

10-DAY CHALLENGE

11-24 March 2021

Events and activities for naturally-smarter businesses

HATURE 4 CITIES Discover and live-test Nature4Cities Nature Based Solutions platform

23rd March 2021, 9:00 - 12:00 CET

A few 'house rules"











We invite you to turn on your camera if possible

2

Get involved in The We Value Nature 10-Day Challenge

- Complete daily challenges. Each challenge can be completed in around 10 –15 minutes and will help you take the next step on your nature journey.
- Register for practical, interactive sessions.



wevaluenature.eu/10-day-challenge







Supporting





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 821303 wevaluenature.eu info@wevaluenature.eu @WeValueNature **09:15 – 09:45 :** Nature4Cities project, platform and tools

09:45 – 10:25 : Our field-test activities results : testimonials and feedbacks from our pilot cities

Break (10 minutes)

10:35 – 11:20 : Quick demo of our platform and by yourself with our live support + share with us your feedbacks and first feelings.

11:20 – 11:45 : Our platform business model and after-life

Conclusions (15 minutes)



Urban areas face challenges







to address them **Nature4Cities** intends to foster the implementation of

NATURE BASED SOLUTIONS

these are

ACTIONS

inspired by or supported by NATURE

and spread out at different and interconnected scales













Integration of NBS in urban and spatial planning

new and active community network around NBS



high quality knowledge and assessment tools



new governance, business and financial models for NBS implementation

The H2020 project





Nature4Cities Platform

technical solutions, methods and tools to empower urban planning decision making and address the contemporary environmental, social and economic challenges that European Cities are facing





Get knowledge and inspiration to choose the **right NBS to match your needs**.



Discover Nature Based Solutions

and the challenges they help addressing with our interactive NBS explorer with extensive factsheets on each NBS



with our Geocluster4NBS and pre-selection tool



Diagnose your city's trends

Rate your city performance and identify the best place to implement your NBS project



ASSESS A NBS PROJECT

Assess the impact of your NBS for urban resilience, for the environment and on socio-economic features. Assessing your NBS project allows you increase your chances of meetings your goals



indicators

scenarios

Find the best methods and tools to evaluate and solve your city's urban challenges

Assess the impact of the NBS during all its lifecycle

calculation

Foresee the best place for your NBS by evaluating how it will affect its

Estimate the socio-economic benefits, co-benefits and costs of a NBS project

4 CITIES	NATURE

results

SUA tool: simplified Urban Performance Assessment Module



Urban Performance assessment Evaluate how your NBS will benefit its surroundings -insitu Socio-economic assessment Estimate the socio-economic benefits, co-benefits and costs of a NB project Environmental assessment

Three components

- ✓ GREENPASS : microclimate and thermal comfort
- ✓ Colouree NBS : environmental analysis of district
- EMBBox (Expert Model Based Box) : simplified version based on various expert models

\rightarrow What for?

- \checkmark To assess the benefits of an NBS scenario in urban environment
- \checkmark To compare several NBS options
- \checkmark To improve the design of an NBS and sustainable practices





Socio-economic assessment module



Urban Performance assessment

Evaluate how your NBS will benefit its surroundings -insitu

Socio-economic assessment Estimate the socio-economic benefits, co-benefits and costs of a NBS project

Environmental assessment

Assessthe impact of the NBS duringall its life cycle -exsitu

NBenefit\$

✓ NBenefit\$ functions and steps have been fully integrated into the N4C Platform to allow practitioners using both tools

\rightarrow What for?

- ✓ To quantify and assess multiple ecosystem services provided by NBS over their entire life cycle
- ✓ To compute and visualize impacts such as costs and benefits in terms of physical and monetary ecosystem service values at different spatial and temporal settings









Environmental assessment module



Jrban Performance assessment

- Evaluate how your NBS will benefit its surroundings -in Socio-economic assessment
 - Estimate the socio-economic benefits, co-benefits and costs of a NBS project

Environmental assessment

Assessthe impact of the NBS duringall its life cycle -exsitu

Two components

- ✓ Material Flow Analysis (MFA) tool
- \checkmark Simplified Life Cycle Assessment (LCA) tool

\rightarrow What for?

- ✓ To calculate Material Flow Based KPIs
- \checkmark To compare several NBS options or NBS with grey solutions
- \checkmark To improve the design of an NBS





Once your project ready to be launched, you still need to build a governance and economic model and to follow your project day by day



Gain skills to build inclusive projects

with our implementation models handbook



Find the most suitable Business, governance and financing model

with our Implementation models pre-selector



Involve citizens in your project

With our NBS participation tool



Preparation to the live-test

Registration on N4Cplatform



Hatform



3. Click Assess a NBS Project

4. Select NBS project assessment



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Assessment		- 10.0	10.00	444
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-	and the second			
-				

Interact with MURAL

Provide your feedbacks In a general way for the Assessment Tool ? QUESTIONS Example: I find the interface easy to use WORK WELL APPRECIABLE PLEASANT A PAIN POINTS DOES NOT WORK . SUGGESTIONS ,C IMPROVMENTS OPPORTUNITY LINK WITH OTHER PROJECT INTEREST TO USE IT



Cities Feedback : Çankaya Ankara, Turkey





Cities Feedback : Çankaya Ankara, Turkey

A-İsmet İnönü Park (Public Urba	in Green Space/Water and Susta	inable Managemei	nt)	Planning 2016		
Inactive area in the past	Commercial/Public/Reside	Implementation 2017				
Local plants are preferred Existing trees: poplars and pines	İsmet İnönü park is a larg biological slough is locat under risk of flood . The proj water filling into the	8 km to the city center Rainwater Collection				
Hidden Greenroof on the S	isting park	Cycloni				
B-Healthy City Healthy Streets (Urban Planning Strategy - Ensure Continuity with Ecological Network) Aiming to increase the quality of life in the city of citizens of all ages and reach all facilities of the city with equal opportunities.						
Clean, Safe, and Healthy area	as Freedom of movement	Create G reen areas	Encourage Cycling	Public transport Accessibility		



Main expectations with N4C tools

Which Module	Initial Expectations (Summary)	N4C
P	Easy, understandable, stable, secure, accessible for all kind of users and user-friendly environment to reach different functionalities/tools developed in N4C Project	Platform
K	 -NBS diverse classifications/identification/replicabilities + Georeference -Factsheets including NBS types, urban challenges, country, scale, governance model, business model, financing model, etc. -Business Model Establishment -Urban Analytics (Smart City Concept)√ 	 ✓ N4C Platform ✓ NBS Explorer
Ν	-Evaluation of performance metrics (<i>urban, environmental, socio- economical</i>) to understand the value captured by the NBS -Scenario/Project creation opportunity to understand the deviation along indicator-based assessments.	 ✓ Geocluster4NBS ✓ Diagnostic of your assessment needs ✓ IM Pre-selection tool ✓ GreenCity ✓ Colourse Analytic
M	 -Concise and explanatory guide useful in the course of co-production and co-creation of NBS -Collaborative tool for knowledge sharing acting as an awareness platform open for discussion. -Survey option is feasible for participatory governance of an NBS project with other stakeholders 	 Expert Model Based Box (EMBB) Colouree Socio-economic Assessment Social acceptance assessment method Step-by-step guidelines Citizens' Say tool







	Expert Model Based Box (EMBB)							Test res	sults	
(PI: Annual Carbon Sequestration (ACS)						The results of the year 2020 and 2025 are 29,659 kgC/yr and 27,9			kgC/yr and 27,902	
Tree Species	Tree Age	Diameter (cm)	Condition	Count	Surface Area (m ²)	Year of Assessment	kgC/yr respectively. (Reas	son: Decrea	ase in perennia	al grass area)
Aesculus hippocastanum	4	26	Excellent	15	-	2020	www.n4c.website says			
Fraxinus americana	4	26	Excellent	42	-	2020	The annual carbon sequestration (ACS)), in kilogram of C	Carbon per year	2020
Platanusxacerifolia	4	26	Excellent	101	-	2020	(kgC/yr): 29659.1110816913			
Tillia Crodata	4	26	Excellent	43	-	2020				
Pinus nigra	4	16	Excellent	59	-	2020	ОК			
Aesculus hippocas	9	32	Excellent	15	-	2025				
Fraxinus americana	9	32	Excellent	42	-	2025				
Platanusxacerifolia	9	32	Excellent	101	-	2025				
Tillia Crodata	9	32	Excellent	43	-	2025	www.n4c.website says			
Pinus nigra	9	20	Excellent	59	-	2025				ogram of Carbon per year
Vegetation Type	Tree Age	Diameter (cm)	Condition	Count	Surface Area (m²)	Year of Assessment	2025 (kgC/yr)	r): 27901.9772070	3411	ок
Perennial grass	-	-	-	-	32,155	2020				
Mediterranean shrubs	-	-	-	-	9,545	2020	-			
Perennial grass	-	-	-	-	30,748	2025	KPI – Annual Carbon Sequestration	nc	Legend	
Mediterranean shrubs	-	-	-	-	12,269	2025			Low = 0 (tC/ha/yr)	
-Number of days in a	year w	ithout fros	t: 305 days	;			0	Very High Value	 Very high value (tC/ha/yr)* * The very high value correspo 	nds to 4 tC/ha/yr that
-Climatological background of vegetation's location is selected as "dry".					"dry".	- ×		refers to a dense and mature f biomass-productive species. I value 2 tC/ha/yr is already a g	orest and shrub layer with t is not the maximum. The bod result.	



Expert Model Based Box (EMBB)	Test resul	ts			
KPI: Biotope Area Factor (BAF) Input Parameters (in m2)	2020	2025	BAF 2020	BAF 2025	
Title NBS Functional Unit Constrains 0 Serae - 29 Nalit rink pres specifies, spen, 4::1 2013 Mal au do-emitain 0 Serae - 29 Nalit rink pres specifies, spen, 4::1 2013 Mal au do-emitain Assess - 29 Nalit rink pres specifies, spen, 4::1 2013 Mal au do-emitain Assess - 29 Nalit rink pres specifies, spen, 4::1 2013 Mal au do-emitain Assess - 29 Nalit rink pres specifies, spen, 4::1 2013 Mal au do-emitain Assess - 29 Nalit rink pres specifies, spen, 4::1 2013 Mal au do-emitain Assess - 20 Nalit rink pres specifies, spen, 4::1 2013 Mal au do-emitain Assess - 20 Nalit rink pres specifies, spen, 4::1 2013 Mal au do-emitain Assess - 20 Nalit rink pres specifies, spen, 4::1 2013 Mal au do-emitain Assess - 20 Nalit rink pres specifies, spen, 4::1 2014 Mal Specifies Assess Set of the Arts (m ²) 2013 Mal Male rinks, pressible and the specifies, specifies one specifies Assess Assessment the Male Suffice Arts (m ²) Assessment the Male Suffice Arts (m ²) Assessment the Male Suffice Arts (m ²)	2020 53,739.91 3,408 Area 4,062 ace Area 2,235 of of of of of of of of of of	2025 53,739.91 684 4,062 2,235 131 200 46,627.91	1.44	<u>2025</u> 1.52	







All tools are found beneficial and the followings are mostly preferred.





Çankaya

Tool	Feedback/Testimonials	Recommendations
N4C Platform	-Easy to register and sign in, simple interface to use -Well structured modules describing the life cycle of an NBS Project. -User friendly, excellent readibility in line with project color pallete	 -A «tutorial videos» section will facilitate the utilisation of different modules -GDPR disclaimer
NBS Explorer	-Concise and holistic catalogue for NBS including factsheets -User interface is fascinating and well-designed	-«add a new NBS» is a good option
Geocluster4NBS	-Supportive tools to reach replicable NBS examples together with their factsheets that could be filtered in terms of addressed challenges	-A map legend to clarify the colours -Linking NBS Explorer with this tool
Diagnostic of your assessment needs	Easy to use covering six simple questions to help the municipality to find out a methodology or an evaluation software in respect of their answers (related with the urban challenges they are facing and the NBS in concern)	The font size used in this tool could be increased to improve readability
IM Pre-selection	-Same parameters, that Cankaya confronted during the planning phase of İsmet İnönü Park, are selected to establish a business model. -Support user to understand the whole structure of NBS business with its governance and financial perspectives as well as other relevant parameters.	-»What», «Who» and «What» selection page has some minor selection issues that could be improved.
GreenCity	-The tool interface and KPI scoring (speedometer) is effective -Urban vegetation based urban analytics are interesting metrics to deal with	Maybe smaller hexagonal grids (if applicable) to cover small areas.
Colouree Analytic	-Easy to understand, tutorial is an important asset -Beneficial during the creation of annual park programme as well as decision making process	Save option for the pinpoints could be a good opportunity to use them for the next time.



ΤοοΙ	Feedback/Testimonials	Recommendations
ЕМВВ	-Default values are provided in SOM and SAW calculations (Ease of use)	-Input data saving option (Data storage)
	-Explanations for each inputs in ACS and BAF calculations are clear	extended
	-The visualisation of the results are easy to understand supported by legends.	-Good to have explanations for each output (score/index/number)
Colouree (Urban Assessment)	The tool is compact and easy to adapt	A legend for the map and explanations for each KPIs and related inputs (a better user experience)
Socio-economic	-Provide valuable info about different cost items (operational&implementation)	-12 by 12 matrix can be extended for
Assessment	-It supports the decision-making process and evaluates the profit and loss trends on	large public urban green spaces
(NBenefit\$)	an annual basis over a 50-year interval.	-The option for entering «assessment
	-The amount of carbon sequestered annually including the upper and lower	beginning» year will be beneficial
	boundaries (an extensive time based perspective)	-Additional tree species
Social acceptance assessment	Help to draw conclusions and raise awareness for the past, current and future barriers (technical and non-technical) within the life cycle of NBS.	-
Step-by-step	A holistic guide covering all the major chapters linked with the different phases of an	-
guidelines	NBS Project. (Parallel with the existing methodology applied in the municipality)	
Citizens' Say	-Useful tool under the circumstances of pandemic -Handy to obtain the citizens' opinions about different projects or learn from their daily life experiences	-



Cities Feedback : Szeged, Hungary

CASE STUDY AREAS

Szeged is the third largest city in Hungary and considered as the center of the region. As its climate is getting hotter there is a growing urge to make the city more climate resilient. There are three case study sites, each has its unique features and aims to improve them.

- **Széchenyi Square** is the main square of the city with the city hall and other public institutions. Therefore, it is daily visited by commuters, citizens and non-local visitors in great number, which makes this public place a prestigious place of the city. It is planned to be reconstructed to a more pedestrian-friendly public space.
- **Tisza River Waterfront** is also a frequently visited area, due to the several public institutions. However, flood control function has priority, which should be loosen in the future.
- The Bird Friendly Garden is a privately initiated project to improve a school yard to a more natural area by enthusiastic parents and children.





Cities Feedback : Szeged, Hungary

- Széchenyi Square is planned to be reconstructed with the following specifications:
 - Traffic restrictions, underground garage
 - Pedastrian-friendly public park
 - Increase green and blue infrastructure volume
- Tisza River Waterfront is only planned to be improve with small-scale interventions: increasing green volume by planting trees and green walls, change impermeable surfaces to semi permeable
- The Bird Friendly Garden is gradually improving in small steps. Plants which can feed birds or annuals and perennial herbs which can feed pollinators are planted. Awareness rising and environmental education has high priority.





Main expectations with N4C tools

Assess the future scenarios of the study sites, focusing on the indicators related to the Urban Challenges identified for the sites: CLIMATE ISSUES, BIODIVESITY AND URBAN SPACES, PUBLIC HEALTH AND WELL-BEING and ENVIRONMENTAL JUSTICE AND SOCIAL COHESION.

The tools have been selected considering the indicators that can calculate and the availability of data for the study sites, therefore not all the tools were applied on each site.

TOOL	INITIAL EXPECTATIONS
N4C PLATFORM	Web-platform and repository of tools that can help in decision-making working on NBS projects.
GEOCLUSTER 4 NBS	A tool to obtain contextual data and practical examples for the implementation of NBS projects
COLOUREE ANALYTIC	A tool that allows evaluating the characteristics of a specific area in relation to its neighbourhood to analyse if connections are well-developed or improvement is needed.
EXPERT MB BOX	A tool to evaluate different scenarios considering the performance of an NBS in urban environment.
SIMPLIFIED LCA and MFA	A tool to evaluate the environmental impacts of implementing different NBS.
NBENEFIT\$	A tool to calculate the costs and benefits of an NBS linked to its ecosystem services.
IM PRE-SELECTOR	A decision-support tool to help the identification of suitable governance, financing and business models.
CITIZEN'S SAY TOOL	Platform to support participatory processes and stakeholders involvement.
GREENPASS	A tool for evaluating the micro climatic and human comfort features of an urban area.



Different scenarios have been assessed and compared on Széchenyi Square:

BASELINE	FUTURE SMALL-SCA	FUTURE SMALL-SCALE		
Legent The Sealed surface The Sealed gend The Handal starket impermediate st			m	
Total Surface Area (m2) 50,146	Total Surface Area (m2)	50,146	Total Surface Area (m2)	50,146
Sealed Surface Area (m2) 29,167	Sealed Surface Area (m2)	29,167	Sealed Surface Area (m2)	6,723
Partially Sealed Surface Area (m2) 1,227	Partially Sealed Surface Area (m2)	1,227	Partially Sealed Surface Area (m2)	21,237
Vegetation Connected Soil Surface Area (m2) 19,507	Vegetation Connected Soil Surface Area (m2)	19,507	Vegetation Connected Soil Surface Area (m2)	21,558
Impermeable Water Surface (m2) 225	Impermeable Water Surface (m2)	225	Impermeable Water Surface (m2)	627
Number of trees (unit) 226	Number of trees (unit)	175	Number of trees (unit)	258
Number of shrubs (unit) 480	Number of shrubs (unit)	512	Number of shrubs (unit)	534



Future scenarios have been set on Tisza Waterfront and Bird Friendly Garden (BFG) sites:

TISZA BASELINE		TISZA FUTURE		BFG BASELINE	BFG BASELINE		
Upped 0 25 0 Upped 0 0 1 <t< th=""><th></th><th colspan="2">Legend Baffry Ba</th><th>Legen adding badia factor region consultance region consultanc</th><th colspan="2">Legend Proteins Proteins</th><th></th></t<>		Legend Baffry Ba		Legen adding badia factor region consultance region consultanc	Legend Proteins Proteins		
Total Surface Area (m2)	57,830	Total Surface Area (m2)	57,830	Total Surface Area (m2)	9,960	Total Surface Area (m2)	9,960
Sealed Surface Area, with buildings (m2)	38,448	Sealed Surface Area, with buildings (m2)	34,922	Sealed Surface Area, with buildings (m2)	3,562	Sealed Surface Area, with buildings (m2)	3,562
Partially Sealed Surface Area (m2)	2,567	Partially Sealed Surface Area (m2)	4,828	Partially Sealed Surface Area (m2)	909	Partially Sealed Surface Area (m2)	439
Semi-open Surface (m2)	2,170	Semi-open Surface (m2)	3,437	Vegetation on Connected Soil Surface Area (m2)	62	Vegetation on Connected Soil Surface Area (m2)	62
Green wall (m2)	1,603	Green wall (m2)	2,216	Number of trees (unit)	101	Number of trees (unit)	89
Vegetation Connected Soil Surface Area (m2)	14,642	Vegetation Connected Soil Surface Area (m2)	14,642	Number of shrubs (unit)	317	Number of shrubs (unit)	350







SIMPLIFIED LCA AND MFA

OBJECTIVE: To assess the Life Cycle of the Bird Friendly Garden on the basis of data gathered from initial steps (2016) until 2019. The main point for the school staff was to know For the School Staff. To analyze the usability of the tool.

Test results

The utilization of the tool is really handy and guides the user through each steps, however gathering the necessary information for a proper assessment is a difficult task. That is why this tool was only applicable in the case of BFG. Also, if the user is not familiar with the LCA, the results are less user-friendly.



LCA results for the Bird Friendly Garden baseline and future scenario

There is a negative impact on Ecosystems and Human health due to the irrigation, however rainwater and tapwater cannot be differentiated. The utilization of internally created compost instead of external is a positive impact.



Expert Model-based Box (EMBB)

OBJECTIVE: To assess the performance of NBS in urban environment. In this case the Biotop Area Factor will be tested for all sites.

Test results

The results of the BAF are the followings:

The BAF is calculated by dividing the amount of surface area available for nature and vegetation by the total surface area considered. The final result is a normalized value between 0 and 1, but bonus can be gain through specific vegetation elements, therefore the maximum value can be 1,70.

The reconstruction of Széchenyi Square can lead to a significant increase, while in the case of Tisza Waterfront small-scale interventions can hardly increase the value.

As the BFG is situated on a relatively small area, even small-scale interventions can considerably increase the BAF value.





TOOL	EVALUATION	IMPROVEMENT
N4C PLATFORM	Useer-friendly and give a guidance through all the tools and findings of the N4C project.	-
GEOCLUSTER 4 NBS	The tool is very helpful during an NBS project planning phase, with it pioneer cases and good practices can be found.	Minor improvements are necessary in all the sections (factsheets, legend in the map, etc.) NBS preselection is not possible in order to visualize only specific projects.
COLOUREE ANALYTIC	The tool is very user-friendly, and it provides very valuable information in an easy-to-understand way. The possibility of comparing two different sites is very useful. The reporting function allows to summarize the results and to create pdf files so the user can share.	Legend Include information about accessibility and core services. Include an option to compare two locations that are in the same city but far from each other.
EXPERT MB BOX	It is a collection of Expert models and methods with which certain Key Performance Indicators can be calculated. These requires relatively few parameters not to overload the user with data request.	Some of the models still have problems with the calculation of KPI. Results should be explained or extra info should be added to help users in the unterstanding.
SIMPLIFIED LCA and MFA	The life cycle assessment of specific NBS types is a great achievement, however data gathering can be difficult, although default values are set.	The assessments working only in the case of some NBS types, add more if possible. Add explanation to the graphs to help non-expert users in the interpretation of the results.
CITIZEN'S SAY TOOL	Not yet tested	-



TOOL	EVALUATION	IMPROVEMENT
NBENEFIT\$	The tool is very useful to underpin NBS implementation projects from economic aspect. For decision makers it is important to see how investments can be returned or become profitable with time.	Include more NBS types.
IM PRE-SELECTOR	The tool is user friendly and easy to follow due to the explanations and guidance. The Business Canvas is a bit complex, but worth the time.	Include more examples.
GREENPASS	The simplified version of the tool is easy to use, but requires a detailed database. It works optimally on object scale to calculate micro climatic features of an urban area.	Explanation should be added to the scores for non-technical users.

- The platform is versatile and provides an easy-to-follow guidance through the steps of an NBS project planning and assessment from different aspects.
- Most of the tools are user-friendly, but the interpretation of the result may require specific knowledge.
- We are planning to use the platform and the tools in our future projects.



Cities Feedback : Alcalá de Henares, Spain

EDIBLE FOREST CASE STUDY

The project aims to increase the biodiversity of a peri-urban area by renaturalizing it through the creation of an edible forest with the following specifications :

- Unused area between the orchards, the park and the river Henares.
- Created thanks to public-private collaboration.
- Recreation of a natural space designed to increase biodiversity and recover the environmental benefits of these natural systems.
- Plants selected produce their own seeds promoting the natural development of the forest.
- Refuge, source of food and wildlife protection space that also helps seed dispersal and pollination.
- Buffer functions for the riverbank vegetation.
- Natural management of the forest: seed production, pollinators, etc.





Main expectations with N4C tools

Assess the evolution of the project focusing on the indicators related to the Urban Challenges identified for the site: BIODIVESITY AND URBAN SPACES, PUBLIC HEALTH AND WELL-BEING and ENVIRONMENTAL JUSTICE AND SOCIAL COHESION.

The tools have been selected considering the indicators that can calculate and the availability of data for the case study.

TOOL	INITIAL EXPECTATIONS
N4C PLATFORM	Web-platform and repository of tools that help in decision-making working with NBS projects.
GEOCLUSTER 4 NBS	A tool to obtain contextual data and practical examples for the implementation of NBS projects
	A tool that allows evaluating the characteristics of a specific area to analyse if the services are covered or
COLOOREE ANALYTIC	improvements are necessary.
EXPERT MB BOX	A tool to evaluate different scenarios considering urban parameters.
SIMPLIFIED LCA and MFA	A tool to evaluate the environmental impacts of implementing different NBS.
NBENEFIT\$	A tool to calculate the costs and benefits of an NBS linked to its ecosystem services.
IM PRE-SELECTOR	A decision-making tool for the definition of suitable governance, financing and business models.
CITIZEN'S SAY TOOL	Platform to support participatory processes and stakeholders involvement.



Different scenarios have been assessed and compared:

BASELINE	EDIBLE FOREST, 2020	FUTURESCENARIO A, 2025	FUTURE SCENARIO B, 2025
	Plantation of 396 trees and 520 shrubs 5% of new shrubs naturally growth	414 new trees + 5% naturally growth 546 new shrubs + 5% naturally growth	1.998 new trees + 5% naturally growth 2.626 new shrubs + 5% naturally growth
Total surface area (m ²) 276 083 27	Total surface area (m²) 276.083,27	Total surface area (m2) 276.083,27	Total surface area (m ²) 276.083,27
Sealed surface (m ²) 2 568 49	Edible forest (m ²) 4.672,47	Edible forest (m ²) 8.055,86	Edible forest (m ²) 24.195,86
Semi-open surface	Sealed surface (m ²) 2.568,49	Sealed surface (m ²) 2568,49	Sealed surface (m ²) 2.568,49
(m ²) 8.2867,54	Semi open surface 80.764,93	Semi-open surface 78.645,20	Semi-open surface 74.098,99
Soil Surface Area (m ²)	Vegetation Connected Soil Surface Area (m ²) 192.749,85	Vegetation Connected Soil Surface Area (m ²) 193.869,58	Vegetation Connected Soil Surface Area (m ²) 199.115,79
Nº trees 0	Nº trees 396	№ trees 810	Nº trees 2.394
N ^v snrubs 12.900	№ shrubs 14.065	№ shrubs 14.611	№ shrubs 16.691





It is difficult to interpret the results due to the lack of legends that can provide the missing information to better understand the impact of each indicator.



SIMPLIFIED LCA AND MFA

OBJECTIVE: To evaluate the evolution of the forest focusing on the three indicators related to air quality (Urban Flow Analysis) and Midpoint and Endpoint indicators where Air Quality Indicators: short term health effects is the indicator that interests the municipality of Alcalá de Henares. To analyze the usability of the tool.

Test results

The tool is very intuitive and guides you smoothly through the whole process, identifying the NBS model and NBS type, including general info about the NBS, selecting the KPIs to be analyzed, introducing the inputs and finally showing the results. If the user is not familiarized with the Urban Flow analysis or LCA analysis the results section can be less user-friendly as the information provided is too technical.



Future Scenario B, 2025



There is a positive evolution in the impacts on ecosystem and human health due to bigger number of trees planted while impacts on resources is increasingly negative.



IM PRE-SELECTION

OBJECTIVE: To identify suitable governance and financing models for future Scenario B, where a bigger participations and citizens involvement and private companies is expected.

Test results

The parameters included in the tool have been the followings:

	EDIBLE FOREST + FUTURE SCENARIO A	FUTURE SCENARIO B
NBS TYPE:	Urban forest	Urban forest
OWNERSHIP:	Public	Public
IMPLEMENTATION SCALE:	District	District
INITIATING ACTOR:	Government	Government + Citizens + private
DESIRED PARTICIPATION:	High	High
GOVERNMENT SUPPORT:	Medium	Medium
BUDGET:	Tiny: up to 50.000 Euro	Small: 50.001 – 500.000
ECONOMIC CONTEXT:	Medium	Medium
ENVIRONMENTAL AWARENESS:	High	High
PARTICIPATION CULTURE:	Medium	High
GOVERNANCE MODEL:	Co-management	¿?
FINANCING MECHANISM:	Public-private	¿?



Considering the eligible governance models provided it has decided to select the **collaborative governance** model, where coordination of different actors is necessary. Regarding the financing, private actors will continue working within the volunteering program, but citizen engagement will increase, so it is expected that the financing model will continue being **public-private**, complemented by the model of **citizen inclusion** through crowdfunding, volunteering and other funding tools.



TOOL	EVALUATION	IMPROVEMENT
N4C PLATFORM	Very intuitive and easy to understand.	-
GEOCLUSTER 4 NBS	The tool can be very helpful to find pioneer cases that can serve as support in the planning process of a new NBS project.	Minor improvements are necessary in all the sections (factsheets, legend in the map, etc.) Pre-selection of NBS not possible to visualize specific projects.
COLOUREE ANALYTIC	The tool is very user-friendly, and it provides very valuable information in an easy-to-understand way. The possibility of comparing two different sites is very useful. The reporting function allows to summarize the results and to create pdf files so the user can share.	Include information about accessibility and core services. Include an option to compare two locations that are in the same city but far from each other.
EXPERT MB BOX	Not tested yet	-
SIMPLIFIED LCA and MFA	Possibility to assess the urban flows and the life cycle assessment of NBS projects in the same tool in an easy and intuitive way.	Include more NBS types and a guide to help non- expert users in the interpretation of the results.



TOOL	EVALUATION	IMPROVEMENT
NBENEFIT\$	Very interesting. It provides information (monetized),	Include more NBS types and tree species.
	of the costs and benefits associated with NBS	It would be great to have the possibility to draw the
	projects that incorporate trees. Useful to promote	intervention area.
	urban greening projects, helping to show how the	It would be great if the prices could be updated in
	investment made in NBS can return in the form of	some way to better fit the place and country under
	savings.	review.
IM PRE-SELECTOR	The tool is user friendly and helps in the decision-	Include more examples.
	making process of financing governance and	Include the possibility of selecting more than one
	financing models. The design of the BM is complex	financing model per Project.
	and requires time, but templates provided are helpful.	
CITIZEN'S SAY TOOL	The interface is very friendly and at a glance, you can	More instructions are needed to better understand
	see all the functionalities it offers. You can create	how certain functionalities work.
	workflows for collaborative decision making that	
	includes many functionalities. Although it seems very	
	intuitive, it is more complex than expected, once you	
	start working with it.	



- The platform provides very useful tools to plan, design, evaluate and monitor NBS projects.
- The tools give valuable information about the benefits of NBS Projects for the city and its citizens.
- Implementing new NBS projects will be easier thanks to the information provided that can help demonstrating their effectiveness to overcome different urban challenges.
- We will use the platform and the tools in our future projects.





Cities Feedback : Metropolitan city of Milan

Quarry restoration

Metropolitan city of Milan decides to test the tools on the environmental recovery of the quarry site Ateg30: the area size is of 28,40 hectares connected to the nearby City of Milan, the environmental recovery stage is at the beginning. The challenge of this recovery project is the integration of a industrial and excavated site in a highly urbanized context.





Main expectations with N4C tools

- Improve our knowledge on the topic of nature-based solutions to fight climate change in urban and peri-urban areas
- Bring the knowledge back to decision makers, municipal technicians, citizens and students to start using NBS in territorial project to let the whole metropolitan area be more resilience and livable
- Define a strategy for the CMM area, improving the framework of adaptation measures at all local levels and coordinating all operational and planning tools with the Municipalities's one

TOOLS	INITIAL EXPECTATIONS
N4C PLATFORM	Support municipalities in projecting and realizing nature-based solutions
NBS EXPLORER	To be simple, easy to understand, and to have a first overall knowledge on what NBS are
GEOCLUSTER 4 NBS	To be a catalogue of existing NBS project that could be useful to see what, where, how, when, why, others cities realized NBS pioneers projects
COLOUREE ANALYTIC	To use this tool in support to identify, under the socio-economic point of view, data that could drive the decision making process
DIAGNOSTIC OF YOUR ASSESSMENT NEEDS	Provide the user with a list of tools that could be used to solve user urban challenges, advising the user on which tool best fits his need
IMPLEMENTATION MODEL	Support the user to implement an NBS project
DATABASE AND PRE-SELECTOR	
STEP4BY-STEP GUIDE	Useful document for who is new in the matter, and need a workflow to be a we waite waite waite waite waite and stakeholders to engage.

Field test activities

Quarry restoration: URBAN ASSESSMENT RESULTS



Input data:

Chemical properties: Organic Carbon % first meter of soil - 0.8000/0.5765, Ph first meter of soil - 6.30/6.60 Soil textural class: Luvisols e Cambisols Lawn: 87,00%, Trees: 4,00%, Shrubs: 9,00%. Tree species or genus: Popolus nigra; Salix alba; Popolus alba; Alnus glutinosa; Ulmus minor; Carpinus betulus; Acer campestre; Prunus avium; Tilia cordata

Total area: 284.000 mq

NBS: 88.000 mq Quarry active site: 95.400mq Lake: 50.000 mq Others area: 50.600 mq





NATURE

Environmental assessment

OBJECTIVE: We decided to test the Environmental assessment tool with one of our case study, Ateg30. At the beginning of the project we have chosen the KPI for this project, and know we are going to check CO2 - Annual carbon sequestration with this module:

Test results

The parameters included in the tool have been the followings: ATEg30 carbon sequestration in tree

COD2	Area (m²)	N. of tree	<mark>ዟ_መ (ft)</mark>	CO ₂ (lbs)	CO ₂ (kg)	CO ₂ tot (kg)
31000	135.845,91	1.731	32,81	2.616,21	1.177,29	2.037.331,59
32300	55,85	2	16,40	348,83	156,97	309,76
32400	1.149,80	15	26,25	2.092,97	941,83	13.795,19
ATE030 carbon sequestration in tree					2.051.436,54	

ATEg30 carbon sequestration in tree

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NBS Model	NBS Type	General Info	KPIs	Inputs	Results
Annual CO ₂ Sequestration (Pere	nnials)	kg CO₂/y	ear/m²/perennial		0.02
Annual CO ₂ Sequestration (Gras	iS)	kg CO ₂ /y	ear/m²/grass		0
Annual CO ₂ Sequestration of the	9 Park	kg CO₂/y	ear/NBS mª/total plants		1973816.84
PRINT	SAVE				
The project has	received funding from the Eu	ropean Union's Horizon 2020 Re	search and Innovation Prog	gramme under grant agreement No 730	468 v1.0.5

We did the test comparing the result obtained thanks to the drone data.

The results are similar. The functionality of the tool is demonstrated

Annual CO₂ Sequestration of the Park kg CO₂/year/NBS m²/total plants: 1973817.27



TOOLS	INITIAL EXPECTATIONS	IMPROVEMENT
N4C PLATFORM	Support municipalities in projecting and realizing nature- based solutions	Share and disseminate the platform
NBS EXPLORER	To be simple, easy to understand, and to have a first overall knowledge on what NBS are	It would be perfect to use it during environmental education activities, training courses, practice exercises
GEOCLUSTER 4 NBS	To be a catalogue of existing NBS project that could be useful to see what, where, how, when, why, others cities realized NBS pioneers projects	It is important to keep update pioneer projects database
COLOUREE ANALYTIC	To use this tool in support to identify, under the socio- economic point of view, data that could drive the decision making process of realizing a NBS solution.	It could be interesting for the user to have a handbook that shortly describes how this 3 urban performance are calculated (Living, Business, Leisure). You see the final score, but for expert user it could be interesting to understand the mathematical calculation that have determined it
DIAGNOSTIC OF YOUR ASSESSMENT NEEDS	Provide the user with a list of tools that could be used to solve user urban challenges, advising the user on which tool best fits his need	Maybe you could add a sentence to explain that the user won't find these tools in N4C platform, but, for instance, they have been developed in sisters projects.



TOOLS	INITIAL EXPECTATIONS	IMPROVEMENT
IMPLEMENTATION MODEL DATABASE AND PRE-SELECTOR	Support the user to implement an NBS project	It would be interesting to add financial model details about the new European financing Programme 2021-2027
STEP-BY-STEP GUIDE	Useful document for who is new in the matter, and need a workflow to follow, to organize activities and stakeholders to engage	 This guide could be turned into an interactive tool



- Practical support in our projects to renature cities
- Make the NBS theme known not only by professionals, but also by public administrators and citizens
- Raise awareness of sustainable development theme among all citizens
- Train new NBS professional experts, both in the public and private sector
- Provide new services useful to guide the user through NBS theme



- The graphic of the platform is really good, innovative and user friendly. It clearly gives the idea of what the user may find inside the tool
- The platform provides knowledge about Naturebased solutions to decision makers, municipal technicians, citizens and students
- The tools provides solutions to design your first NBS project (environmental, social, economic sides)
- In each tool you have the chance to contact the person in charge for any problem or further information



- We have also **posted the tools on our institutional website** so our municipalities can use them



Workshop : live-test the platform



It is recommanded to have two screens for this workshop !

- 1. Start with a simple example following Susana (20 minutes)
- 2. "live test" with our live support
- 3. Provide your feedbacks : MURAL









The methodology utilized to define a common Business Model for the N4C Platform is the one of the Business Model Canvas (BMC) which defines a business model as follows:

"A business model describes the rationale of how an organization creates, delivers and captures value."

HATURE 4 CITIES Platform



Figure 2: Business model canvas²



Business Model Selected for the N4C Platform: FREEMIUM BUSINESS MODEL

A freemium business model offers a

basic service for free, additional premium

functions or services are only available for

a fee.

Freemium Free Product Customer type 1 Premium Product Customer type 2

FREEMIUM Business Model Scheme



LinkedIn

Platform that connects people, companies and recruiters; free to publish profile and connect to people, paid services to contact and write messages to new people or to use profile pages as a company in a more professional way; combines freemium and multi-sided platform patterns.



Chances

Customer acquisition:

It is easy to attract users when giving away a basic service for free.

Marketing effect:

people are likely to spread the word about free services (word of mouth) Networking effect:

the more people use the service, the likelier it is that they attract other users

Risks

Large number of free users but not of paying customers: there are investments and costs involved in providing the free service, but you do not earn any money to finance it.



N4C Platform after the N4C Project

Free / Open Access Beta version released:

The Platform need improvements and testing phase before becoming fully commercial application

Much more improved:

A partnership agreement is going to be validated among the partners

FREEMIUM BM:

The freemium Business Model will be applied to reach the market





Workshop Objectives

- 1. To get participants feedback on the N4C Platform value
- 2. Get participants suggestions on how to approach the market
- 3. Further local funding opportunities

15 min. Open discussion after each question SLIDO application





Access Code **#637301**





Workshop Questions

Word cloud poll Votes: 0 ₹ Describe in one single KEY word the VALUE of the N4C Platform	0 0 0
Word cloud poll Votes: 0 ≡ Which kind of stakeholders do you think would preferentially use and be interested in the platform?	0 0 0
Open text poll Votes: 0 = Which elements of the Nature4Cities platform could be useful for your work and/or what would you need we improved to make it useful ?	0.0.0
Open text poll Votes: 0 ≡ Will you be willing to buy a license of the tool or to ask for consulting services?	0 0 0
 Multiple choice (Multiple answers) Votes: 0 = Would you be interested in partnering with N4C Consortium to (choose 1 of the 4 following options): 	0 0 0

https://www.sli.do



#637301





The Capitals Community is the networking space for the We Value Nature 10-Day Challenge.

Sign up and join the We Value Nature group to take part in the conversations:

https://community.capitalscoalition.org

We want your feedback!

Please share your thoughts on this session and the overall 10-Day Challenge event at:

https://wevaluenature.eu/Feedback

9 Section to describe in one single place all the main aspects of the business model:

Read these two great books





Or visit the Strategyzer website: www.strategyzer.com



KEY PARTNERS Who are our key partners? Who are our key suppliers? Which key resources are we acquiring from our partners? Which key activities do partners perform?	KEY ACTIVITIES What key activities do our value propositions require? Our distribution channels? Customer relationships? Revenue streams? KEY RESOURCES What key resources do our value propositions require? Our distribution channels? Customer relationships? Revenue streams?	VALUE PRO What value do v customer? Which one of ou problems are we solve? What bundles of services are we segment? Which customer satisfying? What is the mini product?	POSITIONS re deliver to the r customers' helping to f products and offering to each needs are we mum viable	CUSTOMER RELATIONSHIPS How do we get, keep, and grow customers? Which customer relationships have we established? How are they integrated with the rest of our business model? How costly are they? CHANNELS Through which channels do our customer segments want to be reached? How do other companies reach them now? Which ones work best? Which ones are most cost-efficient? How are we integrating them with customer routines?	CUSTOMER SEGMENTS For whom are we creating value? Who are our most important customers? What are the customer archetypes?
COST STRUCTURE What are the most important costs inherent to our business model? Which key resources are most expensive? Which key activities are most expensive?			REVENUE STREAMS For what value are our customers really willing to pay? For what do they currently pay? What is the revenue model? What are the pricing tactics?		

Figure 3: Business Model Canvas and Questions for each aspect



Make the switch from product point of view to customers point of view: <u>VALUE PROPOSITION</u>





