

# ECQBASE

Enhanced oil recovery with storage

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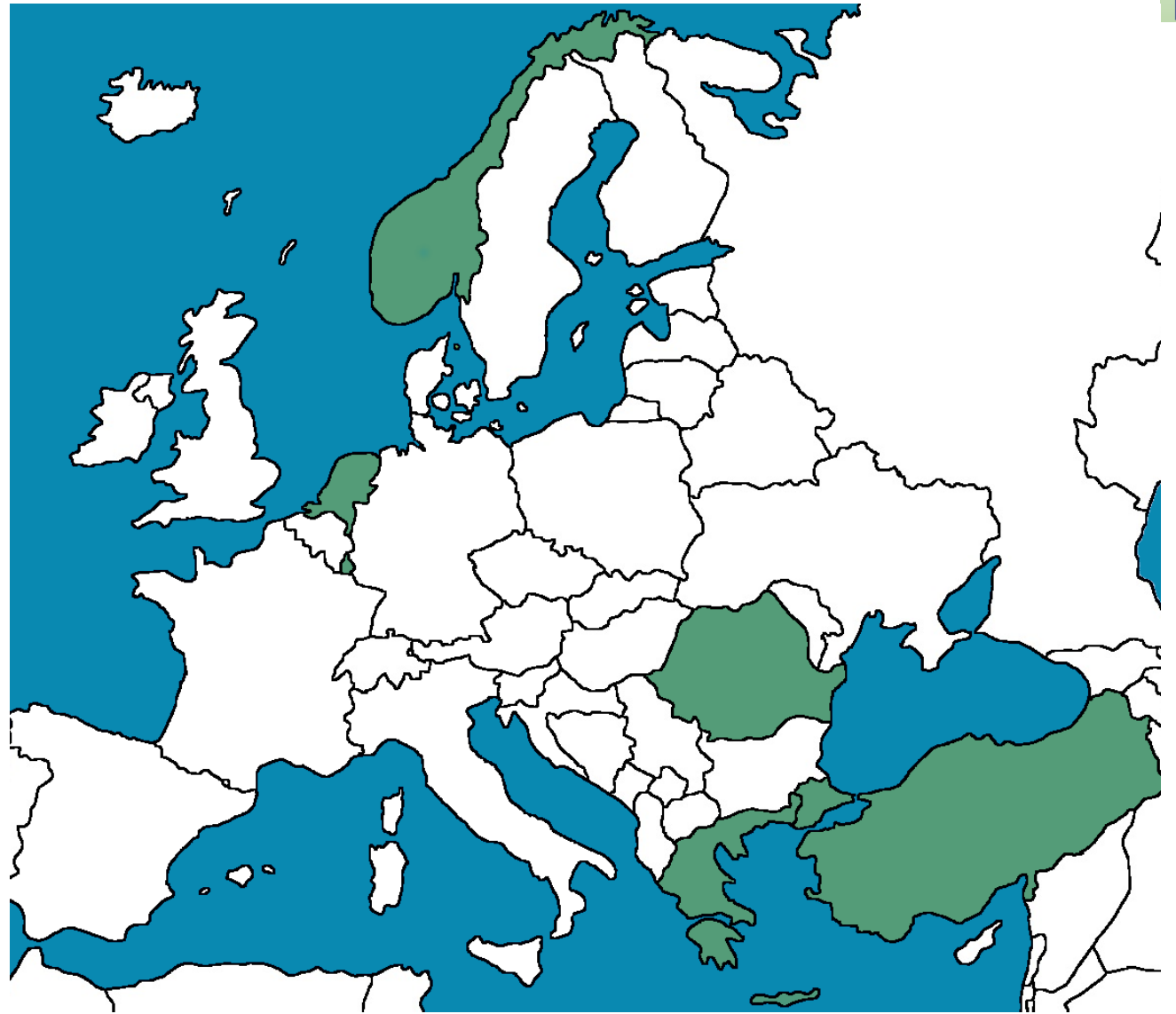
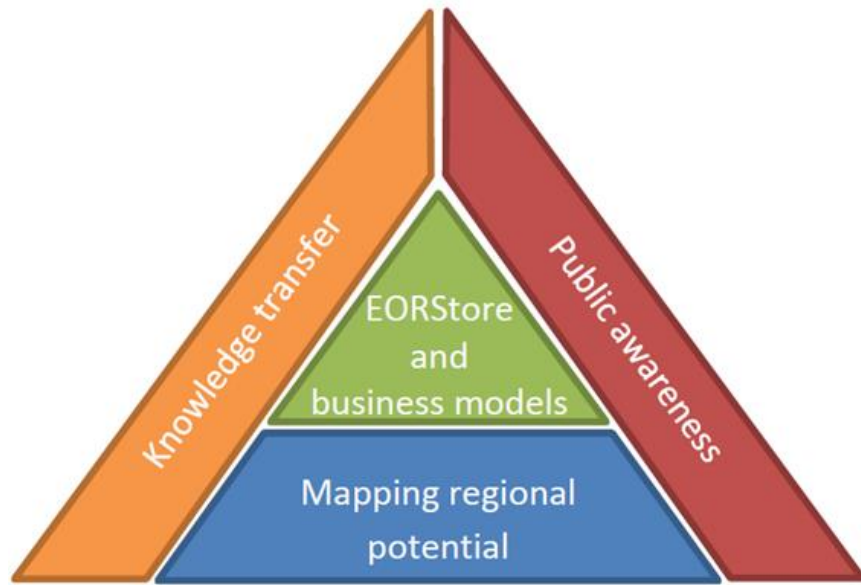


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ECQBASE

# ECO-BASE

Establishing CO<sub>2</sub> enhanced Oil recovery  
Business Advantages in South Eastern Europe



# CCS worldwide needs a boost!

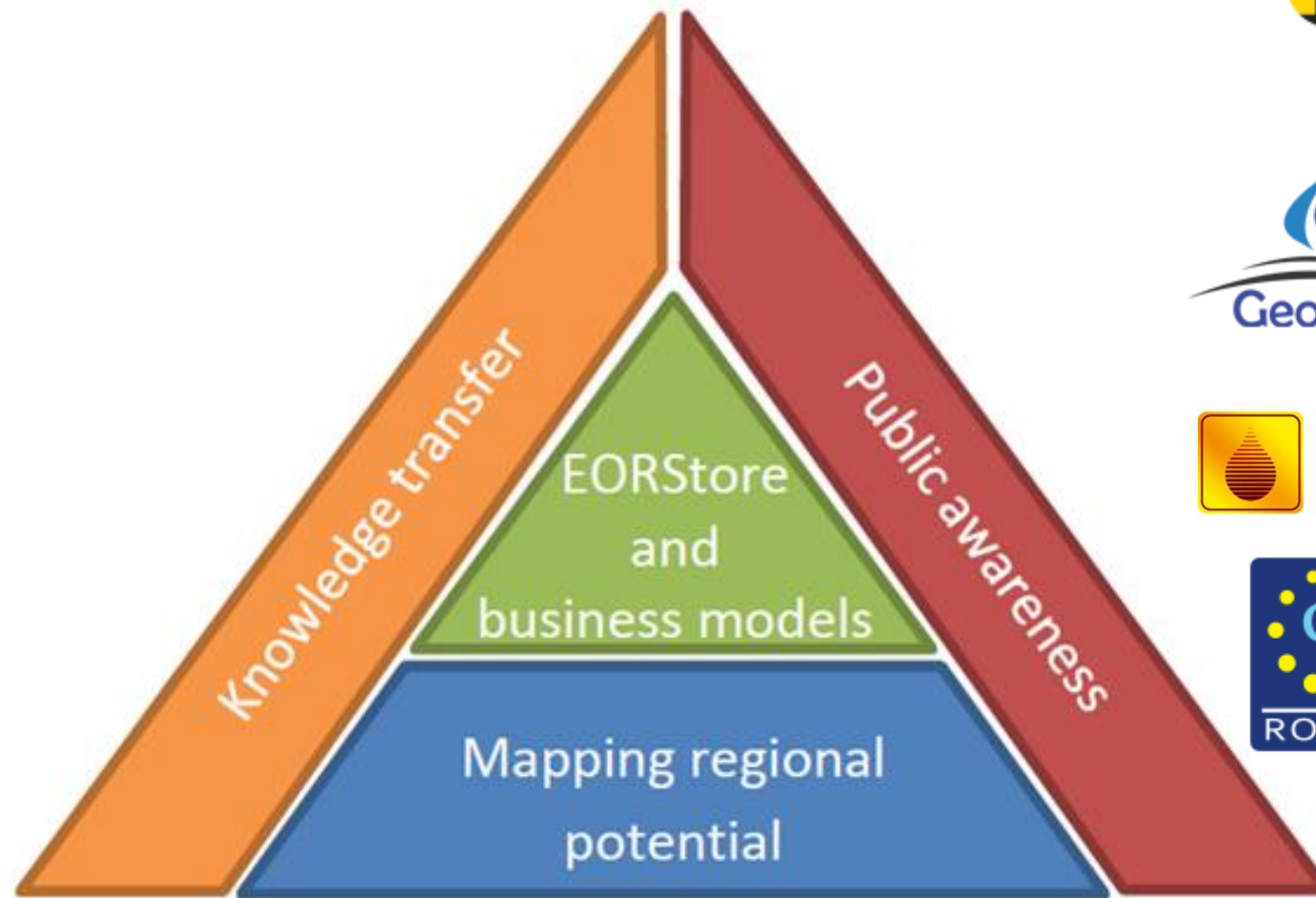
CO<sub>2</sub>-EOR has the **most significant commercial potential** among utilisation methods leading to permanent storage.

The objective of ECO-BASE is to develop **detailed and integrated roadmaps** for CCUS, including EORStore, **in South-East Europe**.

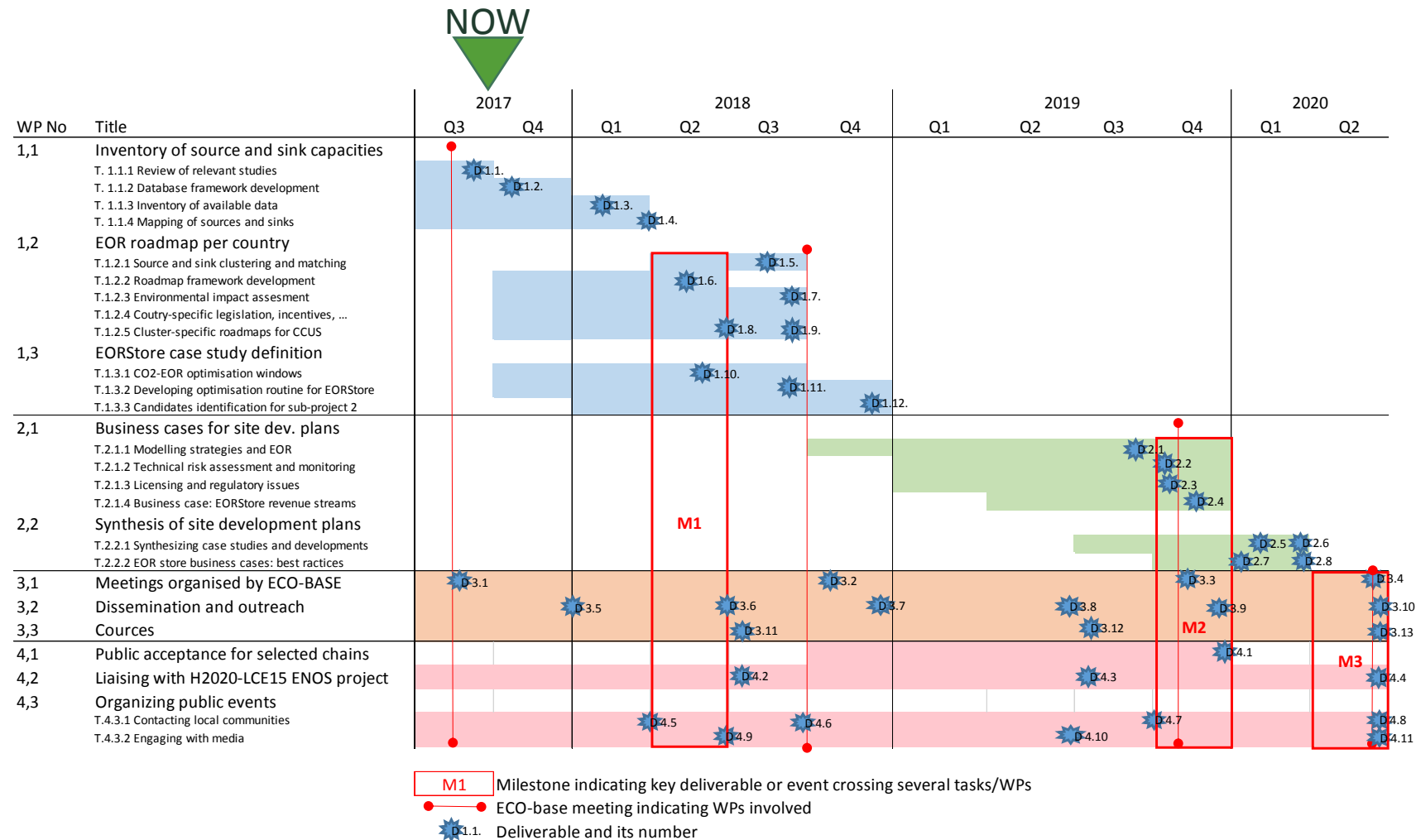
Key technical milestones are:

- Inventory and mapping of sources and sinks in SEE and the establishment of regional source-sink clusters and CCUS roadmaps.
- Optimized EORStore methodology for the most promising cases: from inventory to revenue streams. Preparation for piloting and generalized lessons learned.
- Synthesis, guidelines and further plans

# Project structure



# Project plan



# Mapping regional potential (M1-18)

- Inventory of sources and sinks (from inventory to creation of database or expansion of existing ones)
- EOR roadmaps per country (clustering and matching sources and sinks, ecological and legal aspects, creating roadmaps)
- EORStore case study definition (optimization window and routine, defining the cases for in-depth study)

# EORStore and Business models (M15-30)

- Business cases for site development plans (modelling, risk assesment, monitoring, leagal issues, revenue streams)
- Synthesis of development plans (synthesis of case studies, best practices and guidance)

# Knowledge Transfer

- Internal meetings (part of the meeting should be open for various stakeholders)
- Dissemination and outreach
- Courses (Collaboration with Sulcis summer school, legal and regulatory course in Romania, CO2EOR course in Turkey)



# Public awareness

- Public acceptance analysis for selected CCUS chains
- Liasing with ENOS H2020 project
- Liasing with ALIGN-CCUS project
- Organising public events (from public awariness research to organising public awariness events)

# On-going project activities

- Started work on Inventory of sources and sinks. Report on data available by the end of October 2017
- **K**ick-off meeting held in Athens 11.10.2017
- Work on the **w**ebpage started
- Preparation for first **p**ublic awareness action started
- Discussion on **l**iaising with ENOS next week during ENOS GA.

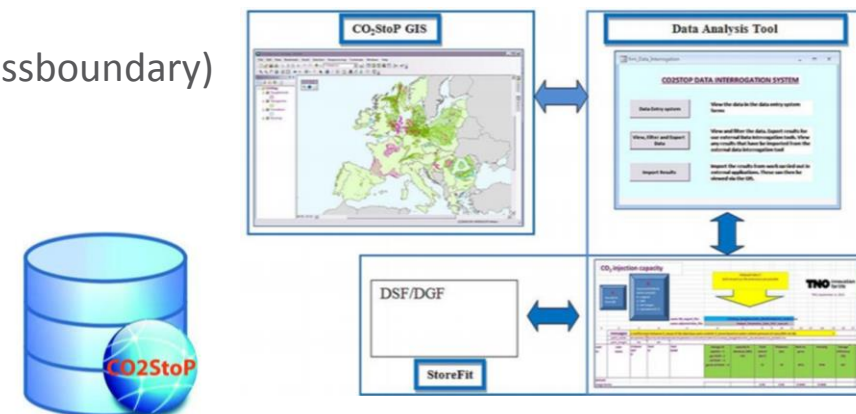
# Inventory of sinks and sources and database

Per country:

- Introduction (Current emission levels, perhaps by industry type; national emission reduction targets, etc...)
- Status of CCS
  - National policy (Documents, plans for transition to low-carbon energy and industry, Documents describing role of CCS in this transition)
  - Regulatory issues (Has CCS Directive been transposed into national law? What incentives exist to promote CCS? Are there regulatory barriers?)
  - Projects (Pilot, demonstration CCS projects, Utilisation projects, including CO<sub>2</sub>-EOR, CCS R&D programmes)
  - Emission (Current emission points, Summary on potential for CCS at specific sources, maps)
  - Data, databases (ownership, capacity, earlier projects, ...)
  - Studies (Storage options, storage capacity, Transport pipelines, networks, crossboundary)
  - Public awareness (What is the level of public awareness regarding CCS?)
- Conclusion (Assessment of status of CCS)

Next steps:

- Database structure and data



# Public awareness

## Awareness comes before involvement and acceptance!

“Public Awareness and Perceptions of Carbon Dioxide Capture and Storage (CCS): Insights from Surveys Administered to Representative Samples in Six European Countries” 2011 publication as a reference point?

### Idea:

Collaborate with AlignCCUS, ENOS, CO<sub>2</sub>GeoNet to access students around Europe  
Students to conduct public survey in their countries and to contribute results to the common pool  
Students to carry out their analysis based on whole data or any selection of it  
Project will analyze the data as well and conclude on further actions needed

### Outcome:

Database available publicly on request  
Awareness actions based on solid user-provided data



# Collaboration

“ECO-BASE partners are open to and will actively work to establish collaboration with existing and ongoing CCS demonstration projects around the world.”

ECO-BASE will use partner experience from other projects, state-of-the-art models and data available in the public domain to account for the pertinent detailed CCUS technologies, including CAPEX/OPEX estimates and detailed operational issues

# Collaboration (some identified cases)

- With ALIGN-CCUS project:
  - Public awareness study to expand the coverage
  - Storage readiness level methodology
- With ENOS / CO<sub>2</sub>GeoNet:
  - Public awareness study to expand the coverage