



**Providing comprehensive and rationalised  
services :  
System integration and urbanization in French  
Higher Education and Research**

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# 1. Our services

Develop comprehensive and high  
quality services  
Promote international relations



**AMUE** : a French **shared-services** agency for Universities and Higher Education and Research Institutions

A public consortium created in 1992

Our mission is to promote **cooperation** among our members in order to :

- > **Modernise management**
- > **Monitor and disseminate innovations**
- > **Grant access to cost effective solutions to any higher education institution**



**Our challenge: support HEI and bring them to the “Digital Era”**

# DEVELOP SHARED-SERVICES

## MAIN FIGURES



# 177

members

- › Universities
- › Other HEI ('Grands Etablissements')
- › Research institutions
- › PRES (pool of universities)
- › Other HEI under supervision of another ministry (defence, environment, health...)

# +550

Roll-outs

# 99%

Universities use at least one of our solutions

# +100

Training courses available

# 140

Employees : civil servants or contract staff offices in Paris and Montpellier


# NEW STRATEGIC GUIDELINES



Results of 2 studies carried out by the CPU (French Rectors' Conference) and the Caisse des Dépôts (a public long term investor) :

- ✓ Expectations of Higher Education Institutions
- ✓ Opportunities to pool universities' digital services

## Endorsed pooling principles

- 
- Share good practices
  - Share services with other HEI
  - Consolidate practices coherence between HEI
  - Improve quality of processes, products and services
  - Allow economies of scale and investments depreciation

## Main operational issues for the next 5 years



Research



Initial and lifelong training



Strategic and operational management



Human resources management



IT resources management



Real estate management



- **Involvement of the State in the development of the agency**
  - ✓ 5 year plan signed in May 2012
  - ✓ Public holding increased from 6 to 8€M, and then to 10€M
  - ✓ The State becomes a member of the agency
- **Caisse des Dépôts :**
  - ✓ Seek partnerships and funding to accelerate the development of our projects
  - ✓ Likely to integrate AMUE's board

**OUR SERVICES :**  
COMPREHENSIVE AND HIGH QUALITY SOLUTIONS



# 4 areas

Information  
Systems

Training and skills  
enhancement

Provide expertise  
and support

Procurement



## IT Systems

- **Our range of IT systems**
  - › Best integrated solutions on the market
  - › In the field of Higher Education and Research
  - › Cost-effective solutions
  - › 8 functional areas

- **Provide support during the roll-out phase**

- › Project management
- › Training
- › Assistance during the start-up phase

- **Provide support during the exploitation phase**

- › Maintenance
- › Assistance & counselling



# OUR SERVICES :

## SOFTWARE SOLUTIONS

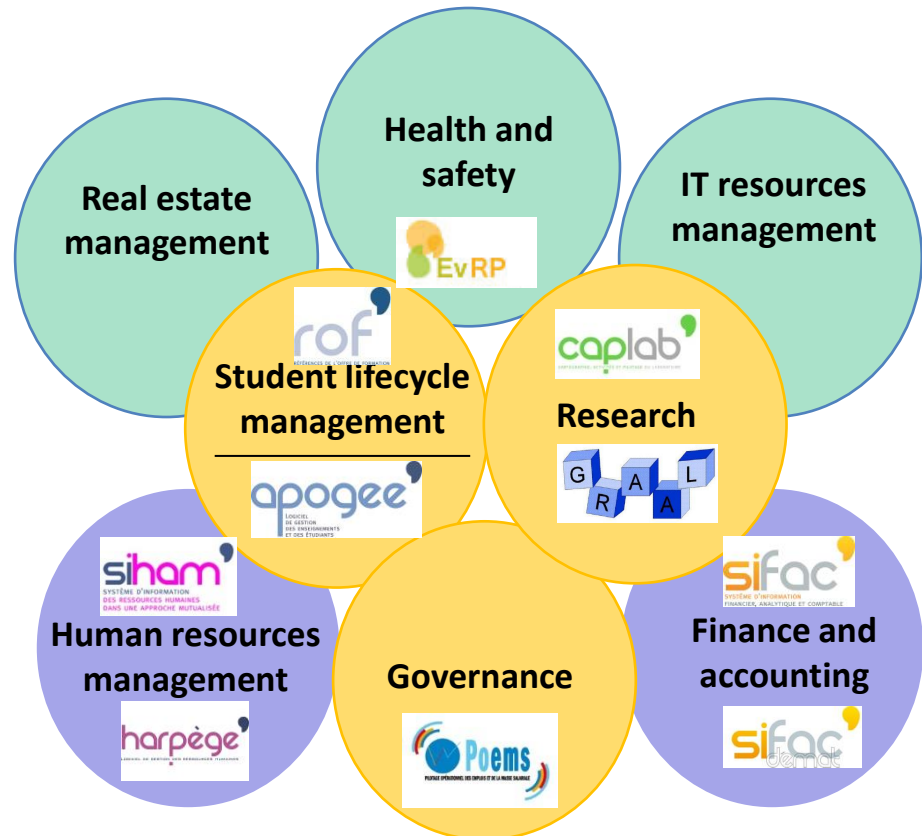


### AMUE is positioned on 8 functional areas

● HE institutions' issues

● Support functions

● Prospects for development



⇒ Built in a collaborative approach and in **close partnership with the HEI' experts** throughout the entire process from the choice of the software to its design.



## Training and skills enhancement

### ■ Professionalise the actors

- › Professional training
- › User Training
- › Tailored to the needs and on site training

## 11 training areas

University governance	Health and security
Students life	Real estate
Research	Legal matters
Finance	Information Systems
Procurement	International Relations
Human Resources	



Provide expertise  
and support

**Performance and innovation are  
at the very heart of our activity**

# 5 areas

**Monitoring &  
information**

**Exchange  
space**

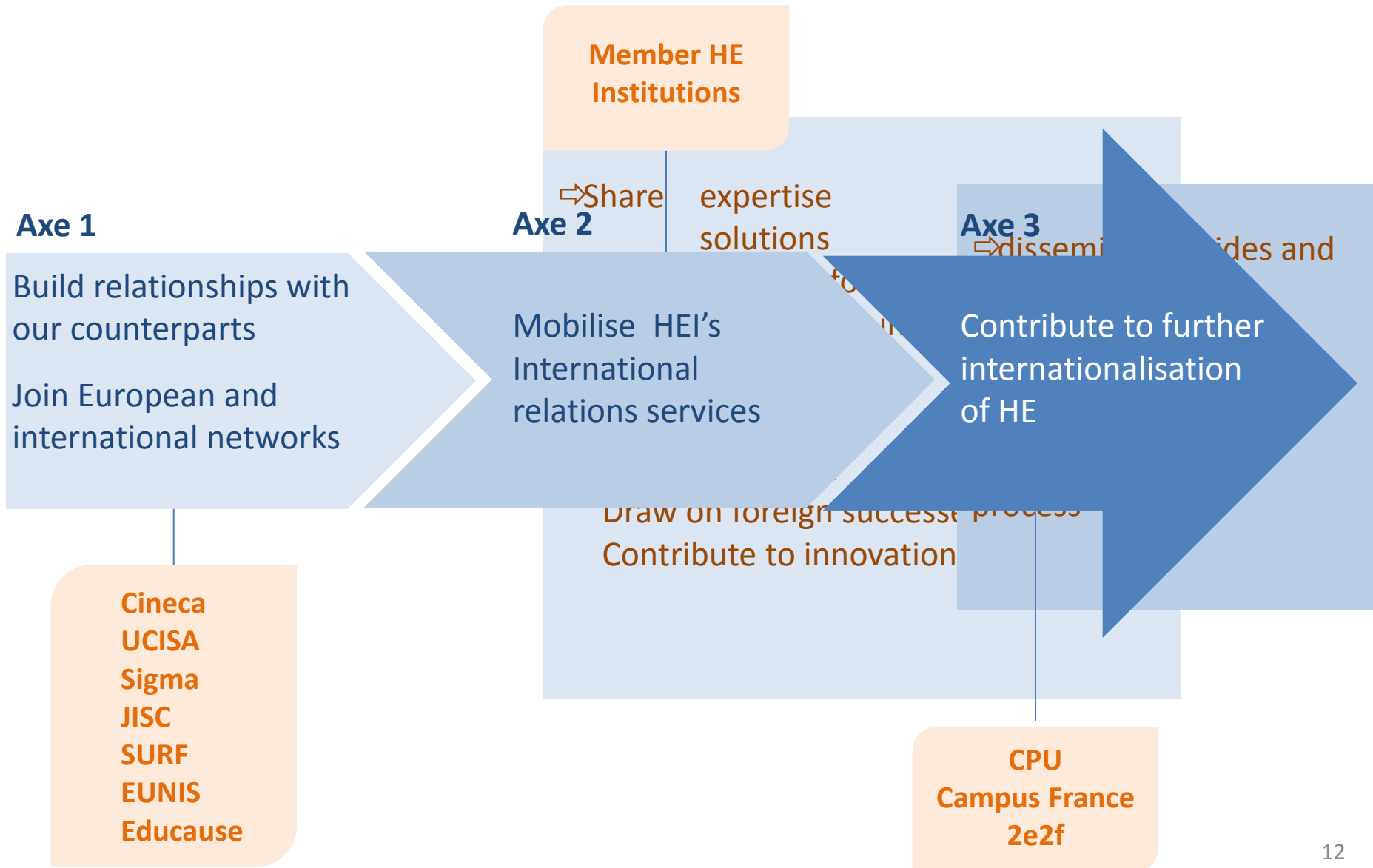
**Field  
expertise**

**Support**

**Change  
management**

# OUR SERVICES :

## INTERNATIONAL ENGAGEMENT





## Procurement

### **Framework-agreements to provide a responsive, cost-effective and shared solution**

- › Organisational audits
- › Financial statements certification
- › Public tenders formalisation software
  
- › Purchase hardware (MATINFO)
- › Purchase scientific equipment
- › Acquisition Cards / business cards (underway in 2013)
  
- › SAP business object / business intelligence ('décisionnel')
- › Outsourcing services
- › Licences (Oracle)
- › BPM / BAM (underway – expected end 2013)

# OUR SERVICES :

## INTERNATIONAL ENGAGEMENT



### ACTIONS



Participate and represent AMUE during international meetings

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Set up a delegation with our members  
2013 / 2014



Organise international conferences and workshops



International watch on innovative topics (MOOCs, BYOD, social networks...)



Set up partnerships with other consortia of universities and companies



Train staff within HEI on international development matters



Support HEI in their internationalisation process



Identify good practices at an international level



Respond to European calls for proposals



## 2. Product plan

Proven solutions  
New solutions released in 2012  
Incoming solutions



⇒ 5 IT systems in the following fields :

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Student Lifecycle  
Management



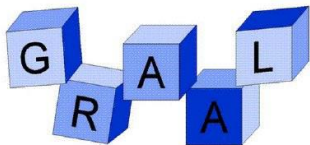
HR



Finance



Research



Monitoring







## Course management

- > Broadcasts a comprehensive, meaningful and consistent presentation of the courses
- > Visibility and control over the evolution of the courses available
- > Facilitates contractual relations with the ministry of HE

Quality

Visibility

Attractiveness



## Assessment of occupational risks



*Labour code : employer's liability*

- > Monitors prevention measures
- > Automatically generates the compulsory framework for risks assessment (DUER)
- > Workers health and safety protection

Risk-assessment



### Human Ressources management

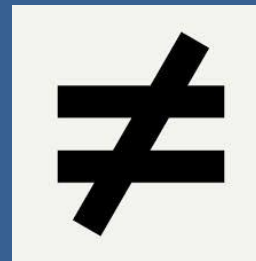
- > Resources-oriented strategic management
- > Projected management of jobs and skills (GPEEC)
- > Compliance and connection with the rules of the national payroll agency

- > Integrated
- > Urbanised/rationalised
- > Quality & traceability



### Digital invoices

- > Reliable and consolidated financial information
- > Data traceability
- > Reduced time to process invoices



Information  
Systems Integration  
Strategy in HE

A US government program  
between NSA, FBI and tech  
companies to access your  
private information



- Best of breed

Master Data Repository



- Institutions information system integration

Data exchanges management

- Improving data quality and data governance

Data quality

- Integration of the institution's information system with its broader environment

Coherence framework

- Compatibility and interoperability of a multiple offer

Enterprise Architecture

Data exchanges formats and standards

- Collaborative building of a pooled information system



Switch from a juxtaposition of silos to :

> an **integrated solution** which allows

⇒ A rationalised solution **design**

⇒ Data **quality**

⇒ A **cross-functional monitoring** of the institution ('BI IS')

> Relying on a « **Best of breeds** » and **collaborative approach**

*'PRISME'*

*Automatic flows between the  
different solutions*

*Shared repositories*



## cross-functional monitoring

Business intelligence

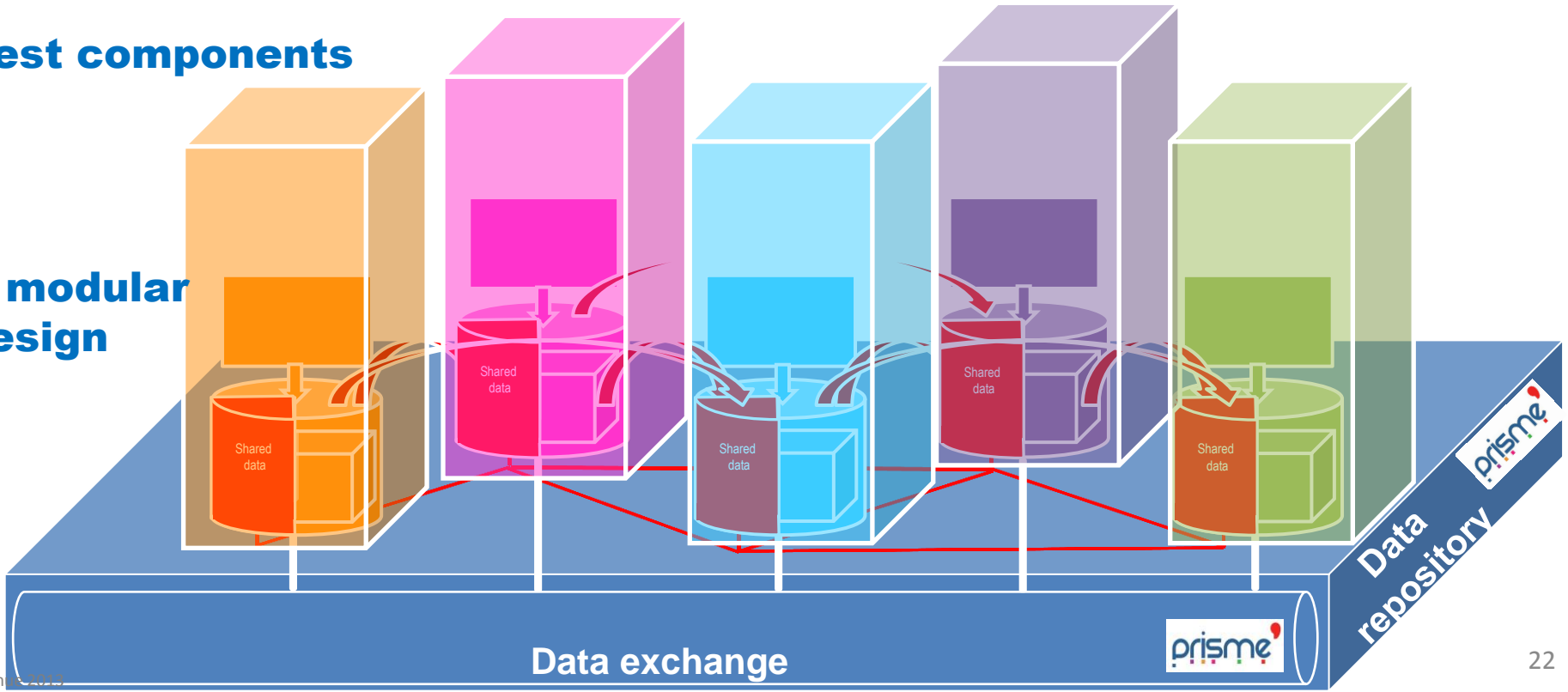
Data warehouse

## Integration

- **Wired interfaces**
- **No data repository**

## Best components

## A modular design

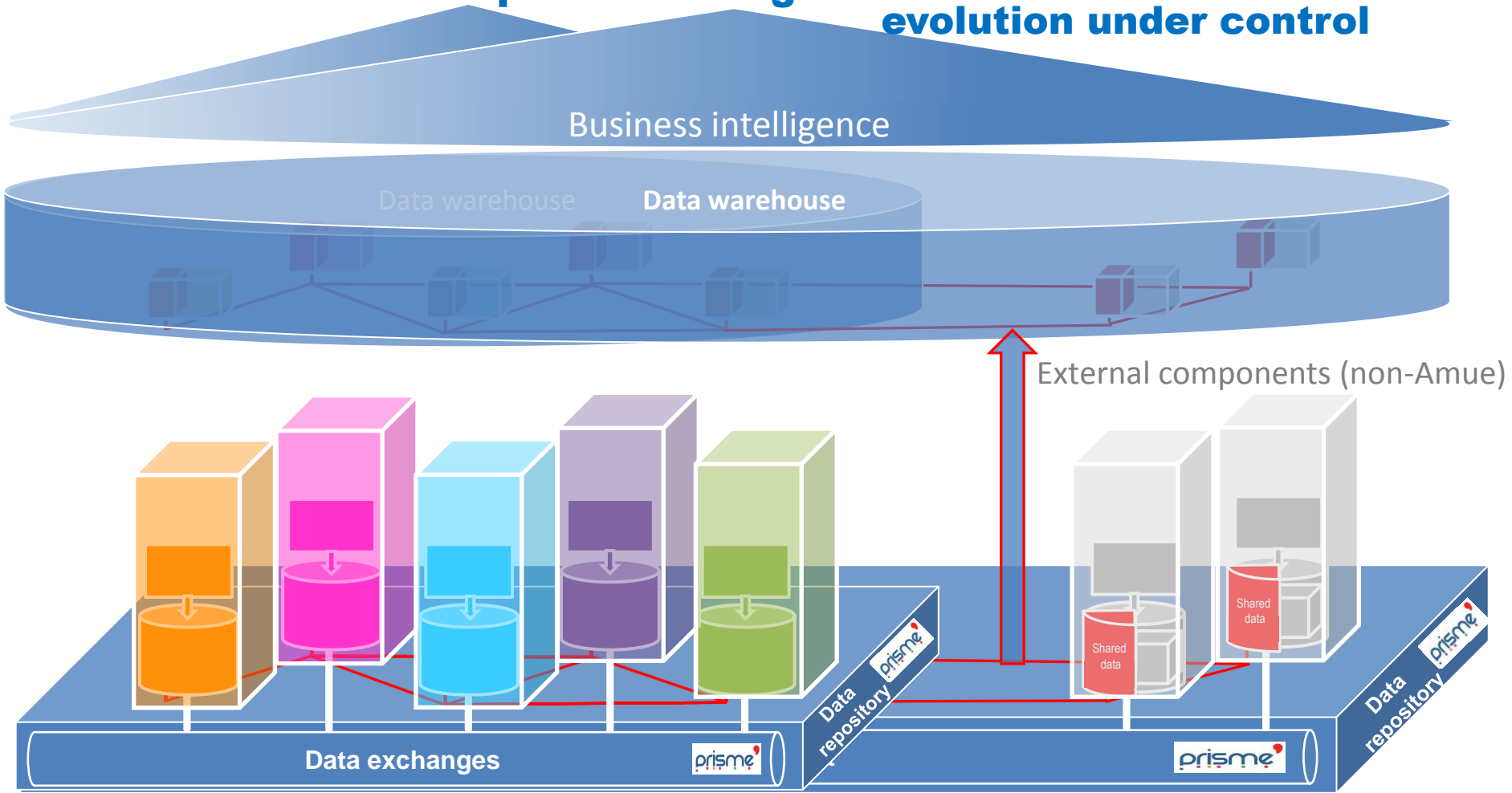




## Safeguard institutions experience and secure assets of their information system

**Retain control over the pace of change**

**Keep the information system evolution under control**



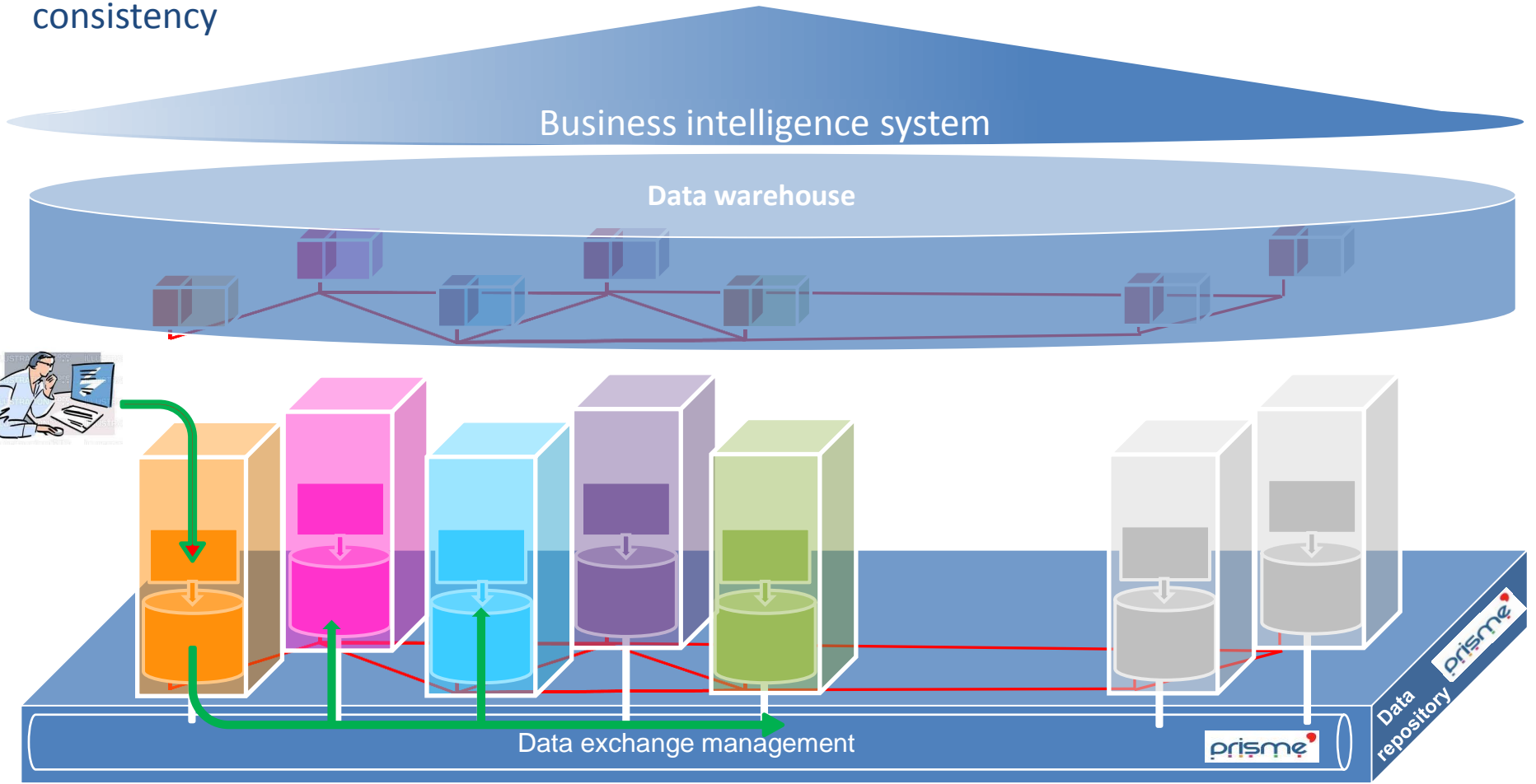


## Quality assurance :

- > From acquisition, and in each application module
- > Prisme : a second filter – cross-functional consistency

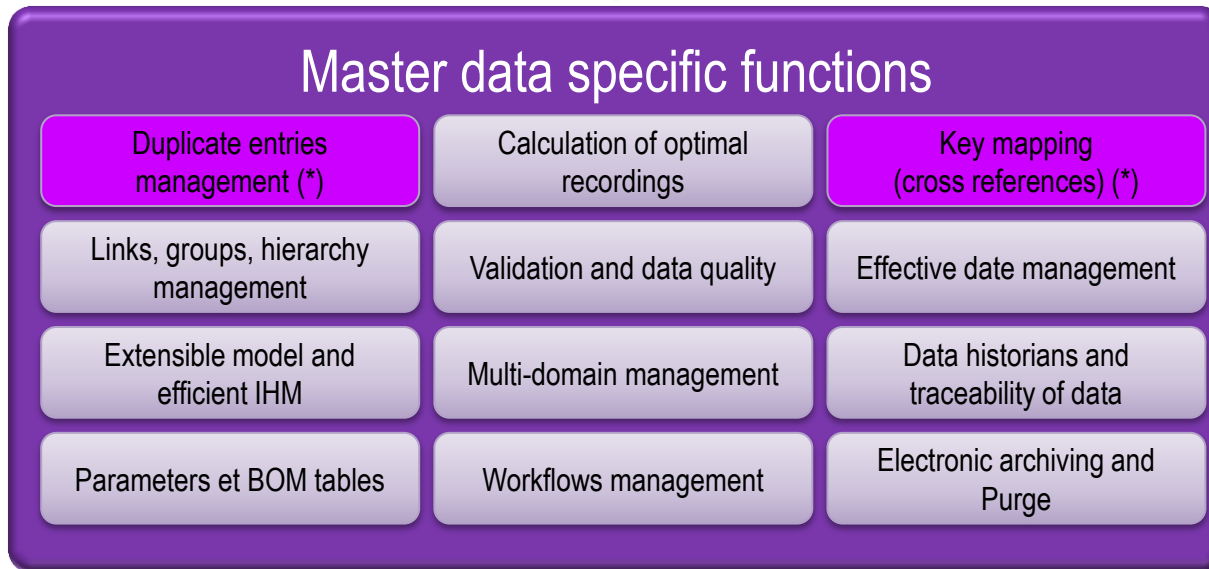
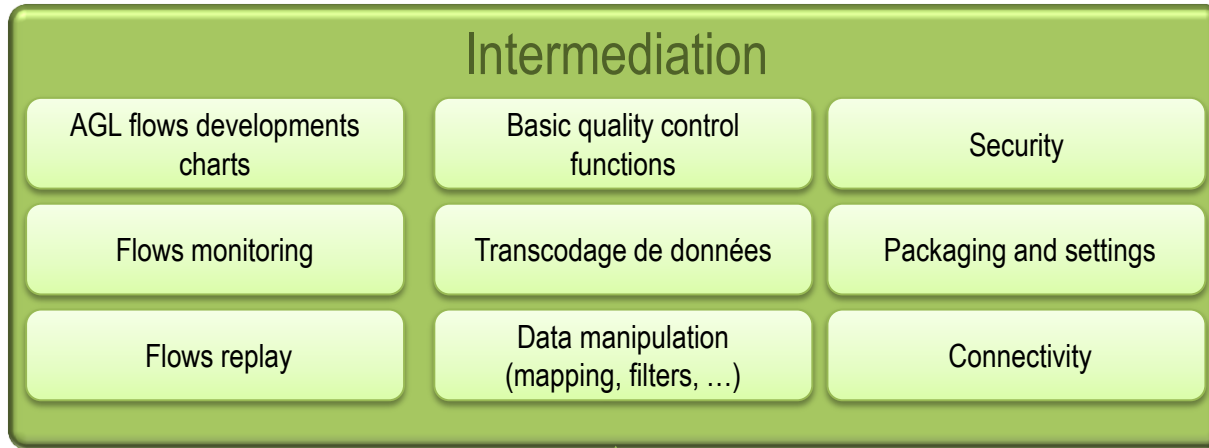
## Quality control in the business intelligence system

- > Must inherit consistency and quality data



Intra institution / Multi domain





(\*) : minimum requirements



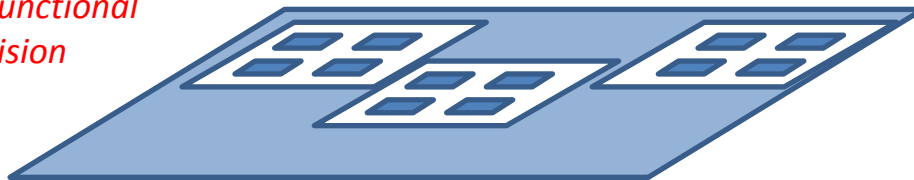
Strategy and business needs



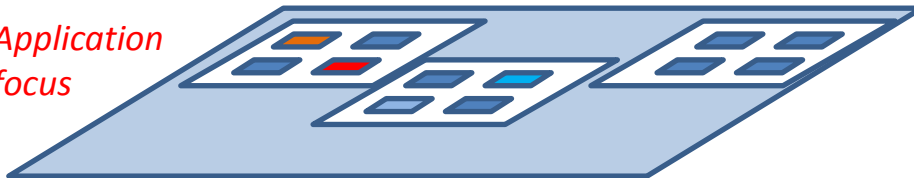
*Business vision*



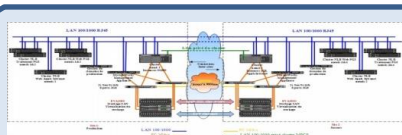
*Functional vision*



*Application focus*



*Technical vision*



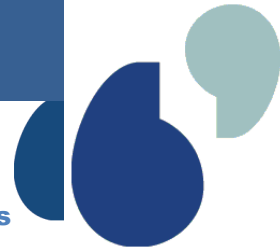
→ Relies on business processes

→ Allows to optimize and safeguard cross-functional processes

→ The target of the information system and its trajectory are intrinsically bound to PRISME.

→ Helps institutions to meet their enterprise architecture target

# Summary

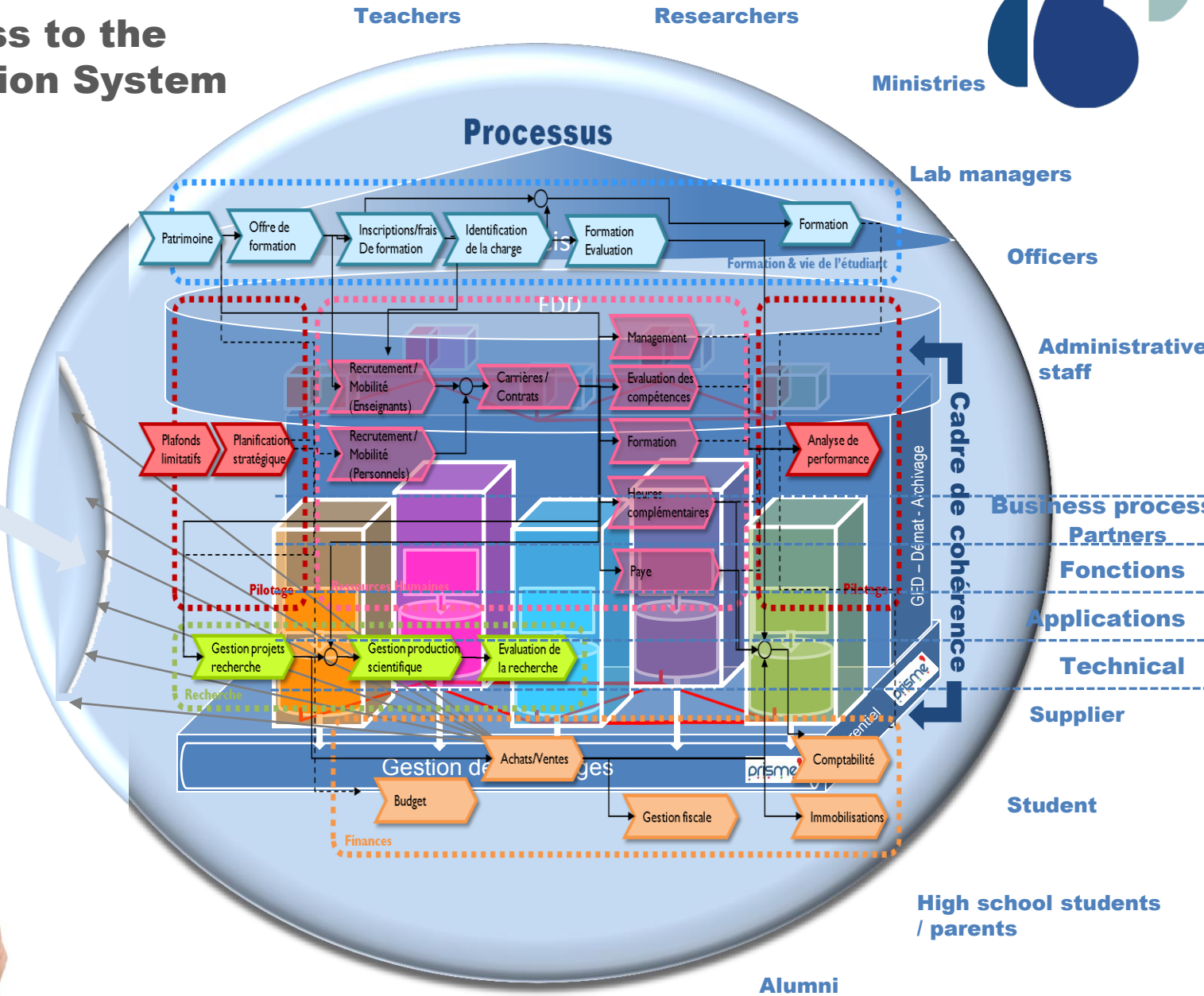


## Access to the Information System

➤ Digital workspace (portals)



➤ BYOD / mobility

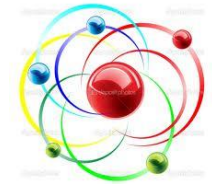


## Data exchange management :

- Facilitate the creation and maintenance of flows
- Unified monitoring of the information system flows
- Shared data repositories
- Consistent quality data within the whole information system
- Limited data re-entry and simplified cross-functional processes
- Information system maintenance: an evolutionary system thanks to a modular conception
- An integrated and interoperable information system

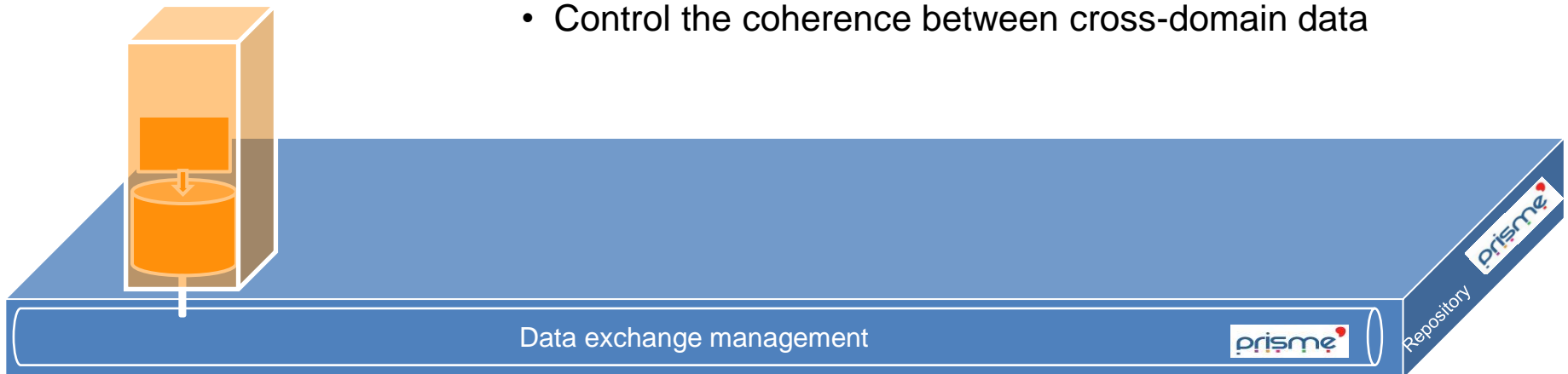
## Repository :

- Improve data through the contribution of each business branch (360° scope)
- Quality data
- Consolidated data: clarify the respective responsibilities



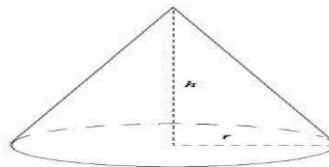
## Data quality:

- Consolidate data when transferred (uniqueness, consistence...)
- Control the coherence between cross-domain data





- **Integration in every sense of the word**
  - ❖ **Various issues to tackle**
  - ❖ **A complex topic for a flexible information system**



$$\iiint_R g(x)h(y,z)dx dy dz = \int_b^a g(x)dx \cdot \iint_D h(y,z)dy dz$$





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