

GENERA OVERVIEW

Elisa Peñalvo (UPV)

elpealpe@upvnet.upv.es



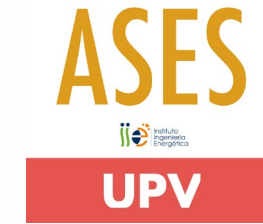
ENERA PROJECT

Re-vitalising Energy Transition in Touristic Islands

LIFE-2021-CET-LOCAL: “Technical support to clean energy transition plans and strategies in municipalities and regions “



GENERA OBJECTIVE



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GENERA´ s goal is twofold:

First, to **establish a framework of energy transition measures** for the **implementation of energy transition agendas** in tourist **municipalities**, assisting them along the whole path from agenda creation to measures implementation and citizen engagement, **in accordance with the EU Island Clean Energy Transition Agendas** and the **Covenant of Mayors**.

And, second, to **promote the implementation of energy monitoring measures** to **quantify the process evolution**.





PRINCIPLES

1

Create an **ecosystem** including **all energy transition actors** to design and implement the energy roadmaps at the **local level**.

Definition of a **replicability methodology** and **sustainability guidelines**.

2

Provide **ET actors** with a **multi-criteria energy monitoring tools**, tailored to the needs of the islands, to **facilitate decision making process** in the islands.

3

Provide **large-scale capacity building programmes** adapted to each actor's requirements.

4

Involve **local societies, permanent and seasonal inhabitants, and tourists** through both a **digital social platform** and **physical events**. A **new generation of energy-sensitive citizens** as part of the energy transition mission





GENERA RESULTS



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Identification of the
existing monitoring
tools



Energy context



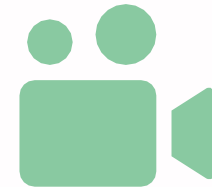
Energy transition
awareness



Genera
Community



Financial
mechanisms



Production and
broadcasting



Island typology
and best
practices



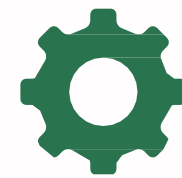
Stakeholders'
engagement



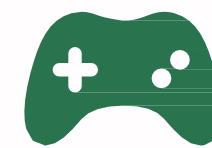
Digital Social
Platform



MOOCs



Energy
Transition Tools



Social Game



Roadmaps

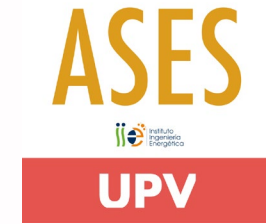


GENERA
Community

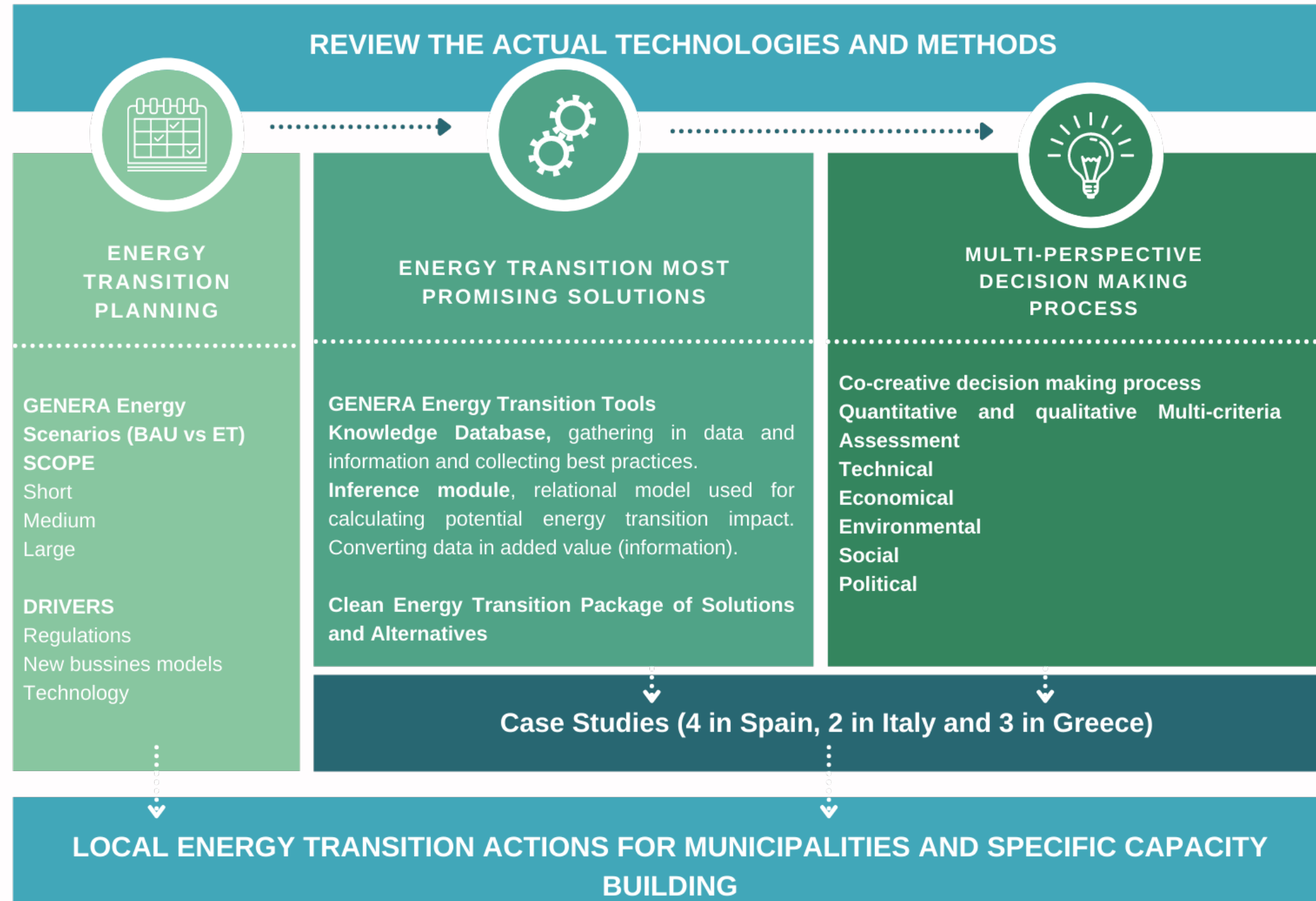




GENERA TOOLS – SECAPs Tool



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1. Energy Context
2. Assessment of Local Energy Transition Strategies
3. Governance





Module I. Energy Context



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- Defining the **policy and regulatory framework**.
- **Identify** existing **energy transition initiatives**.
- **Setting targets** for tackling **climate change**

- Create the Baseline scenario **“Business As Usual”**
- Define **sustainable indicators**



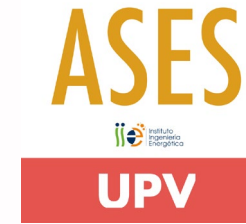
Baseline framework that will serve for comparison with **Clean Energy Transition scenarios**.

First analysis of the 3 pilot countries: Greece, Italy and Spain

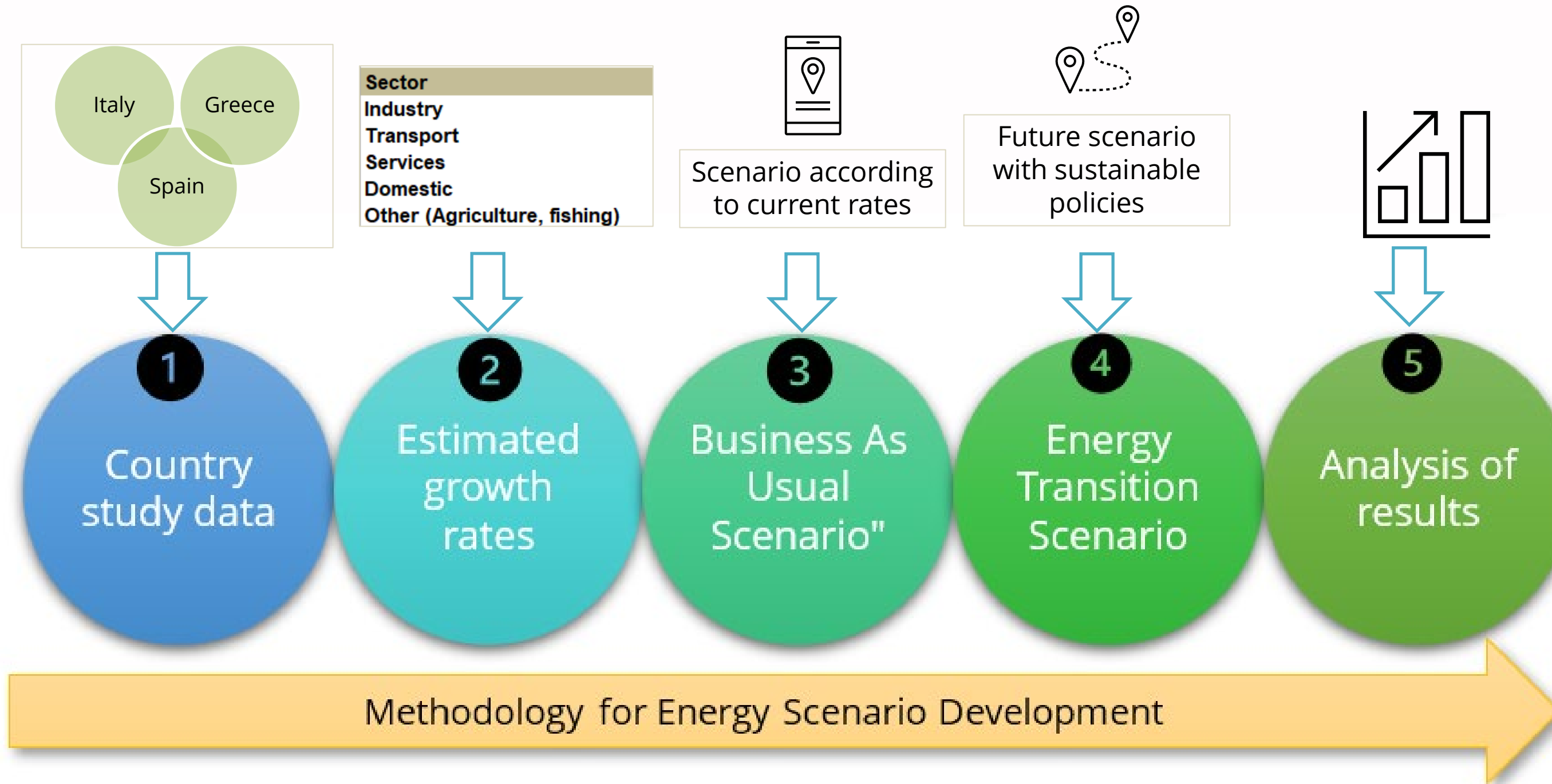




Module I. Energy Context



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Module II. Knowledge Database Module



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- **State of the energy transition of municipalities** located on tourist islands.
- **Select existing best practices** at national and municipal level.
- **Identify key stakeholders.**
- Identify the **barriers, challenges and opportunities** of the islands.

- **Identify** island typology and characteristics.
- **Needs of the islands according to their status** in the energy transition.
- **Select existing best practices** at national and municipal level.

- Classification and analysis of data.
- **Refinement of indicators**



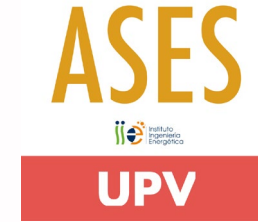
Knowledge repository to characterize the islands

Refinement analysis of the 3 pilot countries: Greece, Italy and Spain





Module II. Knowledge Database Module



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Action Type	Action	Energy Savings (MWh/year)	CO2 savings (tCO2e)
Municipal Building and Equipment	Improvement of Insulation and Air Conditioning Systems	15	9.8
Municipal Building and Equipment	Improvement of lighting systems	17	8
Municipal Building and Equipment	Renewable self-consumption installation	10	45
Industry	Renewal of equipment	4.1	0.3
Industry	Process improvement	6.5	1.3
Industry	Industrial buildings	12.7	0.6
Industry	Change of energy vector	42	22
Transport	Network of electric vehicle charging points	1050	65
Transport	Adapting municipal roads for the creation of cycle routes	153	49.4
Transport	inland public transport circuit and increased frequency	550	275
Transport	Tax ordinances to incentivise the renewal or purchase of electric and hybrid vehicles	375	825
Local Electricity Production	Public procurement of green electricity (100% renewable)	17	9
Local Electricity Production	Promotion and encouragement of renewable energies (solar photovoltaic, solar thermal, biomass, etc.).	625	1000
Resource management	Municipal waste collection, recycling and composting network	1	0.3
Resource management	Rainwater harvesting and utilisation	13	4.5
Awareness-raising	Communication, training and awareness-raising plan	22	8.3





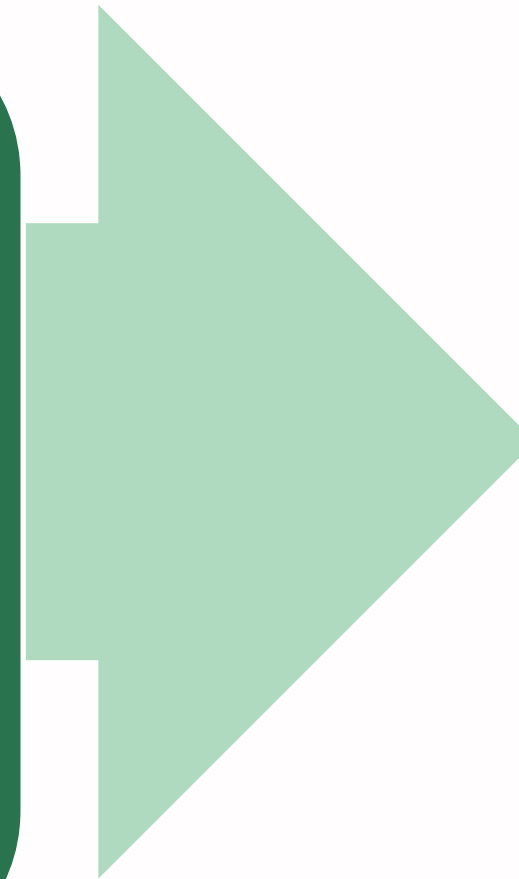
Module III. Inference Module



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- State of **existing decision-making models** and **energy tools**
- Identification of **actual monitoring tools**

- **Baseline framework** that will serve for **comparison** with Clean Energy Transition scenarios
- Define **sustainable indicators**
- **Knowledge repository** to characterize the islands



Module to transform the information into added value for the island municipalities and policy makers

First definition of tool features





Module III. Inference Module



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Calculation method for each of the measures

The user can calculate his/her own measurements

Criteria are established to provide the results in a user-friendly way.

Action	Energy Savings potential	Implementation cost	Emission savings
Improvement of Insulation and Air Conditioning Systems	High	High	High
Improvement of lighting systems	Medium	Low	Low
Renewable self-consumption installation	High	High	High
Renewal of equipment	High	Medium	Low
Process improvement	Medium	Medium	Low
Industrial buildings	High	High	Medium
Change of energy vector	High	High	High
Network of electric vehicle charging points	High	High	Medium
Adapting municipal roads for the creation of cycle routes	Medium	Medium	Medium
inland public transport circuit and increased frequency	High	High	Medium
Tax ordinances to incentivise the renewal or purchase of electric and hybrid vehicles	Medium	Medium	High
Public procurement of green electricity (100% renewable)	High	Medium	High
Promotion and encouragement of renewable energies (solar photovoltaic, solar thermal, biomass, etc.).	High	Medium	High
Municipal waste collection, recycling and composting network	Low	Low	Low
Rainwater harvesting and utilisation	Medium	High	Low
Communication, training and awareness-raising plan	Medium	Low	Medium



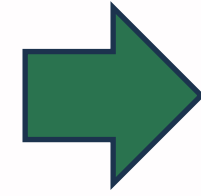


Module III. Multicriteria Decision-Making Module



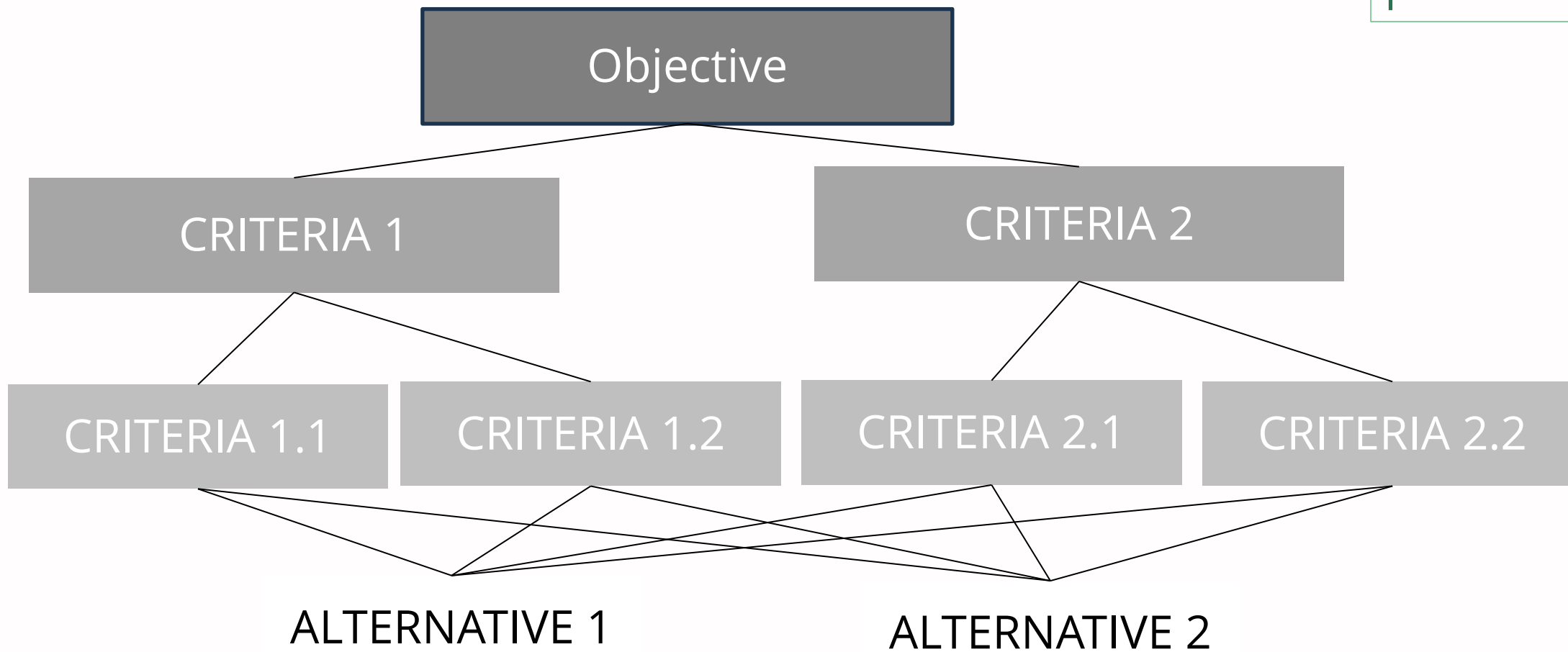
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Module to **help policy-makers make decisions** according to **different municipal criteria**.



AHP Method - Analytic Hierarchy Process

Pairwise comparison matrix, where the decision-maker determines his or her relative preference of one concept over another, and also indicates the intensity of this preference according to the scale.



CRITERIA:

Depending on the municipality, different weights are taken into account

Energy policy | Economy | Environment | Social | Awareness...





GENERA TOOLS – Island DNA



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Island of TENERIFE Country: Spain Region: Canary Islands Island name: Tenerife Island's cities: n. 31	
Island Area: 2.034 km ² Island Density: 515 ab./km ²	
Climatic classification Zone: 1 2 3 4 5 6 Tenerife exhibits a subtropical climate, characterized by distinct climatic zones due to its varied topography. The coastal regions enjoy mild winters and warm summers, with temperatures ranging from 15°C to 28°C in winter and 24°C to 30°C in summer. In contrast, the mountainous interior experiences cooler conditions, with temperatures decreasing with altitude. Tenerife's climate is marked by trade winds, which influence its weather patterns, and it has relatively low precipitation levels, particularly in the summer months.	
Touristic seasons High Medium Low 	
Population Permanent: 1.048.306 Population by gender: 49% male, 51% female Population by age: 0-19: n.154807 20-29: n.97951 30-44: n.189708 45-65: n.278958 65+: n.156198	
Nationalities: 85,8% Spanish / 14,2% foreign Languages spoken: Spanish Others: English, German, Russian,	
Household profile 35% singles, 27% 2 persons, 38% with children under 18, other	
Seasonal Permanent: xxxx00 /year Tourist: xxxxx Nationalities: -- % Languages spoken: --	

Island of IBIZA Country: Spain Region: Balearic Islands Island name: Ibiza Island's cities: n. 5	
Island Area: 571,6 km ² Island Density: 262 ab./km ²	
Climatic classification Zone: 1 2 3 4 5 6 Ibiza experiences its coldest and most budget-friendly months during the low season, particularly in January when temperatures drop to 8°. Just before and after summer, the island maintains pleasant temperatures around 20°, offering quieter and more affordable travel options. Summer is hot and crowded, with temperatures peaking over 30° in August. June and September are milder but still warm. Regarding rainfall, November is the wettest month, averaging 7.5 days (1 millimeter of precipitation), while July is the driest (0.9 wet days).	
Touristic seasons High Medium Low 	
Population Permanent: 150.004 Population by gender: 49% male, 51% female Population by age: 0-18: n.28.046 18-30: n.17.003 30-45: n.44.024 45-65: n.40.516 65+: n.20.415	
Nationalities: 21 different Languages spoken: Spanish, Catalan Others: English, German, French, Italian and Arabic	
Household profile 31% singles, 26% 2 persons, 18% with children under 18, 24% other	
Seasonal Permanent: 195.256 /year Tourist: 2.812.095 /year Nationalities: -- % Languages spoken: --	

City of STINTINO Country: Italy Region: Sardegna Island name: Sardegna Island's cities: n. 377	
Island Area: 24.090 km ² City Area: 59,04 km ² Island Density: 65,13 ab./km ² City Density: 26,24 ab./km ²	
Climatic classification Zone: 1 2 3 4 5 6 Stintino boasts a Mediterranean climate marked by distinct seasonal variations. Summers in Stintino are characterized by warm and conditions with temperatures ranging from 25°C to 35°C. In contrast, winters are mild and relatively damp, with temperatures ranging from 10°C to 15°C. Spring and autumn offer temperate, moderate climates.	
Touristic seasons High Medium Low 	
Population Permanent: 1.606 Population by gender: 49% male, 51% female Population by age: 0-19: n.171 20-29: n.179 30-44: n.281 45-65: n.595 65+: n.406	
Nationalities: % xxx - % xxx Languages spoken: italian / --	
Household profile 41,2% singles, 22,8% 2 persons, 35,8% with children under 18, other	
Seasonal Permanent: 214.600 /year Tourist: 800 Nationalities: -- % Languages spoken: --	

Island of RHODES Country: Greece Region: South Aegean Island name: Rhodes Island's cities: n. 43	
Island Area: 1.401 km ² Island Density: 82 ab./km ²	
Climatic classification Zone: 1 2 3 4 5 6 Mediterranean climate characterized by distinct seasons. Winters are generally mild, with temperatures hovering around 10-15°C. While occasional cold snaps occur, freezing temperatures are rare. Rainfall is common. Spring is a picturesque season, marked by warming temperatures of 15-20°C. Although less rainy than winter, occasional showers can still be expected. Summers are characterized by hot, sunny weather, with average temperatures ranging from 25 to 30°C. Autumn offers a pleasant, sunny climate with average temperatures between 20 to 25°C.	
Touristic seasons High Medium Low 	
Population Permanent: 115.500 Population by gender: --% male, --% female Population by age: 0-19: n.23.500 20-29: n.19.000 30-44: n.28.800 45-65: n.28.000 65+: n.16.200	
Nationalities: Greek (98,7%) - Others (Turkish, Albanian, British, Russian, German) Languages spoken: greek / english / turkish	
Household profile 28,6% singles, 29,2% 2 persons, 7,4% with children under 18, 34,8% other	
Seasonal Permanent: 313.740 /year Tourist: 2.574.547 /year Nationalities: Greek (90.1%), Albanian (4.1%), Bulgarian (1.8%), Romanian (1.2%), Other (3%) Languages spoken: --	

Island of CHALKI Country: Greece Region: South Aegean Island name: Chalki Island's cities: n. 1	
Island Area: 28 km ² Island Density: 17 ab./km ²	
Climatic classification Zone: 1 2 3 4 5 6 The climate of Chalki is characterized as semi-arid Mediterranean with mild winters, while according to the classification of UNESCO-FAO as intense thermo-Mediterranean with a number of biologically dry days of 125-150. It has an average air temperature of around 19°C. The annual rainfall varies between 400-450 mm. It mainly falls in the winter season (Nov-Apr), while the summer season is long, hot and dry. The other characteristic of its climate is the strong northerly winds, known as 'annuals'.	
Touristic seasons High Medium Low 	
Population Permanent: 478 Population by gender: --% male, --% female Population by age: 0-14: n.145 15-25: n.144 25-64: n.726 65+: n.243	
Nationalities: % xxx - % xxx Languages spoken: greek / xxx / xxxxx	
Household profile --% singles, --% 2 persons, --% with children under 18, --% other	
Seasonal Permanent: 500/year Tourist: 120 day visitors Nationalities: -- % Languages spoken: --	

Tenerife-Ibiza-Stintino-Rhodes-Chalki

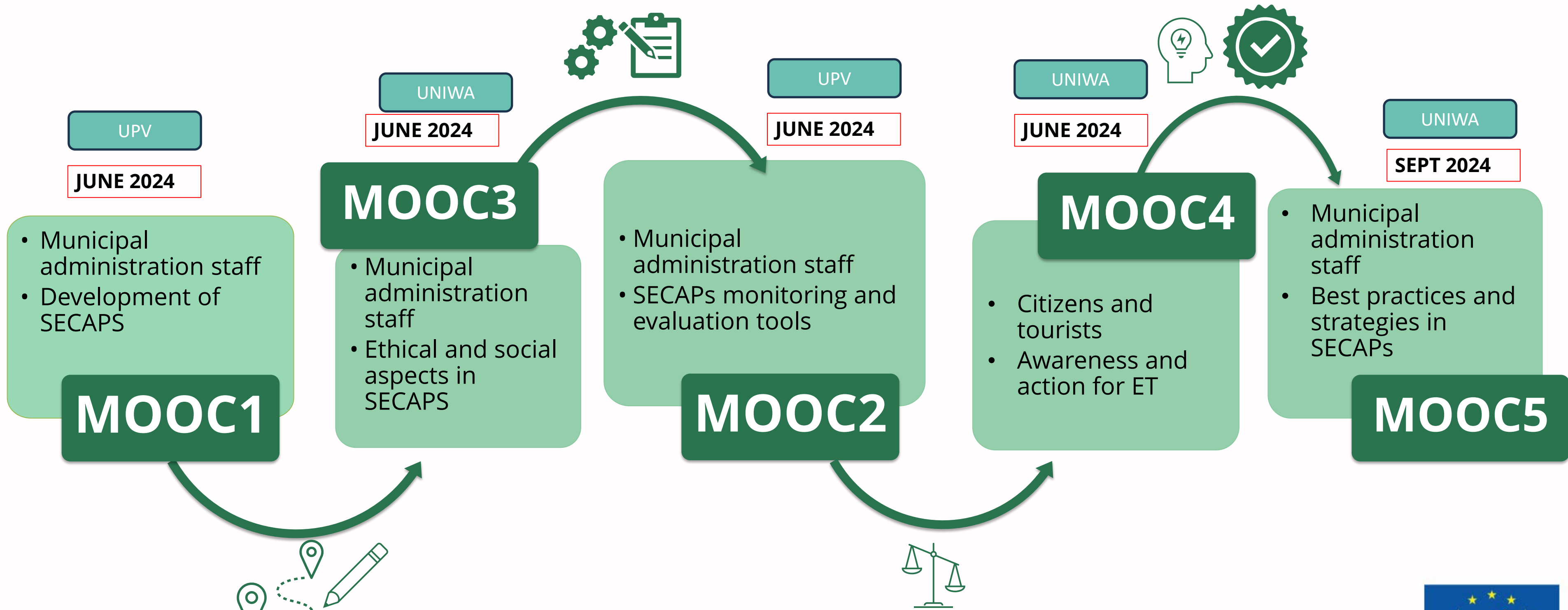




GENERA TOOLS – MOOCs

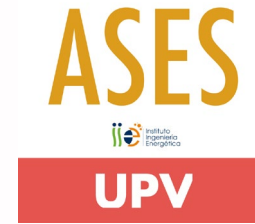


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GENERA TOOLS – Digital Social Platform



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[CONNECT WALLET](#)

Genera Digital Social Platform



 MOOCs

 Rewarding Tool

 Social Game

 Content Exchange Point

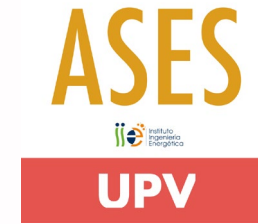
 Forum

 Surveys





SURVEY



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Citizens

ENGLISH VERSION

ITALIAN VERSION

SPANISH VERSION

GREEK VERSION

Public Authorities

ENGLISH VERSION

ITALIAN VERSION

SPANISH VERSION

GREEK VERSION





GENERA TOOLS – Social Game

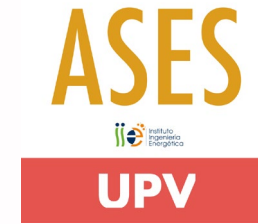


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PARTNERSHIP



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SHORT NAME	PARTNER NAME	COUNTRY
UPV	UNIVERSITAT POLITÈCNICA DE VALÈNCIA	SPAIN 
Global	GLOBAL COMUNICACION	SPAIN 
UNIWA	UNIVERSITY OF WEST ATTICA	GREECE 
Stintino	MUNICIPALITY OF STINTINO	ITALY 
ITER, SA	INSTITUTO TECNOLÓGICO DE ENERGÍAS RENOVABLES	SPAIN 
READ S.A.	DEVELOPMENT AGENCY OF SOUTH AEGEAN REGION	GREECE 
USE	USE EFFICIENCY ASSOCIATION	ITALY 
MAGGIOLI	MAGGOLI SPA	ITALY 





PARTNERS





Thank you!

