

**ΕΘΝΙΚΟ ΚΤΗΜΑΤΟΛΟΓΙΟ  
& ΧΑΡΤΟΓΡΑΦΗΣΗ Α.Ε.**

# 3D Cadastral Objects of the Hellenic Cadastre

Evangelos Dimas  
Application Support Manager

IT Department

19/10/2016



**ΕΘΝΙΚΟ ΚΤΗΜΑΤΟΛΟΓΙΟ  
& ΧΑΡΤΟΓΡΑΦΗΣΗ Α.Ε.**

# The Hellenic Cadastre

Is a parcel-based cadastre system.

Parcel: a uniform area that constitutes a single, independent area of land, which may belong to one or more persons *ab indiviso*.

It manages Real Properties and registers legal transactions on them.



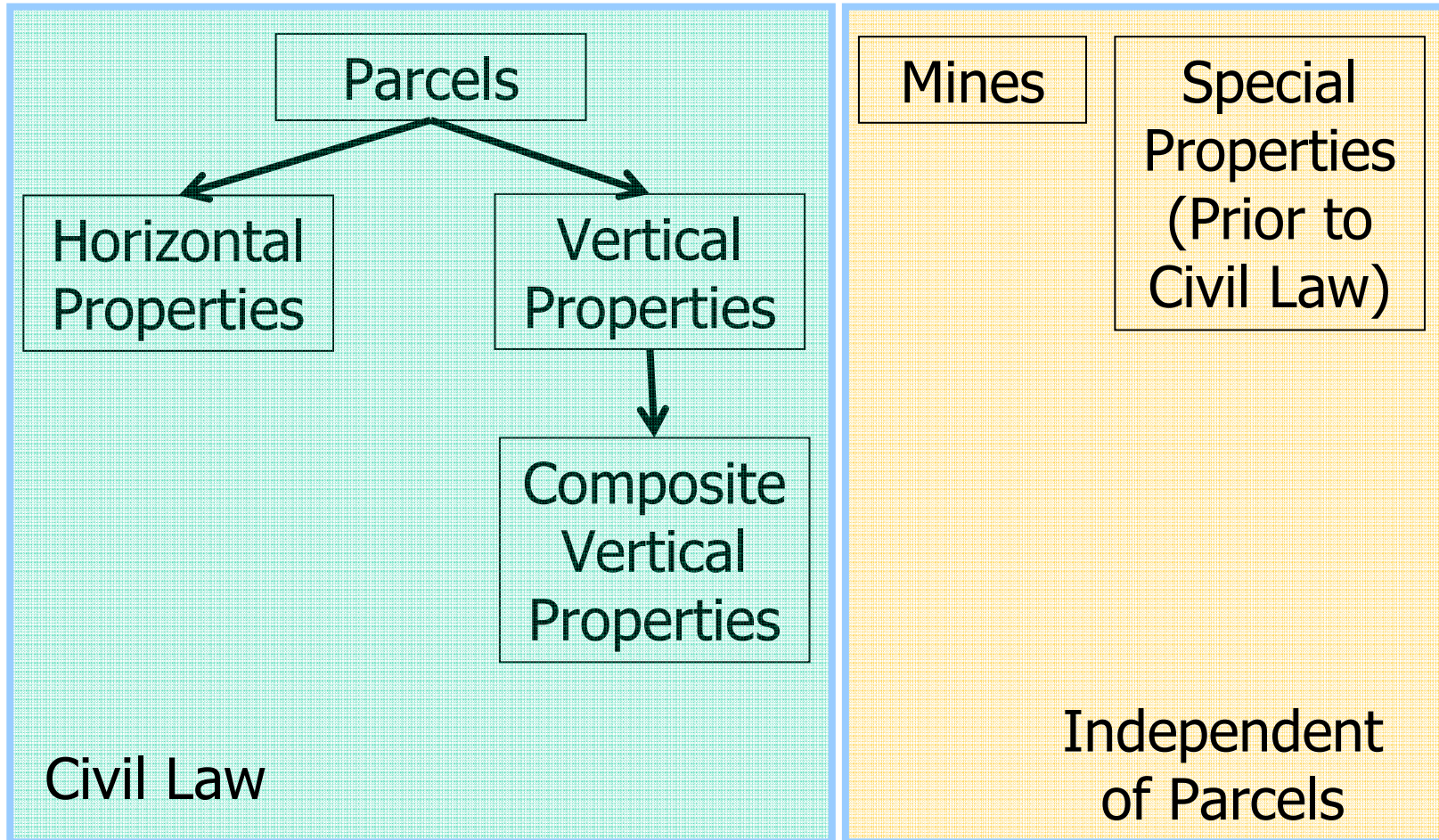
# Real Properties (Objects of Legal Transactions)

- Land Parcels (including roads, rivers and other areas of public ownership by definition)
- Horizontal properties
- Vertical Properties
- Composite Vertical Properties
- Mines
- Special Properties

Note: Buildings are not real properties and are not modelled as such. Building information is collected during the cadastral survey process.



# Real Properties Hierarchy



# Special Cases

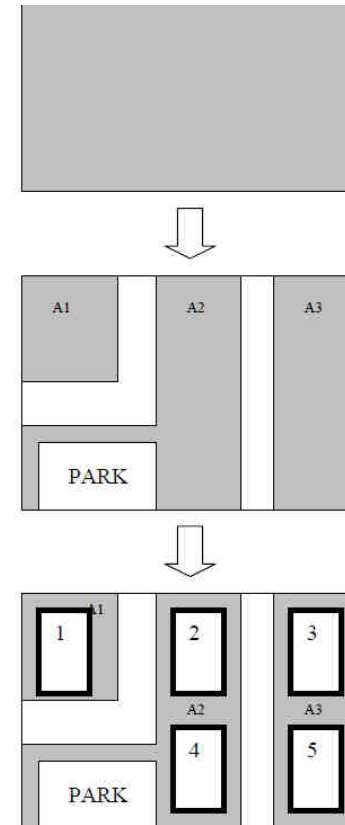
## Non Uniform Land Parcels\*

### Change of Definition

Parcel part: a uniform area that constitutes a single, independent area of land.

Parcel: Constitutes of single or multiple parcel parts

In this case the grey area is a single parcel comprising of multiple parcel parts.



\*referenced in Conceptual Modeling of Real Property Objects of the Hellenic Cadastre, D. Rokos, 2001



# Special Properties\* (of 3D interest)

Properties extending over  
a street

(old city of Rhodes)



\*referenced in Conceptual Modeling of Real Property Objects of the Hellenic Cadastre, D. Rokos, 2001





# Special Properties\* (of 3D interest)

## Subterranean property (Santorini island)



Registered as a real property, ID independent of land parcel, point reference in GIS

\*referenced in Conceptual Modeling of Real Property Objects of the Hellenic Cadastre, D. Rokos, 2001





# Special Properties\* (of 3D interest)

## Syrmata (Milos island)



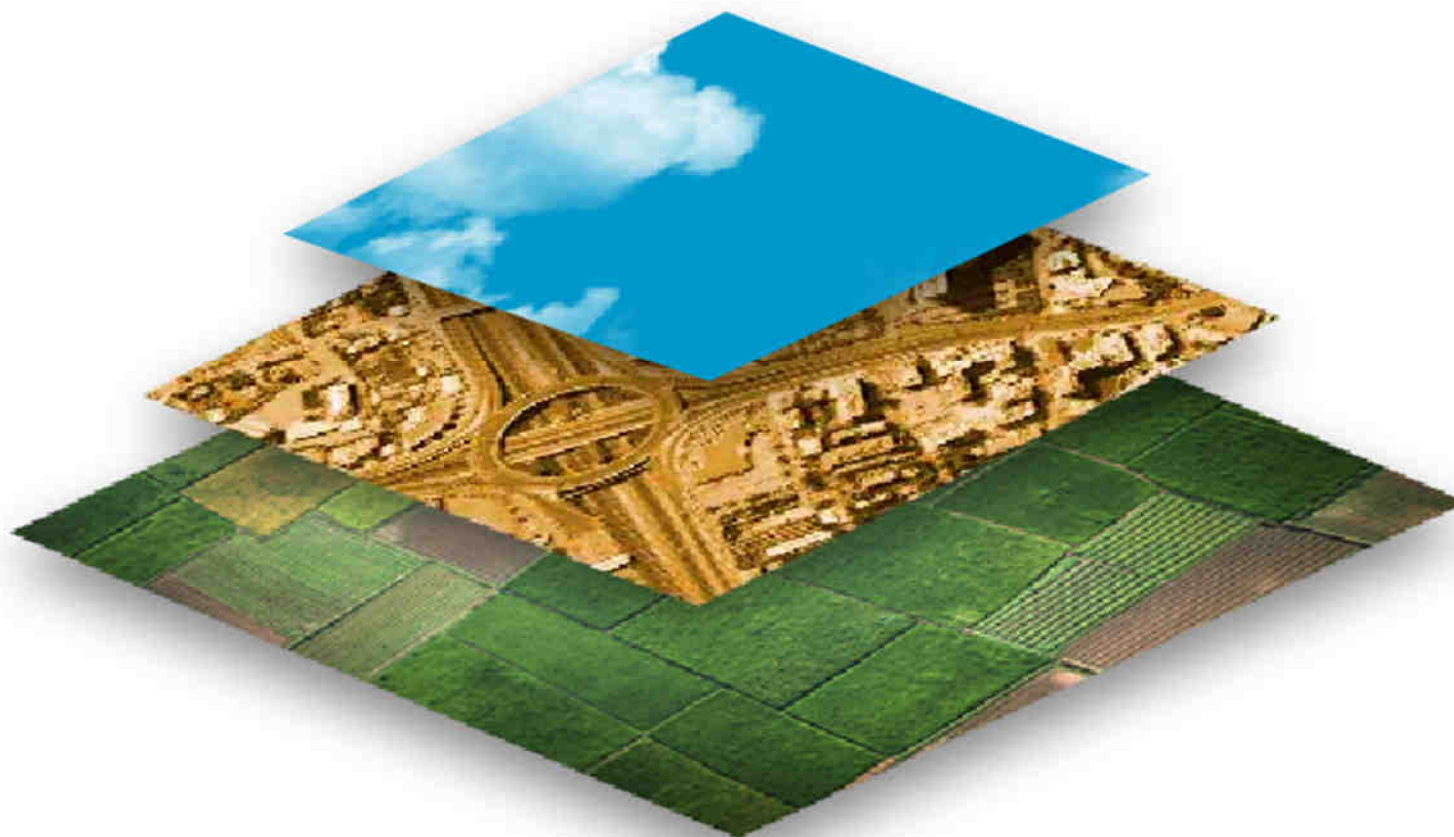
\*referenced in Conceptual Modeling of Real Property Objects of the Hellenic Cadastre, D. Rokos, 2001



## Conclusion

- Partitioned properties and special properties are adequately modelled in the existing scheme for transaction purposes.
- However, as useful as 3D information could be, it is neither collected during the survey process nor incorporated in the operating cadastre.
- Towards a 3D approach intermediate data (e.g. partitioned properties or special properties plans) could be collected and linked to the Cadastre real properties.
- The Cadastre could serve as the base for collecting intermediate or 3D information but the collection itself is probably the responsibility of other agencies of the government (e.g. Town Planning)





**ΕΘΝΙΚΟ ΚΤΗΜΑΤΟΛΟΓΙΟ  
& ΧΑΡΤΟΓΡΑΦΗΣΗ Α.Ε.**