

Capacity Development and Innovation plan for knowledge management

Jocelyne JAWHAR and Damiano PETRUZZELLA
CIHEAM Bari



Kingdom of Morocco
Ministry of Agriculture and Fisheries



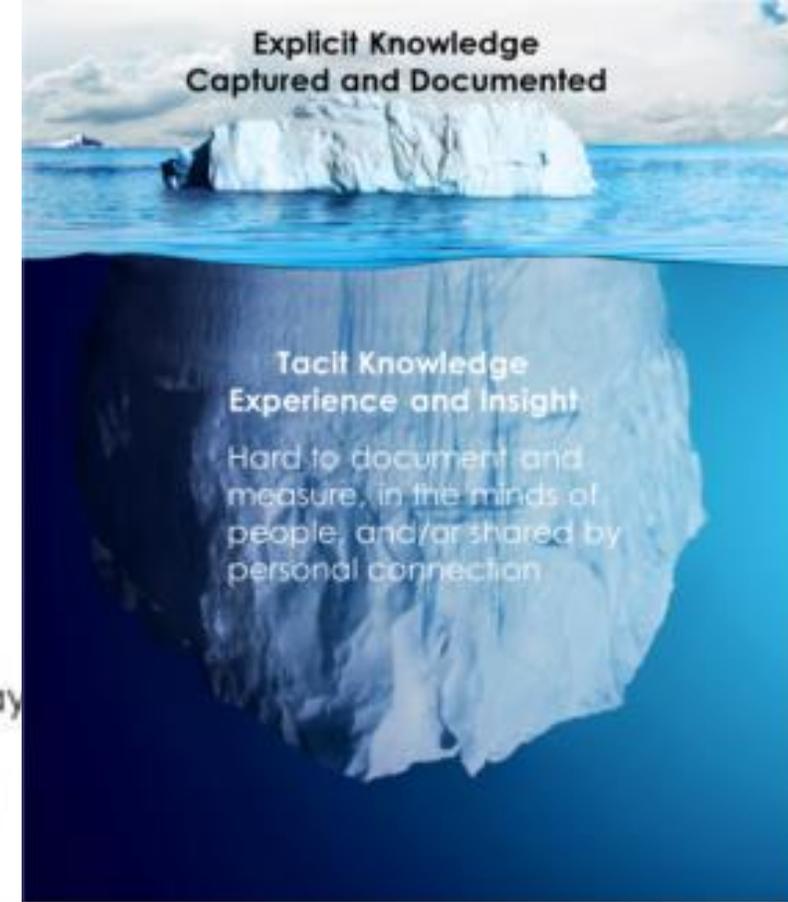
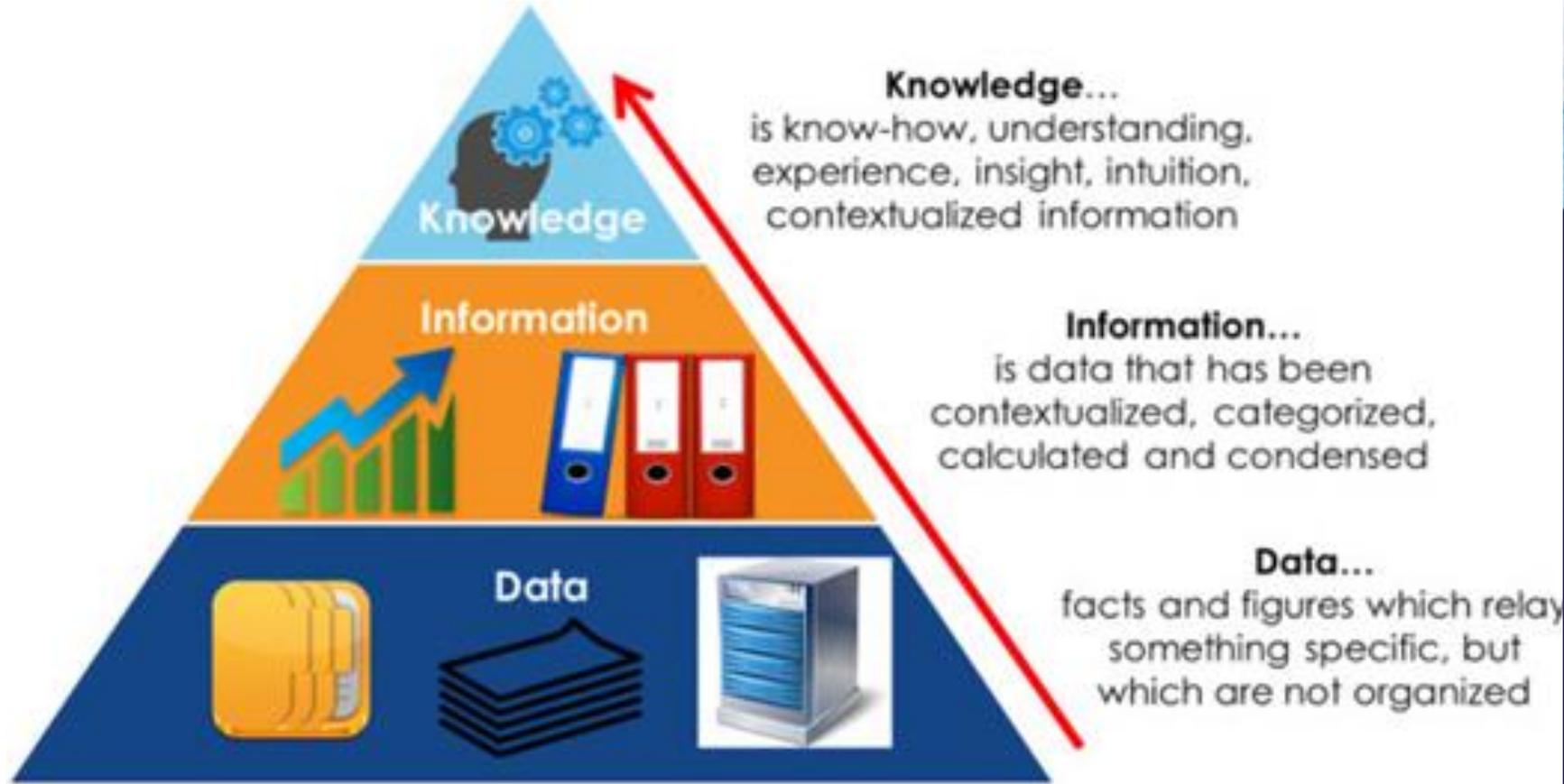
Local Moroccan Institutions

The INNOVATION PLAN

- **Part I: a** basic introduction to KM (definition, processes, technologies, role of people, leadership, culture) that could be used as a guideline for partners to complete the second part
- **Part II: It consists** in co-designing the innovation plan tailored for each institution, on the basis of the identified needs related to the KM processes and the feasible solutions to be proposed at capacity building level.

CONTENTS/PART I

- Basic introduction to Knowledge management
- Introduction
 1. What is knowledge?
 2. What is knowledge management?
 3. What is Knowledge management framework?
 - KM processes
 - Knowledge discovery and detection
 - Knowledge acquisition & creation
 - Knowledge storage
 - Knowledge sharing/transfer
 - KM technologies
 - People
 - Management & leadership
 - Strategy/Culture
 4. What are the barriers to KM?
 5. Why to adopt knowledge management?



What is knowledge?

Two Types of Knowledge

Explicit

- Information that is written down or codified

Tacit

- Information that is stored inside a person's mind

Knowledge Management Definition

What is Knowledge Management (KM)

"Knowledge Management is the discipline of enabling individuals, teams and entire organizations to collectively and systematically create, share and apply knowledge, to better achieve their objectives."

Ron Young, CEO/CKO Knowledge Associates International

Knowledge management (KM) is the process of capturing, developing, sharing, and effectively using organizational knowledge" ("Knowledge management," 2014). International (General).

Knowledge Management is therefore a conscious strategy of getting the **right knowledge** to the **right people at the right time** and helping people share and put information into action in ways that strive to improve organizational performance" (O'Dell & Grayson, 1998).

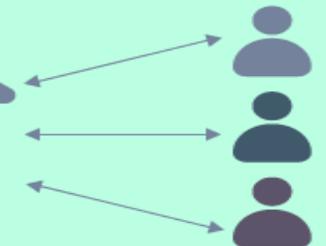
HOW TO WORK YOUR WAY THROUGH KNOWLEDGE MANAGEMENT



Tacit knowledge



Explicit knowledge



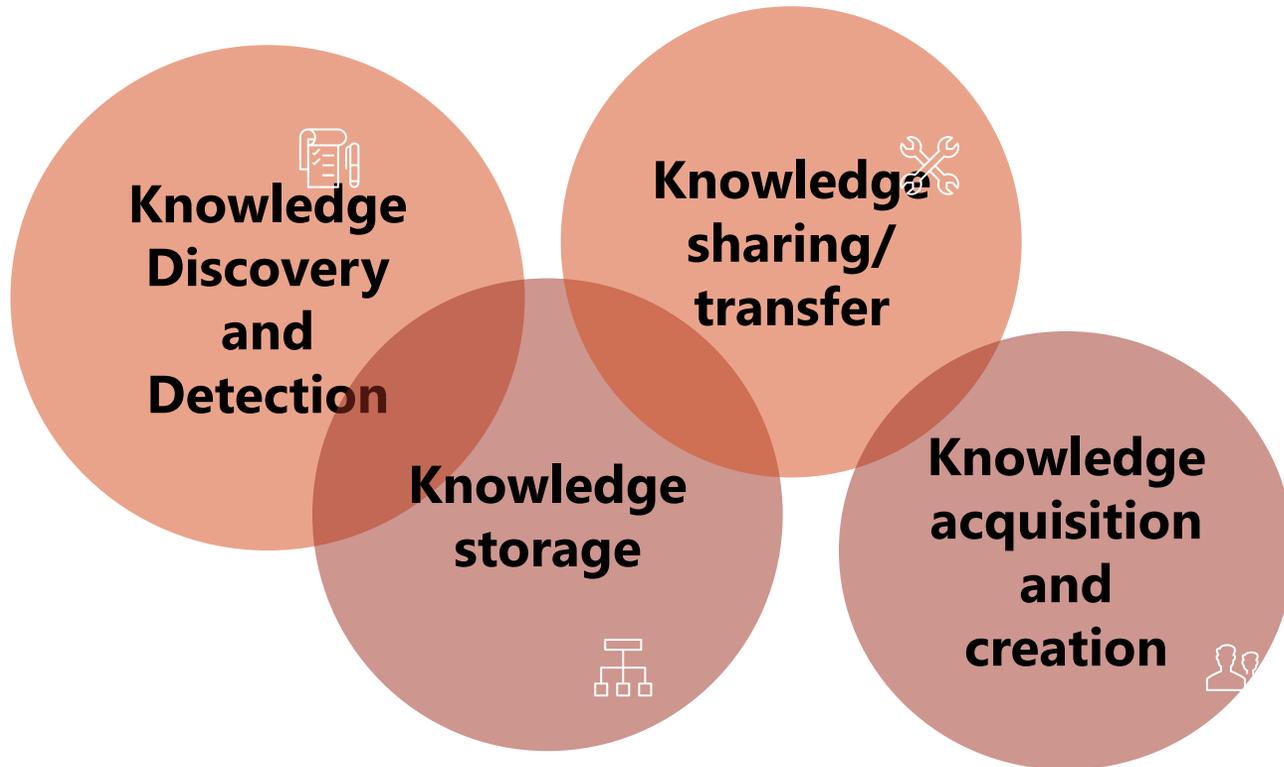
Other employees

WHAT IS KM FRAMEWORK?



- 01 Processes:** Its approach varies from institution to institution. There is no limit on the number of processes. Knowledge discovery & detection, Knowledge acquisition & creation, Knowledge storage, Knowledge sharing and transfer .
- 02 Technologies:** (Systems) that facilitate the above processes.
- 03 People:** (individual level) and their role in the different processes (skills)
- 04 Leadership:** consists in the competent and experienced leadership that KM requires at all levels.
- 05 Culture/strategy** and the long-term support to implement and sustain initiatives and the culture's influence on people interaction

Knowledge management Cycle/ Processes



Create Knowledge through new ways of doing things

Identifies and captures new knowledge

Stores knowledge in repository

Makes knowledge available at all times to anyone



Identifying existing knowledge sources, discovering hidden knowledge in data and information: may lie within or outside the institution

2

Internal knowledge may be resident within peoples' heads; embedded in behaviors, procedures, software and equipment; recorded in various documents; or stored in databases and online repositories

3

Common sources of **external knowledge** include publications, universities, government agencies, professional associations, personal relations, consultants, knowledge brokers, and interorganizational alliances

1. Knowledge Discovery and Detection

Knowledge capital

SOME SUPPORTING TOOLS

(Knowledge Discovery and Detection)

Non IT TOOLS

- Knowledge Cafés
- Communities of Practice
- Mentor/ Mentee

IT TOOLS

- Knowledge Clusters
 - Knowledge Mapping
 - Collaborative Virtual Workspaces
-



Knowledge creation takes place through the transformation of **tacit knowledge to explicit and backward**, as **Nonaka and Takeuchi (1995)** explained in their knowledge life cycle **SECI model** (for Socialization, Externalization, Combination, Internalization).

2. Knowledge acquisition & creation

The ability to **create** new knowledge is often at the heart of the organization's/institutions' competitive advantage.

2

Knowledge types can be combined and converted into **four** ways showing how knowledge is created and shared in the organization

3

	TACIT Knowledge	EXPLICIT Knowledge
TACIT Knowledge	SOCIALIZATION	EXTERNALIZATION
EXPLICIT Knowledge	INTERNALIZATION	COMBINATION

Nonaka and Takeuchi (1995) SECI Model

SECI MODEL

	TACIT Knowledge	EXPLICIT Knowledge
TACIT Knowledge	SOCIALIZATION	EXTERNALIZATION
EXPLICIT Knowledge	INTERNALIZATION	COMBINATION

Nonaka and Takeuchi (1995) SECI Model

- 01 Socialization:** sharing of experiences through observation, imitation and practice. It generally occurs through workshops, seminars, apprenticeships, and conferences (tacit to tacit).
- 02 Internalization:** process of experiencing knowledge through an explicit source, i.e., one can combine the experience of reading (explicit to tacit).
- 03 Externalization (capture):** the conversion of tacit knowledge (e.g., what one learned at a workshop) into explicit form (e.g., written report).
- 04 Combination:** This is the simplest form. Codified knowledge sources (e.g. documents) are combined to create new knowledge (explicit to explicit).

SOME SUPPORTING TOOLS

(Knowledge acquisition & creation)

Non IT TOOLS

- Brainstorming
- Learning review
- After Action Review

IT TOOLS

- Knowledge bases (wikis)
- Knowledge blogs
- Knowledge portal, video sharing

-
- Collaborative Physical Workspaces
- 



The processes of knowledge storage

involve finding ways to convert documents, models, human insights and other artefacts into forms that make retrieval and transfer easy without losing the “true meaning” of the knowledge

3. Knowledge storage

2

With the use of information technology, organizations try to develop **vast repositories** of organization knowledge about customers, projects, processes, technology

3

Taxonomy enables the structure to organize information, documents, and libraries in a consistent way. It can be considered as a classification system, i.e., ‘**The Table of Contents**’ for an organization’s knowledge capital. Traditionally, the company **Intranet** has quite often been the starting point for taxonomy solutions. *Other:* Document Libraries, Knowledge Bases (Wikis, etc.), ...

Knowledge organization involves activities that "classify, map, index, and categorize knowledge for navigation, storage, and retrieval" (*Botha et al., 2008*).

SEBINA, a system adopted by CIHEAM Bari for knowledge storage

The CIHEAM Bari Documentation Centre (DC) is a multimedia library specialized in Land and water resources management, Sustainable integrated pest management (IPM) Technologies for Mediterranean fruit and vegetable crops, Mediterranean organic agriculture, Development of sustainable food systems and Mediterranean diet, Integrated management of coastal areas, Gender empowerment, Fisheries and aquaculture.

Besides providing a vital service for MAIB students and for research, the DC is designed to be the ideal place to meet, discuss and have intercultural exchanges.

The library is entirely computerized via the SEBINA Open Library software and has around 6,400 volumes (over 11,000 titles.)

FAO Depository Library: the CIHEAM Bari Library, as the official designation held in Rome in 2013, gathers FAO publications and makes a vital contribution to FAO's goal of maximizing access to its publications and advancing knowledge in the Organization's fields of expertise.

In addition, the DC edits: the Options Méditerranéennes issued by CIHEAM Bari (the complete series is available on the CIHEAM web site) a Newsletter (published every two months) with news and events concerning the library and its new acquisitions.

The DC services for users are:

- on-the-spot consultation of their own documentary sources*
- document research, acquisition and provision*
- internal document lending.*



Organizations can realize the full value of their knowledge assets only when they can be effectively transferred between individuals

2

it is used for content management as well as data and text mining (looking for hidden knowledge, relationships, etc. within data and documents), promoting spaces (technology transfer office,..), learning processes (e-learning, best practices, benchmarking,..)

3

...technological platforms, participatory methods to share and transfer knowledge (living lab, community of practices).

4. Knowledge sharing/ transfer

it consists in the most important process in KM; it plays a determinant role for both knowledge reuse and knowledge creation.

SOME SUPPORTING TOOLS

(Knowledge acquisition & creation)

Non IT TOOLS

- Peer Assist
- Storytelling
- Training

IT TOOLS

- Social Networking Services
 - E-learning/ MOOC
 - Webinar
 - Bases (Wikis, etc.), Blogs, Knowledge Clusters,
-

The image is a screenshot of a web browser displaying the CIHEAM IAMB website. The browser's address bar shows the URL 'http://www.iamb.it/en/education/distance_learning/'. The website's header includes navigation links for 'THE CIHEAM', 'OUR INSTITUTES: CHANIA, MONTPELLIER, ZARAGOZA', and a search bar. Below the header is a banner for 'Mediterranean Agronomic Institute of Bari' with the CIHEAM IAMB logo. A main navigation menu contains links for 'ABOUT US', 'NEWS & EVENTS', 'PRESS ROOM', 'EDUCATION', 'RESEARCH', 'COOPERATION', 'PUBLICATIONS', and 'POLICY DIALOGUE'. A secondary menu includes 'VACANCIES & TENDERS' and 'ALUMNI'. The main content area features a large blue banner with the word 'Education' and a horizontal menu with 'MASTERS', 'ADMISSION PROCEDURE', 'EUROPEAN PROGRAMMES', 'LIFELONG LEARNING', and 'E-LEARNING'. A sidebar on the right contains a vertical menu with 'TECHNOLOGY', 'METHODOLOGY', and 'BACKGROUND'. The text on the page begins with 'E-learning and Remote Technical Assistance (RTA) are Distance Learning (DL) expressions, which are complementary and synergistic with traditional face-to-face learning and technical assistance activities that CIHEAM Bari promotes for the benefit of its partners, enhancing its multiplier effects and increasing the number of beneficiaries. The above Knowledge transfer modalities take into account both detailed context analyses (for training, social and technological purposes) and appropriate methodologies for adult learning.'



Mediterranean Agronomic Institute of Bari

CIHEAM IAMB

ABOUT US

NEWS & EVENTS

PRESS ROOM

EDUCATION

RESEARCH

COOPERATION

PUBLICATIONS

POLICY DIALOGUE

VACANCIES & TENDERS

ALUMNI

Education

MASTERS

ADMISSION PROCEDURE

EUROPEAN PROGRAMMES

LIFELONG LEARNING

E-LEARNING

HOME PAGE / EDUCATION / E-LEARNING

E-learning and Remote Technical Assistance (RTA) are **Distance Learning (DL)** expressions, which are complementary and synergistic with traditional face-to-face learning and technical assistance activities that CIHEAM Bari promotes for the benefit of its partners, enhancing its multiplier effects and increasing the number of beneficiaries. The above Knowledge transfer modalities take into account both detailed context analyses (for training, social and technological purposes) and appropriate methodologies for adult learning.

TECHNOLOGY

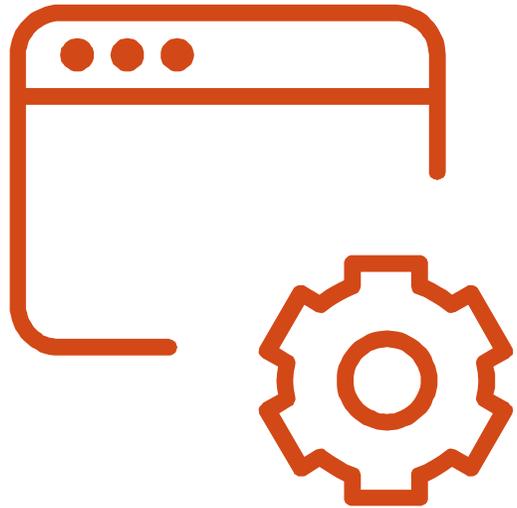
METHODOLOGY

BACKGROUND

People, Leadership & culture



Why should an institution adopt KM



- Facilitating and managing innovation and organizational learning,
- Leveraging expertise across the organization,
- Increasing network connectivity between internal and external individuals,
- Allowing employees to obtain relevant insights and ideas appropriate to their work,
- Valorize the Research results
- Managing intellectual capital and assets in the workforce (such as the expertise and know-how possessed by key individuals or stored in repositories).

CONTENTS/ PART II

Co-design of the innovation plan for knowledge management and capacity building

- Objective
- Methodology
- Worksheets

PART II

Methodology

Getting started is sometimes the biggest obstacle. KM experts advise to
"Think Big, Start Small but Start."

- The innovation plan for KM will be built-up together with the project stakeholders involved in this project based on living –lab approach.
- The questionnaire is focused on three essential points:
 - current status of knowledge management in the institution (processes, tools/technologies/roles and skills)
 - needs identification with knowledge actors, regarding the Knowledge management processes: creation, storage and sharing/transfer
 - highlighting the solutions which are appropriate to be put into place for the most critical domains.

Worksheets

KM processes

For each of the following KM processes in your institution:

- A. Knowledge discovery and detection (identification)
- B. Knowledge acquisition and creation
- C. Knowledge storage
- D. Knowledge sharing/transfer

We will draw together a picture regarding the current status of KM, the needs and solutions by answering the following questions, articulated at 3 levels: strategy/policies, technology/people/skills/roles.

1. Current status?
2. What are the needs ?
3. What are the solutions?

A. Knowledge discovery and detection

1. Current status	
Where is Knowledge in your institution? <i>Investigate if and how the institution tracks its knowledge.</i>	Response
Assessing an organization's knowledge position requires cataloging its existing intellectual resources by creating what is commonly called a knowledge map. Knowledge can be characterized in many ways. tacit and explicit knowledge, general and situated context-specific knowledge, and individual and collective knowledge. Knowledge can also be categorized by type, including declarative (knowledge about), procedural (know-how), causal (know-why), conditional (know when), and relational (know-with). Hereby are some questions that could help you as examples in order to complete this session.	
Are there any strategies to track the knowledge within your company?	
What person or team has knowledge about a specific subject?	
Is it the job of specific department? or is it viewed as everyone's job and everybody contributes to it?	
Is it possible to know what knowledge degree this person has?(skills and competence)?	
What are the tools, technologies used?	

2. NEEDS

What are the needs you identified? Please specify the needs you encountered in your institution at the three levels: policies, technologies, skills

3. SOLUTIONS

What are the requested actions to be carried-out? Please specify the solutions you suggest for your institution at the three levels: policies, technologies, skills

THANK YOU