IDAS INFORMATION, DATA AND ANALYTICS SERVICES | LA SECTION DES DONNÉES, DE L'INFORMATION ET DE L'ANALYTIQUE

How to build a knowledge organization in a data driven culture

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This presentation represents the view of the presenter, not the Bank of Canada.

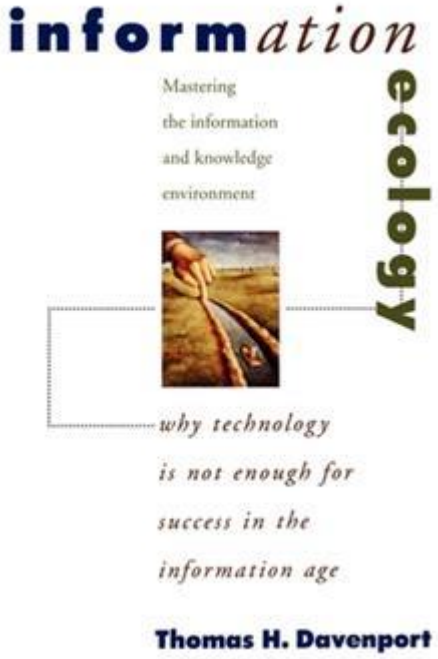
BANK OF CANADA
BANQUE DU CANADA

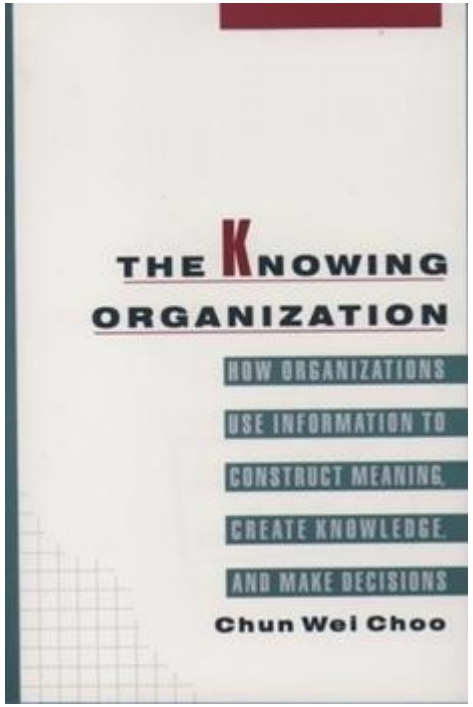
The ultimate purpose in organization regarding their data is:

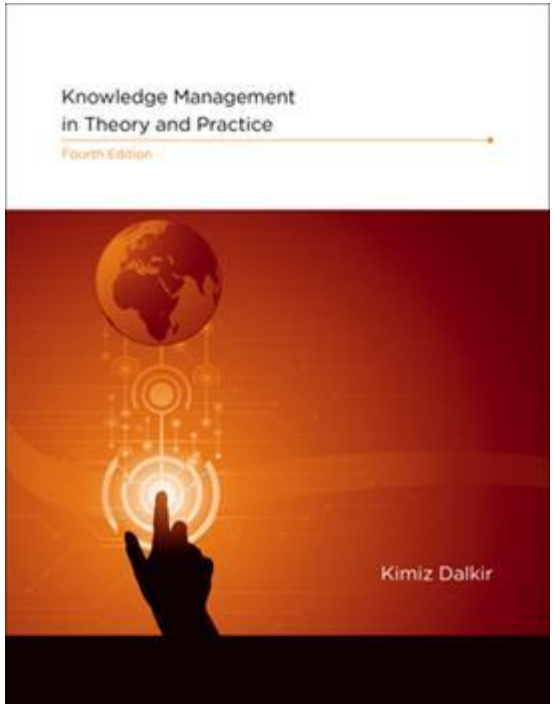
How can I turn data into wisdom?

… to make better decisions and take actions/innovate/impact/influence/…

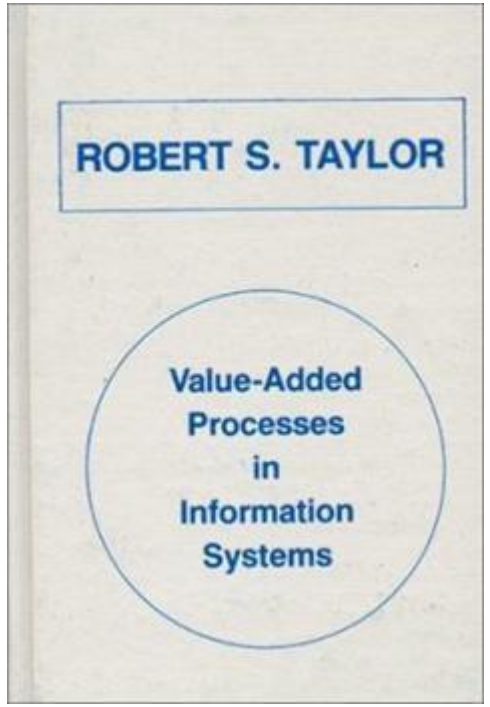
Influential KM thinkers





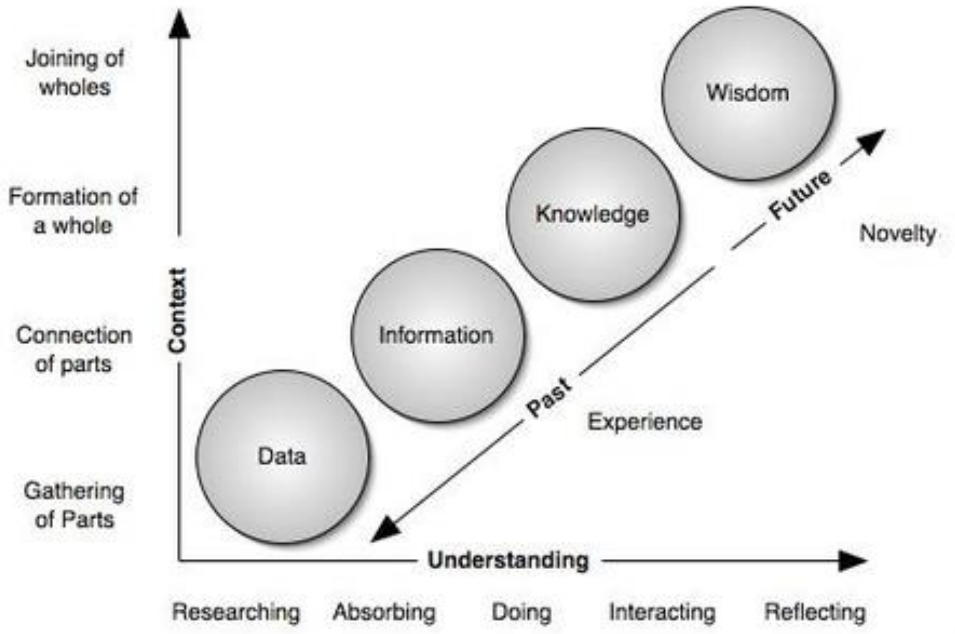


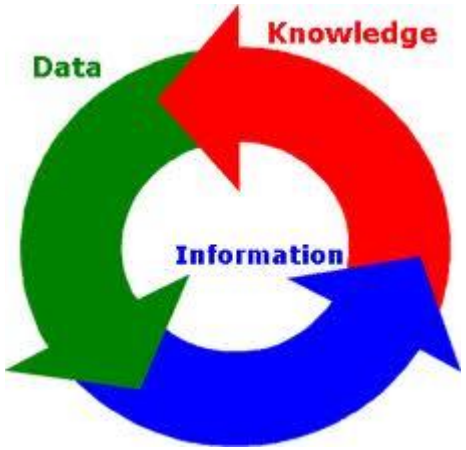
Taylor's Value-added Spectrum



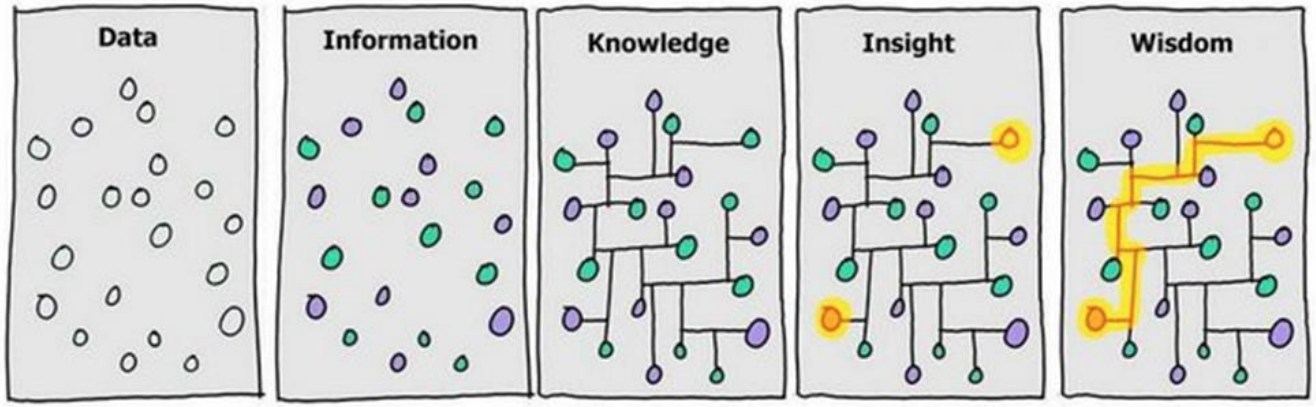
Action	Matching goals Compromising Bargaining Choosing	DECISION PROCESSES
Productive knowledge	presenting options advantages disadvantages	JUDGEMENTAL PROCESSES
Informing knowledge	Separating Evaluating Validating Comparing Interpreting synthetizing	ANALYZING PROCESSES
Information	Grouping Classifying Relating Formatting Signaling Displaying	ORGANIZING PROCESSES
Data		

Source: R.S. Taylor, Value-added processes in information systems. Ablex, 1986





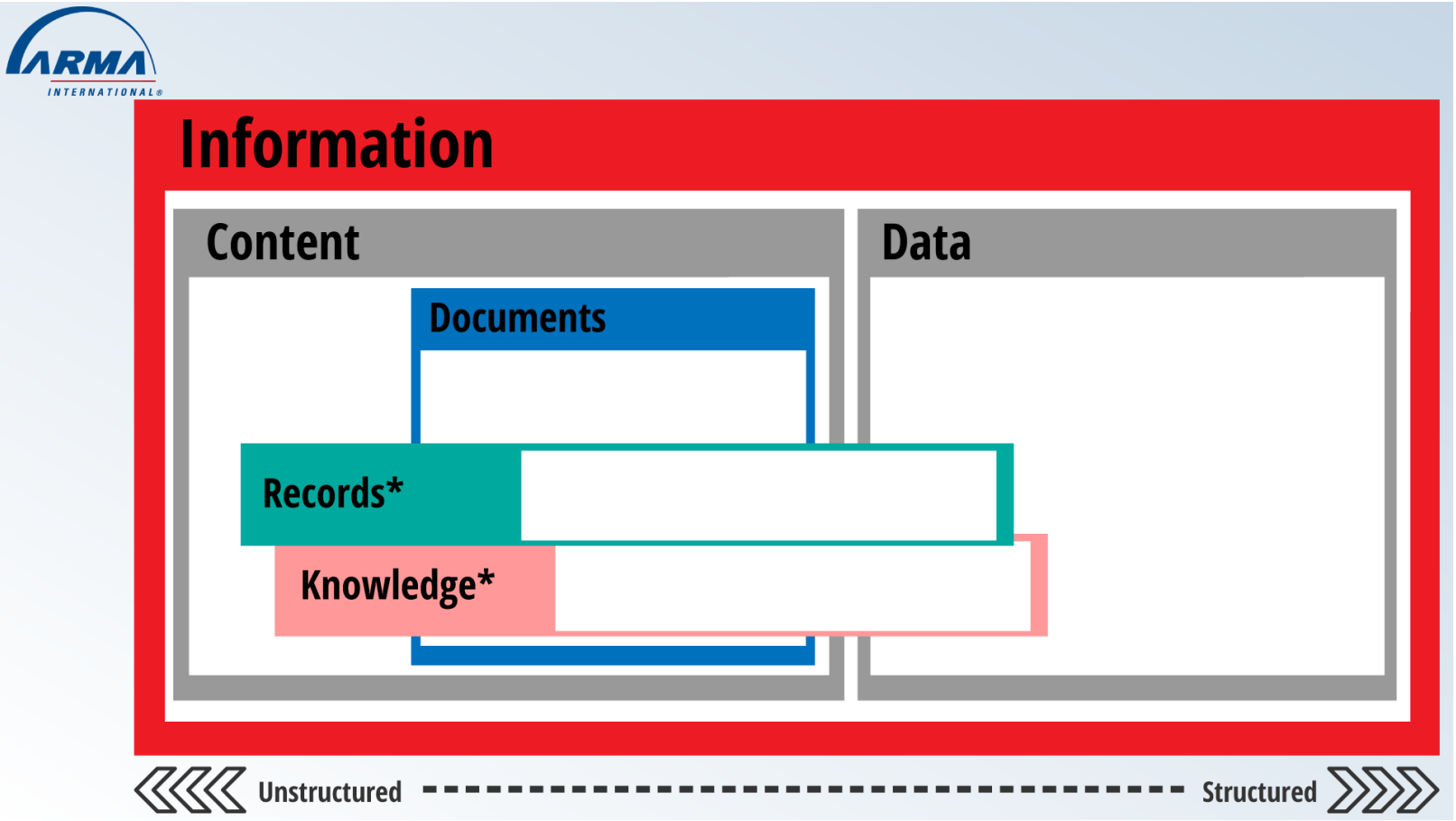
Source: V.Lemieux, UBC, 2014



[Cartoon by David Somerville, based on a two pane version by Hugh McLeod.]

Information vs Data

« Everything, whether unstructured or structured (or even semi-structured), is information. ***Content is unstructured information while data is structured*** *(this is easiest to understand through the structure of a database). Data tends to be relational while content tends not to be. »*



Evolution of knowledge codification to produce insight/intelligence in the workplace

Discussions

Documents

Data and metadata

Evolution of Technology

So which discipline should I invest/ follow/ embrace to turn this asset into wisdom?

- Data management?
- Information management?
- Knowledge management?
- Information technology?
- All of the above?

Evolution of resource management function

Resource	Function	Began	Causes
Money/Capital	**Financial management**	**1920s**	Heightened investment awareness, capital shortages and depression
People	**Personnel Management**	**1930s**	Advances in behavioral sciences and social forces (unions, working conditions)
Equipment & supplies; raw materials	**Material management**	**1940s**	World War II; critical shortage forecasts for strategic stockpiles
Land & buildings	**Space property management**	**1940s**	Need for prudent use of office/plant/laboratory space
Energy	**Energy resources management**	**1970s**	OPEC embargo; declining reserves of oil & gas; new alternative sources
Information	**Information resources management**	**1970s**	Computers; information explosion; paperwork burden on taxpayers
Knowledge	**Knowledge management**	**1980s**	Expert systems; artificial intelligence; economic & cultural value of knowledge

Data was the next one…

Source: C.F. Burk and F.W. Horton, InfoMap: A complete guide to discovering information resources. Prentice Hall, 1988

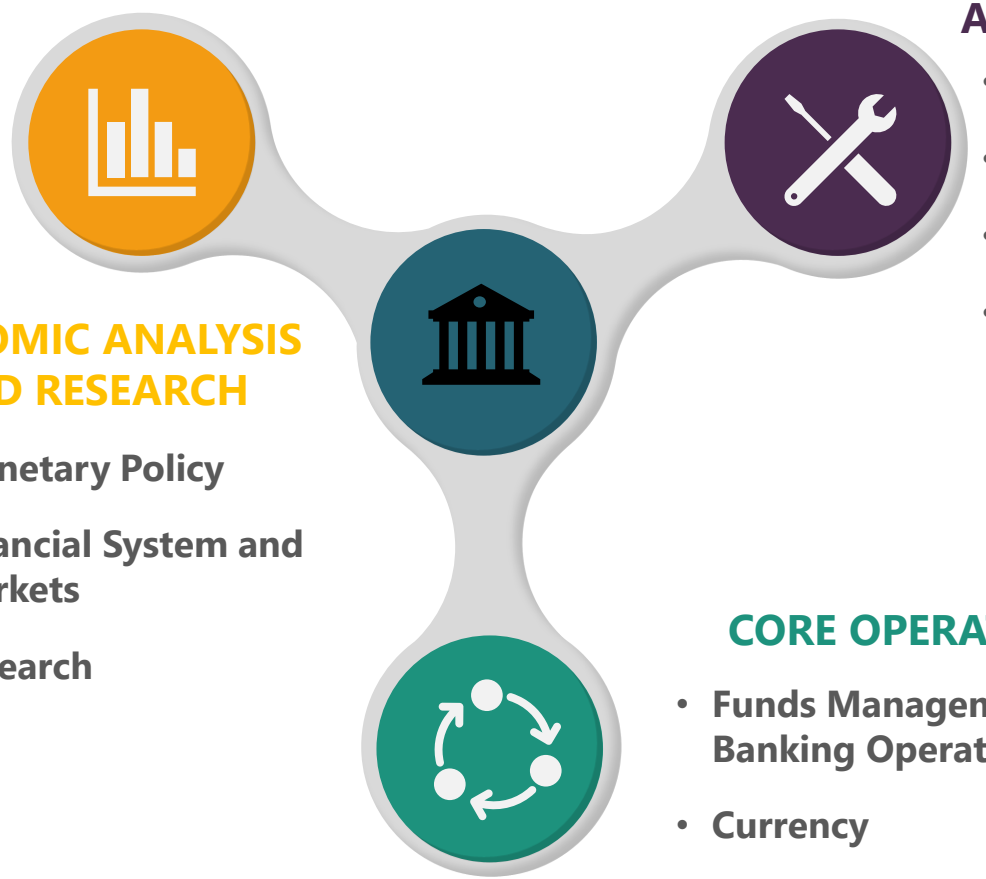
Canada's Central Bank

Mandate: *"To promote the economic and financial welfare of Canada"*

Vision: *"A leading central bank - dynamic, engaged, and trusted - committed to a better Canada"*

Primary Functions:

How are we organized?



ECONOMIC ANALYSIS AND RESEARCH

- Monetary Policy
- Financial System and Markets
- Research

CORPORATE ADMINISTRATION

- Human Resources
- Finance
- ITS
- etc.

CORE OPERATIONS

- Funds Management and Banking Operations
- Currency
- Retail Payment Supervision

Embracing Digital

To be digital first in every aspects of our business

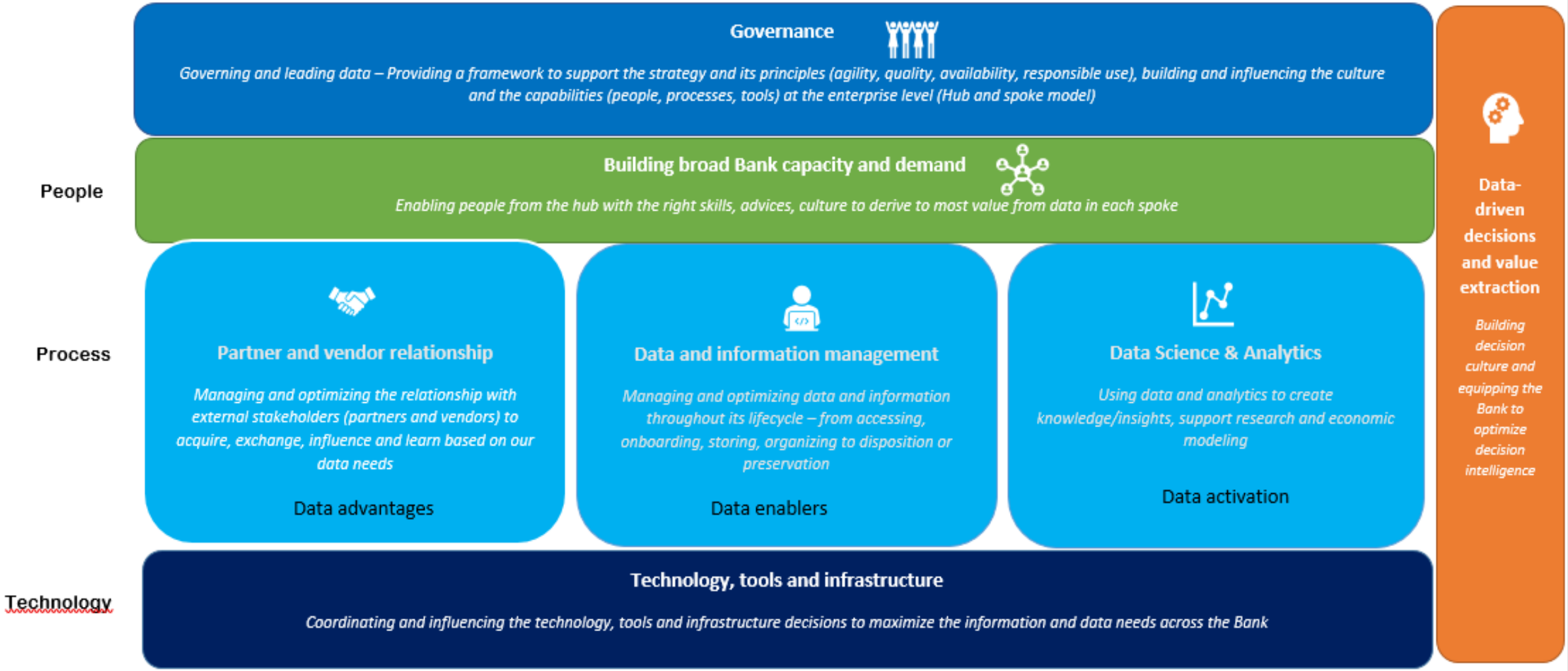
Be the leading central bank in the adoption of advanced analytics and use of data

Assess existing skills and how might we evolve them in the near future

Organizational capabilities and risks

Balancing foundation with innovation throughout

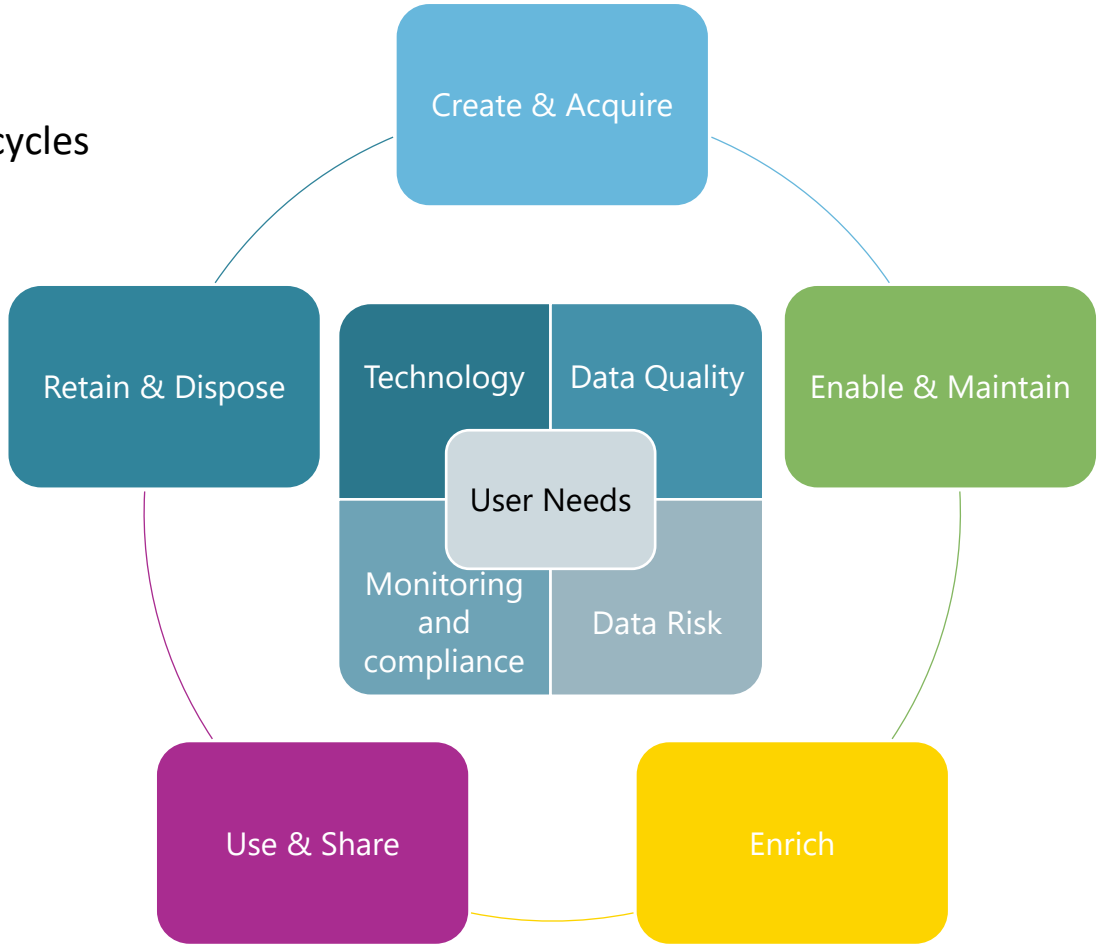
Chief Data Office



Data and Information Management Lifecycle

The data and information lifecycles engages **every** role:

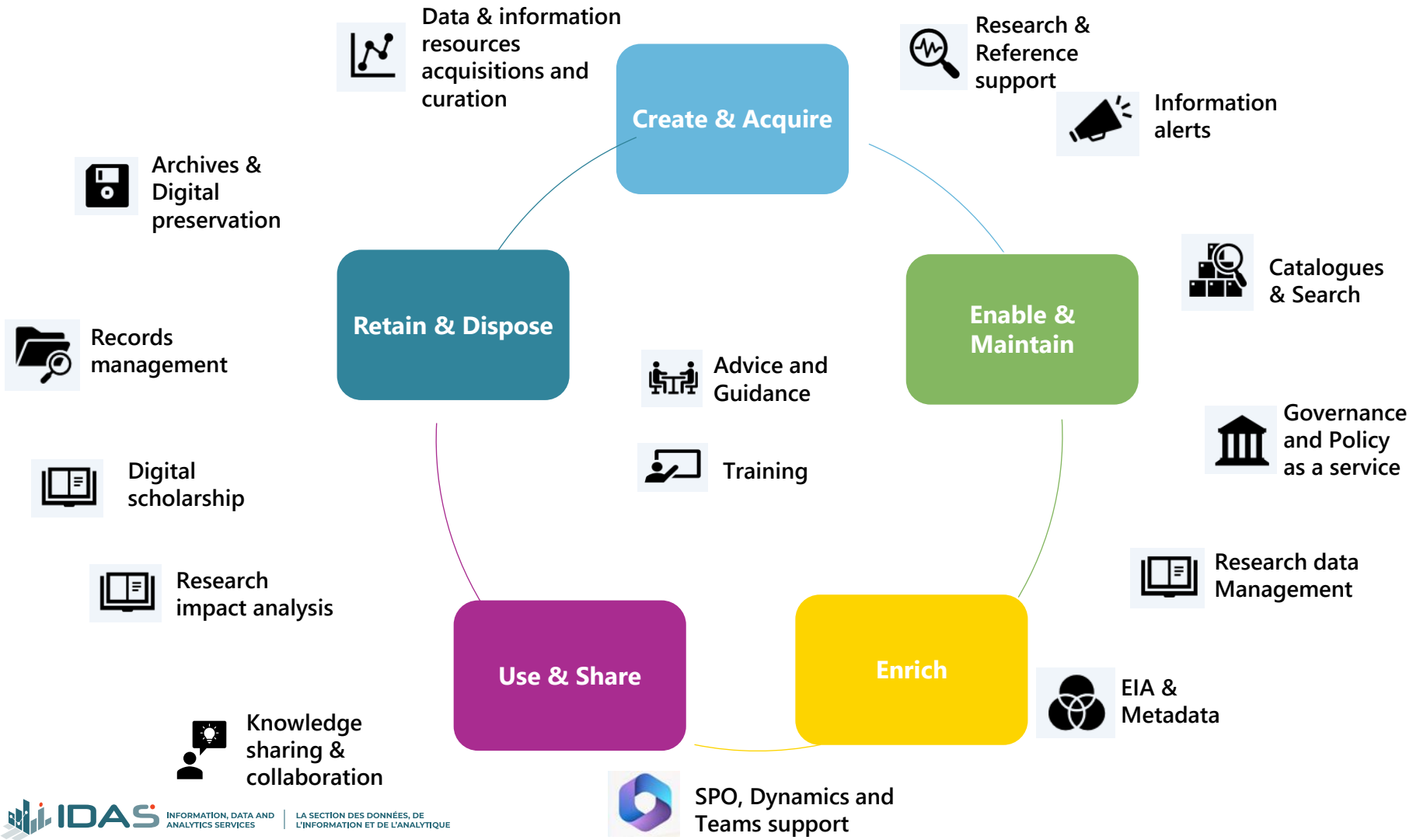
- Data Owner
- Enterprise Data Steward
- Business Data Steward
- Technical Data Steward
- Data User



Policy instruments provide guidance across all areas of the Lifecyle

IDAS services become a Centre of Enablement/Centre of excellence to support the Bank across all areas of the Lifecyle

Connecting our knowledge and information services to support broader data ambitions



New type of services offering related to digital and data

Acquisitions & Catalogues
Acquiring, licensing externally acquired data and information and creating inventories of these assets with catalogues and search tools for human

Repositories
Identifying corporate repositories and managing them to ensure quality, compliance and collaboration

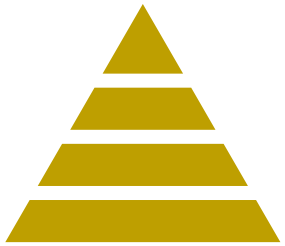
Information Architecture & Metadata
Supporting data owners and data stewards with quality and management of different categories of metadata, taxonomies, ontologies, knowledge graphs

Information and Data Governance
Defining and enabling data governance with policies and best practices along the lifecycle and implementing data roles across the organization

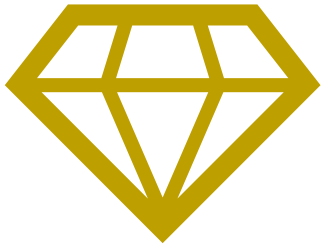
Digital preservation and open access
Preserving and making accessible identified corporate records and archives

Research support
Enabling researchers with digital scholarship services to support reproducibility and replication needs

How to turn data into wisdom in a knowledge organization that is data driven?



- Recognize the process that data as to follow before becoming wisdom
- Refer to thinkers to reset your perspective on strategic questions



- Invest to manage data and information as a precious assets along their lifecycle with enabling services and governance
- Data and information challenges need to be solve by business solutions not only from technology solutions

- Adopt a multidisciplinary approach and involve broader type of expertise. Data maturity will come if we are in it together!

Merci!