OTTAWA 2023

64TH WORLD STATISTICS CONGRESS

Session 331

The Future Official Statistician

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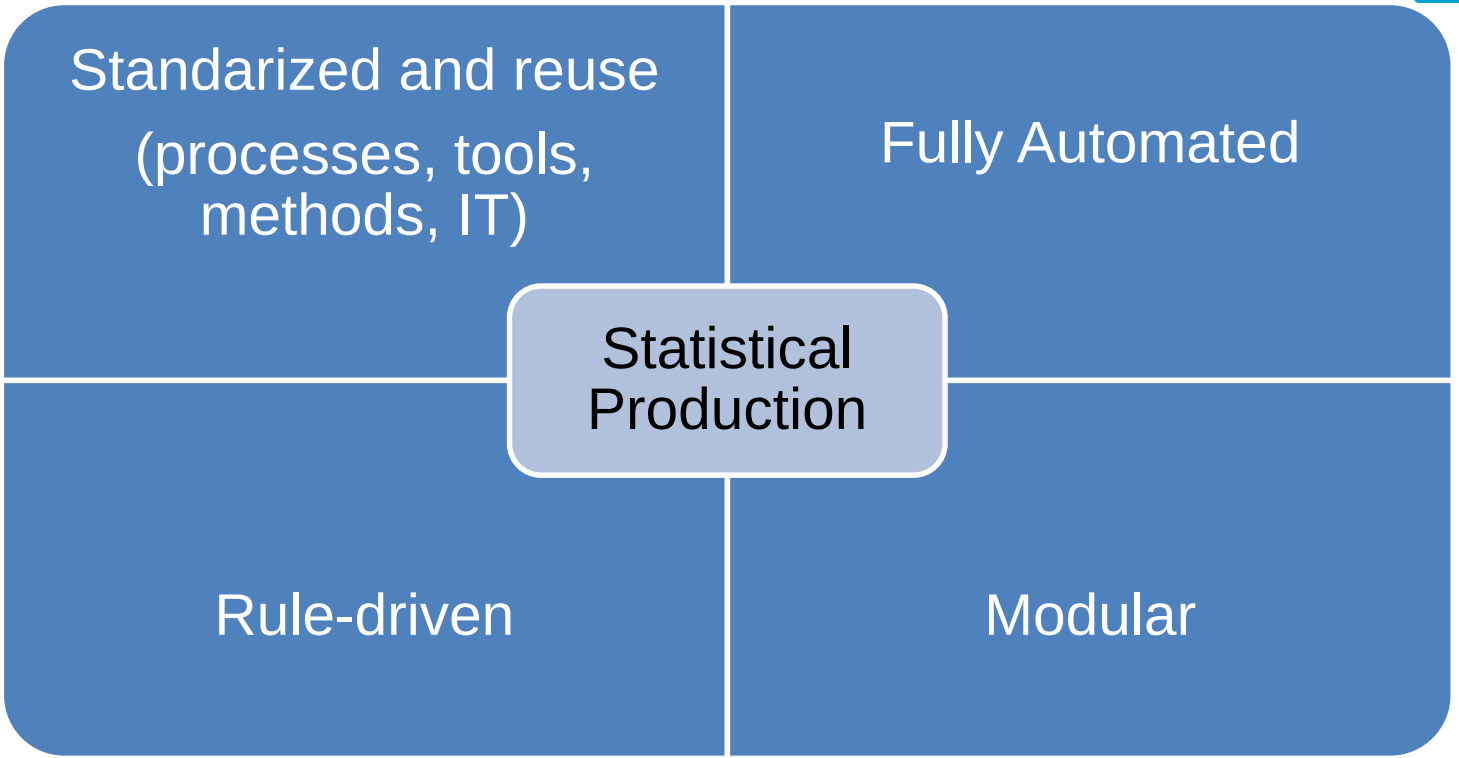
Statistics Netherlands
18 July 16:00

Contents

- Modernization at Stats NL
- Competencies for statisticians and CBS Academy
- The role of computing

Modernization programmes at CBS

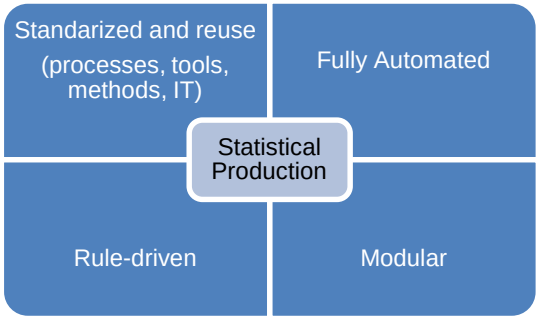


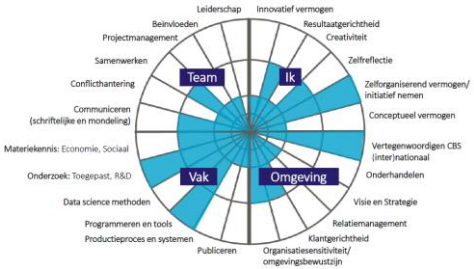
CBS Academy

- Curriculum
  - **Hard skills**
  - Personal skills
  - Organization development
  - Management development

EUR **1.2 MM**
5.5 FTE
120 activities/year
70+ internal teachers
50+ internal courses

Who will work with us, and what will they do?





Hard skills for the future statistician

Competences of statisticians

Domain Knowledge and Policies

- IB01 Local (CBS) Policies
- IB02 National Policies
- IB03 International Policies
- IB04 Execute Statistical Production
- IB05 Execute Statistical Research

Processes and Architecture

- PA01 Analysing existing statistical production processes
- PA02 Develop new statistical production processes
- PA03 Continuous improvement

Methods and Automation

- MA01 Selecting methods
- MA02 Automate data processing
- MA03 Develop new methods
- MA04 Implement new methods

Fiche for each competence

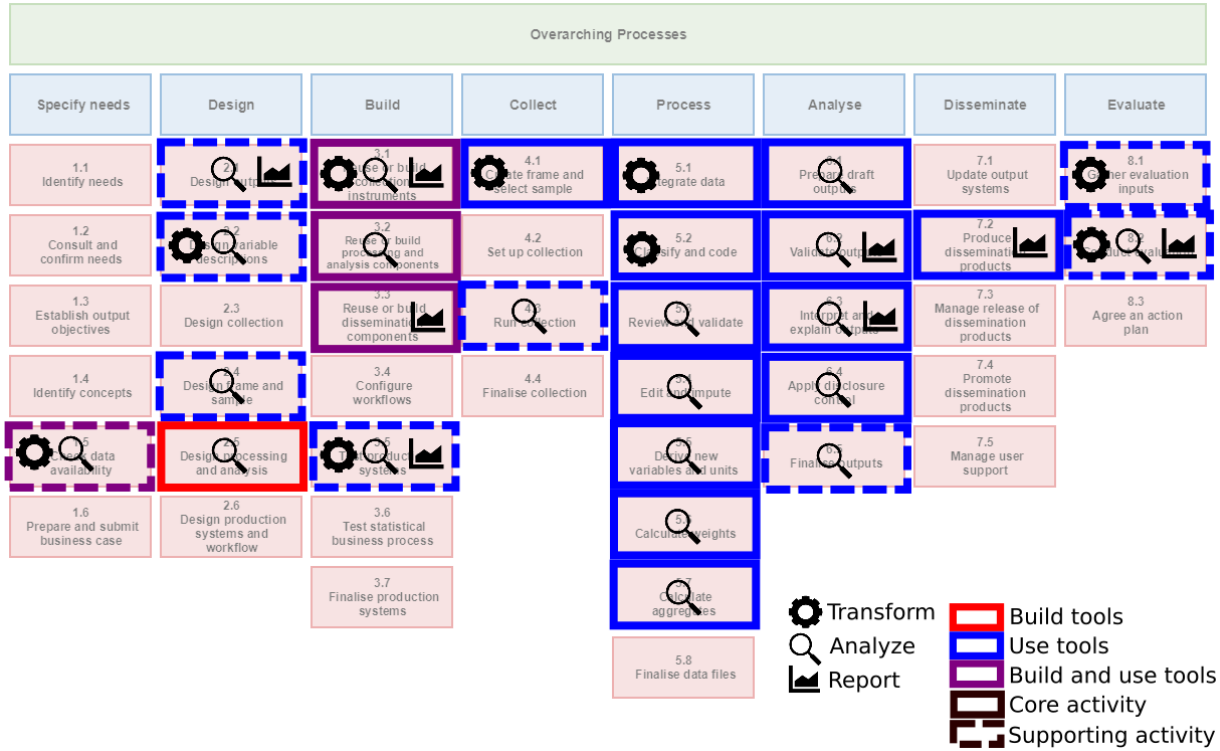
IB04 Carrying out Statistical production	
The ability to routinely process data using existing tools, methods, and processes	
Skills	**Knowledge**
Assessing the quality of data at different stages of processing based on substantive knowledge and formal criteria. Express content knowledge in terms of formal validation and processing rules. Version control on rules. Recognize abnormal (input) data conditions. Interactive statistical data exploration. Keeping content knowledge up to date. Monitoring and adjusting automated and rule-driven processing systems. Archiving and delivery of statistical products. Management of the relevant population(s).	Sound and recent substantive knowledge of the relevant statistical domain. General statistics, and tooling for that, methods for measuring and improving data quality from raw data to statistical products. Estimation Methods. Assumptions made when setting up the system and the methods chosen. Quality requirements per interface. The layout in rest points and process steps performed (according to KERS/EBN2.x). Data management, metadata, and data governance. Sharing data. National and international quality requirements and standards (such as code lists and other classifications). Syntax for rule control. Version control. Understanding of generating process for raw data (primary, secondary, ...).
Ref:	
GSBPM	5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 6.1, 6.2, 6.3, 6.4, 6.5
ESCO	Using Data Processing Techniques, Inspecting Data, Visual Presentation Techniques, Programming in Scripting Language
OL	Subject knowledge: economics, social; Production systems and security
Example: A statistician notices that payments are too high this month because the automatic quality control gives an error. Due to a special circumstance, benefit recipients received a one-off extra benefit. The statistician adjusts the relevant control rules for this production period in the rule management system.	

New Internal Courses

Law for non-lawyers	CBS law	Introduction to process analyses
Performant SQL	Enterprise Architecture	Data-analysis with Python
Software Quality	Datamodels and databases	Earth Observation Data
Quality management	SDMX	Economics For statisticians

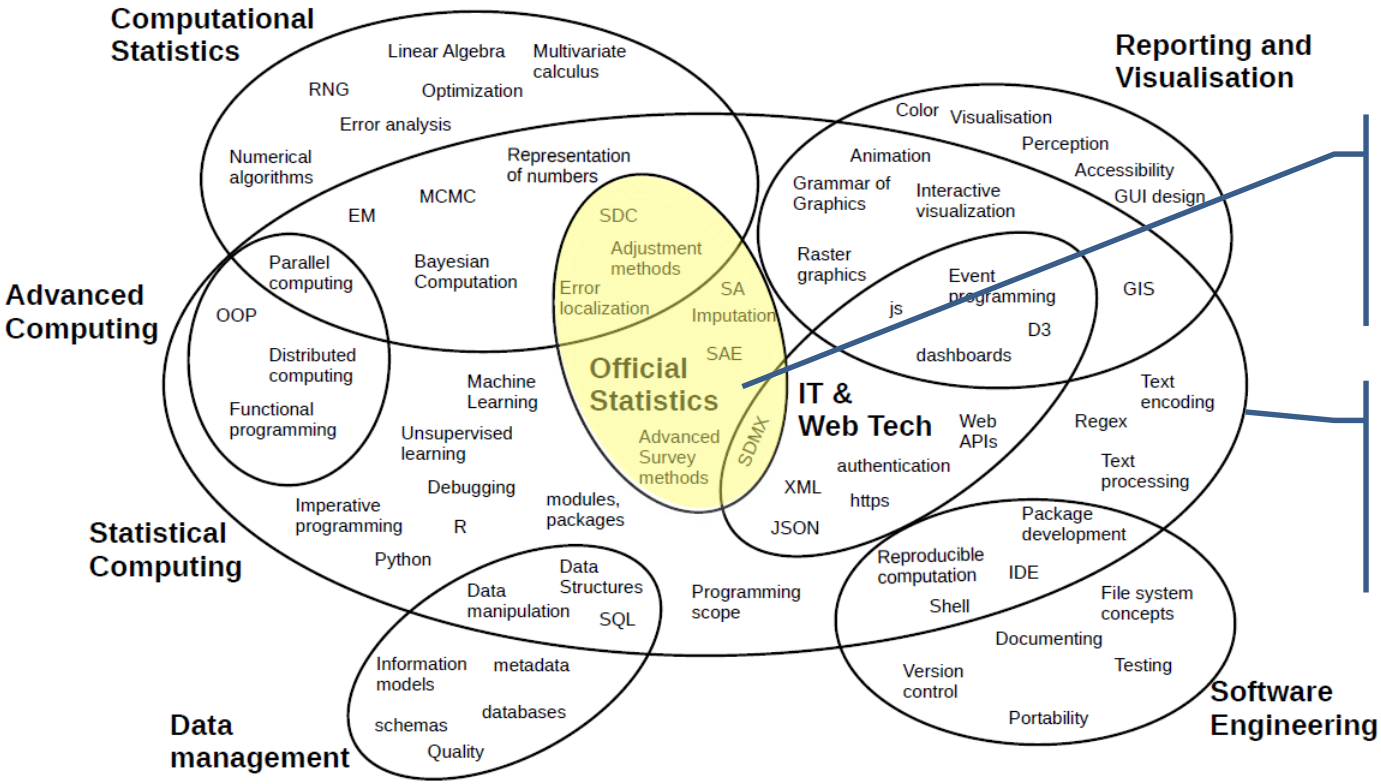
Competence: the ability to use the right knowledge and skills to perform a task.
Skill: an action that one can perform routinely, without thinking too deeply about it.
Knowledge: the totality of things that a person knows about a particular subject

Computing in the statistical office



Van der Loo, MPJ (2021) Computing in the Statistical Office. Statistical Journal of the IAOS 37 (2021) 1023–1036

Computational skills & where to colaborate



Colaboration for research

Colaboration for education

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Summary

- Modernization drives educational programme at statistics Netherlands
- Created a vision of hard skills for statisticians
- Computational skills are needed accross the office; for production *and* operations.
- Colaboration opportunities with academia for research & education are complementary.

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THANK YOU.