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The Statistical Training Framework

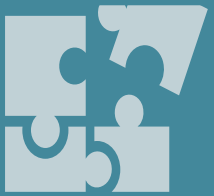
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Content



What is the CSO's Statistical Training Framework?



How does it work in practice?



Impact of COVID-19





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What is the CSO's Statistical Training Framework?

Summary of the Statistical Training Framework

The Central Statistics Office (CSO) has developed a Statistical Training Framework with input from the UNHLG Developing Organisational Capability, the University of Southampton and the University of Manchester.

Framework designed in line with GSBPM model



For each role within a Statistical Organisation



The CSO's Statistical Training Framework

1. Design Statistical training model in-house in line with GSBPM

2. Internal working group setup, identify **13 Statistical High Level Headings**

5. **Training Interventions**
Identified – aligned to the 70:20:10 Model

4. **Skills Register and Role Specification mapping** – skills gaps identified, learning paths can be formulated from these.

3. Descriptors for each statistical skill heading with requirements set out as **introductory, foundation, primary, intermediate and advanced**



STATISTICAL TRAINING FRAMEWORK

GSBPM								
Specify Needs	Design	Build	Collect	Process	Analyse	Disseminate	Evaluate	TOPICS
								1. Register Management
								2. Sample and Estimation
								3. Survey and Questionnaire Design
								4. Imputation and non-response
								5. Statistical Data Editing
								6. Evaluating user statistical needs
								7. Index Numbers
								8. Regression
								9. Time Series Analysis and Seasonal Adjustment
								10. Statistical Disclosure control
								11. Visualisation and Presentation of Data
								12. Data Matching, Integration and Administrative Data
								13. National Accounts



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How does it work in practice?

The Statistical Training Framework in Practice

Statistical Role Specification Form

- The Head of Division (HOD), in conjunction with the current role holder, develops the statistical skill requirements for the role

Skills Register

- Updated with new 13 Statistical Skills & 6 levels and is completed by the role holder

Skills Gap Analysis






























































































The Statistical Role Specification Form (requirement) is compared with the Skills Register (available skills) and skills gaps are identified.

Statistical Skills Matrix

- HOD receives a statistical skills matrix summarising the gap analysis for the division. They review the matrix and identify training priorities for the next 12 months

Statistical Training Requirements – Learning Paths

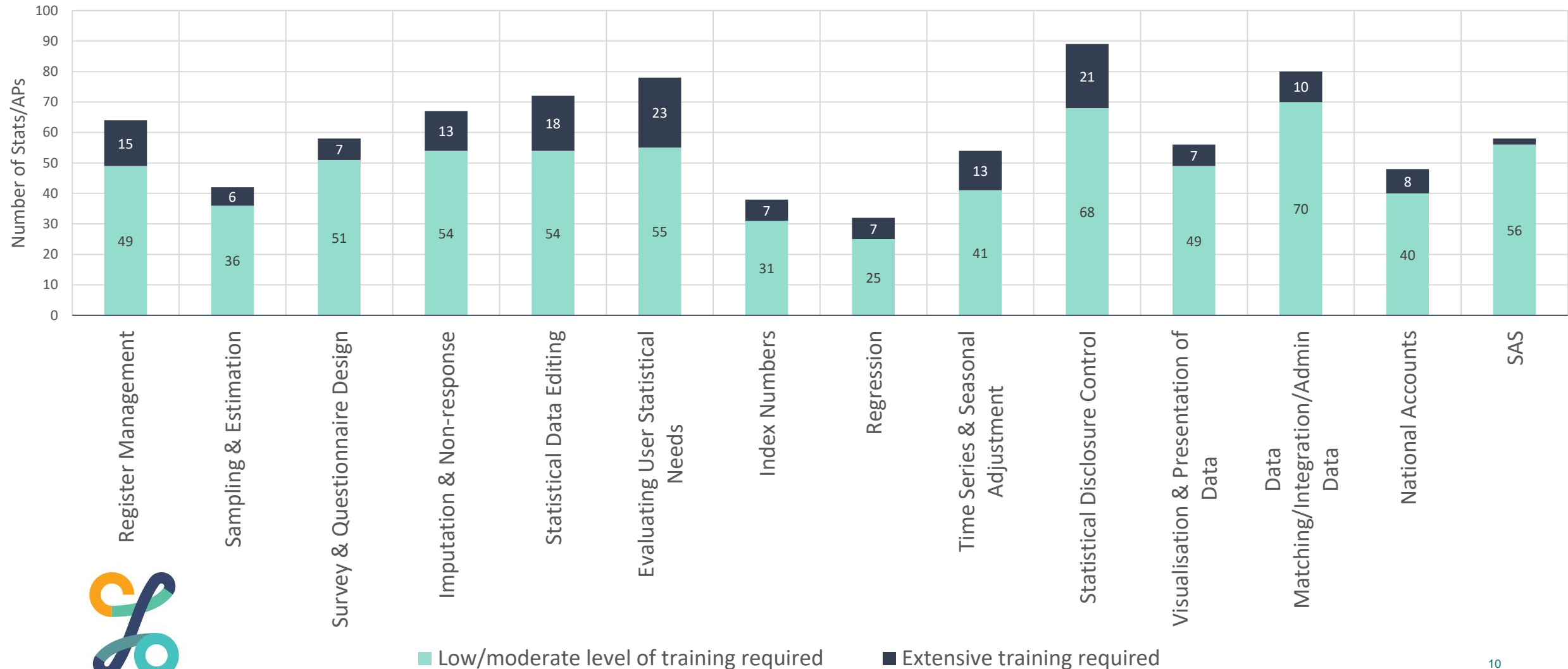
- Statistical Training requirements are included in the role holders Performance Management Development System (PMDS) form.

Head of Division		Division				STATISTICAL SKILLS COMPETENCY MATRIX									
John Browne		Geographical Statistics													
LEGEND→															
	Above or at the required skill level			Required to move up one skill level			Required to move up two skill levels			Required to move up 3 skill levels			Required to move up 4 skill levels or more		
TRAINING→													Created on:	Reviewed on:	Next Review:
	Training not required			Training GAP identified			Training prioritised			Training complete			04/12/2019	12/12/2019	
STAFF NAME AND ROLE CODE ↓	SKILL →	Register Management		Survey & Questionnaire Design	Imputation & Non Response	Statistical Data Editing	Evaluating User Statistical Needs	Index Numbers	Regression	Time Series Analysis & Seasonal Adjustment	Statistical Disclosure Control	Visualisation & Presentation of Data	Data Matching, Integration & Administrative Data	National Accounts	SAS
	SKILL LEVEL ↓	Sampling & Estimation													
Mary	Current	Primary	Foundation	Primary	Foundation	Introductory	Introductory	Introductory	Introductory	Introductory	Intermediate	Primary	Intermediate	Introductory	Advanced
Browne	Required	Foundation	Foundation	None	Foundation	Intermediate	Intermediate	Introductory	Introductory	None	Intermediate	Intermediate	Advanced	None	Advanced
1234	GAP														
	Training														
John	Current	Introductory	Introductory	Introductory	Introductory	Foundation	Primary	None	Foundation	Introductory	Introductory	Intermediate	Intermediate	Introductory	Intermediate
White	Required	Primary	None	Introductory	Foundation	Primary	Intermediate	None	Introductory	Intermediate	Intermediate	Intermediate	Intermediate	None	Intermediate
1234	GAP														
	Training														
Jim	Current	None	Introductory	None	None	Introductory	Foundation	Foundation	None	None	Foundation	Foundation	None	None	Primary
Hayes	Required	Primary	Intermediate	Foundation	Intermediate	Primary	Intermediate	None	None	Introductory	Primary	Intermediate	Advanced	None	Intermediate
1234	GAP														
	Training														

Gap Analysis – Statistical Skills Competency Matrix

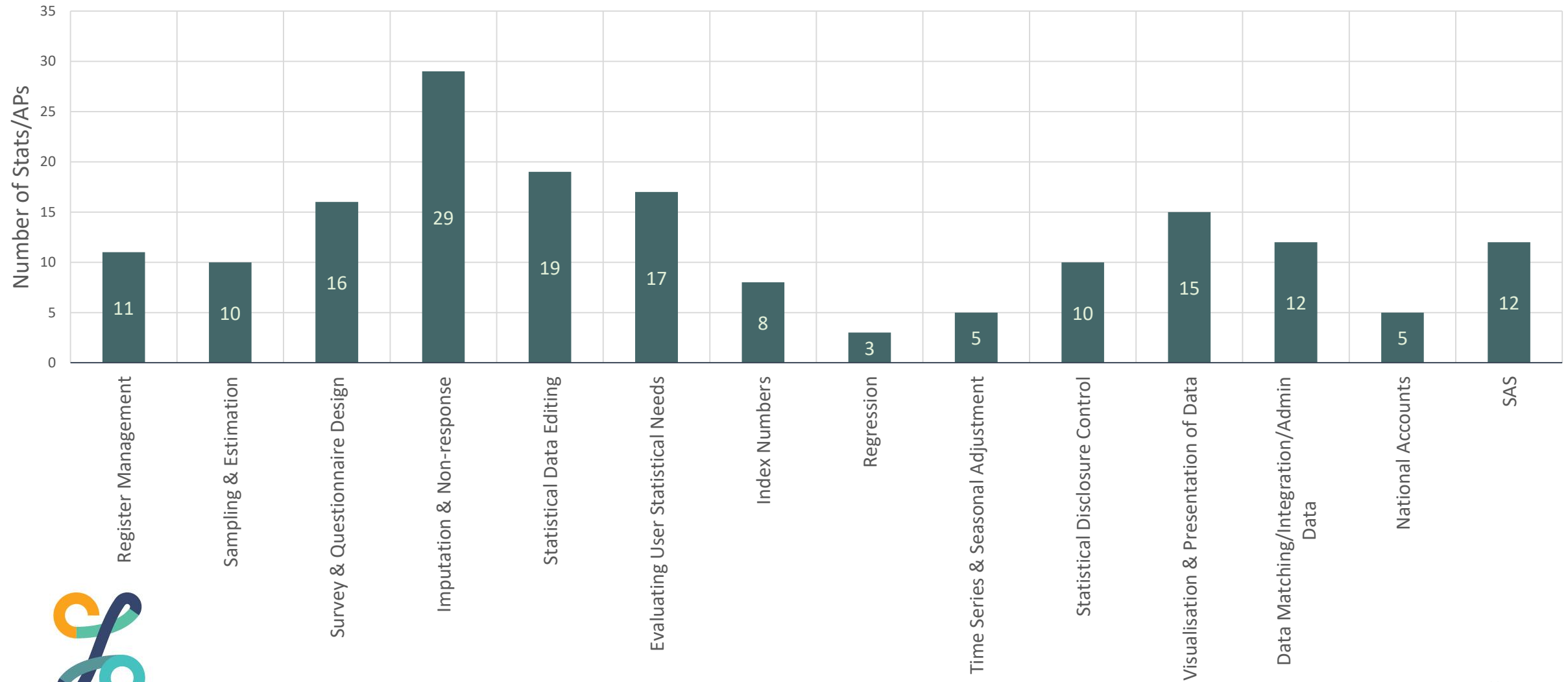
Skills Gap Analysis for the CSO

Results of the GAP Analysis by statistical skill



Training Priorities for 2020

2020 Priorities set by HODs by statistical skill

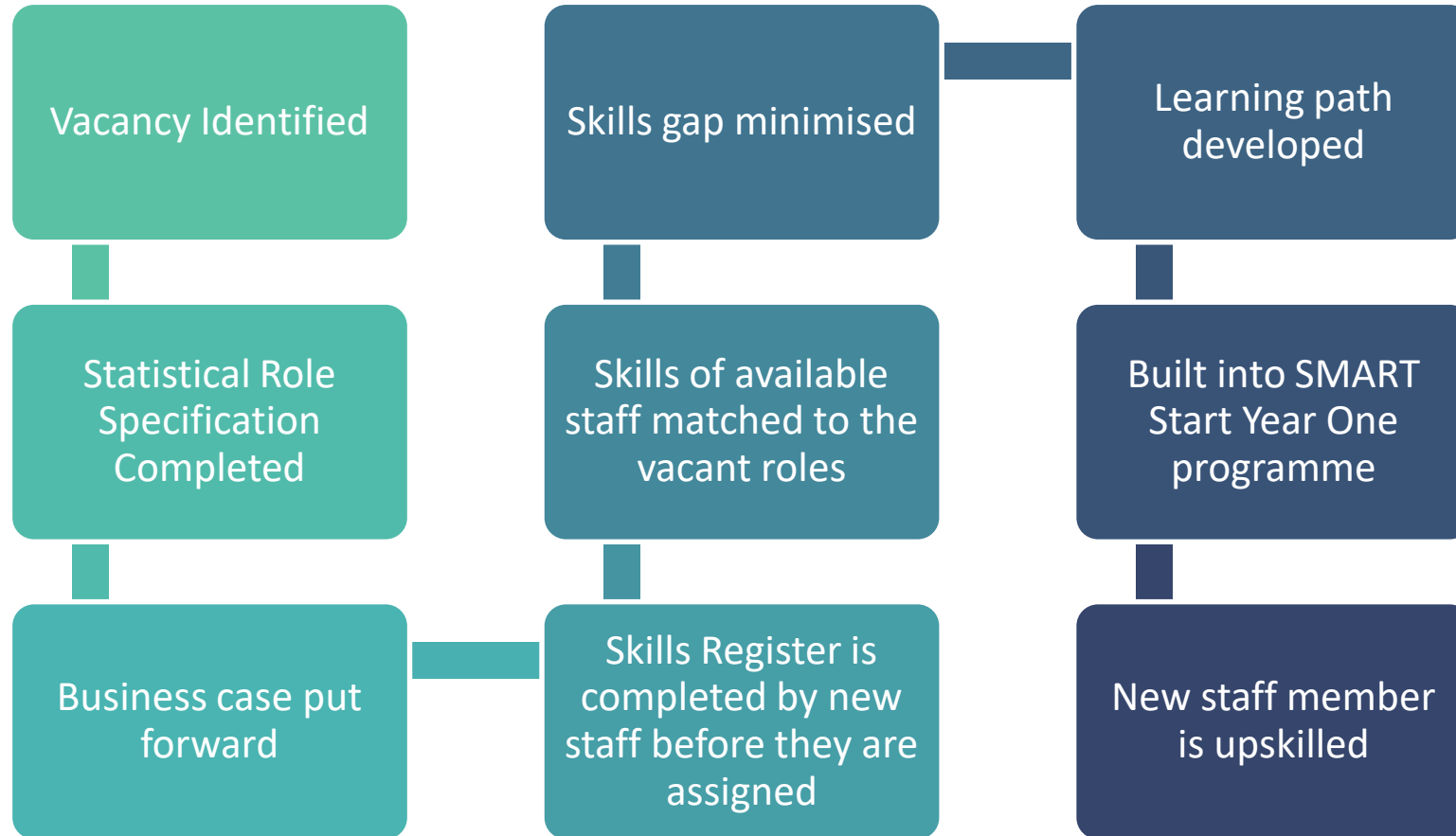


Statistical Training Interventions: Learning Paths

- Catalogue of statistical training interventions
 - For example: European Statistical Training Programme, European Masters in Official Statistics
- In-house training programmes
 - For example: Fundamentals of Statistics, Financial Derivatives
- Harnessing in-house expertise
 - Skills register to identify expertise
- Communities of Practice
 - Build more COPs across the office with a focus on the 13 statistical skills in the Statistical Training Framework



Statistical Training Framework - new staff members





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Impact of COVID-19



Impact of COVID-19

What Happened?

- Data collection in the field ceased
- Surveys were put on hold
- Methodologies, data sources and technologies changed
- Face-to-Face learning ceased
- Priority => maintaining key outputs under extraordinary conditions
- Resources were redeployed to deal with the crisis

How did the Statistical Training Framework respond?

- Reassessment of training priorities for 2020
- Skills Register was used to identify expertise
- Move to virtual delivery of training courses
- Development of relationships with other NSI's which allowed the sharing of expertise across international boundaries
- Look to the future with a focus on new and emerging data sources and technologies



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Any questions?