

SBE ASSESSMENT TOOL

Version : 2023-A



Sustainable MED Cities

Sustainable MED Cities - Integrated Tools and Methodologies for Sustainable Mediterranean Cities, is a capitalization project whose main objective is to enhance the capacity of public administration in delivering, implementing and monitoring efficient measures, plans and strategies to improve the sustainability of cities, neighbourhoods and buildings.

This project received funding from the European Union's ENI CBC MED Programme under Grant Contract C_B.4.3_0063.

Content of the Booklet:

Editor: Andrea Moro (iiSBE Italia R&D), Elena Bazzan (iiSBE Italia R&D), Paola Borgaro (iiSBE Italia R&D) .

Editing and layout: Luis Alonso, Valentina Restrepo Rojas, ESDesigner - iiSBE Italia R&D

All rights reserved.

The document reflects the views of the authors. The ENI CBC MED Programme is not responsible for the use that may be made of the information contained therein.

Published February 2023

TABLE OF CONTENTS

- Introduction.....5

- 1. Register - Sign in.....6

- 2. Generic Framework.....8

- 3. Assessment tools.....12

- 4. Assessment.....18

- 5. Indicators.....22

- 6. Contact us24

Introduction

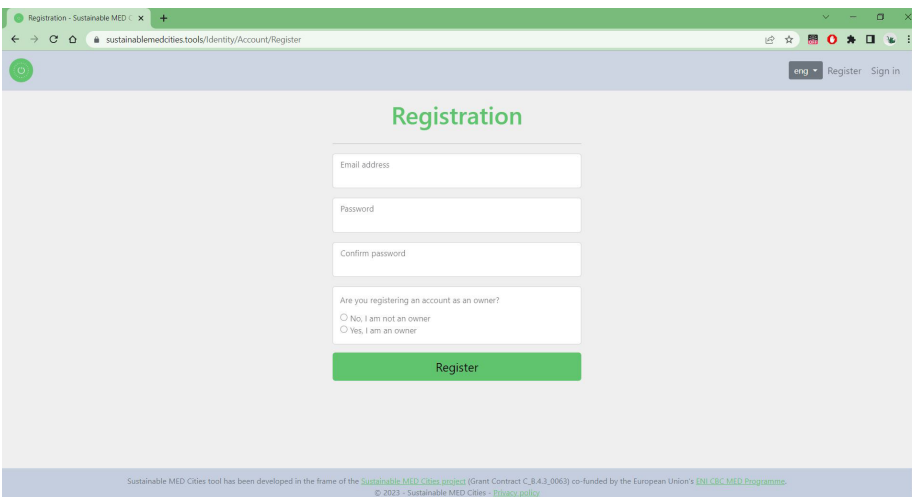
1. Register - Sign in



The first step will be to look for the page:

www.sustainablemedcities.tools

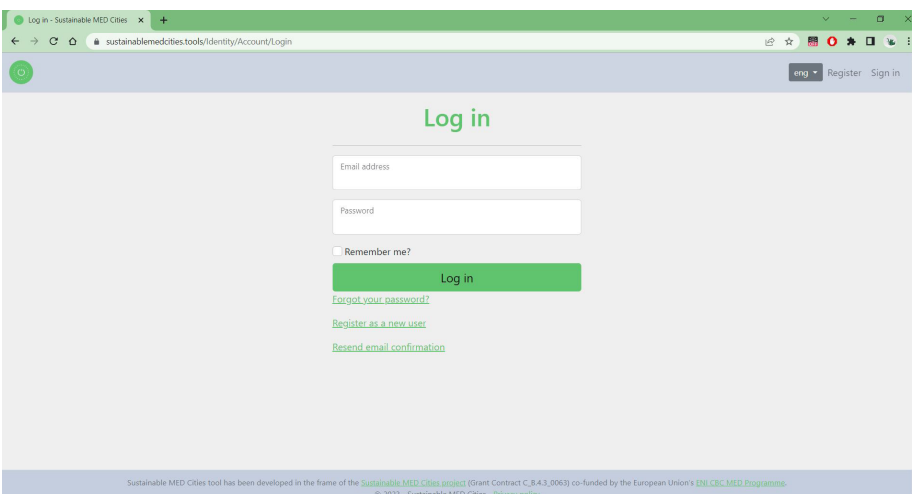
There you will find a general description of the tool, why use it, how to access it and support material in pdf format.



To start using the tool it will be necessary to register with an e-mail and declare if you are the owner of that account or not.

At the time of registration you will be given a user category, these can be: administrator, owner or assessor.

Each one will have different options when using the tool.



Once registered, you will be able to access your profile in the log in area, there you will only have to enter with your email and password.

If for any reason you forget your password you can click on the link "forgot your password?" and you can recover it by following the steps indicated. You can also resend the confirmation email to activate your account.

2. Generic Framework

The first area of the tool is called generic framework, this will be enabled only for the administrator, in this section you can view the three tools with which it is possible to work and understand its application methodology, these are:

1.SBTool

2.SNTool

3.SBTool

Each tool is divided into 4 sections:

1.Issues

2. Categories

3. Criteria

4. Indicators

To further information go to the guide manual of each Tool

1 Generic Framework

To start seeing the available tools, the first step is to choose between SBTool, SNTool and SCTool so that the corresponding issues of each tool are displayed.

Generic Frameworks	
Name	Description
SMC SBTool	
SMC SCTool	
SMC SNTool	

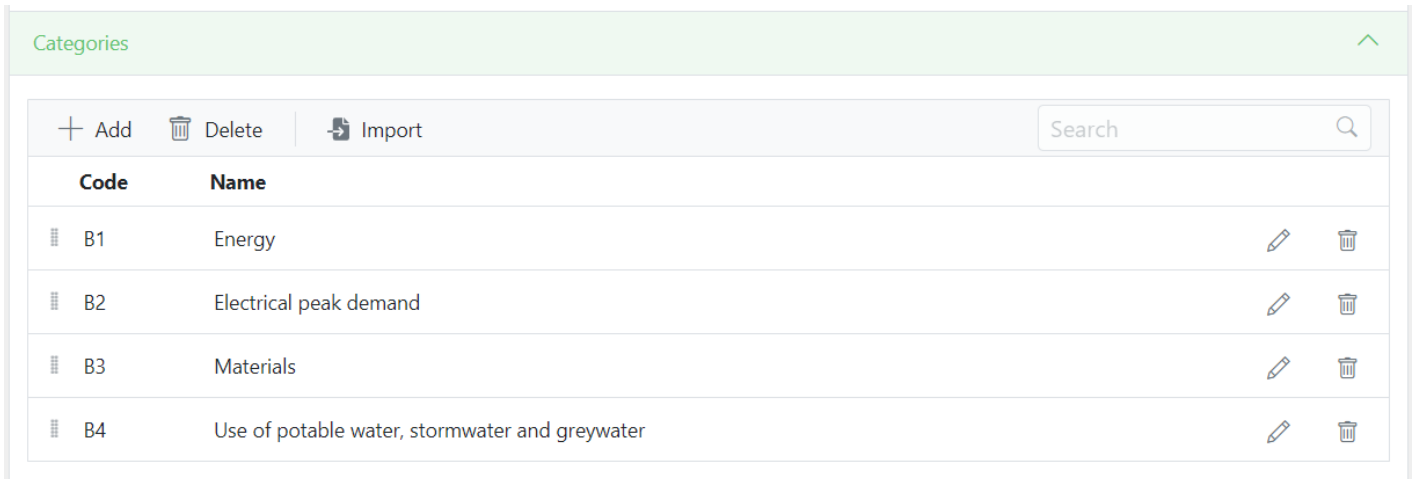
2 Issues

The second step will be to display all the issues that the selected tool contains, in the case of SNTool and SCTool there will be 10 issues while for SBTool there will be 8 issues

Issues	
Code	Name
A	Site Regeneration and Development, Urban Design and Infrastructure
B	Energy and Resources Consumption
C	Environmental Loadings
D	Indoor Environmental Quality
E	Service Quality
F	Social, Cultural and Perceptual Aspects
G	Cost and Economic Aspects
H	Adaptation to climate change

3 Categories

The third step consists of displaying each issue to be able to identify which categories are contained in it and thus be able to decide which ones will be useful for the assessment.



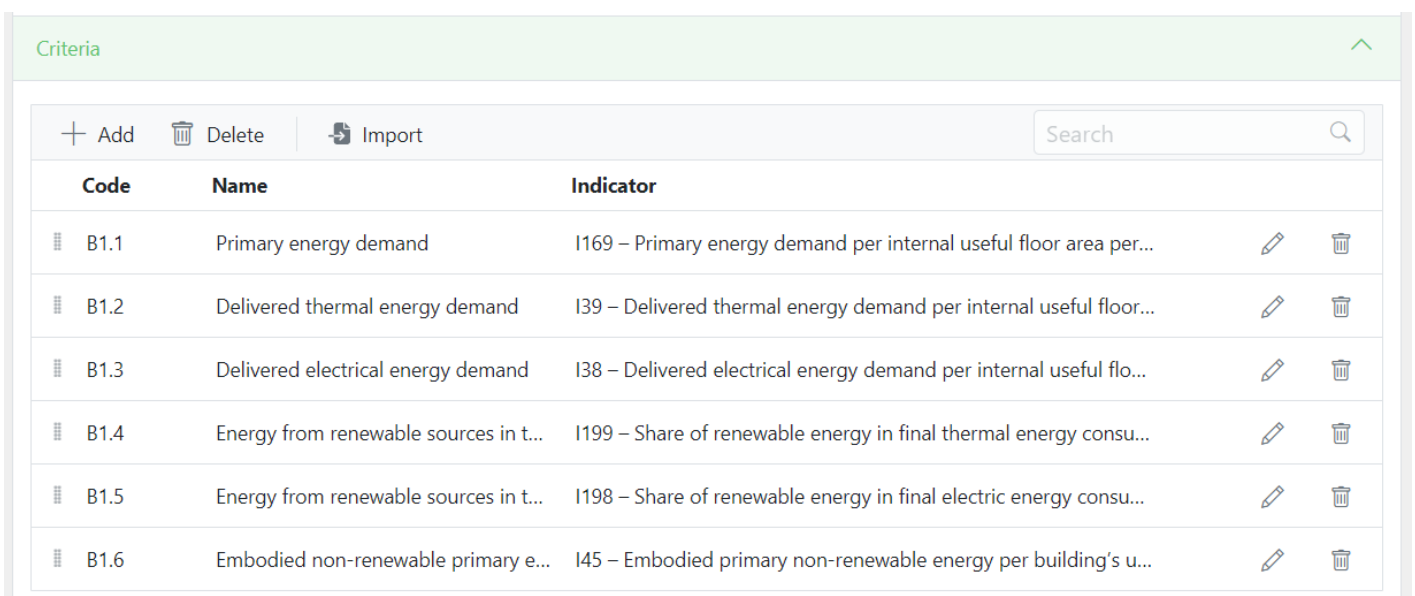
Categories

+ Add Delete Import Search

Code	Name		
B1	Energy		
B2	Electrical peak demand		
B3	Materials		
B4	Use of potable water, stormwater and greywater		

4 Criteria and indicators

Finally, the criteria and indicators will be displayed, which are those that will be calculated to evaluate sustainability of the building, neighbourhood or city.



Criteria

+ Add Delete Import Search

Code	Name	Indicator		
B1.1	Primary energy demand	I169 – Primary energy demand per internal useful floor area per...		
B1.2	Delivered thermal energy demand	I39 – Delivered thermal energy demand per internal useful floor...		
B1.3	Delivered electrical energy demand	I38 – Delivered electrical energy demand per internal useful flo...		
B1.4	Energy from renewable sources in t...	I199 – Share of renewable energy in final thermal energy consu...		
B1.5	Energy from renewable sources in t...	I198 – Share of renewable energy in final electric energy consu...		
B1.6	Embodied non-renewable primary e...	I45 – Embodied primary non-renewable energy per building's u...		

3. Assessment Tools

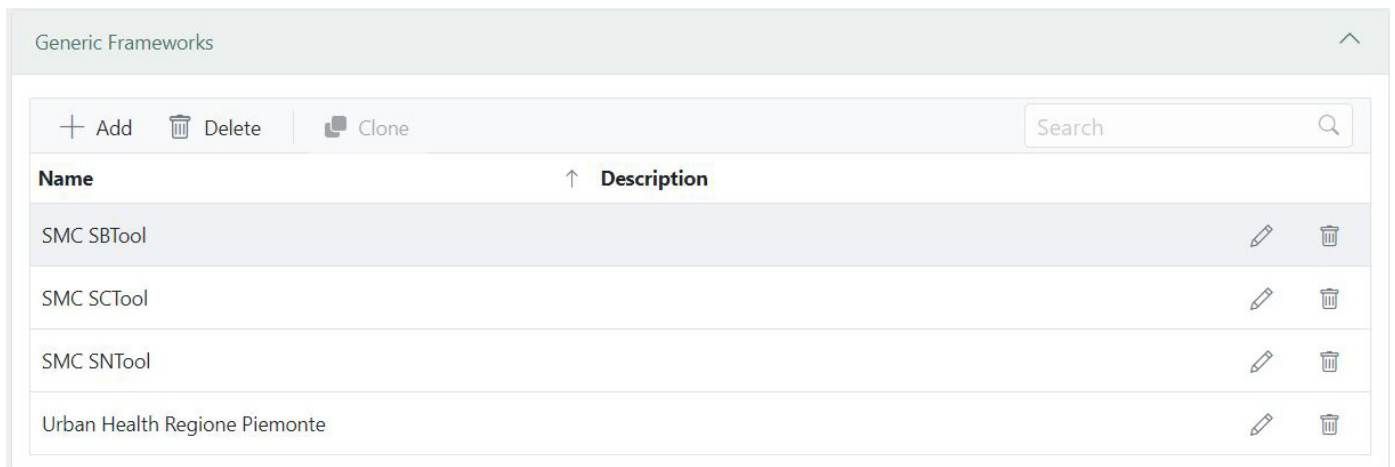
SBTool MED, SNTool MED, SCTool MED are assessment systems for measuring the sustainability. It is a tool useful to support decision making processes for the development, implementation and monitoring development plans for more sustainable cities. All the tools can be contextualized and adapted to any Mediterranean region.

The assessment tools will be enabled for users of the **owner** category, in this section you can choose under unique circumstances which issues, categories and criteria will be used in the assessment.

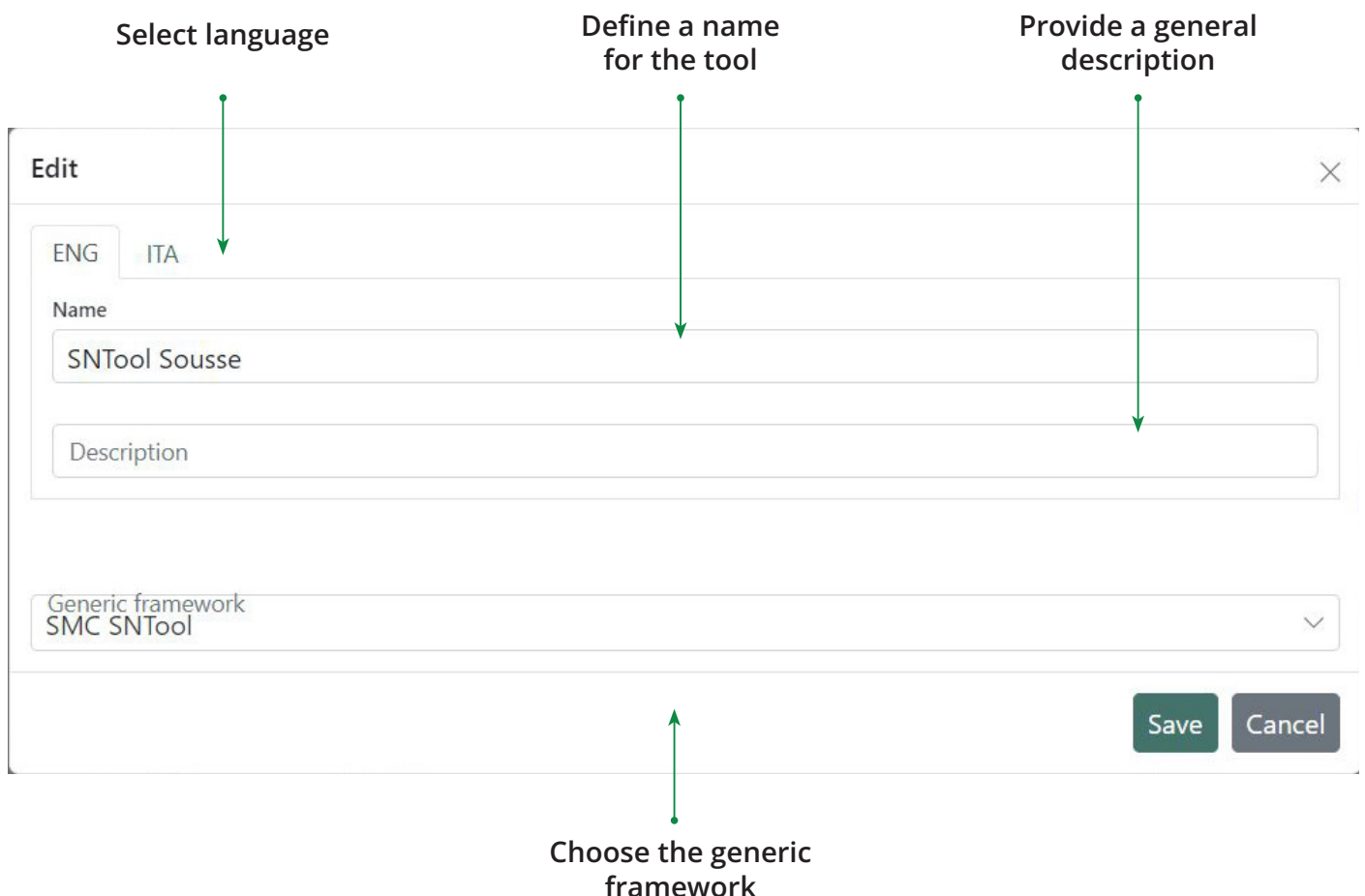
1 Generic Framework

For the first step you have the possibility to choose the tool you are going to work with, in this case we will use SMC SCTool for cities,

It is possible to modify the name of the tool to the specific city and also to describe in general terms it. Furthermore you have the option to put the information in 5 different languages (English, Italian, French, Spanish and Greek).



Name	Description
SMC SBTool	
SMC SCTool	
SMC SNTool	
Urban Health Regione Piemonte	



Select language

Define a name for the tool

Provide a general description

Edit

ENG ITA

Name

SNTool Sousse

Description

Generic framework
SMC SNTool

Save Cancel

Choose the generic framework

2 Issues

Once you select the tool, you will be able to visualize the issues. You will have the possibility to activate the ones you need for your assessment, this means it is not mandatory to work with the 10 issues and you should define a priority factor to the active issues (0 - 5).

Code	Name		
A	Site Regeneration and Development, Urban Design and Infrastructure		
B	Energy and Resources Consumption		
C	Environmental Loadings		
D	Indoor Environmental Quality		
E	Service Quality		
F	Social, Cultural and Perceptual Aspects		
G	Cost and Economic Aspects		
H	Adaptation to climate change		

Visualised issue

Define priority factor

Save Changes



Code	Issue	Priority	Weight		
A	Use of land and biodiversity	1	0.1		

Weight calculated automatically

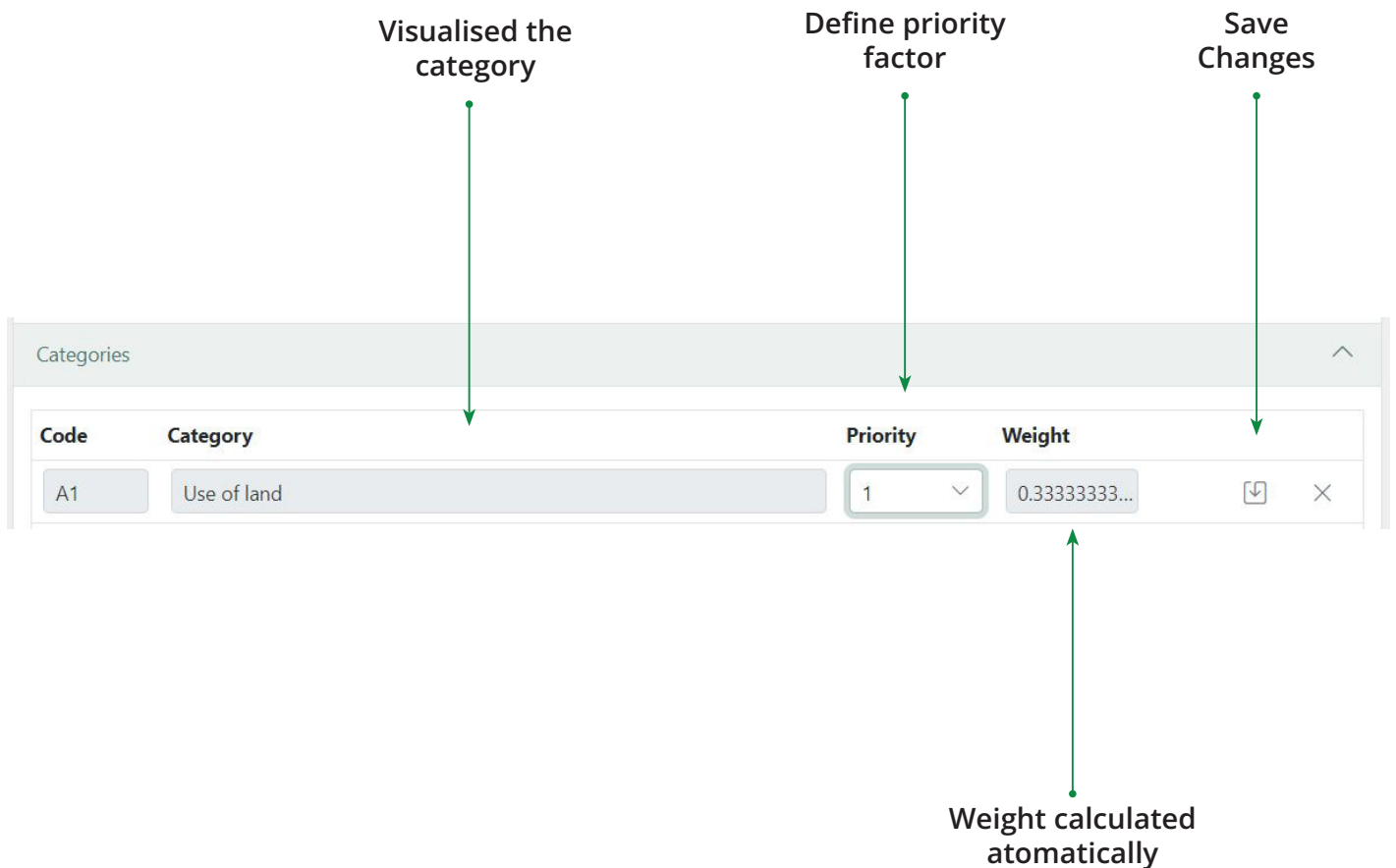
3 Categories

Concern particular aspects of issues. Each category would change depending the issue you will be working on, for example: The issue A - Site regeneration and development, Urban design and infraestructure contains category A1- Site location and A-2 Site development.

Also for the categories you would be able to choose the priority factor (0 - 5)



Code	Name		
A1	Site Selection		
A2	Site development		



Visualised the category

Define priority factor

Save Changes

Code	Category	Priority	Weight		
A1	Use of land	1	0.33333333...		

Weight calculated atomatically

4 Criteria and indicators

Criteria represent the basic assessment entries used to evaluate the sustainability. Each criterion is associated to an indicator, they are physical quantities or qualitative scenarios that allow to assess the performance of the cities.

In this section you would be able to:

1. Change the status of the criteria: Active or inactive.
2. Choose the impact: min 0 max 225.
3. Select the benchmark 0: numeric value.
4. Select the benchmark 5: numeric value.

Criteria

+ Add Delete Import Search

Code	Name	Indicator		
A1.1	Ecological value of land	I165 – Pre-development ecological value of land		
A1.2	Proximity of site to public transport...	I3 – Accessibility index to public transportation		
A1.3	Adjacency to existing service infrastr...	I20 – Average distance between the site and key existing infrast...		
A1.4	Proximity to key services	I21 – Average distance from key services		

Criteria

Visualised the criterion

Define impact min 0 - max 225

Define value to benchmark 5

Save Changes

Code	Criteria	Status	Impact	Low	High	Weight		
A1.1	Population dens...	Active	0	0	0	0		
A1.2	Urban compactness	Active	0	0	0			
A1.3	Homogeneity of t...	Active	0	0	0			
A1.4	Conservation of la...	Active	0	0	0			

Active or inactive criterion

Define value to benchmark 0

Weight calculated automatically

4. Assessment

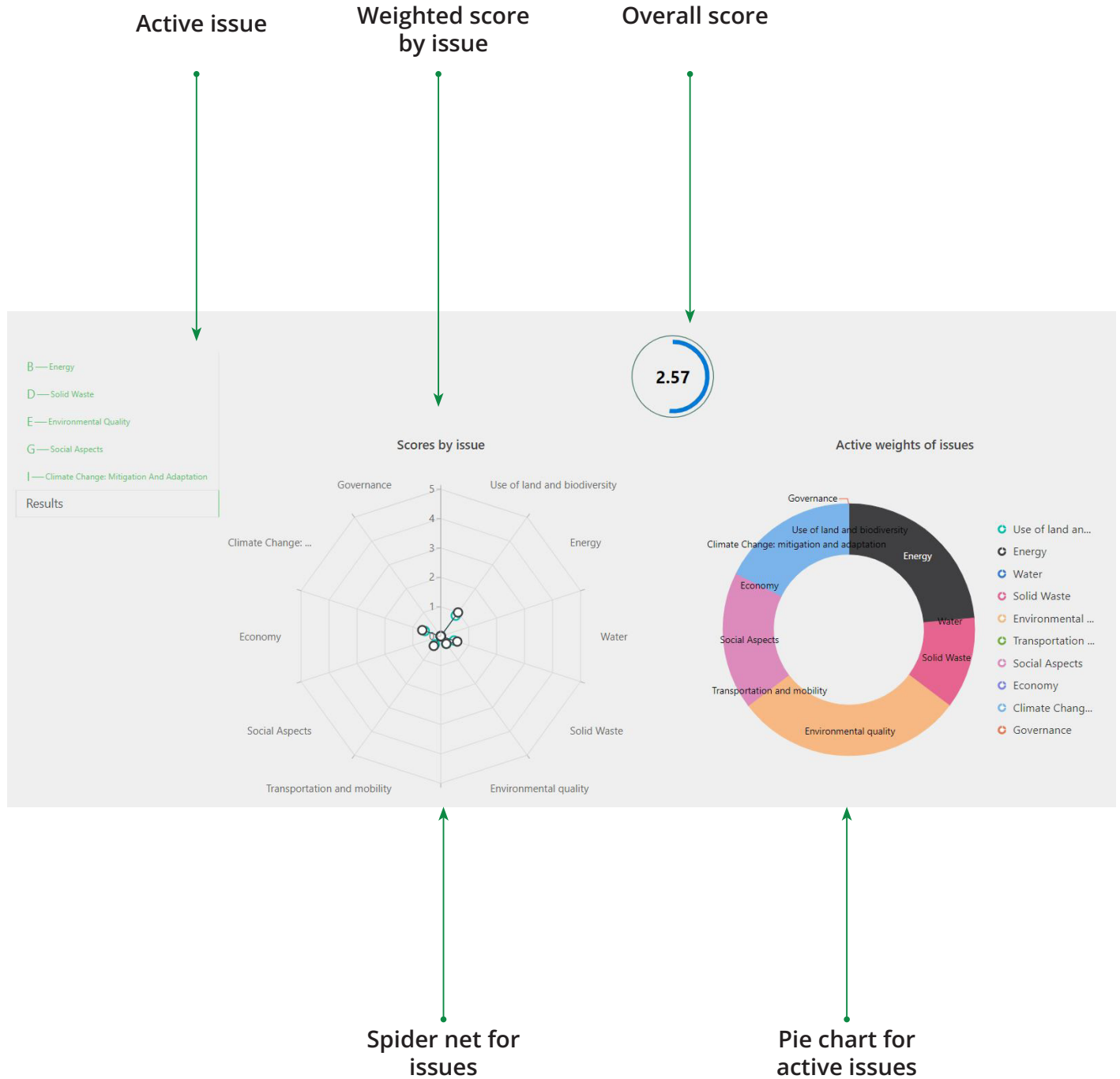
The assessment chapter will be enabled to the **asesors** which can fill out the data collected, related to the indicators that were chosen in the tool.

To start the evaluation phase, you must enter the name of the project and choose the assessment tool, then click on the icon of the two interlocking rings

You will visualize firstable the category, then the criteria and finally the indicator description, where they will fill the gaps of “value”, “Target” and “override”.

	Benchmark 0	Value	Benchmark 5	Target
Benchmark	0 %	0.00	2 %	14.00
Score	0	0	5	5
Override		0.00		
Weighted score		0		5

Then the tool will automatically calculate the results and will provide the results in a spider net chart and a table.



Issue code	Issue name	Weight	Score	Weighted score
A	Use of land and biodiversity	0%	0.00	0.00
B	Energy	24%	3.68	0.87
C	Water	0%	0.00	0.00
D	Solid Waste	12%	4.02	0.47
E	Environmental quality	29%	1.08	0.32
F	Transportation and mobility	0%	0.00	0.00
G	Social Aspects	18%	1.95	0.34
H	Economy	0%	0.00	0.00
I	Climate Change: mitigation and adaptation	18%	3.24	0.57
J	Governance	0%	0.00	0.00

Active issues	Categories	Weight	Weighted score
<div style="background-color: #e0e0e0; padding: 5px;"> v B – Energy </div>			
B1	Energy infrastructure	11%	0.00
B2	Energy consumptions	33%	1.32
B3	Renewable energy	56%	2.36
<div style="background-color: #e0e0e0; padding: 5px;"> v C – Water </div>			
C1	Water infrastructure	33%	0.00
C2	Water consumption	33%	0.00
C3	Effluents management	33%	0.00
<div style="background-color: #e0e0e0; padding: 5px;"> v D – Solid Waste </div>			
D1	Solid waste collection infrastructure	67%	2.67
D2	Solid waste management	33%	1.35

5. Indicators

The complete list of the indicators which make up the Sustainable MED Cities SBTool, SNTool and SCTool is presented in the following table:

You will see:

1. Code
2. Name
3. Type
4. Unit

Only the administrator and the owner have the possibility to edit the indicators.

The screenshot shows a web application interface with a sidebar on the left containing navigation links: 'Generic frameworks', 'Assessment tools', 'Assessments', 'Indicators' (highlighted in green), and 'Users'. The main content area displays a table of indicators with columns for Code, Name, Type, and Unit. Each row includes expandable arrows and edit/delete icons.

Code	Name	Type	Unit
I10	Aggregated total embodied carbon per aggregated indoor useful floor area	Quantitative	kg(CO2-...
I100	Percent of public buildings that are accessible for use by physically disabled pe...	Quantitative	%
I101	Percent of public wastewater that is disposed or treated	Quantitative	%
I102	Percent of sidewalks and other pedestrian ways that are accessible for use by p...	Quantitative	%
I103	Percent, by area, of an existing structure that is re-used	Quantitative	%
I104	Percentage area of public buildings with recognized sustainability certifications...	Quantitative	%
I105	Percentage change in the number of bird species	Quantitative	%
I106	Percentage of accessible public outdoor areas that are barrier-free compared t...	Quantitative	%
I107	Percentage of average per-capita income	Quantitative	%
I108	Percentage of bicycle parking spaces available	Quantitative	%
I109	Percentage of bicycle paths physically separated from traffic roads	Quantitative	%
I11	Aggregated total embodied carbon per aggregated linear area	Quantitative	kg(CO2-...
I110	Percentage of building area over noise limit	Quantitative	%
I111	Percentage of buildings in the area located not respecting the safety distance f...	Quantitative	%
I112	Percentage of control functions within class A	Quantitative	%
I113	Percentage of households unable to afford the most basic levels of energy (mo...	Quantitative	%
I114	Percentage of households with access to basic sanitation facilities	Quantitative	%
I115	Percentage of households with authorized access to electricity	Quantitative	%
I116	Percentage of households with fixed (wired) broadband	Quantitative	%
I117	Percentage of inhabitants living in a zone subject to natural hazards	Quantitative	%
I118	Percentage of inhabitants living in a zone subject to natural hazards	Quantitative	%
I119	Percentage of inhabitants living in slums, informal settlements or inadequate h...	Quantitative	%
I12	Amount of natural connected areas in the city divided by the total amount of n...	Quantitative	%
I120	Percentage of inhabitants that are within 400 meters walking distance of at lea...	Quantitative	%
I121	Percentage of inhabitants that are within 500 meters walking distance of at pu...	Quantitative	%
I122	Percentage of inhabitants that are within 800 meters walking distance of at lea...	Quantitative	%
I123	Percentage of inhabitants with access to solid waste and recycling collection p...	Quantitative	%
I124	Percentage of inhabitants with accessibility to green areas	Quantitative	%
I125	Percentage of inhabitants with accessibility to green areas	Quantitative	%

6. Contact us



Government of Catalonia
(Spain)
sustmedcities.tes@gencat.cat

<https://territori.gencat.cat/es/inici/>



iiSBE ITALIA R&D
(Italy)
info@iisbeitalia.org

<http://iisbe-rd.it>



Municipality of Sousse
(Tunisia)
mehdouik@gmail.com
Municipality of Moukhtara

<http://www.commune-sousse.gov.tn>



(Lebanon)
ashiro@terra.net.lb

<https://moukhtara.gov.lb/>



Greater Irbid Municipality (Jordan)
rjammal@ymail.com

www.irbid.gov.jo



National Observatory of Athens
(Greece)
costas@noa.gr

www.noa.gr



United Nations Environment
Programme - Mediterranean
Action Plan

<https://www.unep.org/unep-map/>



MedCities Association

<https://medcities.org>

