

Developing a LADM Part 5 - Spatial Plan Information Country Profile for Greece

24.09.2024 Kuching, Malaysia

Maria Poulaki (NTUA)

Eftychia Kalogianni (TUDelft)

Abdullah Kara (TUDelft)

Nickolaos Xagoraris (NTUA)

Charalampos Kyriakidis (NTUA)

Efi Dimopoulou (NTUA)

Overview

1. INTRODUCTION
2. SPATIAL PLANNING IN SELECTED COUNTRIES
3. LADM PART 5 - ISO 19152-5: SPATIAL PLAN INFORMATION & IMPLEMENTATIONS
4. DEVELOPING AN ISO 19152-5 PROFILE FOR GREECE
5. CONCLUSIONS AND FUTURE WORK

1 | Introduction

- ✓ LA critical for sustainable land use
 - ✓ Effective land management is central to this goal
 - ✓ LADM Part 5 – Spatial Plan information includes a conceptual model that encompasses packages related to plan units, plan blocks, plan groups, and permits
- The goal is to develop a country profile for Greece based on LADM Part 5 with particular attention to Greece's three planning levels: national, regional, local to fully serve the country's requirements

2 | Spatial Planning in selected countries

Spatial planning as part of Land Administration has the ability to improve space management.

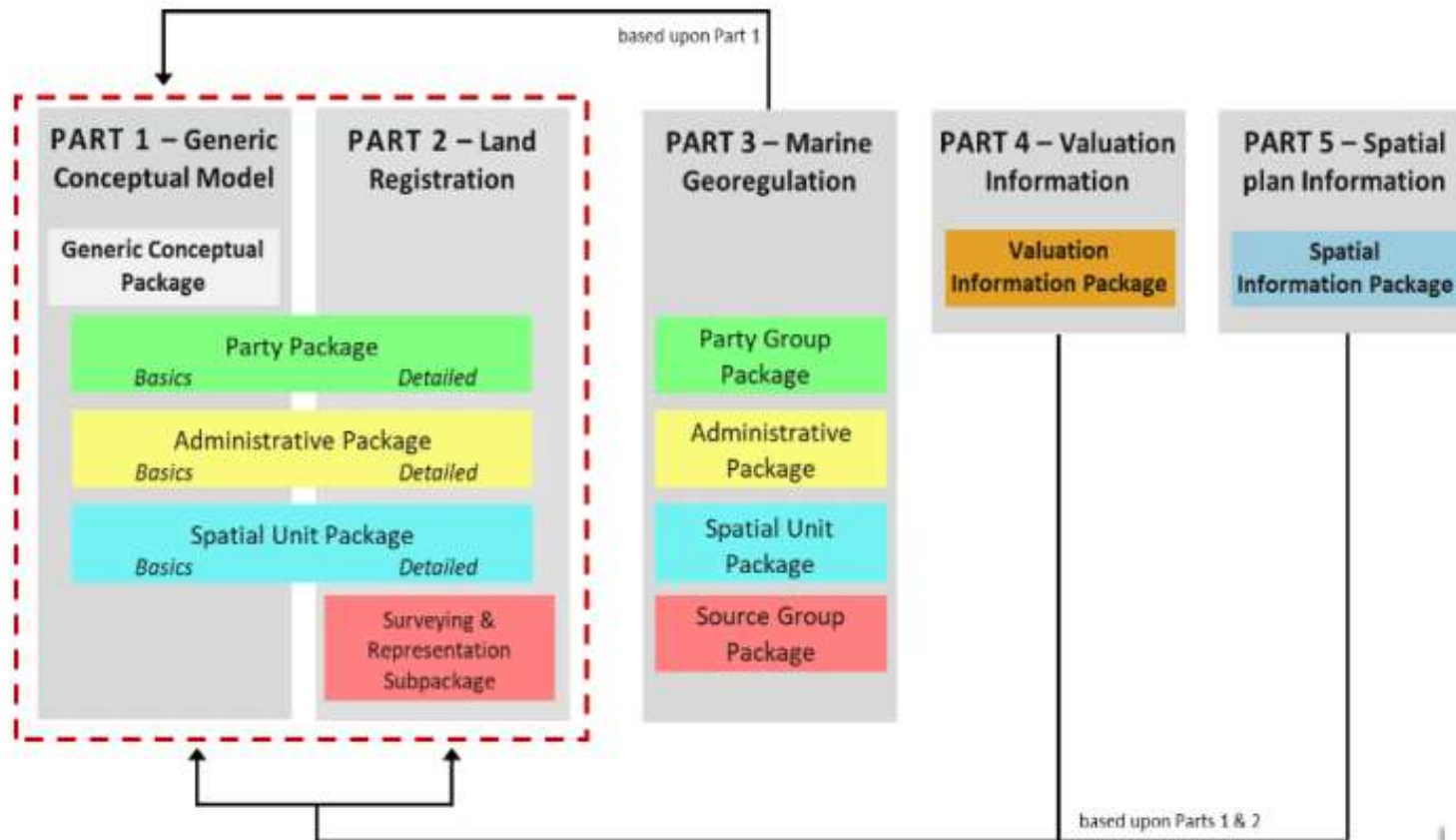
- ✓ With the aim to improve goals, which differ from country to country, are set
- ✓ Goals derive from factors such as the legal traditions.
- ✓ The implementation of the spatial planning goals is succeeded by spatial plans.
- ✓ Spatial plans which are considered as tools are categorized in 4 groups depending on the goals, the content, the spatial scale and the legal implications.

2 | Spatial Planning in selected countries

Regarding for their similarities to Greece

- ✓ **Perspectives** – Visionary Plans: Structuurvisies in the Netherlands
- ✓ **Strategic Plans** : such plans include regional plans in Japan, Korea, Turkey, Denmark, Estonia, and Slovenia
- ✓ **Framework Plans** : Municipal Structure Plans in Belgium and District Outline Plans in Israel
- ✓ **Regulatory Plans** : planning permission in the UK and Ireland, Byggetilladelse in Denmark, Permis de construire in France, Baugenehmigung in Germany, and Licenciamento Municipal de Obras Particulares in Portugal. Similar tools exist in the USA

3 | LADM Edition II

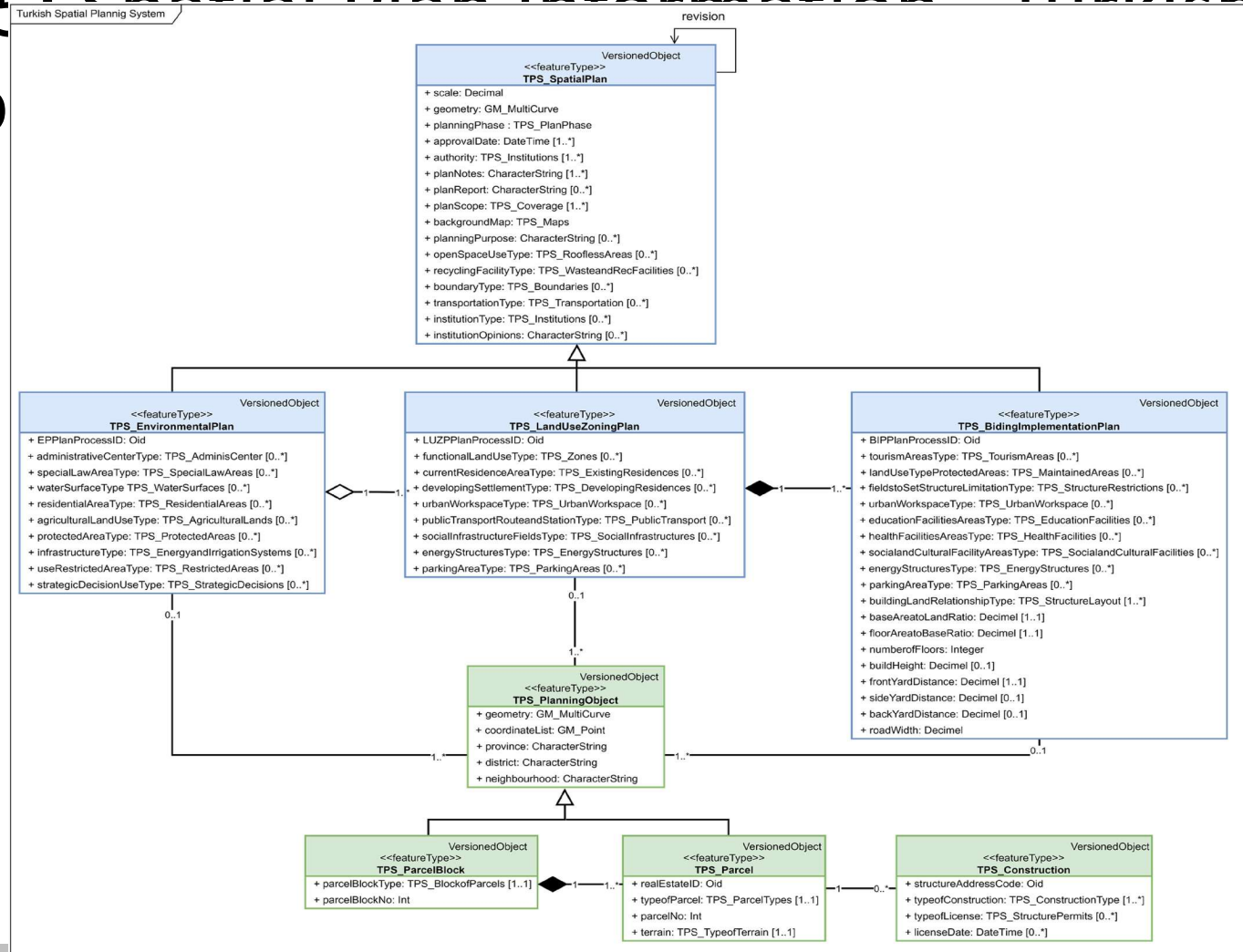


3 | LADM Part 5: Spatial Plan Information

LADM Part 5 includes five key classes, each with distinct attributes designed to represent different aspects of spatial planning.

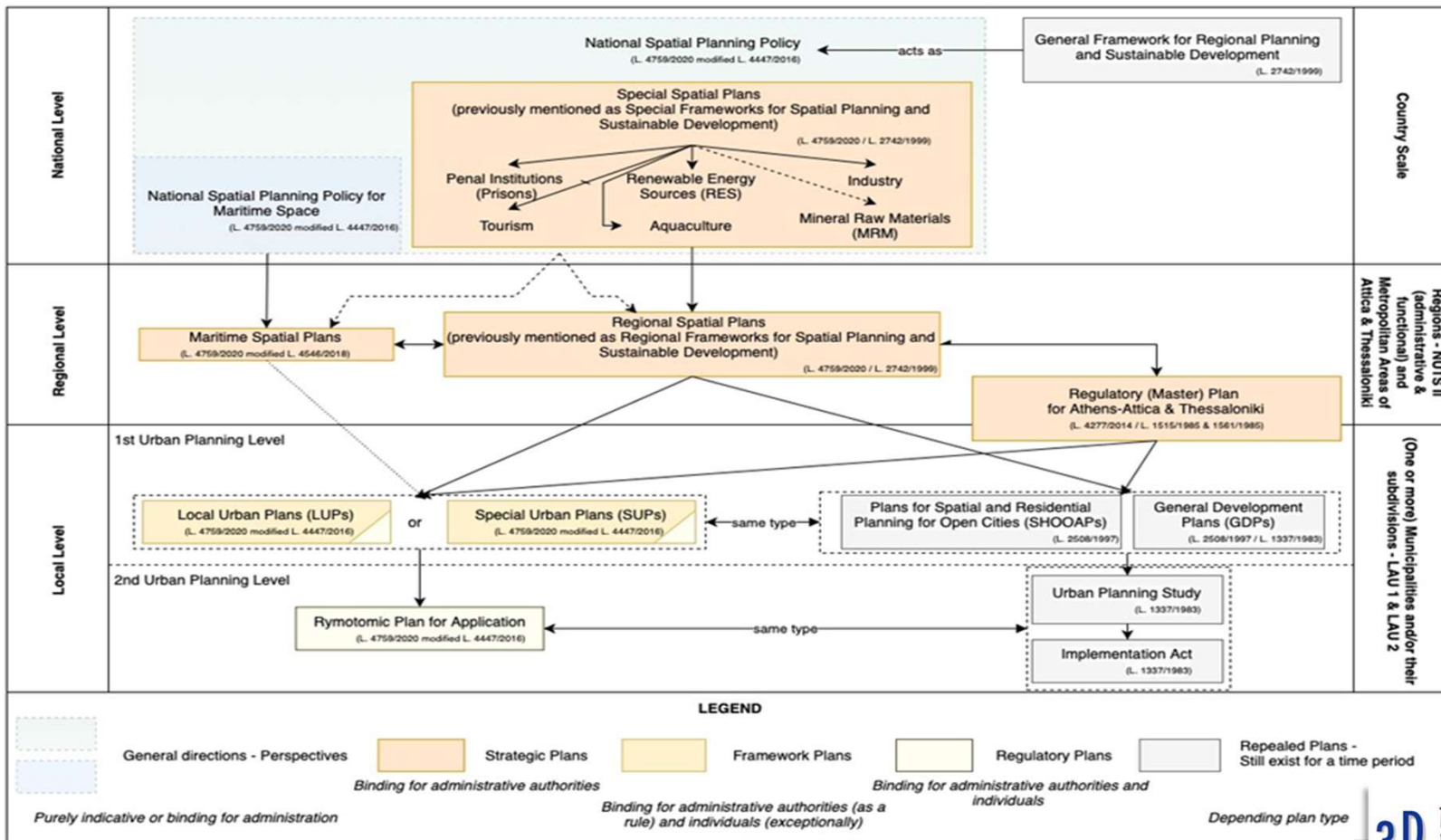
- ✓ **SP_PlanGroup** plays a hierarchical role, representing different spatial planning levels, thereby facilitating the classification and distinction of planning levels.
- ✓ **SP_PlanUnitGroup** corresponds to areas associated with higher planning levels, representing larger planning areas.
- ✓ **SP_PlanBlock** class is an integral part of LADM Part 5, composed geometrically of one or more SP_PlanUnits
- ✓ **SP_PlanUnit** represents the smallest homogeneous area at the highest scale, offering the greatest level of detail among the classes
- ✓ **SP_Permit** addresses various permits relevant to spatial planning processes.

3 | LADM Part 5: Spatial Plan Information Turkish implementation

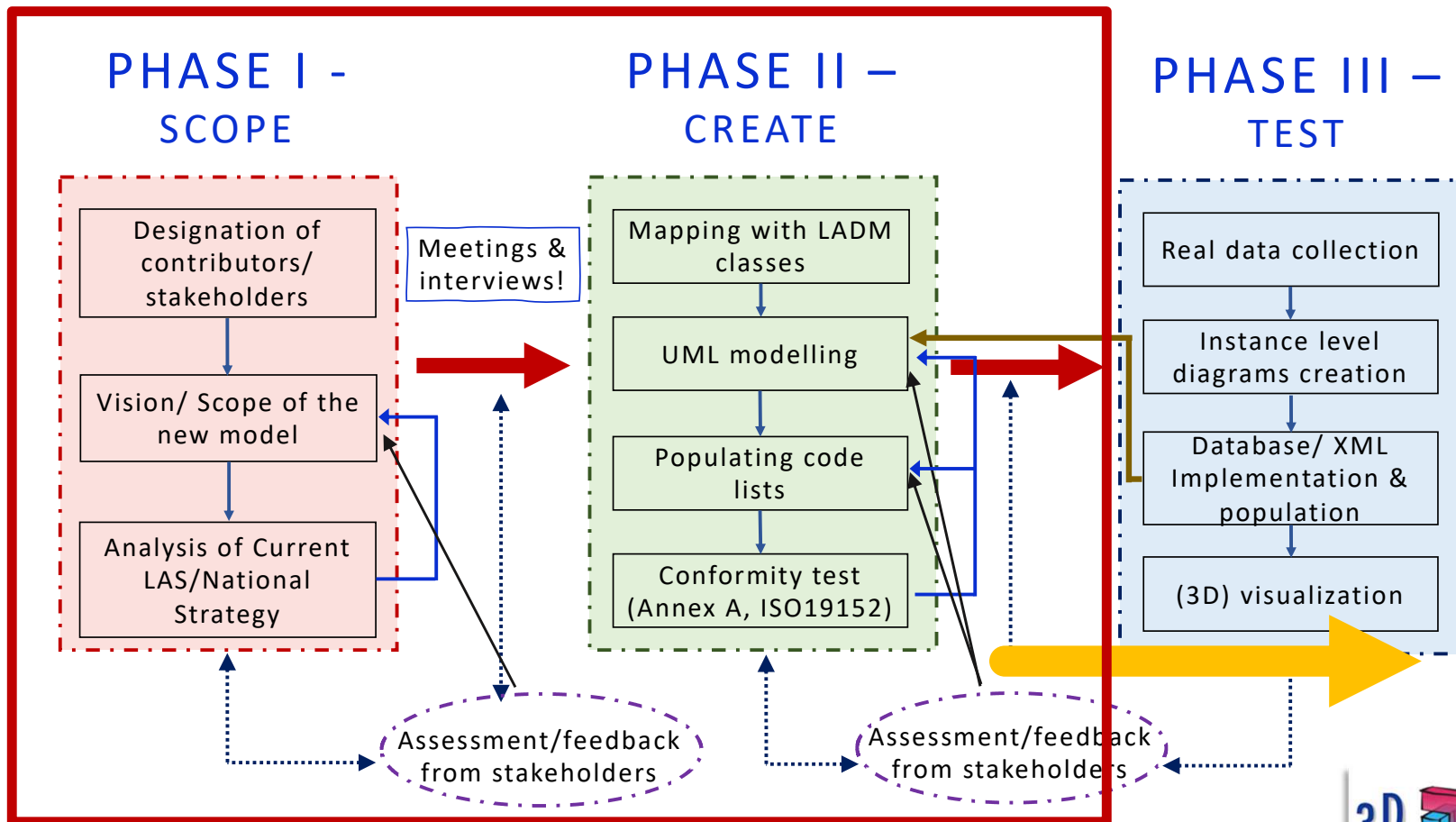


4 | LADM Part 5 Greek country profile development

ces flexibility into the
d for standardization
h to spatial planning.
cus on strategic plans
rown as the National
patial Planning Policy
s directions from the
and regulatory plans
ns (LUPs) and Special
Urban Plans (SUPs)



4 | LADM Part 5 Greek country profile development

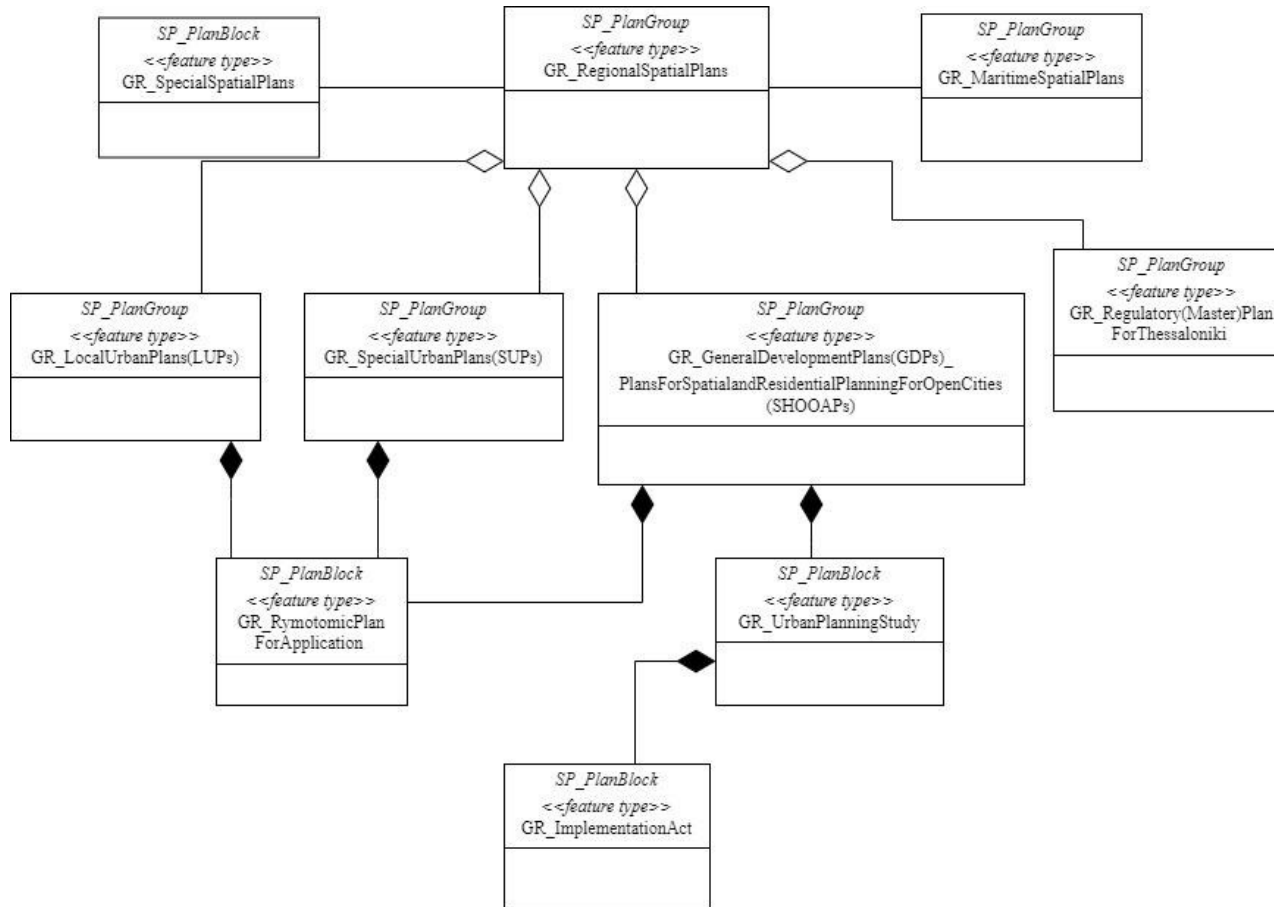


4 | LADM Part 5 Greek country profile development

Current Spatial Planning in Greece	ISO 19152-5 Spatial plan information
Special Spatial Plan for Tourism	SP_PlanBlock
Special Spatial Plan for Industry	SP_PlanBlock
Special Spatial Plan for Renewable Energy Sources (RES)	SP_PlanBlock
Special Spatial Plan for Aquacultures	SP_PlanBlock
Special Spatial Plan for Penal Institutions (Prisons)	SP_PlanBlock
Special Spatial Plan for Mineral Raw Materials (MRM)	SP_PlanBlock
Regional Spatial Plans	SP_PlanGroup
Maritime Spatial Plans	SP_PlanGroup
Regulatory (Master) Plan for Thessaloniki	SP_PlanGroup
Local Urban Plans (LUPs)	SP_PlanGroup
Special Urban Plans (SUPs)	SP_PlanGroup
Rymotomic Plan for Application	SP_PlanBlock
Implementation Act	SP_PlanBlock
General Development Plans (GDPs) & Plans for Spatial and Residential Planning for Open Cities (SHOOPs)	SP_PlanGroup
Urban Planning Study	SP_PlanBlock

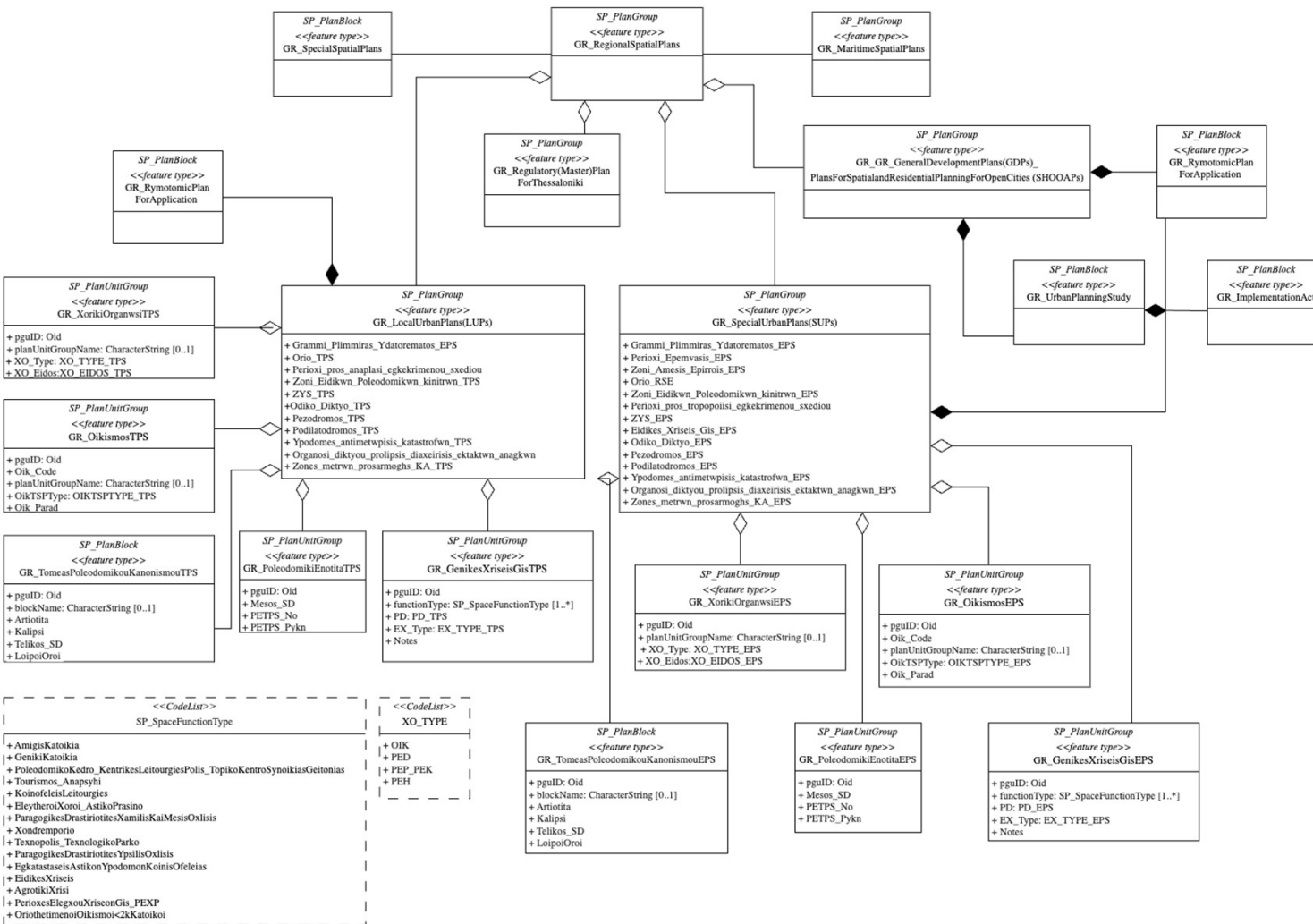
- ✓ Mapping between the core LADM Part 5 classes and the main classes that reflect the Greek spatial planning reality.
- ✓ The first two levels—**national** and **regional**—focus on strategic plans coordinated by a visionary national strategy, known as the National Spatial Planning Policy.

4 | LADM Part 5 Greek country profile development



This modelling effort ensures that the LADM-based profile accurately represents the current and future needs of spatial planning in Greece, allowing for better alignment with international standards and improved interoperability across different levels of government and planning authorities

4 | LADM Part 5 Greek country profile development



4 | LADM Part 5 Greek country profile development

Spatial planning data availability in process of significant improvement :

- ✓ **The development of geoportals** at the local level. much of the spatial planning information exists in non-digital formats.
- ✓ Local and regional authorities **have initiatives to digitize their data** and provide open access to spatial planning elements.
- ✓ Additionally, **similar or overlapping thematic categories** across different sources, lead to inconsistencies in data.

Difficulties faced during LADM country profile making :

- ✓ Difficulty for **directly correlating** existing plans and LADM classes.
- ✓ So **multiple revisions** were needed, to ensure the model meets the objectives.

5 | Conclusions

- ✓ The profile was designed to address the complex nature of Greek spatial planning, which operates across multiple levels—national, regional, and local—each with its own specific plans and tools.
- ✓ Ensure consistent spatial data structures and transparent legal and administrative processes.
- ✓ By standardizing spatial information, the development of this model ultimately enhances the flexibility of the Land Administration System (LAS).

..... Future work

- ✓ Validation of the new model, aiming to refine and improve the model through a pilot application.
Examination of two case studies
- ✓ Comparison of the country profile for LADM Part 5 for Greece, with the profile developed for Turkey using corresponding use cases.

Thank you for your attention!

Maria Poulaki (NTUA)

Eftychia Kalogianni (TUDelft)

Abdullah Kara (TUDelft)

Nickolaos Xagoraris (NTUA)

Charalampos Kyriakidis (NTUA)

Efi Dimopoulou (NTUA)