



CAMPUS FOR THE FUTURE

LEADERSHIP & MANAGEMENT

INFORMATION MANAGEMENT @ UNIVERSITIES

A MODEL PROPOSAL

> A RESEARCH DIRECTED TO ...



Portuguese Public Universities

15 entities

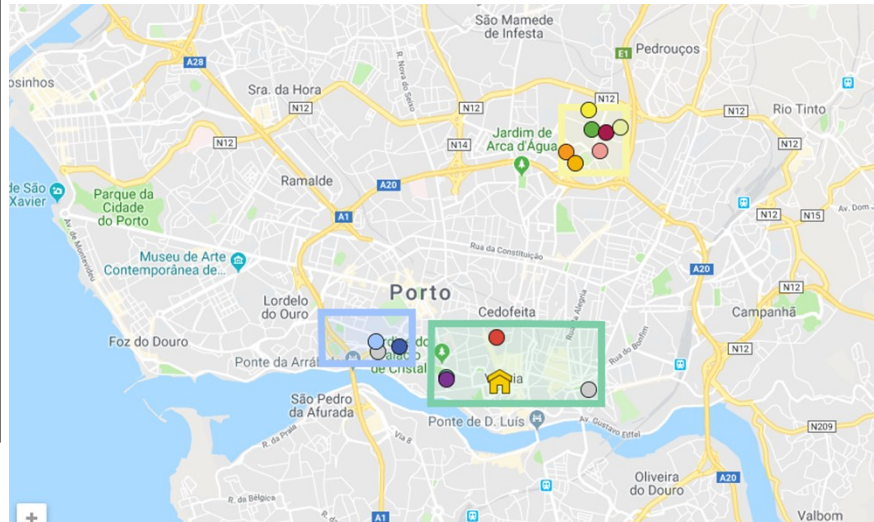
> A RESEARCH DIRECTED TO ...

+ case

University of Porto

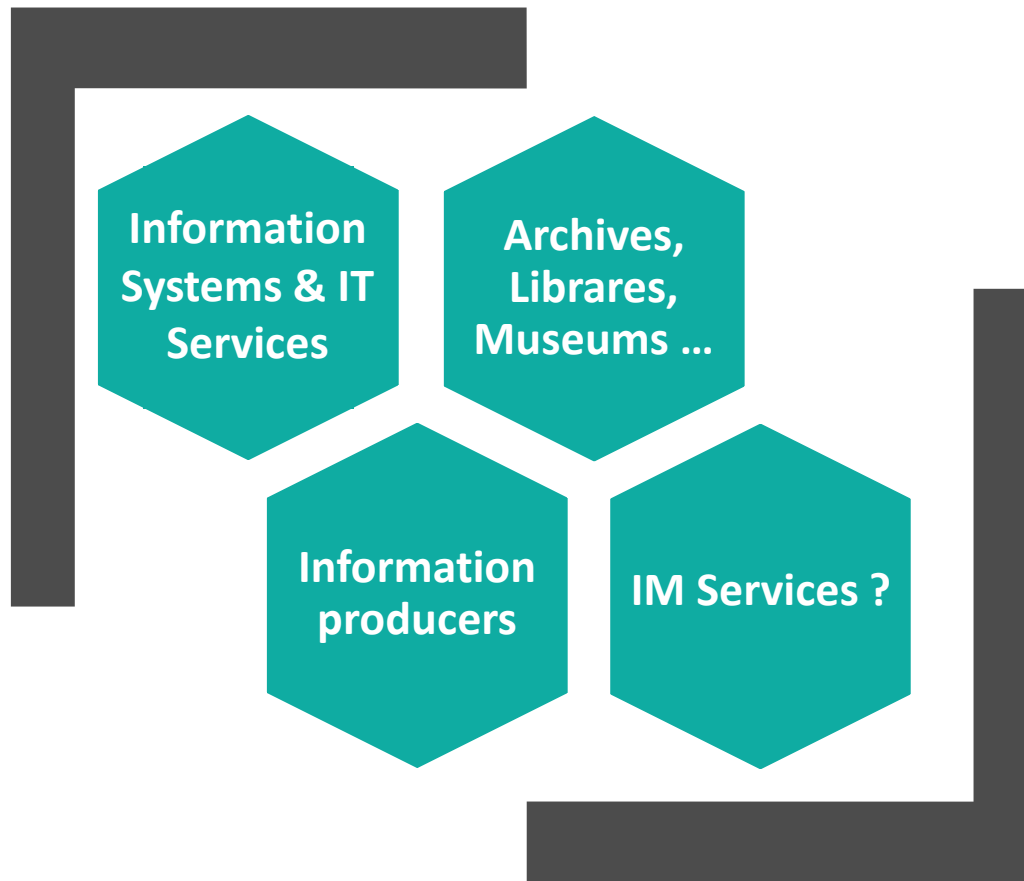
at Porto

a city embodying its 3 main sites (Polos)



29 796	Students
3 942	HR
49	Research Centres
14	Faculties
1	Business School
1	Science and Technology Park

> A RESEARCH DIRECTED TO ...



117 services engaged

within

a secular INSTITUTION

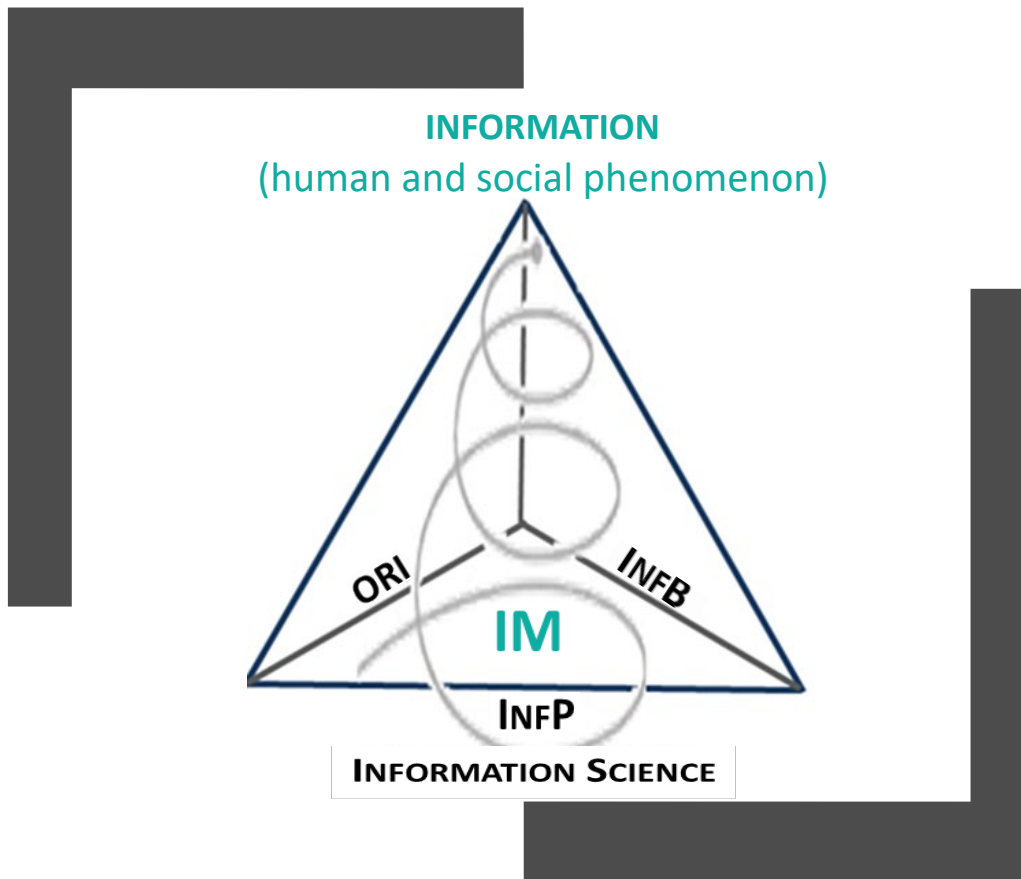
which, as an ORGANIZATION,

needs to be managed to persist

stressing INFORMATION

and KNOWLEDGE

> A SYSTEMIC, CROSS-SECTIONAL AND APPLIED APPROACH WITHIN INFORMATION SCIENCE



Information Management (IM)

in permanent integration and crossing with **Informational Production (InfP)**, **Organization and Representation of Information (ORI)** and **Informational Behaviour (InfB)**

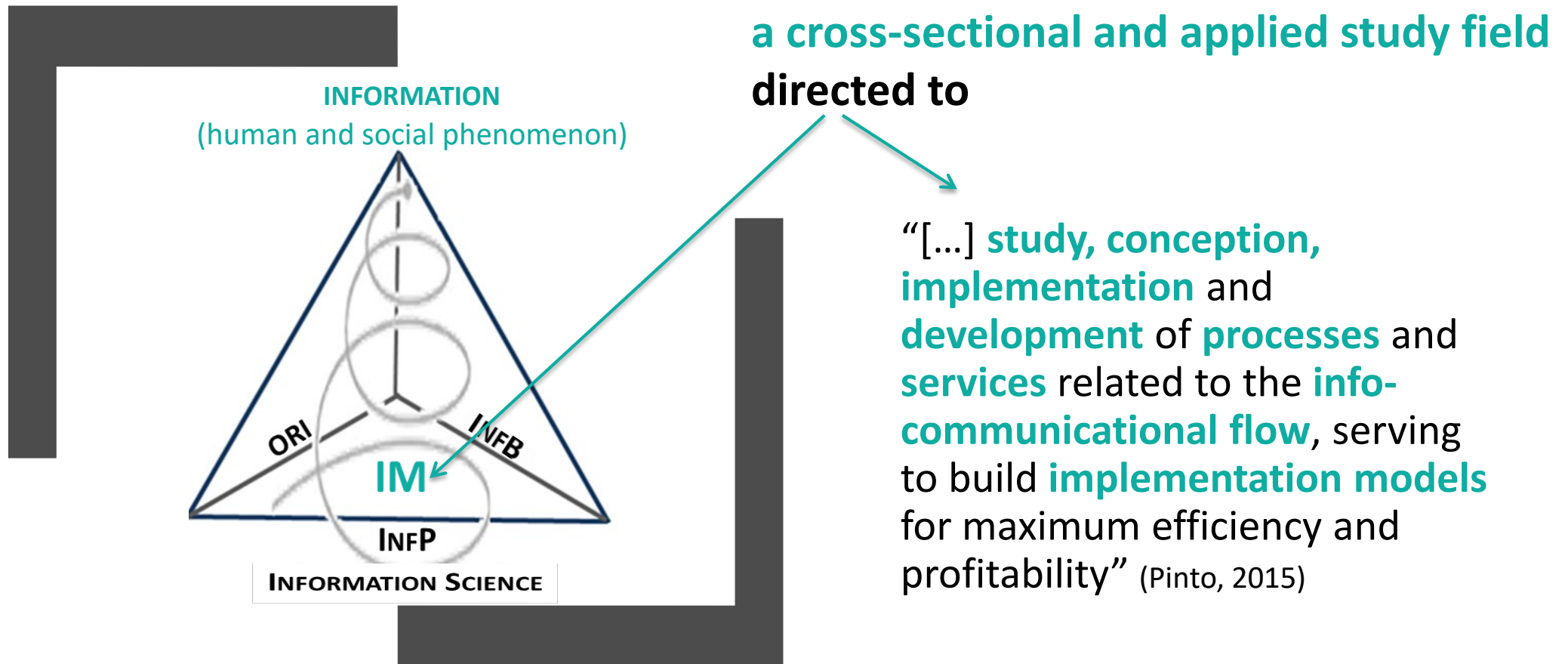
within the framework of the **interdiscipline** of **Communication and Information Sciences**

facing **intersciences** such as **Information Systems** and **Cognitive Sciences**

within the broader framework of **Social Sciences**

> INFORMATION MANAGEMENT (IM)

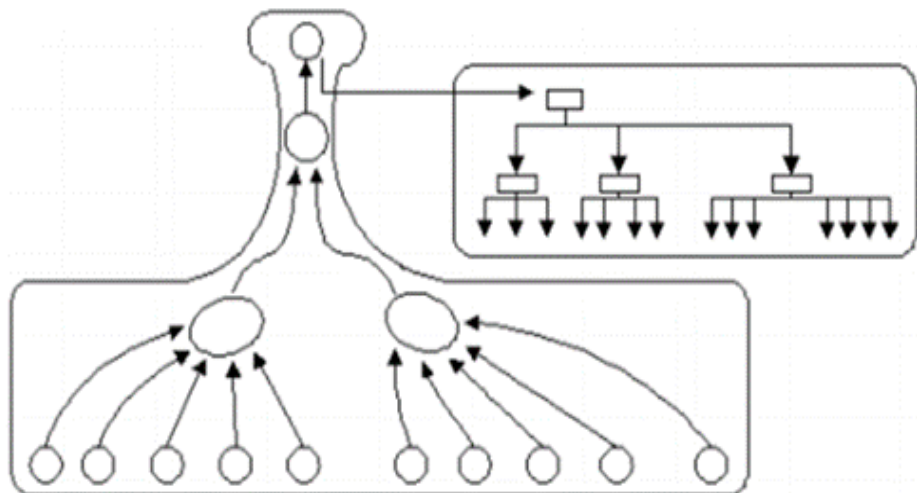
a definition



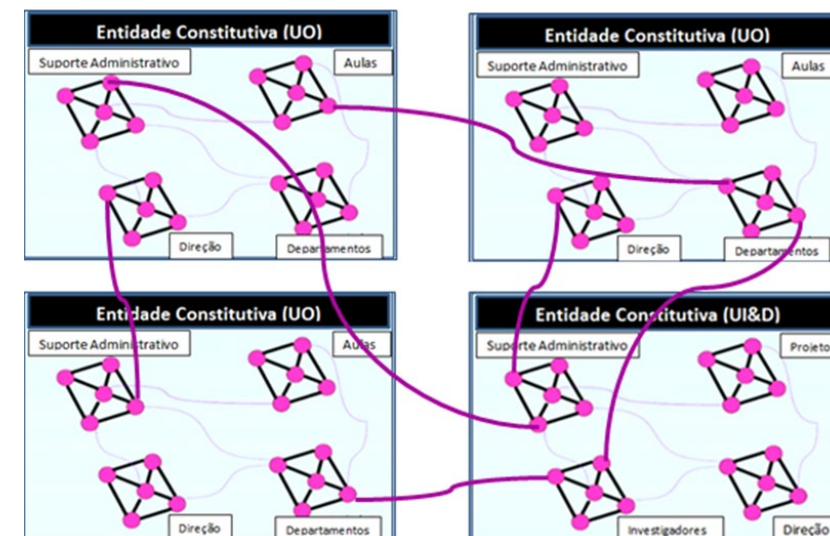
> TOWARDS AN UNIQUE, DYNAMIC, FLEXIBLE AND SMART CAMPUS

From the **parallel hierarchies** (Mintzberg's **Professional Bureaucracy**)

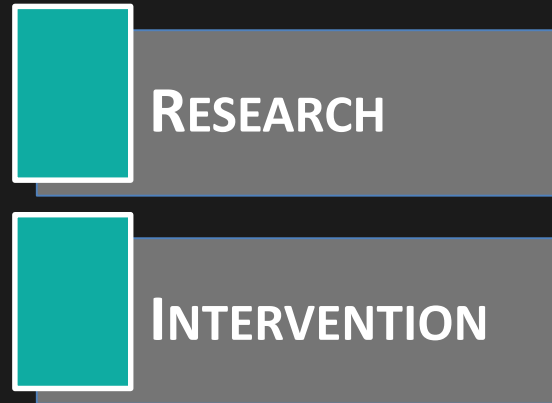
(Nunes, 2004)



To the University as a **Loosely Coupled System** (Weick, 1976)



AN BIDIMENSIONAL IM MODELING...

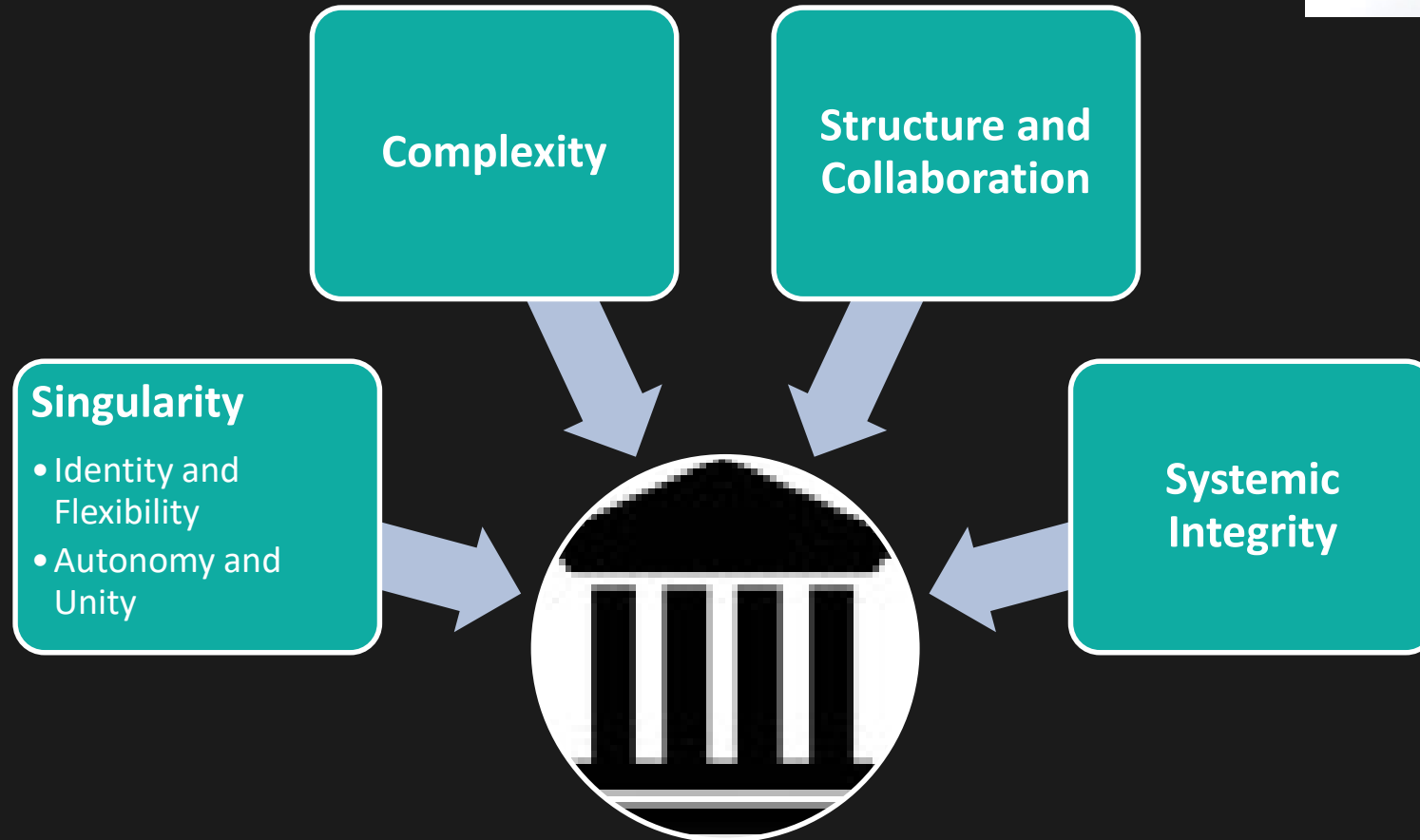
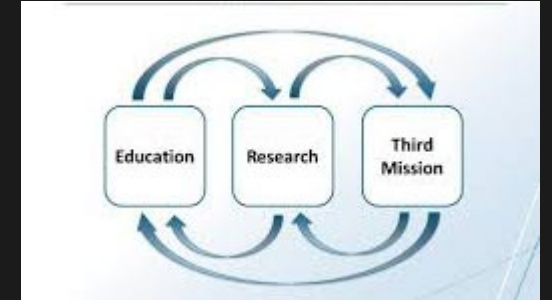


ACTIVE AND PERMANENT INFORMATION SYSTEM (SI-AP)

The informational result of UNIVERSITY activities, while pursuing and achieving its Mission and goals

MANAGEMENT MODEL (MGSI-AP)

PRINCIPLES

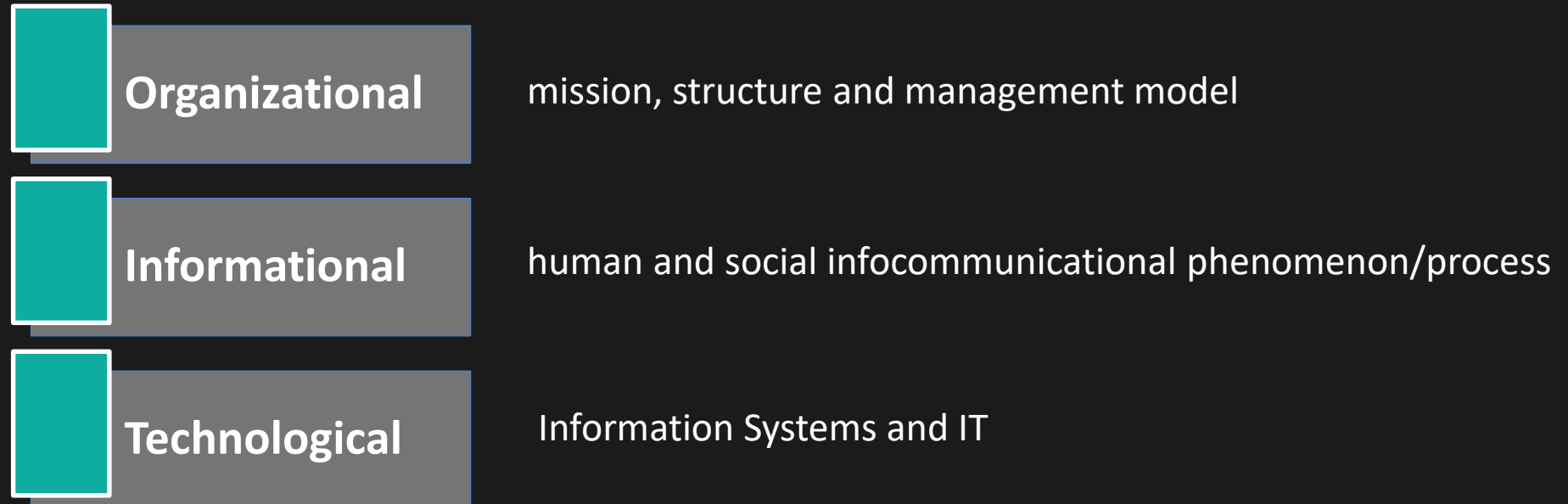


RECTORATE, FACULTIES, R&D UNITS, AUTONOMOUS SERVICES...

MGSI-AP.UP | Institutional / Organizational Component (1/3)

THE INSTITUTION

SYSTEMIC COMPONENTS

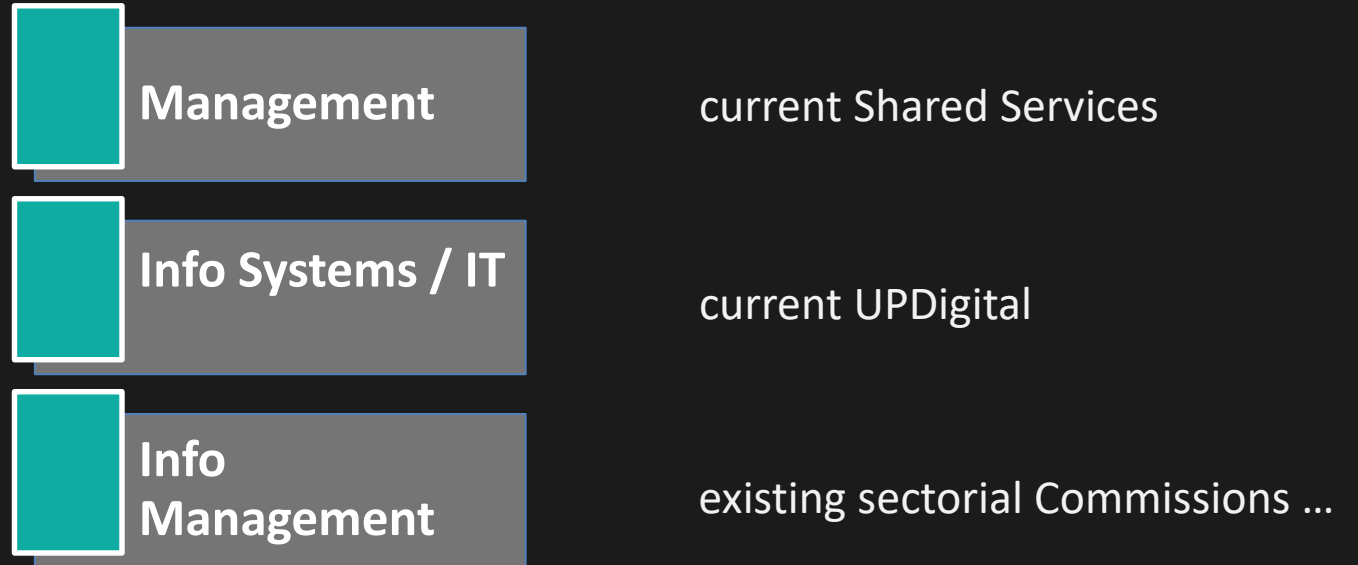


MGS-AP.UP | Institutional / Organizational Component (2/3)

COMPETENCES CENTER
formally recognised

+

COMMUNITIES OF PRACTICE – (transversal non-organic) built on IM support services

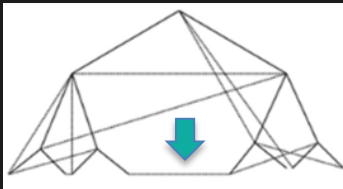


> APPLIED IM MODEL

MGSI-AP.UP | Institutional / Organizational Component (3/3)

considering **STRUCTURE + RELATIONS**

ORGANIZATIONAL AND INFORMATIONAL
MULTILEVEL, SIMULTANEOUS, FLEXIBLE AND
FACETED



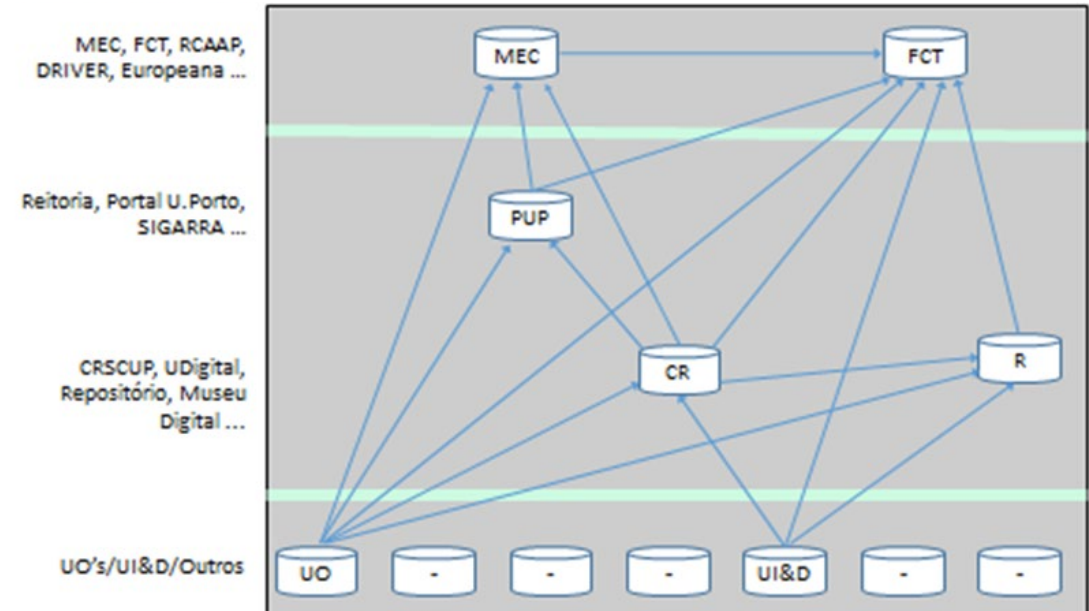
INSTITUTION, ORGANIC UNITS AND PEOPLE
BELONG / INTERACT
AND
USE / ARE SUPPORTED BY
VARIOUS SYSTEMS

FACET 1

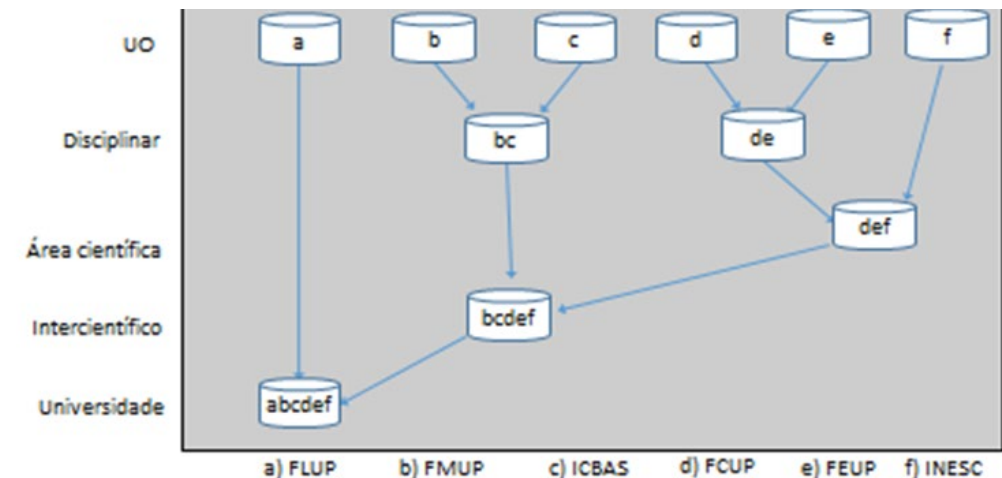
FACET 2

...

INTERNAL / EXTERNAL STRUCTURES / INFORMATION AGGREGATORS



CLUSTERS / SCIENTIFIC AREAS ...



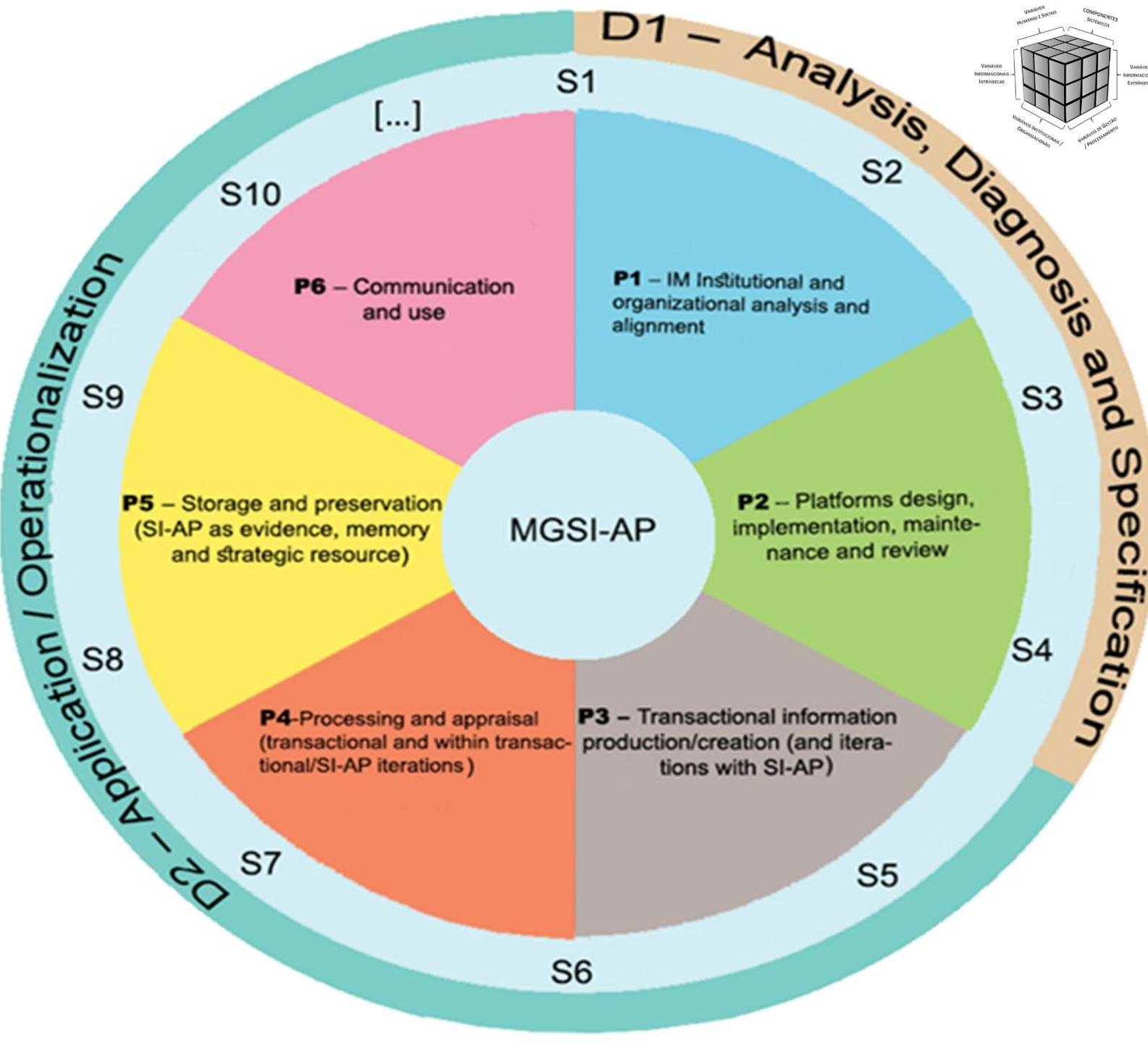
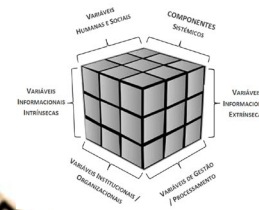
MGSI-AP.UP | Infocommunicational Component (1/4)

FOCUSING on:

- the **information management cycle** that accompanies the institutional / organizational dynamics
- the **processes and resources** in the organization / institution daily life
- **infocommunicational flows** and related actors

> MGSI-AP @ U

Infocommunicational Flow Management (2/4)



DIMENSIONS

D1 - Analysis, Diagnosis and Specification

D2 - Application/Operationalization

PROCESSES

P1 - IM institutional and organizational analysis and alignment (strategic, tactical and operational)

P2 - Platforms design, implementation, maintenance and review

P3 – Transactional information production/creation (and iterations with SI-AP)

P4 - Information processing and appraisal (transactional and within transactional / SI-AP iterations)

P5 - Storage and preservation (with integration and maintenance in the SI-AP, as evidence, memory and strategic resource)

P6 - Communication and use of SI-AP

MGSI-AP.UP | Infocommunicational Component : Infocommunicational Flow Management (3/4)

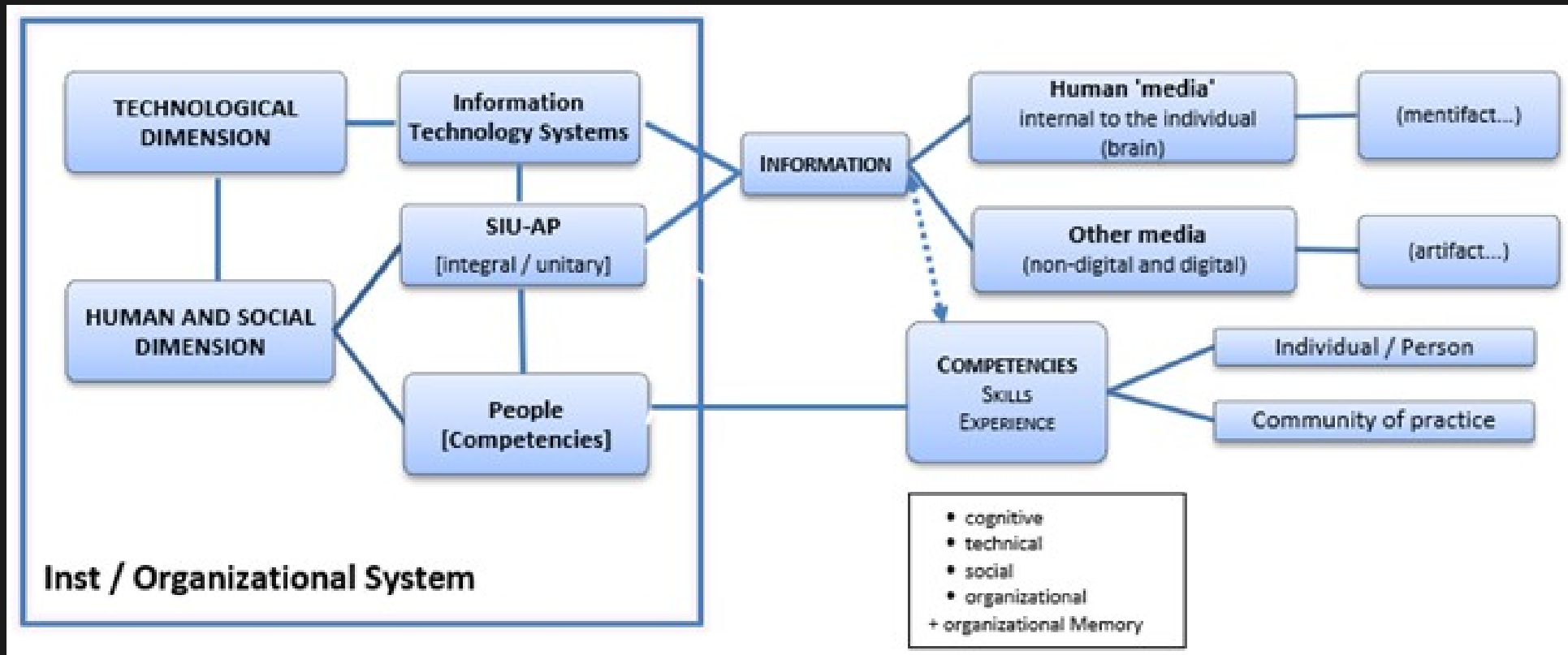
based on a **SERVICE-ORIENTED APPROACH @ UNIVERSITY**

- S1 - USER ANALYSIS, PROFILES AND ROLES, GROUPS AND USERS MANAGEMENT
- S2 – BUSINESS' ANALYSIS, PROCESSES, REQUIREMENTS AND INFO-COMMUNICATIONAL SPECIFICATION AND MANAGEMENT
- S3 - METADATA CREATION AND MANAGEMENT
- S4 - INTELLECTUAL AND INDUSTRIAL PROPERTY, KNOWLEDGE/COMPETENCIES MANAGEMENT
- S5 . DIGITIZATION, RECORDS AND WORKFLOW MANAGEMENT
- S6 - APPRAISAL, SELECTION AND DISPOSAL
- S7 - STORING, HOSTING AND REPOSITORIES MANAGEMENT (INCORPORATION/DEPOSIT /INGEST AND ARCHIVE)
- S8 - SEARCH, RETRIEVAL, DISSEMINATION AND DISCOVERING
- S9 - EXPORTING, IMPORTING AND HARVESTING (METADATA AND INFORMATION)
- S10 - EXTENSION, SCIENCE COMMUNICATION, PUBLISHING
- S11 - PRESERVATION, SECURITY AND DATA PROTECTION

> APPLIED IM MODEL

MGSI-AP.UP | Infocommunicational Component (4/4)

IM
+
INFSys / IT
+
PEOPLE /
COMPETENCY
MANAGEMENT / KM
↓
INNOVATION
MANAGEMENT



MGSI-AP.UP | Technological Component (1/2)

IM SUPPORT

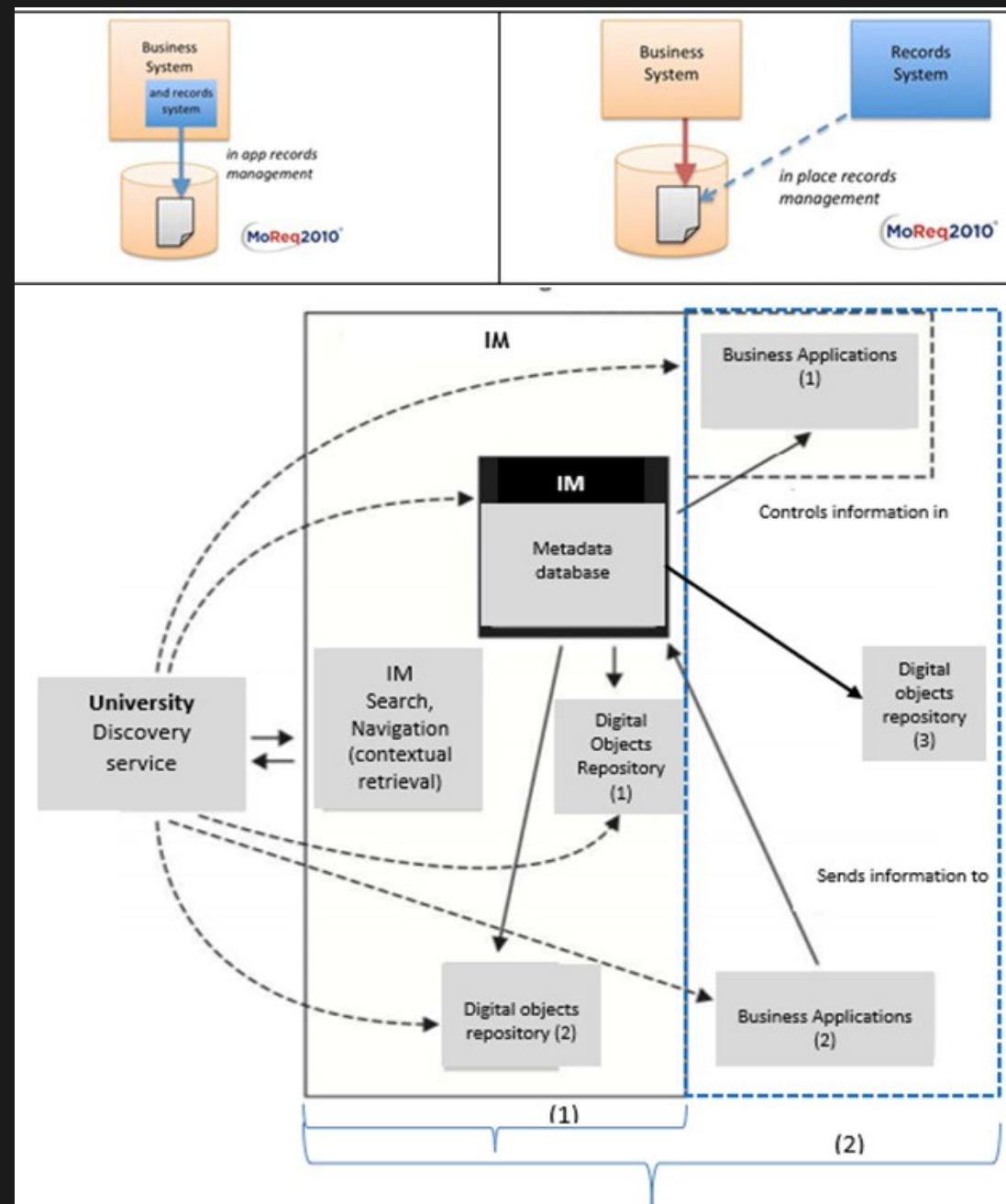
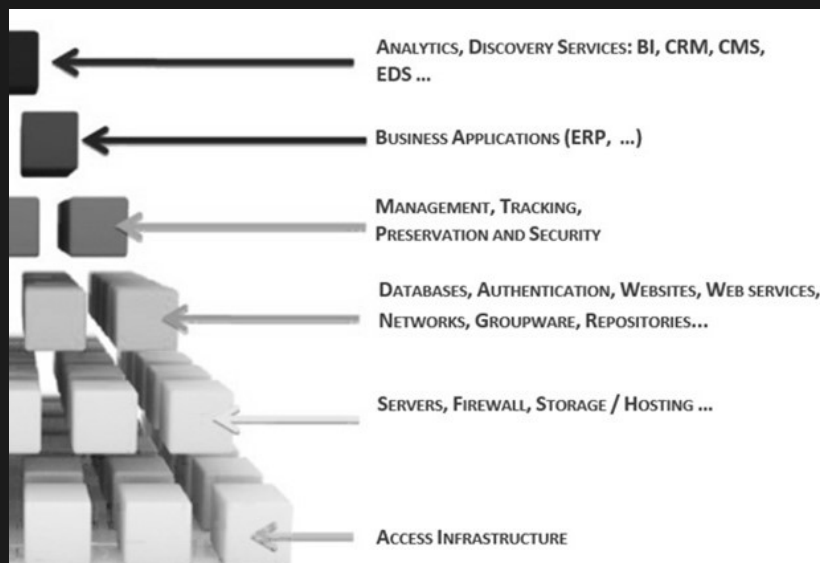
- Multiplatform aggregation at the SI-AP.UP level:

IM “in app” (1) (traditional)

or

IM “in place” (2) - API's, Web services ...

- Definition of Support Levels / IM Processes



MGSI-AP.UP | Technological Component: systems structure (2/2)

N1 - STRATEGY SUPPORT

Support for top management in terms of strategy, long-term trends, internal context and external contexts/environment, decision making and administrative support activities (including analytical activities / Business Intelligence)

N2 - TACTICAL SUPPORT

Support to the intermediate / tactical management of the organization: support to planning, control and monitoring, decision making and administrative activities (Management, Quality and Performance data and applications);

N3 - OPERATIONAL/TRANSACTIONAL SUPPORT

Support to the operational management and development of basic and transactional activities in the organization.

CORE FUNCTIONS:

Teaching (data, projects and eLearning applications)

Research (data, projects and eLearning applications)

Transfer of knowledge and Innovation (data, projects, contracts and applications of Science and Innovation Management)

SUPPORT/MANAGEMENT FUNCTIONS:

Support areas: financial management; administrative management / services; human Resources; logistics (data and management applications) ...

N4 - CROSS-SECTIONAL SUPPORT

N4.1 – SI-AP (ORGANIZATIONAL/INSTITUTIONAL INFORMATION SYSTEM) SUPPORT

N4.2 - ITS (INFORMATION TECHNOLOGY SYSTEMS) SUPPORT

N4.3 - PMS (PEOPLE [AND COMPETENCY] MANAGEMENT SYSTEMS – CLUSTERS / PRACTICE COMMUNITIES)

N4.4 - QPMS (QUALITY AND PERFORMANCE MANAGEMENT SYSTEM) SUPPORT.

MGSI-AP:

1 - a flexible and dynamic model which aims for a **balance of the institutional whole** within a frame of **(moderately) flexible relations** which are established between **individuals, groups, constituent units and the University** and between these and the outside, thus articulating **flows and technology**, as well as **organizational structure and networks**, supported by **communities of practice** which **reflect and optimize scientific, technical and administrative areas through IM**.

2 – it convenes an **institutional engagement** in an IM Policy intersecting ITS / IT Policy, in a **trans and interdisciplinary basis**, crossing **traditional and emerging information services** and pointing to its effective implementation and, if interesting, the **future certification of an organizational/institutional information management system**.

Thank you!

> AN APPLIED IM MODELING

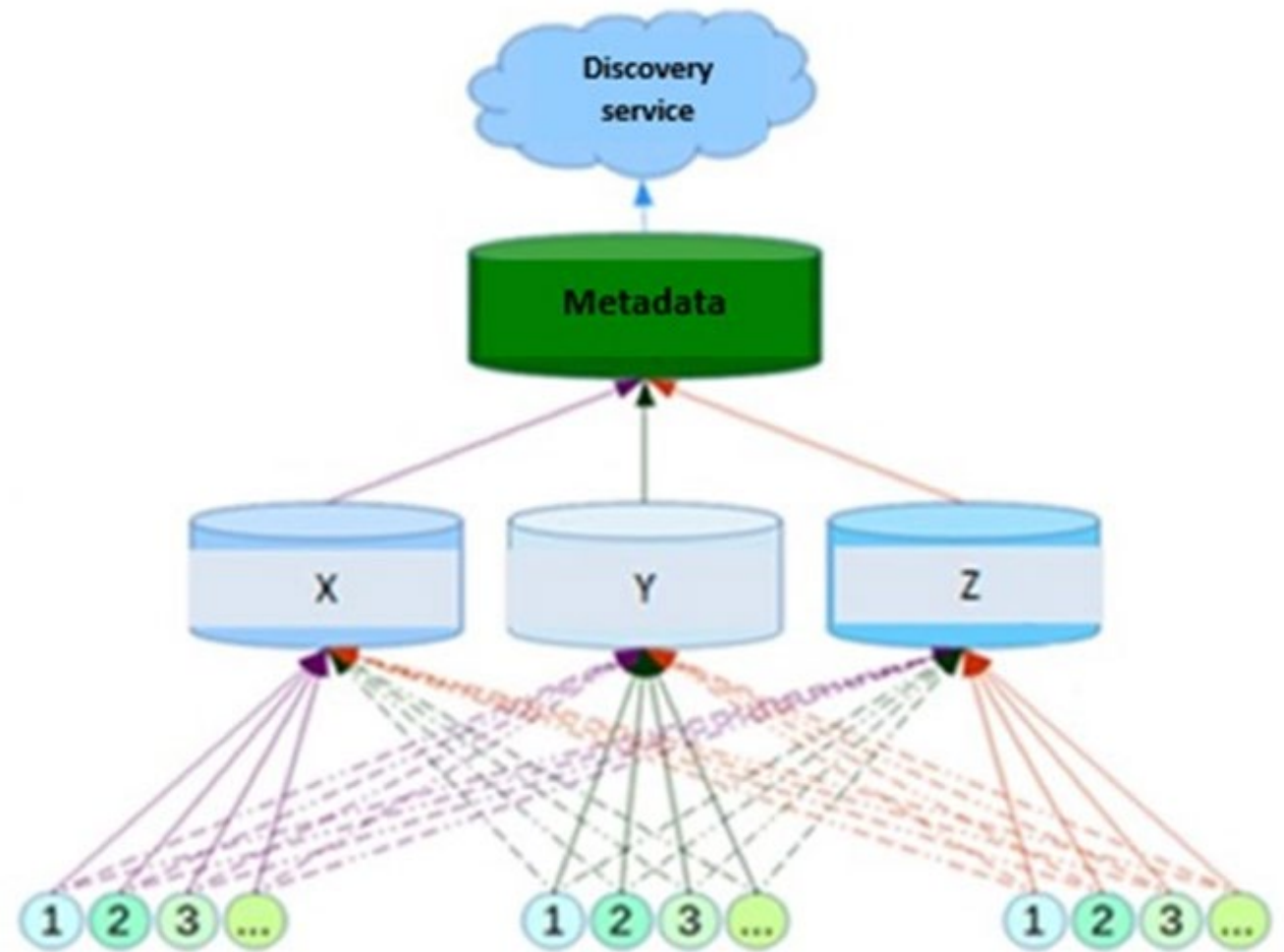
MGSI-AP.UP

2016 – a first approach

Digital platforms,
information services
and other resources

University services /
information prosumers

Service Management
Approach



IM Processes / Services