



Better Statistics by Design

Fast track testing and experimentation of Common Statistical Production and Information Architecture

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Outline of Presentation

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- **Context**
- **Unbalanced versus common statistical production architecture**
- **Benefits of integrated statistics programme**
- **Integrated statistics approach**
- **GSBPM: statistical production process**
- **Centralised statistical services**
- **Common statistical production and information architecture**
- **Integrated statistics programme**
- **Way forward**



Context

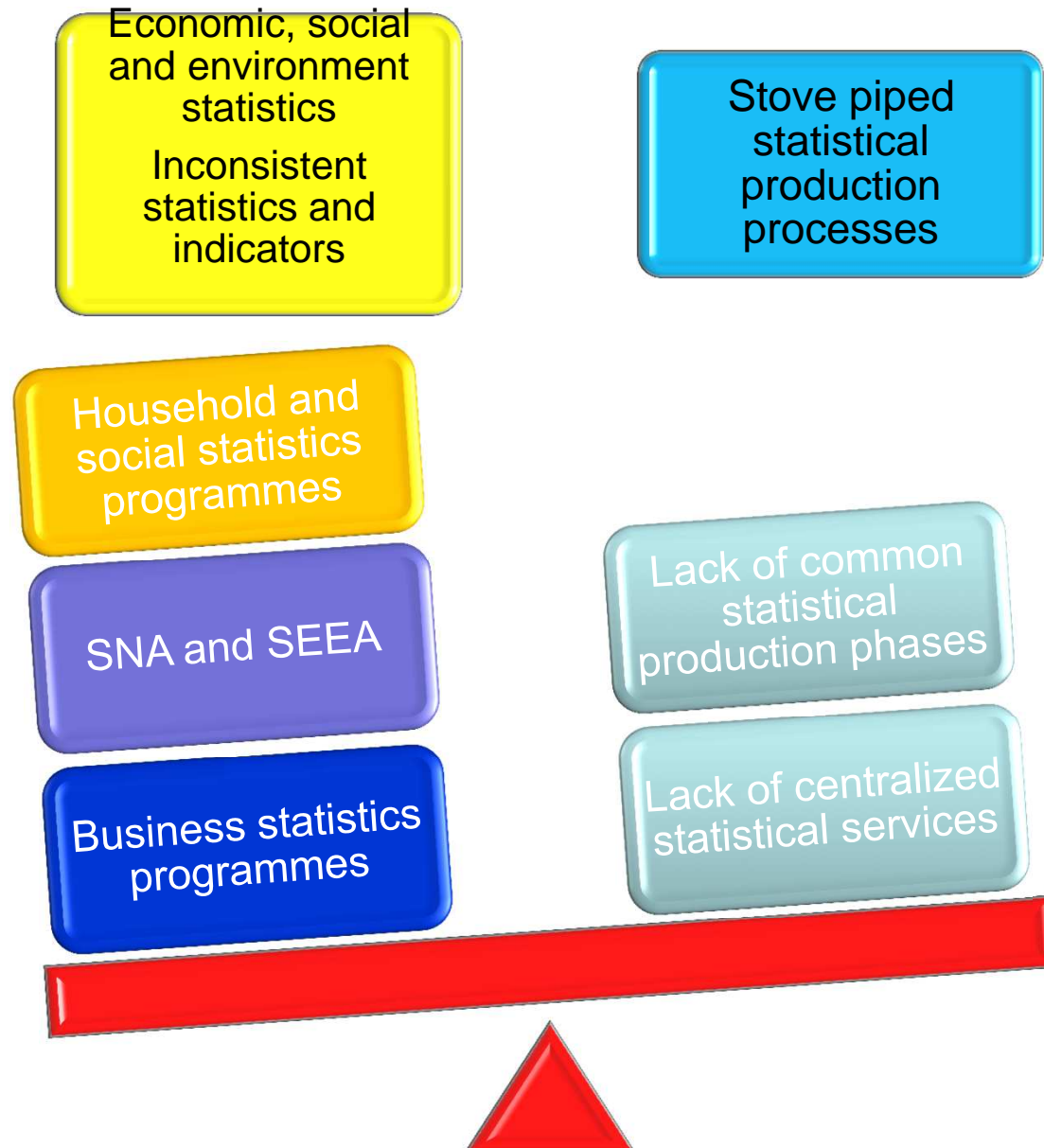
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- Open Working Group on SDG
- United Nations Statistical Commission
 - International Standards for Official Statistics
 - **UN Fundamental Principles of Official Statistics**
 - **National Quality Assurance Framework**
 - Integrated Economic, Environment and Social Statistics
 - **2008 System of National Accounts**
 - **2012 System of Economic and Environmental Accounts**
 - **2012 Guidelines on Integrated Economic Statistics**
 - Statistical Capacity Development programmes
 - **Integrated Statistics Programme (ISP) based on shared Common Business and Information Architecture**
- **Generic Statistical Business Process Model (GSBPM)** provides internationally agreed description of statistical production processes
- Fully aligned with **Generic Statistical Information Model (GSIM)** and provides a basis for the implementation of the **Common Statistical Production Architecture (CSPA)**.



Unbalanced statistical production architecture

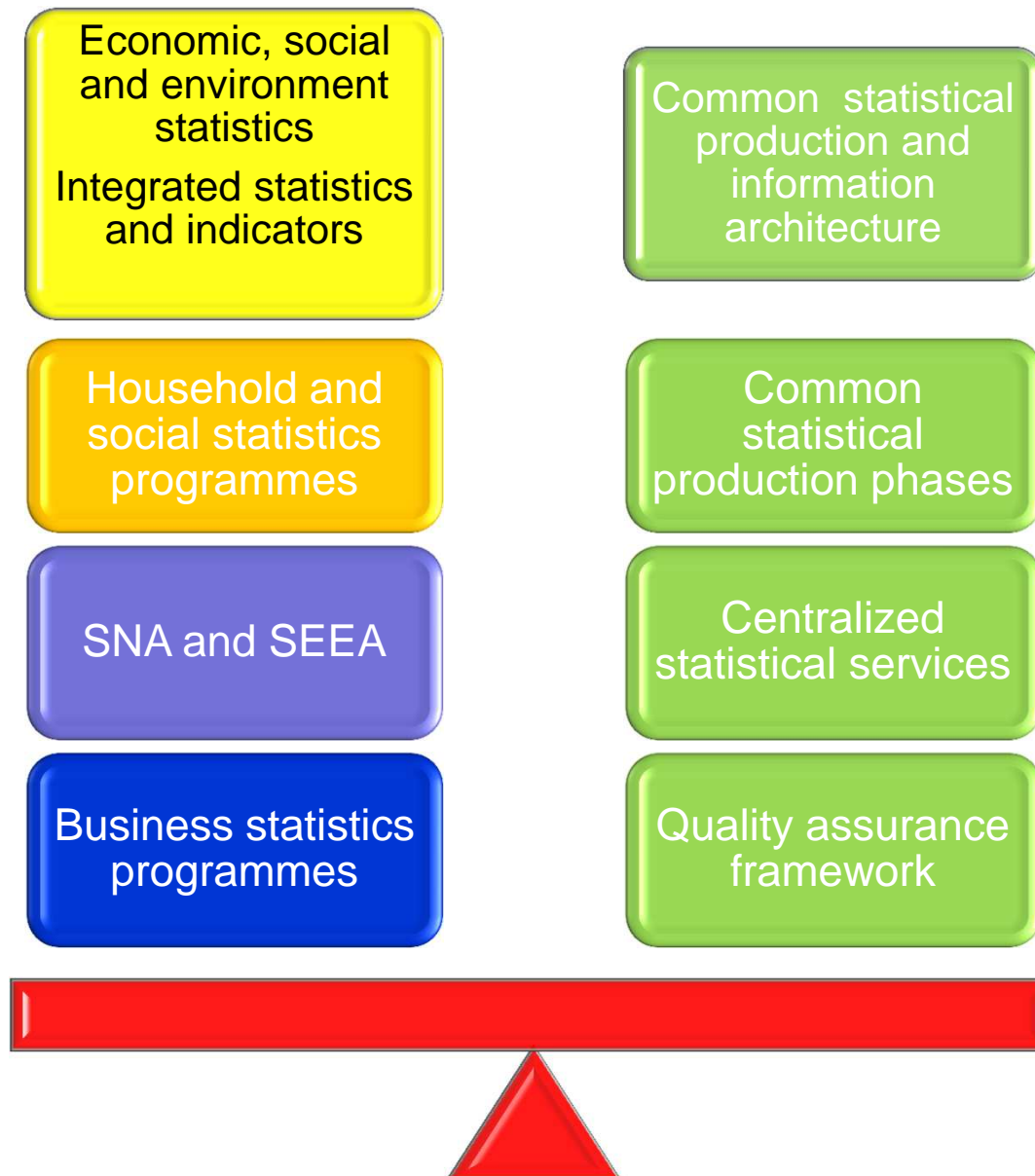
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Common statistical production architecture

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Benefits of an integrated statistics programme

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- A **common statistical business architecture** governs common statistical production process and centralized statistical services over time and across countries
- Statistical production process and centralized services allow for **statistical professionalization, project management and coordination**
- **Integrated statistics meets policy demand:** covering business and household statistics, short term statistics, national economic and environment macro accounts and international statistics
- Statistical production and centralized services are **cost effective**, including their institutional and legislative arrangements
- Integration of the data collection procedures **reduce response burden** on business and household respondents; and
- The opportunity to seek **collaboration** in the development and application of common methods and IT tools for data processing, documentation and exchange.



Integrated Statistics Approach

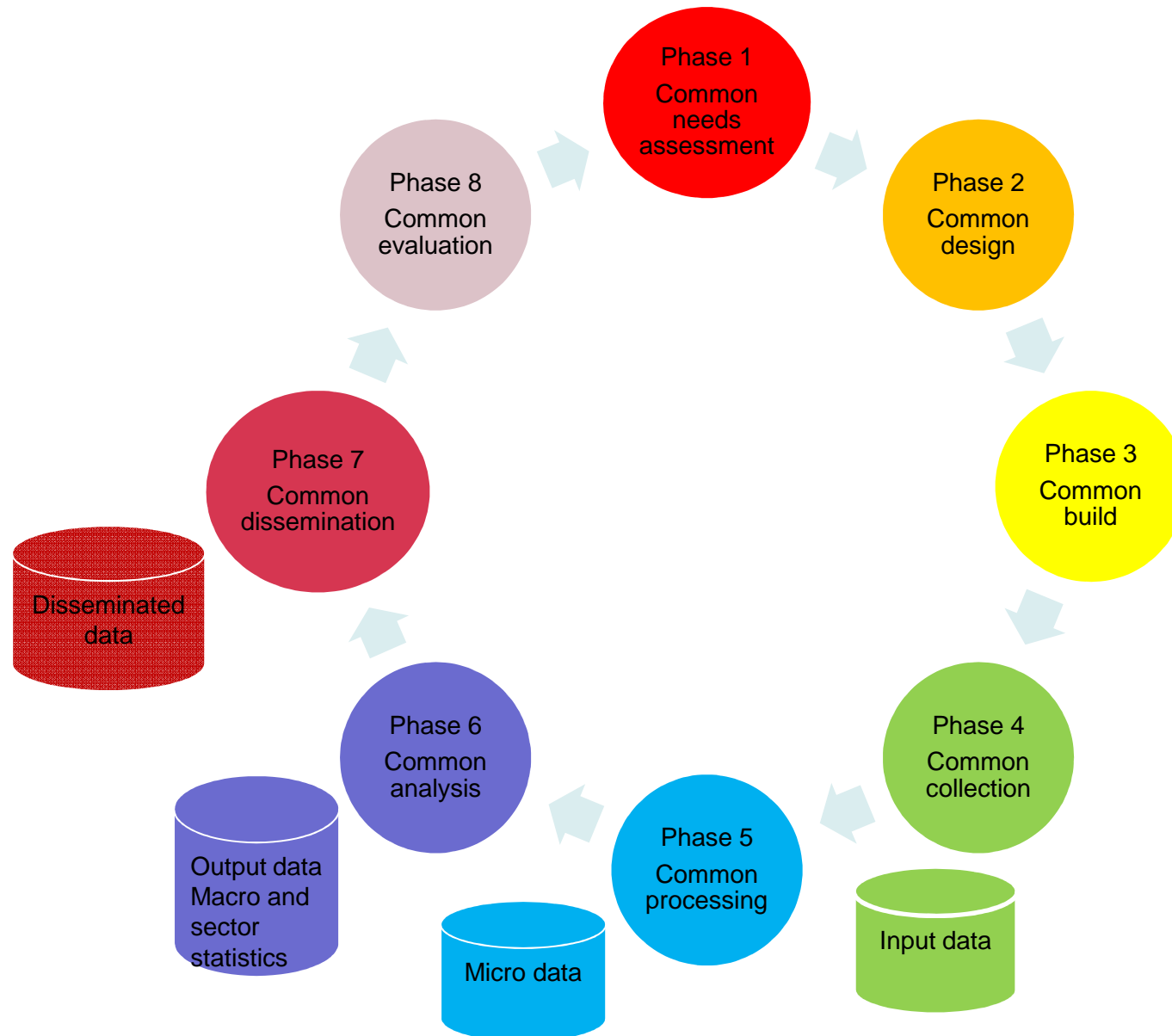
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- Development of **an integrated approach encompasses**: policy-use perspective, institutional and regulatory aspects, and operational and infrastructural aspects.
- **SNA and the SEEA** as the overarching macroeconomic framework.
- Based on **Fundamental Principles of Official Statistics**, **country ownership** based on national priorities, adopting **results based management**, and statistical **capacity building**.
- Move away from a narrow functional view to a **holistic view**; and a move from ad hoc indicator approach to an approach where indicators are **compiled from integrated set of statistics and macro accounts**.



GSBPM: Common statistical production processes

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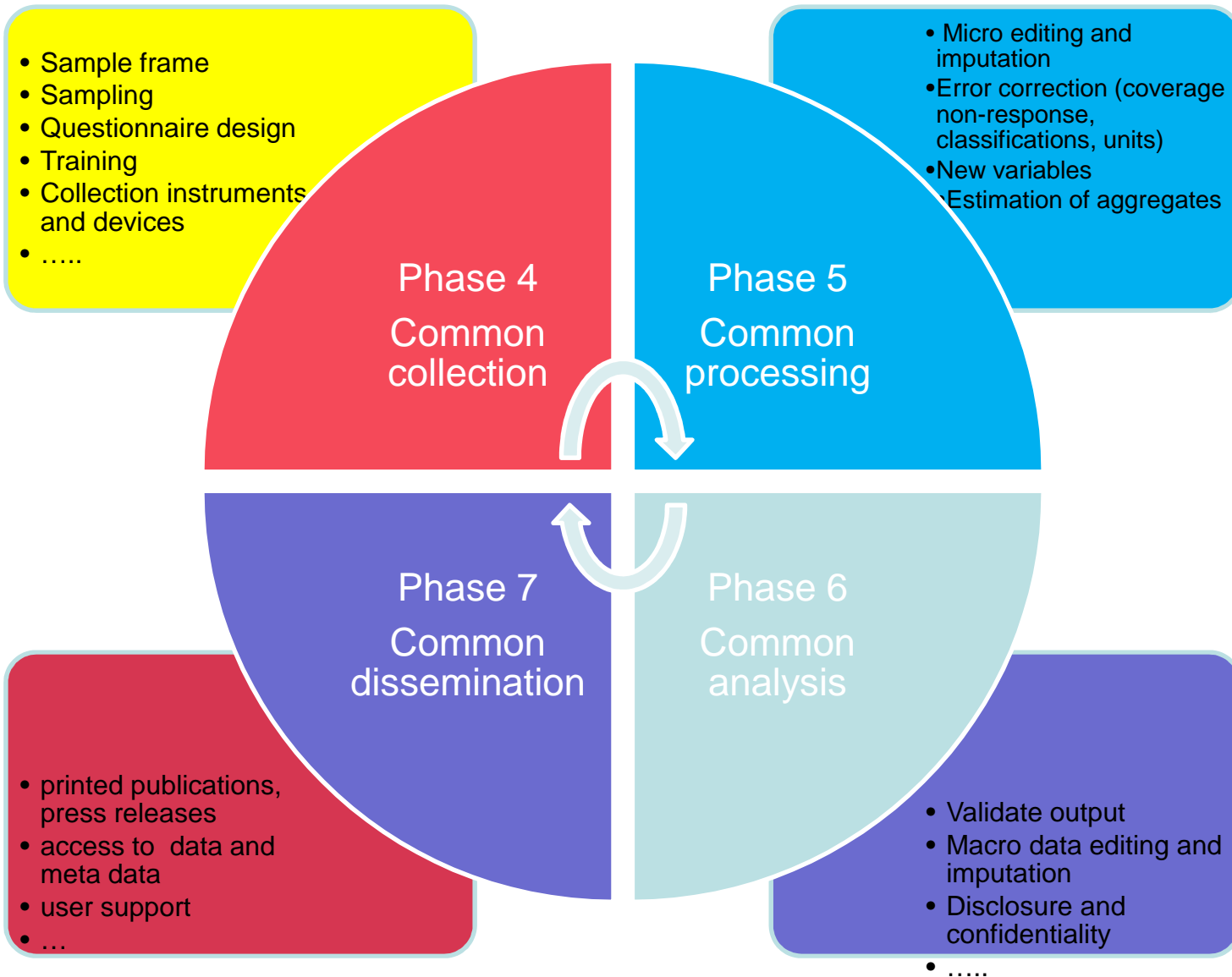




GSBPM: Common statistical production processes

- detail

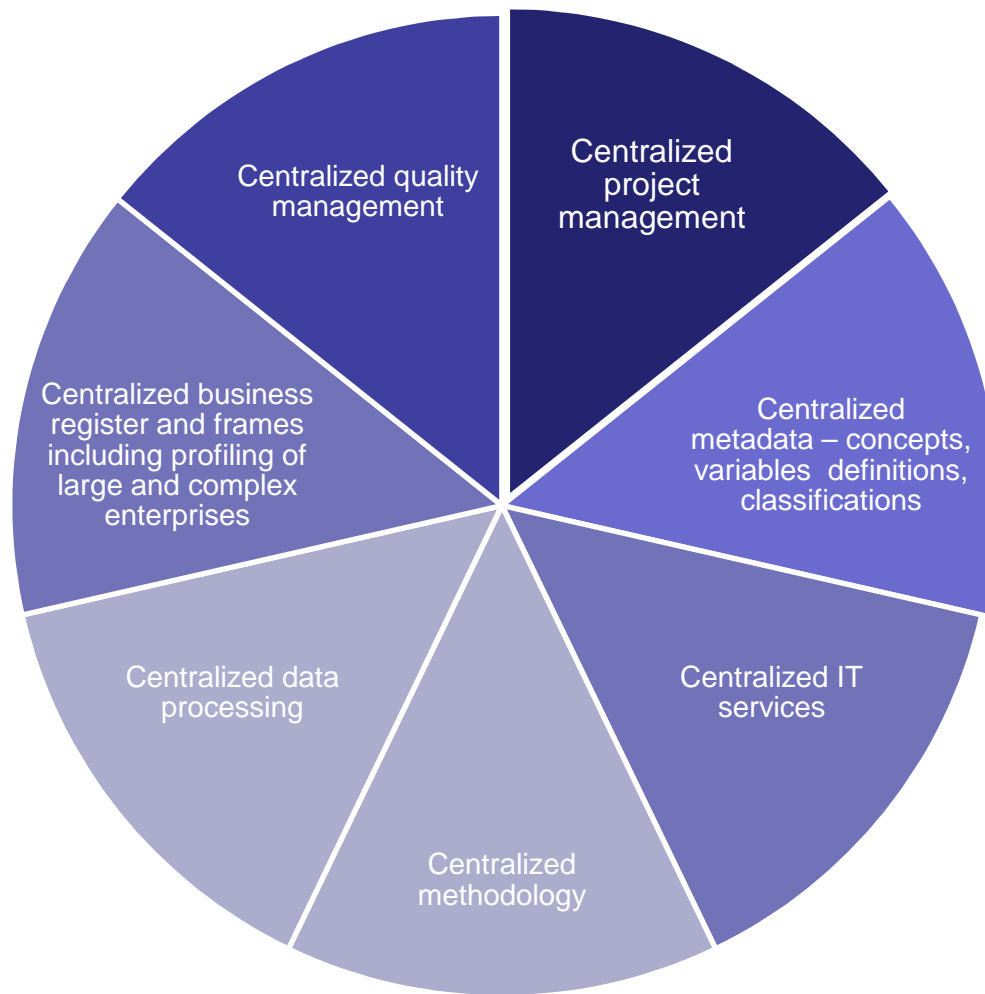
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Centralized statistical services

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Centralized statistical services

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- Centralized registers and frames
 - repository of enterprises, households, persons, buildings, land, etc. for management of collections, processing and analysis phase
 - system of unique integral basis registers with unique identifiers
 - profiling of large and complex enterprises

- Centralized metadata
 - repository of all concepts, variables and classifications in the way they are used in surveys and administrative records and in the statistical outputs
 - repository of standard questions and codes used across business and household surveys
 - standard data definition structure for standard data and metadata exchange



Centralized statistical services

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- Centralized IT services
 - responsible for development of IT strategy and management of IT services led by Chief Information Officer
 - manage the technological developments and the rapidly diverging IT-specialisms (cloud computing, web technologies, Big Data, BYOD, 24*7 web service, interactive visualisations, etc.)
 - manage need to use expertise from outside or to outsource certain IT-services
- Centralized data processing
 - responsible for all data collection regardless of the source of the data based on collection agreements have to be reached about the contents, the sources, the channels, the frequency, the quality and its monitoring, time of delivery, the non-response strategy, the costs, etc.
 - data from all sources are enriched with the *unique identifiers* to facilitate the combination of data from different sources, the comparison over time and to stimulate multi-use of the data



Centralized statistical services

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- Centralised methodology
 - a limited but complete series of preferred methods are developed, tested and validated and documented in a standard way for the different phases of the statistical production processes.
 - series of standard methods are: statistical units; designing panels of entities; designing and testing of questionnaires; structural measures to increase response in economic surveys; imputation of missing values in surveys and administrative records; selective and macro-editing of records from surveys and administrations; linking of records from surveys and administrations; small area estimates; prevention of statistical disclosure; confidentiality rules; seasonal adjustments; macro integration, methods for index numbers.
- Centralised quality management
 - responsible for the formulation and implementation of the quality assurance framework for the statistical production processes
 - systematic mechanisms for facilitating ongoing identification of quality improvements and their maintenance over time and for creating transparency to the processes by which quality is assured and reinforced the image of the office as a credible provider of good quality statistics i.e. quality culture



Centralized statistical services

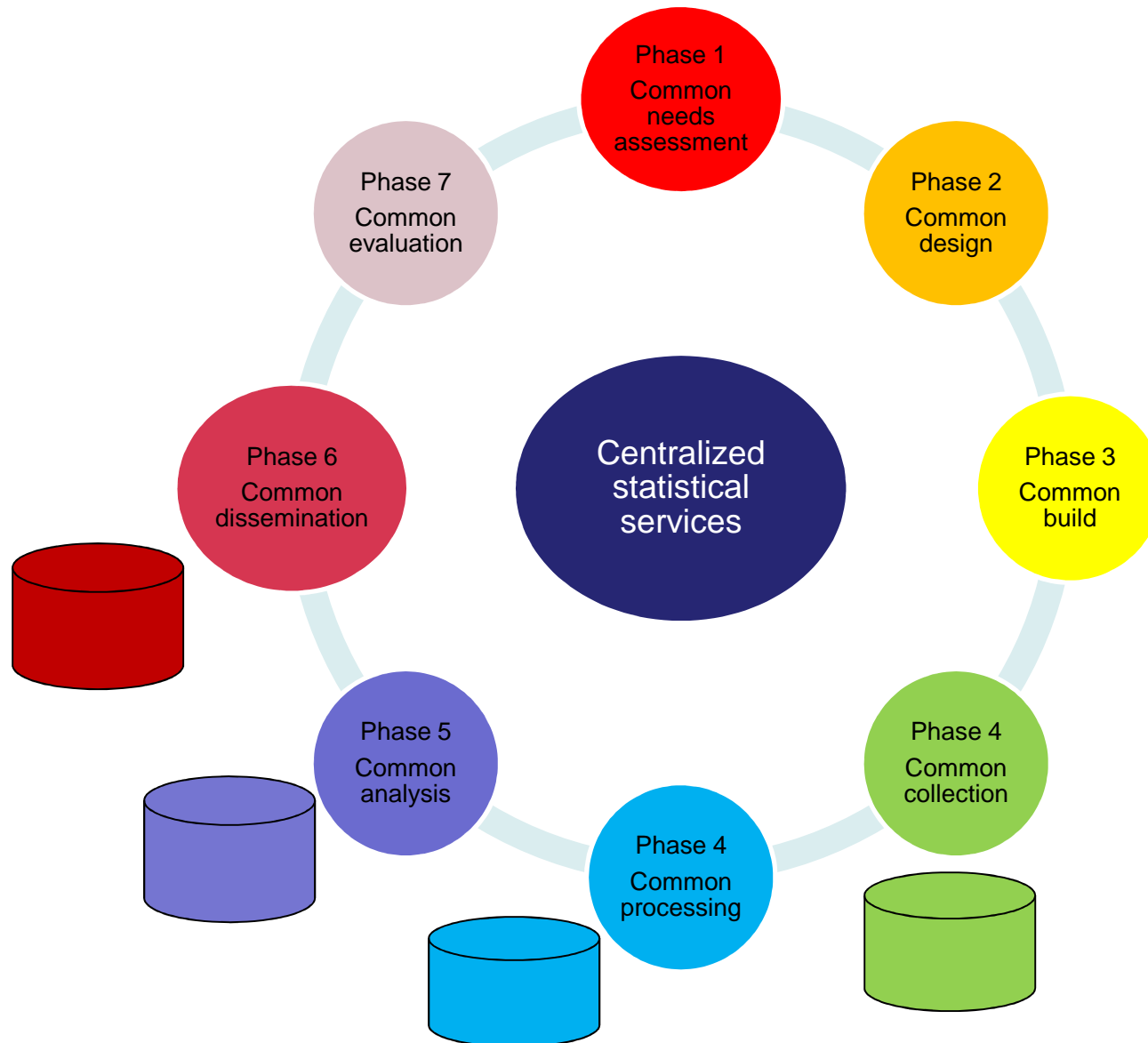
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- Centralized project management
 - responsible for project and portfolio management of programme on integrated statistics and systems by sub-programmes with clear distinct projects.
 - designing, developing and implementing an integrated statistical systems is a program with a high complexity, substantial costs, long durations, considerable risks and a number of partners.
 - executed under a limited number of strict guidelines for the sub-programs and projects, eg. preparation of business case, evaluation of each phase of the project, independent evaluation at end of the project



Common statistical production and information architecture

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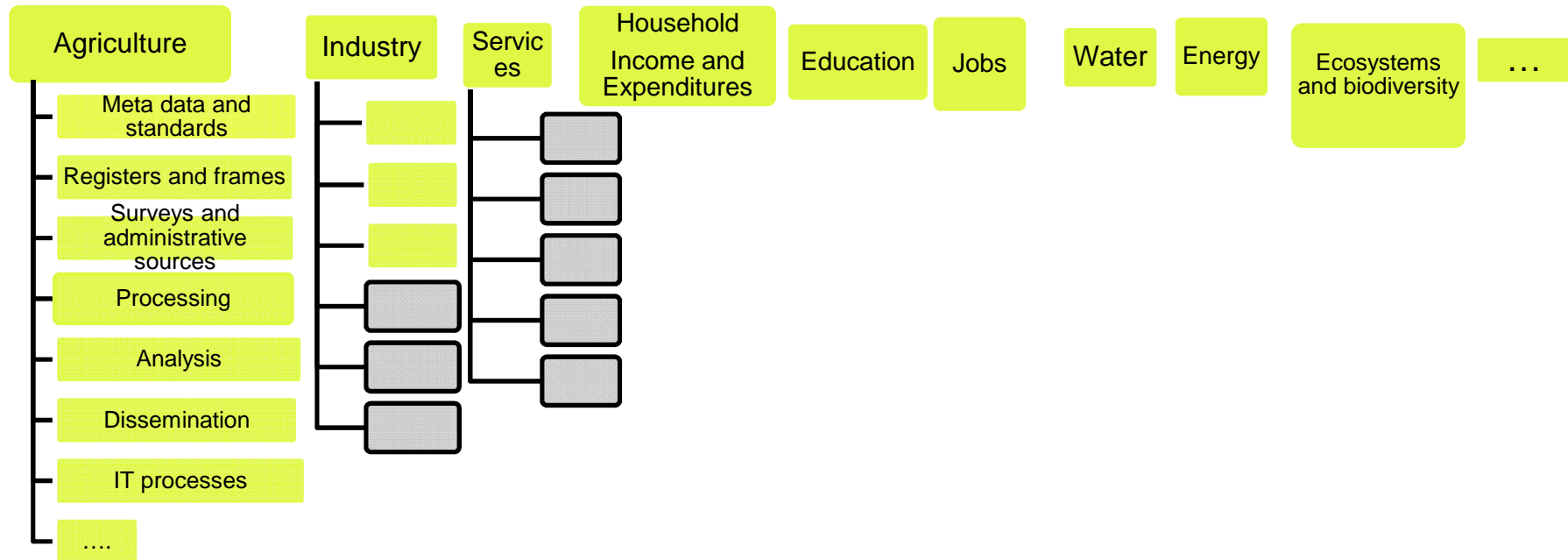




Stove piped statistical production process and no centralized services

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Statistical Domains – economic, environment and social statistics





Integrated statistics programme

Integrated business and
international trade statistics
programme (IBIS)

Integrated household and
social statistics programme
(IHSP)

Economic
dimensions

Environment
dimensions

Social
dimensions

Economic
dimensions

Environment
dimensions

Social
dimensions



Coordination and management framework for capacity building initiatives

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Integrated statistics programme

common methods, procedures and tools for phases of statistical production process

Integrated business and international trade statistics programme (IBIS)

Integrated household and social statistics programme (IHSP)

Phases (common procedures)	Economic	Environment dimensions	Social dimensions	Economic dimensions	Environment dimensions	Social dimensions
Assessment						
Design and build						
Central registers and frames						
Sample and sampling						
Surveys and administrative sources						
Editing and imputation (micro data) and aggregates						
Analysis of output and macro editing						
Dissemination						



Way forward

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- Fast track the testing and experimentation of **Common Statistical Production and Information Architecture**
- Shift away from **ad-hoc** development of indicators and capacity development **towards** development of **integrated information** at the country level.
- Systematic **development of an agreed set of integrated statistics** based on internationally agreed **macroeconomic and environmental-economic accounting framework**
- Pilot in **limited number of countries in 2014 and 2015** – operationalising **integrated statistics programme** in national capacity building programme for **Integrated Business and International Trade Statistics Programme (IBIS)** and **Integrated Household Statistics and Social programme (IHSP)**



Thank you