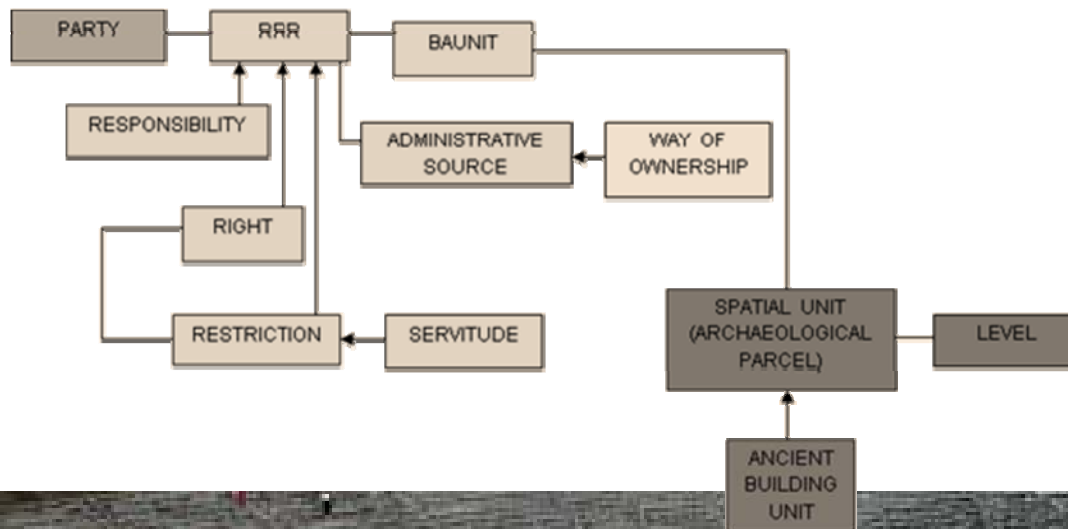
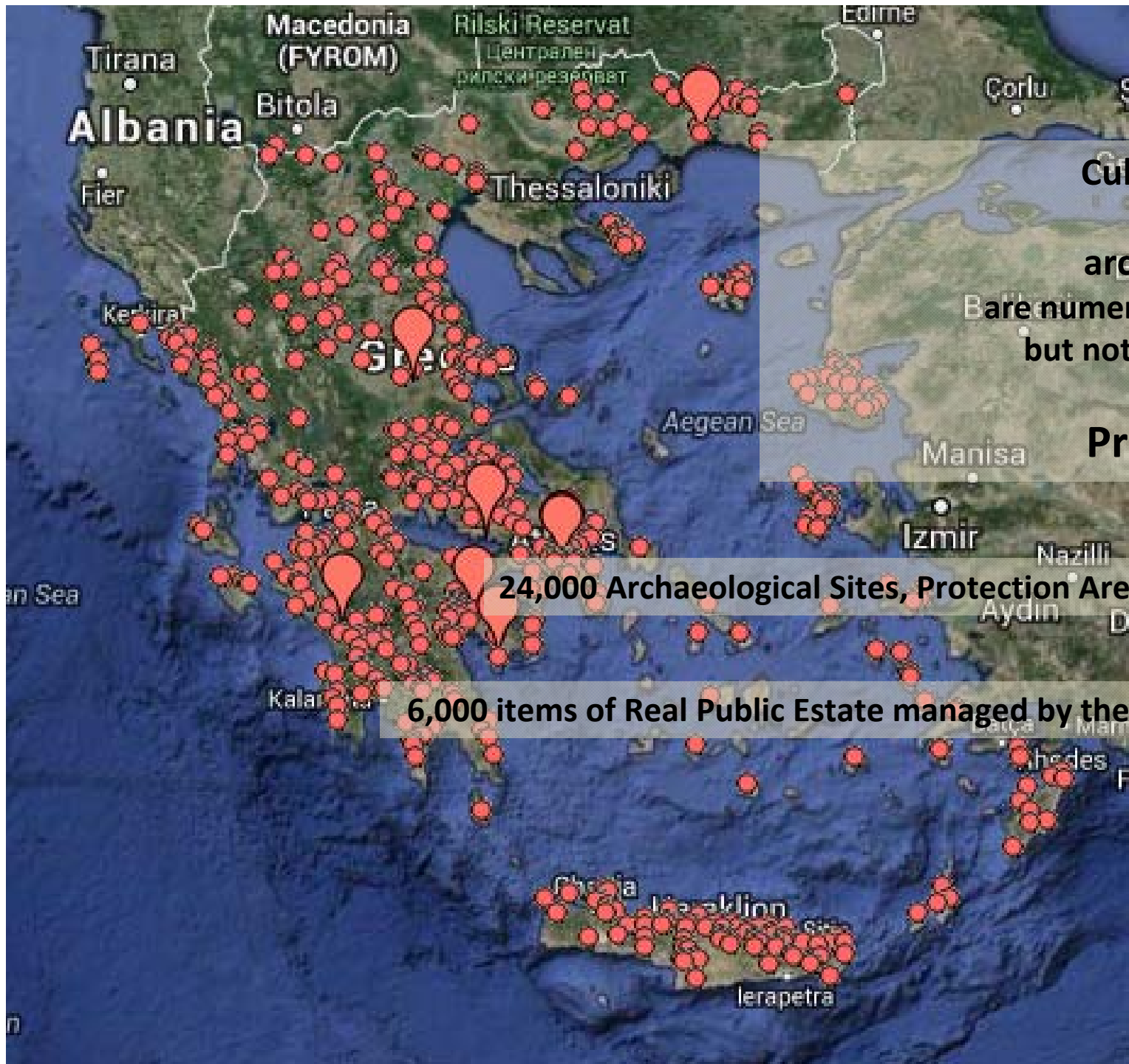


LADM as a Basis for the Hellenic Archaeological Cadastre



Efi DIMOPOULOU and Christina GOGOLOU, Greece





Cultural monuments and archaeological areas are numerous all over Greece but not registered in detail as Property Objects

24,000 Archaeological Sites, Protection Areas and Monuments

6,000 items of Real Public Estate managed by the Ministry of Culture

Hellenic Archaeological Cadastre (HAC)

Ongoing project for the **digital registration of the cultural heritage of Greece**, together with the recordation of property rights exercised in such areas and the clarification of the ownership status.

Goal of the project: the creation of a **management tool**

Ministry of Culture, Strategic Planning:

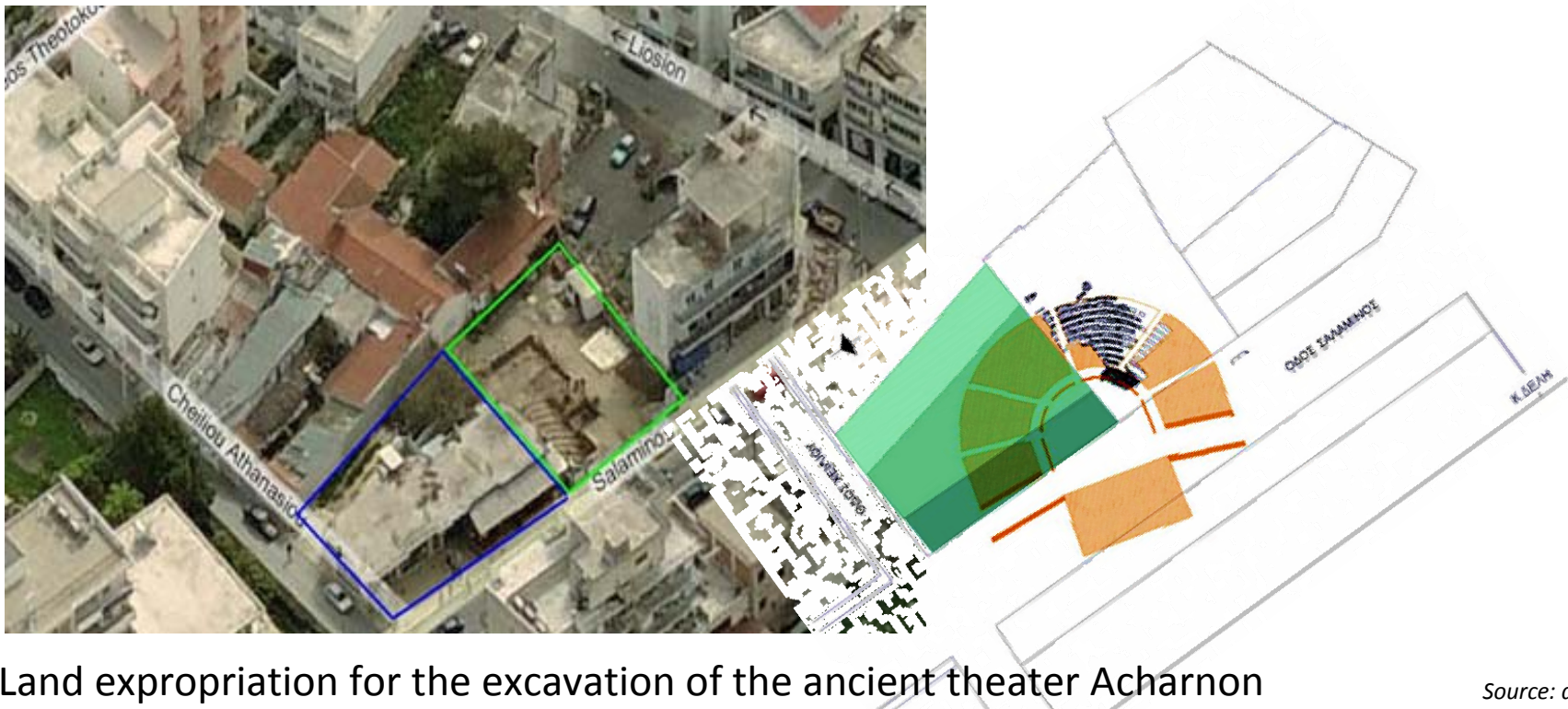
- ✓ Convert the cultural reserve into digital form with public access
- ✓ Enable information sharing, training and knowledge transfer
- ✓ Interoperability between all systems that provide cultural content and services and the protection of intellectual property rights

Problems of Immovable Antiquities

Cultural heritage information (and protection) is spread across many organizations. Not a unified organizational structure!

Bad management of restriction in land use

Owners with antiquities, may lose their rights. Land expropriation is time-consuming process, delays to the completion of big projects



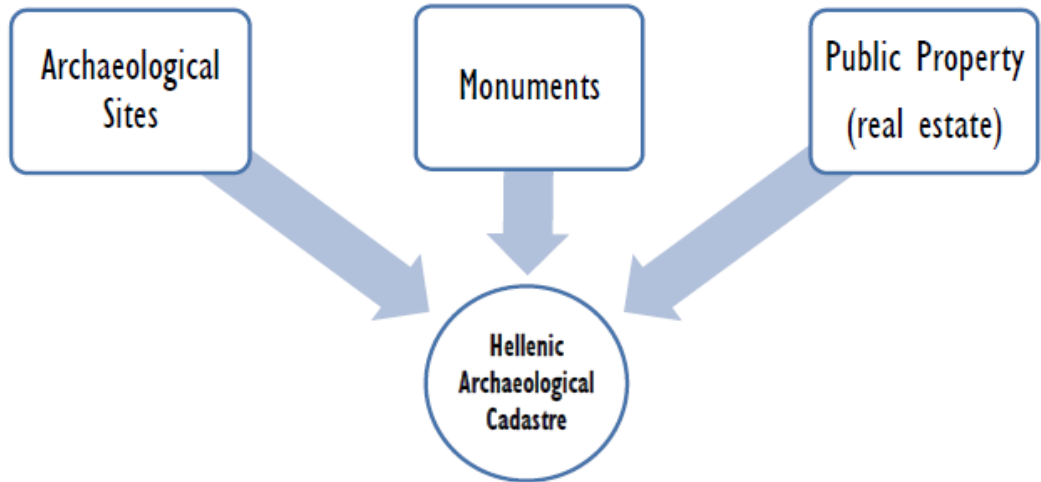
Land expropriation for the excavation of the ancient theater Acharnon

The Lack of National Cadastre!!!

- ownership information about properties with archaeological interest is not completed
- the public property is not yet recorded in its whole in a national scale means that there is no knowledge for its extent, leading to infringement from individuals:
Arbitrary buildings do not promote cultural heritage ..



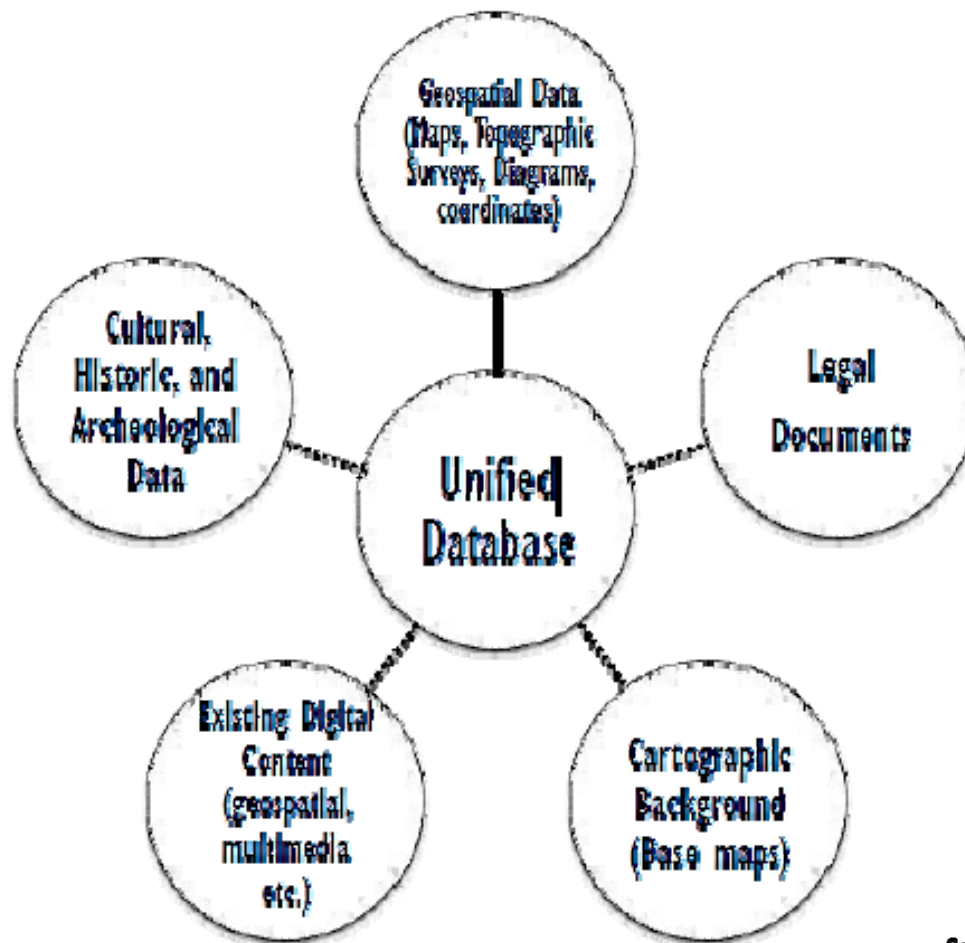
Arbitrary Buildings next to the Archaeological Site of Knossos (source: <http://odysseus.culture.gr>)



Source: Hellenic Archaeological Cadastre

Database Structure and Operation

All registrations are organized in 2 levels: the descriptive and the geospatial



Source: Hellenic Archaeological Cadastre

Implementation Phases of the HAC

1. Archaeological (direct) *labor working team*, responsible for procedures of preparation of the collected data, together with quality control of the system and its content
2. *Intermediate management* system: collection of archive material, cataloguing monuments, sites and real property and quantification of data are the core of this stage (by external contractor)
3. Implementation of an *Integrated Information System* also by an external contractor.



Υπουργείο Πολιτισμού
και Τουρισμού
"Αρχαιολογικό"

Ταυτότητα Περιοχής



Υπουργείο Πολιτισμού
και Τουρισμού
"Αρχαιολογικό
Κτηματολόγιο"

1. Σ

2. Τ

3. Α
Π

4. Γ

5. Ε

6. Σ

7. Λ

8. Χ

1. Στοιχεία Ευρετηρίου

2. Ταυτότητα Περιοχής

3. Αρχαιολογική Περιγραφή
Περιοχής

4. Γεωγραφική θέση

5. Θεσμικό Πλαίσιο

6. Συνοδευτικό Υλικό

7. Λοιπά στοιχεία

8. Χάρτης

xristo

xristoforos - 1334832329

Χάρτης



Search

Re - Load

Clear

10320Περιοχή Ναού Επικούρειου

Σύνθετη Προσθήκη

Εξαγωγή Συντεταγμένων

Lon : 21.91086

Lat : 37.448468

X : 315053.53

Y : 4146385.46

Πολύγωνο

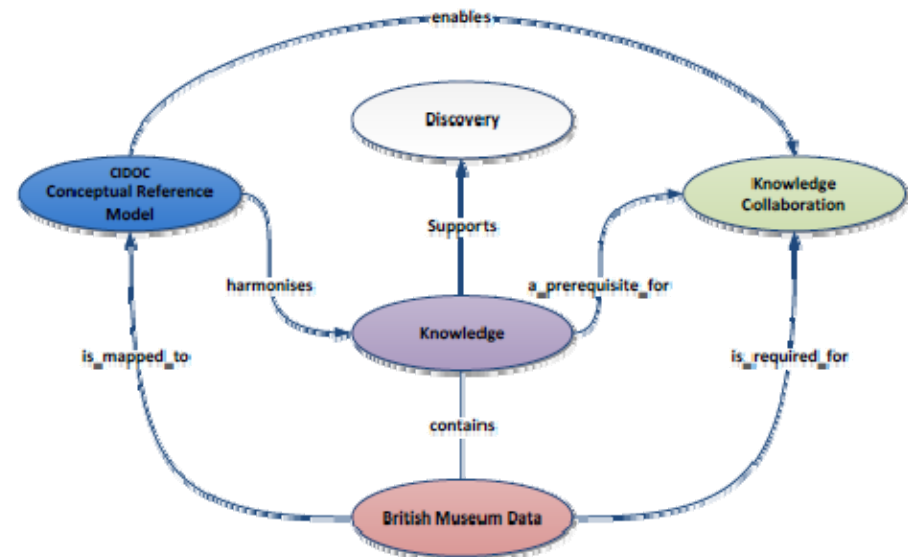
Σημείο

Μετά από κάθε καταχώρηση, ελέγχουμε τη νέα εγγραφή για να επιβεβαιώσουμε την πληρότητά της !

Modeling the Archaeological Space...

The **CIDOC Conceptual Reference Model (CRM)** provides an extensible ontology for concepts and information in cultural heritage and museum documentation. Since 2006 it is the international standard (ISO 21127:2006) for the controlled exchange of cultural heritage information.

Archives, libraries, museums, and other cultural institutions are encouraged to use the CIDOC CRM to enhance accessibility to museum-related information and knowledge (British Museum).



Modeling the Archaeological Space...

FRBRoo: a new initiative (2006) for Bibliographic Records (FRBR), provides a formal ontology intended to capture and represent the underlying semantics of bibliographic information, to facilitate the integration, mediation, and interchange of bibliographic and museum information.

Performance Standard 8 recognizes the importance of cultural heritage for current and future generations. Aims:

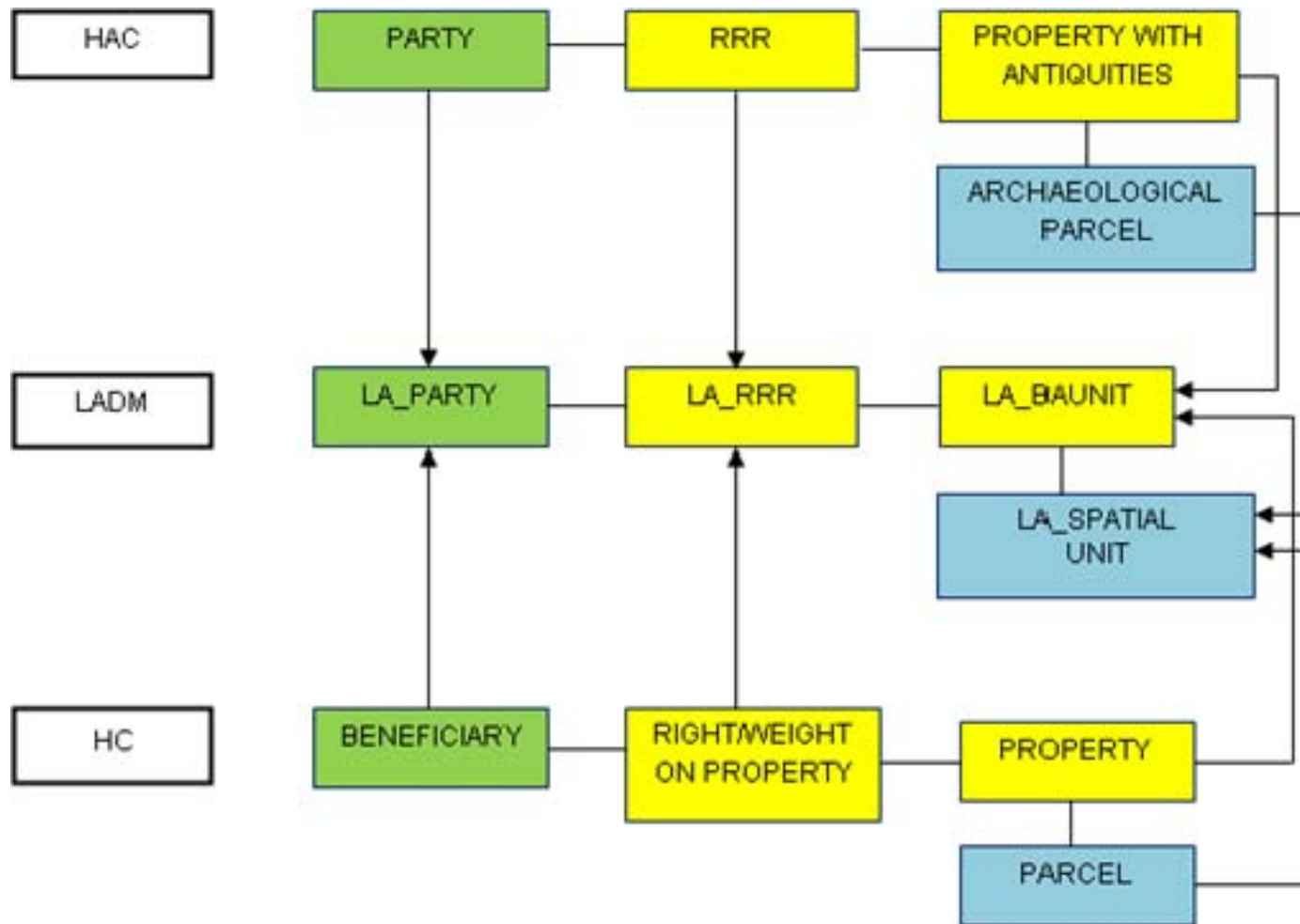
- To protect cultural heritage from the adverse impacts of project activities and support its preservation.
- To promote the equitable sharing of benefits from the use of cultural heritage.

Modeling the Archaeological Space...

Why LADM?

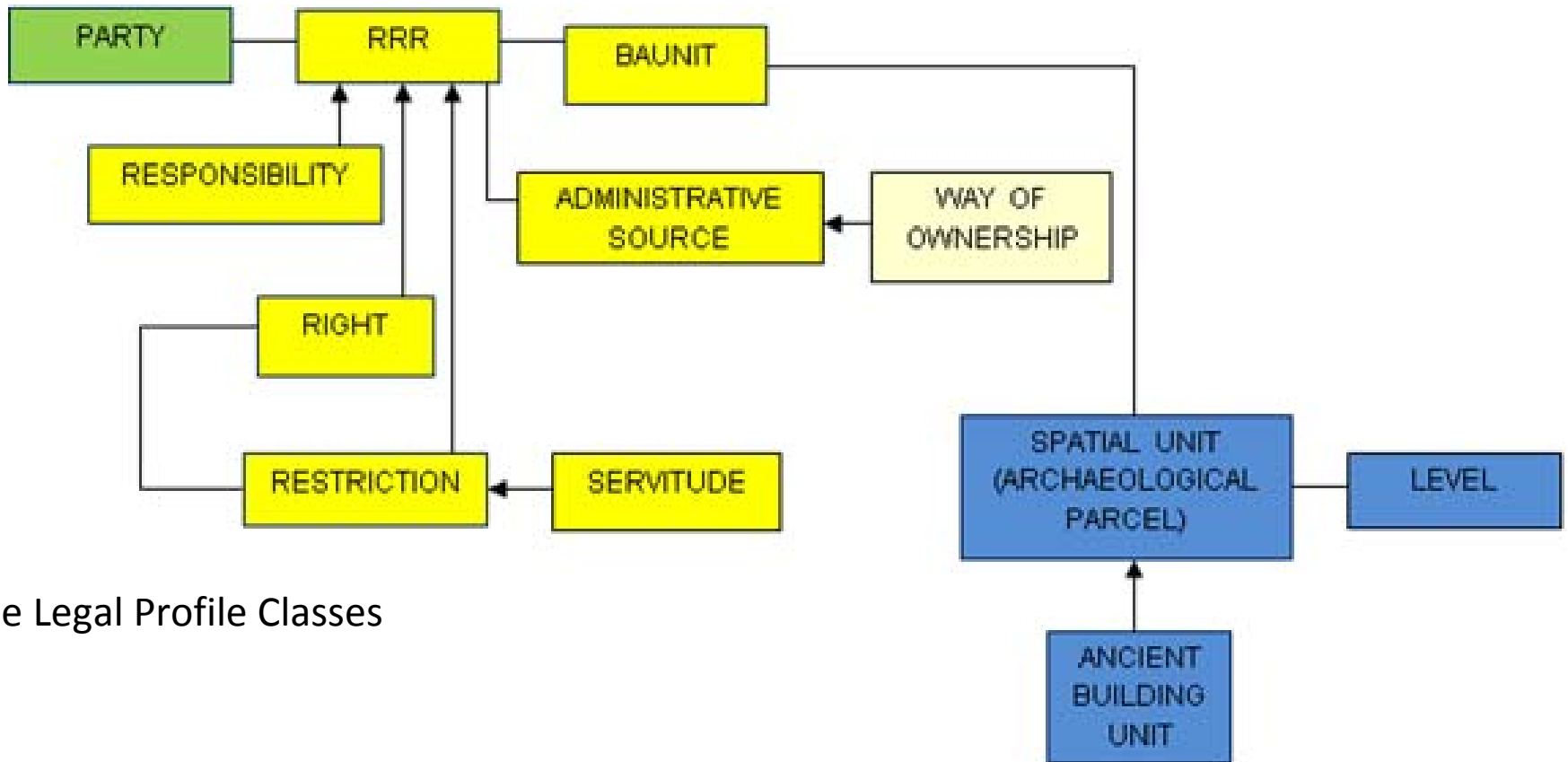
- ✓ Because the LADM provides a core model, which is a good basis for the harmonization of an implementing project (HAC) with the international practices
- ✓ Because it can be used for the common representation of the two cadastral initiatives in Greece and the matching of their entities with a shared vocabulary

Expressing HAC and HC with terms of LADM



Entities of HAC and HC interacting with LADM Classes

The Core Model Proposed

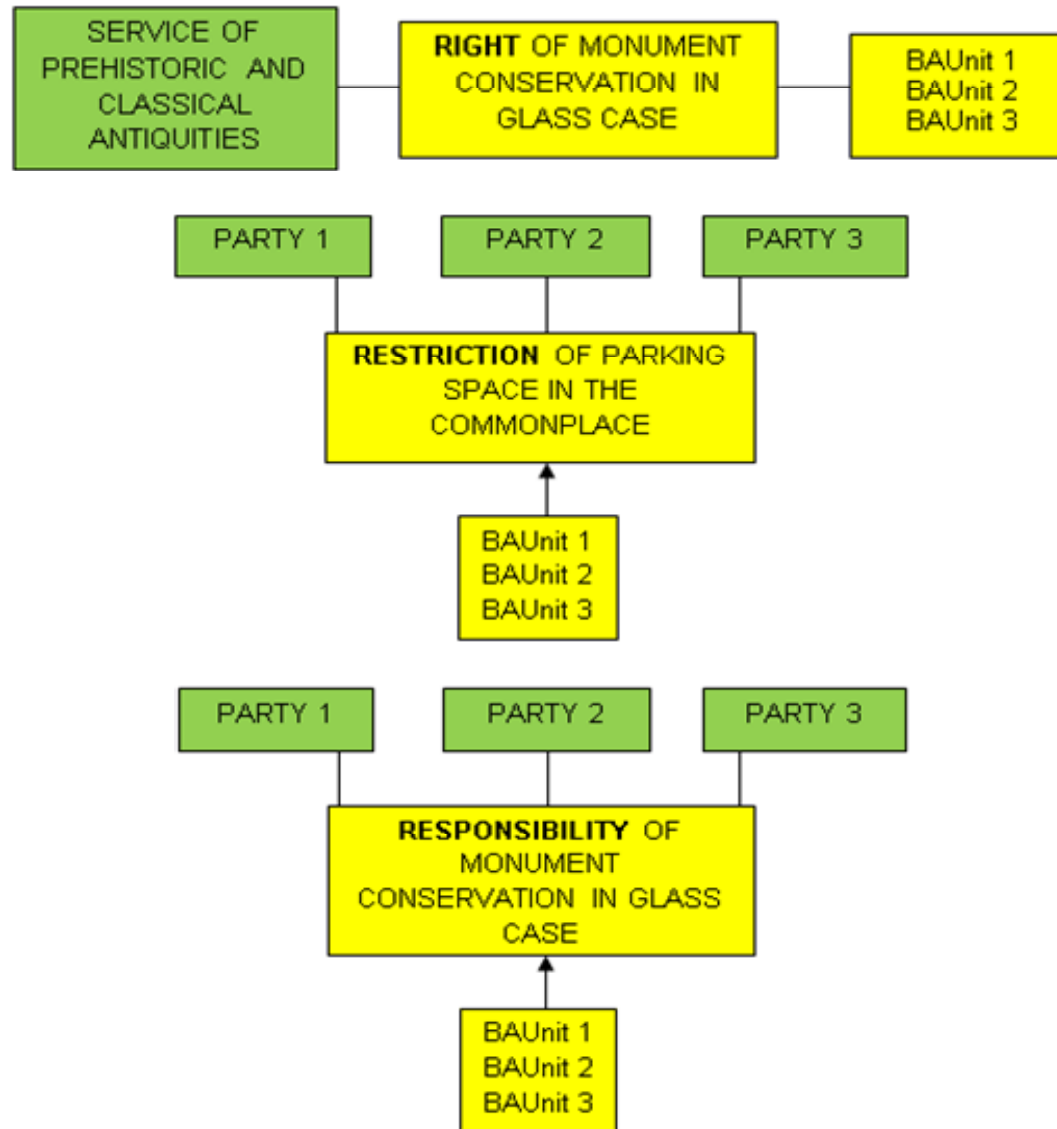


The Legal Profile Classes

The Basic Spatial Profile Classes

Conclusions – Discussion (1)

- ✓ The types of **rights, restrictions** and **basic administrative units** follow the HC Standards and the types of **responsibilities** follow the Archaeological Legislation. All the other types of classes adopt the features of the LADM classes
- ✓ Expressing the two cadasters' core model with terms of LADM:
 - enhances the flexibility between them
 - creates connectivity and interoperable possibilities for best management (e.g. with public services systems for taxation, clarification of the ownership status)
- ✓ The implementation of the HAC with international standards reflects the **cadastral dimension of the archaeological space**, since properties with archaeological features are under special ownership status



Rights, Restrictions and Responsibilities exercised at the same time from different Parties on a Mixed Property with Antiquities!!

Conclusions - Discussion (2)

a new model based on LADM?

or

an extension for LADM?

❑ In all cases the management of the “archaeological” information is of high importance for the development in Greece. ..

❑ A standard in modeling the cultural heritage can help all experts involved in the restoration, archiving and monitoring of the history of mankind and secure this for the future!



Thank you for your attention