# OME2 – WP6

## OME2 - Open Cadastral Map

Hellenic Cadastre

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# Work Package 6 Objectives

**Vision:**

Become a single point to access pan-European cadastral data and address the challenge of easily finding authoritative pan-European high-value geospatial data.

**The objectives of the WP 6**

- Sustain the new production process for Open Cadastral Map (OCM) updating the existing country datasets

- Enhance the production process for the Open Cadastral Map (OCM)

- Increase the coverage of the existing Open Cadastral Map (OCM)

- Increase the harmonization of the access to cadastral data (OCM)

- Promote the Open Cadastral Map (OCM) to EuroGeographics members, and external audiences to explore requirements and homogenization

# Updating the existing country datasets

- **Sustain the new production process for Open Cadastral Map (OCM) updating the existing country datasets** ✅

  - The first update of the Open Cadastral Map was scheduled and executed in October.
  - Data for the six existing countries were updated
    - Czech Republic,
    - Denmark,
    - Netherlands,
    - Poland,
    - Slovenia and
    - Spain

## Open Cadastral Map

Open Cadastral Map is a map service for European cadastral data. It provides users with a single place to find out the authoritative INSPIRE compliant cadastral data that is available and where. This is a prototype and more coverage will be added in time. The Open Cadastral Map comprises four data types: Administrative Units, Cadastral Parcels (and Cadastral Zones), Buildings (and Building Parts) and Addresses. Please note not all countries have all datasets/layers available within this map.

Open Maps For Europe does not provide cadastral data for download. Download is available directly from our data providers. Links to data providers can be found further down. Whilst EuroGeographics updates the Open Cadastral Map once a year, the data provider may implement a different frequency cycle.

### Last Update
October 2024

### Themes
Addresses, Administrative Units, Buildings, Cadastral Parcels

### Scales
Administrative Units national to municipal
Cadastral Parcels / zones from 1:100 - 1:10000
Buildings 1:100 - 1:10000
Addresses 1:100 - 1:2000

- **Enhance the production process for the Open Cadastral Map (OCM)**

  Two enhancements have been implemented for the Open Cadastral Map.

  - **'Identify Feature' clickable links,**

    - Enable users to access additional information on each parcel by clicking on the links included in the AtomFeeds from the national data supplier.

  - **Partial Updates**

    - Updates are restricted to AtomFeeds that have been imposed to changes.

    **FUTURE ENHANCEMENT**

  - **BaseMap**

    - Use of ERM as a BaseMap for better user experience and navigation
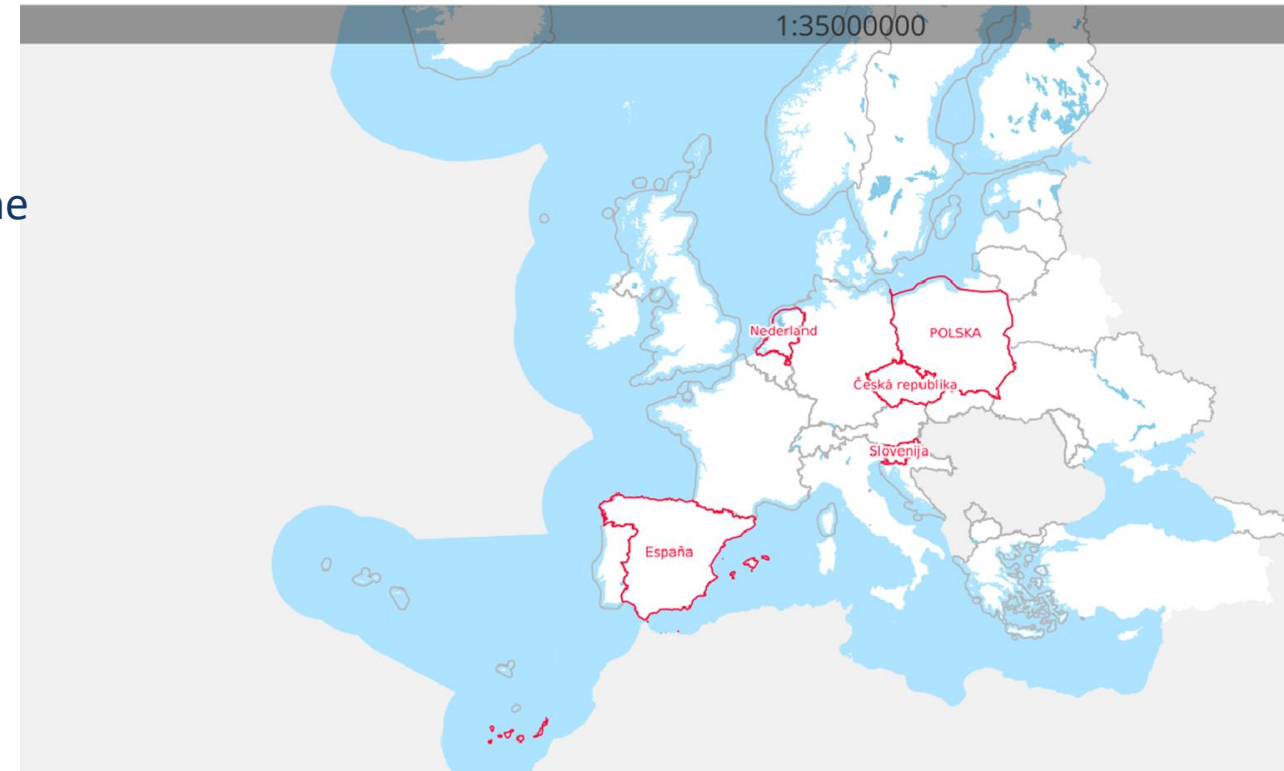
# Enhance the production process
# View data & Get information online: getFeatureInfo



**GetFeatureInfo (GFI) for cadastral parcel** returns information provided through the national service like the national cadastral reference and a hyperlink (URL) to access the national portal.

**How?**

As part of the OME2, GML files contain a clickable link to the national cadastral portal as an attribute

**OCM acts as getaway point from the European level to the national cadastral portals.**
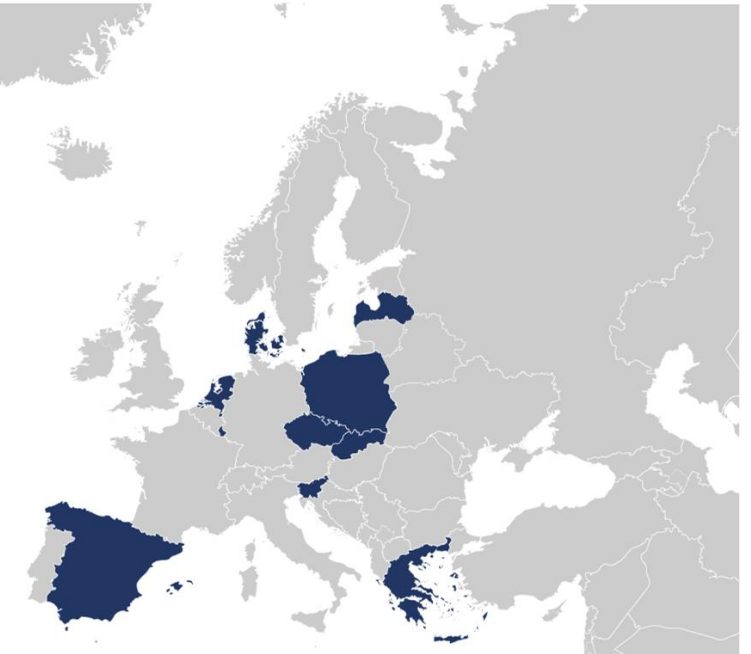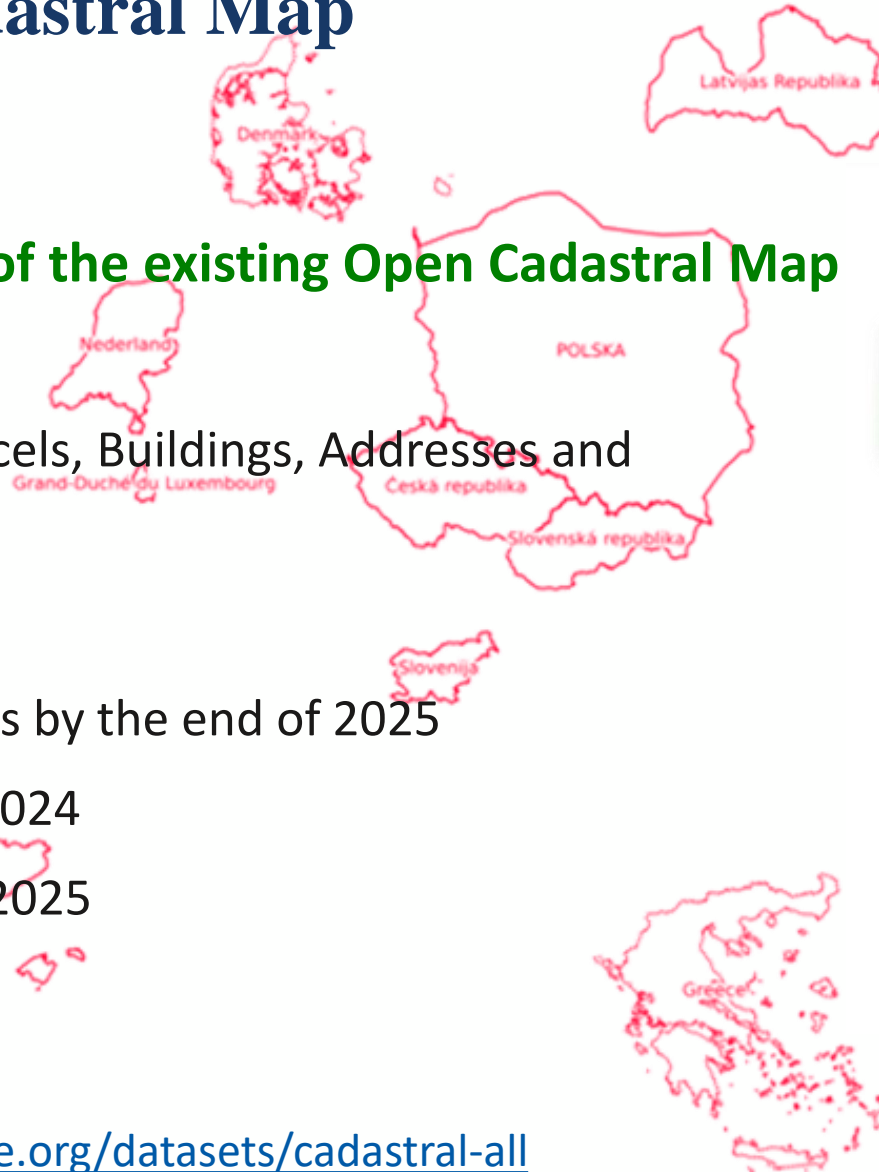
# The Open Cadastral Map

- **Increase the coverage of the existing Open Cadastral Map**

**HVD available:** Cadastral Parcels, Buildings, Addresses and Administrative Units

**Extend:** 9 additional countries by the end of 2025

     4 new countries in 2024

     5 new countries by 2025

https://www.mapsforeurope.org/datasets/cadastral-all

| | |
|---|---|
| Czech Republic | Netherlands |
| Denmark | Poland |
| Greece | Slovakia |
| Latvia | Slovenia |
| Luxembourg | Spain |

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# The Open Cadastral Map in 31.12.2024

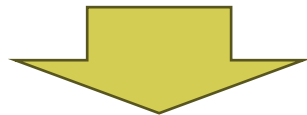HELLENIC REPUBLIC
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**Based on**

the feedback from the invitation letter and the webinar attendees

**And**

in conjunction with the initial list of candidate countries

Targeted contacting was made repeatedly, to assess the potential of certain countries data inclusion in the OCM

| Czech Republic | Netherlands |
| Denmark | Poland |
| Greece | Slovakia |
| Latvia | Slovenia |
| Luxembourg | Spain |
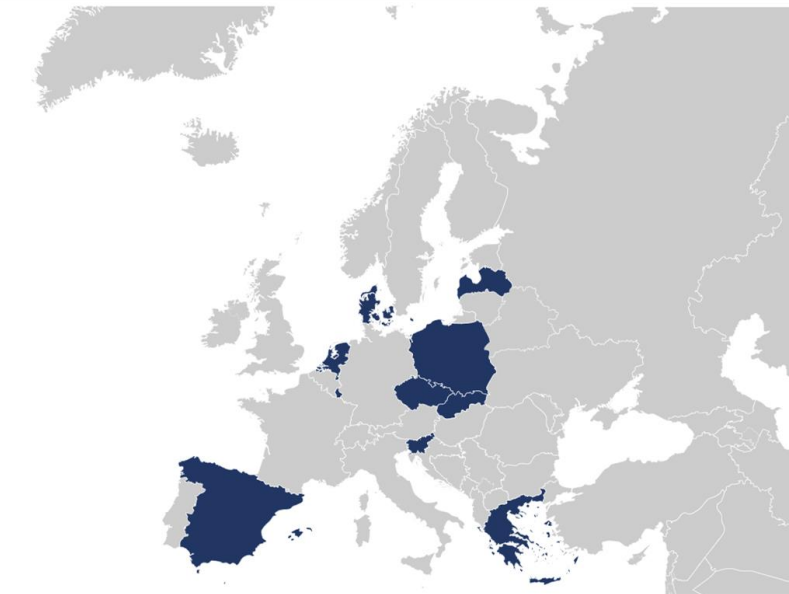
**Data provided in 2024 from:**

- Greece
- Latvia
- Luxembourg
- Slovakia

**Data provided in 2025 from: ?**

- Five additional data providers

**The primary criteria for making the selection to be included in the first round were:**

- readiness of data

- willingness of the corresponding agency to engage and participate in the process.
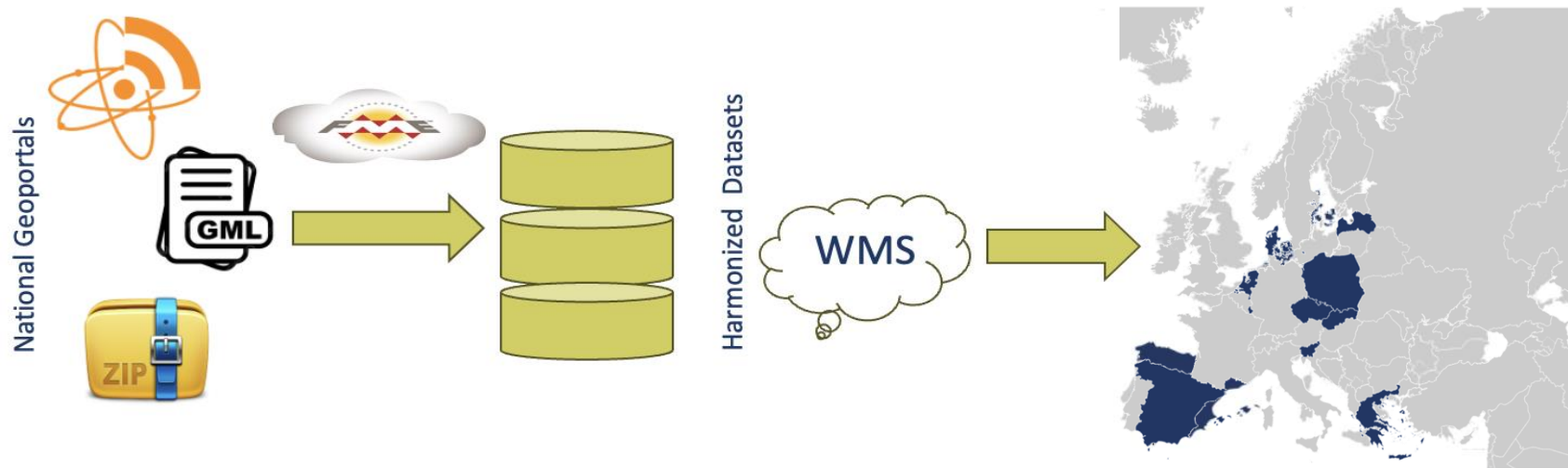
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# Current specifications and process for the OCM



**OCM production process had to impose further specifications**

Other requirements for OCM :

- download from AtomFeed Service
- download files need to be in .gml
- the entries in the Atom Feed which link to the download itself must contain the *category_label* 'ETRS-89'
- the download must either return a zip file, or the URL must end in *.zip to be identified within the process.

**Need for common rules to accomplish one harmonized view from different national authorities**

INSPIRE sets some common regulations which help streamline the existing data from countries that comply with the Directive and thus, make the OCM possible.

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- Increase the harmonization of the access to cadastral data (OCM)

- Implementation of technical metadata to allow the discoverability of the OCM

in the European Data Portal



- Development of a human readable metadata to increase the accessibility to the OCM,

  making more understandable the content of the OCM.

  - Human readable metadata were developed for the 10 countries onboard of the OCM.

  - In 2025 human readable metadata for the five (5) new countries will be ellaborated.

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## Machine – Readable Metadata



- Technical metadata focused on making OCM discoverable in the European Data Portal.

- Allow users to discover the existence of the dataset and find the way to access it.

- Use of Extensible Markup Language (XML).

- Developed using EuroGeographics' metadata profile.

- Based on the ISO 19115 standards

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## Human – Readable Metadata

Easy to read
Focus on description and basic details

### *Administrative Units*

- What is the structure of administrative units in the country?
    - How many levels are there?
    - How are they named?
    - How are the levels related?
- How are they (the levels) defined / delimited?
    - What is the positional accuracy / reference map scale for these objects?

Who is the responsible party and/or publisher?

### *Buildings*

- How are the buildings represented in the dataset?
    - What is the available level of detail LOD?
    - What is the available type of representation (footprint, roof edge, envelope, etc.)?
- What is the level of coverage?
    - What types of buildings are represented?
    - Is available the data for the whole country or focused on urban areas?
- How are they (the buildings) defined / delimited?
    - What is the positional accuracy / reference map scale for these objects?

Who is the responsible party and/or publisher?

### *Cadastral Parcels*

- How is the cadastral information structured?
    - How many levels of information are there?
    - How are they named?
    - How are the levels related?
    - How is cadastral structure related to administrative units?
- What is the level of data coverage?
    - Is available the data for the whole country or focused on urban areas?
- How are they (the levels) defined / delimited?
    - What is the positional accuracy / reference map scale for these objects?

Who is the responsible party and/or publisher?

### *Addresses*

- What is the usual address structure in the country?
    - How is the address formed?
    - What are the usual address components?
- What is the usual level of geo-referencing of addresses (entrance, parcel, etc.)?
- What is the level of data coverage?
    - Is available the data for the whole country or focused on urban areas?

Who is the responsible party and/or publisher?

Promote the Open Cadastral Map (OCM) to EuroGeographics members, and external audiences to explore requirements and homogenization

## Stakeholders interest
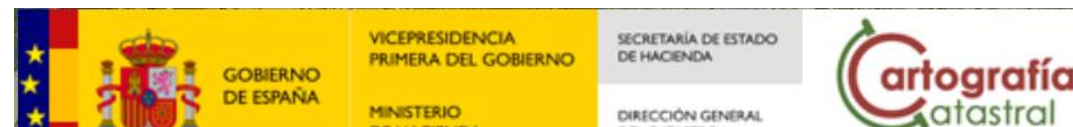
## Questionnaire:

- Please indicate your company name and the sector or area of specialisation.

- Do you think it is necessary to implement a pan-European cadastre as a single access portal that includes all cadastres of each Member State? Please explain why.

- In your opinion, what consequences would arise if the pan-European cadastre data and services weren't available in the future?

- Could you provide a quote that could be used in the project? Could you suggest one and to whom should it be attributed?

- Please list up to eight benefits of having a pan-European cadastre and describe each in a single sentence.

# Guide for Data Suppliers



The Guide for Data Suppliers is an informative document describing how to generate the necessary files to incorporate a country's national cadastral datasets to the Open Cadastral Map.

It was developed within the scope of the OME2 project and was shared and presented to members, in order to provide them with all the necessary technical specifications required by the OCM production process.

# Common Cadastral Data Strategy

## Deliverable D6.2 – Pan European Cadrastral Data Strategy

| Deliverable Number | D6.2 | Lead Beneficiary | 5. HC |
|---|---|---|---|
| Deliverable Name | Pan European Cadrastral Data Strategy | | |
| Type | R — Document, report | Dissemination Level | PU - Public |
| Due Date (month) | 36 | Work Package No | WP6 |

| Description | | | |
|---|---|---|---|
| Format: Electronic, Language: English | | | |

- Develop Support for a long term strategy in delivering of pan-European cadastral data (enhance further the awareness of the OCM)
- What members think about the potential of specifying common deliverables and applying standardization approaches in order to homogenize datasets that are going to be integrated in the OCM.
- Develop Guidelines
- Propose Best Practices
  - Auto-translation, edge-matching handling e.t.c.
- Identify current and future OCM users (public, such as European Commission and other international organizations, and private, companies and citizens
- Identify related needs

# The Open Cadastral Map beyond OME 2

**The Open Cadastral Map needs to be sustainable**

*   In terms of finance

*   In terms of a well-established process that

    ensures data quality, up to date, authorized,

    easy to use and combine cadastral data

**Adapt to members' needs and expectations**

*   Identify current and future OCM users (businesses,

    researchers, public administrations)

*   Identify their needs and expectations

*   Adapt respectively the process when possible.

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# The future Open Cadastral Map

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**Examine the alternatives to create common processes for delivering pan-european cadastral data**

- Do nothing and continue with the same process
- Keep a similar process but become more flexible (e.g. regarding the data formats and the services provided)
- Adopt an entirely new process
- Do not create a european cadastral map

**❓**

**Identify the Resources needed**

- Time
- Budget
- Personnel
- Technology

- **Identify Risks and Vulnerabilities**
  - Risk Mitigation Measures

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# Evaluate the Proposed Strategy

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- **Raise awareness**
  - Present the pan-european cadastral data strategy proposal to major events
  - Organize workshops

- **Assess the view of members**
  - Conduct assessment of members' views through structured questionnaire(s)
  - Collect feedback from members
  - Analyse results



Continuous Improvement

- **Evaluate stakeholders needs / satisfaction *(Aligned with the EG strategy plan)***
  - Engage with key stakeholders to confirm options for the future sustainability of the outputs of the Action

- **Feedback loops for continuous improvement**

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# A European strategy for cadastral data

**Who needs Pan-European Open Cadastral Data?**

**Only a few examples:**

- Governmental Agencies
- European policy makers
- Financial Institutions
- Real-Estate insurance companies that operate across Europe
- International companies specializing in the property data and location intelligence industry
- Companies specializing in  environmental services, sustainability, renewable energy
- Researchers and Academics
- Telecommunication Companies
- Citizens – Property owners

## MORE DETAILS IN THE UPCOMING PRESENTATION

# A European strategy for cadastral data

**Future steps**

- Consultation of the strategy options with stakeholders and involved agencies (2nd semester of 2024)

- Collection and assessment of input provided during consultation (2nd semester of 2024)

- Drafting of the Strategy document (1st quarter of 2025)

- Presentation of the draft Strategy to various fora for input (1st semester of 2025)

- Collection and assessment of new input (1st semester of 2025)

- Modification of the Strategy document to incorporate new input (June-Sept. 2025)

- Finalization and delivery of the Pan-European Strategy report (Nov. 2025)

# Thank you for your attention!

Contact: **hpapadak@ktimatologio.gr**

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## OME2 - Open Cadastral Map