

# TIMBUS

TIMELESS BUSINESS 



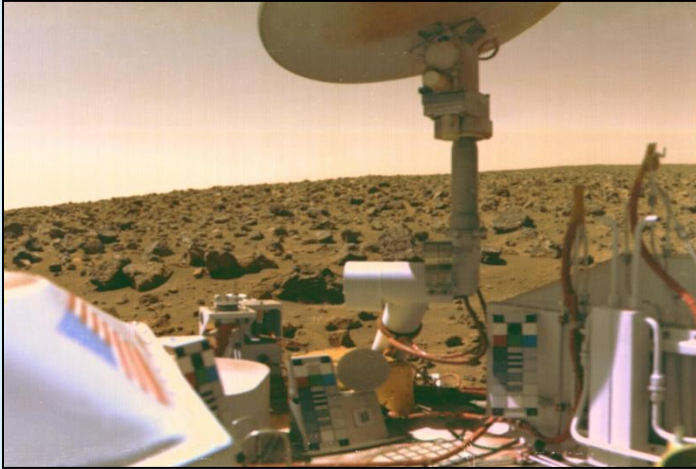
Open Archival Information  
System (OAIS)  
ISO 14721:2003

Sponsored by the European Commission Directorate for Information Society



**a reference model ... to establish a system** for archiving information, both digitalized and physical, with an **organizational scheme** composed of people who accept the **responsibility to preserve information** and make it available to a **designated community.**

# OAIS – what you need to know



Courtesy NASA/JPL-Caltech

Consultative Committee for  
Space Data Systems

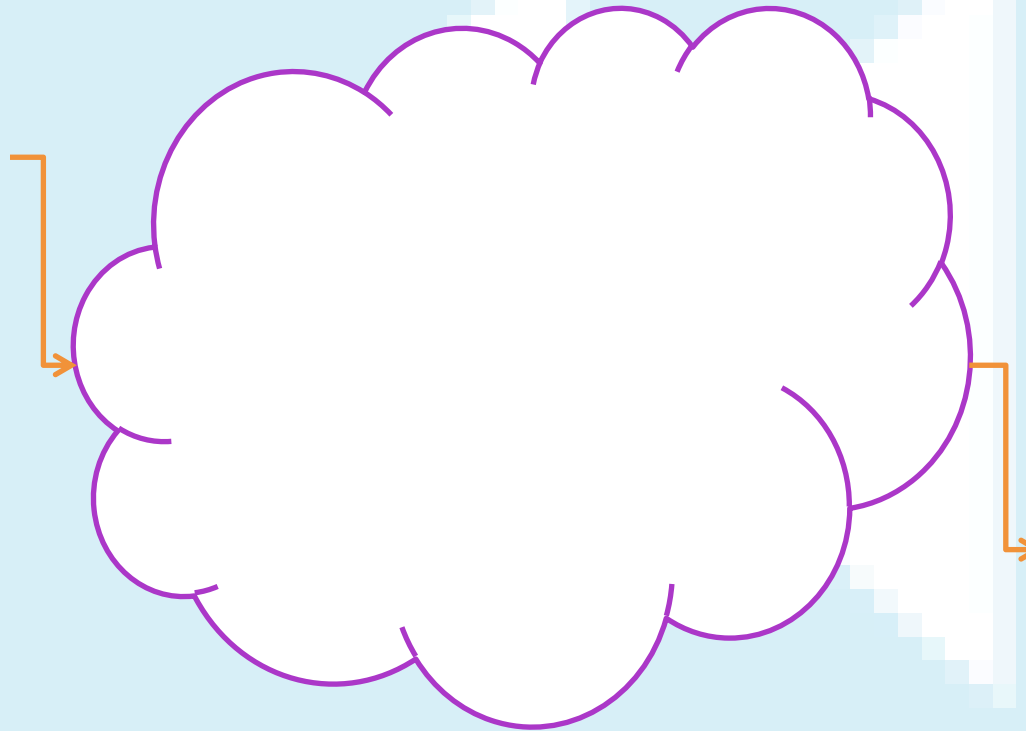
Scalability? It scales up really  
well ...

Foundation of many (all?) DP  
systems research

Core vocabulary and concepts

# Ideal process: a users perspective

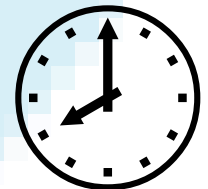
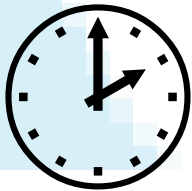
Data creator  
(producer)



Data user  
(consumer)

Data user  
(consumer)

Data user  
(consumer)



Archive

Disseminate

Submit

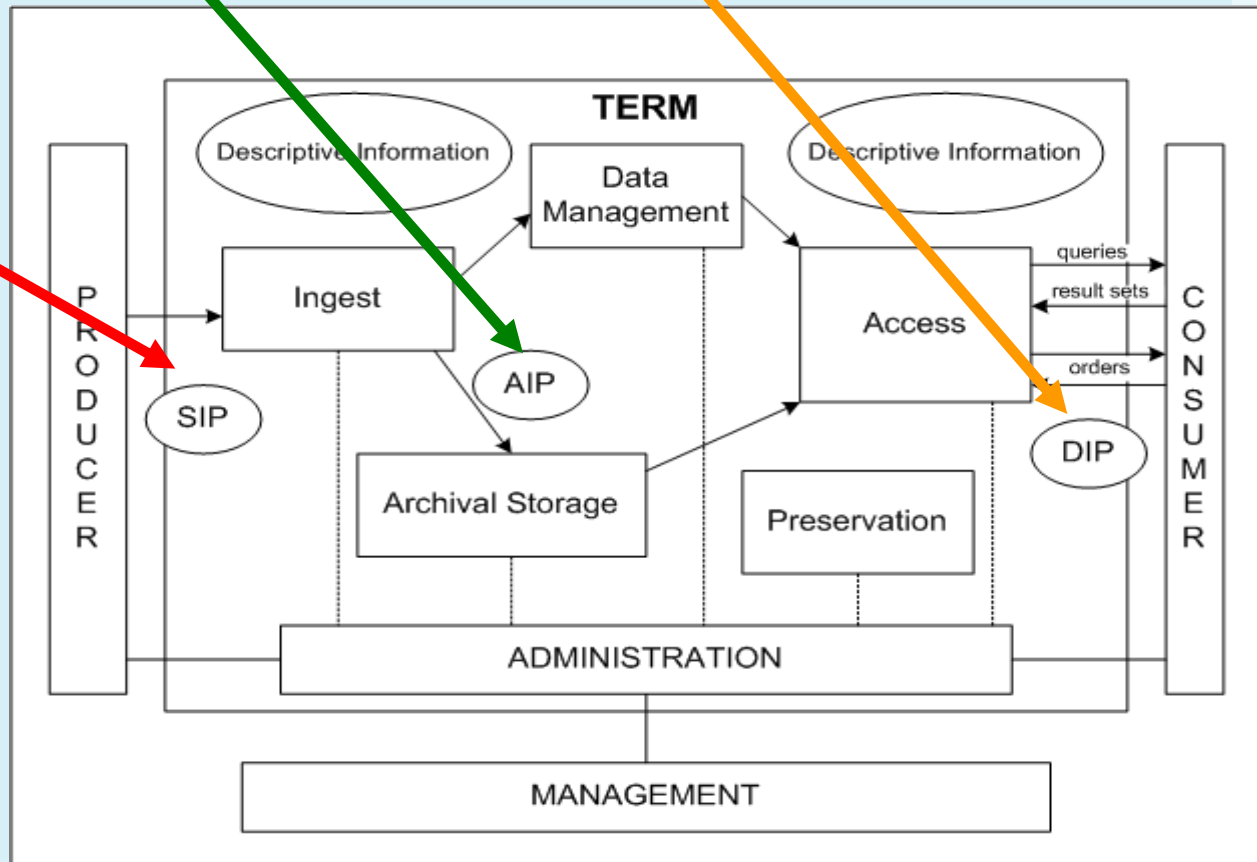


Fig. 1. Major functions of the OAIS Reference Model from Consultative Committee for Space Data Systems (CCSDS), CCSDS 650.0-W-1, Producer-Archive Interface Methodology Abstract Standard, (OAIS), White Book, Issue 1, Draft Recommendation for Space Data System Standards.

Picture from DLib

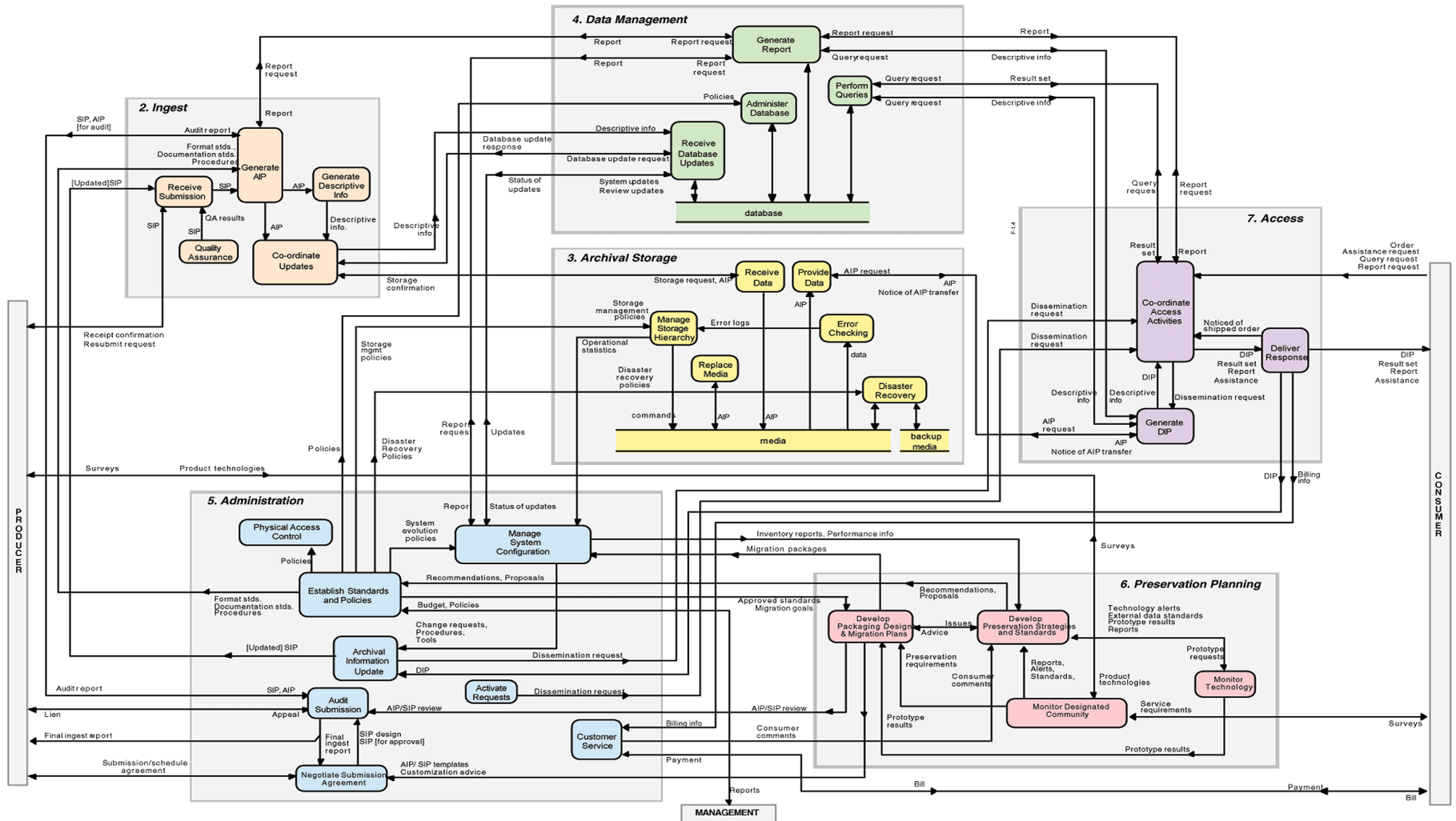
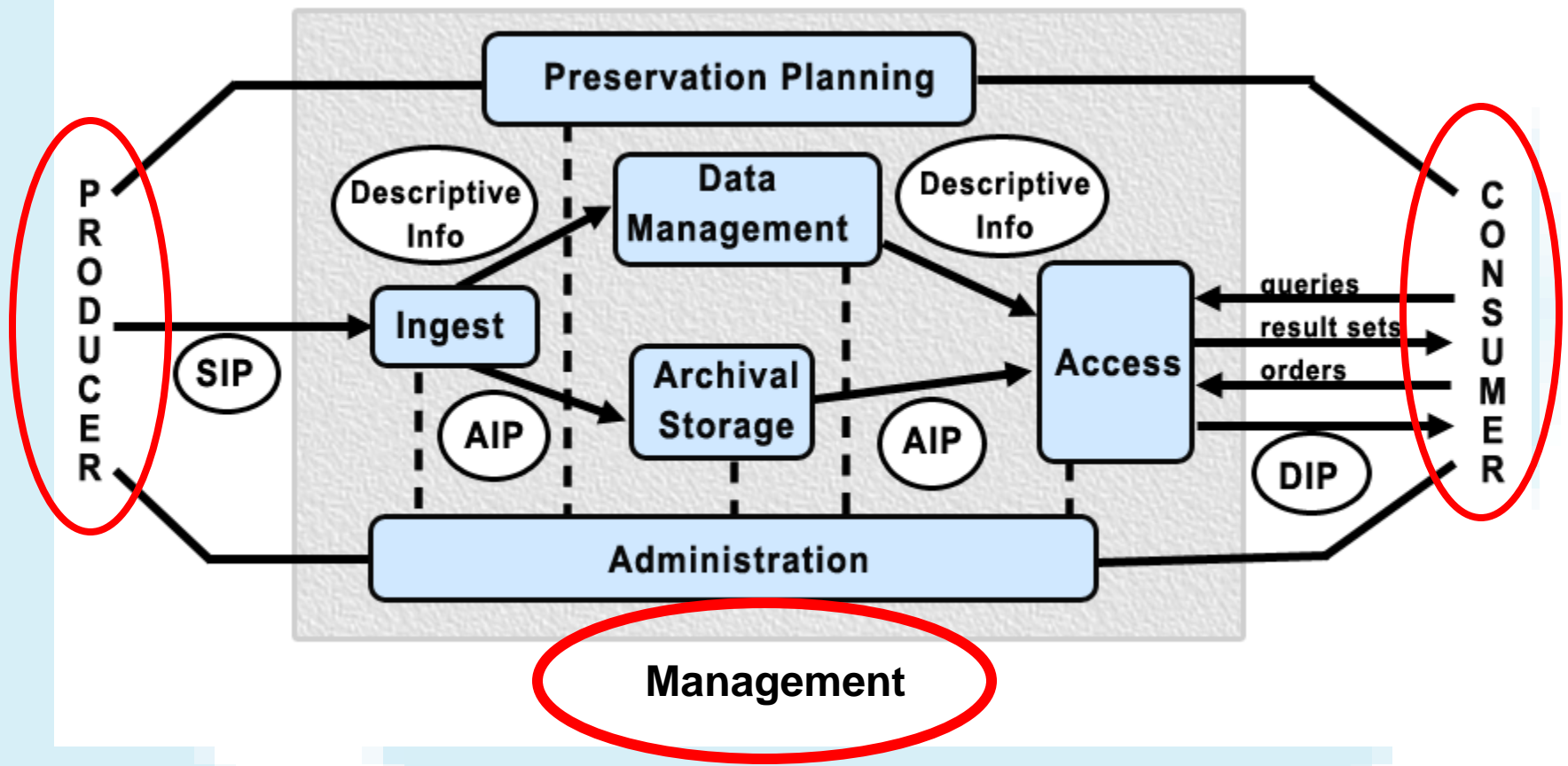


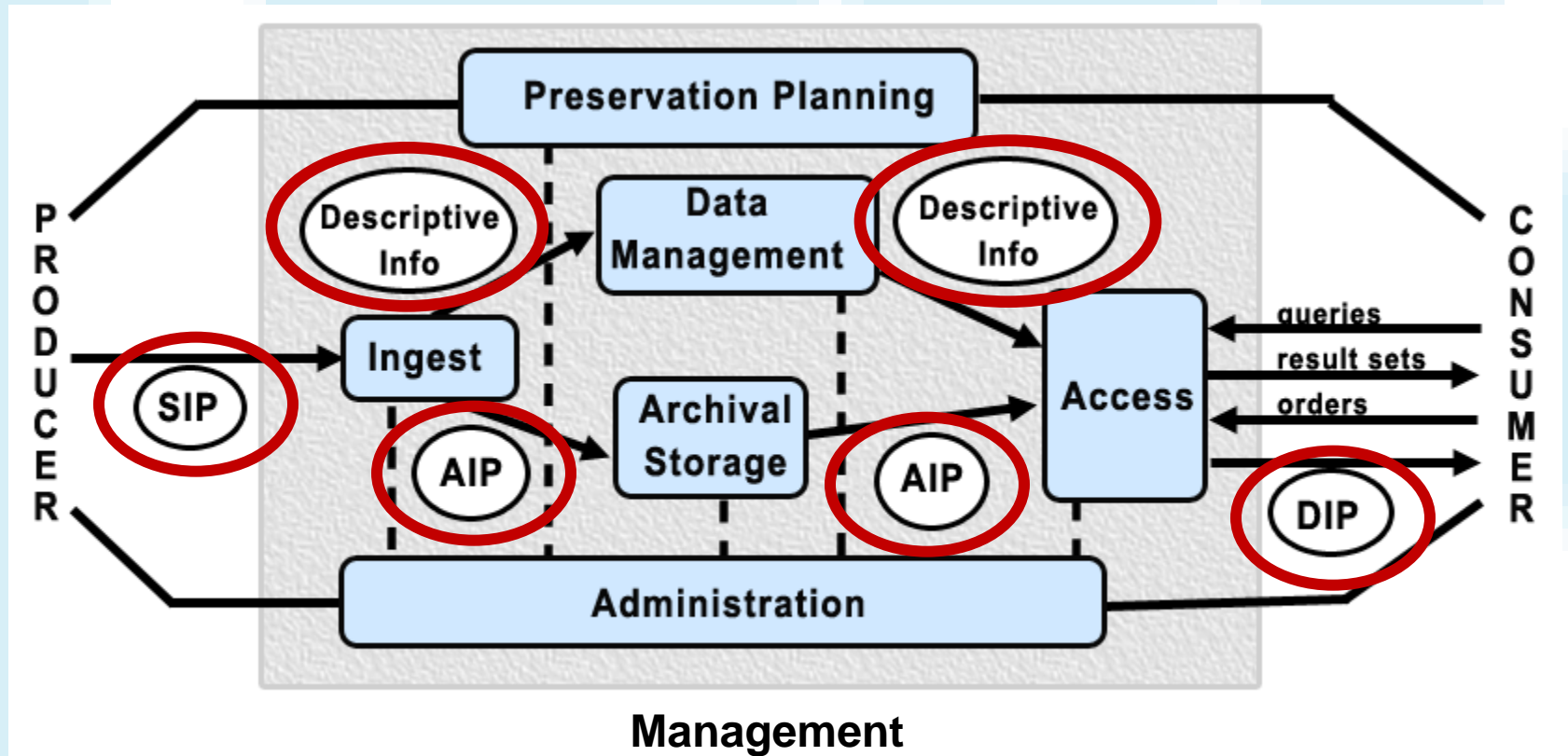
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# OAIS: Core Functions

- Negotiate for appropriate content**
- Obtain sufficient control to manage content**
- Determine the scope of the designated community**
- Ensure independent utility of data**
- Follow procedures for preservation**
- Disseminate data to a designated community**



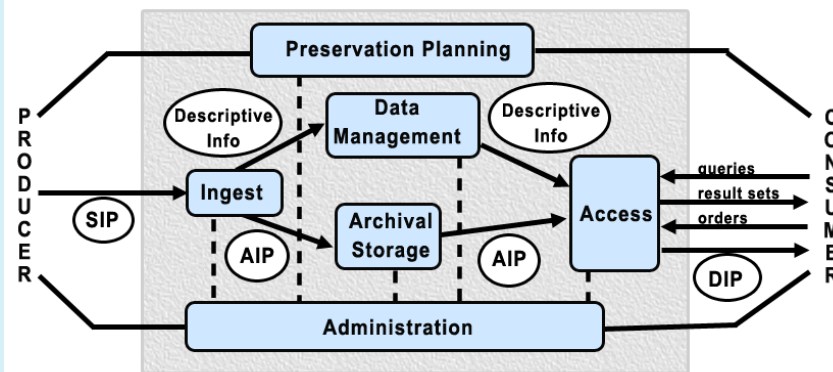
Who are your producers?  
Who are your consumers?



- What do your producers produce?
- What information will help submission?
- What will information will help preservation?
- What do your consumers consume?
- What information will help dissemination?



## Diagramarama: 6 things not obvious from the diagrams...



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SLIDE

1. not a production-line process ...
2. SIP:AIP:DIP not necessarily 1:1:1 relationship
3. not necessarily all one agency
4. not all of this has to exist simultaneously
5. functional model *and information model*
6. Significant volume of research and development

# seven functional components of OAIS

**Common Services**

**Ingest**

**Archival Storage**

**Data Management**

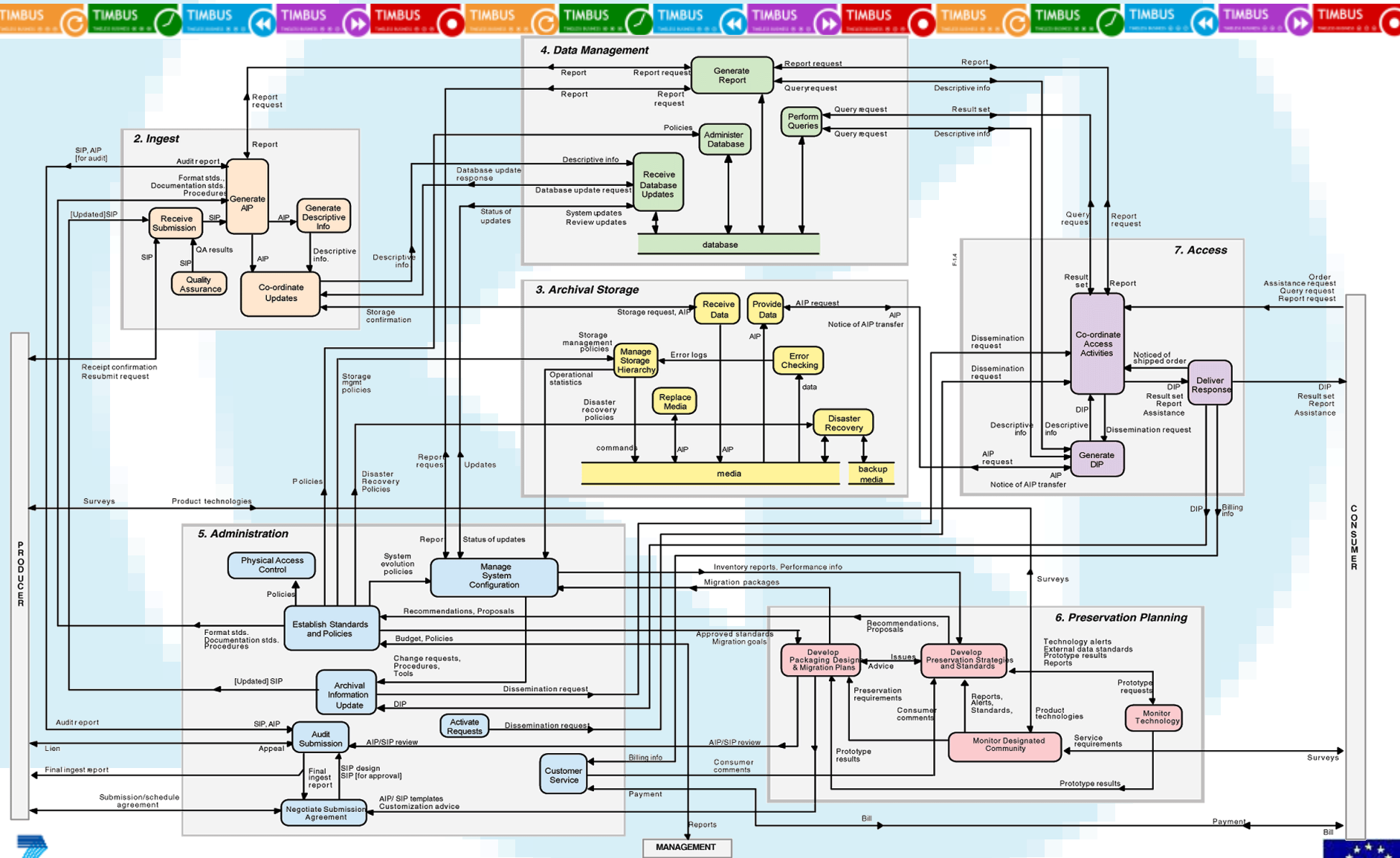
**Administration**

**Preservation Planning**

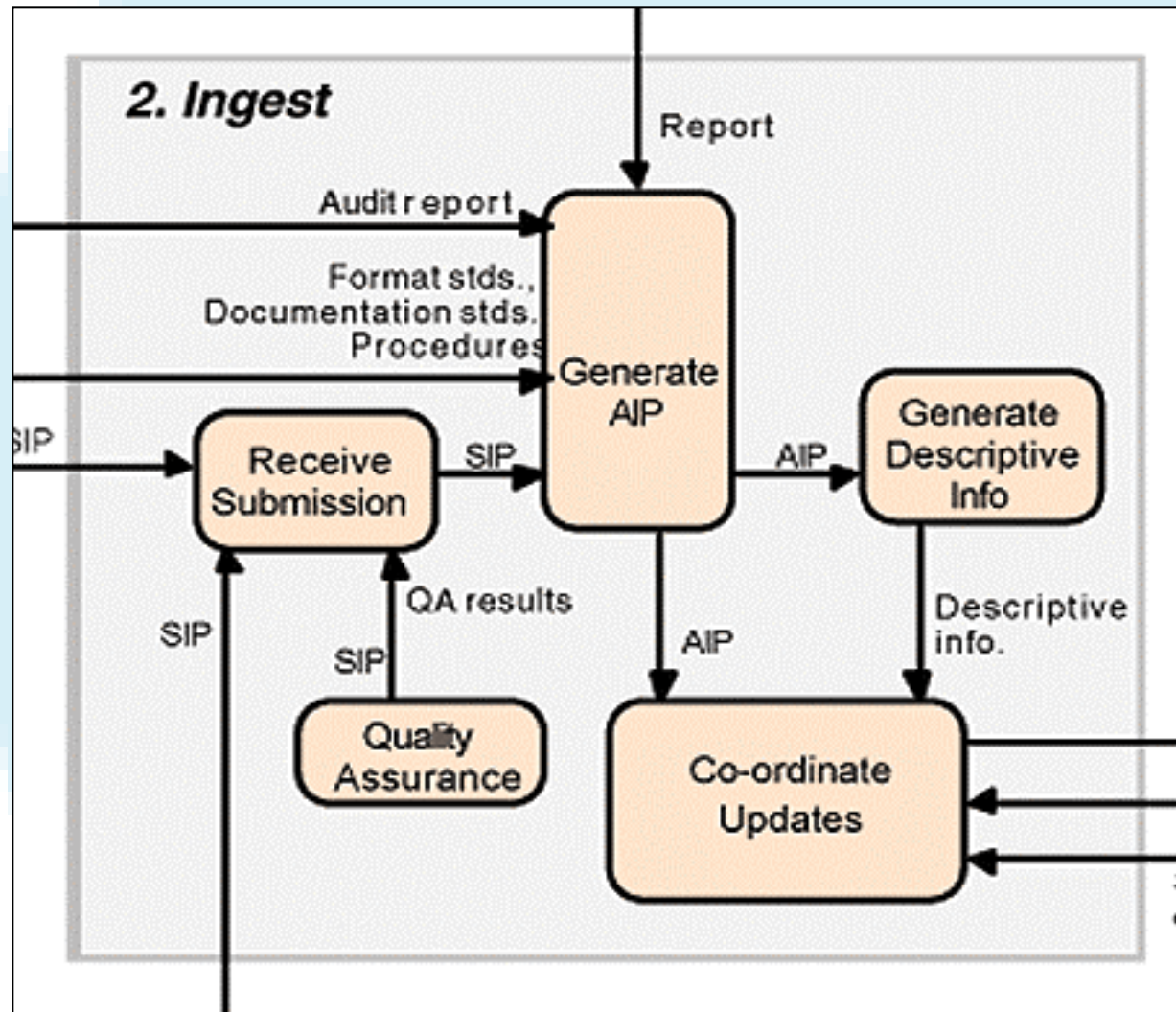
**Access**



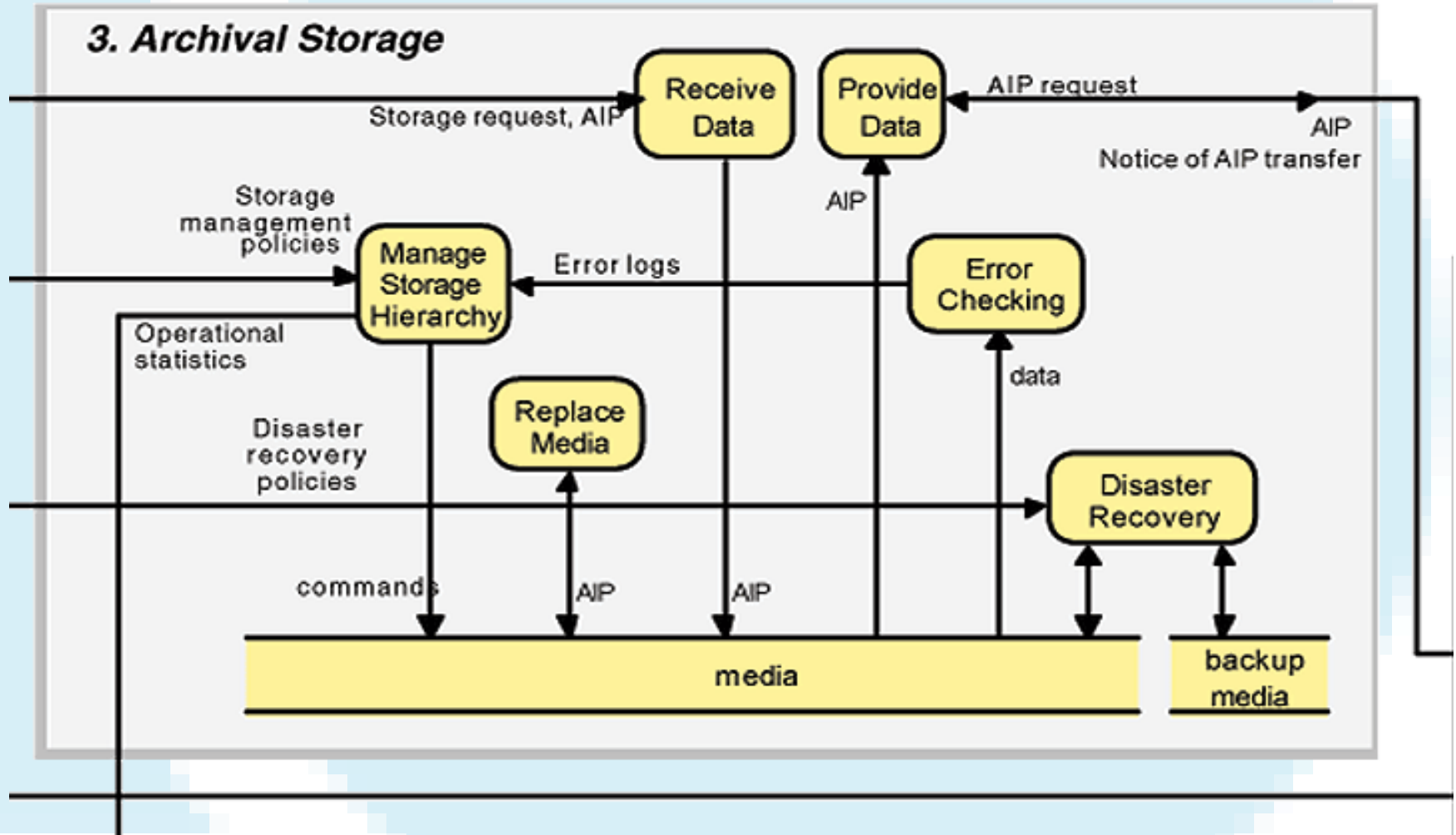
# 7 main components



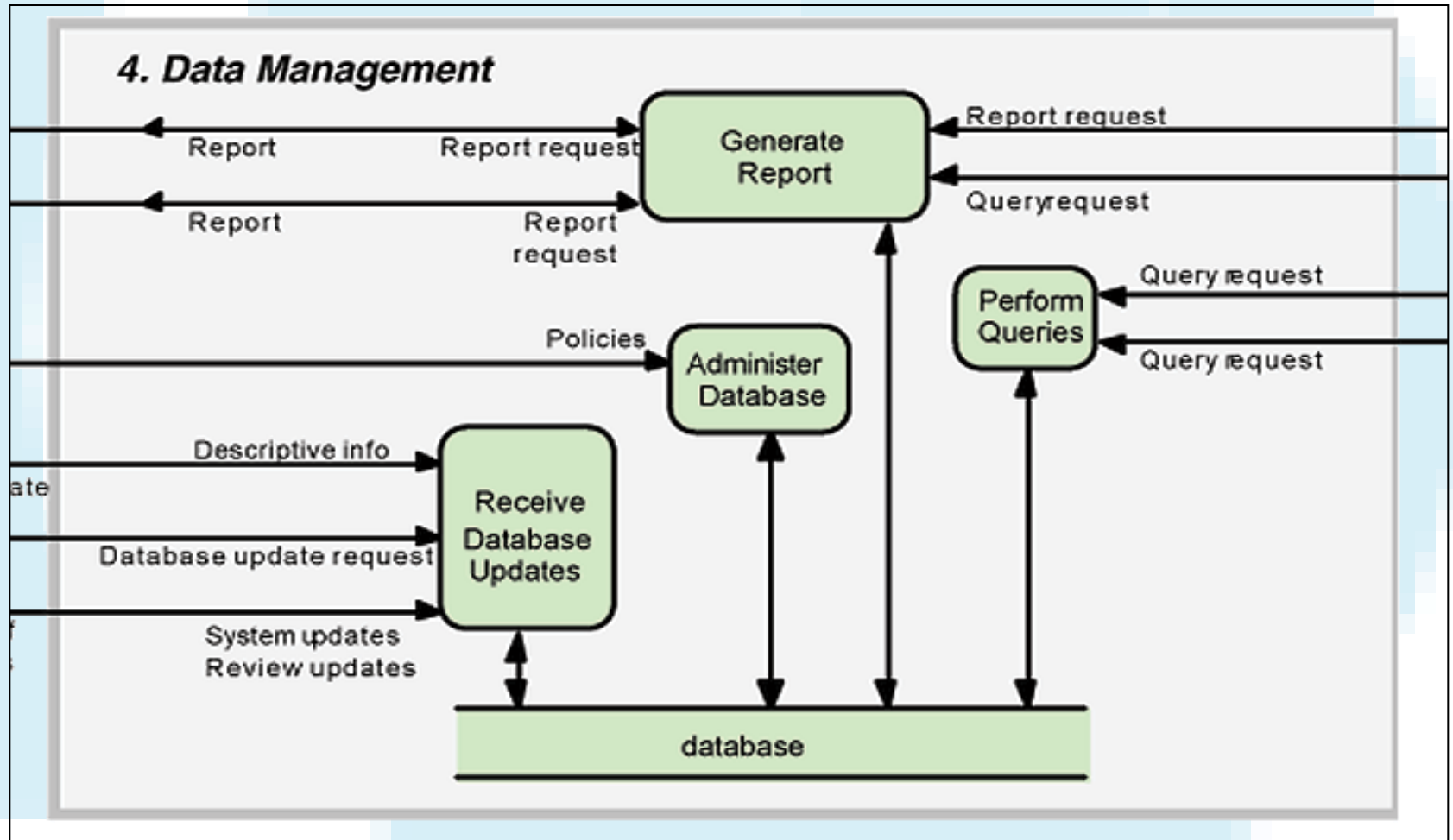
# Ingest



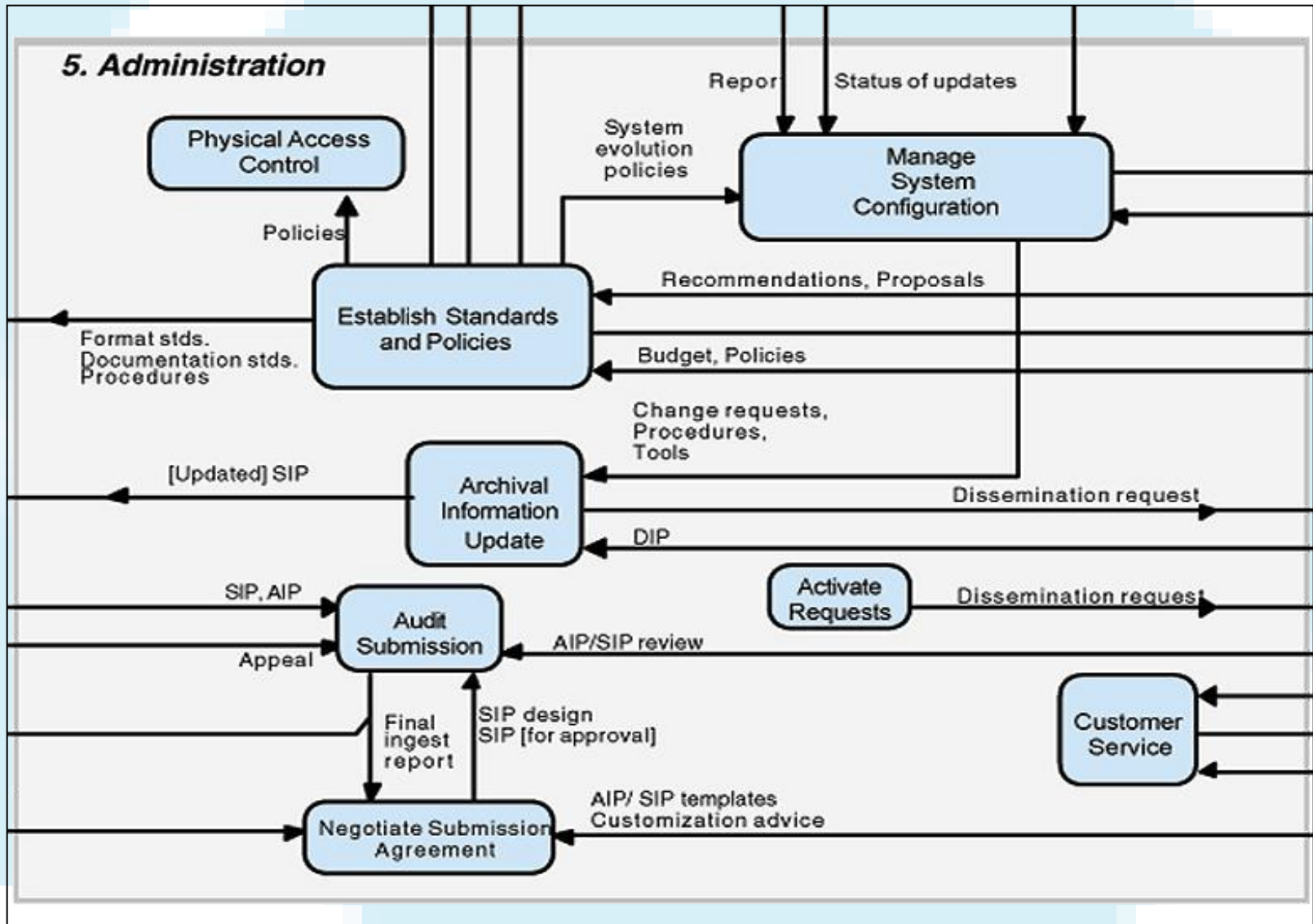
# Archival Storage



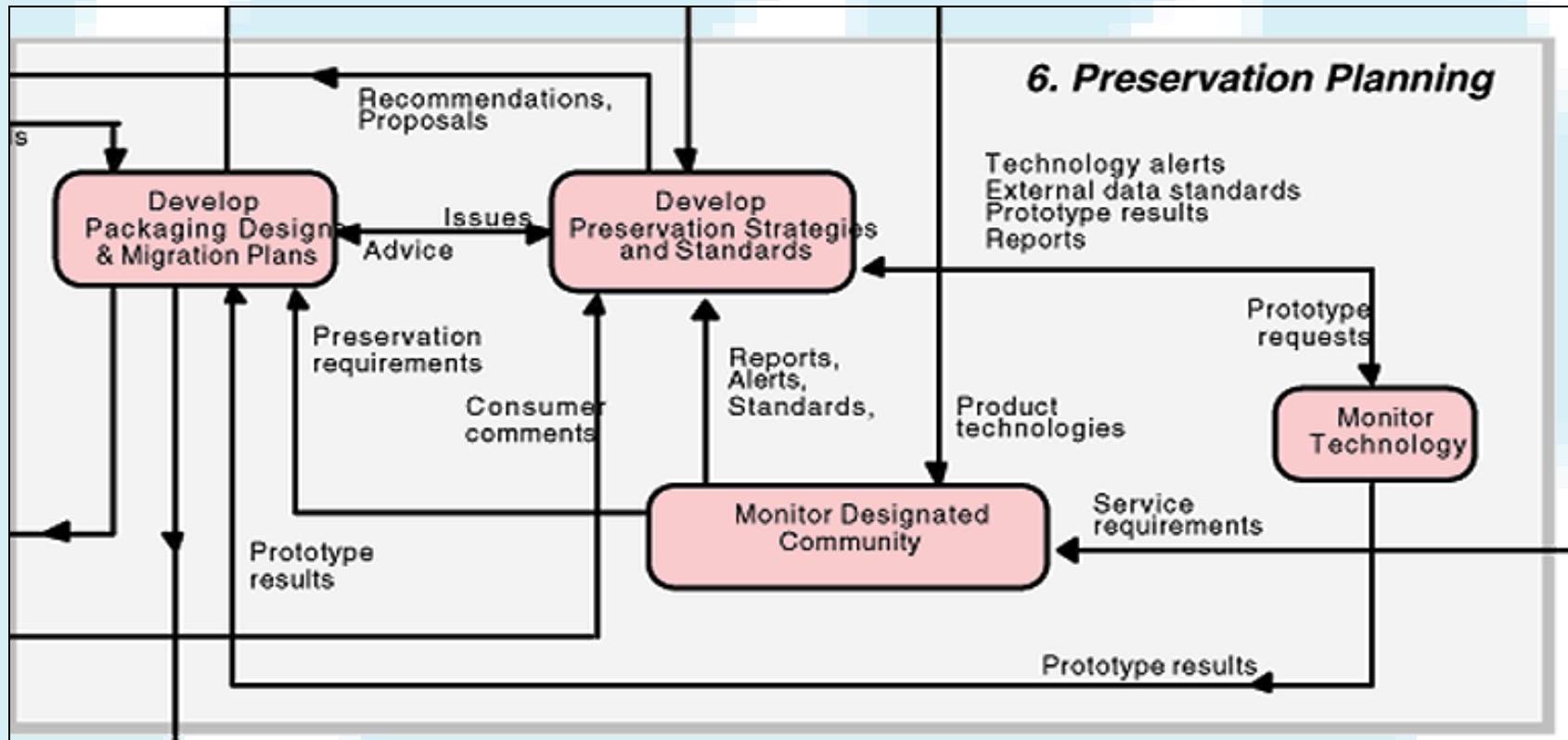
# Data Management



# 5. Administration



# 6. Preservation Planning





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# Preservation Planning?



## PLATO preservation planning tool

<http://www.ifs.tuwien.ac.at/dp/plato/>

### 4 stage process:

- Define requirements
- Evaluate actions
- Analyse results
- Build and execute plan

Preservation Test bed

Library of preservation plans

Welcome to *Plato*, the Planets Preservation Planning Tool

[Introduction](#) [Documentation](#) [Case Studies](#) [Events](#) [History](#)

**Introduction**

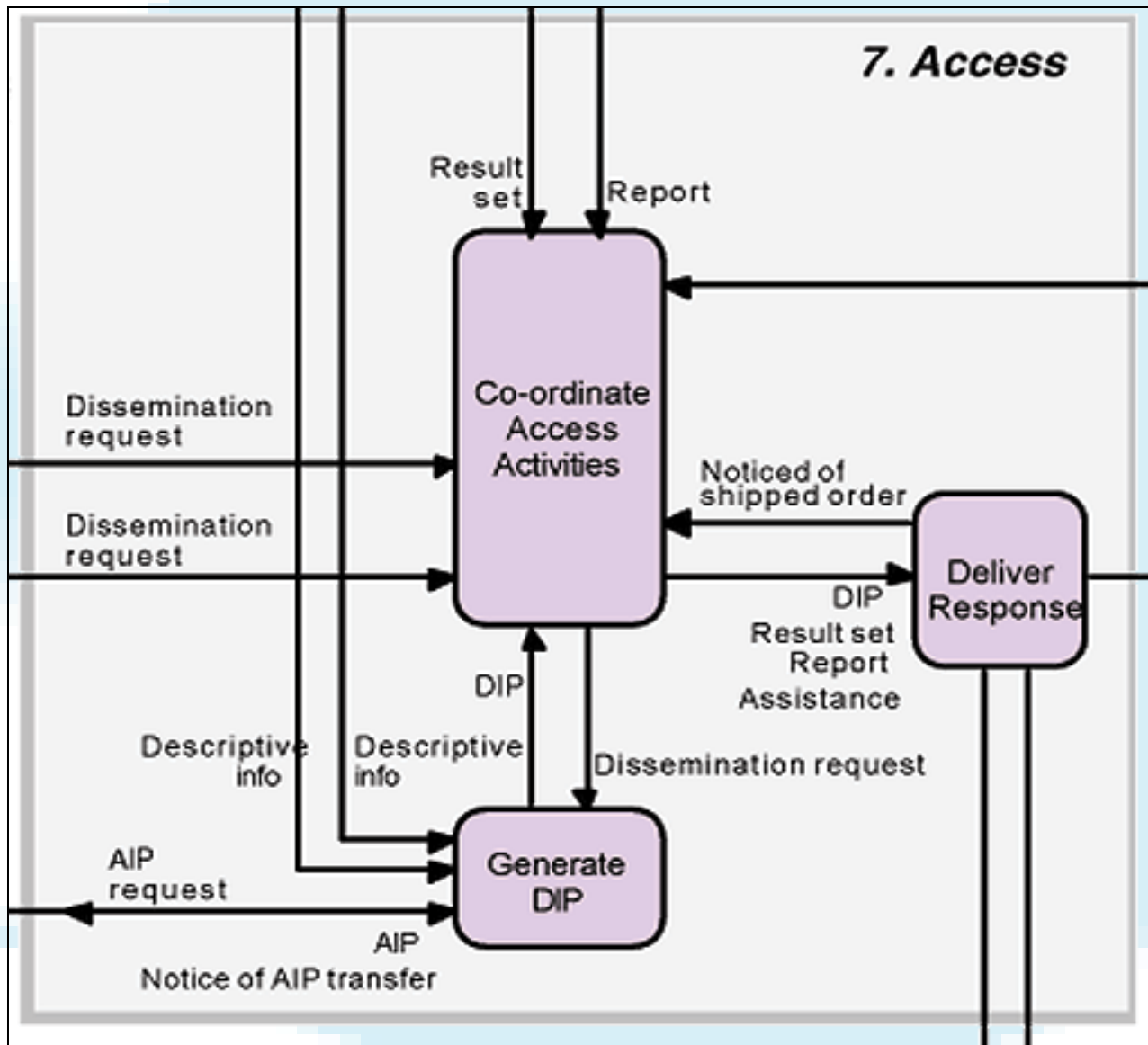
**What is Plato?**

The fast changes of technologies in today's information landscape have considerably shortened the lifespan of digital objects. Digital preservation has become a pressing challenge. Different strategies such as migration and emulation have been proposed; however, the decision for a specific tool e.g. for format migration or an emulator is very complex. The process of evaluating potential solutions against specific requirements and building a plan for preserving a given set of objects is called preservation planning. So far, it is a mainly manual, sometimes ad-hoc process with little or no tool support. The planning tool **Plato** is a decision support tool that implements a solid preservation planning process and integrates services for content characterisation, preservation action and automatic object comparison in a service-oriented architecture to provide maximum support for preservation planning endeavours.

This software is licensed under [Apache version 2.0](#) or later. We are going put the source code of Plato on sourceforge in the near future. In the meantime please do not hesitate to contact us at [plato@ifs.tuwien.ac.at](mailto:plato@ifs.tuwien.ac.at) to receive a copy of the source code.

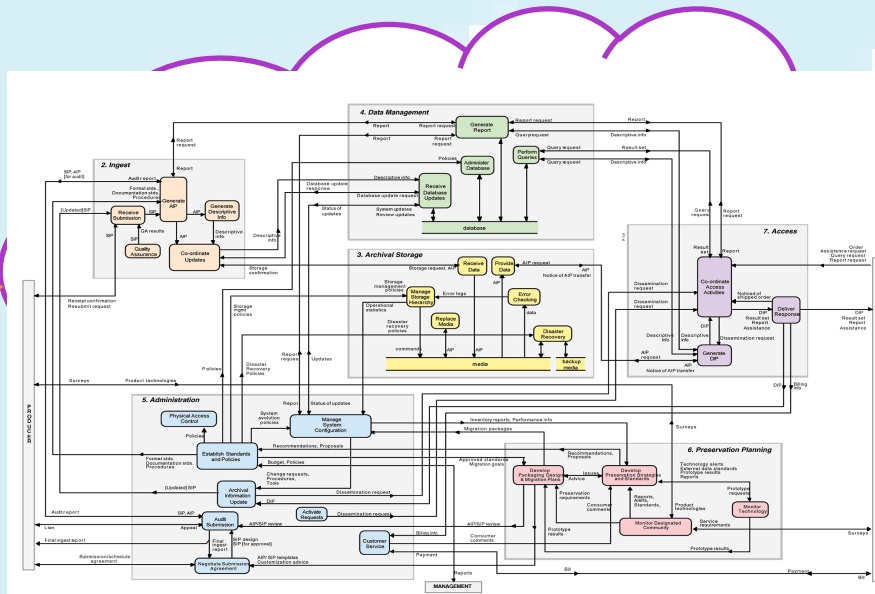
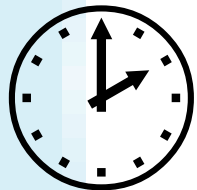
[Click here to enter Plato.](#)  
(ports 8080 and 8443 must be open)

# 7. Access





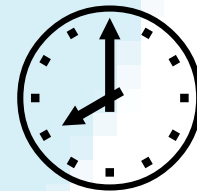
Data creator  
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Data user  
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“The better you are at digital preservation: the less people will notice.”