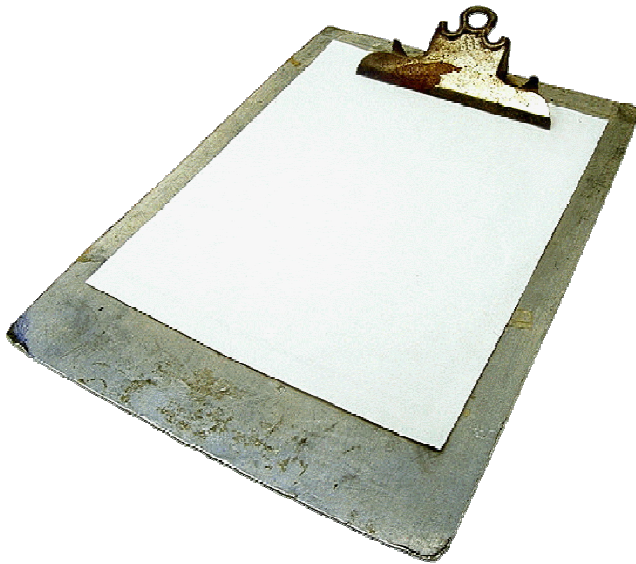




KNOWLEDGE MARKETS:

MORE THAN PROVIDERS AND USERS

PRESENTATION OUTLINE



- **Background**
- **Knowledge Markets**
- **Knowledge Services System**
- **Application**



AN OPENING THOUGHT...

“One of the saddest features of the real world is that goods do not spontaneously present themselves for distribution.”

The Economist (Nov. 5, 1994)

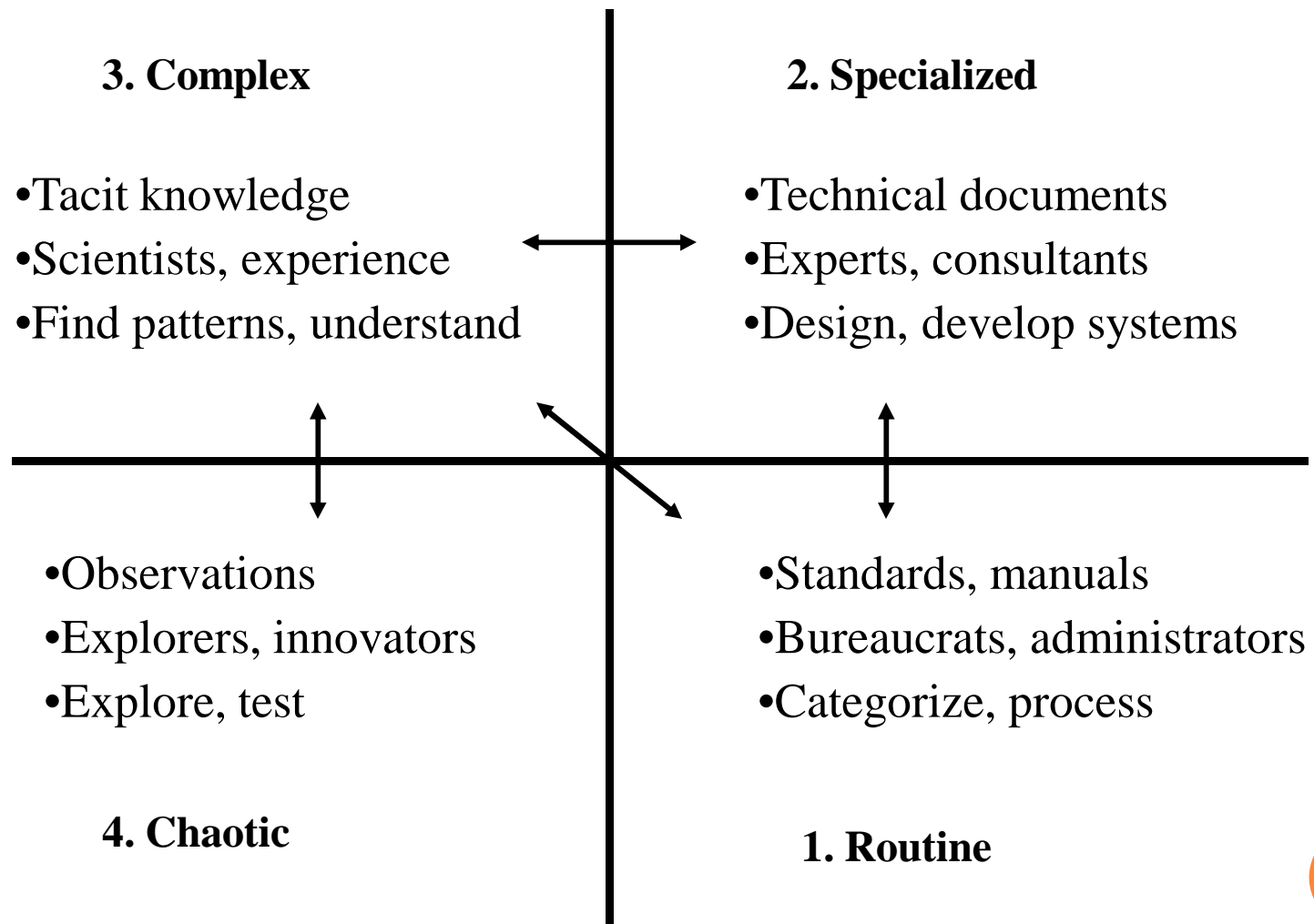


TASK GROUP MANDATE

“Examine the nature of science-related programs in Natural Resources Canada, describe appropriate elements in the context of Government of Canada Service Transformation, and submit a report.”

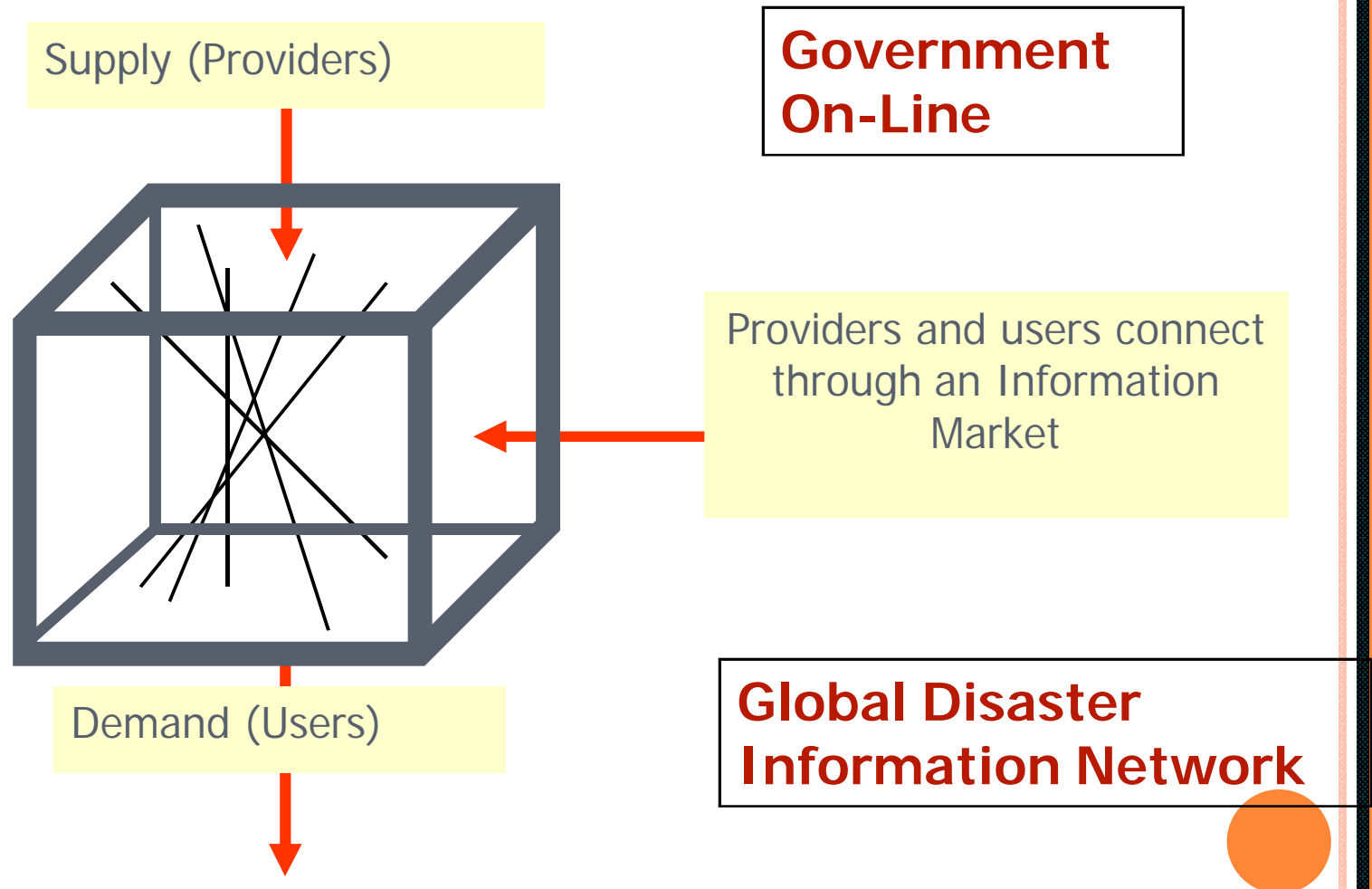


ORDERS OF KNOWLEDGE



Adapted from Snowden (2002)

TRADITIONAL INFORMATION MARKET MODEL



KNOWLEDGE SERVICES

Content: *“Embedded value, in the form of the message or signal contained within elements of the content value chain.”*

Products: *“Tangible, storable commodity or merchandise, with embedded value, derived from content.”*

Services: *“Intangible, non-storable work, function, or process, with embedded value, derived from content.”*

Solutions: “Successful use of content, products, or services to embed and extract value by accomplishing organizational tasks.”



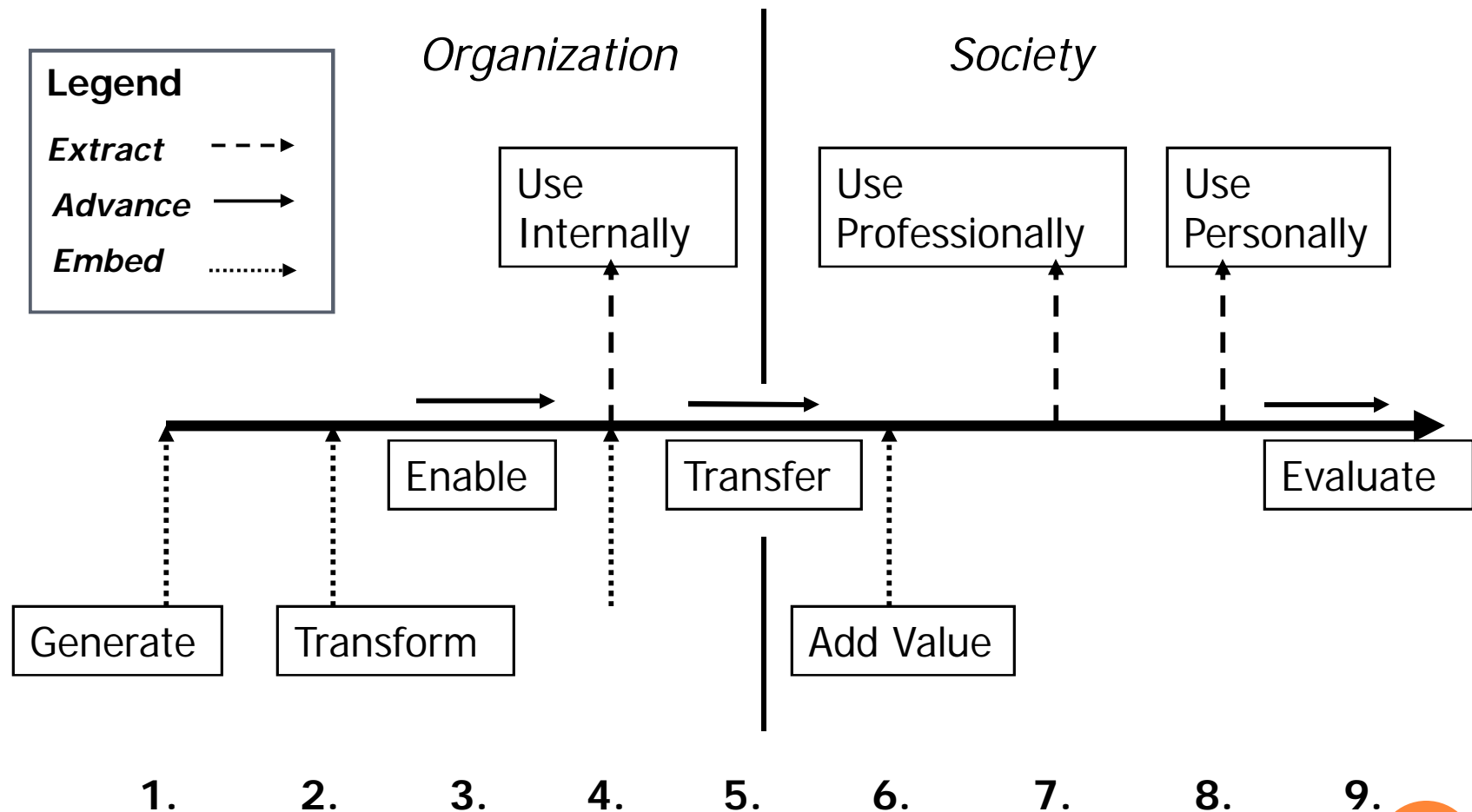
CONTENT VALUE CHAIN



"Flow of content through sequential stages, each of which changes its form and increases its usefulness and value."



KNOWLEDGE SERVICES VALUE CHAIN

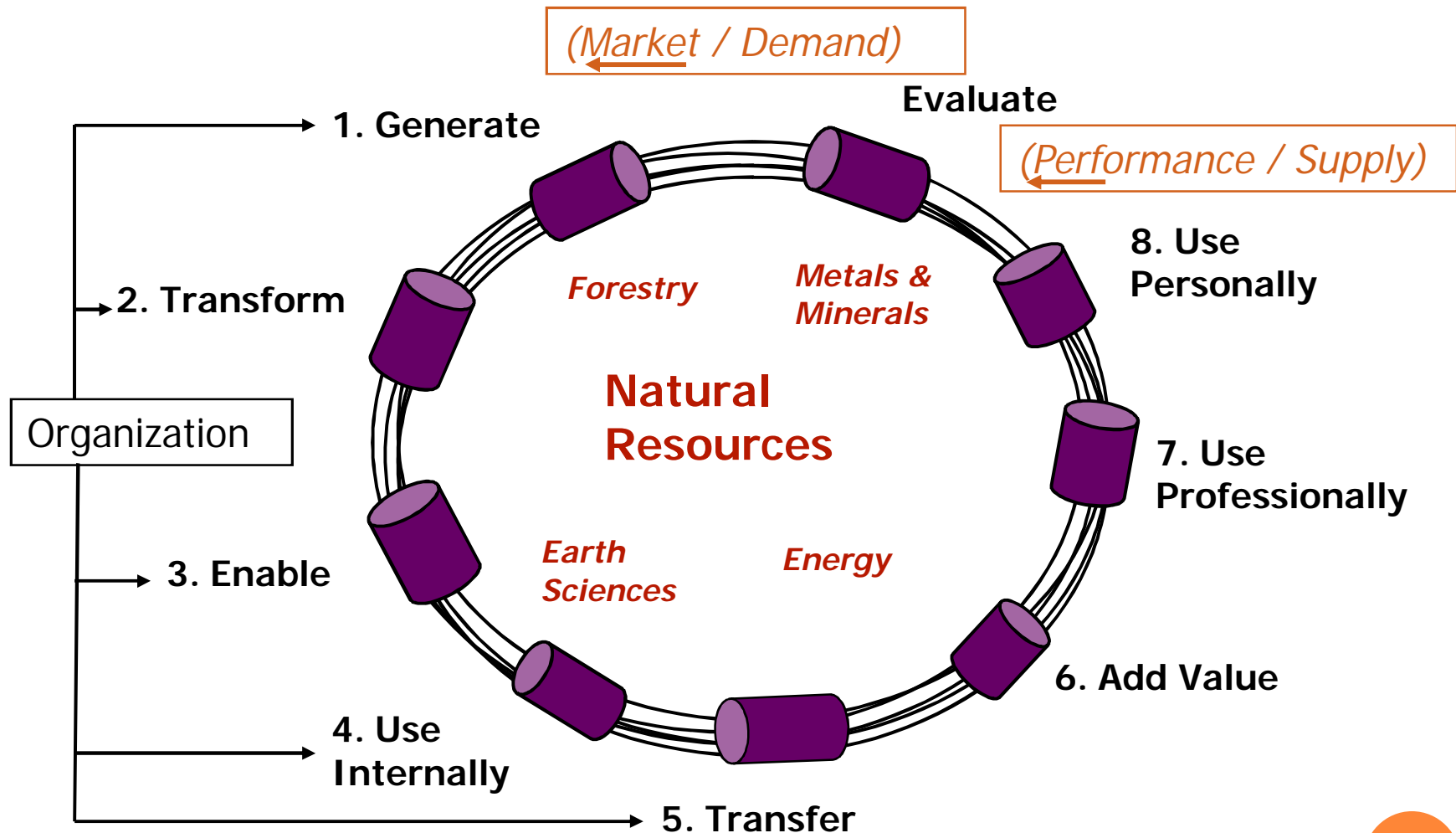


KNOWLEDGE SERVICES STAGES

1. **Generate** (*start Knowledge Services value chain*)
2. **Transform** (*goods & services increase utility, value*)
3. **Manage** (*permit transfer*)
4. **Use Internally** (*accomplish organizational objectives*)
5. **Transfer** (*enable external use*)
6. **Enhance** (*increase availability, utility, value*)
7. **Use Professionally** (*sector derives benefits*)
8. **Use Personally** (*individuals derive benefits*)
9. **Evaluate** (*organizational mandate, resources*)



VALUE-CHAIN KNOWLEDGE MARKET MODEL

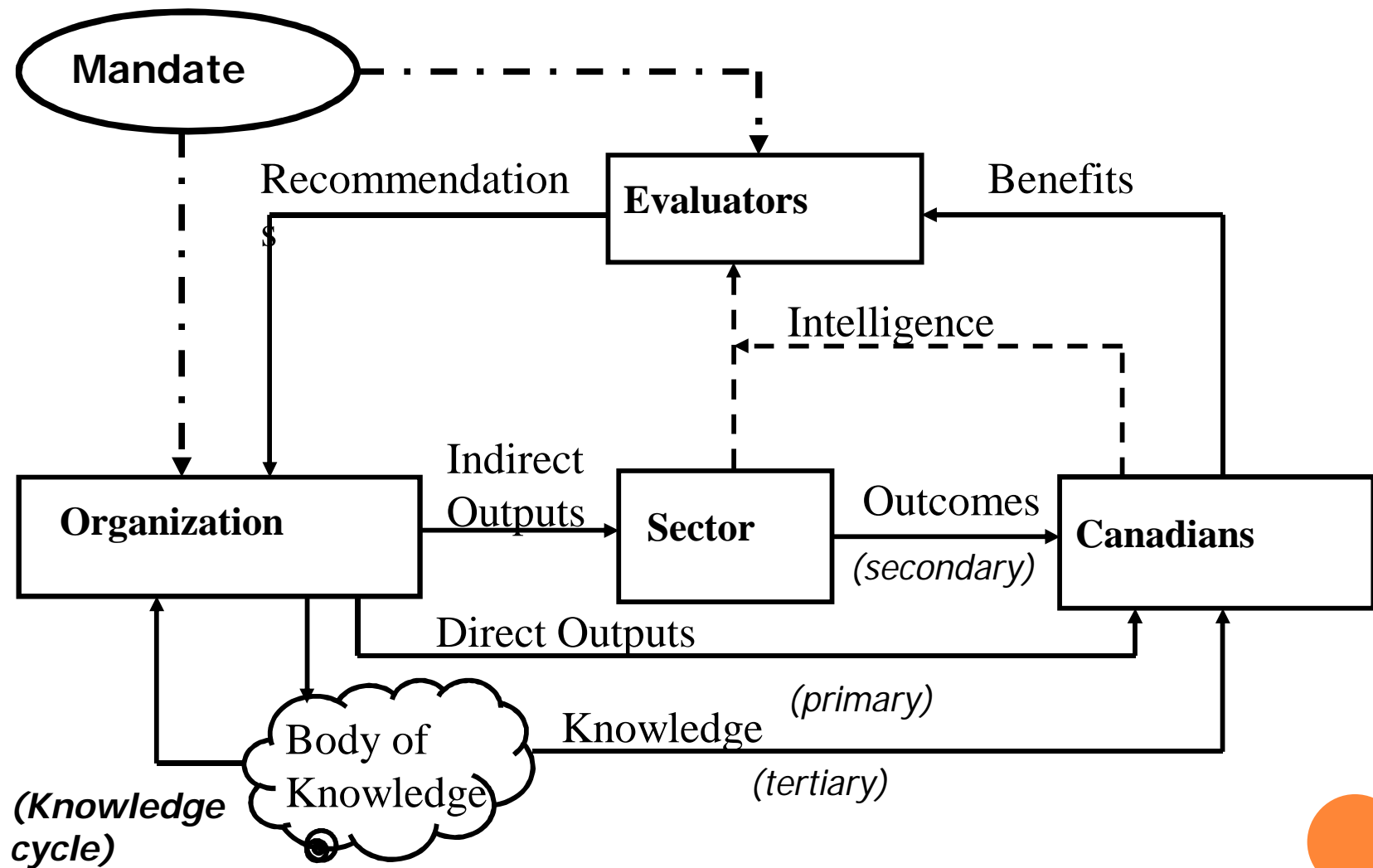


INSIGHTS: KNOWLEDGE MARKETS

- There are four types of knowledge services: content, products, services, and solutions.
- A Knowledge-services value chain represents the flow of goods and services through sequential stages, in which value is embedded, advanced, or extracted.
- A knowledge market consists of a group of cyclic, interrelated knowledge services value chains.
- A knowledge market model is a useful approach for measuring and managing knowledge services.



KNOWLEDGE SERVICES SYSTEM



SYSTEM HIERARCHY

- **Knowledge Services System**
 - **Knowledge Services Sub-Systems (5)**
 - **Stages (9)**
 - **Components (34+9)**
 - **Sub-Components (245+44)**



SYSTEM FRAMEWORK

Who

Work

What

Why

Component a	Component d	Component...
Component b	Component e	Component...
Component c	Component f	Component...
Purpose 1	Purpose 2	Purpose...

Stage 1

Stage 2

Stage ...

**Outputs &
Services**



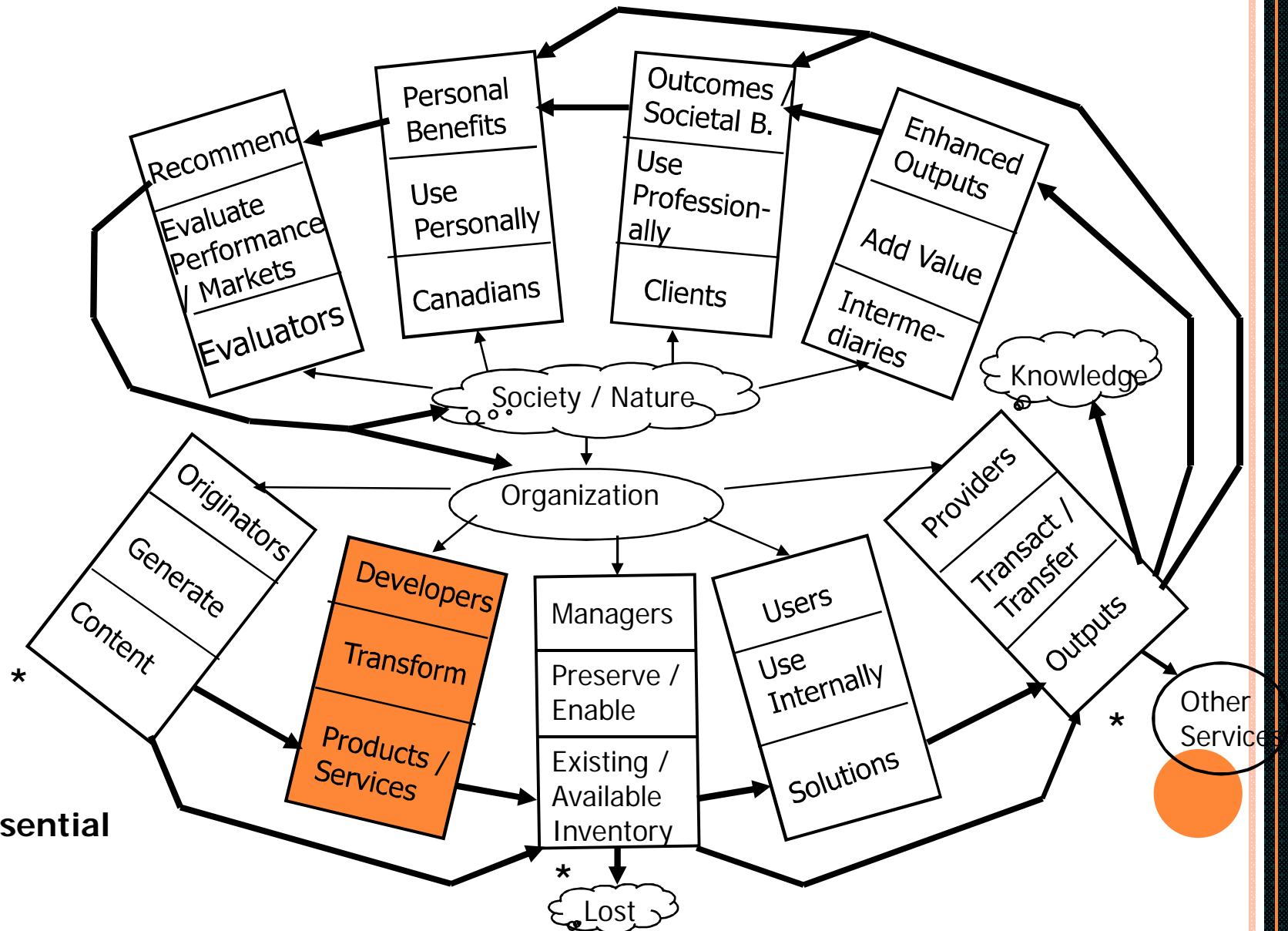
Value Chain

Benefits

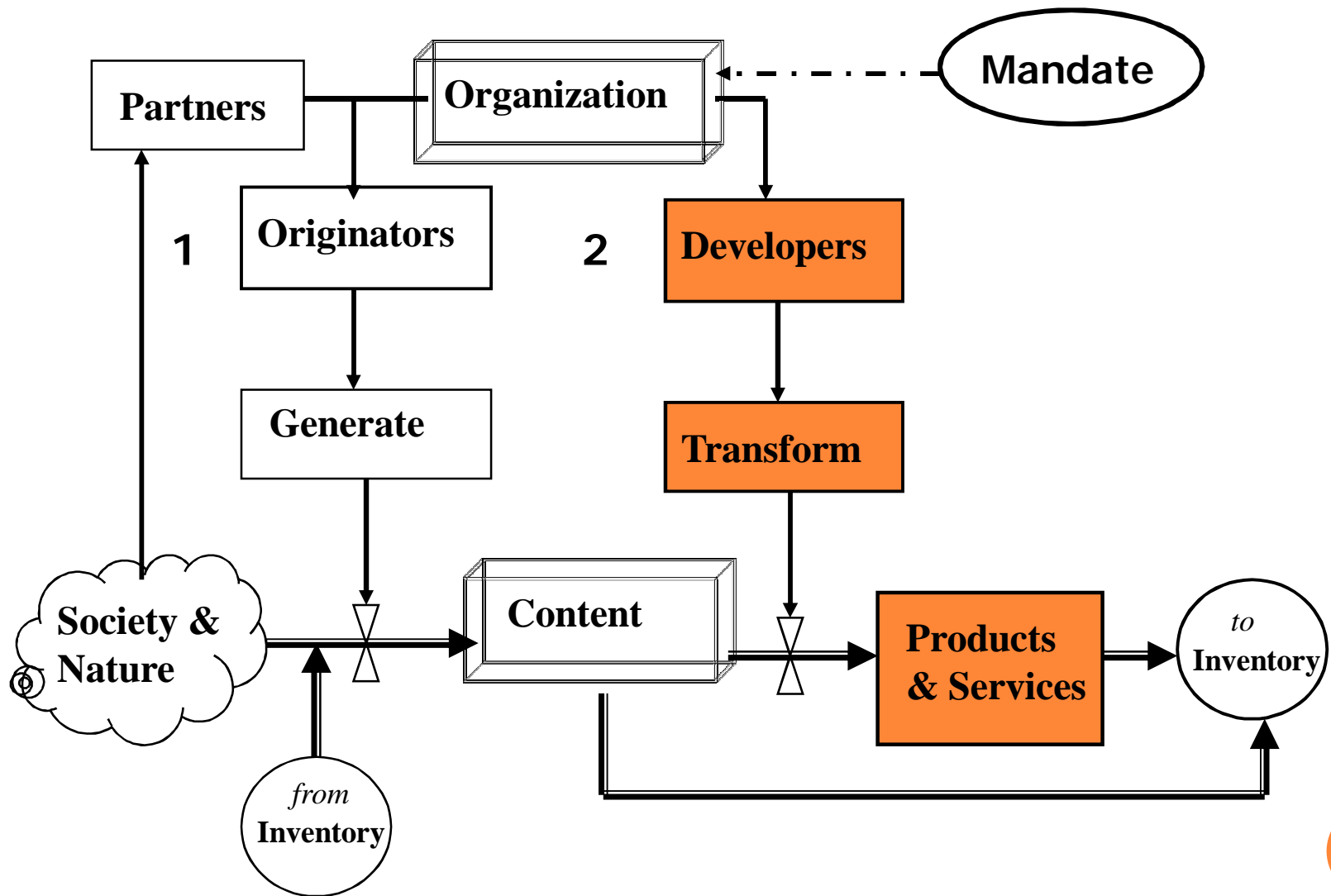


Elements of Zachman (1992)

SYSTEM STAGES



PRODUCTION SUB-SYSTEM



TRANSFORM CONTENT

Developers	Transform	Products	Services
Engineer Data Architect Systems Analyst Information analyst Programmer Specialist Author Compiler Editor	Develop Codify Embed Analyse content Write Assemble Produce	Database Scientific article Technical report Outreach material Geospatial products Statistical products Standards Policies Regulations Systems Devices	Answers Advice Teaching Facilitation Support Laboratory



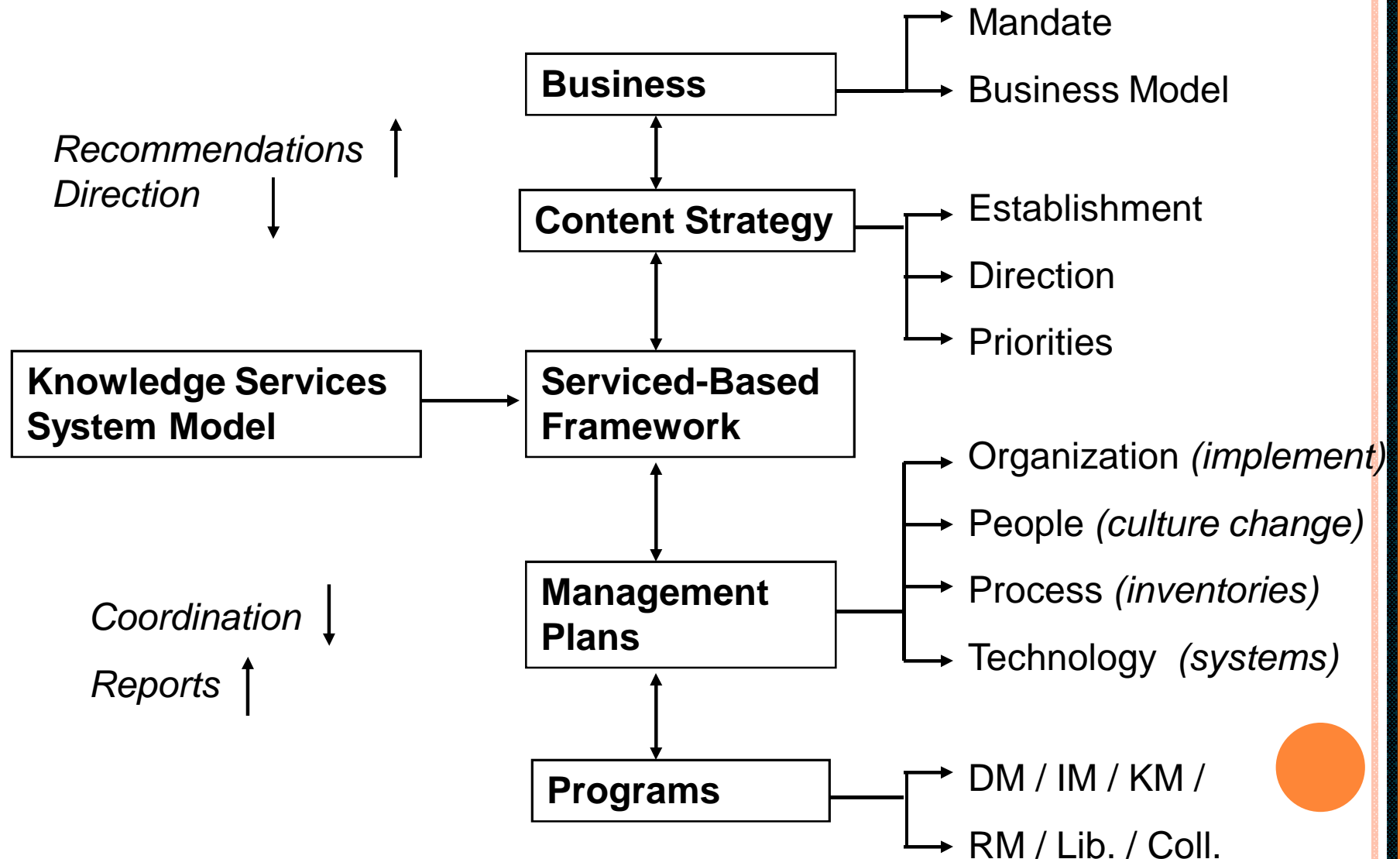
INSIGHTS:

KNOWLEDGE SERVICES SYSTEM

- A Knowledge Services System integrates many components, flows, and interactions across organizations, sectors, and society.
- In a properly functioning system, the components work as a group to support the flow of knowledge services through a value chain.
- A Knowledge Services System includes nine sequential stages, three of which are essential.
- Each stage includes who, work, what, and why components.



IMPLEMENTING A SERVICE FRAMEWORK



SOME STRATEGIC QUESTIONS

- Organizational role in information and knowledge markets?
- Balance between supply- and demand-driven approaches to knowledge markets?
- Distribution of outputs among different user groups?
- Position of outputs and services along a spectrum from rich to reach?
- Functional or service framework for managing content?



A FINAL THOUGHT...

“The first task of any theory is to clarify terms and concepts that are confused... Only after agreement has been reached regarding terms and concepts can we hope to consider the issues easily and clearly and expect to share the same viewpoint.”

Karl Von Clausewitz (1780-1831)

