Institutional Arrangements and Statistical Production Processes for the Implementation of the SEEA

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Objective of this session

- The Committee will discuss the role of the SEEA as being a catalyst in developing an integrated statistical system for sustainable development, with emphasis on the environment-economy components in particular in bringing together the various stakeholders and leading to the modernization of the statistical system using the GSBPM approach

System

Outline

1. Modernization of the statistical system

2. SEEA Implementation: Generic Statistical Business Processes Model

3. SEEA Implementation: Institutional arrangements

4. Looking ahead

1. Modernization of the statistical system

Challenges

- Fast technological developments
- Increasing internationalization
- Rapid growing availability of new non traditional data
- Sharp increase in rate of data availability
- Greater demand for more (& quicker) and integrated multi-dimensional information
- Decreasing budgets and improving cost efficiency
- Demands to decrease response burden
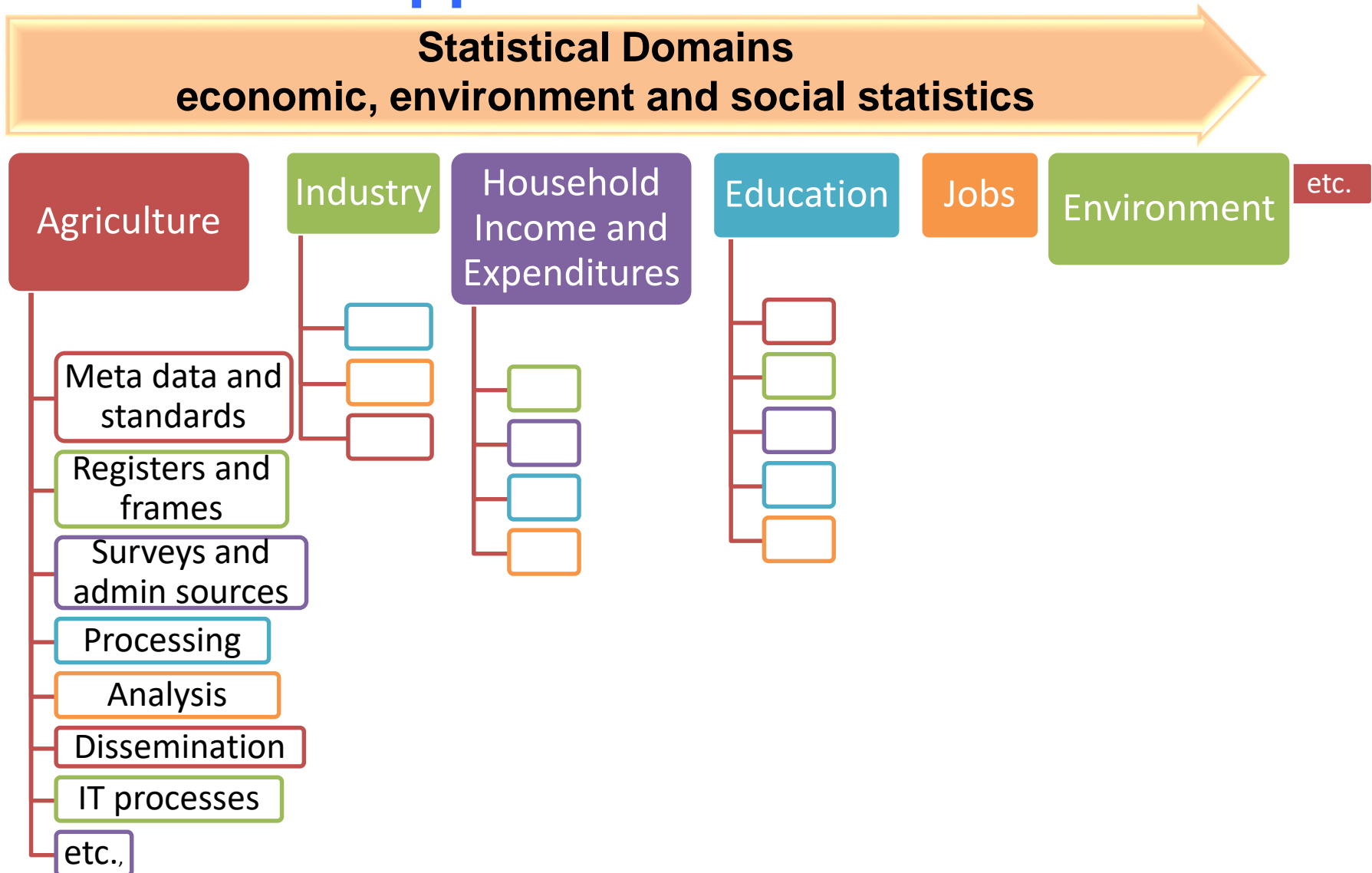- Rapid development in IT environment

Responding to the challenges

- Through modernization programmes for integrated statistics
- Characterized by
    - Technical and managerial specializations of staff
    - Modernization of the IT- environment
    - Harmonization/centralization of statistical production processes
    - Repositioning the legal and regulatory environmental of the statistical organization
- Business as usual will not be enough

Traditional approach

**Statistical Domains
economic, environment and social statistics**

Agriculture

Industry

Household Income and Expenditures

Education

Jobs

Environment

etc.

Meta data and standards

Registers and frames

Surveys and admin sources

Processing

Analysis

Dissemination

IT processes

etc.,

New approach

Integrated statistics programme

Integrated business and international trade statistics programme (IBIS)

Integrated household and social statistics programme (IHSP)

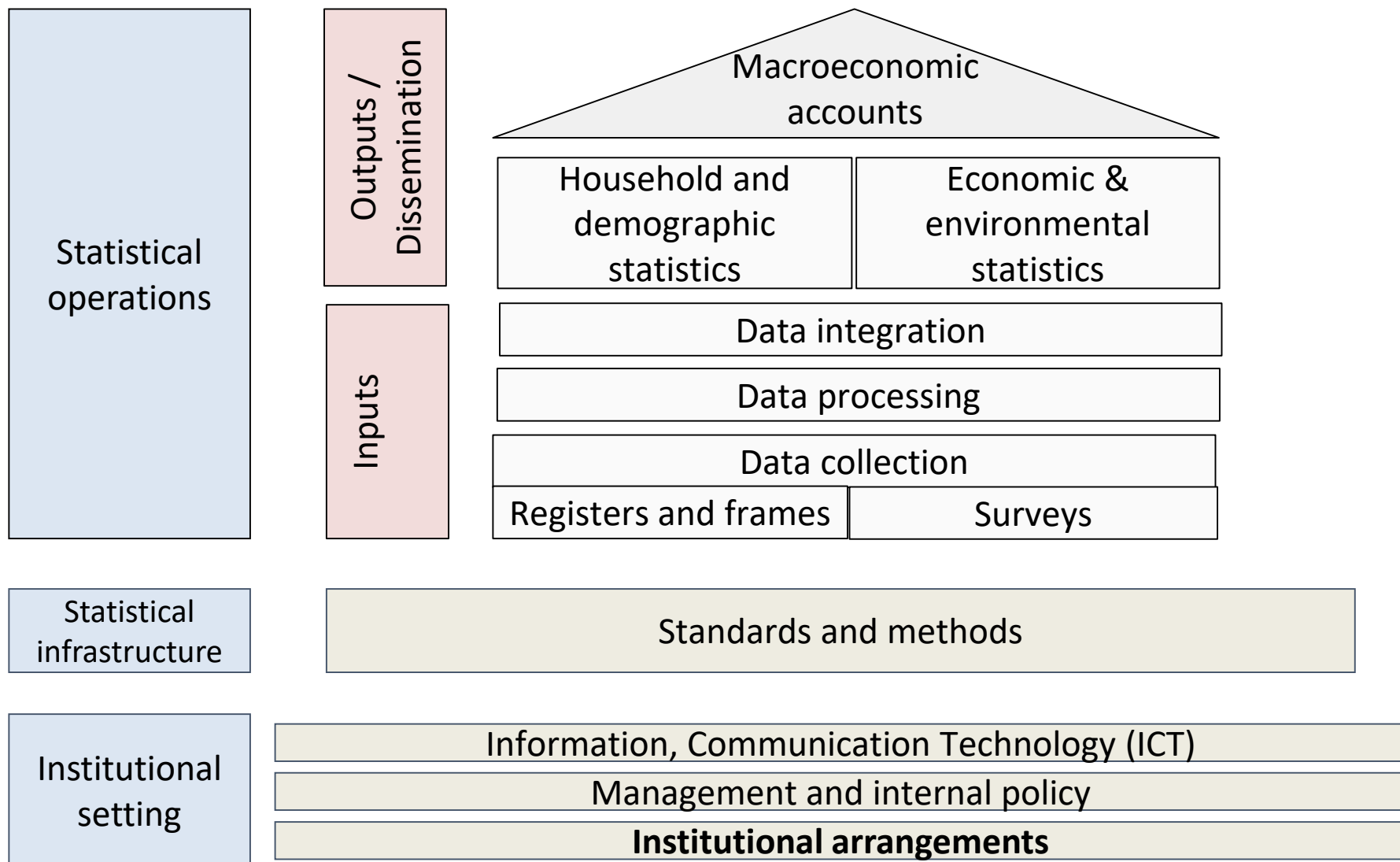| Economic dimensions | Environment dimensions | Social dimensions | Economic dimensions | Environment dimensions | Social dimensions |

Integrated statistics approach

Statistical operations	Outputs / Dissemination	Macroeconomic accounts	
		Household and demographic statistics	Economic & environmental statistics
	Inputs	Data integration	
		Data processing	
		Data collection	
		Registers and frames	Surveys

Statistical infrastructure	Standards and methods

Institutional setting	Information, Communication Technology (ICT)
	Management and internal policy
	Institutional arrangements

2. SEEA Implementation:
Generic Statistical Business Processes Model
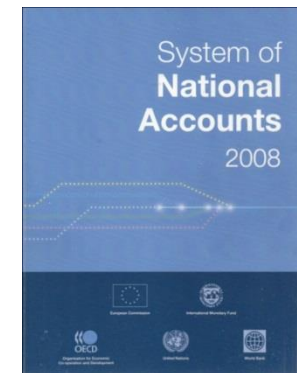
An international standard to measure the environment and it's relationship with the economy:

4. **"Getting an Overview of the Picture":** Headline indicators derived from SEEA-aligned Information for an indication of developments in environmental issues

3. **"Seeing the overall picture and how things fit together in detail":** Organizing data into accounts for 'systems level' understanding of the environment

2. **"Harmonizing Basic Data":** Application of statistical standards to reconcile divergent methodologies

1. **Fragmented Environment Data:** Data collection dispersed across agencies using different methodologies

SEEA: Statistical Architecture

Agri-culture

- IT processes etc.
- Dissemina-tion
- Analysis
- Processing
- Surveys and Admin sources
- Registers and frames
- Meta-Data and Standards

Water

- IT processes etc.
- Dissemina-tion
- Analysis
- Processing
- Surveys and Admin sources
- Registers and frames
- Meta-Data and Standards

Energy

- IT processes etc.
- Dissemina-tion
- Analysis
- Processing
- Surveys and Admin sources
- Registers and frames
- Meta-Data and Standards

SNA and SEEA Accounts
(and Indicators)

| Agriculture Statistics | Water Statistics | Energy Statistics |

Specialized corporate services

Data Integration

Data Processing

Data Collection

Statistical Infrastructure
Standards and Methods:
SEEA and SNA

The SEEA and SNA contribute to a systems architecture of common institutional and statistical structures to support statistical production processes

Overarching Management Functions

Management of data integration across agencies and program

Common metadata and archiving processes

Common processing and Dissemination

Common Registers and Frames/Maps

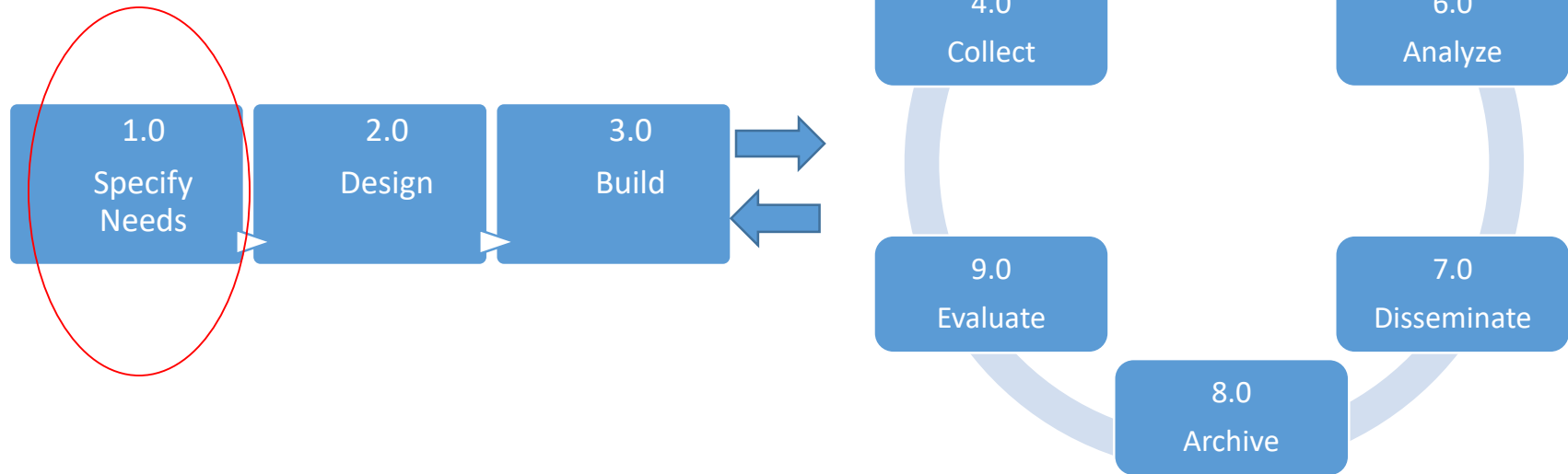Common concepts and classification – statistical standard
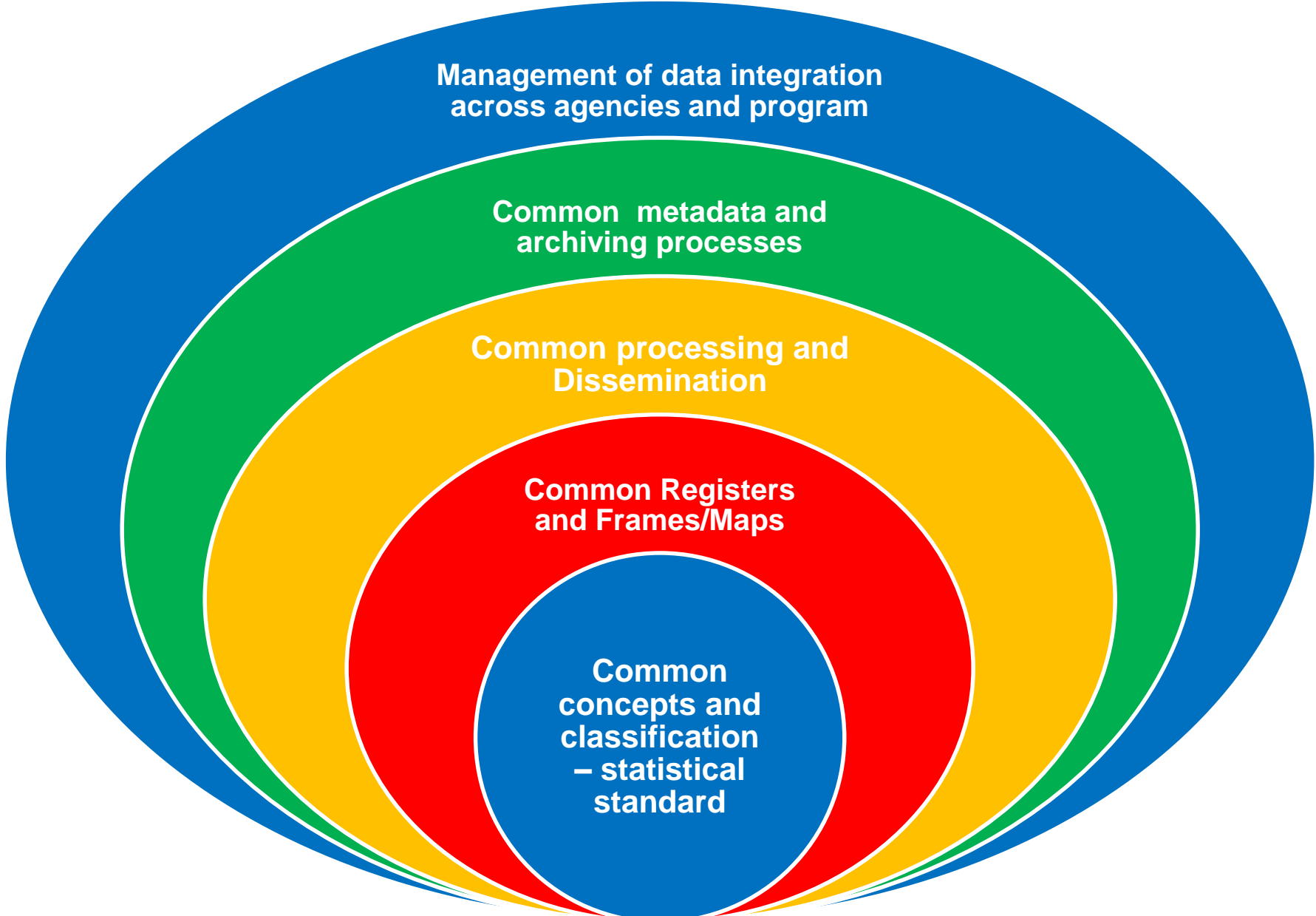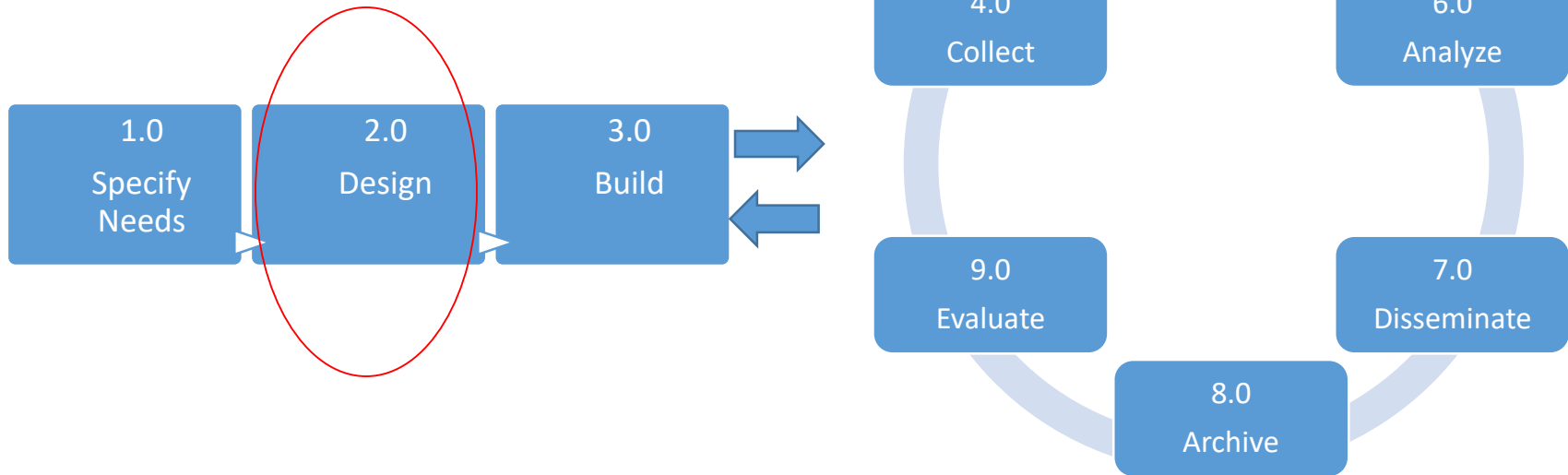
General Statistics Business Processing Model (GSBPM)
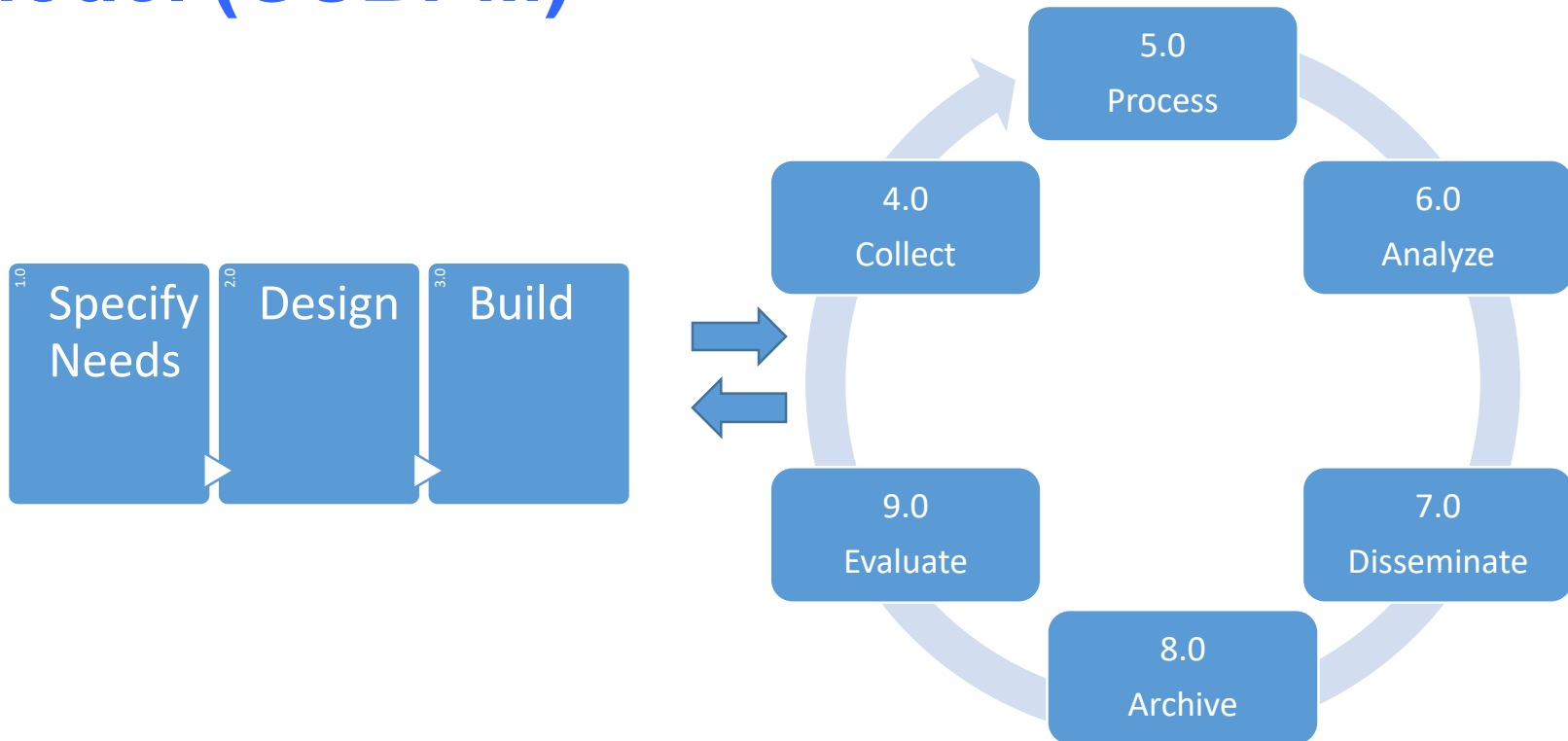
1. Specify Needs

- Determine needs based on international standards and user needs within institutional context
- Consult and confirm needs with main users
- Establish output objectives based on 2008 SNA and 2012 SNA concepts
- Check availability of data
- Prepare business case

2. Design

- Design output structure – types of accounts to produce and frequency

- Design variable descriptions based on data availability and quality of input data

- Design input collection methodologies for survey data, administrative data, geo-spatial data or purchased database

- Design production systems and workflows

3. Build
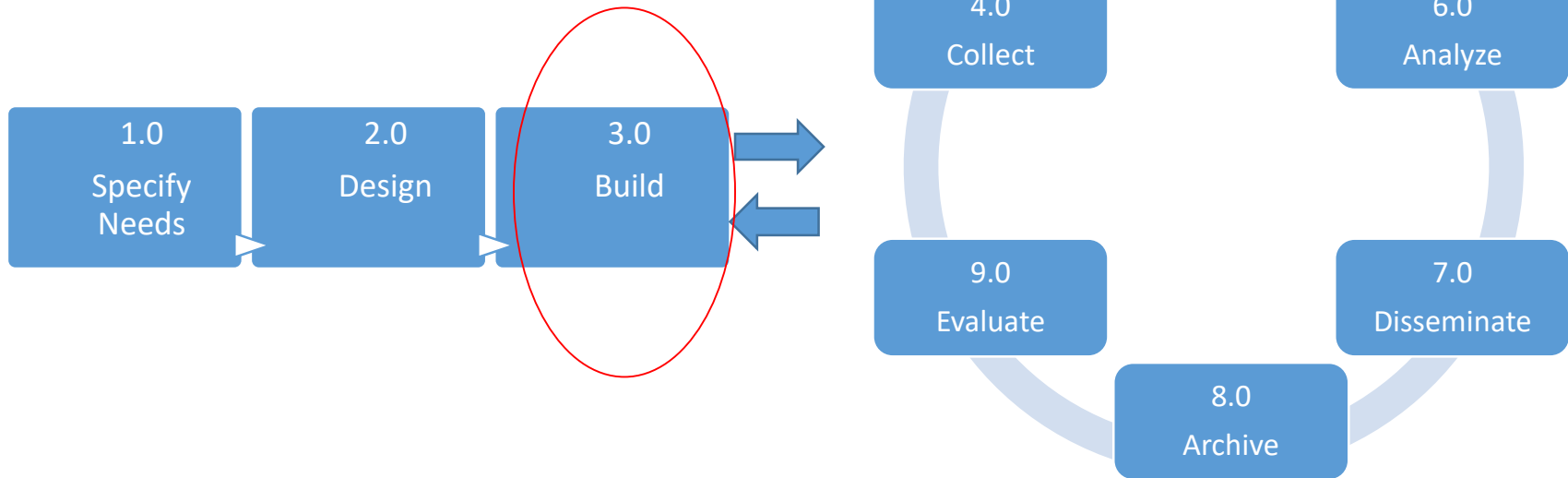
- Build input data processing systems and specify arrangements for transfer of data from source organizations

- Build output data processing systems based on design of output product

- Test production system consisting of the input and output systems
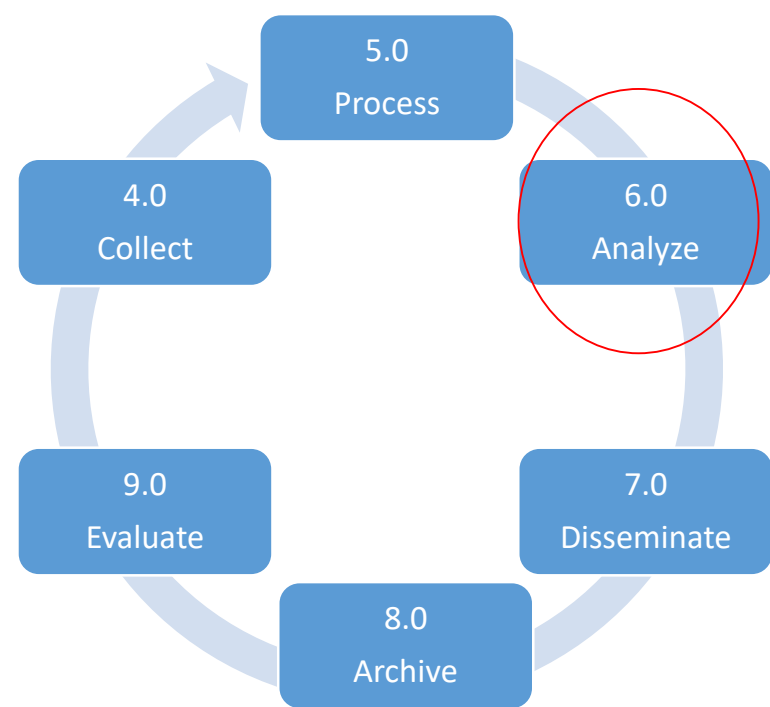
- Finalize production system

4. Collect
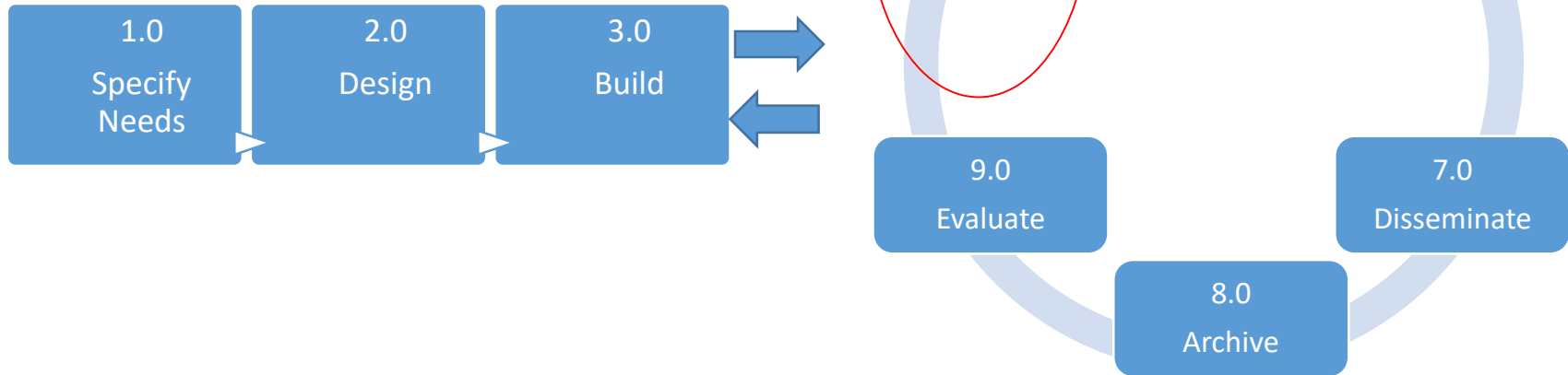
- Select time period for transfer of input data files
- Transfer needed input data files from sources
- Run input processing to transform inputs to SNA and SEEA concepts, classifications and variable specification
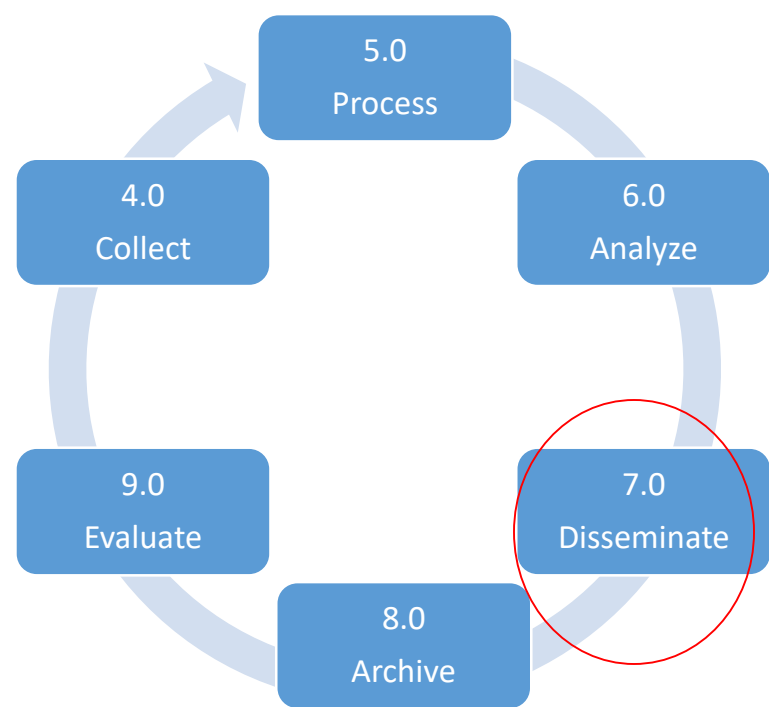- Finalize input data gathering

5. Process
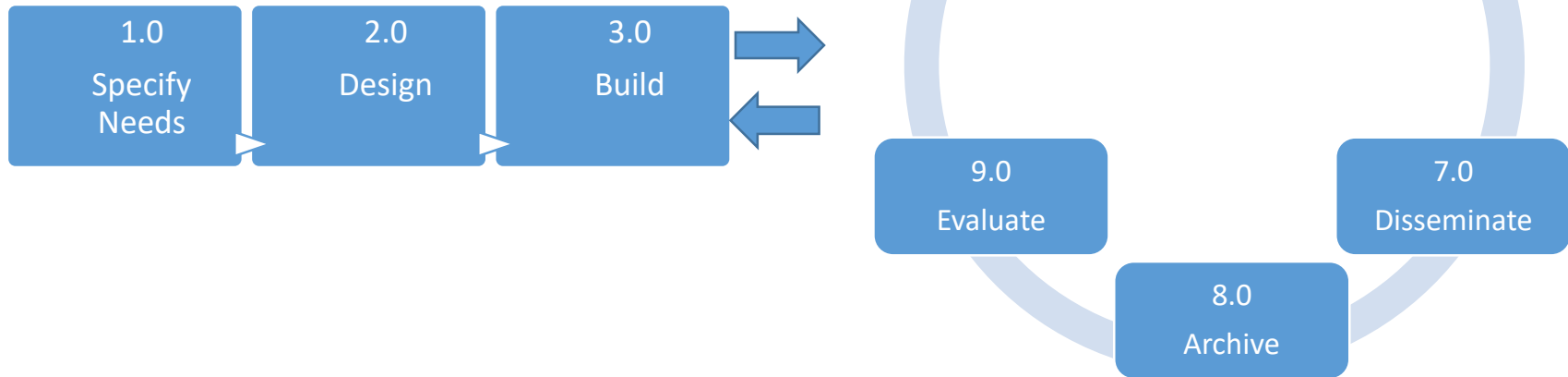
- Derive SNA and SEEA variables from processed input source data including direct transformation, projectors, interpolation techniques etc.

- Integrate variables in SUT tables and in Sequence of Accounts

- Review, validate and edit table and accounts using identities, supply use analysis and quality control

- Finalize data files

6. Analysis Process

- Prepare output files
- Validate output files
- Scrutinize and explain
- Apply disclosure controls
- Finalize outputs

7. Dissemination

1.0 Specify Needs	2.0 Design	3.0 Build

5.0 Process

4.0 Collect

6.0 Analyze

9.0 Evaluate

7.0 Disseminate

8.0 Archive

- Update output systems
- Produce dissemination products
- Manage release of products
- Promote dissemination products
- Manage user support

8. Archive; 9. Evaluate
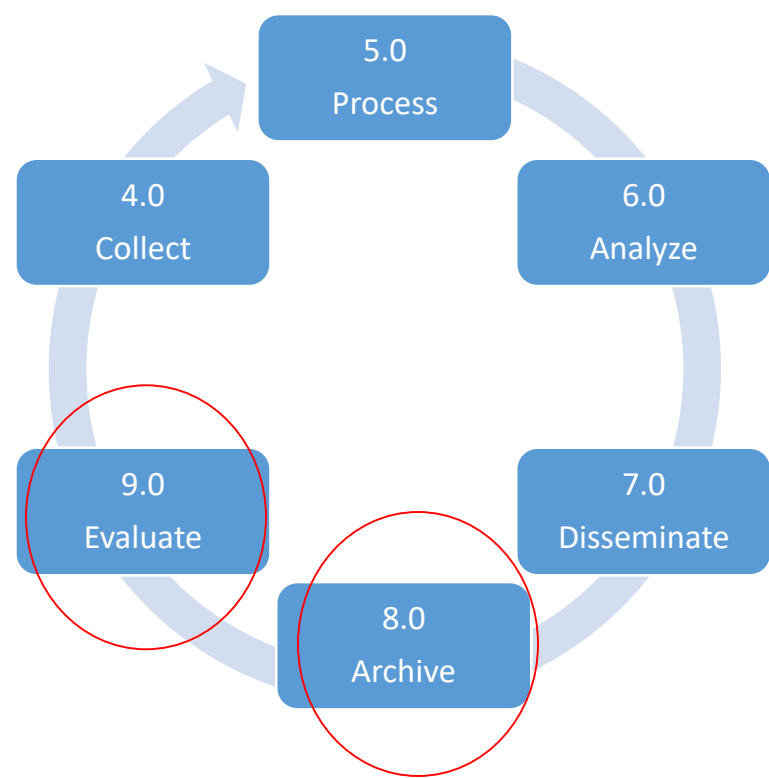
- Document metadata
- Archiving data and document
- Gather evaluation inputs
- Conduct evaluation
- Agree on action plan

Benefits of integrated systems

▪ **Statistical business and information architecture** governs common statistical production process and centralized statistical services over time and across countries.

▪ Corporate, centralized services allow for **statistical professionalization, project management and coordination.**

▪ **Meet policy demands**: covering business and household statistics, labor statistics, short term statistics, national accounts and international statistics.

▪ **Cost effectiveness.**

▪ **Improved quality:** coordinated output; reduction of human factor; improved reproducibility.

▪ **Reduction of response burden** on business and household respondents.

▪ Offer **collaboration** in the development and application of common methods and IT tools.

▪ **Robust** and **flexible** and a **stable platform** for facing new developments.
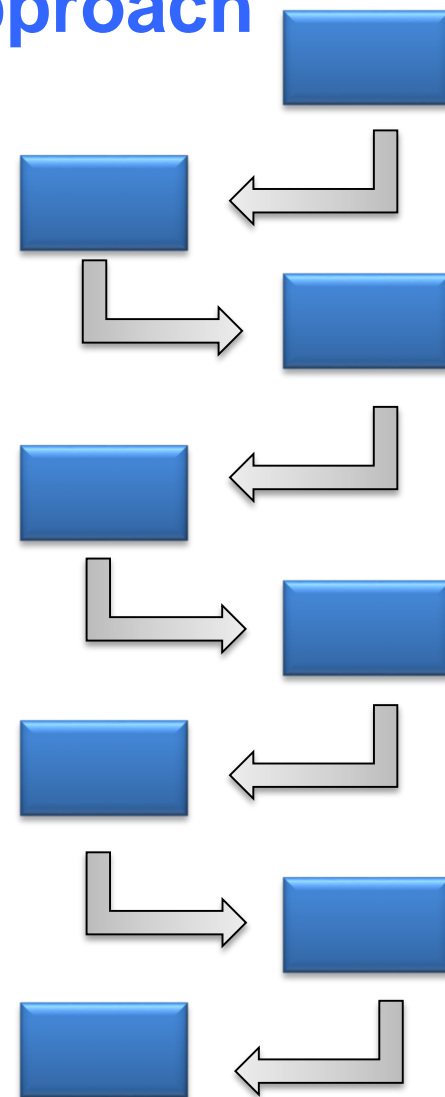
3. SEEA Implementation: Institutional Arrangement

SEEA Implementation: Step by step approach

1. Establishment of partnerships

2. Assessment of the current situation

3. Identification of domains for improvement

4. Formulation of a national integrated statistics programme through SEEA implementation

5. Communication and advocacy

6. Governance of the programme

7. Design of integrated systems of statistics through SEEA implementation
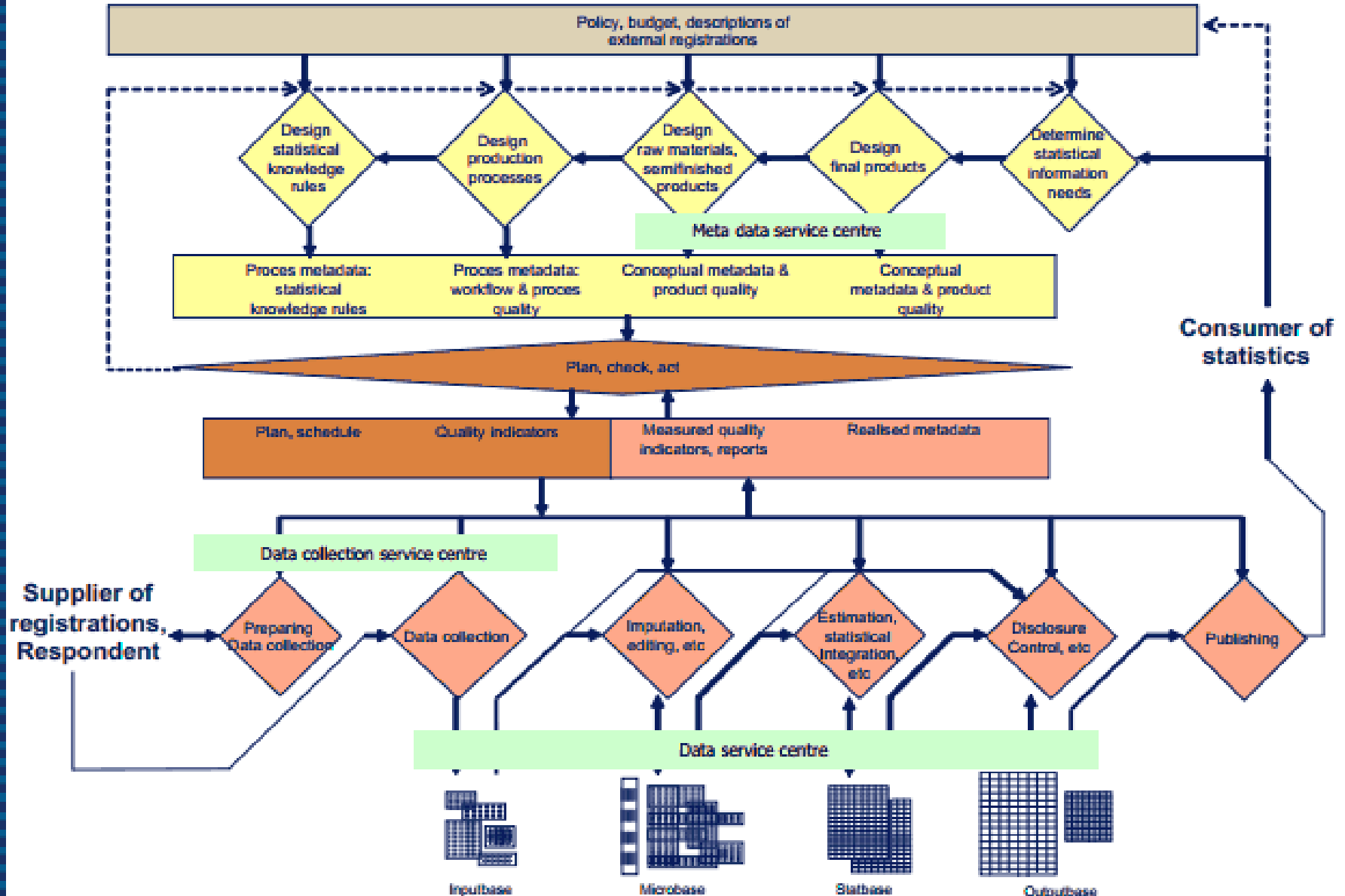
8. Evaluation of the programme

General Organizational principles for institutional arrangements

- Use of corporate business and information architecture
- Adopt and update legal mandates based on fundamental principles for official statistics
- Mainstream standards and metadata
- Optimize use of administrative data
- Maximize multi-use of data
- Top down editing and imputation
- Initiate methodological innovation and modernization through harmonization
- Develop modular IT-applications across statistical domains and across agencies to allow automated data exchange
- Establish quality culture
- Manage development and change

OVERVIEW of business and information architecture

Investment Logic Framework

Participation → Enabling factors → Actvities → Outputs → Impacts → Outcomes

Participation

Ministry of Planning
• General Statistics Office
• Central Institute for Economic Management

Ministry of Natural Resources
• Institute of Strategy and Policy on Natural Resources and Environment

Ministry of Agriculture and Rural Development
• Academy of Forest Sciences

Ministry of Finance

National River Basin Committee

Enabling Factors

• Steering Committee on Environmental-Economic Accounting

• National Forest Satellite Account Compilation

• Green GDP index: Research Methodology Framework Development

• Water accounting in the selected River Basin

• ProEcoServe

• Climate change and greenhouse gas emissions

• Payments for ecosystems services

• Selected river Basin

• Environmental Performance Index

• Draft Natural Capital Accounting Roadmap up to 2020

Activities

Building priority accounts
• Land cover accounts (by ecosystem type)
• Water asset accounts
• Biodiversity asset accounts
• Carbon stock accounts
• Ecosystem service accounts
• Carbon sequestration
• Water provision
• Fish provision
• Erosion control (or water filtration)

Capacity building
• Human resource capacity
• Infrastructure

Development of key aggregates

Outputs

SEEA Accounts
• Land
• Water
• Biodiversity
• Carbon
• Ecosystem Services

Training materials and capacity building
• A level 1, 2, 3 set of training materials that can be used by agencies
• A coordinated series of workshops to expand the awareness and understanding and environmental–economic accounts into 2016

Infrastructure
• Improved and streamlined infrastructure for the ongoing production of environmental–economic accounts

Impacts

Mainstreaming of environmental-economic accounts into planning & decision making

• Providing Ministers and their agencies with empirical evidence of changes resulting from sustainable development policies

• Integrated indicators on sustainable development

• A civil service and civil society that is informed about environment and development

• Improved knowledge on ecosystems and well-being

• Improved statistical collaboration between sectors & agencies

• Better policies, decisions on trade-offs between development and conservation

Outcomes

A comprehensive set of environmental-economic accounting information

Enhanced institutional coordination within the country

Improved data infrastructure

Increased training and capacity building

Enhanced coordination of support from international and donor agencies

Stronger links with existing platforms

**Looking ahead –
progressive introduction of integrated
system while producing statistics and
accounts based on existing source data**

Long term work programme for SEEA implementation –statistical production

- Establishing or modifying data collection (surveys, registers and frames, environmental monitoring, geo-spatial information)

- Changing classification systems or creating correspondences between existing classifications,

- Developing a National Compilation Guide that provides detailed instructions to compilers on the sources of data and the procedures to be used in their compilation

- Establishing or modifying IT infrastructure to facilitate data exchange and production of the accounts

Long term work programme for SEEA implementation – institutional environment

- Developing legal and institutional arrangements for producing environmental accounts and supporting statistics

- Establishing the nature and frequency of the accounts and related key indicators to be produced with users

- Establishing data sharing agreements and service level agreements between data produces and compilers of the accounts

- Capacity building for both data producers (in compiling accounts) and data users (in analytical and policy use)

Long term work programme for SEEA implementation – project management

- Determining timelines for implementation
- Establishing a project management process and structure (Agile, Prince 2, etc.) including communicating key findings
- Undertaking risk assessments of the ongoing compilation of accounts, particularly with respect to the availability of critical supporting statistics.

The Committee is invited to discuss:

▪ How can UNCEEA make and communicate the business case that benefits exceed the costs of national programmes on integrated statistics?