

Contents / PART B

- The NESOI platform: bridging the gap between ideas and implementation
- Financial pairing: interaction between the islands' projects and the potential sources of funding
- Technology pairing: technical solutions and innovations for islands decarbonisation
- Q&A

Objectives of the platform



PART B

The NESOI platform

Financial pairing

Technology pairing

Users of the platform

PART B



**PROJECT OWNERS
= SEEKERS**



**PROVIDERS
(TECHNO / FUNDING)**



VISITORS

All users can:

- Create personal profile for participation in NEF Platform and its tools
- View projects, funding and cooperation opportunities
- Get notifications for the best matches regarding project, funding and cooperation opportunities
- Get notifications for best matches regarding project owners and funders
- Access e-learning content related to transition energy projects

**The NESOI
platform**

Financial
pairing

Technology
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Users of the platform

PART B



PROJECT OWNERS = SEEKERS

- Participate in Open Calls
- Create content in projects which are the investment opportunities
- Create content in cooperation opportunities
- View projects, funding and cooperation opportunities
- Get notifications for the best matches regarding funding and cooperation opportunities
- Get notifications for best matches regarding funders
- Communicate through chat or email with funders



The NESOI
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Users of the platform

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PROVIDERS

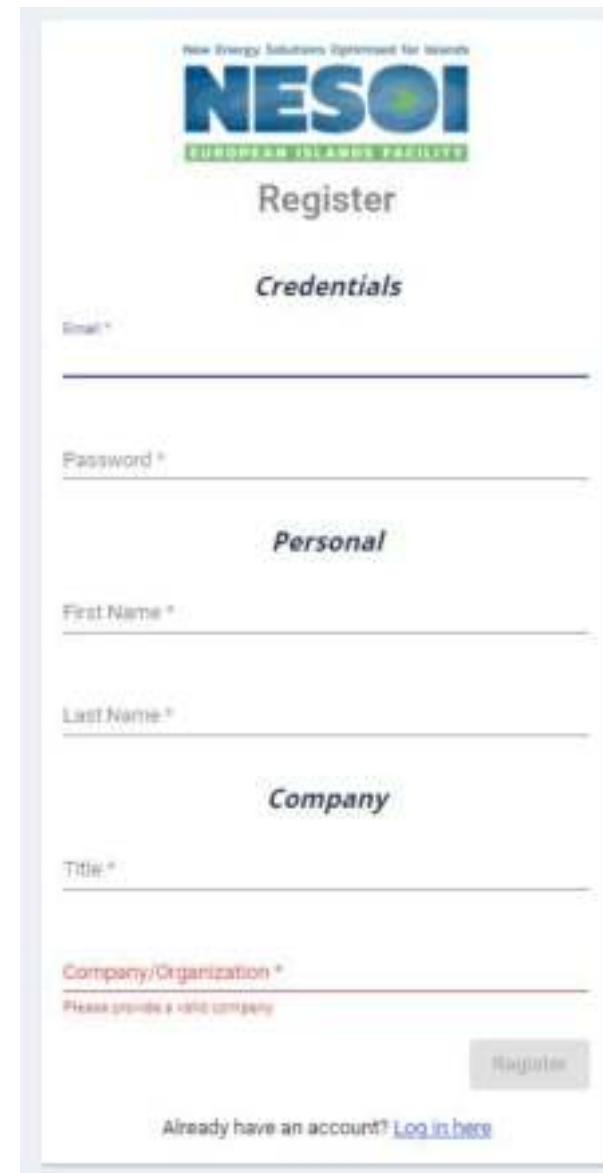
- Create content in financial/funding opportunities
- Create content in cooperation opportunities in terms of offering expertise in technologies
- View projects, funding and cooperation opportunities
- Get notifications for the best matches regarding projects and cooperation opportunities
- Get notifications for best matches regarding project owners
- Communicate through chat or email with project owners

Users registration/login

- User enters the required information
- In Company/Organization field, the available names appear. If the user does not find his/her, he/she types it and the system stores it as new entry



The screenshot shows the NESOI Login page. At the top, it says "New Energy Solutions Optimized for Islands" and features the NESOI logo with "EUROPEAN ISLANDS FACILITY" below it. The word "Login" is centered. Below it, there are input fields for "Email*" (containing "elithoso@gmail.com") and "Password*" (masked with dots). A "Forgot Password?" link is to the right of the password field. A blue "Login" button is at the bottom right. At the very bottom, it says "Don't have an account? [Register here](#)".



The screenshot shows the NESOI Register page. At the top, it says "New Energy Solutions Optimized for Islands" and features the NESOI logo with "EUROPEAN ISLANDS FACILITY" below it. The word "Register" is centered. Below it, the word "Credentials" is displayed. There are input fields for "Email*" and "Password*". Below these, the word "Personal" is displayed, followed by input fields for "First Name*" and "Last Name*". Below these, the word "Company" is displayed, followed by an input field for "Title*". Below that is a red-bordered input field for "Company/Organization*" with the text "Please provide a valid company" below it. A grey "Register" button is at the bottom right. At the very bottom, it says "Already have an account? [Log in here](#)".

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The NESOI
platform

Financial
pairing

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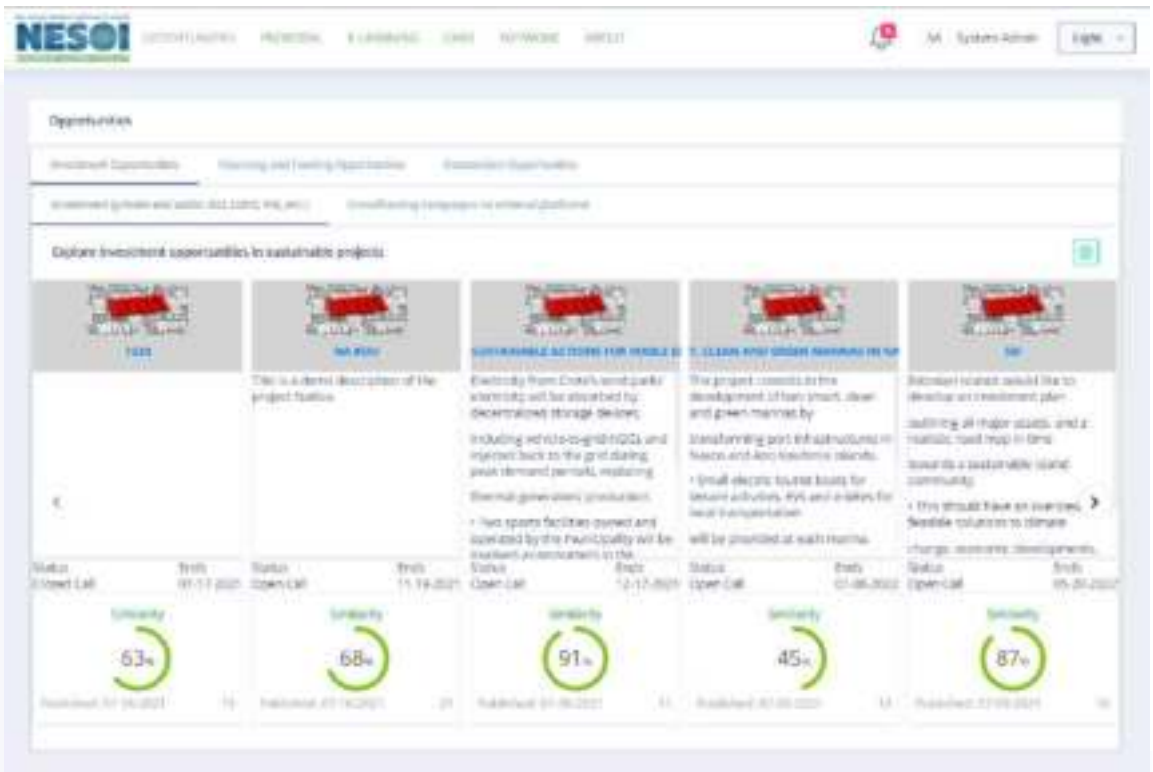
Administrator's accessibility

PART B

The NESOI platform

Financial pairing

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Simple user's profile



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The NESOI platform

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Simple user can edit information regarding his/her personal data and NOT the organization's data. Once he/she chooses an organization, information are automatically added.

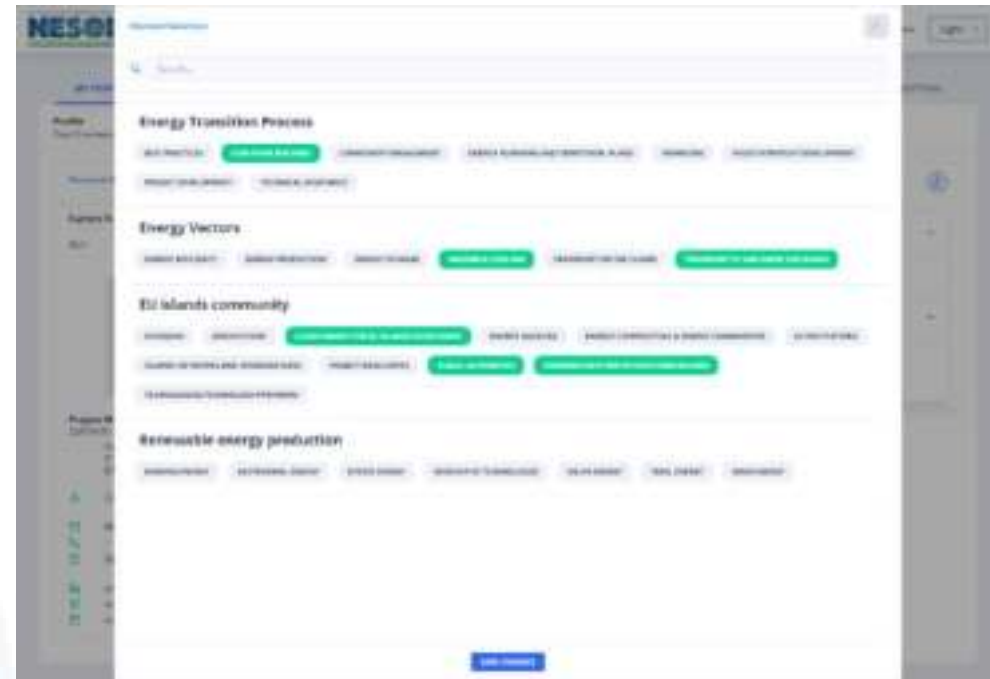
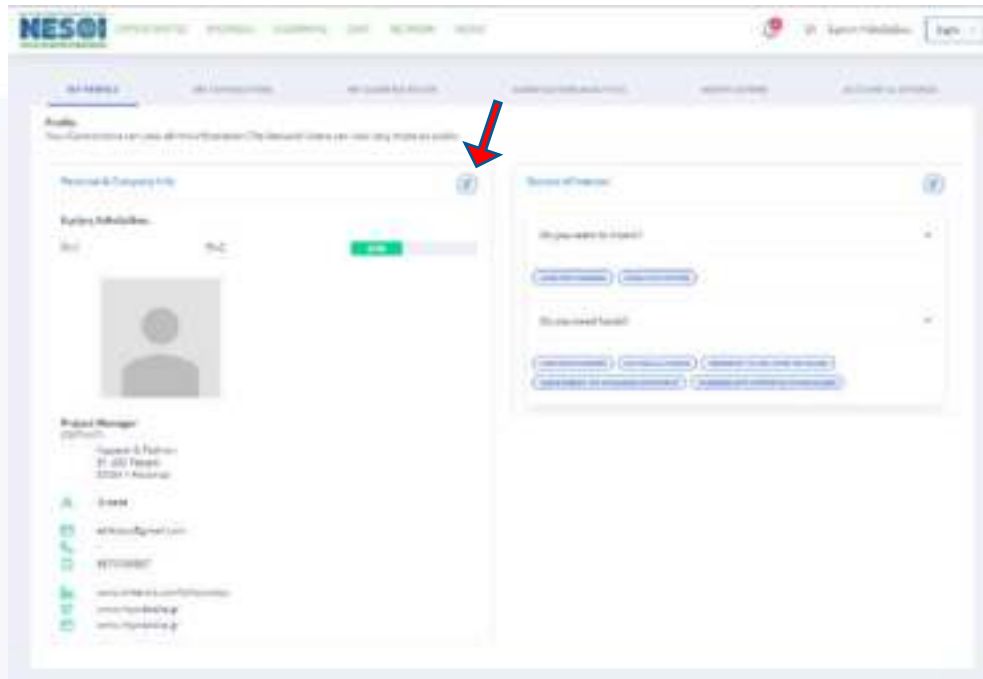
Feeding matchmaking engine

PART B

The NESOI platform

Financial pairing

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Account & Settings

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The NESOI platform

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NESOI OPPORTUNITIES PROPOSAL E-LEARNING CHAT NETWORK ABOUT

EA Euphyn Pabellonau Light

MY PROFILE MY CONNECTIONS MY EMPLOYED ROUTE CERTIFICATION ANALYTICS NOTIFICATIONS **ACCOUNT & SETTINGS**

Profile
Your Connections can view all this information. The Network Users can view only those as public.

Settings

Categories
Select the categories that best describe you to allow better results and recommendations.

The Owners - Seekers

The Providers

Account

Credentials

Email*

New Password*

Projects - Financial Opportunities - Technical Providers

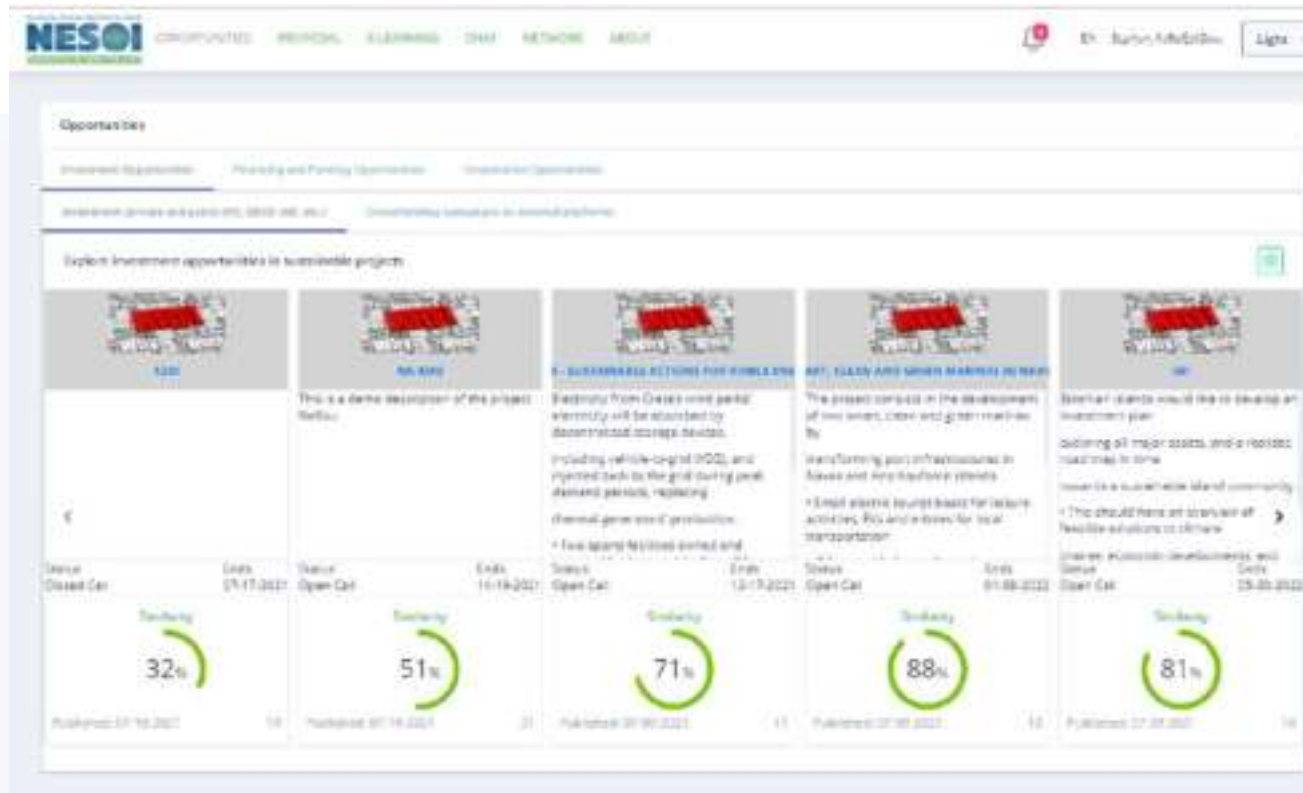
PART B

The NESOI platform

Financial pairing

Technology pairing

AND manual creation of content ->



The screenshot shows the 'Create New Investment Opportunity' form. It includes sections for 'Basic Information' (Title, Description, Address, Project Type), 'Dates' (Start Date, End Date), and 'Tags'. There are also checkboxes for 'Financial pairing' and 'Technology pairing'.

Create New Investment Opportunity

Basic Information

Title:

Description:

Address:

Project Type:

Dates

Start Date:

End Date:

Tags

☐ Financial pairing

☐ Technology pairing

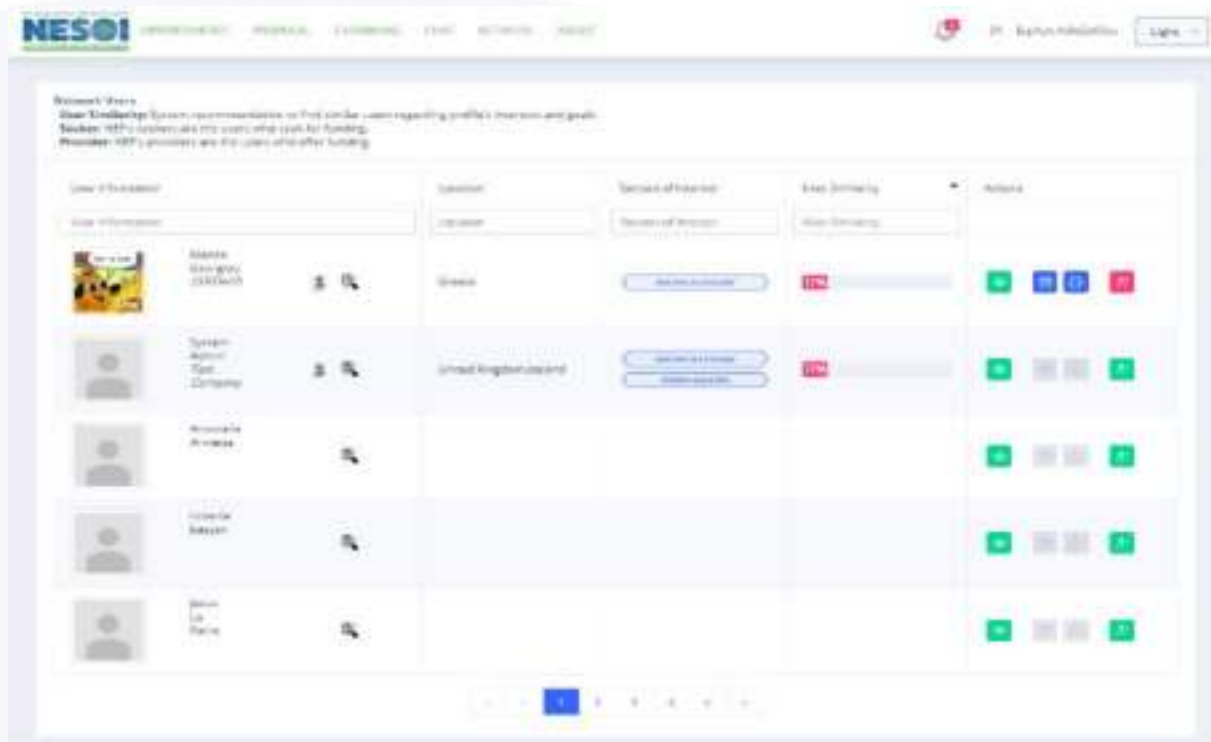
Online NESOI's Community

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The NESOI platform

Financial
pairing

Technology
pairing



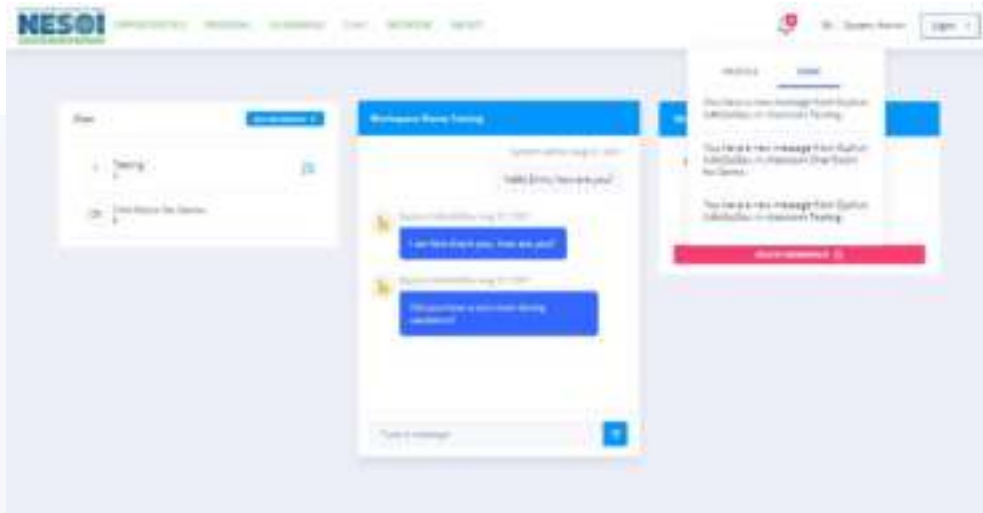
Co-creation tools

PART B

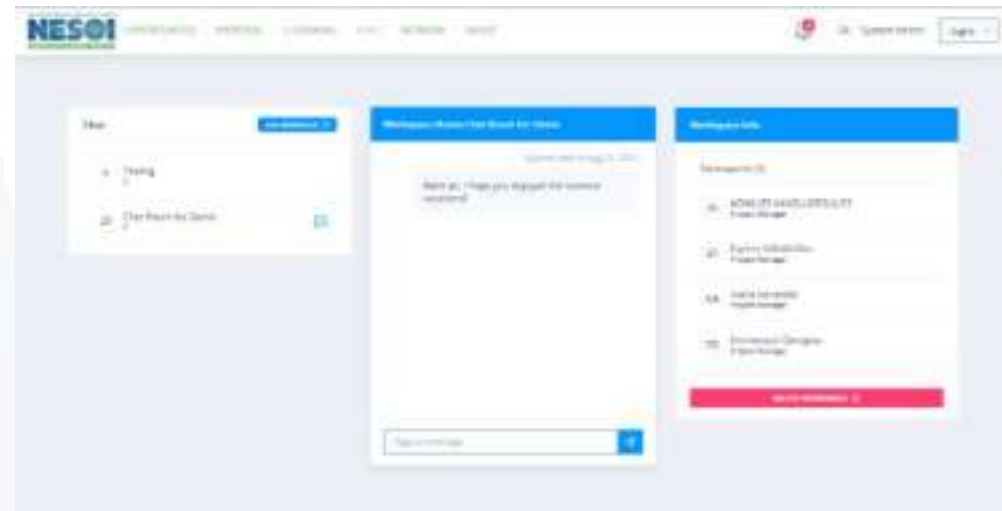
The NESOI platform

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→ 1 to 1 Workspaces



← 1 to ∞ Workspaces

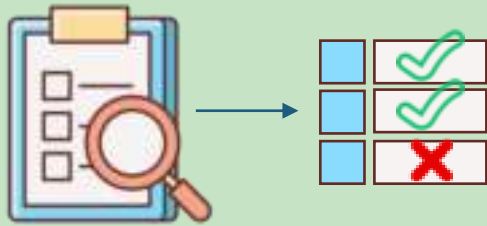
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ACCESS TO FINANCING OPPORTUNITIES

PART B

1/ APPLICATION AND PROPOSAL PREPARATION



2/ TECHNICAL ASSISTANCE



The NESOI
platform

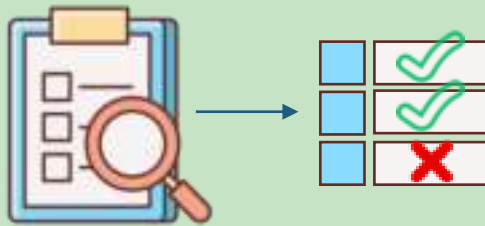
**Financial
pairing**

Technology
pairing

ACCESS TO FINANCING OPPORTUNITIES

PART B

1/ APPLICATION AND PROPOSAL PREPARATION



The NESOI
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**Financial
pairing**

Technology
pairing

What is the impact that NESOI seeks?

- In order to be eligible for NESOI support, projects must have a **minimum “size” to have an impact** on the energy systems of the island or island clusters on which they are located
- In order to meet the project objectives and avoid jeopardizing the support provided, NESOI expects projects to require a **minimum support of 50,000 €** (as a combination of cascade funding and technical assistance)
- and being characterized by an **indicative leverage factor of 20x**

PART B

The NESOI platform

Financial pairing

Technology pairing

How to calculate the leverage effect?

Cost of the Investment divided by the amount of NESOI contribution:

$$\text{Leverage} = \frac{\text{Foreseen mobilized investment (€)}}{\text{Requested NESOI contribution (€)}} \approx \text{or} > 20$$

PART B

The NESOI platform

Financial pairing

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What is a mobilized investment?

For eligibility check purposes, the mobilized investment considered for leverage calculation purposes is as indicated and justified by the project promoter in the application submitted.

Given the different nature and maturity level of these three categories of projects, this entails a need to differentiate the definition of the “mobilized investment”, as shown in Table 1.

Table 1. Definition of Mobilized Investment Depending on Project Development Stage

Project development stage	Definition of “mobilized”
Entry level	Economic and impact value of the investments foreseen by the project promoter and defined in the analysis and studies delivered.
Conceptual design level	Economic and impact value of the project foreseen by the project promoter and defined in the analysis and studies delivered.
Deployment level	Economic and impact value of the project as reported in the tender documents or contracts signed.

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The NESOI
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Financial
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Technology
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How to estimate the requested NESOI contribution? (1/3)

- NESOI will support projects in the whole life cycle



Figure 1: Project phases

- Standard menus have already been prepared and we strongly encourage their use

PART B

The NESOI
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**Financial
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How to estimate the requested NESOI contribution? (2/3)

- For each Menu, the indicative NESOI contribution is indicated
- This value will be considered coherent in standard conditions (limited number of sub projects, one main beneficiary, standard technological complexity)
- In any case discrepancies must be explained and justified in the application form

PART B

The NESOI
platform

**Financial
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How to estimate the requested NESOI contribution? (2/3)

PART B

MENU	INDICATIVE VALUE
PLANNING DOCUMENTS AND SUSTAINABLE URBAN MOBILITY PLAN	€ 20,000 - € 40,000
FEASIBILITY STUDY	€ 40,000 - € 60,000
DUE DILIGENCE	€ 40,000 - € 60,000
SUPPORT TO LAs IN TENDER PROCEDURES IN PPP	€ 40,000 - € 60,000
SUPPORT TO LAs FOR THE EVALUATION OF PPP PROPOSAL BY PRIVATE PROMOTERS	€ 40,000 - € 60,000
SUPPORT TO LAs FOR WORKS/SERVICES TENDERING PROCEDURES	€ 40,000 - € 60,000
SUPPORT IN THE APPLICATION TO TECHNICAL ASSISTANCE PROGRAMS/ FUNDS	€ 30,000 - € 40,000
ECONOMIC & FINANCIAL MODELLING AND FUND MATCHING	€ 30,000 – € 40,000

The NESOI platform

Financial pairing

Technology pairing

Application form

The following information must be provided regarding economic and financial aspects:

Section	Indicator	
Project description and main features	Overall investment of the global project (EUR) = mobilized investment	Provide and explain the overall investment of the global project (beyond NESOI) Detail by single initiative if more actions are included in the proposed overall project
	<i>Financial structure (EUR)</i>	<i>Description of the financial structure (i.e., amount and type of the funds available, amount and type of resources to be pursued, etc.</i>

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The NESOI platform

Financial pairing

Technology pairing

Application form

PART B

Section	Indicator	
Project execution and NESOI support	Financial Support (EUR)	<ul style="list-style-type: none">the Grant amount ($\leq 60,000\text{€}$) requested by each partner (whether equal or different to the indicative price);justification for the Grant amount requested (max. 500 characters);
	<i>Pay-back time (Years)</i>	<i>Expected pay-back time of the overall investment</i>

The NESOI platform

Financial pairing

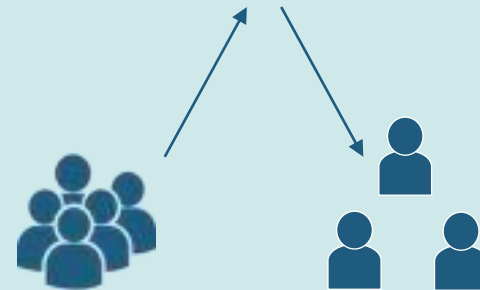
Technology pairing

ACCESS TO FINANCING OPPORTUNITIES

PART B

2/ TECHNICAL ASSISTANCE

NESOI



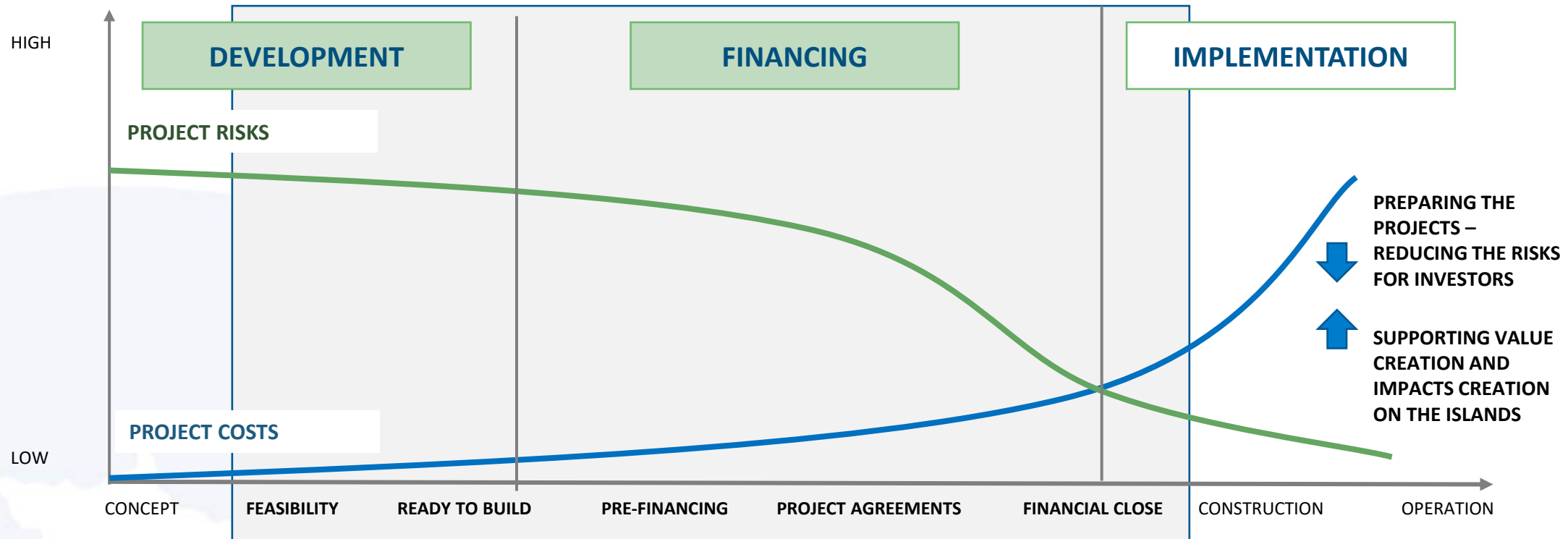
The NESOI
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**Financial
pairing**

Technology
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TARGET PROJECTS

NESOI will support projects in the development and financing phase: the main goal of the Facility is to activate investments and support the access to existing financing instruments



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The NESOI
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Financial
pairing

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pairing

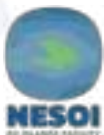
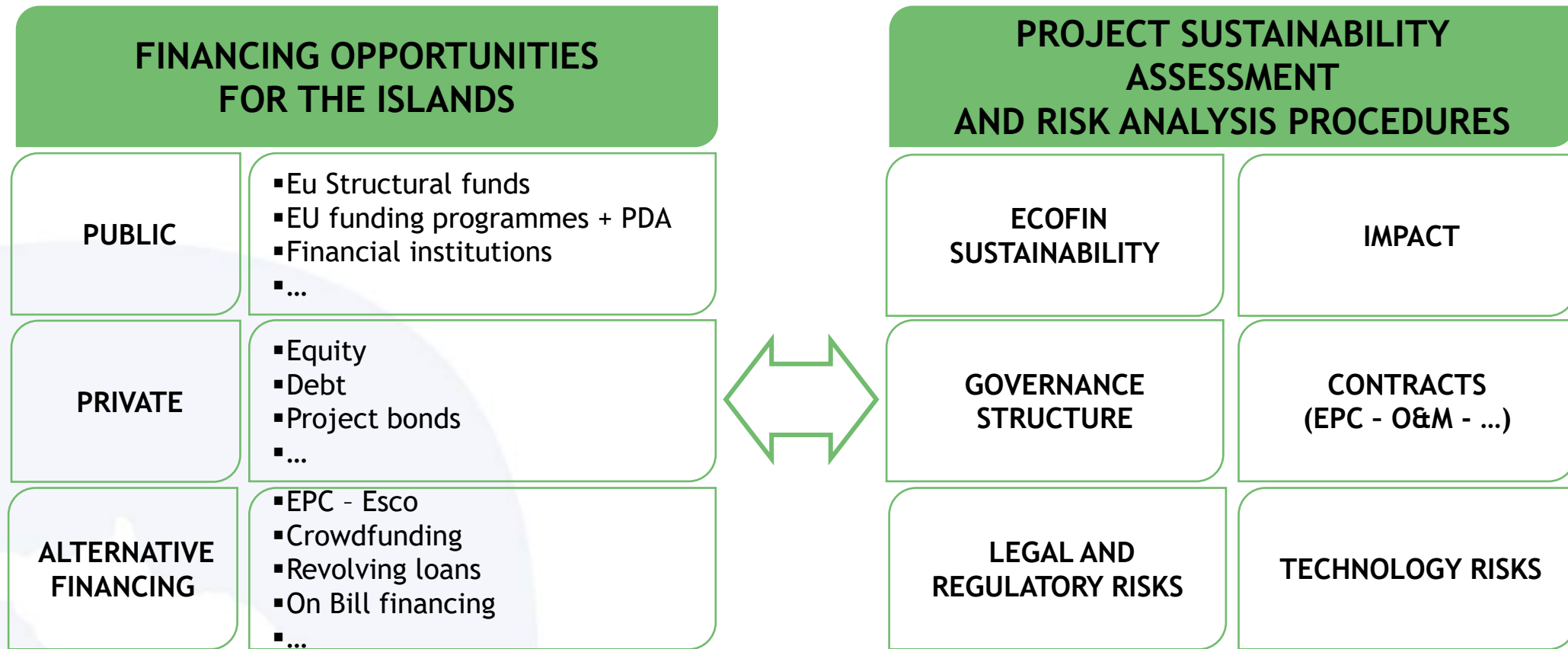


Figure: Renewable energy projects, implementation phases, value creation and risk profile. Adapted from : Jovičić, 2015
Green Finance,2019,1(2) <http://dx.doi.org/10.3934/GF.2019.2.94>

RISKS AND FINANCING OPPORTUNITIES

Each project, and each funding opportunity will be different: a specific match should be found between financing opportunities, financing assessment, risk analysis procedures and projects



PART B

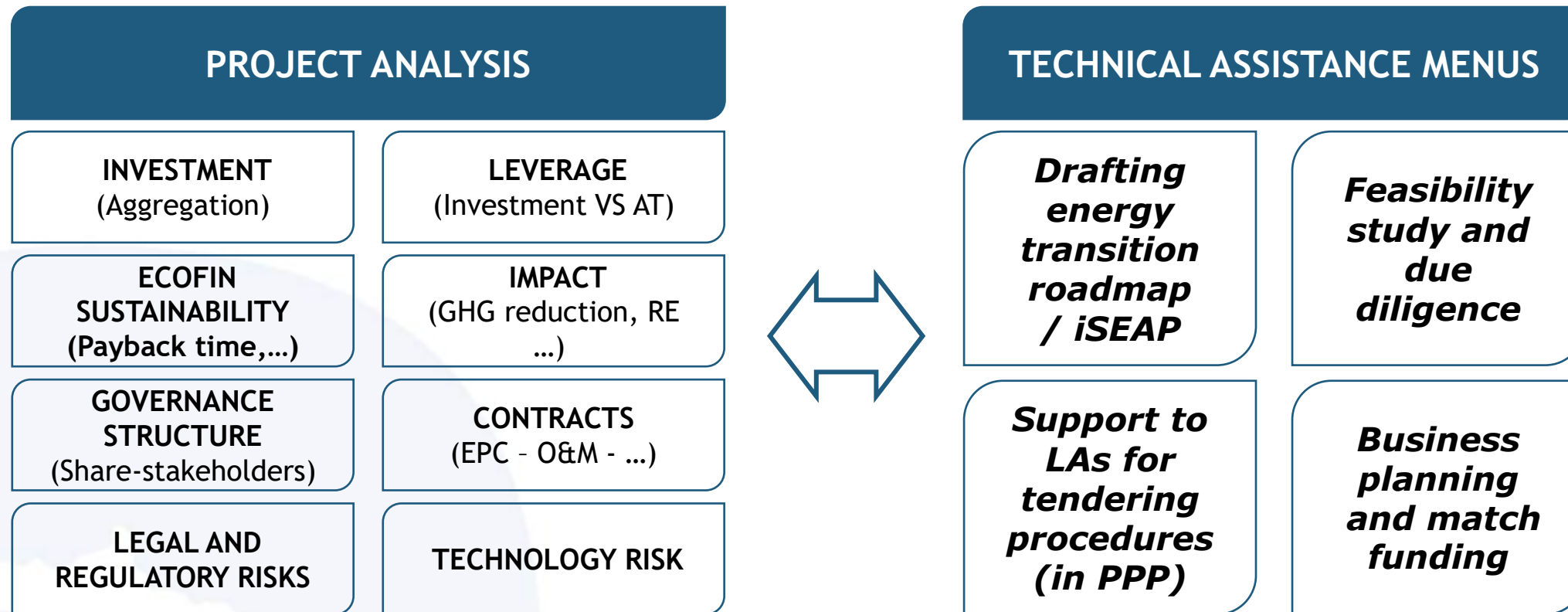
The NESOI platform

Financial pairing

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NESOI SUPPORT

NESOI will support the projects in improving some of these conditions in order to facilitate the access to finance



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The NESOI platform

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PLANNING DOCUMENTS

Support in developing high-level planning activities, it is suitable for PA which are more and more often required to define a clear Energy Transition strategy as well as complying, where applicable, to minimum planning requirements set out by donors to access funding

TECHNICAL ASSISTANCE MENUS - Ecofin aspects

Sustainable Energy and Climate Action Plan - SECAP

Mapping of the main financial instruments available to finance the identified actions and preliminary indication of the **steps** to approach them (e.g. web link or contact; upcoming deadline for funds requests, etc)

Sustainable Urban Mobility Plan - SUMP

Mapping of the main financial instruments available to finance the identified actions and preliminary indication of the **steps** to approach them

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The NESOI
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**Financial
pairing**

Technology
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FEASIBILITY STUDY

This service is suitable for Local Authorities willing to investigate which is the best technological solution, the most appropriate procedure to procure the works and/or services, **the optimal financing solution** and the steps to activate it

TECHNICAL ASSISTANCE MENUS - Ecofin aspects

FEASIBILITY STUDY

- Cost Benefit analysis and socio economic and environmental impact evaluation and identification of the preferred option
- Definition of the technical, economic and financial project inputs for selected project option (assumption book)
- Risk analysis and identification of available mitigation strategies (e.g. procedural, technical, contractual, etc.)
- Assessment of existing procurement options (e.g. tender, PPP, etc.)
- **Financial modelling and identification of target scenario**
- **Identification of financing/funding options**
- Action plan and identification of project monitoring procedures

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**Financial
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DUE DILIGENCE

This service is suitable for **already structured project** in the process of **applying for funding** where the donor or lender requires an in-depth analysis specific aspects of the investment they are evaluating

TECHNICAL ASSISTANCE MENUS - Ecofin aspects

DUE DILIGENCE

- Set up of **data room** with all relevant project documentation (technical, contractual, economic and financial, impact, etc)
- Analysis of the soundness and coherence with current market practices of the assumed economic and financial inputs and related modelling
- **Risk matrix** and, for each relevant risk category, estimate of the potential risk impact and available mitigation strategies
- Listing of **condition precedents** (CPs) for successive project implementation steps (e.g. tender adjudication, financial close and disbursement, start construction, etc.)
- Action plan and project identification of monitoring procedures

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**Financial
pairing**

Technology
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SUPPORT TO LAs IN TENDER PROCEDURES

Support in structuring the PPP procurement procedures needed to implement an already defined project

TECHNICAL ASSISTANCE MENUS - Ecofin aspects

DUE DILIGENCE

- Critical review of the Cost Benefit analysis and socio economic and environmental impact evaluation
- Definition of the technical, investment, **financing, revenue stream and management costs** inputs for selected project option
- Review and stress test of submitted **financial modelling and sustainability scenarios** (*where relevant*)
- Risk analysis and identification of available mitigation strategies (e.g. procedural, technical, contractual, etc.)
- **Financial modelling and identification of target scenario**
- Definition of the targeted tendering procedure and guidelines for the PPP contracts
- Action plan and identification of project/process monitoring procedures
- **Drafting of PPP tender documentation**

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APPLICATION TO TA FUNDS

Support in structuring and writing effective **application to other funds/programs** that typically provide large scale technical assistance resources to develop projects already identified needing dedicated expertise for their structuring.

TECHNICAL ASSISTANCE MENUS - Ecofin aspects

SUPPORT IN THE APPLICATION TO TECHNICAL ASSISTANCE PROGRAMS/ FUNDS

- Collection and analysis of technical, procedural financial, parametric data and information needed to configure the application
- **Drafting the application**, support in the submission
- Program management and **ongoing support in the interaction** with the targeted Technical Assistance facility donor

This service has been designed for public and private entities to drive them through the application process, structuring the project according to the requirements of the facility (typically large scale or portfolios of aggregated projects). **The targeted Technical Assistance facility will have to be identified in the NESOI application.** Examples include but are not limited to EIB European Local ENergy Assistance - ELENA, EBRD Green Energy Financing Facility - GEFF, other assimilable European/National Project Development Assistance schemes.

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ECOFIN MODELLING AND FUND MATCHING

Support to structure an **effective business plan** to assess the sustainability of the intervention and/or **attract potential investors to provide additional sources of finance**

TECHNICAL ASSISTANCE MENUS - Ecofin aspects

ECONOMIC & FINANCIAL MODELLING AND FUND MATCHING

- **Economic and Financial planning** (i.e. historical data analysis, identification of business drivers, development of the plan, scenario analysis) and economic-financial feasibility assessment
- **Business Plan and preliminary Information Memorandum**
- Identification of **potential financing options**
- **Market testing** with potential investors

This service is ideal for public and private entities with a **clear and structured project idea, detailed documentation** (e.g. feasibility study, detailed project design, etc.) and willing to e.g. understand if the envisaged economics of the initiative are in line with their expectations in terms of return on investment and risk profile or **investigating the best financial structure and set a dialogue with potential investors.**

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Technology pairing: technical solutions and innovations for islands decarbonisation

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KEY DRIVER OF NESOI: islands can be living labs of innovative clean energy technologies for EU Energy transition

**IN NESOI 2nd OPEN CALL INNOVATION WILL BE EMPHASIZED
IN THE PROPOSAL EVALUATION PHASE**

The NESOI
platform

TECHNOLOGY PAIRING

Also starting from what was identified in CE4EU and other H2020 experiences, NESOI realized an analysis focused on available clean energy technologies aiming at identifying strengths, weaknesses and spotting potential complementarities in view of maximizing the decarbonization impact and inspiring NESOI proposals



Financial
pairing

**Technology
pairing**

Technology pairing: technical solutions and innovations for islands decarbonisation

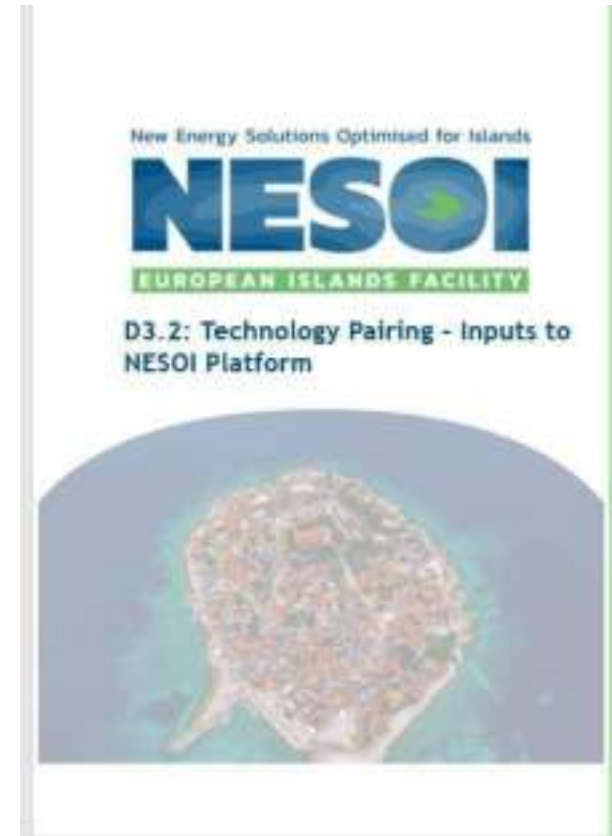
PART B

TAKE A LOOK TO DELIVERABLE D3.2 to be inspired for your projects

A helpful but not limitative and mandatory technology catalogue to think about your projects

Three pairing approaches:

- **PERFORMANCE DRIVEN:** the pairing of two (or more) technologies to enhance islands decarbonization,
- **ISLAND DRIVEN:** the pairing between the islands' needs and the available technologies
- **APPLICANTS / STAKEHOLDERS DRIVEN:** the pairing between the selected technologies and the most suitable stakeholders



The NESOI platform

Financial pairing

Technology pairing

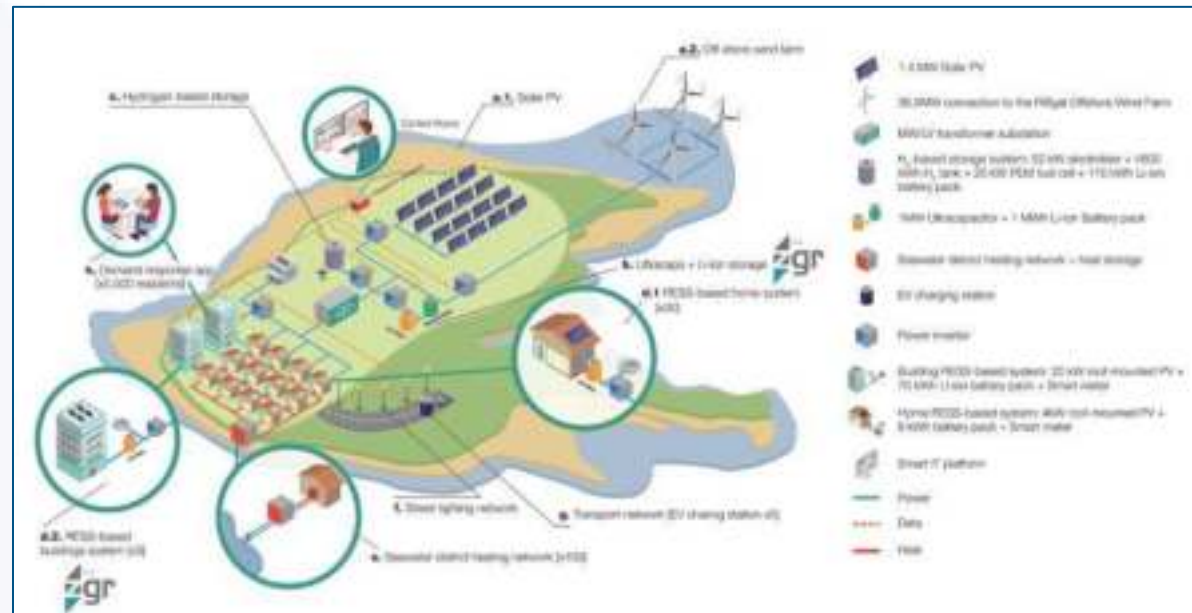
Technology pairing: technical solutions and innovations for islands decarbonisation

PART B

LET'S MAKE A CHALLENGE AN OPPORTUNITY: higher cost of energy on islands? Easier to make economically viable new low carbon energy technologies

The groups of technologies analyzed are:

- Electricity Production from Renewables
- Thermal Production from Renewables
- Cogeneration of Heat and Power
- Electric Mobility
- Energy Storage
- Upgrade of Local Public Assets
- Energy Efficiency in Buildings



Courtesy of ISLANDER Project

The NESOI platform

Financial pairing

Technology pairing

Technology pairing: technical solutions and innovations for islands decarbonisation

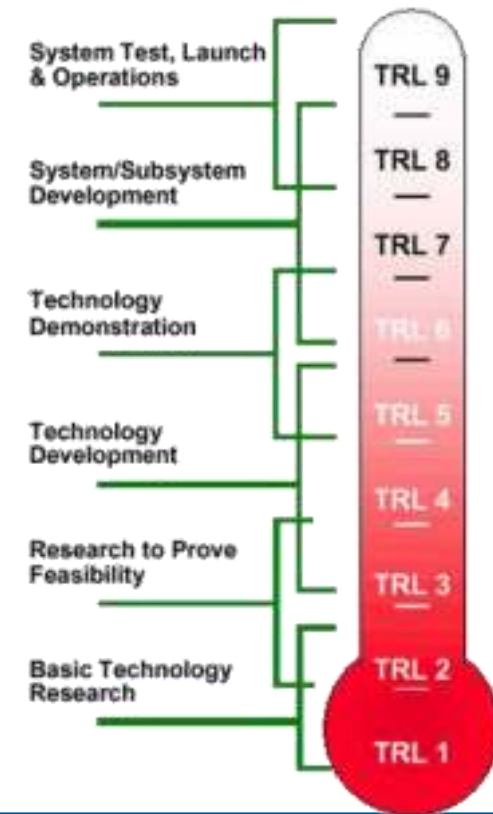
PART B

HOW TO ASSESS « INNOVATION » FOR YOUR PROJECT

(and target innovation bonus!)

Innovation bonuses will be driven via a "technology readiness level" (TRL) evaluation.

WHAT IS TRL? *A method for estimating the maturity of technologies during the acquisition phase of a program, developed at NASA during the 1970s. The use of TRLs enables consistent, uniform discussions of technical maturity across different types of technology.*



The NESOI platform

Financial pairing

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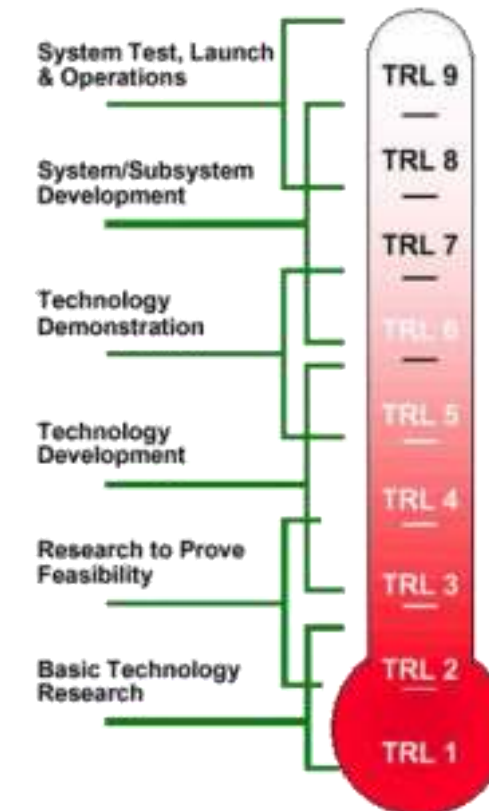
Technology pairing: technical solutions and innovations for islands decarbonisation

PART B

HOW TO ASSESS « INNOVATION » FOR YOUR PROJECT

(and target innovation bonus!)

TRL	European Union ^[15]
1	Basic principles observed
2	Technology concept formulated
3	Experimental proof of concept
4	Technology validated in lab
5	Technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
6	Technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)
7	System prototype demonstration in operational environment
8	System complete and qualified
9	Actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)



The NESOI platform

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Technology pairing: technical solutions and innovations for islands decarbonisation

PART B

TECHNOLOGY PAIRING CATALOGUE DROVE SOME INNOVATION EXAMPLES

NESOI team translated the TRL assessment to the « islands context » and « clean energy technologies »

The NESOI platform

TRL LEVEL FOR EVALUATION

TRL6 – Demonstrated only in special applications (if feasible and applicable on islands) – **FULLY INNOVATIVE**

TRL7 – Demonstrated in few cases in mainland or islands – **INNOVATIVE**

TRL8 – Close to the market – On The Market solutions but few tests on islands – **PARTLY INNOVATIVE**

TRL9 – On The Market and already largely tested on islands – **NOT INNOVATIVE**

Financial pairing

Technology pairing

Technology pairing: technical solutions and innovations for islands decarbonisation

PART B

TECHNOLOGY PAIRING CATALOGUE DROVE SOME INNOVATION EXAMPLES

NESOI team prepared a list of examples (also to drive reviewers' evaluation) per each technology presented in D3.2 catalogue

The NESOI platform

!!! LIST OF EXAMPLES ONLY !!!!

Financial pairing

!!! THIS NOT WHAT NESOI WILL FUND FOR SURE OR WHAT HAS TO BE PRESENTED IN APPLICATIONS !!!

Technology pairing

!!! RELEVANT LIST ONLY FOR INNOVATION ASPECTS!!!

Technology pairing: technical solutions and innovations for islands decarbonisation

NESOI team prepared a list of examples (also to drive reviewers' evaluation) per each technology presented in D3.2 catalogue

PHOTOVOLTAIC



	TECHNOLOGY EXAMPLE
TRL6 FULLY INNOVATIVE	Floating PV - Innovative BIPV and Bi-Facial PV - Organic PV
TRL7 INNOVATIVE	BIPV - Agrivoltaics - Hybrid PV-T - innovative PV tracking systems - other special applications/integration in the local environment - Bi-Facial PV - innovative PV plant O&M and inspections approaches, coupling with electrolyzers for green hydrogen production - off-grid solutions
TRL8 PARTLY INNOVATIVE	PV Panels rooftop/ground mounted but with a special application (with specific energy management system, self-consumption in a dedicated energy off-taker, coupling with EV charging station, energy community approach, PV VPP approach, storage integration etc.), PV tracked with on-the market tracking systems
TRL9 NOT INNOVATIVE	PV Panels rooftop (with direct injection on the grid or building self-consumption with no-specific energy management system) - ground mounted PV plants (with direct injection on the grid and no-specific power output management system)

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New Energy Solutions Optimised for Islands

NESOI

EUROPEAN ISLANDS FACILITY

Thanks for your attention!



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 864266