Sustainable MED Cities

Integrated tools and methodologiesfor sustainable Mediterranean cities

Activity 5.2.1

Test Protocol

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Document history

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V01	21.09.2022	Revision	Partners
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Executive Summary

This document describes the road map concerning the use of the SMC Decision-Making methodology (D4.1.1) to define an optimal retrofitting concept for a urban area and for buildings located in it.

Following the steps of the decision-making methodology, the documents provides all the templated to document the steps taken up to the description of the final retrofitting concept.

The use of common templates makes possible to compare the lessons learned by the PPs, facilitating the exchange of results achieved.

ACRONYMS	
SBTool	Sustainable Building Tool
SNTool	Sustainable Neighbourhood Tool
MED	Mediterranean
DX.X.X	Deliverable X.X.X
SMC Team	Sustainable MED Cities team
S.MED.Cities	Sustainable MED Cities project
GF	Generic Framework

Introduction

This document is a tool to support the PPs of the Sustainable MED Cities project in the test of the SMC Decision-Making methodology on their case studies. The aim of the test is to learn how to use multi criteria assessment systems, as SBTool and SNTool, to support a process aimed to define the optimal retrofitting concept to improve the sustainability of urban areas and buildings.

The test process is detailed in the initial Road Map that specifies all the tasks that PPs must accomplish and their relationship with the Testing protocol, the Decision-Making methodology (D4.1.1) and other project's deliverable.

Following the Road Map, the templates necessary to support and document the decision-making process are provided. The templates are common for all PPs and will allow profitable exchanges concerning the testing experience.

Testing Road Map

The Road Map is organized according to the 7 steps of the Decision-Making process described in D4.1.1. All the tasks that must be carried out are listed in a chronological order.

The columns of the Road Map are:

- Task#: the sequential number of tasks used to easily identify them. If the Task number is green, this is a reiterative task that can be repeated more than one time. For instance, if more than one building is included in the study, some tasks are repeated for each building.

- Description: a short description of each task

- Responsible: who is the subject responsible for the task

- Reference to D5.2.1 Testing Protocol: the sections of this document that are linked to the task

- Reference to D4.1.1: the section of deliverable D4.1.1 Decision-Making methodology lined to the task

- Reference Other Deliverables: indication of the others deliverable of the project that are linked to the task.

1	INITIATION				
TASK #	Description	Responsible	Reference D5.2.1 Testing Protocol	Reference D4.1.1	Reference Other Deliverables
1	Identification of the urban area to be studied	Municipality	1.1 - Description of the urban area	1.1	
2	Definition of the physical boudaries of the urban area	Municipality	1.1 - Description of the urban area	1.1	
3	Identification of the public building(s) to be studied	Municipality	1.2 - Description of the building	1.1	
4	Establishment of the SMC Team	Municipality	1.4 - SMC Team	1.2	
5	Urban area: data collection for the description of the area	SMC Team	1.2 - Description of the building	1.3	
6	Buildings: data collection for the description of the area	SMC Team	1.2 - Description of the building	1.3	
7	Collection of data on the local climatic conditions	SMC Team	1.3 - Climatic data	1.3	
9	Identification of stakeholders	Municipality	1.5 - Stakeholders	1.4	
10	Finalisation of the Initiation Phase: final version of section 1 of the Testing Protocol	SMC Team	1 - Initiation	1	
2	PREPARATION				
TASK #	Description	Responsible	Reference D5.2.1 Testing Protocol	Reference D4.1.1	Reference Other Deliverables
11	SNTool: selection of criteria	SMC Team	2.1 - SNTool selection of criteria	2.1	D3.1.1
12	SNTool: data sources identification	SMC Team	2.2 - SNTool data sources	2.1	D3.1.1
13	SNTool: benchmarking	SMC Team	2.3 - SNTool benchmamks	2.1	D3.1.1
14	SNTool: weight assignement	SMC Team	2.4 - SNTool weights	2.1	D3.1.1
15	SBTool: selection of criteria	SMC Team	2.5 - SBTool selection of criteria	2.1	D3.1.1
16	SBTool: data sources identification	SMC Team	2.6 - SBTool data sources	2.2	D3.1.1
17	SBTool: benchmarking	SMC Team	2.7 - SNTool benchmamks	2.1	D3.1.1
18	SBTool: weight assignement	SMC Team	2.8 - SNTool weights	2.1	D3.1.1
19	PGS workshop	SMC Team/Municipality		2.3	D4.2.1 - D4.2.2
20	Finalisation of the Preparatio Phase: final version of section 1 of the Testing Protocol	SMC Team	2 - Preparation	2	

3	DIAGNOSIS				
TASK #	**Description**	**Responsible**	**Reference D5.2.1 Testing Protocol**	**Reference D4.1.1**	**Reference Other Deliverables**
21	Assessment of the current state of the urban area using SNTool	SMC Team	3.1 - Assessment of the current state of the urban area	3.1	D3.1.1
22	Identification of weaknesses and critical issues in the urban area	SMC Team	3.2 - Urban area: ranking of assessment criteria	3.2	
23	Evaluation of energy infrastructure's current state	SMC Team	3.3 - Evaluation of energy infrastructure's current statea	3.3	
24	Evaluation of water infrastructure's current state	SMC Team	3.4 - Evaluation of water infrastructure's current state	3.3	
25	SWOT analysis preparation	SMC Team	3.5 -SWOT analysis	3.5	
26	Assessment of the current state of the building	SMC Team	3.6 - Assessment of the current state of the building	3.4	D3.1.1
22	Identification of weaknesses and critical issues of the building	SMC Team	3.2 - Urban area: ranking of assessment criteria	3.2	
27	Preparation of the Diagnosis summary report	SMC Team	3.7 - Identification of weaknesses and critical issues of the building	3.5	
28	PGS workshop	SMC Team/Municipality		3.6	D4.2.1 - D4.2.2
29	Finalisation of the Diagnosis Phase: final version of section 3 of the Testing Protocol	SMC Team	3 - Diagnosis		
4	STRATEGIC DEFINITION				
TASK #	**Description**	**Responsible**	**Reference D5.2.1 Testing Protocol**	**Reference D4.1.1**	**Reference Other Deliverables**
30	Setting of sustainabiity targets for the urban area	SMC Team/Municipality	4.1 - Performance targets for the urban area	4.1	
31	Definition of constraints and restriction at urban level	SMC Team	4.2 - Constraints and restrictions for the urban area	4.2	
32	Setting of sustainabiity targets for the building	SMC Team/Municipality	4.3 - Performance targets for the building(s)	4.1	
33	Definition of constraints and restriction at building level	SMC Team	4.4 - Constraints and restrictions for the building(s)	4.2	
34	PGS workshop	SMC Team/Municipality		4.3	D4.2.1 - D4.2.2
35	Finalisation of the Startegic Definition phase: final version of section 4 of the Testing Protocol	SMC Team	4 - Strategic Definition		

5   RETROFITTING SCENARIOS

TASK #	Description	Responsible	Reference D5.2.1 Testing Protocol	Reference D4.1.1	Reference Other Deliverables
36	Selection and optimization of energy intervention at urban scale	SMC Team	5.1 - Description of the scenario at urban scale	5.1	
37	Selection and optimization of non-energy related interventions at urban scale	SMC Team	5.1 - Description of the scenario at urban scale	5.1	
38	Identification of business models and financing schemes at urban scale	SMC Team/Municipality	5.1 - Description of the scenario at urban scale	5.2	
39	Selection and optimization of energy intervention at building scale	SMC Team	5.2 - Descriptio of the scenario at building scale	5.1	
40	Selection and optimization of non-energy related interventions at building scale	SMC Team	5.2 - Descriptio of the scenario at building scale	5.1	
41	Identification of business models and financing schemes at building scale	SMC Team/Municipality	5.2 - Descriptio of the scenario at building scale	5.2	
42	PGS workshop	SMC Team/Municipality		5.3	D4.2.1 - D4.2.2
43	Finalisation of the retrofitting Scenarios phase: final version of section 5 of the Testing Protocol	SMC Team	5 - Retrofitting scenarios		

6   DECISION-MAKING

TASK #	Description	Responsible	Reference D5.2.1 Testing Protocol	Reference D4.1.1	Reference Other Deliverables
44	Assessment of a scenario: evaluation of sustainability level at urban scale with SNTool	SMC Team	6.1 - Assessment of the urban scale scenario with SNTool	6.1	
45	Assessment of a scenario: evaluation of sustainability level of buildings with SBTool	SMC Team	6.2 - Assessment of a building scale scenario(s) with SBTool	6.1	
46	Calculation of the sustainability global score of the scenarios	SMC Team	6.3 - Calculation of the sustainability global score of the scenarios	6.2	
47	Ranking of scenarios according to their global sustainability scores	SMC Team	6.4 - Ranking of scenarios	6.2	
48	Selection of the optimal scenario to be transformed in a retrofitting concept	SMC Team/Municipality	6.5 - Selection of the optimal scenario	6.3	
49	PGS workshop	SMC Team/Municipality		6.4	D4.2.1 - D4.2.2
50	Finalisation of the Decision Making phase: final version of section 6 of the Testing Protocol	SMC Team	6 - Decision-Making		

7   RETROFIT CONCEPT

TASK #	Description	Responsible	Reference D5.2.1 Testing Protocol	Reference D4.1.1	Reference Other Deliverables
51	Detailed description of retrofitting interventions	SMC Team	7 - Retrofitting Concept	7	
52	Preparation of the Retrofitting Concept report	SMC Team	7 - Retrofitting Concept	7	
53	PGS workshop	SMC Team/Municipality		7	D4.2.1 - D4.2.2

1. INITIATION

1.1. Description of the urban area

General information	
Name of the Urban Area	
City	*(Enter text)*
Description of the urban area	*(Enter text – 3000 characters max.)*
Plan of the urban area with the physical boundaries	*(Draw)*
Pictures	*(Images)*
History of the settlement	
Rationale behind the selection of the urban area	*(Enter text – 3000 characters max.)*
Description of the adjacent areas	*(Enter text)*
Built environment	
Surface area	*(Km2)*
Building density	*(m3/m2)*
Total land area occupied by buildings, streets, parking and parkland in the local area	*(Km2)*
Total land surface area used for residential purposes	*(Km2)*
Aggregate gross area of housing units	*(m2)*

Total number of residential buildings	(number)
Percentage of residential buildings constructed before 1975	(%)
Aggregate gross area of office buildings	(m2)
Total number of office buildings	(number)
Percentage of office buildings constructed before 1975	(%)
Aggregate gross area of retail commercial buildings	(m2)
Total number of retail commercial buildings	(number)
Percentage of retail commercia buildings constructed before 1975	(%)
Aggregate gross area of public buildings	(m2)
Total number of public buildings	(number)
Percentage of public buildings constructed before 1975	(%)
Total number of other buildings	
Property ownership	(Enter text)

Population

Residential population in the area	(inhabitants)
Population density	(inhabitants/Km2)
Typical daytime population working in the area	(Number)

Socio-economic aspects

Social and economic context	(Enter text)

Infrastructures

Energy supply infrastructure	(Enter text)
Water supply infrastructure	(Enter text)
Other significant infrastructures	(Enter text)

1.2. Description of the building(s)

General information on the selected building	
Name of the building	
Pictures of the building	*(Pictures)*
Plan of a typical floor	*(Draw)*
Location of the building in the urban area	*(Draw)*
Address	*(Enter text)*
Actual building use	*(Enter images)*
History of the building	
Level of degradation of the building	
Owner	*(Enter text)*
Year of construction	*(Number)*
Building method	*(Enter text i.e. Concrete structure)*
Number of levels above earth	*(Number)*
Number of levels underground	*(Number)*
Heating system	*(Enter text)*
Cooling system	*(Enter text)*
DHW system	*(Enter text)*
Ventilation system	*(Enter text)*
Lighting system	*(Enter text)*
Average U value	*(Number)*
Number of occupants	*(Number)*
Hours of occupation per year	*(Number)*

1.3. Climatic profile

Parameter	Value	Unit of measure
Annual Mean Temperature		°C
Winter Mean Temperature		°C
Summer Mean Temperature		°C
Number of days with the daily maximum temperature > 90° percentile		
HSI (Heat Stress Index)		-
Mean speed of wind		m/s
Annuan mean amount of rainfall		mm
Number of intense rain events in a year (10 mm / 20 minutes)		
Number of consecutive days without rainfall in a year		
Annual Maximum level of rainfall in one hour		mm
Heating season Design Temperature		°C
Summer season Design Temperature		°C
Average relative humidity during warm season		%
Average relative humidity during cool season		%
Average difference, max-min. diurnal temps in warm season, ºC		°C
Solar irradiance on horizontal surface		kWh/m2 per year

1.4. SMC Team

Coordinator

Name	Surname	Work Field	Expertise

Members

Name	Surname	Work Field	Expertise

(add as many rows as necessary)

#	Work field	Definition of the profession
1	Architecture	Architects investigate, design and oversee the implementation of buildings taking into account functional, architectural, aesthetic, structural, technical, regulatory, cost and contextual requirements with due regard to public health and safety. Specialization is possible on topics like construction safety, thermal performance, acoustics, quality of air, daylighting.
2	Mechanical engineering (HVAC)	Designer of systems for HVAC and sanitary equipment, considering the limitations imposed by practicality, regulation, safety, and cost.
3	Civil engineering	Designer of materials and structures, considering the limitations imposed by practicality, regulation, safety, and cost. Specialization is possible on topics like construction safety, thermal performance, acoustics, building physics.
4	Electrical engineering	Designer of power, lighting, data and or communication installations, considering the limitations imposed by practicality, regulation, safety, and cost. Designer of building automation systems, system engineer / system integrator, considering the limitations imposed by practicality, regulation, safety, and cost.
5	Environmental engineering	Designer of solutions to protect human health, nature's beneficial ecosystems, and to improve environmental-related enhancement of the quality of human life
6	Energy engineering	Responsible for the optimization of energy usage, as well as the sources from which the energy is derived. Responsible for the EPCs.
7	Construction management	Responsible for quality assurance during on-site construction works in the realization of sustainable buildings
8	Building management	Responsible to maintain the real estate as it was realized at the end of the building process. Responsible for overall operation of the building, monitoring of performance, and maintenance.
9	Financing and procurement	Responsible for facilitating the process of tenders and (sub)contracts. Responsible for the associated risks involved in the building process for the customer and hands over the project to the tenant / buyer after completion and use of the building

1.5. Stakeholders

Category of the stakeholder	
Organisation	
Activity of the organisation	
Role in the decision-making process	
Contact person	

Category of the stakeholder	
Organisation	
Activity of the organisation	
Role in the decision-making process	
Contact person	

(Add as many table as necessary)

2. PREARATION

2.1 SNTool selection of criteria

In this section it is described the structure of your SNTool.
Please, enter here the list of the criteria selected from the SMC SNTool.
Please remember that KPIs are mandatory, and they don't have to be justified and included in this section.
PPs must motivate the selection of the criteria that have been included in the SNTool. Why the criterion has been included?

A- USE OF LAND AND BIODIVERSITY		
AX	**Name of the Category**	*Justification*
AX.X	*Name of the Criterion*	*Text*
AX.X	*Name of the Criterion*	*Text*

B- ENERGY		
BX	**Name of the Category**	*Justification*
BX.X	*Name of the Criterion*	*Text*
BX.X	*Name of the Criterion*	*Text*

C- WATER		
CX	**Name of the Category**	*Justification*
CX.X	*Name of the Criterion*	*Text*
CX.X	*Name of the Criterion*	*Text*

D- SOLID WASTE		
DX	**Name of the Category**	*Justification*
DX.X	*Name of the Criterion*	*Text*
DX.X	*Name of the Criterion*	*Text*

E- ENVIRONMENTAL QUALITY		
EX	**Name of the Category**	*Justification*
EX.X	*Name of the Criterion*	*Text*
EX.X	*Name of the Criterion*	*Text*

F- TRANSPORTATION AND MOBILITY

FX	Name of the Category	*Justification*
FX.X	*Name of the Criterion*	*Text*
FX.X	*Name of the Criterion*	*Text*

G- SOCIAL ASPECTS

GX	Name of the Category	*Justification*
GX.X	*Name of the Criterion*	*Text*
GX.X	*Name of the Criterion*	*Text*

H- ECONOMY

HX	Name of the Category	*Justification*
HX.X	*Name of the Criterion*	*Text*
HX.X	*Name of the Criterion*	*Text*

I- CLIMATE CHANGE

IX	Name of the Category	*Justification*
IX.X	*Name of the Criterion*	*Text*
IX.X	*Name of the Criterion*	*Text*

L- GOVERNANCE

LX	Name of the Category	*Justification*
LX.X	*Name of the Criterion*	*Text*
LX.X	*Name of the Criterion*	*Text*

2.2 SNTool data sources

In this section PPs must indicate for each selected criterion the data source that will be used during the assessment process.

A- USE OF LAND AND BIODIVERSITY		
AX	**Name of the Category**	**Data source**
AX.X	*Name of the Criterion*	*Text*
AX.X	*Name of the Criterion*	*Text*

B- ENERGY		
BX	**Name of the Category**	**Data source**
BX.X	*Name of the Criterion*	*Text*
BX.X	*Name of the Criterion*	*Text*

C- WATER		
CX	**Name of the Category**	**Data source**
CX.X	*Name of the Criterion*	*Text*
CX.X	*Name of the Criterion*	*Text*

D- SOLID WASTE		
DX	**Name of the Category**	**Data source**
DX.X	*Name of the Criterion*	*Text*
DX.X	*Name of the Criterion*	*Text*

E- ENVIRONMENTAL QUALITY		
EX	**Name of the Category**	**Data source**
EX.X	*Name of the Criterion*	*Text*
EX.X	*Name of the Criterion*	*Text*

F- TRANSPORTATION AND MOBILITY		
FX	**Name of the Category**	**Data source**
FX.X	*Name of the Criterion*	*Text*
FX.X	*Name of the Criterion*	*Text*

G- SOCIAL ASPECTS

GX	Name of the Category	Data source
GX.X	*Name of the Criterion*	*Text*
GX.X	*Name of the Criterion*	*Text*

H- ECONOMY

HX	Name of the Category	Data source
HX.X	*Name of the Criterion*	*Text*
HX.X	*Name of the Criterion*	*Text*

I- CLIMATE CHANGE

IX	Name of the Category	Data source
IX.X	*Name of the Criterion*	*Text*
IX.X	*Name of the Criterion*	*Text*

L- GOVERNANCE

LX	Name of the Category	Data source
LX.X	*Name of the Criterion*	*Text*
LX.X	*Name of the Criterion*	*Text*

2.3 SNTool benchmarks

In this section PPs must motivate the value of benchmarks assigned to the different criteria for score zero (minimum acceptable performance) and for score 5 (excellent and ideal performance). The value of indicators corresponding to score zero is usually depends on regulations, standards or a typical performance in the region. Please keep in mind that score 3 represents a best practice performance. Score 5 is an excellent performance.

A- USE OF LAND AND BIODIVERSITY

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Ax.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

B- ENERGY

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Bx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

C- WATER

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Cx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

D- SOLID WASTE

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Dx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

E- ENVIRONMENTAL QUALITY

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Ex.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

F- TRANSPORTATION AND MOBILITY

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Fx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

G- SOCIAL ASPECTS

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Gx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

H- ECONOMY

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
EHx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

I- CLIMATE CHANGE: MITIGATION AND ADAPTATION

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Ix.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

L - GOVERNANCE				
CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Lx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

2.4 SNTool weights

In this section PPs must motivate the value of priority factors assigned to issues (see D3.1.1), categories and criteria. Why the weight of a particular issue or criterion is higher (or lower)? Weights should reflect the regional political priorities.

ISSUES PRIORITIES

ISSUE	Priority Factor (1 to 5)	JUSTIFICATION
A- USE OF LAND AND BIODIVERSITY		Insert your comment here
B- ENERGY		Insert your comment here
C- WATER		Insert your comment here
D- SOLID WASTE		Insert your comment here
E- ENVIRONMENTAL QUALITY		Insert your comment here
F- TRANSPORTATION AND MOBILITY		Insert your comment here
G- SOCIAL ASPECTS		Insert your comment here
H - ECONOMY		Insert your comment here
I – CLIMATE CHANGE		Insert your comment here

CATEGORIES PRIORITIES

A	Use of land and biodiversity	Priority F. (1 to 5)	Justification
A1	Use of land		Insert your comment here
A2	Green urban areas		Insert your comment here
A3	Biodiversity and ecosystems		Insert your comment here
B	Energy	Priority F. (1 to 5)	Justification
B1	Energy infrastructure		Insert your comment here
B2	Energy infrastructure		Insert your comment here
B3	Renewable energy		Insert your comment here
C	Water	Priority F. (1 to 5)	Justification
C1	Water infrastructure		Insert your comment here
C2	Water consumption		Insert your comment here
C3	Effluents management		Insert your comment here
D	Solid Waste	Priority F. (1 to 5)	Justification
D1	Solid waste collection infrastructure		Insert your comment here
D2	Solid waste management		Insert your comment here
E	Environmental quality	Priority F. (1 to 5)	Justification
E1	Air quality		Insert your comment here
E2	Noise		Insert your comment here
E3	EMF exposure		Insert your comment here
E4	Environmental impacts		Insert your comment here
F	Environmental quality	Priority F. (1 to 5)	Justification
F1	Air quality		Insert your comment here
F2	Green mobility		Insert your comment here
F3	Safety in mobility		Insert your comment here
F4	Urban morphology and transportation		Insert your comment here
G	Social Aspects	Priority F. (1 to 5)	Justification
G1	Accessibility (disabled persons)		Insert your comment here
G2	Housing		Insert your comment here
G3	Availability of public and private facilities and services		Insert your comment here
G4	Education		Insert your comment here
G5	Social inclusion		Insert your comment here
G6	Safety		Insert your comment here
G7	Health		Insert your comment here
G8	Food security		Insert your comment here
G9	Culture and Heritage		Insert your comment here
G10	Perceptual		Insert your comment here
H	Economy	Priority F. (1 to 5))	Justification
H1	Economic performance		Insert your comment here
H2	Employment		Insert your comment here
H3	Innovation		Insert your comment here

H4	ICT infrastructure		Insert your comment here
I	Climate Change: mitigation and adaptation	Priority F. (1 to 5)	Justification
I1	Climate change mitigation		Insert your comment here
I2	Adaptation to the climatic action: heatwaves and increase of temperature		Insert your comment here
I3	Adaptation to the climatic action: pluvial flood		Insert your comment here
I4	Adaptation to the climatic action: fluvial and coastal flood		Insert your comment here
I5	Adaptation to the climatic action: drought		Insert your comment here
I6	Adaptation to the climatic hazard: wildfire		Insert your comment here
I7	Climatic hazard: wind		Insert your comment here
L	Governance	Priority F. (1 to 5)	Justification
L1	Urban Planning		Insert your comment here
L2	Management and community involvement		Insert your comment here
L3	Public buildings operation		Insert your comment here

CRITERIA IMPACTS

Note: A= Intensity of the Potential Effect (1-3), B=Extent of potential effect (1-5), C=Duration of potential effect (1-5), D=Local adjustment (1-2)

A- BUILT URBAN SYSTEMS					
Ax-………					
CRITERION	**Impact P_k** *(IxExDxA)*	**I** Intensity	**E** Extent	**D** Duration	**A** Adjustment
Ax.x					
Etc.					
TOTAL	100				

B- ENERGY					
Bx-………					
CRITERION	**Impact P_k** *(IxExDxA)*	**I** Intensity	**E** Extent	**D** Duration	**A** Adjustment
Bx.x					
Etc.					
TOTAL	100				

C- WATER

Cx-………

CRITERION	Impact P$_k$ (IxExDxA)	I Intensity	E Extent	D Duration	A Adjustment
Cx.x					
Etc.					
TOTAL	100				

D- SOLID WASTE

Dx-………

CRITERION	Impact P$_k$ (IxExDxA)	I Intensity	E Extent	D Duration	A Adjustment
Dx.x					
Etc.					
TOTAL	100				

E- ENVIRONMENTAL QUALITY

Ex-………

CRITERION	Impact P$_k$ (IxExDxA)	I Intensity	E Extent	D Duration	A Adjustment
Ex.x					
Etc.					
TOTAL	100				

F – TRANSPORATION AND MOBILITY

Fx-………

CRITERION	Impact P$_k$ (IxExDxA)	I Intensity	E Extent	D Duration	A Adjustment
Fx.x					
Etc.					
TOTAL	100				

G – SOCIAL ASPECTS

Gx-………

CRITERION	Impact P_k (IxExDxA)	I Intensity	E Extent	D Duration	A Adjustment
Gx.x					
Etc.					
TOTAL	100				

H- ECONOMY

Hx-………

CRITERION	Impact P_k (IxExDxA)	I Intensity	E Extent	D Duration	A Adjustment
Hx.x					
Etc.					
TOTAL	100				

I – CLIMATE CHANGE

Ix-………

CRITERION	Impact P_k (IxExDxA)	I Intensity	E Extent	D Duration	A Adjustment
Ix.x					
Etc.					
TOTAL	100				

L- GOVERNANCE

Lx-………

CRITERION	Impact P_k (IxExDxA)	I Intensity	E Extent	D Duration	A Adjustment
Lx.x					
Etc.					
TOTAL	100				

2.5 SBTool selection of criteria

In this section it is described the structure of your SBTool.
Please, enter here the list of the criteria selected from the SMC SBTool.
Please remember that KPIs are mandatory, and they don't have to be justified and included in this section.
PPs must motivate the selection of the criteria that have been included in the SBTool. Why the criterion has been included?

A - SITE REGENERATION AND DEVELOPMENT, URBAN DESIGN AND INFRASTRUCTURE		
AX	**Name of the Category**	*Justification*
AX.X	*Name of the Criterion*	*Text*
AX.X	*Name of the Criterion*	*Text*

B- ENERGY AND RESOURCES CONSUMPTION		
BX	**Name of the Category**	*Justification*
BX.X	*Name of the Criterion*	*Text*
BX.X	*Name of the Criterion*	*Text*

C- ENVIRONMENTAL LOADINGS		
CX	**Name of the Category**	*Justification*
CX.X	*Name of the Criterion*	*Text*
CX.X	*Name of the Criterion*	*Text*

D- INDOOR ENVIRONMENTAL QUALITY		
DX	**Name of the Category**	*Justification*
DX.X	*Name of the Criterion*	*Text*
DX.X	*Name of the Criterion*	*Text*

E- SERVICE QUALITY		
EX	**Name of the Category**	*Justification*
EX.X	*Name of the Criterion*	*Text*
EX.X	*Name of the Criterion*	*Text*

F- SOCIAL, CULTURAL AND PERCEPTUAL ASPECTS		
FX	**Name of the Category**	*Justification*
FX.X	*Name of the Criterion*	*Text*
FX.X	*Name of the Criterion*	*Text*

G- COST AND ECONOMIC ASPECTS		
GX	**Name of the Category**	*Justification*
GX.X	*Name of the Criterion*	*Text*
GX.X	*Name of the Criterion*	*Text*

H- ADAPTATION TO CLIMATE CHANGE		
HX	**Name of the Category**	*Justification*
HX.X	*Name of the Criterion*	*Text*
HX.X	*Name of the Criterion*	*Text*

2.6 SBTool data sources

In this section PPs must indicate for each selected criterion the data source that will be used during the assessment process.

A - SITE REGENERATION AND DEVELOPMENT, URBAN DESIGN AND INFRASTRUCTURE		
AX	**Name of the Category**	**Data source**
AX.X	*Name of the Criterion*	*Text*
AX.X		

B- ENERGY AND RESOURCES CONSUMPTION		
BX	**Name of the Category**	**Data source**
BX.X	*Name of the Criterion*	*Text*
BX.X		

C- ENVIRONMENTAL LOADINGS		
CX	**Name of the Category**	**Data source**
CX.X	*Name of the Criterion*	*Text*
CX.X		

D- INDOOR ENVIRONMENTAL QUALITY		
DX	**Name of the Category**	**Data source**
DX.X	*Name of the Criterion*	*Text*
DX.X		

E- SERVICE QUALITY		
EX	**Name of the Category**	**Data source**
EX.X	*Name of the Criterion*	*Text*
EX.X		

F- SOCIAL, CULTURAL AND PERCEPTUAL ASPECTS		
FX	**Name of the Category**	**Data source**
FX.X	*Name of the Criterion*	*Text*
FX.X		

G- COST AND ECONOMIC ASPECTS		
GX	**Name of the Category**	**Data source**
GX.X	*Name of the Criterion*	*Text*
GX.X		

2.7 SBTool benchmarks

In this section PPs must motivate the value of benchmarks assigned to the different criteria for score zero (minimum acceptable performance) and for score 5 (excellent and ideal performance). The value of indicators corresponding to score zero is usually depends on regulations, standards or a typical performance in the region. Please keep in mind that score 3 represents a best practice performance. Score 5 is an excellent performance.

A - SITE REGENERATION AND DEVELOPMENT, URBAN DESIGN AND INFRASTRUCTURE				
CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Ax.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

B- ENERGY AND RESOURCES CONSUMPTION				
CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Bx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

C- ENVIRONMENTAL LOADINGS				
CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Cx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

D- INDOOR ENVIRONMENTAL QUALITY

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Dx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

E- SERVICE QUALITY

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Ex.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

F- SOCIAL, CULTURAL AND PERCEPTUAL ASPECTS

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Fx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

G- COST AND ECONOMIC ASPECTS

CRITERION	INDICATOR	UNIT OF MEASURE	BENCHMARK	RATIONALE
Gx.x	*(text)*		*0: value*	*Insert your comment here*
			5: value	*Insert your comment here*

2.8 SBTool weights

In this section PPs must motivate the value of weights assigned to issues, categories and criteria. Why the weight of a particular issue or criterion is higher (or lower)? Weights should reflect the regional political priorities.

ISSUES PRIORITIES

ISSUE	Priority (1 to 5)	JUSTIFICATION
A- Site Regeneration and Development, Urban Design and Infrastructure		Insert your comment here
B- Energy and Resources Consumption		Insert your comment here
C- Environmental Loadings		Insert your comment here
D- Indoor Environmental Quality		Insert your comment here
E- Service Quality		Insert your comment here
F- Social, Cultural and Perceptual Aspects		Insert your comment here
G- Cost and Economic Aspects		Insert your comment here
H - Adaptation to Climate Change		Insert your comment here

CATEGORIES PRIORITIES

A	Site Regeneration and Development, Urban Design and Infrastructure	Priority (1 to 5)	Justification
A1	Site Selection		Insert your comment here
A2	Site development		Insert your comment here
B	Energy and Resources Consumption	Priority (1 to 5)	Justification
B1	Energy		Insert your comment here
B2	Electrical peak demand		Insert your comment here
B3	Materials		Insert your comment here
B4	Use of potable water, stormwater and greywater		
C	Environmental Loadings	Priority (1 to 5)	Justification
C1	Greenhouse Gas Emissions		Insert your comment here
C2	Other Atmospheric Emissions		Insert your comment here
C3	Solid Wastes		Insert your comment here
D	Indoor Environmental Quality	Priority (1 to 5)	Justification
D1	Indoor Air Quality and Ventilation		Insert your comment here
D2	Air Temperature and Relative Humidity		Insert your comment here

D3	Daylighting and Illumination		
D4	Noise and Acoustics		
D5	Electromagnetic pollution		
E	Service Quality	Priority (1 to 5)	Justification
E1	Controllability		Insert your comment here
E2	Optimization and Maintenance of Operating Performance		Insert your comment here
F	Social, Cultural and Perceptual Aspects	Priority (1 to 5)	Justification
F1	Social Aspects		Insert your comment here
F2	Perceptual		Insert your comment here
G	Cost and Economic Aspects	Priority (1 to 5)	Justification
G1	Cost and Economics		Insert your comment here
H	Adaptation to Climate Change	Priority (1 to 5)	Justification
H1	Climatic action: increase of temperature		Insert your comment here
H2	Climatic action: pluvial flood		Insert your comment here
H3	Climatic action: fluvial and coastal flood		Insert your comment here
H4	Climatic action: drought		Insert your comment here
H5	Climatic action: fire exposure		
H6	Climatic action: wind action		

CRITERIA IMPACTS

Note: A= Intensity of the Potential Effect (1-3), B=Extent of potential effect (1-5), C=Duration of potential effect (1-5), D=Local adjustment (1-2)

A- SITE REGENERATION AND DEVELOPMENT, URBAN DESIGN AND INFRASTRUCTURE					
Ax-………					
CRITERION	Impact (AxBxC)	A Intensity	B Extent	C Duration	D Adjustment
Ax.x					
Etc.					
TOTAL	100				

B- ENERGY AND RESOURCES CONSUMPTION

Bx-………

CRITERION	Impact (AxBxC)	A Intensity	B Extent	C Duration	D Adjustment
Bx.x					
Etc.					
TOTAL	100				

C- ENVIRONMENTAL LOADINGS

Cx-………

CRITERION	Impact (AxBxC)	A Intensity	B Extent	C Duration	D Adjustment
Cx.x					
Etc.					
TOTAL	100				

D- INDOOR ENVIRONMENTAL QUALITY

Dx-………

CRITERION	Impact (AxBxC)	A Intensity	B Extent	C Duration	D Adjustment
Dx.x					
Etc.					
TOTAL	100				

E- SERVICE QUALITY

Ex-………

CRITERION	Impact (AxBxC)	A Intensity	B Extent	C Duration	D Adjustment
Ex.x					
Etc.					
TOTAL	100				

F – SOCIAL, CULTURAL AND PERCEPTUAL ASPECTS					
Fx-………					
CRITERION	**Impact** **(AxBxC)**	**A** **Intensity**	**B** **Extent**	**C** **Duration**	**D** **Adjustment**
Fx.x					
Etc.					
TOTAL	100				

G – COST AND ECONOMIC ASPECTS					
Gx-………					
CRITERION	**Impact** **(AxBxC)**	**A** **Intensity**	**B** **Extent**	**C** **Duration**	**D** **Adjustment**
Gx.x					
Etc.					
TOTAL	100				

H- ADAPTATION TO CLIMATE CHANGE					
Hx-………					
CRITERION	**Impact** **(AxBxC)**	**A** **Intensity**	**B** **Extent**	**C** **Duration**	**D** **Adjustment**
Hx.x					
Etc.					
TOTAL	100				

3. DIAGNOSIS

3.1 Assessment of the current state of the urban area

Evaluation of the actual performance and relative level of sustainability of the urban area.
PPs have to indicate the scores reached.

A	Use of land and biodiversity				
Ax	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Ax.x	(name)	(description)			
Ax.x	(name)	(description)			
Ax	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Ax.x	(name)	(description)			
Ax.x	(name)	(description)			

B	Energy				
Ax	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Bx.x	(name)	(description)			
Bx.x	(name)	(description)			
Bx	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Bx.x	(name)	(description)			
Bx.x	(name)	(description)			

C	Water				
Cx	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Cx.x	(name)	(description)			
Cx.x	(name)	(description)			
Cx	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Cx.x	(name)	(description)			
Cx.x	(name)	(description)			

D	Solid Waste				
Dx	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Dx.x	(name)	(description)			
Dx.x	(name)	(description)			
Dx	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Dx.x	(name)	(description)			
Dx.x	(name)	(description)			

E	Environmental quality				
Ex	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Ex.x	(name)	(description)			
Ex.x	(name)	(description)			
Ex	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Ex.x	(name)	(description)			
Ex.x	(name)	(description)			

F	Transportation and mobility				
Ax	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Fx.x	(name)	(description)			
Fx.x	(name)	(description)			
Fx	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Fx.x	(name)	(description)			
Fx.x	(name)	(description)			

G	Social Aspects				
Gx	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Gx.x	(name)	(description)			
Gx.x	(name)	(description)			
Ax	(name of the category)				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Gx.x	(name)	(description)			
Gx.x	(name)	(description)			

H	Economy				
Hx	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Hx.x	(name)	(description)			
Hx.x	(name)	(description)			
Ax	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Hx.x	(name)	(description)			
Hx.x	(name)	(description)			

I	Climate Change: mitigation and adaptation				
IAx	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Ix.x	(name)	(description)			
Ix.x	(name)	(description)			
Ix	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Ix.x	(name)	(description)			
Ix.x	(name)	(description)			

L	Governance				
Lx	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Lx.x	(name)	(description)			
Lx.x	(name)	(description)			
Lx	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Lx.x	(name)	(description)			
Lx.x	(name)	(description)			

3.2 Identification of weaknesses and critical issues in the urban area

The SNTool assessment criteria are ranked in relation to the performance score to identify the most critical sustainability issues in the urban area.

CODE	CRITERION	Score
Ax.x	(name)	
Ax.x	(name)	

3.3 Evaluation of energy infrastructure's current state

Describe the current state of the energy infrastructure in the urban area.
Identify the weaknesses and highlight the most critical ones..

3.4 Evaluation of water infrastructure's current state

Describe the current state of the water infrastructure in the urban area.
Identify the weaknesses and highlight the most critical ones.

3.5   SWOT analysis

A SWOT analysis is a study undertaken to identify its strengths, weaknesses, available opportunities, and possible threats. The analysis is based on a quadrant matrix, in which strengths and weaknesses (internal factors) are presented above the x-axis, and opportunities and threats (external factors) are presented below. Typically, strengths and opportunities (positive factors) are listed on the left of the y-axis, while weaknesses and threats (negative factors) are listed on the right.

STRENGTHS	WEAKNESSES
- ...... - ...... - ...... - ...... - ...... - ...... - ...... -	- ...... - ...... - ...... - ...... - ...... - ...... - ...... - ......
OPPORTUNITIES	THREATS
- ...... - ...... - ...... - ...... - ...... - ...... - ...... -	- ...... - ...... - ...... - ...... - ...... - ...... - ...... - ......

3.6 Assessment of the current state of the building

Evaluation of the actual performance and relative level of sustainability of the buildings.
PPs have to indicate the scores reached.

A	Site Regeneration and Development, Urban Design and Infrastructure				
Ax	**(name of the category)**				
CODE	**CRITERION**	**INDICATOR**	**Value**	**UNIT OF MEASURE**	**Score**
Ax.x	(name)	(description)			
Ax.x	(name)	(description)			
Ax	**(name of the category)**				
CODE	**CRITERION**	**INDICATOR**	**Value**	**UNIT OF MEASURE**	**Score**
Ax.x	(name)	(description)			
Ax.x	(name)	(description)			

B	Energy and Resources Consumption				
Ax	**(name of the category)**				
CODE	**CRITERION**	**INDICATOR**	**Value**	**UNIT OF MEASURE**	**Score**
Bx.x	(name)	(description)			
Bx.x	(name)	(description)			
Bx	**(name of the category)**				
CODE	**CRITERION**	**INDICATOR**	**Value**	**UNIT OF MEASURE**	**Score**
Bx.x	(name)	(description)			
Bx.x	(name)	(description)			

C	Environmental Loadings				
Cx	**(name of the category)**				
CODE	**CRITERION**	**INDICATOR**	**Value**	**UNIT OF MEASURE**	**Score**
Cx.x	(name)	(description)			
Cx.x	(name)	(description)			
Cx	**(name of the category)**				
CODE	**CRITERION**	**INDICATOR**	**Value**	**UNIT OF MEASURE**	**Score**
Cx.x	(name)	(description)			
Cx.x	(name)	(description)			

D	Indoor Environmental Quality				
Dx	**(name of the category)**				
CODE	**CRITERION**	**INDICATOR**	**Value**	**UNIT OF MEASURE**	**Score**
Dx.x	(name)	(description)			
Dx.x	(name)	(description)			
Dx	**(name of the category)**				
CODE	**CRITERION**	**INDICATOR**	**Value**	**UNIT OF MEASURE**	**Score**

CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Dx.x	(name)	(description)			
Dx.x	(name)	(description)			

E	Service Quality				
Ex	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Ex.x	(name)	(description)			
Ex.x	(name)	(description)			
Ex	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Ex.x	(name)	(description)			
Ex.x	(name)	(description)			

F	Social, Cultural and Perceptual Aspects				
Ax	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Fx.x	(name)	(description)			
Fx.x	(name)	(description)			
Fx	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Fx.x	(name)	(description)			
Fx.x	(name)	(description)			

G	Cost and Economic Aspects				
Gx	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Gx.x	(name)	(description)			
Gx.x	(name)	(description)			
Ax	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Gx.x	(name)	(description)			
Gx.x	(name)	(description)			

H	Adaptation to Climate Change				
Hx	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Hx.x	(name)	(description)			
Hx.x	(name)	(description)			
Ax	**(name of the category)**				
CODE	CRITERION	INDICATOR	Value	UNIT OF MEASURE	Score
Hx.x	(name)	(description)			
Hx.x	(name)	(description)			

3.7 Identification of weaknesses and critical issues of the building

The SBTool assessment criteria are ranked in relation to the performance score to identify the most critical sustainability issues of the building.

CODE	CRITERION	Score
Ax.x	(name)	
Ax.x	(name)	

3.8 Diagnosis summary report

The report must summarize the key findings at urban and building level of the diagnosis phase.
Description of the most significant weak point identified through the use of SBTool and SNTool and the analysis of the infrastructures.
Recommendation for the Strategic Definition phase in relation to the weak points that must be considered a priority.

4. STRATEGIC DEFINITION

4.1 Performance targets for the urban area

The overall Environmental, Social and Economic targets have to be SHORTLY described

Environmental targets	*(3000 caracters)*
Social targets	*(3000 caracters)*
Economy targets	*(3000 caracters)*

Sustainability target shall be set for the low performing assessment criteria identified in the diagnosis phase, using the tables below.

A – USE OF LAND AND BIODIVERSITY			
Ax – Category name			
Ax.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

B – ENERGY			
Bx – Category name			
Bx.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

C – WATER			
Cx – Category name			
Cx.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

D – **SOLID WASTE**		
Dx – Category name		
Dx.x – (Criterion name)	**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score		

E – **ENVIRONMENTAL QUALITY**		
Ex – Category name		
Ex.x – (Criterion name)	**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score		

F – TRANSPORTATION AND MOBILITY		
Fx – Category name		
Fx.x – (Criterion name)	**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score		

G – SOCIAL ASPECTS		
Gx – Category name		
Gx.x – (Criterion name)	**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score		

H – **ECONOMY**		
Hx – Category name		
Hx.x – (Criterion name)	**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score		

I – CLIMATE CHANGE			
Ix – Category name			
Ix.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

L – GOVERNANCE			
Lx – Category name			
Lx.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

4.2   Constraints and restrictions for the urban area

CONSTRAINTS / RESTRICTIONS	
Legal constraints	(e.g. Building Codes, Cultural Heritage Protection)
Technical constraints	(e.g. Architecture, Systems)
Financial constraints	(e.g. Investment Cost, ROI)
Environmental condition constraints	(e.g. Climatic conditions, morphology of the district)
Stakeholder based restrictions	
Other relevant constraints	(text)

4.3 Performance targets for the building(s)

This template must be prepared for all the buildings in the study.

The overall Environmental, Social and Economic retrofitting targets have to be described

Environmental targets	*(e.g. energy consumption, water consumption, etc. - 1000 characters)*
Social targets	*(e.g., comfort, safety, accessibility, service, etc. - 1000 characters)*
Economy targets	*(Life cycle cost, operational costs, maintenance costs, etc. - 1000 characters)*

Sustainability target shall be set for the low performing assessment criteria identified in the diagnosis phase, using the tables below.

A – SITE REGENERATION AND DEVELOPMENT, URBAN DESIGN AND INFRASTRUCTURE			
Ax – Category name			
Ax.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

B – ENERGY AND RESOURCES CONSUMPTION			
Bx – Category name			
Bx.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

C – ENVIRONMENTAL LOADINGS			
Cx – Category name			
Cx.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

D – INDOOR ENVIRONMENTAL QUALITY			
Dx – Category name			
Dx.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

E – SERVICE QUALITY			
Ex – Category name			
Ex.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

F – SOCIAL, CULTURAL AND PERCEPTUAL ASPECTS			
Fx – Category name			
Fx.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

G – COST AND ECONOMIC ASPECTS			
Gx – Category name			
Gx.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

H – ADAPTATION TO CLIMATE CHANGE			
Hx – Category name			
Hx.x – (Criterion name)		**Actual value**	**Target value**
(Indicator)	(Unit of measure)		
Performance score			

4.4   Constraints and restrictions for the building(s)

This template must be prepared for all the buildings in the study.

CONSTRAINTS / RESTRICTIONS	
Legal constraints	(e.g. Building Codes, Cultural Heritage Protection)
Technical constraints	(e.g. Architecture, Systems)
Financial constraints	(e.g. Investment Cost, ROI)
Environmental condition constraints	(e.g. Climatic conditions, morphology of the district)
Stakeholder based restrictions	
Other relevant constraints	(text)

4.5   Diagnosis summary report

Provide information for the urban area and each building in the study.

Summary of the urban areas' weak points to be addressed in the "Retrofitting scenario" phase

(5000 characters)

Summary of the (building name) weak points to be addressed in the "Retrofitting scenario" phase

(3000 characters)

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5. Retrofitting scenarios

5.1 Description of the scenario at urban scale

Scenario nr.	
Name of the scenario	
Description of the scenario	(3000 characters max)
Retrofit interventions	
A) Use of land and biodiversity	*Description of Interventions for: conservation of land, brownfields management, green urban infrastructures, connectivity of green areas, etc..*
B) Energy	*Description of Interventions for: energy efficiency, energy consumptions reduction, use of renewable energy, etc.)*
C) Water	*Description of Interventions for: efficiency of the water network, water consumptions reduction, wastewater treatment, etc.*
D) Solid Waste	*Description of Interventions for: separate collection and recycling facilities, etc.*
E) Environmental quality	*Description of Interventions for: air pollution mitigation, noise pollution mitigation, etc.*
F) Mobility and transportation	*Description of Interventions for: green mobility, safety in mobility, quality of the public transport network, etc.*
G) Social aspects	*Description of Interventions for: barrier free urban areas, housing, proximity to services, education, social inclusion, health, food security, culture and heritage, etc.*
H) Economy	*Description of Interventions for: economic performance, employment, innovation, ICT infrastructure, etc.*
I) Climate change mitigation	*Description of Interventions to reduce the city's greenhouse gas emissions*
I) Climate change adaptation	*Description of Interventions to improve the city's resilience and adaption to climate change*
L) Governance	*Description of Interventions for: participatory processes in planning, community involvement in the management of neighborhoods, etc.*
Financial schemes and business models	
Description of the possible financial schemes and business models for the future implementation of interventions	

5.2 Description of the scenario at building scale scale

Scenario nr.	
Name of the scenario	
Description of the scenario	(3000 characters max)
Retrofit interventions	
A) Site Regeneration and Development, Urban Design and Infrastructure	*Description of Interventions for: ecological value of land, provision of bicicls parks, and outdoor recreation areas, use of local plants, etc.*
B) Energy and Resources Consumption	*Description of Interventions for: reduction of energy needs, use of renewable energy, use of sustainable materials, reduction of potable water consumptions, etc.*
C) Environmental Loadings r	*Description of Interventions for: greenhouse gases reduction, reduction of atmospheric emissions, solid waste management, etc.*
D) Indoor Environmental Quality	*Description of Interventions for: thermal comfort, air quality, visual comfort, ambient noise, exposition to EMF, use of daylight, etc.)*
E) Service Quality	*Description of Interventions for: controllability of technical installations, optimization of performance in use, etc.*
F) Social, Cultural and Perceptual Aspects	*Description of Interventions for: accessibility of the building, view out, etc..*
G) Cost and Economics	*Description of Interventions for: optimization of costs in the life cycle etc.*
H) Adaptation to Climate Change	*Description of Interventions for: improving the adaptation of the building to climatic hazards (extreme weather events, extreme temperatures, drought, fire exposure, etc.)*
Financial schemes and business models	
Description of the possible financial schemes and business models for the future implementation of interventions	

6. Decision Making

6.1 Assessment of the urban scale scenario with SNTool

Scenario nr	
Name of the scenario	

A – USE OF LAND AND BIODIVERSITY			
Ax – Category name			
Ax.x – (Criterion name)		Target value	Scenario value
(Indicator)	(Unit of measure)		
Performance score			

B – ENERGY			
Bx – Category name			
Bx.x – (Criterion name)		Target value	Scenario value
(Indicator)	(Unit of measure)		
Performance score			

C – WATER			
Cx – Category name			
Cx.x – (Criterion name)		Target value	Scenario value
(Indicator)	(Unit of measure)		
Performance score			

D – SOLID WASTE			
Dx – Category name			
Dx.x – (Criterion name)		Target value	Scenario value
(Indicator)	(Unit of measure)		
Performance score			

E – **ENVIRONMENTAL QUALITY**			
Ex – Category name			
Ex.x – (Criterion name)		**Target value**	**Scenario value**
(Indicator)	(Unit of measure)		
Performance score			

F – TRANSPORTATION AND MOBILITY			
Fx – Category name			
Fx.x – (Criterion name)		**Target value**	**Scenario value**
(Indicator)	(Unit of measure)		
Performance score			

G – SOCIAL ASPECTS			
Gx – Category name			
Gx.x – (Criterion name)		**Target value**	**Scenario value**
(Indicator)	(Unit of measure)		
Performance score			

H – **ECONOMY**			
Hx – Category name			
Hx.x – (Criterion name)		**Target value**	**Scenario value**
(Indicator)	(Unit of measure)		
Performance score			

I – CLIMATE CHANGE			
Ix – Category name			
Ix.x – (Criterion name)		**Target value**	**Scenario value**
(Indicator)	(Unit of measure)		
Performance score			

L – GOVERNANCE			
Lx – Category name			
Lx.x – (Criterion name)		**Target value**	**Scenario value**
(Indicator)	(Unit of measure)		
Performance score			

SNTool assessment's results

ISSUE	Weight	SCORE
A- USE OF LAND AND BIODIVERSITY		
B- ENERGY		
C- WATER		
D- SOLID WASTE		
E- ENVIRONMENTAL QUALITY		
F- TRANSPORTATION AND MOBILITY		
G- SOCIAL ASPECTS		
H - ECONOMY		
I – CLIMATE CHANGE		
L - GOVERNANCE		
TOTAL SCORE		**0**

6.2 Assessment of a building scale scenario with SBTool

Scenario nr.	
Name of the scenario	

A – SITE REGENERATION AND DEVELOPMENT, URBAN DESIGN AND INFRASTRUCTURE		
Ax – Category name		
Ax.x – (Criterion name)	**Target value**	**Scenario value**
(Indicator)	(Unit of measure)		
Performance score		

B – ENERGY AND RESOURCES CONSUMPTION		
Bx – Category name		
Bx.x – (Criterion name)	**Target value**	**Scenario value**
(Indicator)	(Unit of measure)		
Performance score		

C – ENVIRONMENTAL LOADINGS		
Cx – Category name		
Cx.x – (Criterion name)	**Target value**	**Scenario value**
(Indicator)	(Unit of measure)		
Performance score		

D – INDOOR ENVIRONMENTAL QUALITY		
Dx – Category name		
Dx.x – (Criterion name)	**Target value**	**Scenario value**
(Indicator)	(Unit of measure)		
Performance score		

E – SERVICE QUALITY		
Ex – Category name		
Ex.x – (Criterion name)	**Target value**	**Scenario value**
(Indicator)	(Unit of measure)		
Performance score		

F – SOCIAL, CULTURAL AND PERCEPTUAL ASPECTS			
Fx – Category name			
Fx.x – (Criterion name)		Target value	Scenario value
(Indicator)	(Unit of measure)		
Performance score			

G – COST AND ECONOMIC ASPECTS			
Gx – Category name			
Gx.x – (Criterion name)		Target value	Scenario value
(Indicator)	(Unit of measure)		
Performance score			

H – ADAPTATION TO CLIMATE CHANGE			
Hx – Category name			
Hx.x – (Criterion name)		Target value	Scenario value
(Indicator)	(Unit of measure)		
Performance score			

SBTool assessment's results

ISSUE	Weight	SCORE
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		
TOTAL SCORE		0

6.3 Calculation of the sustainability global score of the scenarios

For each scenario, it must be calculated the Global Sustainability Score (GSS), combining the SNTool and SBTool scores.

Priorities of assessments

Assessment	Weight (%)
Urban area	
Building A	
Building B	
….	

Global Sustainability Score

Scenario nr.			
Scenario name			
Assessment	Assessment's score (Z)	Weight (Priority level) (Y)	Weighted score (Z x Y)
SNTool - Urban area			
SBTool - Building A			
SBTool - Building B			
Global Sustainability Score			**0**

Scenario nr.			
Scenario name			
Assessment	Assessment's score (Z)	Weight (Priority level) (Y)	Weighted score (Z x Y)
SNTool - Urban area			
SBTool - Building A			
SBTool - Building B			
Global Sustainability Score			**0**

6.4 Ranking of scenarios

The scenarios are ranked on the base of their Global Sustainability Score.

Ranking of scenarios

Position in the ranking	Scenario	Global Sustainability Score
#1	Scenario #	
#2	Scenario #	
#3	Scenario #	

6.5 Selection of the optimal scenario

The municipality has to select the optimal scenario. In the following table the justification about the selection has to be provided.

Scenario nr.	
Name of the scenario	
Justification of the selection	(3000 characters max)

7. Retrofitting concept

The retrofitting interventions beloenging to the scenario selected in the Decision Making phase will detailed in this step. It is possible to indicate more thanone intervention for each fileds (e.g. Energy)

Name of the retrofitting concept	
Summary of the retrofitting concept	(3000 characters max)

Retrofitting interventions at urban scale	
A) Use of land and biodiversity	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Timescale	
Budget estimation	
Financial scheme	
Responsible for the implementation	
Partnerships	
Reference stakeholders	
Links with strategies, plans, programs	
B) Energy	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	

Activities/works to implement the intervention	
Timescale	
Budget estimation	
Financial scheme	
Responsible for the implementation	
Partnerships	
Reference stakeholders	
Links with strategies, plans, programs	

C) Water	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Timescale	
Budget estimation	
Financial scheme	
Responsible for the implementation	
Partnerships	
Reference stakeholders	
Links with strategies, plans, programs	

D) Solid Waste	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to	

implement the intervention	
Timescale	
Budget estimation	
Financial scheme	
Responsible for the implementation	
Partnerships	
Reference stakeholders	
Links with strategies, plans, programs	
E) Environmental quality	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Timescale	
Budget estimation	
Financial scheme	
Responsible for the implementation	
Partnerships	
Reference stakeholders	
Links with strategies, plans, programs	
F) Mobility and transportation	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the	

intervention	
Timescale	
Budget estimation	
Financial scheme	
Responsible for the implementation	
Partnerships	
Reference stakeholders	
Links with strategies, plans, programs	

G) Social aspects	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Timescale	
Budget estimation	
Financial scheme	
Responsible for the implementation	
Partnerships	
Reference stakeholders	
Links with strategies, plans, programs	

H) Economy	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	

Timescale	
Budget estimation	
Financial scheme	
Responsible for the implementation	
Partnerships	
Reference stakeholders	
Links with strategies, plans, programs	
I) Climate change mitigation	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Timescale	
Budget estimation	
Financial scheme	
Responsible for the implementation	
Partnerships	
Reference stakeholders	
Links with strategies, plans, programs	
I) Climate change adaptation	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Timescale	

Budget estimation	
Financial scheme	
Responsible for the implementation	
Partnerships	
Reference stakeholders	
Links with strategies, plans, programs	
L) Governance	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Timescale	
Budget estimation	
Financial scheme	
Responsible for the implementation	
Partnerships	
Reference stakeholders	
Links with strategies, plans, programs	

Retrofitting interventions at building scale	
A) Site Regeneration and Development, Urban Design and Infrastructure	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Budget estimation	
B) Energy and Resources Consumption	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Budget estimation	
C) Environmental Loadings	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Budget estimation	
D) Indoor Environmental Quality	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Budget estimation	

E) Service Quality	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Budget estimation	

F) Social, Cultural and Perceptual Aspects	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Budget estimation	

G) Cost and Economic Aspects	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Budget estimation	

H) Adaptation to Climate Change	
Retrofitting intervention	*(name)*
Description	*(2000 characters)*
Expected results	
Activities/works to implement the intervention	
Budget estimation	

Business model/Financial scheme

| *Describe the business model/Financial scheme for the retrofitting activities.* |

| Explanation about the synergies among the retrofitting solutions at urban and building | |

The retrofitting concept must be complemented with:

- Description of urban area (1.1)

- Description of the building (1.2)

- Diagnosis summary report (3.8)

- Assessment of the urban scae senarion with SNTool (6.1)

- Assessment of the scenario at building scale (6.2)