



With support from  
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LIFE programme  
LIFE16 GIC/FR/000099

# Strengthening the adaptation of urban spaces to climate change

NATURE FOR CITY LIFE

[maregionsud.fr](http://maregionsud.fr)



**RÉGION  
SUD**  
PROVENCE  
ALPES  
CÔTE D'AZUR







# The sustainable city: a challenge for Provence-Alpes-Côte d'Azur

The increase in urbanization is a major pressure on the regional territory, contributing to the scarcity of land and the reduction of biodiversity. Indeed, today 92% of inhabitants in the Southern Region live in urban areas. Reducing the effects of urban heat islands, means preserving the quality of life of populations and the attractiveness of urban spaces by developing nature in the city.

## THE NATURE FOR CITY LIFE PROJECT

Increasing the level of nature in cities to adapt to climate change is the challenge of the “Nature For City LIFE” project, led by the Southern Region, with the support of the European Union’s LIFE programme.

The project aims to train, inform and raise the awareness of all city stakeholders (elected officials, technicians from local authorities and the private sector, citizens, secondary school and university students, etc.) on the services provided by nature in the city to adapt to climate change.

A sustainable city means pooling the needs of the various stakeholders to accelerate the ecological transition for resilient territories.

The ecosystem services provided by nature in the city are numerous: regulation services (climate, pollution, flooding etc.), cultural or recreational services (education, leisure, etc.) or production services (urban agriculture).

Nature does not stop on the outskirts to the city. It is everywhere, in various forms: parks and gardens, rows of trees and derelict land, but also shared gardens, neglected areas or wild plants sheltering insects.

**Flood risk  
reduction**

**Improved  
health and well-being**

**Combating  
urban heat islands**

**Biodiversity  
reserve**





## THE NATURE FOR CITY LIFE PROJECT

A regional project to develop  
nature in the city in order to adapt  
to climate change.

## THE SOUTHERN REGION AND ITS 8 PARTNERS

Duration:

**5 YEARS**

(2017-2022)



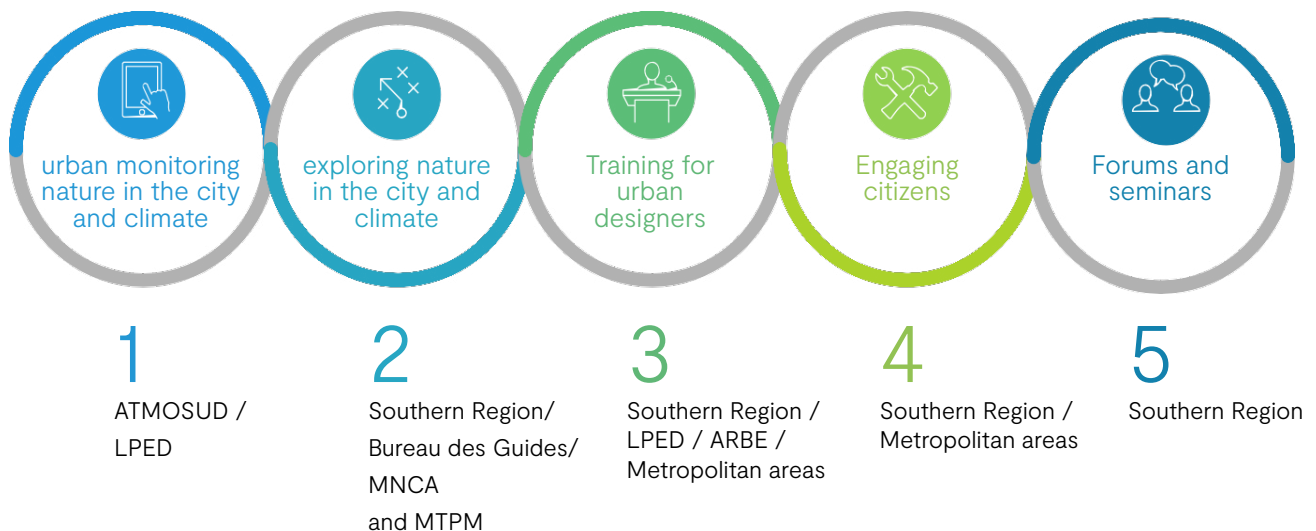
## 2 OPERATIONAL OBJECTIVES

Inform Educate Raise awareness  
Enable the deployment  
of new nature-based solutions

## TARGET AUDIENCES

400	elected officials
1 000	city stakeholders in the public and private sectors
3 000	citizens and secondary school students

## 5 ACTIONS



# Development of urban monitoring as a tool for “nature in the city and climate” governance and information

Urban monitoring must allow for a better understanding of the services provided by nature in the city in relation to climate change among the various stakeholders (various audiences, elected officials and technicians).

The aim is to produce physical, sociological and economic data through two complementary sub-actions, directly in the territories, to provide objective evidence of the services provided by nature in the city.

## C1.1. Climate monitoring

Poor air quality has negative health consequences, including respiratory problems, cardiovascular problems and chronic diseases. Improving air quality is an important public health issue. The purpose of monitoring multiple emissions sources is to assess population exposure, forecast and monitor air quality to enable authorities and individuals to take action.

**AtmoSud**  
Inspirer un air meilleur







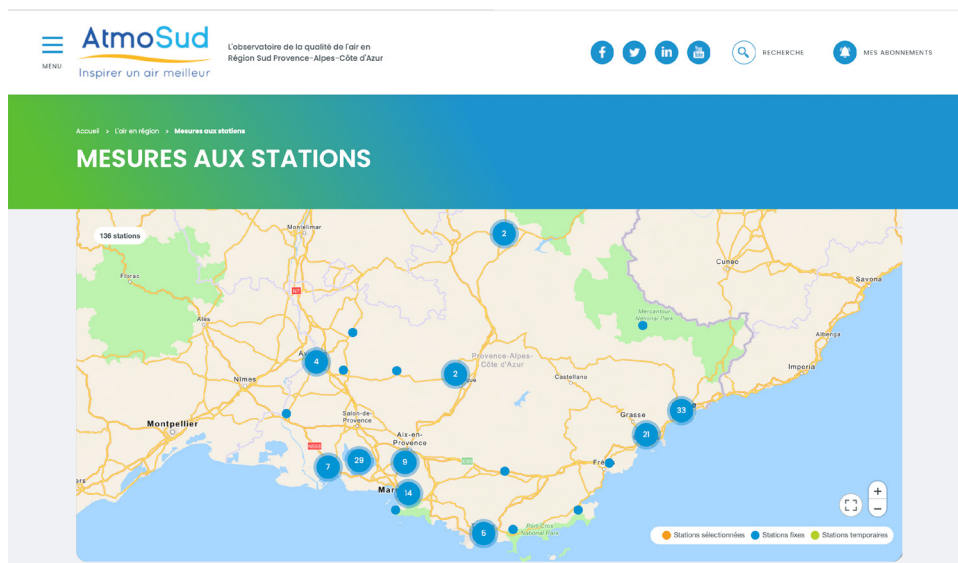
➤ Implementation of a system for measuring temperature, humidity and air quality on demonstration sites identified as green and blue infrastructure (GBI) in the three project areas

➤ Air quality measurements through the installation of 18 sensors on the territory of the 3 major cities, accompanied by information panels

### AtmoSud Observatory

AtmoSud informs the public if pollution levels increase.

The data are available on [the AtmoSud Observatory for the Southern Region](#). This page is updated daily and provides access to air quality information for the entire region.



### C1.2. Socio-economic monitoring

The aim here is to produce sociological data on the perceptions of the role of nature in the city in the face of climate change in the project's three metropolitan territories.



- Sociological surveys of the general public
- Sociological surveys with technicians and community elected officials

## EIGHT SURVEYS WERE CONDUCTED WITH 582 RESPONDENTS

275

PEOPLE

on an urban walk  
in 2018

91

TECHNICIAN  
AND ELECTED  
OFFICIAL

in 2018

92

PARTICIPANTS  
IN THE MOOC

in 2020

55

PARTICIPANTS IN  
THE WALKS

in 2020

15

ELECTED  
OFFICIALS  
SURVEYED

in 2020

74

INHABITANTS  
OF MIRAMAS

in 2022



## WITH THE FOLLOWING RESULTS:

### CONTRIBUTIONS ATTRIBUTED TO NATURE IN THE CITY

58%

Better air quality

52%

Maintain fauna  
and flora

47%

Lower the temperature

46%

Avoid overbuilding

43%

Create links between  
residents

### FUTURE ACTIONS TO BRING MORE NATURE INTO THE CITY

66%

Create green spaces

64%

Less construction

32%

Plant trees along  
boulevards

18%

Allow wild vegetation

17%

Create artificial  
habitats

### 3 WEBINARS

were organized to disseminate the results of the surveys, reaching approximately 250 participants. A training session for the elected officials of the city of Miramas, which attracted 30 participants, was also co-developed with the ARBE in July 2022.

# C2

## Creation and development of urban walking trails as communication tools in each city

This action aims to create urban walking routes and an exhibition entitled “Nature in the city and climate” to communicate, inform and raise awareness of the multifunctional role of urban green and blue infrastructure (GBI) in the face of climate change.

### C2.1 Development of new trails to explore the city



#### Aix-Marseille Provence

The GR2013 is a 365 km long metropolitan trail. It allows an unprecedented movement of inhabitants and visitors through 38 municipalities, across a territory of 3,000 km<sup>2</sup>. It is the first long-distance hiking trail to combine culture and nature. The Bureau des Guides GR2013 invites people to explore the cultural and artistic dimensions of the Metropolitan Trail to better observe, perceive and understand what surrounds us.

85

events

2,354

participants







## Toulon Provence Méditerranée

The trail created is designed to help people discover the heritage of the urban area and includes information on the role of GBI to improve resilience to climate change.

32

events

461

participants

6 editions of trail guides entitled, «Dehors», which describe the adventures to be had.

[No.1 Paul-Hervé Lavessière](#)

[No.2 SAFI Collective](#)

[No.3 Nicolas Memain](#)

[No.4 de l'évidence de partir du terrain \[The self-evidence of starting from the ground up\]](#)

[No.5 De la nécessité de se relier \[The importance of connections\]](#)

[No.6 De l'importance des récits \[The importance of stories\]](#)

## Nice Côte d'Azur

A set of routes was created using footpaths in Cagnes-sur-Mer, Carros and Nice (Ariane district, Eco-quartier du Ray and Promenade du Paillon).



10

events

290

participants



## Creation and development of urban walking trails as communication tools in each city



### Aix-Marseille Provence

1

Miramas Saint-Suspi lake:  
**LAURENT GONGORA**  
“Little by little...”

2

Technopole de l'Arbois (Aix):  
**PARENTHÈSE COLLECTIVE  
AND WORKSHOP**  
**FLORENT CLIER**  
“Reconnecting with the living”

3

Port de Bouc Fernand Léger  
Art Center:  
**CÔME DI MÉGLIO**

1

### C2.1 Creation of artistic works

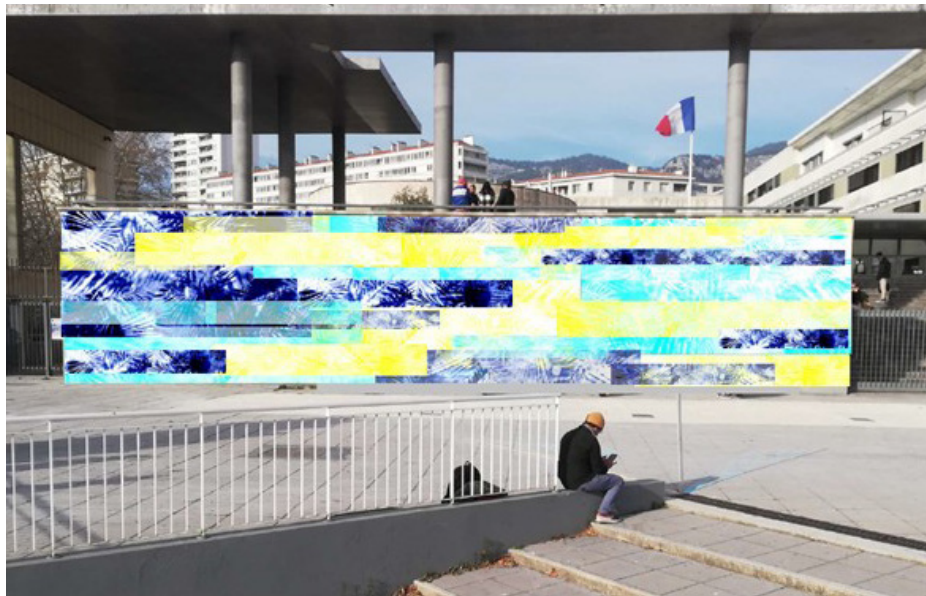
Artistic works were created and inaugurated on the Metropolitan Trails to develop forms of expression and cultural mediation.

2



3





Toulon Provence  
Méditerranée

4

Domaine de Fabregas,  
La Seyne-sur-Mer:  
**LUCAS IRAD**  
"Auberge'IN"

5

Le Las departmental garden, Toulon:  
**LÉANDRINE DAMIEN**  
"Li Bello Vedere"

6

Faculty of Law, Toulon:  
**LISA JACOMEN**  
"Telo Solis"

7

Musée Jean Aicard park –  
Paulin Bertrand, La Garde:  
**ESTELLE LADOUX**  
"Cigala"

Find out more about the works in TPM  
<https://youtu.be/IGfaQASarM8>



## Creation and development of urban walking trails as communication tools in each city



### C2.2 Creation of a nature in the city and adaptation to climate change exhibition

Developed by “Chercheurs en herbe” on behalf of the Southern Region, this traveling exhibition aims to raise awareness among different types of audiences, both schoolchildren and others, about the challenges of nature in the city and solutions for adapting to climate change.

[Click here](#) to find out more

7  
themes

14  
panels

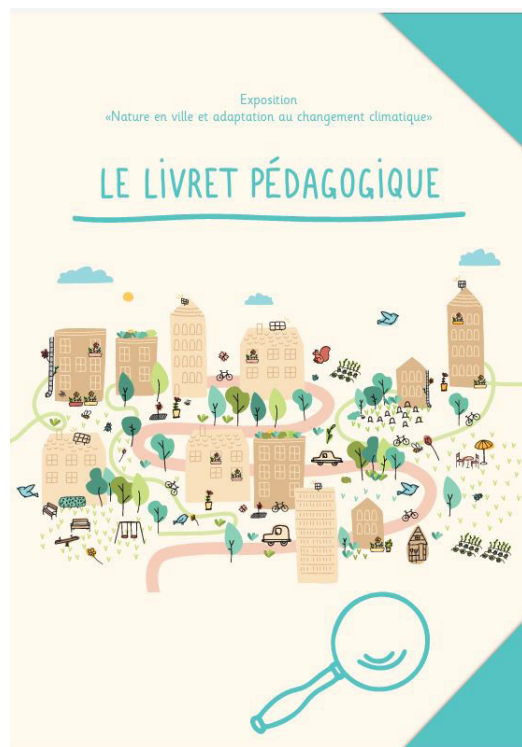
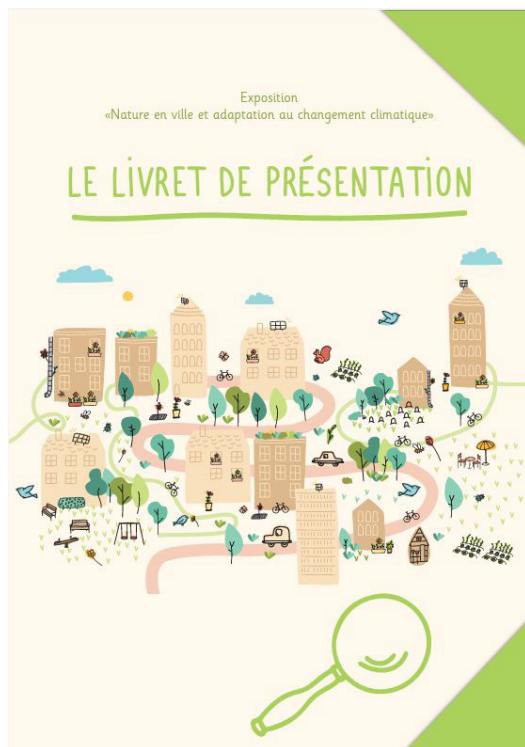
AN EDUCATIONAL KIT  
with fun games

#### SELF-GUIDED TOUR OR WITH A FACILITATOR

Regional coverage with 10 copies distributed around the region.

[nature4citylife@mareregionsud.fr](mailto:nature4citylife@mareregionsud.fr)

[See here](#) for booking contact details



#### 4 HANDBOOKS TO HELP RUN THE EVENT:

- Presentation booklet
- Educational booklet
- Practical guide
- Tips and tricks
- Download [here](#)

#### 17,359 PEOPLE REACHED

in the Provence-Alpes-Côte d'Azur region  
thanks to the NFCL exhibition



# Mobilization-training of urban designers on the theme of “nature in the city and climate”



This action aims to train all urban designers in the ecosystem services provided by nature in the urban environment as well as techniques for integrating nature into current or future urban projects (joint development zones, renovation works, infrastructure, etc.).

## **C3.1 Creation of a “nature in the city and climate” mooc**

- To understand the different forms of nature in the city, their functioning and the associated ecosystem services;
- To be aware of the current state of the art and the techniques used to incorporate and manage nature in urban projects;

- To understand urban strategies for climate resilience;
- To participate in exchanges and debates on this subject to enhance professional practices.
- 7 weeks of classes accessible on a dedicated platform and translated into 5 languages: French, English, German, Italian and Spanish

[moocnatureforcitylife.eu](http://moocnatureforcitylife.eu)

## **Introductory course themes**

The different forms of nature in the city and the associated ecosystem services;  
The techniques used to incorporate and manage nature in urban projects;  
Understanding urban strategies.

## **Advanced course themes**

Improving air quality through urban greening;  
How can cities be greened in the context of climate change?  
New concerns, new knowledge, new practices.

**2,496 learners** for the introductory course and 1,263 for the advanced course, including 379 foreign-language learners.

In total: **995 certificates issued**





### C3.2. Training for elected officials



Training for elected officials in the issues of nature in the city as a factor in adapting to climate change is an essential focus of the NCFL project. The aim is to give them the tools to better understand the issues of nature in the city and climate and to identify the actions that could be implemented in their area. The Region has collaborated with the ARBE (Regional Agency for Biodiversity and the Environment) to set up specific schemes.

### 3 schemes aimed at elected officials:

**1. Feedback sheets** to help local authorities define and implement their action plan for the (re)introduction of nature in the city and combat global heating.

Examples:

Creation of permeable surfaces and alternative rainwater management options: [Feedback sheet from Aubagne](#)

The local urban plan (PLU) as a tool to promote nature in the city: [Feedback sheet from La Garde](#)

(find all 15 sheets on the website [nature4citylife.eu](http://nature4citylife.eu))

### 2. The modules choices training offer;

[Click here](#) to discover the modules in detail

**Module A:** 1 hour to explore and act

**Module B:** Field visits

**Module C:** Workshop/lunch

**Module D:** “Nature-based solutions” workshop

### 3. Webinars on creating permeable surfaces in school playgrounds:

[Why undertake a project to create permeable surfaces?](#)

[Suitable methods and types of support](#)

[Project engineering](#)

[Design considerations](#)

A total of 366 elected officials and 204 technicians from the metropolitan area and 80 elected officials and 187 technicians from non-metropolitan areas were trained. Another 547 participants were reached, making a total of 1,384 people.



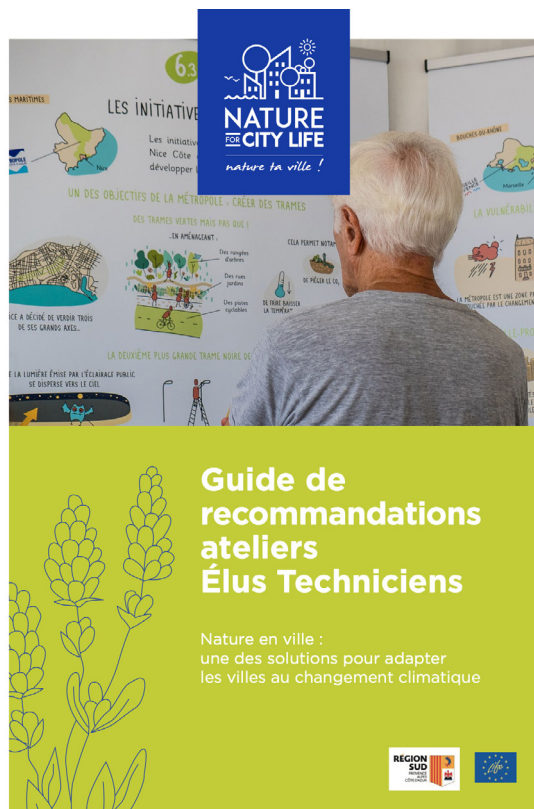
## Mobilization-training of urban designers on the theme of “nature in the city and climate”

### C3.3 Practical workshops for elected officials and “nature in the city and climate” technicians on planning and development tools

The objective is to support the three metropolitan areas during the preparation of their urban planning documents or development projects by providing them with additional support for the organization of practical “nature in the city” workshops for elected officials and technicians.

The Southern Region worked with the consulting firm “SENSEE Culture Couleurs”, which specializes in the fields of consultation and mobilization, to provide support to local authorities.

- > Workshops with a triple objective: educational, participatory and spin-off
- > Work to be developed over time
- > Key methodological points



A [recommendations guide](#) has been specially created for the workshops for elected officials and technicians to provide feedback and facilitation ideas for optimal organization.

21

workshops were organized, with

1000

technicians

160

elected officials taking part

19

planning documents were examined.









# C4

## Engaging citizens in urban planning projects

The objective of this action is to ensure that citizen consultation is developed at the earliest possible stage of the process. This allows members of the public to make their observations or proposals and thus contributes to improving the quality of urban projects, which in turn strengthens their acceptability.

### C4 Citizen workshops

The central objective of these workshops is to enable the production of content that can support local authority services and help the project evolve to create more space for nature in the city.

[A recommendations guide](#) for organizing citizen workshops



Several workshops to ensure that the consultation process runs for a period of time

Specific content for each project

Creation of methodological sheets

- Facilitating a nature in the city workshop in a public place
- An event that can be rolled out to multiple locations: planting and creating permeable surfaces in school playgrounds
- Principles of remote facilitation





24

workshops were organized

17

supported urban projects  
involving

966

citizens

137

technicians





## Forums and seminars

Mobilize stakeholders, share experiences and strengthen citizen involvement in the territory's climate governance

1

### European Forum

2021

in connection with the IUCN Congress



2

### Citizens' Seminars

2021 and 2022

1

### Closing seminar

15 June 2022

### C5.1 European forum "re- wrapping cities – thinking nature" – 200 participants

Disseminate the methodologies and the first results of the project and enhance the experiences of other European territories

### Part 1, 1 July 2021

#### 1 plenary conference:

From urban biodiversity to urban planning: Philippe Clergeau

#### 6 round tables:

- from the permeable city to biodiversity;
- reflecting on health-focused urban development from an adaptation perspective;
- the role of water in cities;
- failed projects or how to learn from your mistakes or those of others;
- action research to inform public policy;
- citizen involvement.

### Part 2, 8 October 2021

#### 1 plenary conference:

Nature to the city's rescue. Desire, urban well-being, forgotten issues, inequalities: Lise Bourdeau Lepage

#### 2 round tables and 5 urban walks:

Is the green city a city for the rich? European projects: how Europe has tackled the issues of nature in the city and feedback on the projects discussed.

#### 5 urban walks

(Foresta, the Aygalades stream, Terradou, La Cabucelle, Trees in the city)





### C5.2 Citizens' forum – 200 participants

Share experiences between citizens to increase knowledge and awareness of the project's issues.



### Nice

**30 September and 1 October 2021**

Forum held as part of the Nice Transition Days

- Raise awareness of a theme;
- Understand concepts;
- Revisit the question of nature in the city and its role.



### Toulon

**14 and 15 May 2021**

Forum held as part of the 48-hour Festival of Urban Agriculture organized by the Var Collective for Agriculture.

- Mobilize and unite local Metropolitan Trail partners;
- Pre-launch the Metropolitan Trail;
- Promote the other actions in the Nature for City LIFE programme.

**Morning:** a feedback session co-organized with the Bureau des Guides BGR 2013 setting out the results of the five years of the project with a number of its sponsors and speakers, exploring the idea of a “path travelled in a shared geography”.

-Screening of the AtmoSud film on climate monitoring:

<https://youtu.be/Q9Sy7R0G34w>

-Nice Côte d'Azur film screening

<https://youtu.be/pfIDDRPG7bQ>

**In the afternoon:** visits and urban walks to discover emblematic sites of Nature in the City (Arson Square, Saint-Jean d'Angely Garden, Paillon river bed)

Relive the event:

[NATURE FOR CITY LIFE 2022 – YouTube](#)

### C5.3 Closing seminar 15 June 2022

This closing day was an opportunity to disseminate the final results of the project to all partners and stakeholders and to launch the After LIFE programme.

Production of a [4-page spread](#) on the project by the magazine «Sans Transition».





# Communication

Create simple and accessible communication tools to inform and raise awareness among the general public, stakeholders and project partners.

Production of 6 newsletters to report on the project's latest news:



## DERNIÈRES ACTUALITÉS



Retour sur le forum européen Nature for City LIFE du 8 octobre 2021



Formation des Elus : c'est parti !



Zoom sur l'exposition « Nature en ville et adaptation au changement... »



October 2022 [Newsletter](#)

November 2021 [Newsletter](#)

April 2021 [Newsletter](#)

December 2020 [Newsletter](#)

October 2020 [Newsletter](#)

July 2020 [Newsletter](#)

A website to learn more about the Nature for City LIFE project where you will find the full range of general information, feedback and educational resources on nature in the city:

<http://www.nature4citylife.eu/communication-and-resources/>

200 articles or news items. 11, 236 visits to the website



# E2

## Networking

Exchange information, capitalize on methodologies and join relevant networks on the theme of the NFCL project to increase your skills.



Sharing of experiences with European LIFE and INTERREG projects and European networks. Around 20 meetings and/or presentations.

Production of 6 feedback sheets before the European forum in 2021 by European partners.

Sharing of experiences, methods and results of the project with regional partners. Around 40 meetings and/or presentations.

### THE AFTER LIFE PLAN

Development of an After LIFE plan to strengthen the project's objectives over time. The After LIFE plan is ambitious insofar as it strengthens some existing actions and promotes new ones including :

### Urban monitoring of nature in the city and climate

Continued access to air quality data via QR codes on information boards

Production of a publication written by the LPED "Les Impromptus" summarizing the surveys carried out within the framework of the project with the various stakeholders (users of the districts concerned, elected officials, technicians, MOOC and walk participants)

### "Nature in the city and climate" trail

Promotion of artistic works along the GR2013 trail and the Toulon Provence Méditerranée metropolitan trail

Continued rollout of the exhibition and its educational kit available to various audiences

### Training of urban designers

Continued provision of training for elected officials and technicians with the ARBE

Support for the metropolitan areas in writing their urban planning documents/projects

Free and continuous access to the MOOC videos

### Engaging citizens

Support for complementary actions around creating permeable surfaces and planting projects in metropolitan areas in the Southern Region

### Communication

Continuation of the website

### NATURE, A SOLUTION FOR BETTER LIVING IN THE CITY

Learn more about the Nature for City LIFE project

<http://www.nature4citylife.eu>  
[nature4citylife@mareregionsud.fr](mailto:nature4citylife@mareregionsud.fr)









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