



# GENERA's WEBINAR

*Strategies for Islands' Energy Plans*

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*"Strategies for Islands' Energy Plans."*

12th march, 2025

**UniverCities -USE Efficiency  
Association**

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**GENERA PROJECT**

This project was funded by the European Union under  
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# Road-mapping needs, typology, Island-specific recipes



## Objective of Report:

Define typologies of islands and their specific energy transition needs

## Goal:

Provide a list of tailored "recipes" to support the energy transition for the various types of touristic islands.

## Scope:

1. Island typologies and tailored roadmaps (SECAPS production)
2. Best practices and specific needs identified by GENERA project partners
3. Strategies for local authorities in different stages of the energy transition



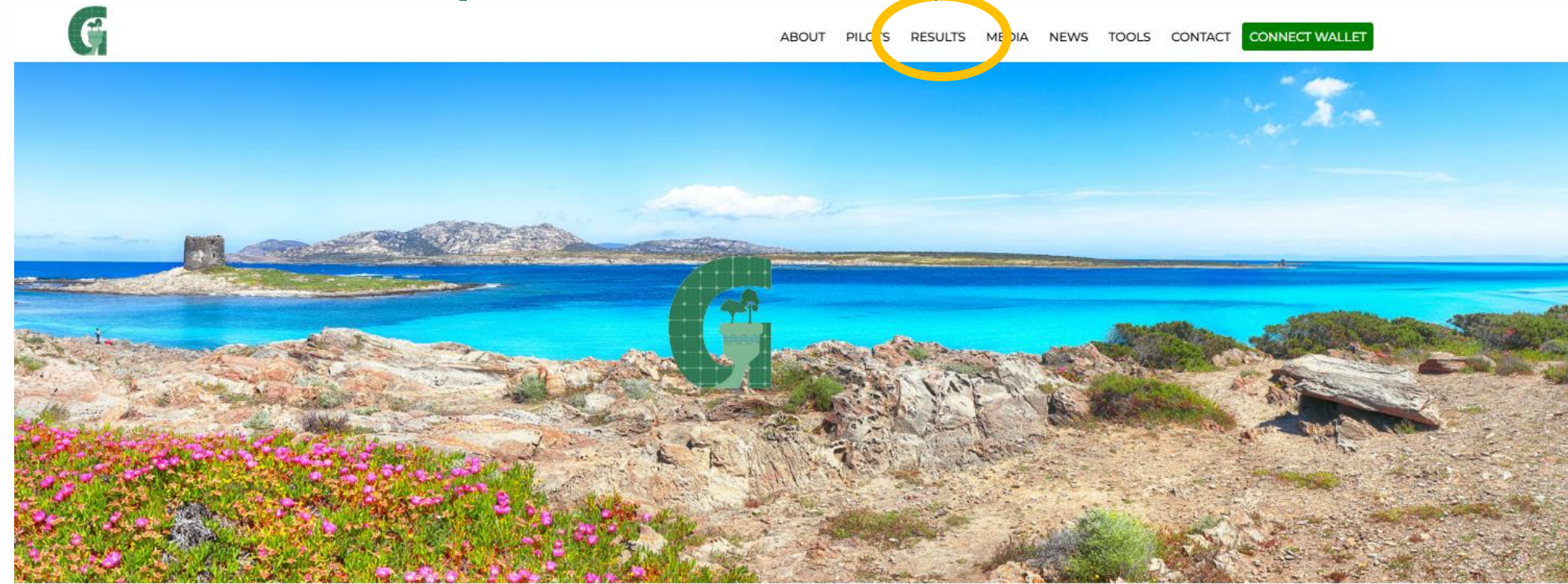


# Road-mapping needs, typology, Island-specific recipes



You can find the report in the link below:

<https://life-genera.eu/deliverable/>



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## Vision

- More than 30 municipalities from Mediterranean EU islands at different stage in the energy transition paths
- Rich group-tailored capacity building activities: training programs, MOOCs, business development activities, workshops for in-depth discussions
- Monitoring tools: Knowledge Database, Inference Module, multicriteria decision marking process tool
- Citizen engagement: blockchain-based serious games, digital social platform

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# Characterization of Islands in the EU



- **Objective:** Analyse the characteristics of Southern European islands in terms of energy needs and transition potential.
- **Key factors analysed:**



**Demography**



**Tourism**



**Economy**



**Energy**





# Definition of Island Typologies



- **Objective:** Develop a framework to categorize islands based on their characteristics and energy needs.
- **Key Typology Factors:**
  1. **Size:** Large, medium, and small islands.
  2. **Connection to Mainland:** Is the island a net energy receiver or producer?
  3. **Connection to Other Islands:** How interconnected the island is with neighbouring islands.
  4. **Demand Fluctuation:** How seasonal tourism impacts energy demand.



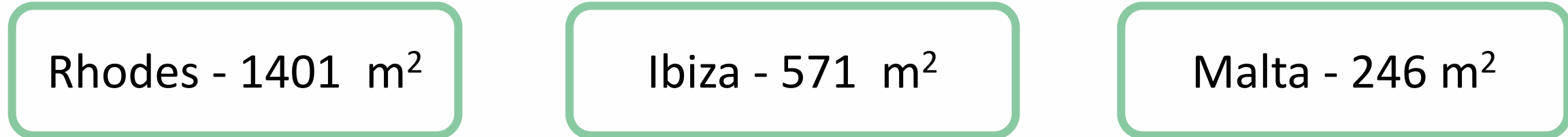


# Definition of Island Typologies

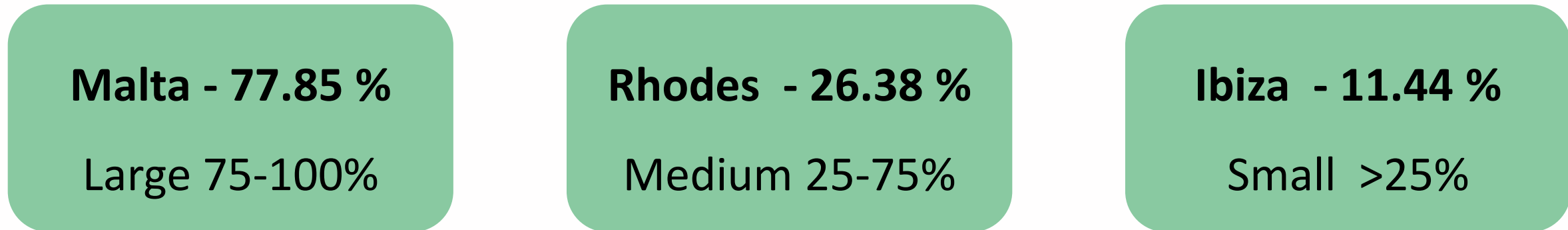


## Key Questions:

- **Size**
- Connection to the mainland
- Connection to other islands
- Net energy production
- Seasonal variability



Size by % of the islands land compared to it's region area

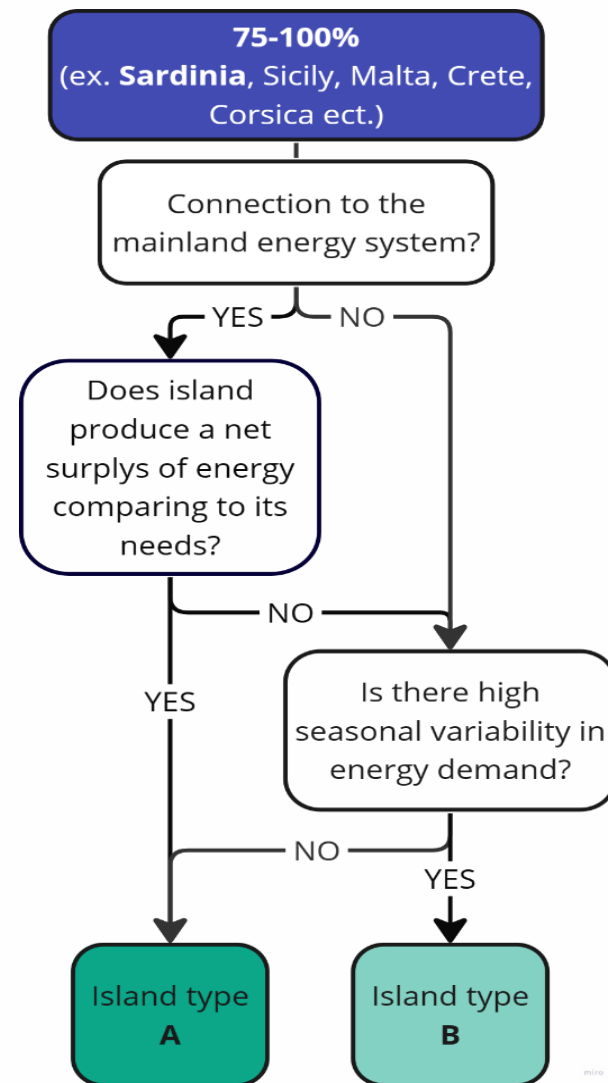




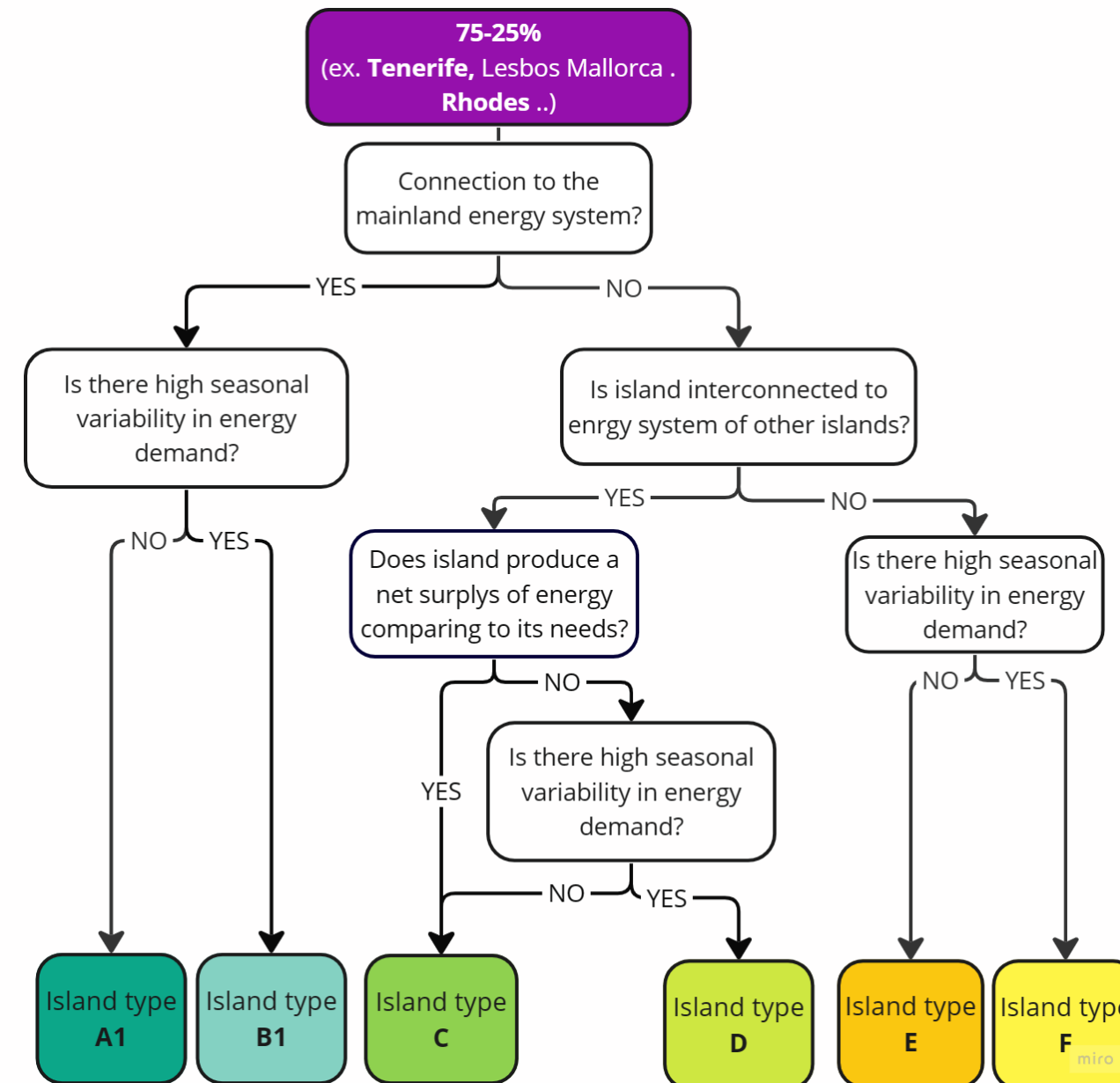
# Island Typology Decision Tree



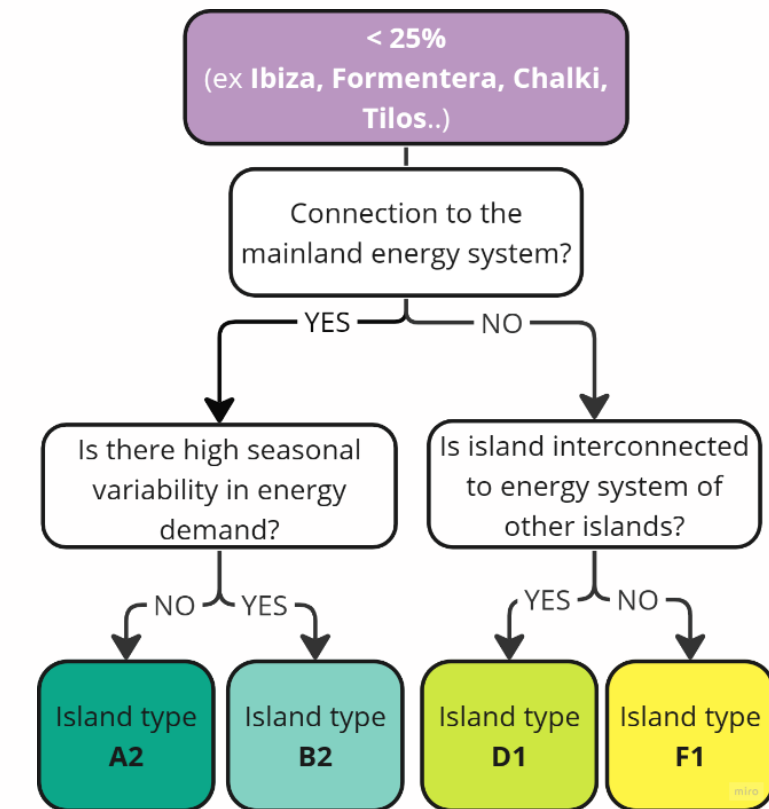
## Large Islands



## Medium Islands



## Small Islands







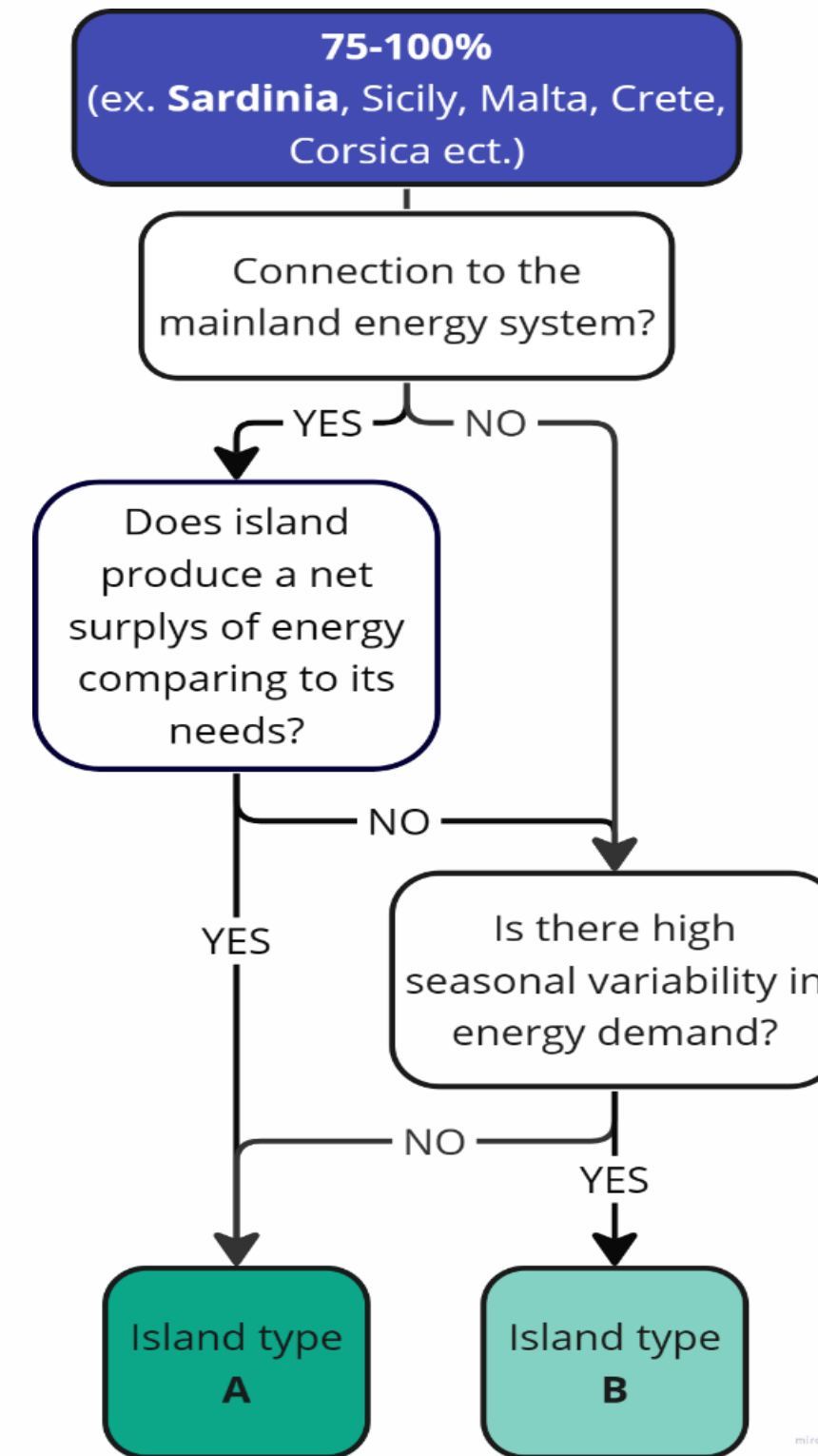
# Definition of Island Typologies

## Key Questions:

- Size
- Connection to the mainland
- Connection to other islands
- Net energy production
- Seasonal variability



In case of large islands we assume that in case they are not connected to the mainland, They are net energy producers



LARGE ISLANDS

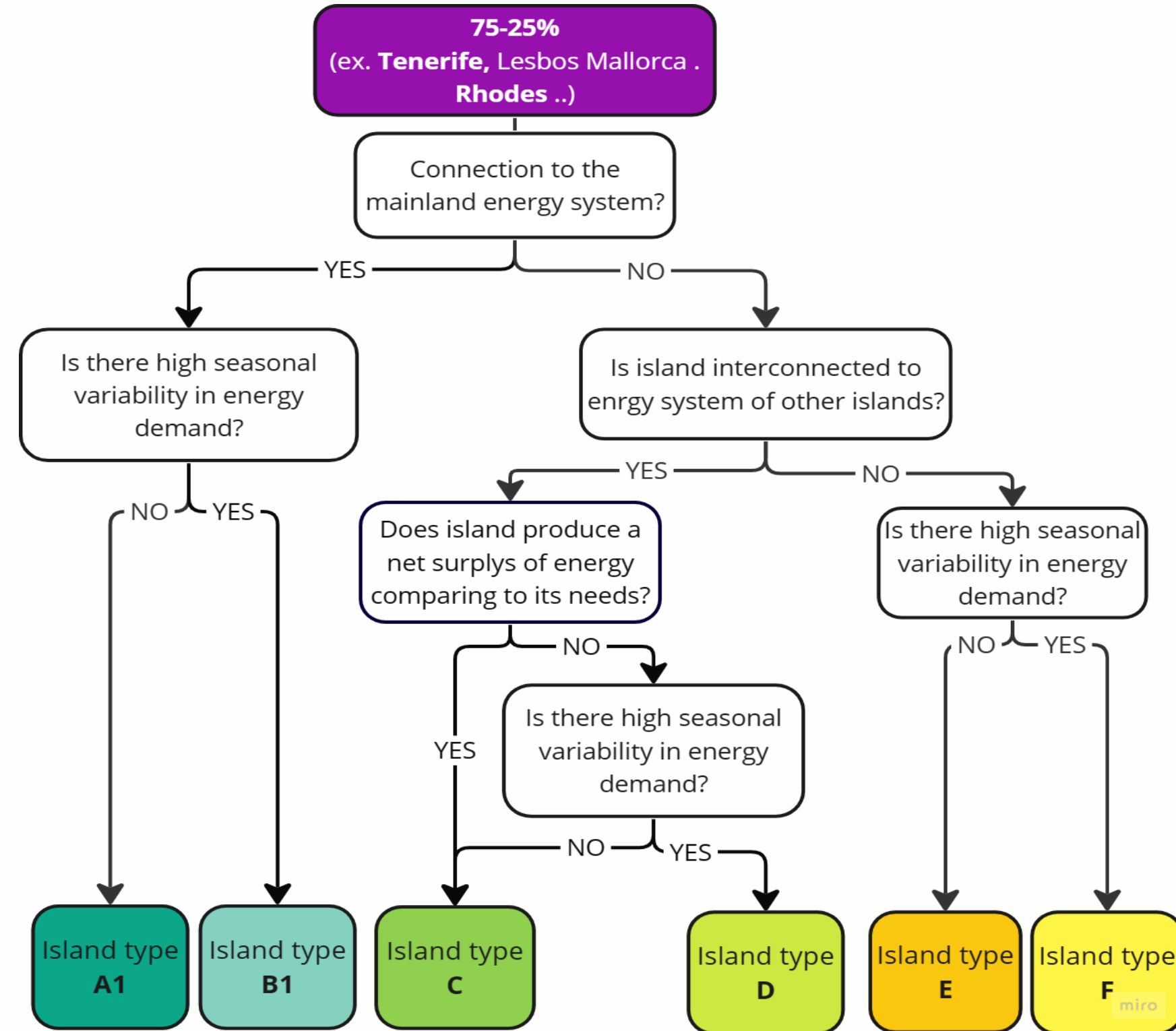




# Definition of Island Typologies

## Key Questions:

- Size
- Connection to the mainland
- Connection to other islands
- Net energy production
- Seasonal variability



MEDIUM ISLANDS



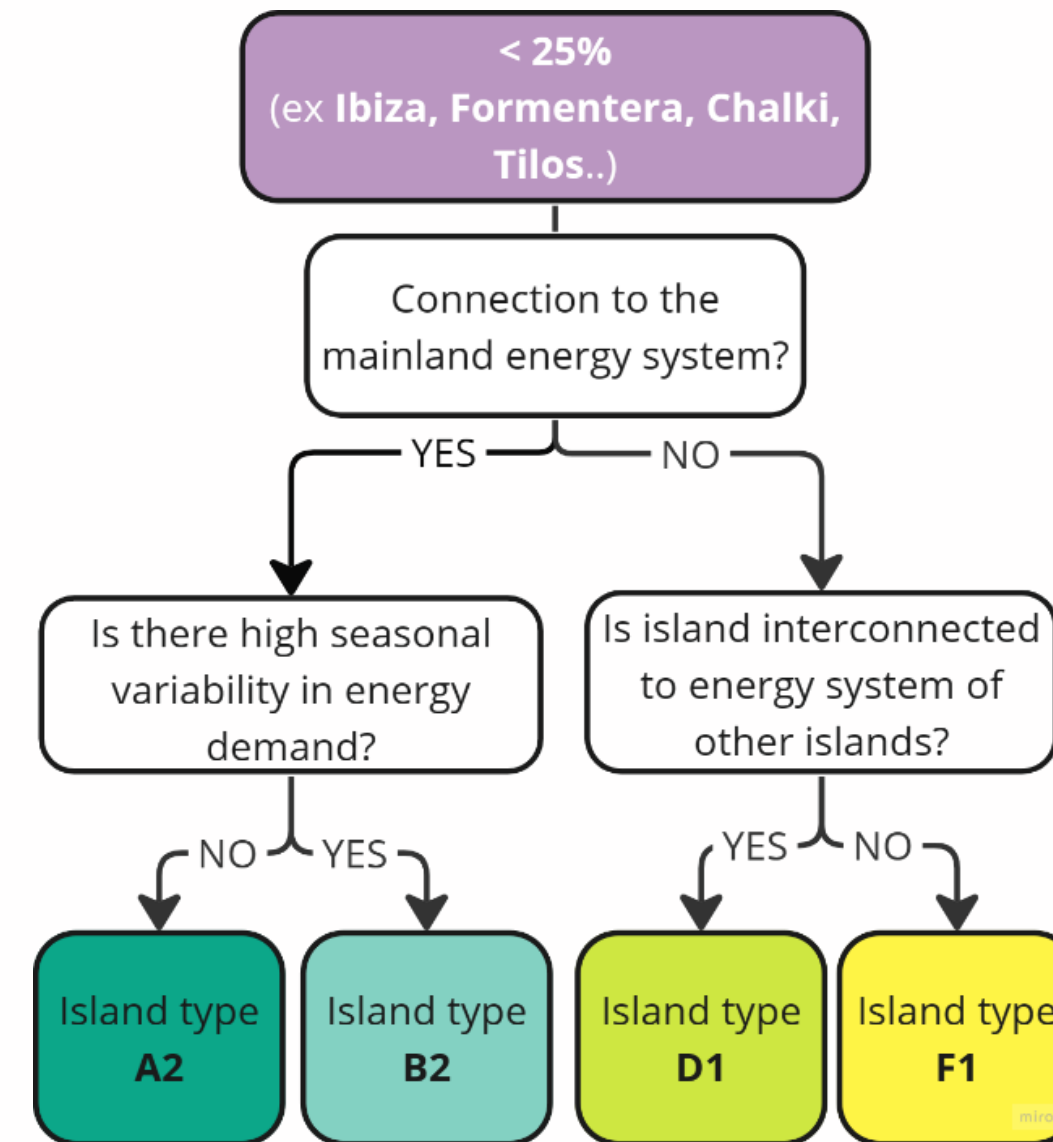


# Definition of Island Typologies

## Key Questions:

- **Size**
- **Connection to the mainland**
- **Connection to other islands**
- **Net energy production** →
- **Seasonal variability**

In case of small islands we assume that in case they are not connected to the mainland, but connected to other islands they are interdependent on one another



SMALL ISLANDS



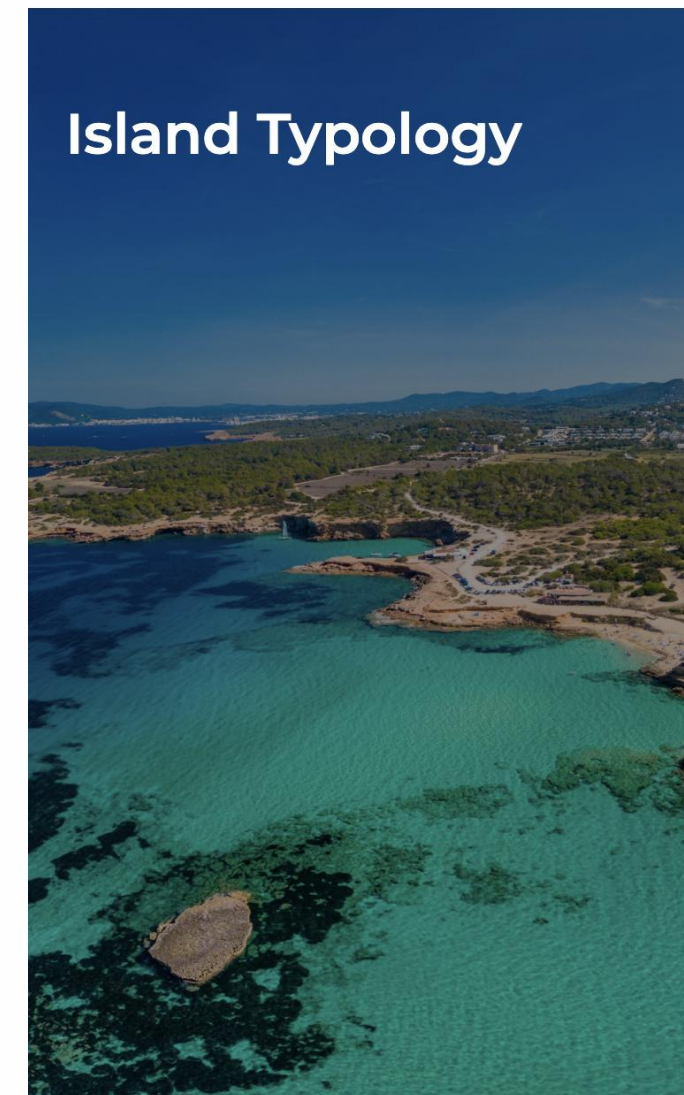


# Island Typology Decision Tree



You can find the link to the tool in the link below:

<https://dsp.life-genera.eu/island-typology>



☆ Rate Monitoring Tools





# Island Typology Decision Tree



*Table: Priority level of specific needs of each island typology*

NEEDS	Improve Local Clean Energy Production	Curbing of the energy demand	Collaboration with other islands
Type ↓	RES	EE	Cooperate
<b>A</b>	high	low	low
<b>A1</b>	high	low	low
<b>A2</b>	high	medium	low
<b>B</b>	low	high	low
<b>B1</b>	medium	high	low
<b>B2</b>	medium	high	low
<b>C</b>	high	low	medium
<b>D</b>	medium	high	high
<b>D1</b>	medium	high	high
<b>E</b>	high	medium	medium
<b>F</b>	high	high	medium
<b>F1</b>	high	high	medium

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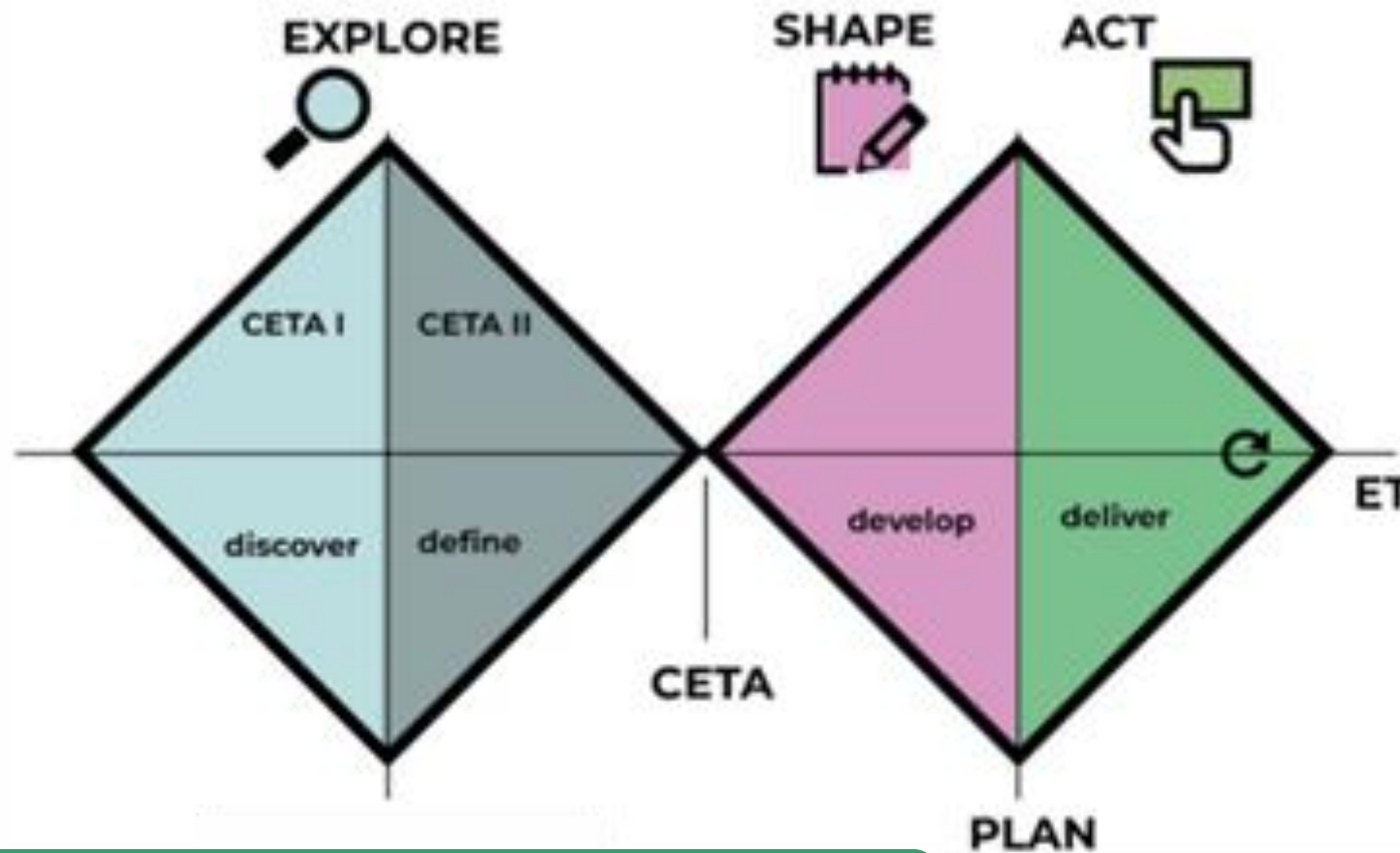
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# Step-by-Step Guidebook for Roadmap Production



Key Steps

Recommended tools

Existing guidelines and tools

## The identified phases are:

- 1. INITIATION** – Commitment and signature
- 2. DISCOVER** - Preliminary analysis to understand the context and elaborate the baseline.
- 3. DEFINE** - The establishment of the vision and the strategy.
- 4. DEVELOP** - The translation of the vision in a realistic and feasible plan.
- 5. DELIVER** - The implementation and the monitoring of the actions.





Clean energy for EU islands

Island Clean Energy Transition Pledge  
**Sign the Pledge**

#CE4EUislands



# Initiation



## KEY Steps:

1. Establish and charge a leadership team.
2. Identify the key actors and stakeholders.
3. Signature of the formal commitment document

## Recommended tools include:

- Pledge templates
- Infographics and descriptive documents

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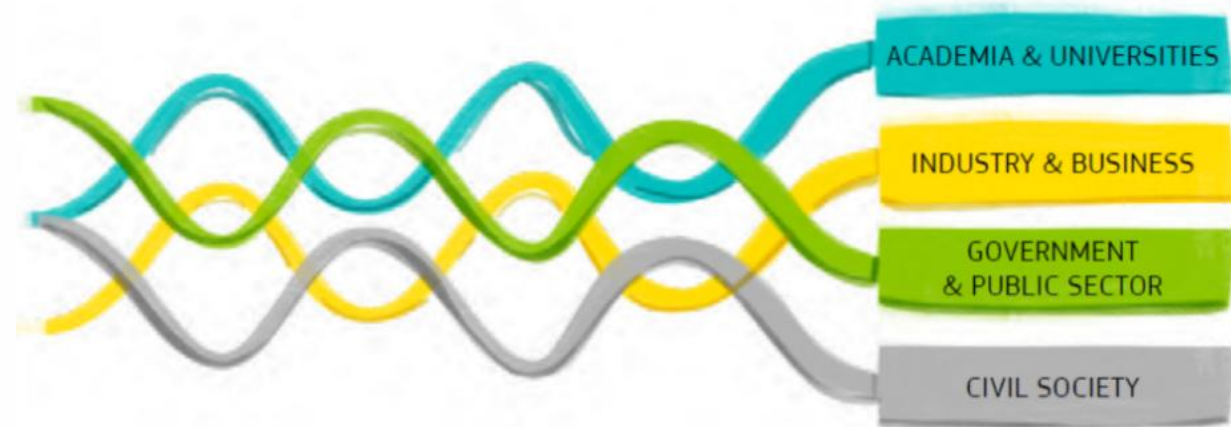


# Discover



## Stakeholders' Quadruple Helix

[Clean energy for EU islands secretariat]



## KEY STEPS:

1. Stakeholders' mapping
2. Assess the baseline.

## Recommended tools include:

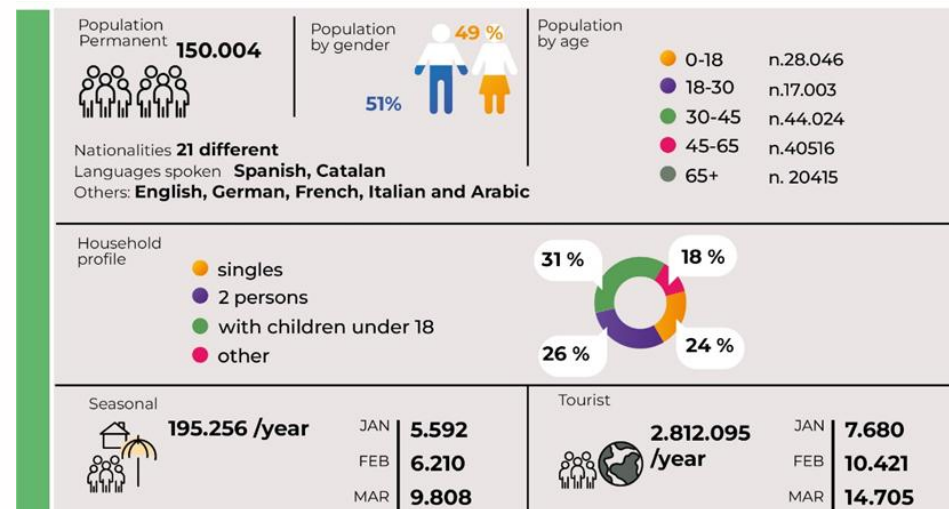
### Community engagement:

- Stakeholder engagement register
- Population assessment
- Empathy map and latent needs analysis
- ...etc

### Assess the baseline:

- Baseline Emission Inventory (BEI)
- Risk and Vulnerability Assessment (RVA)
- Comparative analysis of goals and objectives in the local regulations
- Self-assessment tool of Clean Energy for EU Islands
- ...etc

## Demographic Assessment



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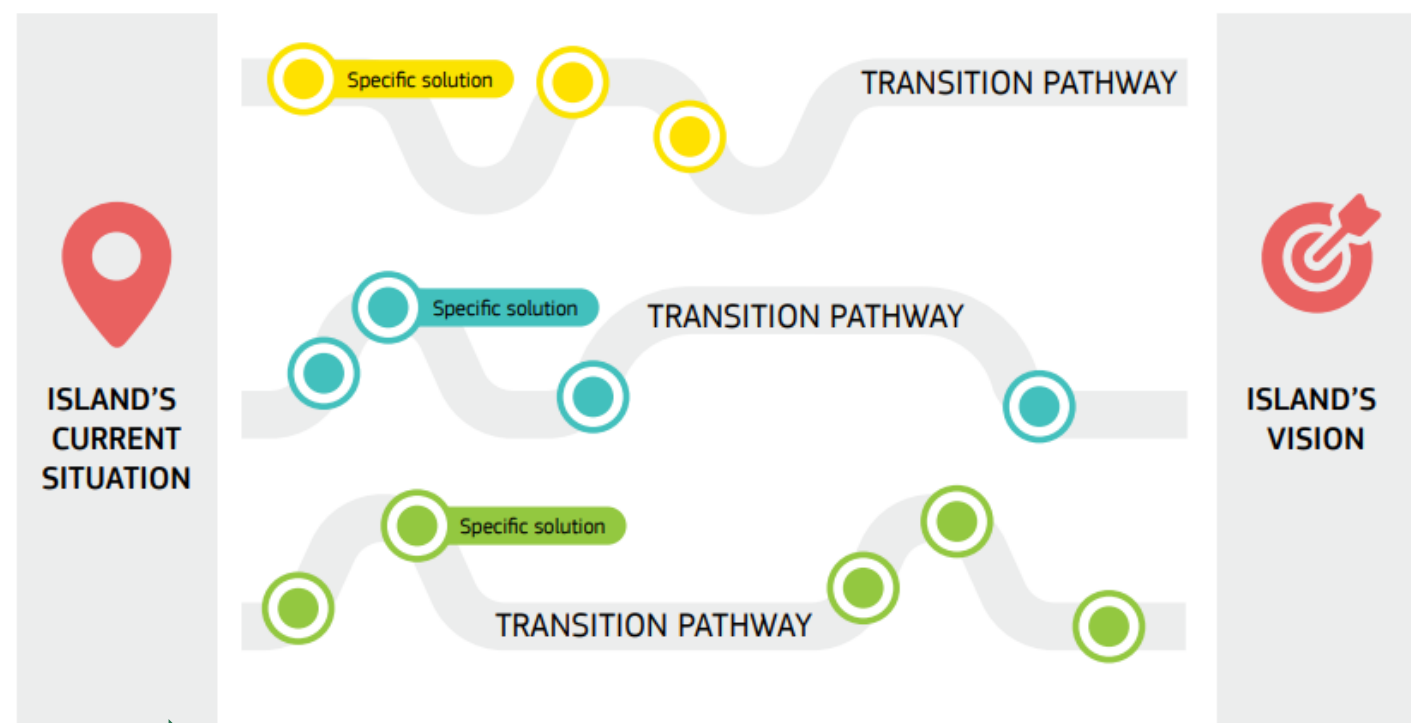
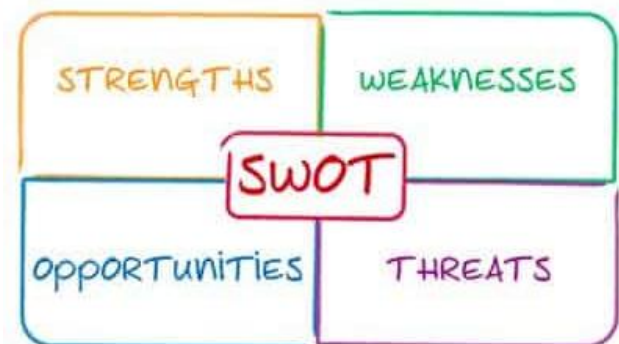
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**From vision to action : how to tackle transition on EU islands? : methodological handbook | Clean energy for EU islands:**

<https://clean-energy-islands.ec.europa.eu/resources/publications/vision-action-how-tackle-transition-eu-islands-methodological-handbook>

# Define



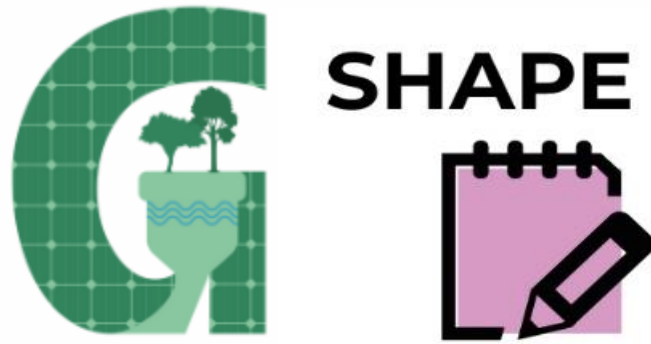
## KEY Steps:

1. Establishment of a long-term vision, identifying challenges and core values.
2. Definition of governance structure
3. Setting objectives and targets
4. Elaborate scenarios
5. Define a monitoring strategy.

## Recommended tools include:

- Insight survey questionnaires based on categories (of citizens and stakeholders)
- Strengths-Weaknesses-Opportunities-Threats Matrix (SWOT)
- Transition Process Timeline (GANTT chart)
- SMART targets approach: Specific, Measurable, Achievable, Realistic, and Time-bound
- Simulation models with Multiple Criteria Decision-Making approach
- Benchmarking (comparative analyses)

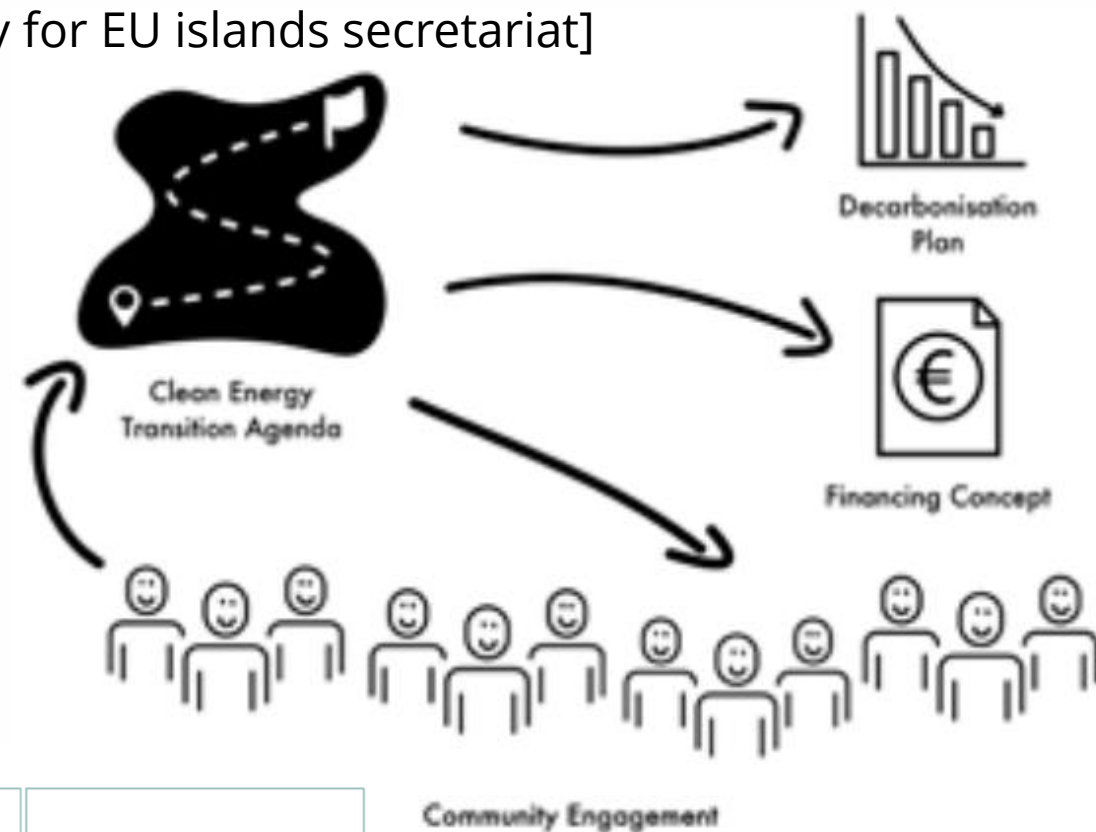




# Develop

## From Vision to Action

[Clean energy for EU islands secretariat]



## KEY Steps:

1. Stakeholder engagement
2. Selection of the actions to implement.
3. Feasibility study
4. Business models

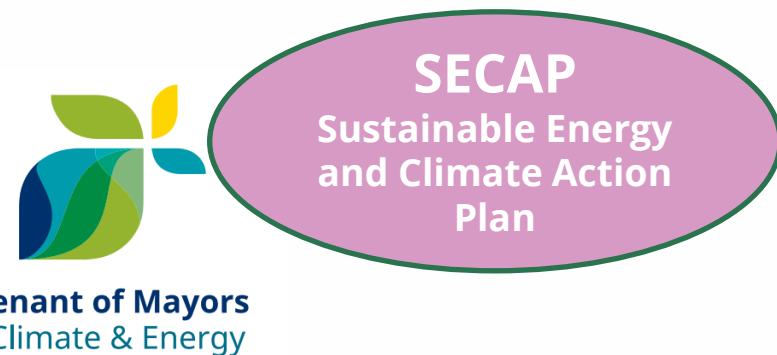
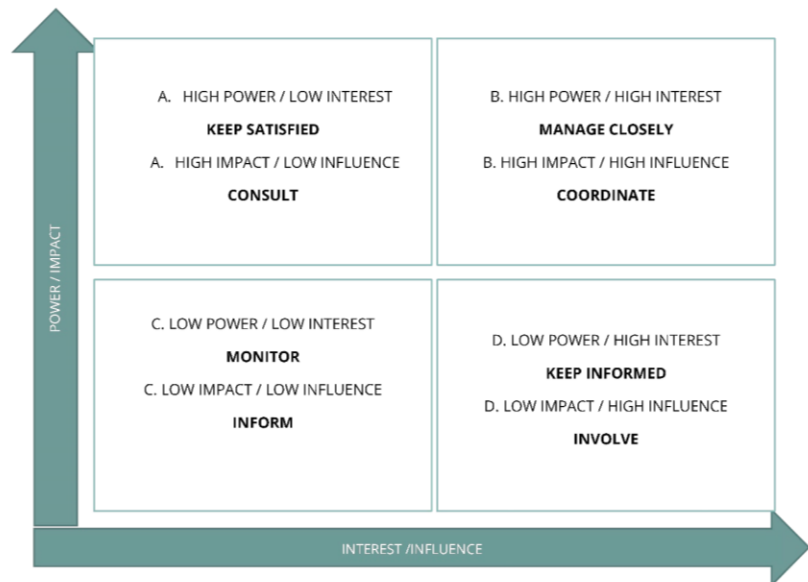
## Recommended tools include:

### Community engagement:

- Stakeholders Matrix
- Insight survey questionnaires and Latent needs analysis
- Co-creation process Evaluation form
- List of actors of the working group with definition of roles
- ...etc

### Feasibility studies

- Risk and Vulnerability Assessment (RVA)
- Risk register and matrix
- Multiple Criteria Decision Making (MCDM) analysis
- Cost-Benefit Analysis (CBA)
- Business Model template



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ACT



# Deliver



## KEY Steps:

1. Setting up management structures
2. Definition of pilot actions
3. Conducting tenders and public procurement
4. Stakeholder and citizens follow up plan
5. Creation and delivering of training programme
6. Monitoring and risks and impacts assessment
7. Reporting and communicating

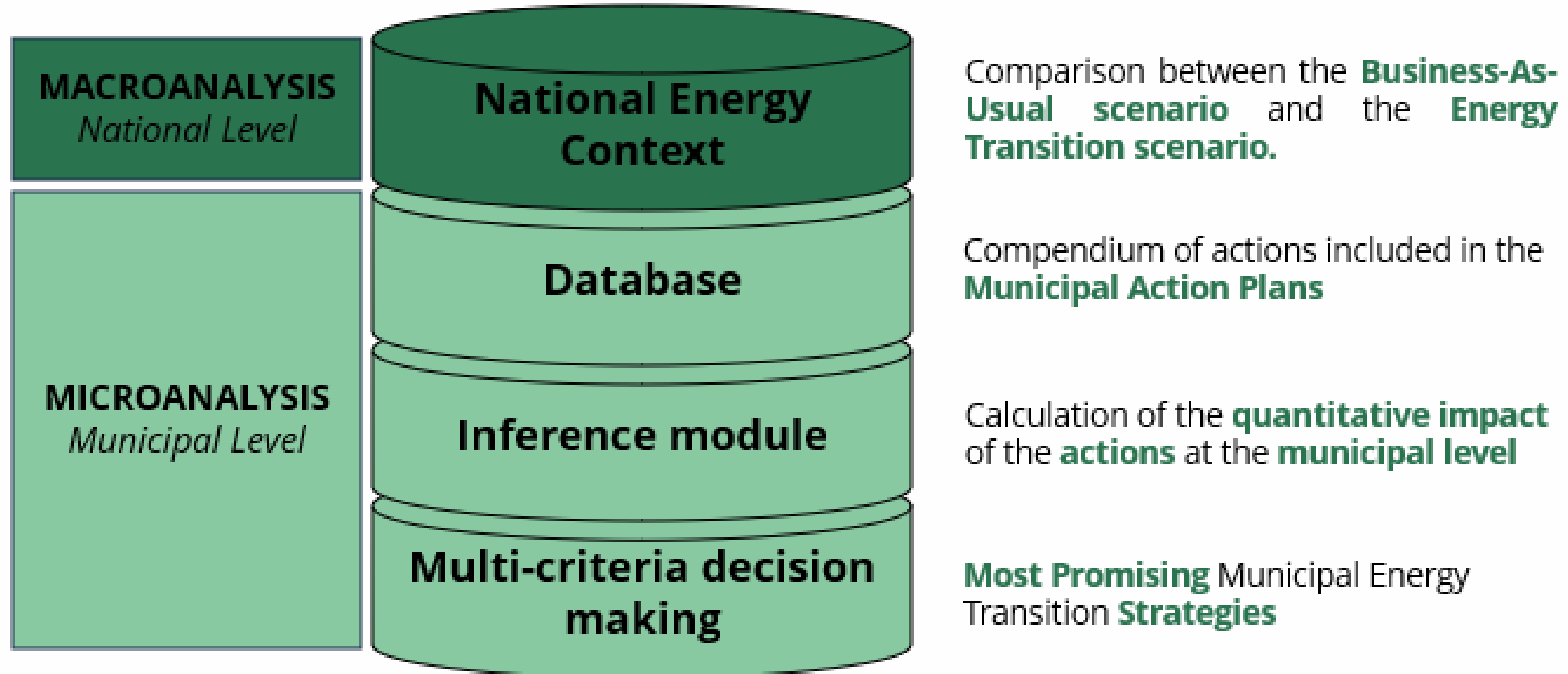
## Recommended tools include:

- GANTT chart
- Co-creation process Evaluation form
- Monitoring Emission Inventory (MEI)
- Scoreboards for measures monitoring
- Reviews reports templates
- Lessons learned register and replicability plan





# GENERA's Energy Transition Package



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**Thank you!**





# PARTNERS

