



Lessons Learned from the Modernization of the GREEK CADASTRE – Principles and Progress

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INTRODUCTION

The development of the modern Greek cadaster has been a long standing objective for every Greek government since the early 19th century in order to replace the existing old-fashioned individual based system of deeds registration rather than parcel based system, administered by a nationwide network of independent or state owned Registration and Mortgage Offices, under the loose supervision of Ministry of Justice.

In 1995, a new law was enforced, describing the procedure for the cadaster creation, providing that the claimants will make statements of their properties, submitting the necessary documents. According to the provisions of the new law, Greece set up a program of systematically creating an integrated cadaster, assisted by geospatial infrastructure, combining the property rights with the parcel, launching pilot programs covering several municipalities through out the country. This was so difficult a task because of the complicated property status in Greece and the large number of stakeholders involved (individuals, public property management agencies, forest agencies and numerous other beneficiaries). The program has evolved in four Stages. The 1st Stage included pilot projects (1995 – 1998), the 2nd Stage urban centers (2008), 3rd Stage suburban and rural areas (2011) and the 4th Stage included the remainder of Greece, covering mostly rural areas.

| CADASTRAL CREATION STAGES | | | | |
|---------------------------|---------|---------|---------|---------|
| | 1998 | 2008 | 2011 | 2016 |
| Number of contracts | 64 | 37 | 35 | 32 |
| Area (km ²) | 8.302 | 3.573 | 34.245 | 85.573 |
| Rights (m) | 6,7 | 8,2 | 6,9 | 17,3 |
| Budget (m €) | 233 m € | 203 m € | 297 m € | 310 m € |

Since 2016, the Greek government decided to accelerate the completion of Greek cadaster, awarding 32 cadastral contracts, covering the remainder of the country (65% of total country area and 44% of total country rights).

Hellenic Cadaster has acquired a lot of experience and has learned from its successes and failures of the past 25 years. The completion of Greek cadaster is a huge endeavor aiming to create a modern cadaster, using state of the art technologies including an on line application for collecting and assessing statements, an application for uploading reports and deliverables, as well as electronic applications for the submission of statements.

MATERIALS | METHODS

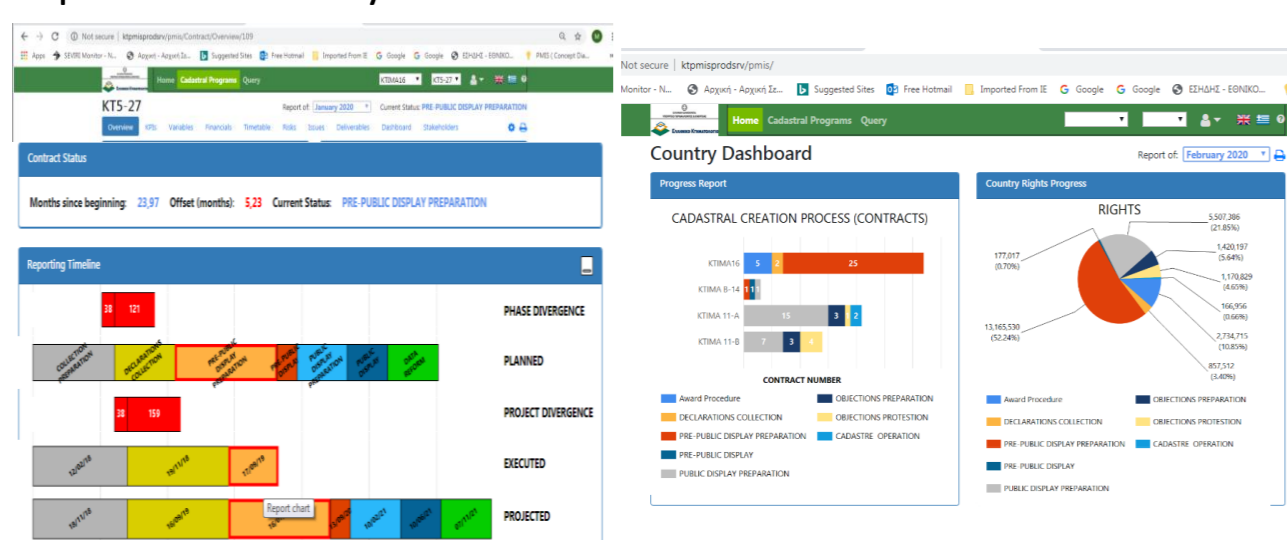
Management Tools Development

• PMIS (Projects Management Information System) :

A tailor-made PMIS, web app, has been designed by HC personnel and the experts of WB for managing and reporting on cadastral projects and assisting project managers, the PMO and the top management of the HC.

Functionalities of the PMIS:

Contract information on cadastral projects, on line linkage to the central cadastral DB, on line data on the progress of statement collection/appeals submission, monitor the progress of the cadastral works (time, cost, scope) using several variables, deliverables QA/QC, monitor the progress of the cadastral contracts against the baseline using KPIs, risk management (assessment/monitor), issue monitoring, projects managers monthly reports on project, built-in queries to extract any data incorporated in the system.



Project timeline

Country dashboard

• The Projects Portfolio Development Initiative (PDI) of the Hellenic Cadaster Projects Directorate:

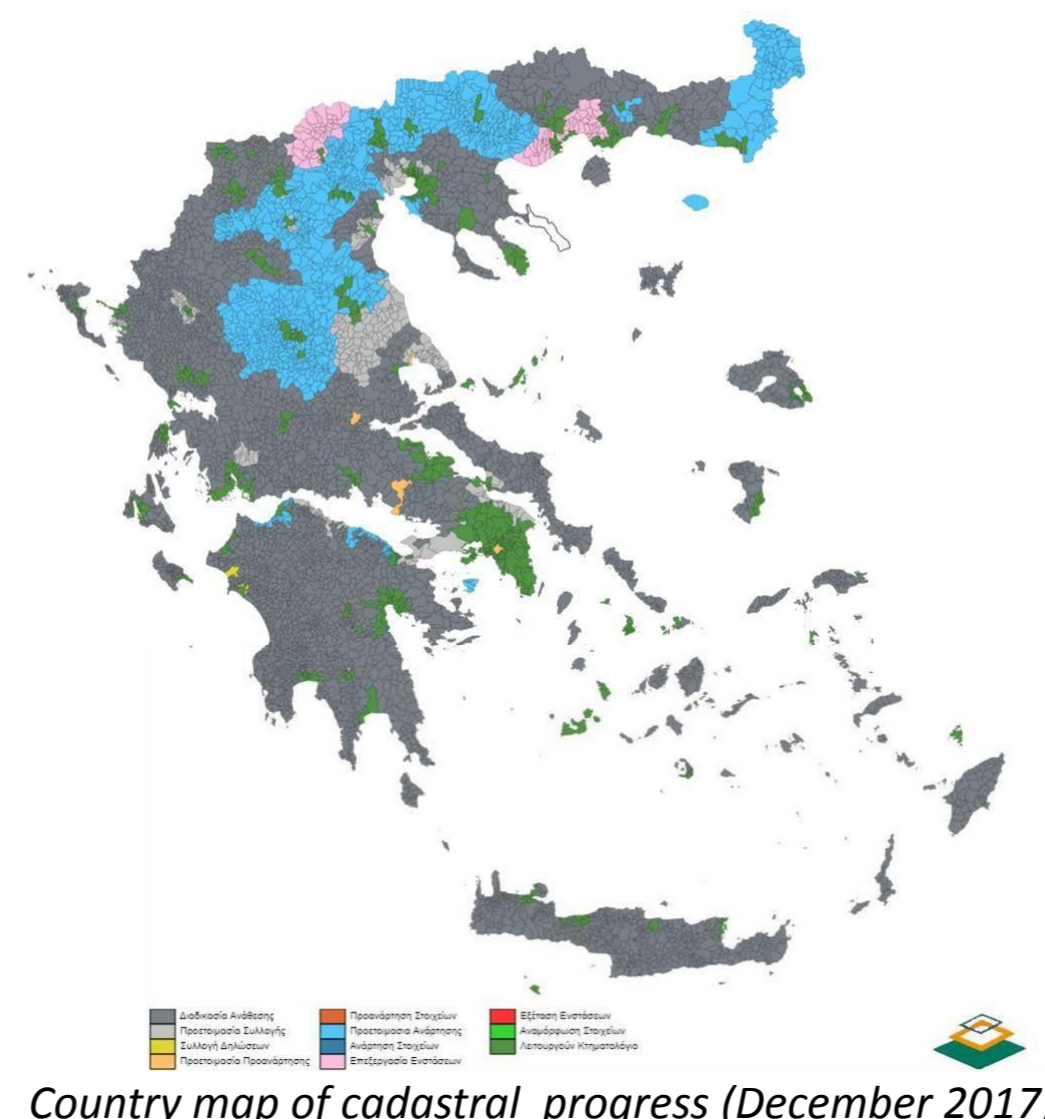
As the functional structure of HC was hindering the projects delivery, a PDI has been established in the Project Directorate, based on a tailored, flexible project management framework incorporating international standardized project management principles, processes, best practices and successful project delivery structures.

RESULTS

The main differences between old and newly established system are :

Contract Management based approach (the old way)

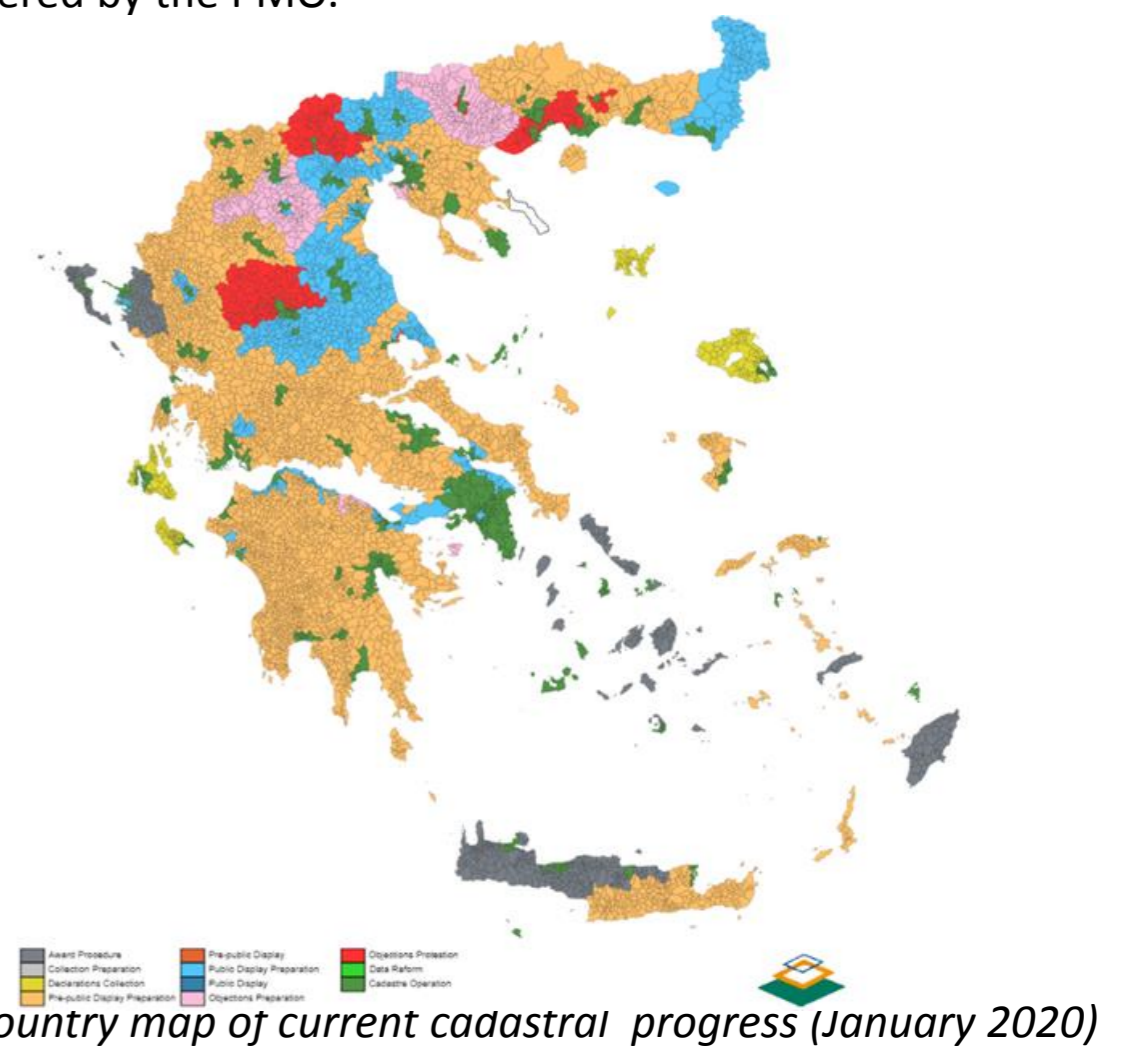
1. Functional structure (silo) - no suitable for projects Communication plan according the functional structure - no flexibility. Supervising team (consisted of the supervisor & 2 lawyers)
2. Schedule Monitoring (only critical contract milestones, according the contract documents)
3. QA/QC checks (monitoring the progress of deliverables QA/QC by the supervisors, coordinated by a team formed by the heads of legal and project sections)
4. Delays resolving contractual issues (contract extensions, supplementary contracts award, resolution of contractors claims)
5. Integration management based on project, issue, risk and communication plans plus project control metrics, non-existent – No integrated change delivery processes were applied
6. Risks were not managed- No standardized processes for stakeholder engagement were applied.
7. No knowledge management - No repository of good practices and lessons learned
8. Many failures due to skills gap (lack of tools and training)



Country map of cadastral progress (December 2017)

Standardized Project Management based approach (the new way)

1. With PDI, a new portfolio governance was established within the Projects Department (consisting of sponsor, steering committee, coordinators and PMO). This facilitated communications among the program and project managers as well as with the Projects Directorate Management, and the other functional divisions of the HC. This supportive PMO was also founded to support project managers and ensure the compliance with the project management processes that saved time, effort, and waste of precious resources)
2. Projects schedule monitoring via web app, reporting tool on projects and portfolio schedule performance
3. Documentation of the QA/QC checks, supported by the PMIS, implementing the flow of all deliverables QA/QC checks
4. Development of a web app to monitor contractual issues - significant reduction of the past delays
5. New processes were developed to manage portfolio and project risks and issues supported by the PMIS. Project controls and KPIs were developed to measure projects' performance.
6. All required Risk management processes were developed and are supported by the PMIS. The development of the whole stakeholder management processes is in progress.
7. A knowledge management data base has been developed using a web app platform.
8. Project personnel training was organized and has been delivered by the PMO.



Country map of current cadastral progress (January 2020)

CONCLUSIONS

Monitoring projects performance

The Projects Directorate has 65 cadastral projects in progress and soon 5 more contracts will be awarded, having 500 m € total budget. Given the complexity of the projects due to the large number of stakeholders involved in the cadastral projects and the constraints for the completion of the cadaster set by the government and EU for funding the projects, the close monitoring of the projects progress as well as the proactive approach to manage risks and resolve issues are very crucial.

Decision making

The main objective of PDI is successful cadastral projects delivery. Toward this goal, PM Framework provides validated information which supports decision making by the HC top management and the Ministry. Further analysis based on analytics and data processing is provided by the PMO to senior management.

The benefits of endorsing the PM approaches on cadastral projects are close schedule monitoring and control, the improvement of QA/QC, proactive performance and risk management as well as effective stakeholder engagement.

Things we can do better

Although a lot of progress has been made and the Ministry of the Environment has an overall picture for the performance and progress of the projects portfolio, there are still crucial issues and risks that need to be addressed like lack of sponsorship and skills gap.

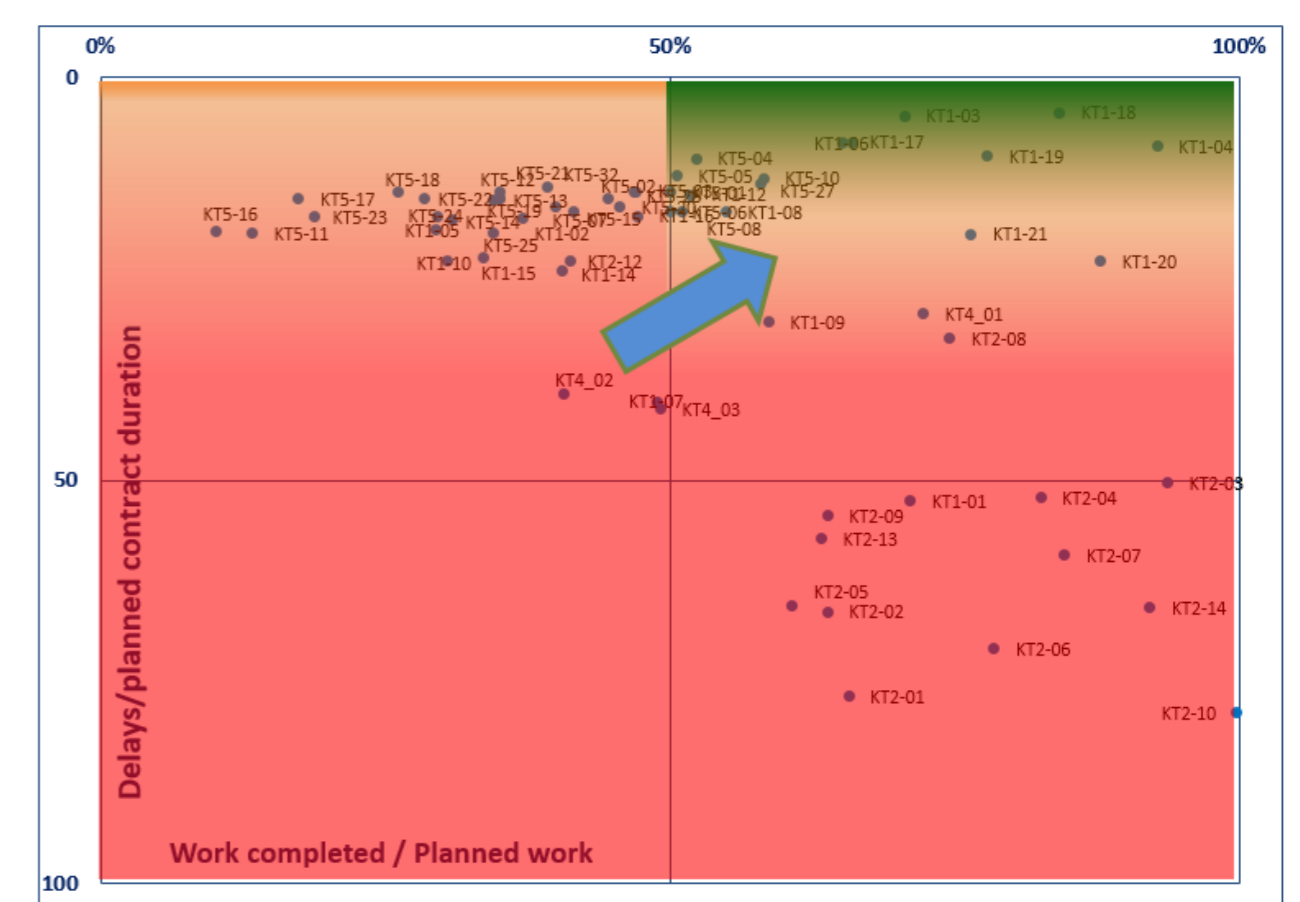


Figure 1 : Mapping of Cadastral Projects based on Time & Scope Performance

An example of decision making is shown in Figure 1, mapping all cadastral projects combining the KPIs, for work and time performance, which can be used to monitor performance trends and take the appropriate actions to prevent or reduce time and scope overruns.