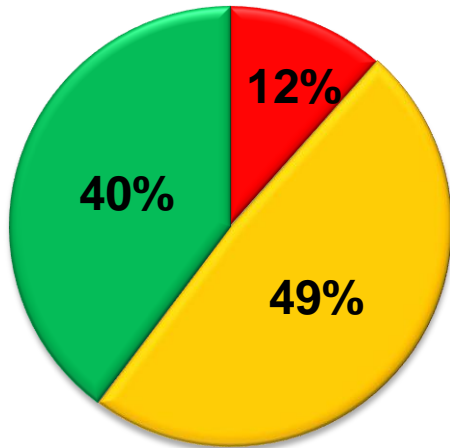
We use box plots to:

- Understand how risks are distributed across divisions
- Identify year-on-year changes
- Spot outliers so they can be reviewed

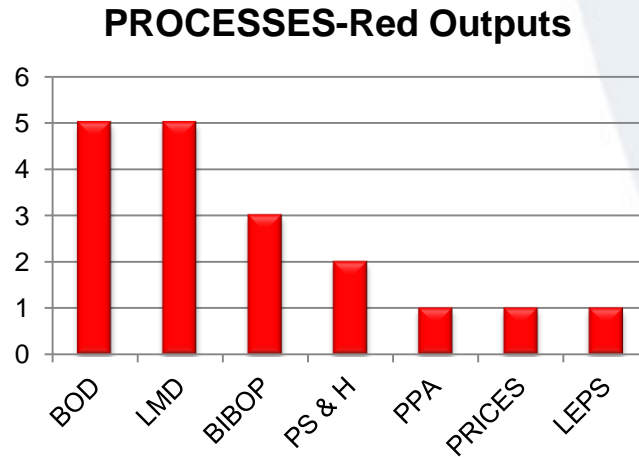


Findings by Dimensions

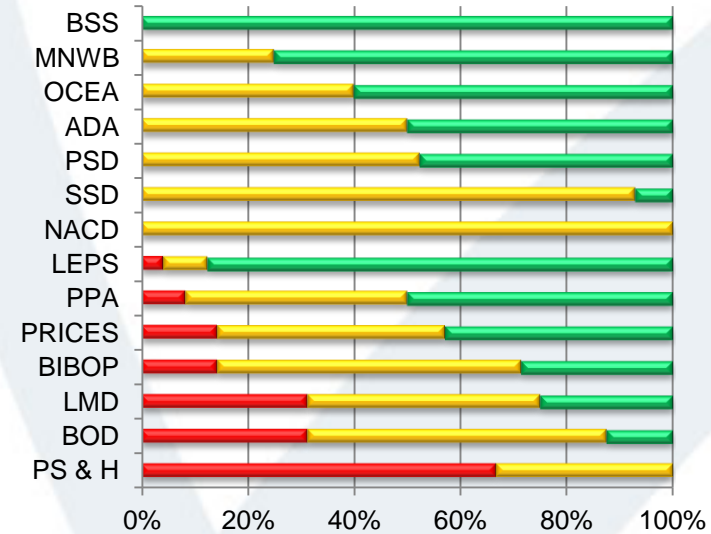
We also break our findings down by dimension to present them in more detail:



Percentage of outputs scoring RAG by category



Number of red outputs by Division for this category



Percentage of RAG outputs for each Division for this category

Use of analysis to date

Feeds into the Regular Quality Reviews led by our Quality Team

Helps the Quality Team prioritise their work

Presented to ONS-wide and divisional boards

Used by divisions for business planning and risk management

Conclusion

- Value Engineering is a useful tool in the risk assessment of ONS outputs
- It plays an important role supporting the Quality Team
- Should be used as part of a wider range of risk & quality assessment tools

Questions

