New Energy Solutions Optimised for Islands

NESOI

EUROPEAN ISLANDS FACILITY

D1.1: Islands' needs & requirements for islands energy transition

WP1, T1.1 Elaboration of toolkit and islands approach

Authors: CIRCE; SINLOC; R2M, RINA-C; ZABALA; CERTH; DEL

Technical references

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* PU = Public
PP = Restricted to other programme participants (including the Commission Services)
RE = Restricted to a group specified by the consortium (including the Commission Services)
CO = Confidential, only for members of the consortium (including the Commission Services)

Version	Date	Authors	Beneficiary
1.0	27/12/2019	María Dolores Mainar, Victor Ballestin, Felipe del Busto, Alfonso Juan	CIRCE
		Andrea Martinez, Cristina Boaretto, Alessandra Montanelli	SINLOC
		Augusta Clérisse, Sophie Dourlens	R2M

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Executive summary

This deliverable is the output of T1.1 and contains the **co-creation survey**, as the basis for the development of the NESOI European Island Facility toolkit.

Objective

Development of the methodology for evaluating islands' state of readiness, needs and requirements, by means of a preliminary mapping and characterisation of existing projects pipelines and their development status.

Target

The full questionnaire (section 1 and 2) will submitted to the local authorities of EU islands. Energy communities and/or private corporate entities can submit project data via the local authority.
A partial questionnaire (Section 2) will also be submitted to Energy production companies and distribution system operators (DSOs) operating on EU islands.

Methodology

First, an initial revision of secondary information and related literature was carried out to set the ground for the methodology development. Especial attention has been put on the ASSET Project database, shared by the Clean Energy for EU Islands Secretariat, to avoid overlapping and to identify collaboration opportunities.
Thereafter, a survey has been developed focusing on the point of view of the islands through the design thinking method. Questions are designed to assess the maturity level of the existing projects and the financial, technical and legal support needed to facilitate their implementation.
Most of them are single/multiple choice to facilitate quick yet detailed answers and to allow comparisons between islands. The respondents can attach documents for further information and/or clarifications.

Structure

The questions are divided into two sections: island level and project level. This is designed in order to get an overview of the island's goals and support structures and to allow a project understanding by submitting one form per plan. The project section is longer due to the project-boosting nature of NESOI that differentiates it from previous EU level initiatives.

Distribution

The survey will be forwarded online to the islands, working alongside EU institutions, regional governments and associations to define the best respondent for each region and ensuring a good feedback ratio.

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Introduction

The EU Islands Facility NESOI (New Energy Solutions Optimised for Islands) is a four-year Horizon 2020 project funded under call topic LC-SC3-ES8-2019 (European Islands Facility –Unlock financing for energy transitions and supporting islands to develop investment concepts)1. It began on 1 October 2019 and will finish on 30 September 2023 and is made up of a multi-disciplinary consortium consisting of 10 partners from 9 EU member states. It has a total budget of €10 million of which approximately €3 million are dedicated to a cascade funding mechanism to provide direct financial support to EU Islands. Coupled to consortium capacity building activities, the facility aims to mobilize more than 100 M€ of investment in sustainable energy projects to an audience of 2.400 inhabited EU islands by 2023, giving the opportunity to implement energy technologies and innovative approaches in a cost-competitive way and leading to an expected 440 GWh/year in energy savings.

In short, the European Islands Facility NESOI (hereafter NESOI) has three key objectives:

1. Promote and facilitate investments processes for energy transition in the islands
2. Facilitate the decentralization of energy systems
3. Contribute to EU policies and the achievement of 2030 targets

Figure 1 shown below seeks to represent the project in a visual and schematic way. The perimeter of Task 1.1 is highlighted in yellow.

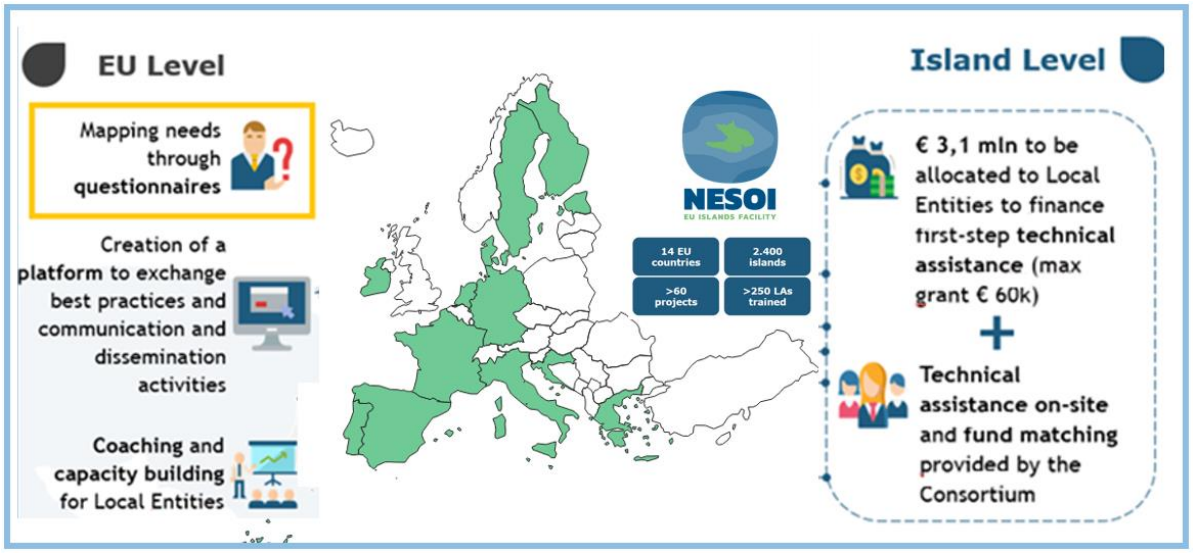

Figure 1. European Islands Facility NESOI scheme

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NESOI will provide information, training, cooperation opportunities and specific Technical Assistance support services to selected islands aimed at activating energy transition project pipelines and facilitating access to robust funding opportunities. NESOI will work in close cooperation with the Clean Energy for EU Islands Secretariat, islands association, energy agencies, national and regional Managing Authorities etc. involved in the promotion, planning and implementation of energy transition on islands.

It will support the process by converting islands' Clean Energy Transition Agendas, Sustainable Energy Action Plans, and eligible energy related project pipelines at large, etc. into executable projects (eg. Renewable Energy Sources plants, building and energy infrastructure energy efficiency retrofitting, smart grids, etc). Close cooperation with all the above cited entities will be also a key to spread the communication and dissemination efforts through-out the life cycle of NESOI.

To achieve this, NESOI is in the process of building a platform able not only to provide first-step Technical Assistance, cascade funding and competencies for the activation of energy transition project pipelines and facilitating access to robust project funding solutions, but also to be the one-stop-shop where islands can find information, good practices, ideas and effective organizational, technical and financial tools to support the whole value chain of a project.

Through the cascade mechanism NESOI will allocate to at least 60 selected beneficiaries[1]:

- 3,1 million euros of grant to locally source Technical Assistance advisory services (eg. energy/grid audits, legal support, fiscal, etc.)
- 440 persons' month equivalent to another a 3 million euros budget) of expert support by the NESOI project team

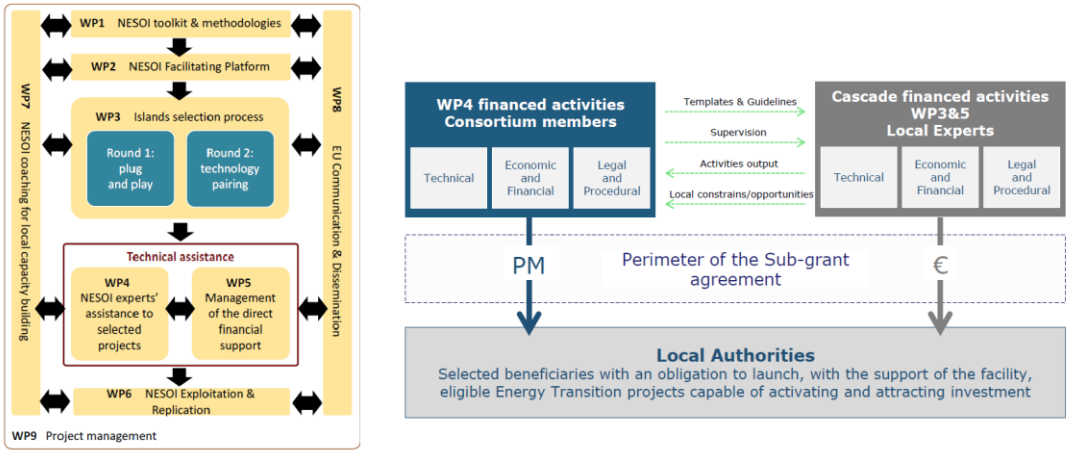

Figure 2. NESOI European Island Facility structure and cascade mechanism

[1] Eligibility criteria and beneficiaries will be defined in detail in WP3 - Islands' project selection process and criteria

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Technical Assistance budgets will be allocated to targeted islands via two competitive calls for sustainable and executable energy transition projects. The first call will be launched in the second semester of 2020, and projects must be launched within 2023.

A key challenge for the project is to reach out to stakeholders on islands and local communities, to raise awareness on existing opportunities and present the new tools developed within the project to help them seize these opportunities. All relevant types of stakeholders are targeted and considered in the development of dedicated communication and dissemination activities. The combined expertise of the consortium partners will feed the islands' energy needs with practical experience and result into energy transition executable actions

Elaboration of toolkit and islands approach

Methodology development

Before designing the co-creation survey, it has been necessary to understand the existence and state of the art of other initiatives that NESOI's activities could overlap with. Special attention has been put on the previous work carried out by the Clean Energy for EU Islands Secretariat to gather rich information about the current status of EU islands' energy sector.

In this sense, the ASSET Project database has been revised and contrasted with NESOI's information requirements and objectives to avoid any overlapping and reduce any subsequent fatigue that islands` representatives might experience towards questioners and interviews. So, during this pre-design phase of the NESOI survey, it was decided that the questionnaire will focus in different inquiries and that its scope will correspond directly to the Project's requirements and goals.

Nevertheless, and following NESOI's collaboration principle, an authorization from the Commission will be requested in order to host the EU Islands Secretariat's survey within the NESOI's platform[2]. If conceded, two complementary alternatives have been foreseen to gather information from the islands participating in NESOI to feed the Secretariat's database:

a) during the NESOI survey distribution [3], suggest, not mandatory but highly appreciated, island's respondents to fill the Secretariat Questionnaire, and

b) during the NESOI beneficiaries' selection[4], ask participant islands to fill it as one of the compulsory steps to proceed into the project.

[2] NESOI's Platform will be developed in WP2
[3] Activity to be carried out in in WP7, Task 7.1
[4] Activity to be carried out in WP3

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In addition, a series of articles and publications from European and international organisations have been consulted to gather information on islands' existing data and projects supporting energy transition, in order to not include questions that have been already answered.

Furthermore, several meetings have been celebrated among EU Islands Secretariat, as well as NESOI partners were present in the Clean Energy for EU Islands Forum celebrated in Split/Hvar (Croatia).

All the previous steps allowed NESOI consortium to have:

- an overall idea of activities performed by the EU Islands Secretariat, islands-specific difficulties and results obtained;
- a first impression of the status of energy transition on the islands and some details about Clean Energy Transition Agenda already prepared;
- some ideas about projects to be developed in the islands and technical assistance needed.

These activities are the basis for steering the survey in order to expand the knowledge, support and facilitate the energy transition.

The list of the documents as well as the initiatives analysed can be found in Annex II.

Design thinking workshop

On the 13th of November 2019, the WP1 Dedicated Meeting was created and facilitated by R2m and hosted by CIRCE in its Headquarters in Zaragoza. The objective of this meeting was to advance on the co-creation of the methodology for evaluating islands' needs and requirements by applying a Design Thinking Approach.

The common challenge addressed during the session is described by the next question:

"How might we understand the islands' readiness for NESOI, to take existing projects to the next level and focus on project implementation on the islands?"

Design thinking is a methodology that puts people, or the targeted stakeholder, in the centre of the problem that is intended to be solved. In this sense, the methodology proposes, colloquially speaking, that designers put themselves on the stakeholder's shoes in order to focus on understanding the real-life situations and the problem complexities that stakeholders face on a daily basis, and that probably are not the same circumstances that designers used to be involved on. By going in deep and defining complex problems, the Design Thinking methodology is a proven approach to generate innovative solutions that are a consequence of that complex understanding. The methodology is an iterative process composed by five stages: Empathize, Define, Ideate, Prototype and Test.

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As part of the Design Thinking Session, CIRCE prepared a first draft of the methodology to be followed in the co-creation survey design and analysis. Main conclusions that came out from the first part of the session were:

- The co-creation survey is not an instrument to select islands but to understand energy transition projects status.
- High-level questions on island energy related characteristics (e.g. levels of production, consumption etc) should not be included or limited to avoid overlapping with the questionnaire recently submitted by the EU Island Secretariat.
- The co-creation survey will be divided into the General Information of the Island Section and Specific information for each of the energy transition projects Section.
- Co-creation survey is addressed to understand the nature of planned projects in more in detail and how NESOI could support them in an efficient and effective way.

During the WP1 Dedicated meeting, the dynamic revolved around a role-playing exercise in which partners with better understanding on the EU islands current situation played the role of an Island Representative, the future beneficiary of NESOI. The role of an Investor was also represented by a partner to get insights on the perspectives, needs and motivations of this key stakeholder. The rest of the present partners conserved their actual roles as designers of the methodology.

Figure 3. Design Thinking application during the WP1 Dedicated Meeting.

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The step-by-step of the activities carried on that day has been included by R2M in a Storytelling format that can be accessed using the following link:

https://sway.office.com/vrgPqYeAH53bPIu4?ref=Link

As a result, the key parts and topics that defined the methodology that the NESOI survey should cover were understood. Also, better comprehension was achieved about the point of view of the respondents of the survey. The role-playing exercise developed by R2M (responsible for the subsequent dissemination of the questionnaire) allowed the participants to better comprehend the needs and priorities of the stakeholders and, therefore, facilitated the design of the straightforward yet detailed set of inquiries.

As described in the following pages, the survey focuses on both the current situation of each island regarding its energy transition planning process and the particularities of the projects being developed within these plans. This collaboration between partners in the survey design and co-creation is also expected to facilitate the following tasks and improve the ratio of answered surveys.

NESOI's Co-creation Survey design: Objectives

This co-creation survey has been developed in order to:

1. Gain information on the island's current status on energy transition projects in order to better target NESOI's resources.
2. Serve as a project development template that allows respondents to identify the gaps in their planning.
3. Develop energy project metadata that identifies the type of projects currently in development, common barriers encountered by the islands and their financial needs.

NESOI's Co-creation Survey design: Key Points

NESOI co-creation survey aim is not to select the islands but to gain information in order to finetune NESOI's Technical Assistance solutions. Consequently, it is to be understood as an islands and energy transition projects readiness and assistance needs profiling survey.

Below there are some final considerations that have been followed to design the co-creation survey:

- Co-creation survey has been designed in order to make clear what NESOI is and is not about. It's not intended to be a general co-creation survey; it should not

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overlap with those already delivered (e.g. EU Islands Secretariat survey) and previously developed and the final goal is to support islands in reaching investors.

- Co-creation survey purpose is to collect relevant information on islands and on planned executable projects, in order to finetune Technical Assistance solutions NESOI will provide and gain useful insights on the selection criteria to be adopted in the design of the cascade mechanism.
- Co-creation survey has been designed to assess the maturity level of the existing projects and the financial, technical and legal structures that support their implementation.

The co-creation survey has been structured in two sections.

1. The first, "Island Level Section" is devoted to gather general information on islands and their commitment towards energy transition and an energy projects' brief overview.
2. The second, "Project Level Section", aims at understanding in higher detail which projects are in the process of being developed on the island. This section is the most relevant being strictly related to projects features, thus useful to achieve the abovementioned objectives of the survey itself. This section focuses on a specific energy project. The respondent can submit as many section 2 forms as needed, in order to give an overview of each project designed or in development.

The co-creation survey includes different type of questions: multiple choice, open questions and tables to be completed.

The questions have been developed in order to answer three main questions:

- *What is the island's current status regarding its energy transition*?

  We gather information about the current plans and projects designed or in development. Also, we ask about the support institutions that are contributing right now.

- *What are their goals in this process?*

  Expected energetic, environmental and social benefits for the island. We want to know what their main drivers are for undertaking the transition.

- *What barriers are keeping them from achieving those goals?*

  Our objective is to identify technical, organizational or legal barriers that are stopping the island's projects. Furthermore, we question about public perception for the transition as it is an important driving force in the process.

The information collected from the projects' finances will help to have a first analysis of the investment needs which will be addressed in the following WPs.

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What makes NESOI's survey different from other initiatives in this field such as EU Island Secretariat's Self-assessment matrix, ASSET project or IRENA's renewables readiness assessment is that instead of working on a transition plan level, it focuses on boosting existing project pipelines and go beyond the current development barriers.

To facilitate the answering process most of the answers are single or multiple choice. The selection of the standard answers comes from the bibliography consulted, the partners' past experiences with islands and the conclusions of the design thinking process.

Further instructions and help are available within the co-creation survey, having to do with the introduction and explanation of the co-creation survey sections and some specific questions that might be difficult to understand.

There will be a point of contact in case of any doubts or inquiries from the responders.

Country	Company	Phone	Email
Spain	CIRCE	+34 976 976 854	nesoi@fcirce.es
Italy	SINLOC	+39 049 8456 911	nesoi@sinloc.com
Greece	CERTH	+30 2311257750	djoannid@iti.gr
Croatia	WOLF	+38 51 49 25 400	nesoi@wolftheiss.com
France	R2M	+33 06 35 15 10 90	nesoi@r2msolution.com
Rest of UE	CIRCE	+34 976 976 854	nesoi@fcirce.es

The survey's set of questions are detailed in Annex I.

NESOI's Co-creation Survey design: Distribution process

NESOI's goal is to reach-out to at least 800 and receive feedback from at least 100 targeted entities.

In order to achieve this, the survey will be translated from English to the local languages of the most island-dense EU countries: Italian, French, Spanish, Croatian and Greek.

Our target respondents will include both local authorities from the EU island's and other relevant energy market players operating in the island marketspace

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The full questionnaire (section 1 and 2) will be submitted to the local authorities of EU islands. Energy communities and/or private corporate entities can submit project data via the local authority.

A partial questionnaire (Section 2) will also be submitted to Energy production companies and distribution system operators (DSOs) operating on EU islands.

The following distribution channels are being considered to reach targeted respondents through T 7.1:

- Direct contact – targeted respondents will be contacted directly by NESOI's project partners. To this purpose, the possibility of using already existing contact lists developed by the EU Island's Secretariat and Directorate-General for Energy is being discussed examined with the parties involved.
- Indirect contact – NESOI will ask Island and energy associations to relay and distribute the questionnaire though their members and share/stakeholders.
- Web contact – NESOI will publish the survey on its website, communicate it via social media. It will also ask for support by EC for its promotion (by means of publishing it on Clean Energy for EU Islands' website, etc.).
- Institutional contact – NESOI will seek coordination with Regional governments to reach out to Island in their territorial domain.

The questionnaire will be disseminated in an online format to ensure an easy and consistent data recovery process.

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Next steps

The co-creation survey will be translated into several languages in order to make sure that all islands have the ability to express their views and will be circulated (to be done in WP7), through the NESOI platform in online format to make easier for the islands to fill it up.

Although no major changes are expected, the NESOI questionnaire may suffer slight modifications during the translation and delivery phase to better accommodate it to local contexts or by restrains of the definitive versions to be uploaded.

The information and insights gathered through the questionnaire will be analysed to provide NESOI with useful inputs (which will be included in D7.2 due in month 6) on the:

- actual nature, consistency and status of executable project pipelines;
- barriers that need to be removed to deliver the identified project pipelines;
- type specialised supports islands' project pipelines already receive;

and thus, ultimately fine-tune the type of Technical Assistance support mostly needed to accelerate energy transition on EU islands.

Additionally, starting from the results of the co-creation survey, technology scouting will be carried out.

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Annex I. NESOI's Co-creation survey

The European Islands Facility NESOIs overarching objective is to act as stimulator, facilitator and concrete support to activate at mobilizing in excess of 100 M€ investments in sustainable energy transition projects in some 60 inhabited EU islands by 2023.

The European Islands Facility (hereafter NESOI) will provide Islands with a physical and digital platform in the form of:

i) first-step Technical Assistance cascade funding and competencies for the activation of energy transition project pipelines and facilitating access to robust project funding solutions;
ii) one-stop-shop, where islands can find information, good practices, ideas and effective organizational, technical and financial tools to support the whole value chain.

NESOI works in close cooperation with the Clean Energy for EU Islands Secretariat and all other institutional actors involved in the promotion, planning and implementation of energy transition on islands. It will support the process by converting islands' Clean Energy Transition Agendas, Sustainable Energy Action Plans and eligible energy related project pipelines at large, etc. into executable projects.

The aim of the questionnaire is to gather useful insights on the presence, characteristics, readiness levels of single or multiple planned energy transition projects based and, based on the evidence provided, fine tune the Technical Assistance solutions originally envisaged by the NESOI team.

Respondents should be strongly encouraged to provide NESOI the information requested as this will improve the capability of the facility to address and remove existing project barriers and constraints thus providing optimal Technical Assistance solutions as well as effectively contributing to the fulfilment of EU energy transition policies and targets.

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NESOI's Survey instructions

The survey will take 15 to 20 minutes. Here are some brief instructions to complete the questionnaire properly.

The questionnaire is divided into two sections:

- **SECTION 1: ISLAND LEVEL**: The objective of this first section is to position the state of the island from an "energy status" point of view.
- **SECTION 2: PROJECT LEVEL**: This section focuses on a specific energy project. You can submit as many section 2 forms as needed, in order to give an overview of each project designed or in development.

Section 1 must be filled in before Section 2.

Please select the answers that you deem most adjusted to your reality considering the issue at hand. Remember that submitting complete information is important in order to properly address how in the next phases NESOI's Technical Assistance could support energy transition projects in the island context. Here are some recommendations:

- Read the issues and contents carefully and in the order in which they are displayed, as the questions have been specifically designed to be filled in the order in which they appear.
- The more information that can be provided, the better the analysis results that can be obtained.
- Please keep in mind that there are questions that are multiple choice. This fact is conveniently indicated in the issues affected ("*Select one or more of the following options*") vs one choice questions ("*Select one of the following options*").
- Feel free to attach any documents that could offer more detailed project information, such as feasibility studies.
- As questions from fellow authorities come in, we will be updating a FAQ section to better help with the questionnaire on www.nesoi.eu.

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SECTION 1: ISLAND LEVEL

The objective of this first section is to position the state of the island from an "energy status" point of view. Thus, this section will serve to get an idea of the islands' strategies and structures for its energy transition.

In this first section, the following issues are presented:

- State of your island's planning process on energy transition and decarbonization.
- Existence of energy agency or similar institution to support these plans and/or project.
- Drivers to implement energy programs/plans/projects.
- Sources connected with mainland/other islands.
- List and key drivers of existing energy transition project pipelines.
- Availability and/or knowledge of different sources of finance.

Please note that there are issues that are multiple choice.

---

1. **Please indicate, which is the current state of your island's planning process on energy transition and decarbonization?** Select one of the following options:

    a. We do not have a strategic plan on energy.
    b. We have a Sustainable Energy Action Plan (SEAP) or a Sustainable Energy and Climate Action Plan (SECAP)
    c. We have a Clean Energy Transition Agenda (CETA)
    d. An energy related strategic plan is being developed– *Please give more information in the comment box*.
    e. Comment: _____

    Document upload:

    - *If the answer is b: Please upload your Sustainable Energy Action Plan and/or Sustainable Energy and Climate Action Plan*
    - *If the answer is c: Please upload your Clean Energy Transition Agenda*

2. **If you have in place one or more of the above stated strategic plans on energy, please indicate its current implementation stage?** Select one of the following options:

    a. The majority of projects included in the plans has already been implemented (approximately >70% of total investments planned)
    b. Only a few projects included in the plans have been implemented (approximately <30% total investments planned)

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c. None of the projects included in the above stated plans has already been implemented.
d. Currently planning to implement the first projects included in the plans.

3. **Have you already implemented any of the following energy transition projects?**

a. Energy Efficiency of public lighting
[ ] No [ ] Marginally [ ] Significantly [ ] Completely
b. Energy Efficiency in public building
[ ] No [ ] Marginally [ ] Significantly [ ] Completely
c. Energy Storage System on existing carbon fuel driven power plants
[ ] No [ ] Marginally [ ] Significantly [ ] Completely
d. Energy Storage System on existing Renewable Energy power plants
[ ] No [ ] Marginally [ ] Significantly [ ] Completely
e. Electric Mobility solutions and charging infrastructures
[ ] No [ ] Marginally [ ] Significantly [ ] Completely
f. Renewable Energy power plants
[ ] No [ ] Marginally [ ] Significantly [ ] Completely (i.e. capacity saturated)

4. **Do you have an energy agency or similar institution to support these plans and/or projects?** Select one or more of the following options:

a. A local agency that is part of the Local Authority. Name: _____
b. At local level, but it is independent from the Local Authority. Name: ___
c. At regional level. Name: _____
d. At national level. Name: _____
e. No
f. Comment: _____

5. **Please, select the competences provided by the energy agency (to support the plans mentioned in question 3)** Select one or more of the following options:

a. Program Management
b. Engineering
c. Procedural and legal
d. Economic and financial
e. R+D+I project participation

6. **What are the main drivers to implement energy programs / plans / projects on the island?** Select the three more relevant from the following options and rank them in order of importance (1,2,3 in the [ ]:

Ranking
[ ] Environmental benefits
[ ] Living cost reduction
[ ] Energy production cost reduction
[ ] Improve the quality of energy supply

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[ ] Job creation
[ ] Improve island image (i.e. better branding to attract tourists)
[ ] Economy competitivity
[ ] Comply with regulation and/or nation objectives/commitments
[ ] Other, please specify: _____

7. **Which of these energy sources are connected with mainland/other islands through infrastructure?** Select one or more of the following options:

   a. Electricity
   b. Gas
   c. Other: _____

8. **What kind of financing is available in your territory to finance the development of one or more Energy Transition projects?** Please, indicate your confidence/knowledge level in a scale from 1 (low) to 4 (very high) for each case, and the name of the funding if available.

	Level of confidence/knowledge toward type of funding (0 to 4)	Name of funding line
Local funds		
Regional funds		
National funds		
European funds		
Private funds		
Fiscal incentives		
Alternative financing instruments (crowdfunding, crowdlending, equity funds, etc.)		
Comment:		

[For online programming purposes use following taxonomy: 0) Do not know; (1) Low; (2) Medium; (3) High; (4) Very high

9. **Which are the main energy transition projects to be developed in your territory?** Please, consider the following instructions:

   - Please list an index of all of the projects you will submit in subsequent Section 2. You can also add more projects here that are less important or have less detailed information.
   - Add as many projects as you consider necessary. All of them should be non-started (before construction/implementation) projects.
   - Upload document related to each project if available

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Project name	Project 1	Project 2	…	Project n	TOTAL
Project subcategory	[List 1]	[List 1]		[List 1]	
Timing (estimated start year)	[List 2]	[List 2]		[List 2]	
Project status	[List 3]	[List 3]		[List 3]	
Legal structure	[List 4]	[List 4]		[List 4]	
Overall investments (€/000)					
Funding available (€/000)					
Funding Needed (€/000)					

Document upload: Please upload project documents if available (e.g. feasibility study, etc.)

[For online programming purposes: The four lists of precompiled answers to be used in question 8 combo boxes are the following:]

[List 1]	[List 2]	[List 3]	[List 4]
• Retrofitting of existing buildings' envelope • HVAC systems (Heating, Ventilating and Air Conditioning) • Lighting • Industrial heat production • Electrical equipment • Electricity generation and distribution • Electricity production from RES • Thermal energy production from RES • Co-generation plants • Low carbon vehicles acquisition • Deployment of charging Infrastructure for electric vehicles • Urban sustainable mobility measures • Facility monitoring, consumption accounting and energy management • Energy storage • Other specify	• 2020 • 2021 • 2022 • 2023 • 2024	• No planning activity started • Prefeasibility study • Early stage design • Executive design • Permitting • Procurement	• Public tender • Private initiative • PPP/concession • Other specify

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SECTION 2: PROJECT LEVEL (one set of questions per project)

After the general questions of SECTION 1, this next section of the co-creation survey focuses on specific energy projects. This set must be answered for every project (that is to say, if there are 2 projects, you must fill in two sets of questions).

In this first part, issues related to the project promoter, project type/category, implementation and financial status, technical and economic barriers, public perception and results are presented.

Please note that there are questions that are multiple choice.

---

1. **Please, indicate the Project name and description:**
    a. Name: _____
    b. Brief description (one or two lines):

2. **Please, indicate the name of the Project promoter/s:**

    _____

3. **Please, indicate the organization category and subcategory type that better describes the Project promoter:**

    [two-level list: Organisation type / organisation subcategory]

    a. Public initiative (tender)
        i. Local authority
        ii. Regional government
        iii. National government
        iv. Public company

    b. Private initiative
        i. Energy producer
        ii. Distributed System Operator (DSO)
        iii. Citizen/community consortia

    c. Public Private Partnership (PPP)/Concession

    d. Other: _____

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4. From the following list, please select the project category and subcategory that better describes your project.

[Three level list: Project category / project subcategory / subcategory details]

1) Energy efficiency

a) Retrofitting of existing buildings' envelope

b) HVAC systems (Heating, Ventilating and Air Conditioning)

i) District heating
ii) Fuel change
iii) Retrofitting of existing heating/cooling installations at single building level
iv) Installation of saving systems (free-cooling, evaporative cooling, heat recovery)
v) Solar thermal facilities for domestic hot water (DHW), swimming pools, heating or industrial uses.
vi) Improvement of thermal insulation (boilers, distribution system, etc.)
vii) Replacement of heating units (underfloor heating, low temperature systems)

c) Lighting

i) Public lighting
ii) Public buildings
iii) Public and private buildings

d) Industrial heat production

i) Replacement of industrial heat equipment by fuel change (replacement by gas or by biomass)
ii) Replacement of industrial heat equipment with more efficient models
iii) Local Industrial waste heat valorisation
iv) Replacement of insulation or refractory materials

e) Electrical equipment

i) Electrical appliances (higher energy rating, etc.)
ii) Electric motors (replacement of existing motors with more efficient ones (IE3, IE4), installation of variable speed drives and soft starters)
iii) Reactive energy compensation with capacitor banks
iv) Replacement of existing electric transformers by high efficiency equipment

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v) Compressed air systems (replacement of compressors by more efficient models, installation of variable speed compressors or installation of heat recovery systems)

f) Electricity generation and distribution

i) Higher efficiency diesel generator management
ii) Diesel generator replacement
iii) Integration of battery at a diesel generator level to enhance the operation efficiency
iv) Renovation of transformers and cabinets
v) Renovation of cabling

2) Renewable energy

a) Electricity production

i) Solar PV
ii) Solar thermal
iii) Wind
iv) Hydro
v) Marine
vi) Other _____

b) Thermal energy production

i) Biomass
ii) Biogas
iii) Solar thermal
iv) Geothermal
v) Other _____

c) Co-generation plants

3) Sustainable mobility

a) Low carbon vehicles acquisition
i) For public transport (buses, taxis, etc.)
ii) Municipal Fleet
iii) Private and/or commercial

b) Deployment of charging Infrastructure for electric vehicles

c) Urban sustainable mobility measures
i) New public transportation infrastructures
ii) Vehicle Sharing Platforms (carpooling, carsharing)
iii) Installation of bicycle-sharing systems

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iv) Design and execution of cycle paths (bike path)
v) Park and ride facilities
vi) Zero or low emission zones

4) Energy management

a) Facility monitoring, consumption accounting and energy management

i) Implementation of energy or environmental management systems (ISO 14.001, ISO 50.001, etc.)
ii) Monitoring systems for energy consumption both electrical and thermal
iii) Control and automation systems (consumption accounting, management and optimization of electrical consumption, home and industrial automation)

b) Energy storage

i) Batteries
ii) Hydrogen
iii) Other: _____

5. Investment and financial data
Currency exchange reference value: average 2019, VAT excluded

a. Overall investment: _____ [€/national currency]
b. Funding currently available: _____ [€/national currency]
c. Funding needed: _____ [€/national currency]
d. Type of funding available (check one or more options in [ ]):
[ ] Own funding
[ ] Third party grant
[ ] Subsidized lending
[ ] Market priced lending
[ ] Leasing
[ ] Equity (only applicable for PPP schemes)

If Equity has been flagged have been selected please answer the following
e. Equity funds to be invested by the financial partner _____ [€/national currency]
f. Approximate expected payback: _____ [years]

Document upload: Please upload if available the project's preliminary financial planning and estimates

6. Please indicate, which, if any, technical barriers have prevented the development of this project? (multiple choice)

a. Scope/definition is not agreed. Should be revised

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b. There are doubts about its final results. Third-party verification needed
c. Lack of enough skilled workforce for Operation & Maintenance
d. Project's dimension does not correspond with high seasonality
e. Other specify _____

7. Please indicate, which, if any, public perception barriers might prevent the development of this project? (multiple choice)

a. Concern for the resulting quality or security of energy supply
b. Possible esthetical (landscape) or environmental impacts (flora, fauna, land use) caused by the project
c. Reluctance to change current lifestyle
d. Competitiveness conflicts with conventional energy sources-based economy
e. Possible increment of prices
f. Other specify _____

8. Please indicate, which, if any, organizational barriers might prevent the development of this project? (multiple choice)

a. Definition of roles in the project
b. Decision-making conflicts between local/regional/national entities
c. Lack of knowledge about possible collaborating partners, etc.
d. Other specify _____

9. Please indicate, which, if any, legal barriers might prevent the development of this project? (multiple choice)

a. Uncertainty in national legislation or incoherence between local, regional, European legislation
b. Legal complexity
c. Environmental regulations
d. Preserved land
e. Other specify _____

10. Please indicate, which, if any, economical barriers might prevent the development of this project? (multiple choice)

a. Competition for capital prioritizes non-energy related investments
b. No additional own funds available
c. Financial problems due to retroactive changes of renewable energy support schemes
d. Lack of substantial private finance
e. Other specify _____

11. Please, complete the results expected for the projects implementation.

a. Expected energy savings (kWh per year)
b. Expected avoided emissions (tCO_2 per year)

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12. Project implementation status:

a. Current phase:
   i. No planning activity started
   ii. Prefeasibility study
   iii. Early stage design
   iv. Executive design
   v. Permitting
   vi. Procurement

b. Expected time from current status to start date: _____ [months]

13. Please, indicate which is the current financial status of your project?

a) Funds are already available
b) Funds are not already available (all funding to be sourced)
c) Part of the funds are not already available. Indicate approximate share of missing fund as % of total estimated investment): _____

If b) or c) have been selected please answer the following (if information available and disclosable):

d) Public funding third party grant opportunities are being pursued. List of public entities and/or grant lines being targeted: _____
e) Development banks financing opportunities are being pursued. List of development banks and subsidised financing lines being targeted): _____
f) Private financing opportunities are being pursued or have manifested interest. List of potentially interested/targeted investors (eg. investment funds, banks, private companies etc.): _____

14. In case of assistance needs, what topic would be the most useful for this project? (multiple choice)

a. Technical expertise to better define the project options and costs
b. Economic and financial expertise to define sustainability profiles, risk mitigation and implement optimal financing solutions
c. Legal and procedural expertise to define optimal contractual arrangements and tendering processes
d. All of the above
e. Contents of a) and b)
f. Contents of b) and c)
g. Contents of a) and c)
h. None of the above

15. **Please, indicate if there is another project your Island would like to submit to the NESOI platform.**
   a. [Re-start section 2 with new project]
   b. No [End of survey, thanks for your most useful support]

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