

# HEALTHY CORRIDOR CONCEPT PORTO

**Project**

Healthy corridors as drivers of social housing neighbourhoods for the co-creation of social, environmental and marketable NBS

**Acronym**

URBiNAT – Urban inclusive and innovative nature

**Title**

Healthy corridor Concept

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# Porto



Figure 1. City of Porto map identifying the Campanhã Parish (orange) and URBiNAT' study area (red) and intervention area (white).

# 1. Introduction

In Porto city, Campanhã parish was identified as one of the priority areas for urban regeneration aiming at a more sustainable improvement of local living conditions. This area faces severe socio-economic challenges territorial aggravated by isolation, due to lack of accessibility, safety, feeling of security and poor overall conditions of the urban space. Despite these challenges, this area is especially rich in green areas and vacant lots that represent unique opportunities for urban regeneration to tackle the identified issues, especially through the use of multifunctional nature-based solutions (NBS). The potential for improvement in this area is fairly recognized by the number of strategic investments that the Municipality of Porto is planning for the area.

Within Campanhã parish, URBiNAT project was able to define a specific study area to develop an extensive analysis of the territory and dialogue with local actors, aligned with the identification of available public areas that could be used for the implementation of NBSs. During this co-diagnostic phase (Deliverable 2.1), different but complementary methodologies were used to acquire the needed information (see 2.2. From the Co-diagnostic to Co-design).

Moreover, existing public areas with high social impact, main services, facilities and green spaces were also accounted for the definition

of the study area, as well as future municipal projects, in order to avoid investment overlaps and promote strategic synergies, amplifying project's impact in the territory.

By the end of the co-diagnostic, it was possible to collect enough framework information about the city, the parish and the study area that, combined and synthesized, allowed for the identification of a new work scale – the project's intervention area (Figure 1). This area, with a total of 4 hectare was defined by a deductive exercise and is located in the interface between three municipal housing neighbourhoods for social rental (Cerco do Porto, Falcão and Lagarteiro) and several important facilities and services (e.g., Oriental City Park, Corujeira Square, Campanhã Cemetery, local schools, sport facilities, Oliveira Urban Garden). Besides the several socio economic and environmental challenges that led to the definition of the intervention area as pivotal for the implementation of the Healthy Corridor, it is important to highlight the occurrence of severe issues of connectivity mainly due to topographic characteristics (Campanhã valley) and physical barriers (highway infrastructure).

Figure 2, highlights the definition process of the study area and intervention area within URBiNAT.

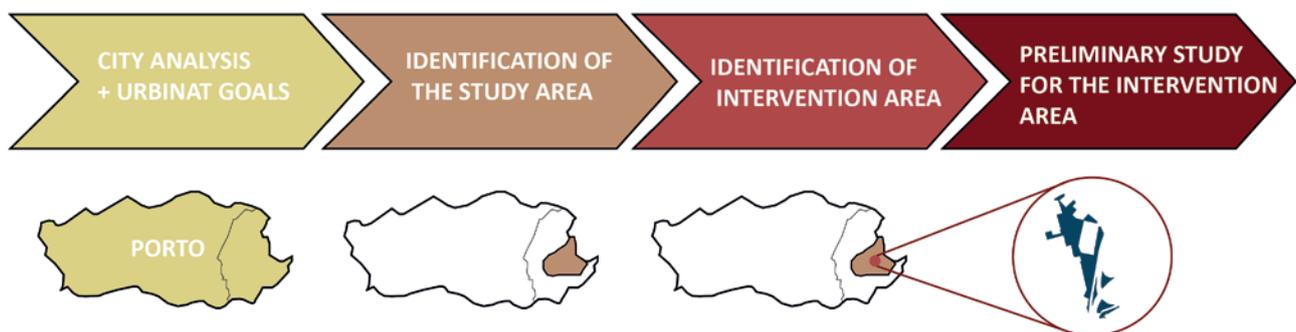


Figure 2. URBiNAT's process from the identification of the study area inside Campanhã Parish and the intervention area where the Healthy Corridor will be implemented.

This deductive process, combined with the opportunity of the available plots to intervene, gradually identified smaller areas of intervention through participatory and multidisciplinary studies, allowing to identify an intervention area with great potential to create better living conditions, with a real impact in the daily lives of local citizens. Moreover, the active involvement of local citizens and organizations in the co-diagnostic and co-design of the Healthy Corridor in Porto were crucial for the decision-making process by allying the local needs to the existing opportunities, and to build locally adapted solutions.

Finally, the present document aims to explain in more detail the methodology behind this process and main results obtained that culminated in a series of operational outputs that will not only guide the implementation of the Healthy Corridor, but will also guarantee its activation and continuity beyond the project's time.

## The territory

This territory is marked by its valley topography due to the presence of Tinto river and its streams. This river is one of the few that still runs entirely in its natural course and at surface level. In its margins it is possible to observe ancient rural landscapes, watermills and cultivation fields that, unfortunately, are gradually being replaced by urbanistic interventions. Hydric and climatic conditions dictated the ability of this territory for cultivation purposes, despite the rough topography. The work of Rio Tinto exporter (Exutor), which connects the Meiral and Freixo (ETAR), recently completed, included the execution of an ecological corridor with 6.5 km (walkways, fruition areas and vegetation) from the urban park of Rio Tinto, with connection through Oriental Park (extended from 8 to 18 ha) ending at Freixo (Rua do Freixo next to the roundabout).

The valley topography itself reflects on spatial and visual diversity, resulting in the coexistence of different realities near URBiNAT's intervention area. This complex landscape is a cultural factor recognized and valued by the residents.

However, these marked steeps and topographic variations are an obstacle to human occupation and mobility, while remaining a challenge for all urban interventions, such as buildings and circulation infrastructures. As so, the valley behaved as an obstacle to urban development whose interventions gradually became more disruptive, resulting in a fragmented landscape and obstacles to pedestrian mobility.

Moreover, the exponential growth and lack of integration of urban planning has aggravated such fragmentation, clearly visible by the existing road axes that have been multiplying, overlapping and gaining dimension over time. This resulted in an obvious urban (and social) isolation of Campanhã to the rest of the city that is felt to this day.

This territory is also marked by the presence of a highway (A43) and other large circulation axes (Figure 3) whose disarticulation with the existing topography results on the following several impacts at different levels: distribution of residential units; pedestrian mobility; green structure; psychological barriers that reflect in social segregation and feeling of isolation by local residents.

The overlap of the railway line and the main road VCI from north/south direction, isolate the study area from the rest of Campanhã, making it only possible to reach this territory through underground passages and viaducts. These conditions make it difficult to access several important points in the vicinity, of which the nearest metro and train stations stand out, ensuring connection with the rest of the city, which is thus highly conditioned.

In greater detail, the study area is mostly a residential area, marked by the presence of social housing, most of which owned and operated by Domus Social, E.M., a municipal company responsible for managing municipal housing for social rental, as other public facilities and infrastructures in the municipality of Porto. Along the residential area some relevant services and facilities can be found, such as the Parish council and its auditorium, a group of Schools (6 primary schools and 1 high school), a professional training centre, several sports centres (football, swimming pool, sport pavilion), the Campanhã cemetery and main Church. In what concerns the public space it is important to highlight *Praça da Corujeira* square, the *Parque Oriental* city park and *Quinta da Bonjóia*. The great concentration of these elements confirms the elevated social pressure that this area supports and the vast number of people interacting daily with such spaces.

At the same time, it is important to mention that Campanhã Parish is now under investment priority for the municipality. This reflects on the large amount and variety of recent/under development projects that influence the study and the intervention areas, such as: the future Campanhã Intermodal Bus Terminal (under construction); the requalification of the old

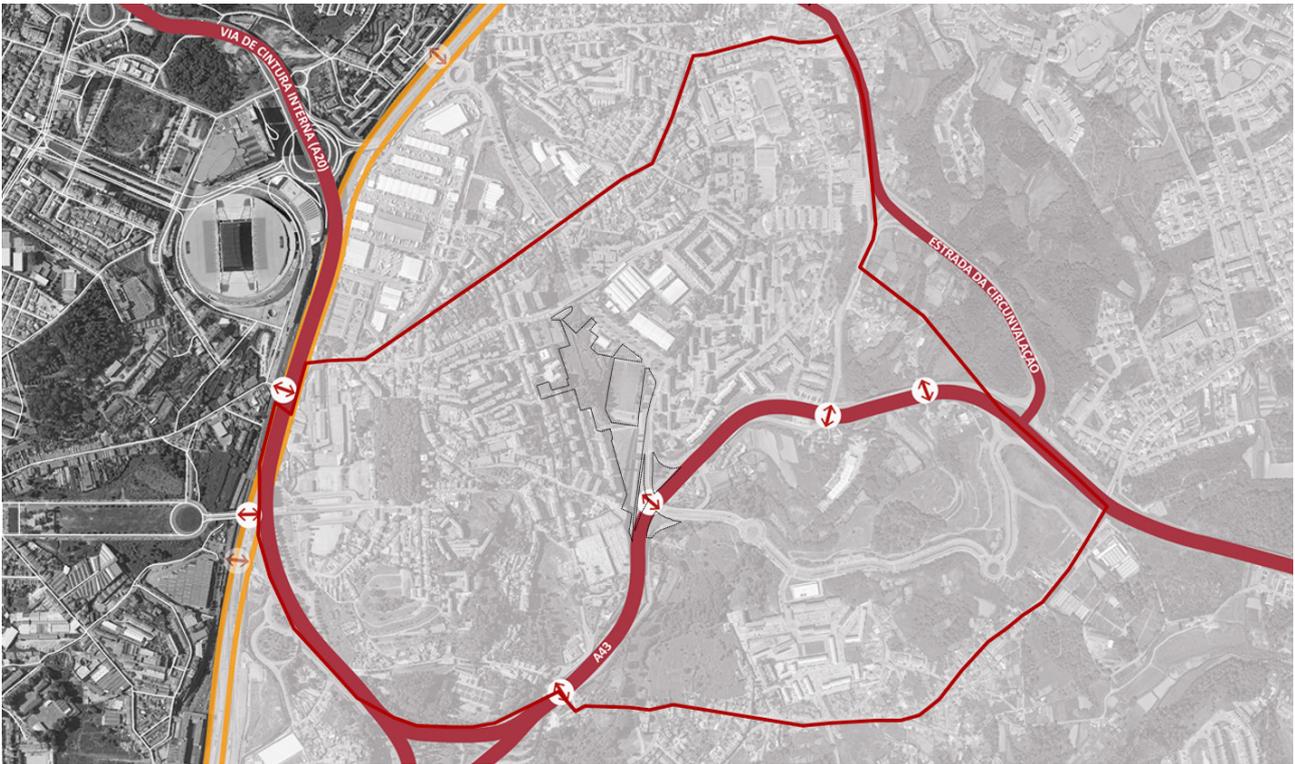


Figure 3. Territory fragmented by circulation axes (Highways in red and railway in yellow)

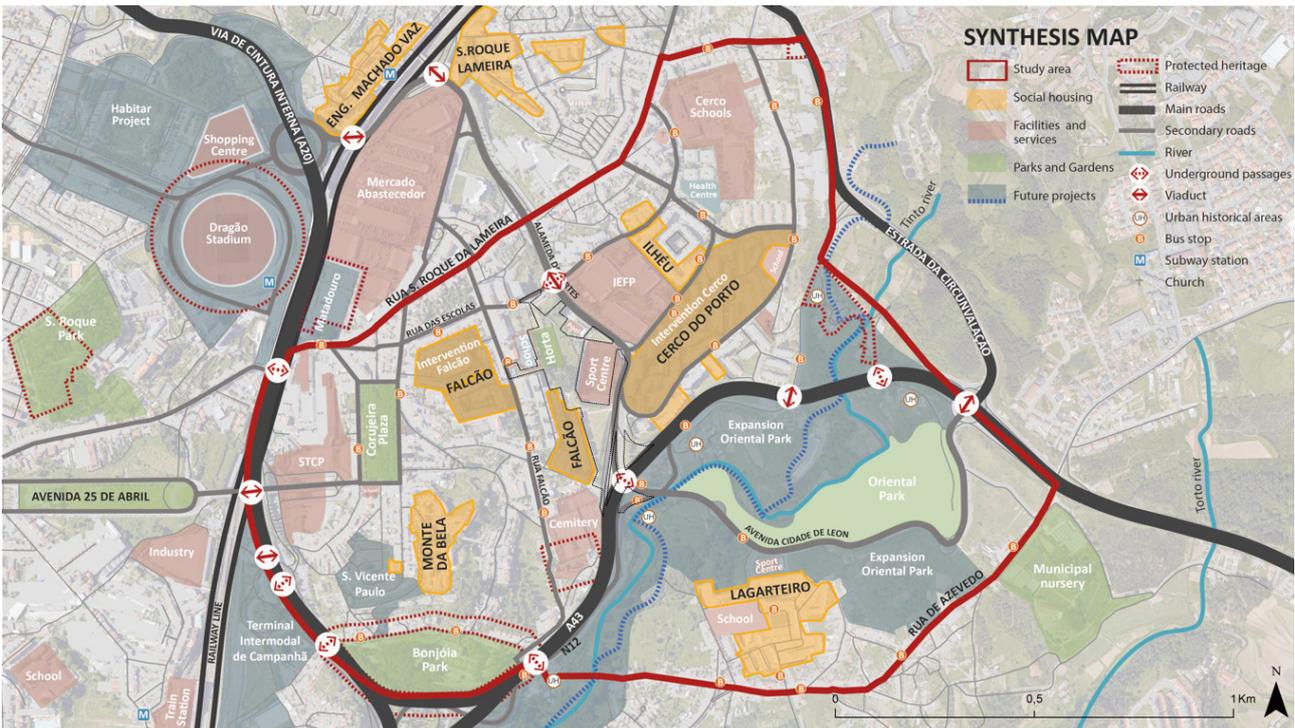


Figure 4. URBiNAT's study area (red limits) showing the main territorial typologies according to its use (social housing, facilities and services, parks and gardens, future projects, protected heritage, urban historical areas, churches) and connective networks.

slaughterhouse *Matadouro Industrial do Porto* (project under development); the requalification of *Praça de Corujeira*, an ancient local square, (a municipal project is underway); the Expansion of the Oriental City Park (from 8 to 18 ha), including the recently completed walkway along Tinto river (already built and successfully used), with the implementation of an ecological corridor with 6.5 km composed by walkways, areas of fruition and vegetation; and the interventions both in Cerco do Porto (buildings refurbishment in construction stage and public space requalification in design stage) and in Falcão social housing (after buildings recently refurbished, the public space requalification is ending construction), as well as Monte da Bela affordable housing in the area of former São Vicente de Paulo neighbourhood (project under development).

URBiNAT then raises the opportunity to look at key connection spaces between all these projects/interventions to considerably improve access and mobility, while creating better living conditions and increased climate change

resilience through green integrated solutions in the available and abandoned/unused lots.

Based on this, the proposed intervention area in URBiNAT will consist in a continuous strip of public land, with a total of 4 hectare, identified as a priority by the several methods implemented in URBiNAT, among them the intense participatory process involving local actors. As such, it is expected that URBiNAT's intervention will have a considerable local social and environmental impact.

Moreover, and as URBiNAT's intervention is perfectly aligned with the local municipal investment strategy, it will not only allow for an amplification of the initial predicted strategy but also a considerable acceleration in its implementation.

Finally, in the present report, the process of co-creation from co-diagnostic to co-design thoroughly explained, describing the main challenges and outputs that will be crucial to support the next phases: co-implementation and co-monitoring.

## 2. Co-creation process

The co-creation process of the healthy corridor was based on the overall URBiNAT process and methodology and adapted to the local reality by the taskforce to frame the co-diagnostic and the co-design stage, in terms of objectives, phases, steps, narratives and tools. In this sense, this chapter is organized in two topics to analyse the co-creation process. Firstly, the “co-creation chronology” to identify all the participatory activities realised during the co-diagnostic and the co-design stages and to describe it in terms of goals, methods and actors engaged, offering a systematized timeline. This topic also includes an analysis of the co-creation process with the correlation between the methodology and the implementation and also the “challenges of the co-creation process in Porto and the impact of the Covid-19 crisis”. Secondly, the topic “From the co-diagnostic to co-design” develops a deep analysis of the local diagnostic results, organizing the needs identified, and establishing the relation with the co-design proposals, demonstrating the coherence and articulation between the two stages.

### 2.1 Co-creation chronology

#### Co-diagnostic

The co-diagnostic stage introduced the project to the several actors – political representatives, municipal technicians, citizens, stakeholders – aiming at their engagement in the project. The “mapping of the local participatory culture” took advantage of what and who was already in the field, creating synergies and learning from previous experiences. Together, the group defined two strategies to develop the participatory activities, one focused on the primary schools to engage children and their families, which took place in May and June 2019, and the other focused on a public event in the central square of Corujeira, to engage the community of Campanhã, which took place in October 2019. These actions involved a large group of participants in URBiNAT and allowed for the activation of the Porto Living Lab (milestone 2). The outputs of these actions were reported in the D2.1 Porto Local Diagnostic (Dec. 2019) and constituted the baseline for the planning of the co-design stage. This new phase of the project consisted in the development of a series of participatory activities that are resumed in (Table 1) below, as well as the main actors involved and content of each initiative.

ACTORS	CO-DIAGNOSTIC STEPS		
	PROJECT PRESENTATION	MAPPING THE LOCAL PARTICIPATORY CULTURE	PARTICIPATORY ACTIVITIES
Goals	Introduction to URBiNAT Engage citizens	Adapt the process to local Create synergies with local projects	Perception of the territory Knowledge of NBS Dreams to transform
School-age children (Primary schools)	Internal meeting with school coordinators and teachers		Event in schools – Walkthrough Photovoice Mapping perceptions (use, feelings, dreams) NBS around the trees
Citizens	Public Event	Public Event	Public Event
Local organizations	Meeting to present URBiNAT and to know the associations and institutions	Meeting to map stakeholders' activities and engage them in URBiNAT process	Participate with activities, such as theatre, market, karate presentation
Municipal technicians	Meeting to present URBiNAT	Workshop (world cafe) to map municipal projects with NBS or Participation and engage technicians in URBiNAT process	Training to get in touch with URBiNAT methodologies
Political representatives	Presentation of URBiNAT		Participation in Public Event
Porto Taskforce – Porto Municipality (CMP), Domus Social, E.M.; CIBIO; CES; UC; GUDA			

Table 1. Resume of participatory activities.

## Co-Design

The co-design activities were organized in seven steps, according to the methodology proposed in the co-creation process: transformation; self-projection; ideation; design; validation; argue; and; systematization. These steps aim to engage citizens in the three levels of commitment: involvement, interaction and integration, going from an episodic workshop participation to the development and implementation of each NBS.

Once again, the activities were developed in parallel with adults (individuals and associations) and with school-age children from local primary schools. Due to the intensity of the process, each group had a maximum of 25 participants.

Considering the characteristics of the territory, URBiNAT explored the walkthrough method to discuss the needs and solutions in

the intervention area. During the ideation stage, new NBS were identified by the two groups covering four main categories: public space, culture and sports, social economy, education.

At the design stage, three levels of activities were adopted: one, face-to-face proximity meetings with the citizens in order to support them and to develop the NBS adapted to its context; second, with online intermediate meetings between the participants and URBiNAT local Task Force to create and develop the New NBS, mitigating the challenges imposed by the Covid-19 pandemic outbreak; third, with collaborative key meetings that joined citizens, associations, municipal technicians, political representatives and URBiNAT Task Force to further discuss and developed the proposed New NBS.

After the design stage, URBiNAT team systematized all the collected information and prepared a decision process with the political representatives, using TRIZ method, that ended in two online sessions to discuss the three categories of decision: NBS to develop, NBS to channel to other municipal projects, and NBS not to develop. Finally, the approved NBS proposals were integrated in an urban project

of the healthy corridor that was presented and discussed in an online session with all the actors. Some NBS are being developed in parallel, namely the immaterial solutions that will be fundamental to activate the use of the healthy corridor and the surrounding public space.

The next table relates the co-design steps defined in the methodology with the activities that took place in Campanhã, Porto.

	CO-DESIGN STEPS	
	Adults (citizens and local associations)	School-age-children
<b>Transform</b>	Planning co-design activities Presentation of the Local Diagnostic	Introduction of URBiNAT
<b>Self-projection</b>	Community Workshop to prepare the walkthrough	Activity about the courtyard
<b>Ideation</b>	Walkthrough to Identify needs and challenges Co-selection of new NBS with 3D model Online meeting to ideate new solutions, through design thinking	Walkthrough in the intervention area Workshop activities (mapping, drawing, gaming, 3D model thinking)
<b>Design</b>	Proximity meetings to co-design of each citizens NBS proposal Citizens produced a video to explain their proposals Workshop with citizens and technicians to co-design each NBS	
<b>Validate</b>	Online Meeting to present new NBS and discuss it with citizens and political representatives Decisions on the proposed ideas with political representatives, citizens and stakeholders (Triz)	
<b>Argue</b>	One-day Experiment to test ideas in place (suspended due to Covid-19)	
<b>Systematization</b>	Healthy Corridor preliminary study	
<b>Development</b>	Online workshop to co-design four NBS	

Table 2. Methodological co-design steps.

The next table organizes all the participatory activities by date giving a short information on the scope, goals and methods implemented. A picture offers the participatory environment.

co-diagnostic

M01

27/02/2019



**Involvement**  
Meeting with councillors and directors of department

**Presentation**  
URBiNAT presentation for Political involvement

M02

11/03/2019



**Involvement**  
Meeting with municipal technicians

**Mapping**  
To map municipal project in Campanhã and which ones engage citizens

M08

01/10/2019



**Involvement**  
Public meeting in the auditorium of the Parish Council

**Perceptions**  
Presentation of URBiNAT

M07

09/2019



**Involvement**  
NBS training session with municipal technicians

**Training**  
To train municipal technicians in URBiNAT methodologies

M09

11/10/2019



**Involvement**  
Public Kick Off in Praça da Corujeira

**Presentations**  
To present URBiNAT and engage citizens and stakeholders in the participatory process of local diagnostic

co-design

S00

18/11/2019



**Involvement**  
Meeting with citizens (27 participants 13 male / 14 female)

**Transform**  
Introduction - Co-planning of co-design activities

## M03

27/03/2019



### Involvement

Meeting with Local institutions

### Mapping

To map institutions project in Campanhã and which ones engage citizens

## M04

31/05/2019



### Integration

Workshops with Corujeira primary school

### Perceptions

To present URBiNAT and engage children in the participatory process of local diagnostic

## M06

17/06/2019



### Integration

Workshops with Cerco do Porto primary school

### Perceptions

To present URBiNAT and engage children in the participatory process of local diagnostic

## M05

5/05/2019



### Integration

Workshops with Falcão primary school

### Perceptions

To present URBiNAT and engage children in the participatory process of local diagnostic

## S01

28/11/2019



### Involvement

Corujeira primary school preliminary workshop (19 participants)

### Transform

Introduction of URBiNAT

### Self-projection

Activity about the courtyard

## S02

04/12/2019



### Involvement

Citizen workshop (11 participants)

### Transform

Presentation of LD – co-creating categories

## S03

05/12/2019



### Involvement

Cerco do Porto primary school preliminary workshop (10 participants)

### Transform

Introduction to URBiNAT

### Self-projection

Activity about the courtyard

## S04

06/12/2019



### Integration

Corujeira primary school workshop

### Ideation

Walkthrough in the intervention area and activities (mapping and drawing)

## S10

15/01/2020



### Interaction

Citizen workshop

### Ideation

Presentation of NBS catalogue and co-selection of new NBS

## S09

14/01/2019



### Involvement

São Roque primary school preliminary workshop

### Transform

Introduction to URBiNAT

### Self-projection

Activity about the courtyard

## S11

24/01/2020



### Integration

São Roque primary school workshop

### Ideation

Walkthrough in the study area and activities (mapping, drawing, gaming, 3D model thinking)

02/06/2020



### Interaction

Face-to-face meetings with citizens

### Proximity / Design

Co-design of each citizens NBS proposal

## S05

07/12/2019



### Integration

Citizen workshop  
(7 participants)

### Self-projection

Community Workshop to prepare the walkthrough  
Analysis of territorial mapping data collected during Stage 2 of the Local diagnostic

## S06

13/12/2019



### Integration

Cerco do Porto primary school workshop  
(17 participants)

### Ideation

Walkthrough in the study area and activities (mapping and drawing)

## S08

10/01/2020



### Involvement

Falcão primary school preliminary workshop

### Transform

Introduction to URBiNAT

### Self-projection

Activity about the courtyard

## S07

14/12/2019



### Integration

Citizen walkthrough  
(24 participants)

### Ideation

Walkthrough in the study area – Identification of needs and challenges

## S12

15/06/2020



### Interaction

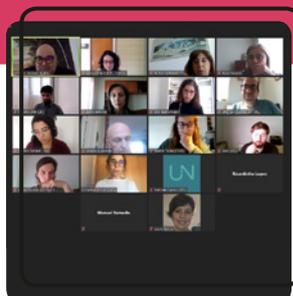
Online meeting with citizens and political representatives

### Presentation

Public presentation of the Local Diagnostic

## S12a

17/06/2020



### Involvement

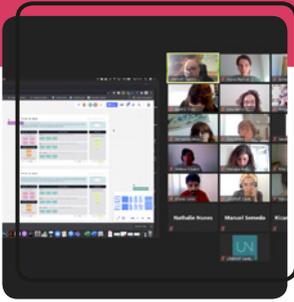
Online meeting with citizens – a)

### Transform

Development of new ideas – Needs

## S12b

23/06/2020



### Integration

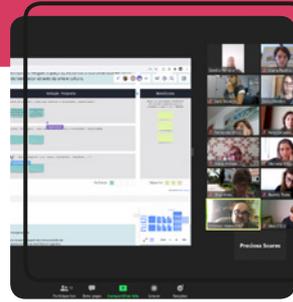
Online meeting with citizens – b)

### Self-projection

Development of new ideas – Co-creation of NBS

## S12c

25/06/2020



### Interaction

Online meeting with citizens – c)

### Ideation

Development of new ideas – NBS video

## S13b

16/07/2020



### Interaction

Workshop with citizens and municipal technicians

### Design

Introduction on workshop  
Experiment in the intervention area

## S13b

16/07/2020



### Interaction

Workshop with citizens and municipal technicians

### Design

Discussion of the culture and economy NBS

## S13b

16/07/2020



### Interaction

Workshop with citizens and municipal technicians

### Design

Falcão garden group  
Logar do Falcão group (vacant building + Oliveira urban garden + existent paths)  
Lagarteiro group

## S13b

16/07/2020



### Involvement

Walkthrough with citizens and municipal technicians

### Diagnostic

Walkthrough along the intervention area to analyse local needs and visualise NBS implementation

## S13a

26/06/2020



### Interaction

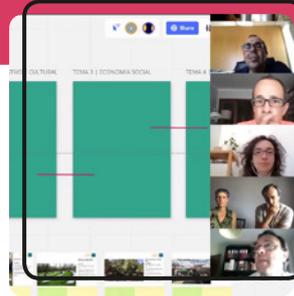
Meeting with citizens

### Design

Production of video with the new ideas by the citizens

## S13a

11/07/2020



### Integration

Online meeting with citizens and political representatives

### Validate

Presentation of the new NBS co-created from December to June

## S13b

14/07/2020



### Interaction

Walkthrough with citizens and municipal technicians

### Design

Discussion of the Educational, Environmental and territorial NBS

## S13b

14/07/2020



### Interaction

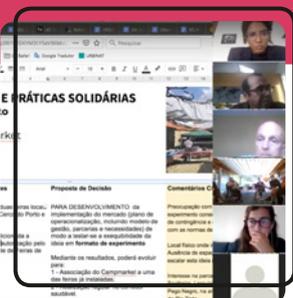
Workshop with citizens and municipal technicians

### Design

Discussion of the Educational, Environmental and territorial NBS

## S14

18/09/2020



### Interaction

Online meeting with citizens and political representatives

### Validate

Decisions on the proposed ideas (Triz - description, positive aspects, challenges, decision, discussion)

## S15

23/10/2020



### Interaction

Public Event in the intervention area (\*) cancelled due COVID-19

### Argue / Experimenting

"Experimento" to test the new NBS

## S16a

07/11/2020



### Interaction

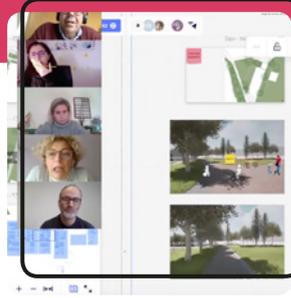
Online meeting with citizens and political representatives

### Systematize

Present and discuss the healthy corridor preliminary study

## S16b

07/11/2020



### Interaction

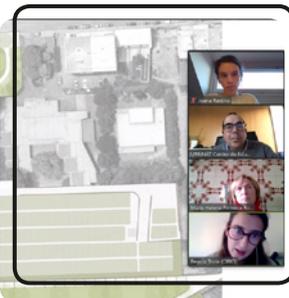
Online meeting with citizens and political representatives

### Design

Co-design of four main NBS – Place for exercise, sensorial garden, amphitheatre, solidarity market

## S18

14/01/2021



### Interaction

Online meeting with the head teacher and coordinators of Cerco do Porto group of schools

### Development

Planning the implementation of education NBS urban farmfarm

## S17

07/01/2021



### Interaction

Online training with citizens

### Development

Training on education communication with young adults related with NBS Campanh'up

## General challenges of the co-creation process in Porto

During the implementation of the co-creation process in Porto, there were many challenges that the local team experienced, especially during the last year due to the Covid-19 outbreak due to the measures enacted in the state of emergency, as it prevented in person

meetings and workshops to be implemented in a project that is highly dependent on citizens engagement and participation. Nevertheless, the URBiNAT local team directed great efforts in developing mitigation measures in order to minimize the impacts of such restrictions, as resumed in the Table 3, below.

CHALLENGES	MITIGATION MEASURES IMPLEMENTED
<p><b>Extensive and complex study area</b></p> <p>The defined study area is extensive and highly complex in terms of territorial uses and background context of its users.</p>	<p>As the healthy corridor in Porto is intended to strengthen the connections between three municipal housing neighbourhoods for social rental, intervening, in particular, in its in-between public space (the intervention area thus being smaller than the study area), it was decided to focus and develop the healthy corridor in-between this main public housing neighbourhoods (estates). Moreover, in order to guarantee that as many inputs (from different background) were included in the proposed solutions, the co-creation process aimed to engage the different communities that may be identified in the study area (the aforementioned neighbourhoods and other local residents), including the Group of Schools (six primary schools and one high school) in the area.</p>
<p><b>Previous interventions</b></p> <p>The study area is a sum of several urban successive interventions that evolved from different spatially fragmented realities, making it difficult to implement measures of connection between them.</p>	<p>By involving all different actors, such as municipal technicians from different departments, political representatives, local residents and organizations, URBiNAT was able to create an environment of trust and transparency in order to bring previous experiences to the working participatory sessions and build the new solutions in light of what was already learned. Moreover, the extensive knowledge of the municipal technicians and political representatives about the territory was pivotal to achieve a harmonious connection between other ongoing or programmed projects in the study area. Though not solving the overall feeling of mistrust, URBiNAT is preparing the needed structures and conditions to guarantee that the work developed during the project will be continued after the project ends, namely with the participation of local associations in the design and implementation of NBS.</p>
<p><b>Feeling of mistrust towards the implementation of new projects</b></p> <p>Previous projects that ceased right after interventions were over created an overall feeling of mistrust for such initiatives, creating barriers for the engagement and continuous participation in URBiNAT.</p>	<p>URBiNAT dedicated a considerable effort to create, in the last two years, an environment of trust, transparency and close connection between all participants during the participatory process. Since the beginning of this process, the number of citizens involved has increased during the local diagnostic and reduced during the co-design to focus on collaborative activities. Both groups are informed and active with a strong sense of commitment.</p>

<b>Availability for participation</b>	URBiNAT's participatory process was able to keep a rather flexible and organic implementation plan in order to accommodate as best as possible the different availabilities of the participating groups (e.g., different day schedules, different work sessions methodologies such as in room, field trips, face-to-face meetings, online meetings, etc).
The study area has a high level of unemployment and low level of income. As so, citizens have other primary priorities before participating in urban regeneration projects.	
<b>Low participation culture</b>	URBiNAT invested highly in initial engagement initiatives with all the involved actors, together, in order to create a common ground and starting point for the participatory process. Gradually, and although different working sessions were implemented including a specific set of actors (e.g., citizens, schools and associations), key sessions during the participatory process were developed to bring together all participants, including municipal technicians and political representatives. This was the first time that all these actors came together to discuss urban implementations in the study area, which created solid grounds (e.g., experience-based processes and guidelines) for its replication in time, beyond the project's lifetime and its potential upscale to other areas of the city.
Although there are previous experiences in the Municipality of Porto on public participation, its implementation is usually based on common and known methods, with very little space for innovation. This has even more expression when it comes to participation in the co-governance, which is still sparse, leading to a generalized and initial inertia towards the implementation of the participatory sessions.	

Table 3. Challenges and mitigation measures on COVID-19.

## Impact of the Covid-19 crisis in Porto's co-creation process

### COVID-19 SOCIAL IMPACT AND HOUSING INFRASTRUCTURE IN THE STUDY AREA

Campanhã is a socioeconomically vulnerable and derelict civil parish in the oriental part of the city. According to data collected in the Local Diagnostic, among 7 civil parishes in Porto, Campanhã revealed the greater number of municipal dwellings for social rental (near 3700 along 13 neighbourhoods, meaning 29% of the municipal dwellings in the city, housing circa 30% of the then residents in municipal housing). If the study area is considered instead, the weight of municipal dwellings for social rental is higher, unveiling a higher percentage. The samples for the neighbourhood survey applied in the study area (Local Diagnostic) estimated that nearly 43% of the residents should be living in municipal housing (35% corresponding to the residents in the three neighbourhoods being focused).

Portugal has an extra-small social housing sector in which the people most in need live. Subsidized housing dwellings obey strict area parameters and the reduced areas might be another constraint for the families living in this housing tenure, especially when synching with other vulnerabilities. Disadvantaged households are more exposed to unemployment increase and income decrease, eventually accruing the lack of digital infrastructure at home (for work-at-home and school-at-home) and digital literacy to face the Covid-19 restrictions. These households, with considerable representation in the study area, are therefore more likely to be harmed during this period of growing poverty and social inequalities.

### COVID-19 IMPACT IN URBINAT PARTICIPATORY ACTIVITIES

As the implementation of the participatory process depends deeply on face-to-face working sessions and in person engagement initiatives, it suffered several adaptations in order to mitigate the impossibility to meet personally. Moreover, the use of digital tools was a difficult transition of a resident population that is not used to them or doesn't have the digital infrastructure. As so, different measures had to be implemented to face these difficulties, such as:

- Reorganisation of the co-creation process in May 2020, October 2020 and January 2021 in order to face the restriction of Covid-19;
- These reorganisations created demotivation from the citizens, resulting in some leaving the process entirely;
- Many activities were adapted to a digital format using interesting tools to facilitate

interaction. Although some were successful, some citizens didn't participate due to lack of digital tools available and usage know-how;

- The new rules to organize public events made the organisation very difficult, although it was possible to do two on-site important workshops in July 2020;
- The public event "Experimento" was planned to happen in October 2020, with citizens to test some co-created NBS, but it was postponed at the last minute. Since then, it has not been allowed to organize public events;
- Difficulty to maintain the involvement of children due to schools being closed for long periods during lockdown;
- Increased demand for local associations to support families and users from the community, leaving less time for participating in URBiNAT.

## 2.2. From the Co-diagnostic to Co-design

The local diagnostic was developed during 2019 and included two main stages:

**Stage 1** – collection and analysis of existing data at the city, parish and study area level;

**Stage 2** – data collected in the study/ intervention area through the application of different but complementary methodologies, such as:

- a) **Walkthrough** – The participatory activities organised in the primary schools' events in May-June 2019 aimed to identify the children's perceptions of the public space. In each school, the children from the four years participated in the walkthrough organised in small groups of 12-15 students with two facilitators. The routes started in the primary school and went across the related neighbourhood. In several stops, children identified what they like, what they don't like and what they want to change. The data used in this analysis is related with Falcão primary school, 150 children, June 2019, and the answers to "What do you like to change?"; **P1: Place 1** – Alley on the side of the school – The alley will be open to the public square and a sensorial garden, clean and safer due to the light system, walls removal, paths redesign through terrain modelling. It will be used for mobility and

also to play and to gardening. **P2: Place 2** – Old wall (Sobreiros); **P3: Place 3** – Path between Falcão and soccer Field

**b) Photovoice** – The participatory activities organised in the primary schools' events in May-June 2019 aimed to identify the children's perceptions of the public space. In each school, all the children from the four years participated in the photovoice organised in small groups of 12-15 students with one facilitator. The pictures of the neighbourhood were previously selected by the URBiNAT local team, and children had to identify what they like, what they don't like and what they want to change. In the end they should also play diamond ranking by selecting the more and the less important pictures. The data used in this analysis is related with Falcão primary school, 150 children, June 2019, and the answers to "What do you like to change?"

**P1: Place 1** – Photovoice Falcão (05/06/2019) N8 – Caminho lateral da Escola; **P2: Place 2** – Photovoice Falcão (05/06/2019) N5 – Traseiras dos edifícios Falcão Novo; **P3: Place 3** – Photovoice Falcão (05/06/2019) N2 – Caminho lateral ao campo de futebol; **P4: Place 4** – Photovoice Falcão (05/06/2019) – Horta

**c) NBS around the trees** – The participatory activities organised in the primary schools' events in May-June 2019 aimed to identify the children's knowledge about NBS. In each school, all the children from the four years participated in the NBS around the tree's activity organised in groups of 20-25 students with two facilitators. The images from NBS catalogue were previously selected by the URBiNAT team, and children had to identify what they like, and what they would like to implement in their neighbourhood. The data used in this analysis is related with Falcão primary school, 150 children, June 2019, and the answers to what NBS that they would like to implement in their neighbourhood

**d) Mapping Dreams** – The mapping activities took place in the primary schools' events in May-June 2019 aimed to map the way pupils use the territory, what they feel and what are their dreams for the neighbourhood. In each school, all the children from the four years participated in the mapping activities organised in groups of 20-25 students with

two facilitators. The data used in this analysis is related with mapping dreams where children drew or wrote about one dream on a piece of paper.

**e) Neighbourhood survey** – Conducted between August and October 2019 for the collection of responses from a complete sample composed by residents living in public municipal housing for social rental (inside the study area), residents living in private housing (inside the study area) and a Control Group, composed by residents outside the study area. The main objective was to analyse the interviewees perception on physical and social activity, wellbeing, health and the satisfaction/dissatisfaction with the environment of local residents.

**f) Territorial studies** – Set of territorial studies produced by CIBIO in the study area, as part of the Local Diagnostic and then further developed at the level of the intervention area, during the co-design phase. It included studies concerning: landscape evolution, urban fragmentation, green structure, pedestrian mapping, synthesis analysis, light distribution and public space quality.

**g) Survey to the users** – Conducted by CIBIO in June and August of 2020 in the intervention area. The survey was successfully completed by 101 citizens (54% of the people asked to contribute). The first part of the questionnaire aimed to: a) identify uses/frequencies; b) evaluate the space/main characteristics; c) analyse perception of safety; d) identify urgent needs and possible solutions. The second part aimed at mapping pedestrian networks inside the intervention area but also the relation with its surroundings.

**h) Behavioural Mapping** – Through the analysis of behavioural mapping it was possible to analyse how the citizens are using the project intervention area in four main connecting areas between Corujeira, Falcão, Cerco do Porto and Lagarteiro neighbourhoods, through observational methodologies. This analysis showed which areas are most commonly used and for what purpose, such as: recreational sports, walking, sitting, talking, etc; and the obtained results allowed for a better understanding on the real use of the territory and the main

difficulties it presents. Ultimately this gave important notes on what could be improved to facilitate this use and create a better living experience for users.

The implementation of such methods allowed for a thorough identification of the main needs and challenges of the study area, which were finally confirmed and consolidated by the group of participants during the following participatory activities. As the participants advanced in the participatory process, the needs and their potential solutions (the so-called Nature-based solutions – NBS) became more concrete and the developed NBS (mainly the material ones) were compiled into what is now called the urban project for the intervention area (6. Porto Healthy Corridor), which is currently undergoing a licencing process for final project approval, public procurement process and implementation during 2021. At the same time, several immaterial NBS continue to be developed and fine-tuned, which will be crucial for the long-term activation of the Healthy Corridor. This was the starting point to build together, with all involved actors, the proposals that will compose the Healthy Corridor, representing the beginning of the co-design phase.

Finally, the following tables resume and describe the main needs identified during the co-diagnostic phase, correlating them with:

- a) Specific objectives;
- b) EKLIPSE challenges;
- c) Indicators to monitor how URBiNAT will face such challenges;
- d) Methods used to identify the needs;
- e) Co-design actions that will address those needs.

The needs are organized in two groups – territorial and social – although some needs establish a good relation between these two dimensions:

a) Territorial Analyses

- Green areas and their connection for leisure and sports activities
- Better conditions of pedestrian paths. New connections
- More accessible paths for all citizens
- Lightning
- Stay/sitting/resting areas
- Qualified green areas and nature in urban environment
- More autochthonous plants and trees
- Play areas for children

b) Social analyses

- Adequate cleanliness and maintenance of the public space
- Socialization/community/entertainment opportunities. Community spaces improvement
- Improve local economy
- Respect existing memory
- More connectivity with existing and future projects/initiatives
- Participatory opportunities/tools for citizens engagement in urban planning
- Improve literacy for environmental issues

## 2.2.1 Territorial Analyses

In the territorial analyses citizens focus on the quality of the public space and also on its conditions to be used: physical conditions, light and safety. The needs identified are also related

with the green areas, focusing in the vegetation quality, namely in its local characteristics, such as the wish for autochthonous trees:

<b>NEED: GREEN AREAS AND ITS CONNECTION TO LEISURE AND SPORTS ACTIVITIES</b>			
<b>RELATED EKLIPSE CHALLENGES: CH4 – Green Spaces Management, CH6 – Urban Regeneration, CH9 – Public Health &amp; Wellbeing</b>			
<b>URBiNAT objectives to address/improve</b>	<b>Methods from Co-diagnostic</b>	<b>Indicators to measure impact</b>	<b>Co-design proposed solution</b>
Connections and mobility	Health and wellbeing survey (residents of the study area)	Area dedicated to leisure and sports activities	New green multifunctional areas where leisure and sports activities can be developed
Space multifunctionality			
Security by presence (residents and passers-by)	Territorial studies (study/intervention area)		New paths, also for cyclable circulation
Liveability	Survey to the users (intervention area)		The NBS “Culture is Health” and “Outdoor for programme activities”, if implemented will contribute to the programmatic activation of the area
More active inhabitants, social life and wellbeing			
Open air physical activity and leisure	Participatory activities (adults)		

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Health and wellbeing survey (residents of the study area)  
 Collected data revealed a lack of vigorous physical activity in the last 7 days and most of the sample hasn't done moderate physical activities. Nevertheless, most of the residents find walking a very important physical activity that, most of them, engage daily. However, such activity is mostly centred outside the neighbourhoods (indicating lack of walking conditions and security), by 90% of interviewees.  
 Collected data suggests that Health Education by promoting regular physical activity for all areas of the sample, in order to install new habits and routines, is one of the main priorities, according to the residents.

Territorial studies (study/intervention area)  
 Concluded that the intervention area is key to connect important areas for physical activity: Corujeira Plaza/ Avenida 25 Abril and Oriental Park. Between these spaces, where the intervention area is located, there is a big gap in terms of sports activities and connectivity, from the lack of conditions. Intervening in this area would be key to connect and improve the conditions for recreational activities.

Survey to the users (intervention area)  
 When asked about what could be different in the intervention area many users mentioned the desire of having better conditions for recreation activities, including for outdoor physical activity. During the implementation of the survey the team only observed people practicing physical activity near Oriental Park and its expansion along Tinto river.

Participatory activities (Adults)  
 The green areas created through the recent rehabilitation of the Oriental city park just nearby the project intervention are of great use for different activities such as recreational walking, jogging and cycling, confirming that these green structures are highly used and in great demand in this territory and local residents (and non-residents) would benefit from their extension and connection. The lower part of the intervention area is of particular importance to connect with the rest of the territory as it represents the interface between the Oriental city park (commonly used for recreational and sports activities) and URBiNAT intervention area to guarantee a continuum of space and its use for these specific purposes. Moreover, during the participatory activities, citizens proposed to create sensorial gardens and to create green areas for leisure and exercise (such as yoga).

Table 4. Green areas and their connection for leisure and sports activities.

**NEED: BETTER CONDITIONS OF PEDESTRIAN PATHS. NEW CONNECTIONS**  
**RELATED EKLIPSE CHALLENGES: CH6 – Urban Regeneration, CH9 – Public Health & Wellbeing**

URBiNAT objectives to address/improve	Methods from Co-diagnostic	Indicators to measure impact	Co-design proposed solution
Connections and mobility	Health and wellbeing survey (residents of the study area),	Land dedicated to pedestrians	Improvement of the conditions of existing pedestrian paths (better connection to Oliveira urban garden; Campanhã's cemetery; schools, residential units, bus stops ...)
Local safety	Activities with elementary school children: "Dreams", "NBS around the trees",	No. of linear meters of improved pedestrian paths	
Urban fragmentation mitigation	"Walkthrough" "Photovoice" (Falcão)	No. of linear meters of new connections	
New pedestrian alternatives to reduce walking distance between relevant areas	Participatory activities: walking activity and workshops (adults)	Location and no. of new/relocated walkways	Creation of new connections
	Territorial studies (study/intervention area)		
	Survey to the users (intervention area)		
	Behavioural mapping (intervention area)		

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Health and wellbeing survey (residents of the study area)  
As referred previously, 90% of the interviewees practice physical exercise outside the neighbourhoods (indicating lack of walking conditions and security). This shows the need to guarantee good walking conditions for local citizens, as this is one of the main physical activities, especially in areas located in-between neighbourhoods, where conditions might not be as favourable.

Activities with elementary school children

- "Dreams": when asked about their dream for the study area, 29 children have said the desire of having more entertainment, other 4 referred culture and leisure, and other 13 community spaces;
- "NBS around the trees": 25 children would like to implement the NBS Cycling and pedestrian path;
- "Photovoice": children indicated the lack of conditions of pathways and sidewalks (P1 + P2);
- "Walkthrough" (Falcão): Better pathways and sidewalks (P2 + P3).

Territorial studies (study area/intervention area)  
Pedestrian mapping identified the urgent need to formalize current informal paths, along the study area, that represent important connections used by the citizens. However, in the Intervention area this problem is even more urgent due to the concentration of pedestrian paths (almost 2km).

Survey to the users (intervention area)  
73% of the interviewed use the intervention area as a pedestrian connection, most of them several times a day. However, almost 80% refers that the most urgent intervention would be to improve pedestrian paths (level of steepness, pavement conditions, light and shadow). Several users shared that have already fallen when using the paths and know about many others that had similar experiences. Some users also shared that during the winter or after a rainy day they have to use a different path due to the bad conditions of the existing paths. These paths are critical to improve their experience when using public space on their daily basis.

Behaviour mapping (intervention area):  
Data collected proved that the intervention area is mostly used for pedestrian crossing

Participatory activities (adults)  
identified the importance of the informal paths and the need for renovation, improving accessibility. During the first walk, the group of citizens mentioned the opportunity of URBiNAT to look at the interface area between different municipal projects and invest in improving its connections. Such an observation was indeed confirmed by the municipal technicians and political representatives, confirming that the intervention area in URBiNAT will allow for an effective connection between local ongoing and soon to be implemented interventions, contributing to the local municipal masterplan (PDM).

Table 5. Better conditions of pedestrian paths. New connections.

**NEED: MORE ACCESSIBLE PATHS FOR ALL CITIZENS**  
**RELATED EKLIPSE CHALLENGES: CH6 – Urban Regeneration, CH8 – Social Justice & Social Cohesion, CH9 – Public Health & Wellbeing**

<b>URBiNAT objectives to address/improve</b>	<b>Methods from Co-diagnostic</b>	<b>Indicators to measure impact</b>	<b>Co-design proposed solution</b>
Connections and mobility for all	Territorial studies (study/intervention area)	Extension of accessible paths	The intervention in existing paths will soften the slope as much as possible
New pedestrian alternatives to reduce walking distance between relevant areas	Survey to the users (intervention area) Participatory activities (adults)	Alternatives to paths with stairs	New paths will be created as an alternative to current connections made only by stair

Territorial studies (study area/intervention area)  
 Identified that a great extension of paths is not accessible to all citizens, mainly due to high slopes (as a consequence of the valley topography) but also to the existence of physical barriers such as stairs. This territory is not friendly in terms of pedestrian mobility for all citizens.

Survey to the users (intervention area)  
 Highlighted that the most relevant paths (currently informal) are totally inaccessible, not only due to its slopes (more than 16% in some parts) but also as a result of bad pavement conditions. In two specific cases (near Oriental Park and Emilio Biel street) the path leads only to sets of stairs. Some citizens shared with the team that they were not able to take outside their relatives who use wheelchairs because the paths are inaccessible to them. In conclusion, some citizens are not able to use these paths and the bikers are forced to carry their bicycles.

Participatory activities (adults)  
 This topic was mentioned several times during the participatory activities, namely in the walkthrough, where they stressed the bad conditions of the informal paths.

Table 6. More accessible paths for all citizens.

**NEED: INCREASE VISIBILITY BETWEEN SPACES**  
**RELATED EKLIPSE CHALLENGES: CH4 – Green Spaces Management, CH6 – Urban Regeneration, CH8 – Social Justice & Social Cohesion, CH9 – Public Health & Wellbeing**

<b>URBiNAT objectives to address/improve</b>	<b>Methods from Co-diagnostic</b>	<b>Indicators to measure impact</b>	<b>Co-design proposed solution</b>
Local safety for all	Territorial studies (study/intervention area)	No. of obstructed views resolved	Through terrain modelling and planting design strategies, the project will contribute to solve obstructed views allowing for intervisibility between spaces
Connections and mobility for all	Survey to the users (intervention area)		

Territorial studies (study area/intervention area)  
 By analysing the evolution of the landscape in the intervention area, it was possible to conclude that the area has been used for landfilling several times as a result of urbanistic interventions in its surroundings. Together with the valley topography, walls and existing vegetation the visibility between spaces is very low, which results in safety perception problems.

Survey to the users (intervention area)  
 It was underlined that perception of safety as a serious problem in the intervention area. The users mentioned the existing walls compromise visibility, creating a general feeling of insecurity in the area.

Table 7. Visibility between spaces.

<b>NEED: LIGHTNING</b> <b>RELATED EKLIPSE CHALLENGES: CH6 – Urban Regeneration, CH8 – Social Justice &amp; Social Cohesion, CH9 – Public Health &amp; Wellbeing</b>			
<b>URBiNAT objectives to address/improve</b>	<b>Methods from Co-diagnostic</b>	<b>Indicators to measure impact</b>	<b>Co-design proposed solution</b>
Safety perception Criminal activities reduction	Activities with elementary schools' children: "Walkthrough" (Falcão)  Territorial studies (study/intervention area)  Survey to the users (intervention area)	No. of lightning points	The project will add lightning points, that will allow for users to safely move through the park during late/early hours of the day
<p>Activities with elementary school children "Walkthrough" Falcão (P1) – Children refer the need to improve light</p> <p>Territorial studies (study area/intervention area) Light studies proved that the intervention area not only lacks public lighting but also, its surroundings suffer from overexposure, namely by the football field. When developing the territorial studies, the team observed several pedestrians using their phones flashlight to provide minimal visibility.</p> <p>Survey to the users (intervention area) When asked about perception of safety most users evaluated this area with a negative score. Some of the ones who don't, mention they only use the space during the day, but are aware of its problems in other hours. Some users shared with the team their experiences with dangerous situations, namely theft or harassment. When asked about what could solve this problem, almost 50% mention the need for improvement in the public light setting.</p>			

Table 8. Lightning.

<b>NEED: STAY/SITTING/RESTING AREAS</b> <b>RELATED EKLIPSE CHALLENGES: CH6 – Urban Regeneration; CH8 – Social Justice &amp; Social Cohesion</b>			
<b>URBiNAT objectives to address/improve</b>	<b>Methods from Co-diagnostic</b>	<b>Indicators to measure impact</b>	<b>Co-design proposed solution</b>
Space multifunctionality Security by presence (residents and passers-by) Liveability Inclusiveness of the public space	Survey to the users (intervention area)  Behaviour mapping (intervention area)	No. of stay/sitting/ resting areas	New resting areas and benches will be implemented  NBS natural amphitheatre to be implemented can also address this need
<p>Behaviour mapping Collected data indicated sedentary use (corresponding to those recorded in the variables "sitting "and "standing") is not significant, which may be a reflection of the absence of stay and sitting spaces in the area.</p> <p>Survey to the users (intervention area) Some users shared with the team the desire of sitting in the intervention area to enjoy existing shadow and nature, however they have to sit on rocks due to the lack of benches. Elderly users express the difficulty of crossing the area due to the lack of resting areas where they could take some breaks and resume the walk when ready. When asked about what they would like to be different, more than 10 users mentioned the need for urban furniture, namely benches.</p>			

Table 9. Stay/sitting/resting areas.

**NEED: QUALIFIED GREEN AREAS AND NATURE IN URBAN ENVIRONMENT**  
**RELATED EKLIPSE CHALLENGES: CH4 – Green Spaces Management, CH6 – Urban Regeneration**

URBiNAT objectives to address/improve	Methods from Co-diagnostic	Indicators to measure impact	Co-design proposed solution
Environmental awareness	Health and wellbeing survey (residents of the study area)	Urban Green Index of Biodiversity	Vacant lots will be converted into a multifunctional urban park, including the following territorial NBS:
Qualification of green areas	Activities with elementary schools' children: "Dreams", "NBS around the trees", "Photovoice", "Walkthrough" (Falcão)		Wildlife Park, Sensorial Garden, Suds, pedestrian and cycle paths, autochthonous urban forest, slope stabilization (...)
Improve Autochthonous trees	Participatory activities: walking activity and workshops		Urban agricultural solutions to be co-implemented in elementary schools (IAAC)
	Territorial studies (study and intervention area)		Oliveira urban garden will be expanded
	Survey to the users (intervention area)		

Health and wellbeing survey (residents of the study area)

Collected data revealed that over half (59%) of the residents are moderately to very satisfied with the "Degree of naturality". As well, just over half (51%) of the residents are moderately to very satisfied with the existing "Green areas and parks". For both indicators, the general degree of satisfaction is more evident in the municipal housing sample, taking to the conclusion that the need for more green areas or naturality seems to be slightly more perceived by the sample inhabiting private housing areas.

Activities with elementary school children

- "Dreams": when asked about their dream for the study area, 36 children referred to the desire of having more parks while 41 others referred to more natural elements;
- "NBS around the trees": 18 children would like to implement the NBS Autochthonous Urban Forest, other 17 children the NBS Hydroponic Winter Garden and other 15 children the NBS Community Composting;
- "Photovoice": children would like more nature (P3);
- "Walkthrough" (Falcão): More nature (P1, P2, P3).

Territorial studies

The intervention area is highlighted for its potential to contribute as qualified green spaces, rather than a set of vacant lots. In terms of green structure, these plots can have a key role to contribute for green and ecological connectivity.

Survey to the users (intervention area)

When asked about what the users most like in the intervention area, almost 45% mention "Trees and nature" stating that the most distinguishing factor when compared to other public spaces in the surroundings, is the existence of natural elements and, consequently, the sense of peace, quiet and freshness. When asked about what they would like to change, almost 40 users mentioned the desire to see a new park implemented.

Participatory activities (adults)

During walkthrough, community workshops and kick-off event activities the improvement of green areas and the presence of nature was identified as very relevant (more green areas, more vegetation and refurbishment of green areas)

Table 10. Qualified green areas and nature in urban environment.

**NEED: MORE AUTOCHTHONOUS PLANTS AND TREES**  
**RELATED EKLIPSE CHALLENGES: CH4 – Green Spaces Management, CH6 – Urban Regeneration**

URBiNAT objectives to address/improve	Methods from Co-diagnostic	Indicators to measure impact	Co-design proposed solution
Improve and promote the local composition of autochthonous plants and trees	Activities with elementary schools' children: "Photovoice"	No. of preserved trees	Preservation of existing autochthonous species;
	Activities with elementary schools' children: "Walkthrough" (Falcão)	No. of new autochthonous species	
	Participatory activities: walking activity and workshops	Introduction of more autochthonous species	
	Territorial studies (study/intervention area)	Eco-construction activities to be implemented	
	Survey to the users (intervention area)		

Participatory activities  
 Participants referred the importance of preserving existing cork oak trees

- Activities with elementary school children
- "Photovoice": children referred autochthonous species (P1)
  - "Walkthrough" (Falcão): children would like more trees (P1, P2)

Territorial studies (study/intervention area)  
 Green structure analysis mapped autochthonous species and other species with ecological value in the study area. Clearly their distribution needs to be reinforced.

Survey to the users (intervention area)  
 When asked about what the users most like in the intervention area almost 45% mention "Trees and natures" stating that the most distinguishing factor when compared to other public spaces in the surroundings, is the existence of natural elements, and consequently the sense of peace, quiet and freshness. When asked about what would like to change, almost 40 users mentioned the desire to see a new park implemented.

Table 11. More autochthonous plants and trees.

**NEED: PLAY AREAS FOR CHILDREN**  
**RELATED EKLIPSE CHALLENGES: CH4 – Green Spaces Management, CH6 – Urban Regeneration**

URBiNAT objectives to address/improve	Methods from Co-diagnostic	Indicators to measure impact	Co-design proposed solution
Space multifunctionality	Activities with elementary schools' children: "Photovoice" and "Walkthrough" (Falcão)	Area dedicated to play	Creation of multifunctional green areas where children can safely play
Open air physical activity and leisure			
Inclusiveness of the public space	Survey to the users (intervention area)		Create Pedagogical equipment in the schools' playgrounds

Activities with elementary school children

- "Photovoice" and "Walkthrough" (Falcão): children would like more play areas (e.g., swimming pool, water park, slide) (P3).

Survey to the users (intervention area)

When asked about what could be improved in the intervention area, the second most given answer was about areas for children. Some users mentioned that children often play in the streets. Moreover, it was also called out by the municipal technicians and some citizens that vandalism of play areas for children is very common in the study area. As so, it is crucial to involve local potential users in the process of designing, implementation and even monitoring/maintenance to increase the sense of belonging and protecting.

Participatory activities (adults)

Families feel the need for more spaces for children in the public spaces, namely spaces for families with games, skate areas and swimming pools.

Table 12. Play areas for children.

## 2.2.2 Social Analyses

In the social analyses, citizens highlight the qualities of the study area, such as the local economy and the existing memory. They also claim for improvements in terms of literacy for

the environment, participatory opportunities, community spaces, cleanliness of public spaces and synergies with existing and future projects.

### NEED: ADEQUATE CLEANLINESS AND MAINTENANCE OF THE PUBLIC SPACE RELATED EKLIPSE CHALLENGES: CH4 – Green Spaces Management, CH9 – Public Health & Wellbeing

URBiNAT objectives to address/improve	Methods from Co-diagnostic	Indicators to measure impact	Co-design proposed solution
Security by maintenance	Health and wellbeing survey (residents of the study area)	No. of maintenance initiatives per year	With this intervention it is expected that users will be more careful and the municipal company (Porto Ambiente) will integrate the area in its cleaning agenda
Environmental awareness	Activities with elementary schools' children: "Walkthrough" (Falcão)	Area of vacant lots intervened	The no. of maintenance actions (cleaning and maintenance of vegetation) in Lagarteiro's path and surrounding areas by the Municipal teams were reinforced, with an immediate impact on perceived local safety and overall quality of the connection by the local community.
Security	Survey to the users (intervention area)		Collective cleaning initiatives were proposed by the citizens. If implemented it will raise awareness on this topic. This action was to be tested in the experiment activity (postponed due to Covid-19)

Activities with elementary school children

- "Walkthrough" (Falcão): Children mention the lack of cleanliness in some spaces (P1)
- "Photovoice": children proposed collective cleaning actions for the neighbourhood public space (P1)

Health and wellbeing survey (residents of the study area)

Collected data suggests that regular maintenance of streets, sidewalks and household waste (especially in private housing areas, i.e., non-municipal housing) is one of the main priorities, according to the residents. Many discomforts with the physical environment of the residential areas (such as unpleasant smells, lack of cleanliness, lack of aesthetics of buildings) were more evident in private housing ("Non Domus" samples than in municipal housing "Domus") and Control Group (Campanhã) samples.

Survey to the users (intervention area)

When asked about what would like to change, 30 users mentioned the desire to see the area cleaner and the vegetation more often under control. When the meadow is high it is difficult to see the irregularities of the terrain and other obstacles/sources of insecurity.

Participatory activities (adults)

During the community workshops citizens underline the need for maintenance and cleanliness of the green spaces

Table 13. Adequate cleanliness and maintenance of the public space.

**NEED: SOCIALIZATION/COMMUNITY/ENTERTAINMENT OPPORTUNITIES. COMMUNITY SPACES IMPROVEMENT**

**RELATED EKLIPSE CHALLENGES: CH7 – Participatory Planning and Governance, CH9 – Public Health & Wellbeing**

URBiNAT objectives to address/improve	Methods from Co-diagnostic	Indicators to measure impact	Co-design proposed solution
Community empowerment	Health and wellbeing survey (residents of the study area)	No. of areas created to promote socialization and entertainment activities	Creation of specific safe and pleasant areas for resting, leisure and socialization: <ul style="list-style-type: none"> <li>• area contiguous to Falcão School</li> <li>• The Old Quinta do Falcão</li> <li>• The natural amphitheatre</li> </ul>
Sense of belonging (identity)	Activities with elementary school children: “Dreams”, “NBS around trees” and “Walkthrough” (Falcão)	No. of community activities that can happen inside the intervention area	Community spaces improvement: <ul style="list-style-type: none"> <li>• the expansion of Oliveira urban garden</li> </ul>
Identity and uniqueness (re) creation	Survey to the users (intervention area)		More socialization opportunities: <ul style="list-style-type: none"> <li>• Implementation of the Solidarity Market;</li> <li>• Campanh’UP</li> </ul>
Inclusiveness of the public space			Still to be developed: <ul style="list-style-type: none"> <li>• “Heritage Routes” NBS</li> <li>• A community project to be developed by a private stakeholder (non-profit association).</li> </ul>

Health and wellbeing survey (residents of the study area)

Collected data suggests that Community Education, by living socially, promoting education on civic principles, developing community living skills for all the study area, is one of the main priorities, according to the residents.

Activities with elementary school children

- “Walkthrough” (Falcão): children referred that “community spaces could be better” (P1 and P3);
- “Dreams”: when asked about their dream for the study area, 29 children referred to the desire of having more entertainment, other 4 indicated more culture and leisure and other 13 referred community spaces;
- “NBS around the trees”: 10 children would like to implement the NBS Bread house, 8 children would like to implement the NBS Fairs and Markets, 11 children would like to implement the NBS Multifunctional Pavilion.

Survey to the users (intervention area)

When asked about what could be better in this public space the users mentioned the need for more recreational activities. They refer to the size of the public space as an opportunity to hold different activities.

Behaviour mapping

Data collected reveal that active use related to play and recreation is not significant, as the observed areas also do not reveal scenarios supporting collective use activities, formal or informal play.

Participatory activities (adults)

During the community workshops citizens underline the potential of parks to do sports, the need for sanitary facilities in the parks.

Table 14. Socialization/community/entertainment opportunities. Community spaces improvement.

<b>NEED: IMPROVE LOCAL ECONOMY</b>			
<b>RELATED EKLIPSE CHALLENGES: CH10 – Potential for Economic Opportunities and Green Jobs</b>			
<b>URBiNAT objectives to address/improve</b>	<b>Methods from Co-diagnostic</b>	<b>Indicators to measure impact</b>	<b>Co-design proposed solution</b>
Activate inclusion through solidarity activities	Activities with elementary school children: “NBS around trees”	No. of local economy activities per year	A solidarity market to be implemented by a stakeholder (non-profit association). To be tested in the experiment activity (postponed due to Covid-19)
Local economy			
Local products and services	Participatory activities: walking activity and workshops		The Kickoff event (October 2019) had a small solidarity market with local associations
<p>Activities with elementary school children</p> <ul style="list-style-type: none"> <li>• “NBS around the trees”: 8 children would like to implement the NBS Fairs and Markets</li> </ul> <p>Participatory activities (adults)</p> <p>During the community workshops citizens underline the knowledge and experiences from Campanhã community, the proposal from local associations to implement a local producer’s market</p>			

Table 15. Improve local economy.

<b>NEED: RESPECT EXISTING MEMORY</b>			
<b>RELATED EKLIPSE CHALLENGES: CH6 – Urban Regeneration; CH8 – Social Justice &amp; Social Cohesion</b>			
<b>URBiNAT objectives to address/improve</b>	<b>Methods from Co-diagnostic</b>	<b>Indicators to measure impact</b>	<b>Co-design proposed solution</b>
Sense of identity	Territorial studies (study/intervention area)	No. of preserved rural infrastructures	Rural walls and the trace of the Old Farmhouse of Falcão will be preserved/reintegrated
Sense of belonging (identity)	Participatory activities (adults): Walkthrough	Conservation of built heritage resources	Most of the new walls, will be built respecting construction vernacular techniques
			Eco-construction workshops are to be developed with local schools by Nuno Moutinho (to be tested in the experiment, postponed due to covid-19)
<p>Participatory activities (adults):</p> <p>During the walking activity, some participants mentioned the importance of preserving local memory, namely the one associated with the rural landscape of Campanhã’s valley (granite walls and the old farmhouse of Falcão). One resident, who had a continuous presence through the participatory process and has deep relations with Campanhã parish, shared with the team his knowledge about ancient construction techniques previously applied in the territory.</p> <p>Territorial studies (study/intervention area)</p> <p>The intervention area is fully marked by its ancient rural landscape. CIBIO mapped all rural traces in the intervention area.</p>			

Table 16. Respect existing memory.

**NEED: MORE CONNECTIVITY WITH EXISTING AND FUTURE PROJECTS/INITIATIVES  
RELATED EKLIPSE CHALLENGES: CH6 – Urban Regeneration; CH10 – Potential for Economic Opportunities and Green Jobs**

URBiNAT objectives to address/improve	Methods from Co-diagnostic	Indicators to measure impact	Co-design proposed solution
Community network and local partnership	Territorial studies (study/intervention area)  Participatory activities: walking activity and workshops (adults)	No. of improved connections  Strengthening the local economy, (formal and non-formal)	The project will directly improve the connections between three municipal housing neighbourhoods (Cerco do Porto, Falcão and Lagarteiro) and other public facilities as Municipal Pools, Football field, Falcão School, Oliveira urban garden and Oriental Park (expansion part). Articulation with the contiguous project area for the Cerco do Porto Public Space Requalification (design stage) is being addressed. Articulation with social project REDES (APPC, Fios e Desafios).

**Territorial mapping**

The intervention area is located in a strategic position in relation with existing/future projects such as: Cerco do Porto's intervention project; Oriental Park, and will improve indirectly connections between some of the neighbourhoods with news projects in Corujeira Square, Terminal Intermodal and Matadouro renovation;

**Participatory activities (adults)**

Through the presence of municipal technicians and political representatives, it was possible to define the most up-to-date initiatives and projects ongoing and soon to be implemented, aligning their implementation plans with the intervention of the Healthy Corridor in URBiNAT. This allowed for a systematic and harmonious planning of the territory, based on the vast experience of these actors and know-how on the intervention area.

Table 17. More connectivity with existing and future projects/initiatives.

**NEED: PARTICIPATORY OPPORTUNITIES/TOOLS FOR CITIZENS ENGAGEMENT IN URBAN PLANNING RELATED EKLIPSE CHALLENGES: CH7 – Participatory Planning and Governance**

URBiNAT objectives to address/improve	Methods from Co-diagnostic	Indicators to measure impact	Co-design proposed solution
Community empowerment	Activities with elementary schools' children: "NBS around the trees"	No. of existing tools for participatory engagement	Launch and availability of the 'SuperBarrio' App
Improve Sense of belonging (identity)	Participatory activities: walking activity and workshops	No. of participatory opportunities	'SuperBarrio' App workshop to be implemented in the High School of Cerco do Porto (previously postponed due to Covid-19 related restrictions)
Inclusiveness of the public space			'Design Thinking' method was implemented in the co-design phase during community workshops
			Develop Eco-construction and urban farming activities

Activities with elementary school children

- "NBS around the trees": 11 children would like to implement the NBS SuperBarrio while 12 other children would like to implement the NBS Design Thinking.

Participatory activities (adults)

- The citizens asked for participatory activities to improve the sense of community and to engage more citizens in URBiNAT during the planning meeting and during the face-to-face meeting: heritage tours, artistic activities, walks, storytelling.

Table 18. Participatory opportunities/tools for citizens engagement in urban planning.

**NEED: IMPROVE LITERACY FOR ENVIRONMENTAL ISSUES RELATED EKLIPSE CHALLENGES: CH4 – Green Spaces Management, CH7 – Participatory Planning and Governance**

URBiNAT objectives to address/improve	Methods from Co-diagnostic	Indicators to measure impact	Co-design proposed solution
Environmental education	Participatory activities: Workshops (adults)	No of recreational, cultural and educational initiatives concerning urban ecosystems and their functions/ services	Eco-construction activities to be implemented
			The Healthy corridor will be used as a "Educational Living Lab" (NBS from citizens)
			Collective cleaning actions in public spaces

Participatory activities

During the online meeting, participants asked to develop educational activities in the healthy corridor related to nature, in order to learn from the experience.

Table 19. Improve literacy for environmental issues.

## 3. Healthy Corridor NBS

### 3.1 Vacant lots in Campanhã

Though Portugal did not witness the need for reconstruction of the cities after the World War II, in the mid-century the country was still facing severe housing needs consequent to the massive migration towards the main urban centres, as the industrialization phenomena occurred later than in other European countries, in which the welfare state had been earlier established. The image of the housing estates built during the 1950s and 1960s is thereby quite recognizable regarding site plan strategies, local construction methods and optimized building conception, but also due to their location in the outskirts of the major cities. In Porto, many of these housing estates, as others established during the following two decades, have been built where the available land enabled undertaking its urgent construction, occupying low urban density and peripheral areas of the city.

During this time, the oriental parishes of Porto, have been highly urbanized with the planning of these punctual and zoned interventions that left some of the existent agriculture and industrial plots with an uncertain future, contributing to a multiple and fragmented morphology. This is particularly visible in Campanhã, a derelict civil parish in the most oriental part of the city, with a higher number of municipal dwellings for social rental.

During the last decades, these terrains have been occupied through all kinds of processes – sometimes formal, as new public or collective facilities and new vehicular connections, and other sometimes informal, as building squatting or pedestrian informal paths. This process, along with the intensification of the construction of high-speed tracks (highway), contributed to an overall shattering of the area, dividing big plots in small pieces of vacant lots, consequently leading to an ultra-fragmentation of the territory that triggered the following urban organization and the very insecure pedestrian traffic that has been passing through these plots (Figure 6). Nevertheless, this represents a unique opportunity to properly occupy such areas in order to connect key areas and create a multifunctional green continuum in the territory – a Healthy Corridor.





- study area
- public housing
- vacant plots
- URBINAT vacant plots

Figure 5. Campanhã study area with the vacant plots and the intervention area.

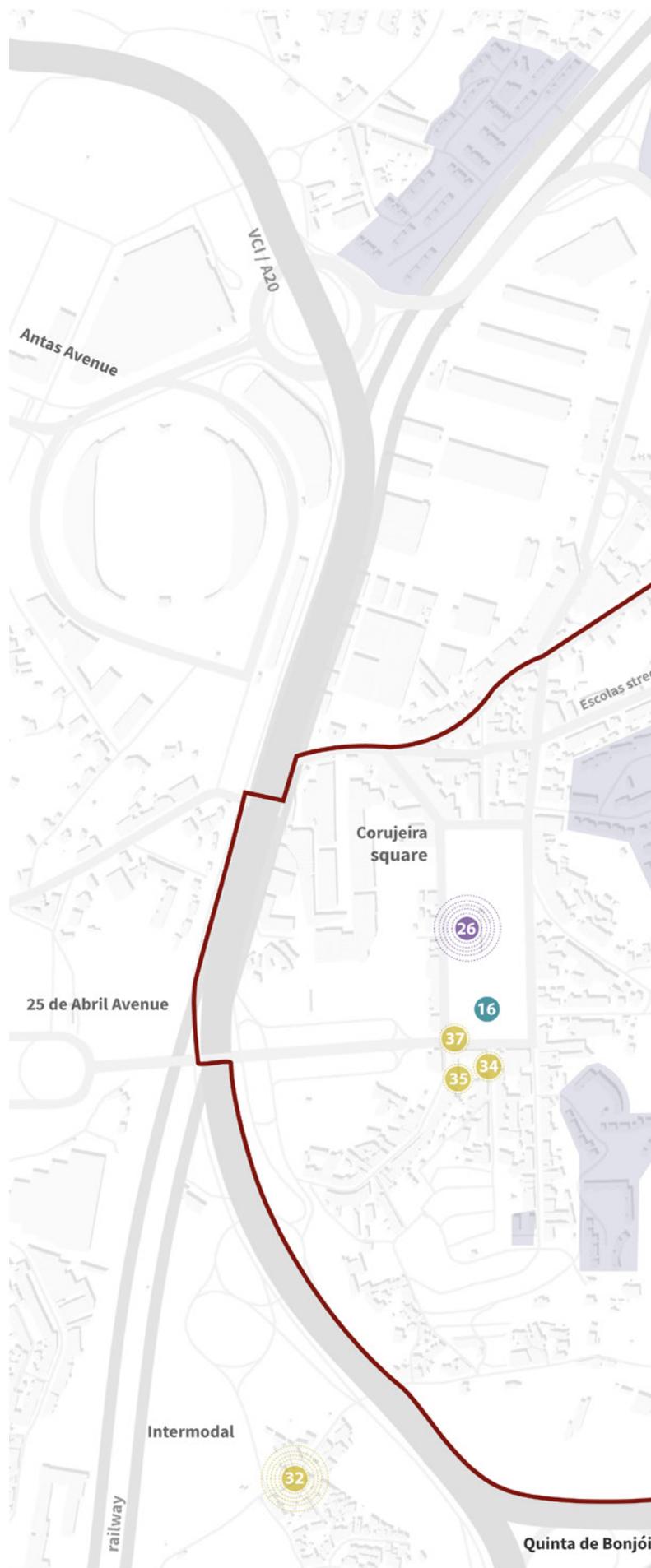
## 3.2 The New NBS on the Healthy Corridor

During the phases of co-diagnostic and co-design, the aforementioned vacant lots in-between the three municipal housing neighbourhoods – Lagarteiro, Cerco do Porto and Falcão – were identified as the ones that needed an urgent social and environmental transformation. Moreover, a thorough identification of which of these vacant lots belonged to the municipality was developed, in order to define the available areas where URBiNAT could intervene. Based on this two-layered analysis, the proposed ideas of NBS that would compose the Healthy Corridor would preferably fall into these identified and available vacant lots (Figure 7).

After the presentation of these vacant lots, during the developed participatory activities, the engaged citizens identified the related challenges and opportunities. At the same time, there was also an exercise of converging to these particular areas some of the ideas initially conceived for other spaces (while others, by their scope, can be developed in a broader territory of the study area). Some of the proposals aimed at a physical improvement of these plots, but most of them aimed at taking advantage of the existing opportunities, upscaling and/or giving them a new purpose.

The openness of the developed activities and the applied methodology, along with the proximity that the URBiNAT living lab provided<sup>1</sup> allowed the expansion of the existing needs into new ideas proposals inspired by the initial URBiNAT catalogue, allowing the participants to create new possibilities and ways to rethink the territory, while rethinking and reshaping the local culture, economy and education. At this point the New NBS for Porto were defined and allocated to the intervention area (Figure 7). It is important to note that, as many New NBS correspond to immaterial solutions, they were allocated to other strategic areas in the study area (but outside the intervention area), amplifying the impact of the Healthy Corridor (composed by these material and immaterial solutions).

<sup>1</sup> The URBiNAT Living Lab consisted in a room located in the Secondary School of Cerco do Porto that has been kindly made available by the School Community to URBiNAT, where many activities and get-togethers between the participants and URBiNAT team took place to analyse and collect information on the territory, and to develop the ideas to integrate the Healthy Corridor.



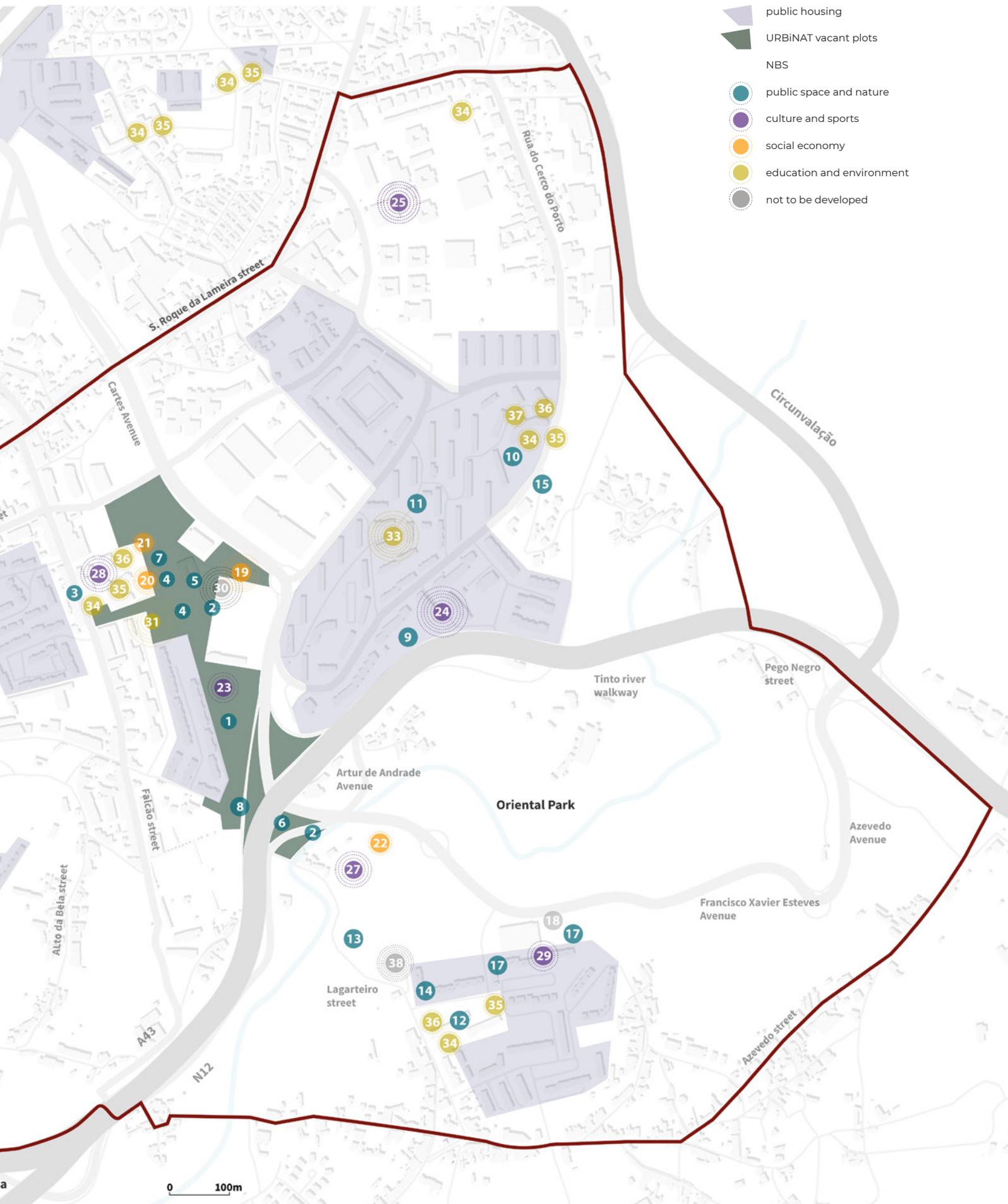


Figure 6. Proposed location of the New NBS for Porto in the study area.

After the definition of the different New NBS, the participatory process continued and these solutions were further co-developed into more detailed proposals through a collaborative, transparent and progressive process with all other local actors (URBiNAT technical team, municipal technicians and political representatives) that carefully analysed them regarding their technical and financial feasibility.

During this systemic analysis, all proposals were divided into three main categories:

- **Category 1)** proposals that will be further developed – proposals that met financial/technical feasibility within URBiNAT and are aligned with the project’s goals and the municipal strategy);
- **Category 2)** proposals that will be channelled to the respective municipal departments to be integrated in ongoing and/or future projects (proposals that didn’t meet financial/technical feasibility within URBiNAT and/or that were not aligned with the project’s goals, but are pertinent for the territory and/or aligned with the municipal strategy for the territory);
- **Category 3)** proposals that will not be further developed/implemented – proposals that didn’t meet financial/technical feasibility within URBiNAT and are not aligned with the project’s goals nor the municipal strategy.

It is important to note that the proposals categorized in **Category 1)** can be further categorized as **Category 2)** or **Category 3)**

depending as the co-development process progresses. After this exercise, the ideas were then aggregated in four main groups: **Group 1)** Public space and nature; **Group 2)** Social economy and solidarity practices; **Group 3)** Sports and culture; **Group 4)** Education and environment. It’s important to note that in this systematization process, an exercise of matching the proposed NBS with the ones listed in the URBiNAT NBS Catalog was also performed.

Many of the ideas or proposals categorized as **1)** were already integrated in the Preliminary Study of the Healthy Corridor (the material ones) or gave the first steps into their implementation (the immaterial ones), and many of them have just started to be co-development in greater detail. After this first version of the Preliminary Study of the Healthy Corridor was obtained, a participatory session was promoted to open the floor for discussion on the collected and categorized proposals with citizens, municipal technicians, political representatives and the URBiNAT team. After that, both the material and immaterial solutions categorized are being further developed aiming at their implementation.

Meanwhile, the ideas categorized as **2)** will soon be forwarded to the responsible municipal departments for further analysis and potential integration in ongoing and future initiatives/projects.

The different steps that compose this process, and involved actors, are resumed in Figure 8, below.

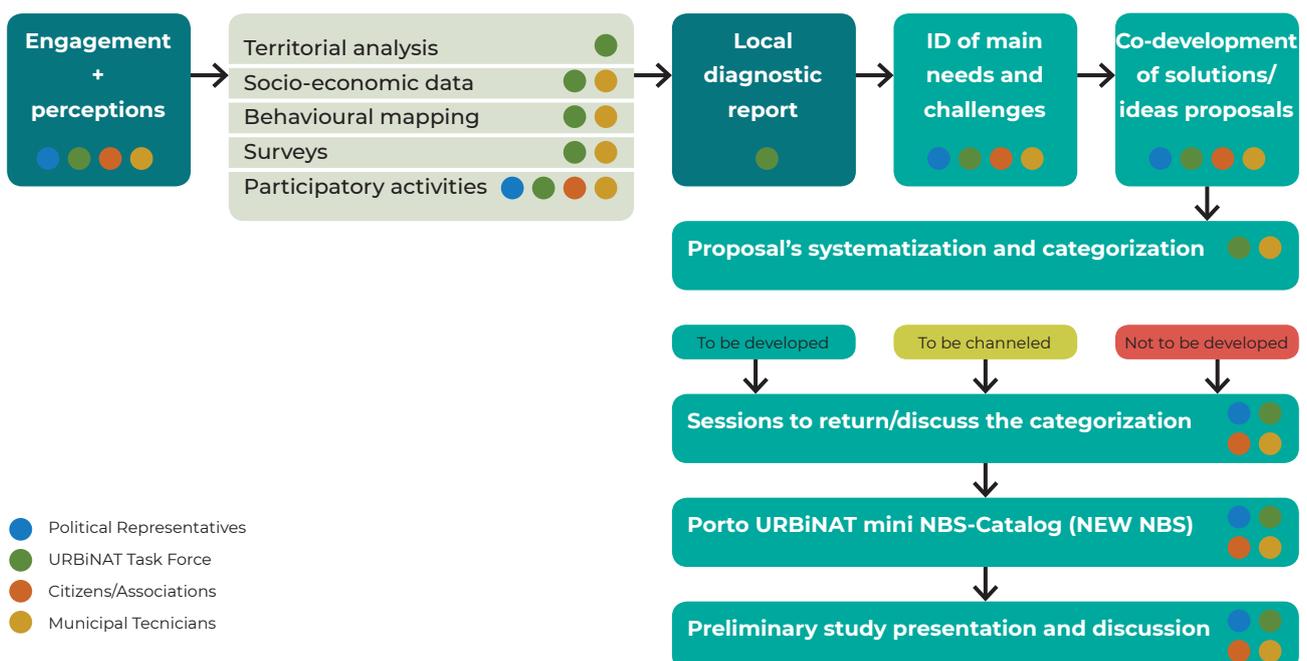


Figure 7. Schematic view of the co-diagnostic (blue) and co-design process (green), detailing the steps from the proposal's systematization to the finalization of the Preliminary study and its presentation/discussion with the actors involved.

Table 20, [on the next page](#), resumes the categorization of ideas and their aggregation into specific groups.

Although some of the New NBSs can be integrated in the aim of the physical implementation in the intervention area, others, due to their immaterial nature or unspecified

location, can be allocated outside the Healthy Corridor, such as the ones related to social economy and solidarity practices, for example. As so, demonstrates this reality as the NBS can be located within the spaces of the corridor, but they can also be implemented in the surrounding places.

PROPOSALS TO BE FURTHER DEVELOPED	PROPOSALS TO BE CHANNELLED	PROPOSALS NOT TO BE FURTHER DEVELOPED/ IMPLEMENTED
<b>GROUP 1) PUBLIC SPACE AND NATURE</b>		
<ul style="list-style-type: none"> <li>01. Outdoor space for sports and leisure activities</li> <li>02. Improvement of connective path between neighbourhoods and facilities</li> <li>03. Meeting spot next to Falcão Primary School with sensory garden</li> <li>04. Nature-based amphitheatre</li> <li>05. Existing ruin recovery</li> <li>06. Pedestrian connection to the Oriental City Park improvement</li> <li>07. Oliveira urban garden expansion</li> </ul>	<ul style="list-style-type: none"> <li>08. Public multipurpose outdoor space with shared maintenance</li> <li>09. Cerco do Porto Primary School surroundings improvement</li> <li>10. Ring area recovery (Cerco do Porto)</li> <li>11. Lagarteiro Primary School surroundings safety increase</li> <li>12. Viewpoint reformulation next to Campanhã Cemetery</li> <li>13. Lagarteiro neighbourhood access path requalification</li> <li>14. Lagarteiro Street section requalification</li> <li>15. Access to Pego Negro and Oriental City Park improvement</li> <li>16. Playground in Corujeira Square</li> <li>17. Lagarteiro sports hall access improvement (informal paths)</li> </ul>	<ul style="list-style-type: none"> <li>18. Lagarteiro sports hall access improvement (entrance door)</li> </ul>
<b>GROUP 2) SOCIAL ECONOMY AND SOLIDARITY PRACTICES</b>		
<ul style="list-style-type: none"> <li>19. Campmarket</li> <li>20. Community mobile kitchen</li> <li>21. Community-based management urban garden</li> <li>22. Support structure to the Oriental City Park</li> </ul>		

### GROUP 3) CULTURE AND SPORTS

23. Outdoor programme for sports and leisure initiatives 24. Cultural platform – Campanh’UP 25. Artistic projects – O Lugar do Olhar 26. Initiative – Memories of Campanhã 27. Local heritage route 28. Initiative – Culture is Health	29. Lagarteiro sports hall renting model improvement	30. Artistic hangar
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### GROUP 4) EDUCATION AND ENVIRONMENT

31. Educational Living lab 32. Eco-construction and urban farming activities 33. Collective cleaning actions in public spaces 34. Pedagogical farming initiatives in local schools 35. Educational play equipment in the school’s playground	36. Local primary schools playground improvement 37. Local primary schools access area improvement	38. Environmental Education Centre
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Table 20. Systematization of the ideas proposed and developed during the participatory process, organized in three main categories.

## 3.3. New NBS groups

The series of images and [tables below](#) show the proposed location for each NBS group in the study area (identified per category), as well as information on its current development status and representative image.

### Public space and nature

“Public space and nature” group organises all the solutions co-designed with citizens that are related with the territory and will contribute to improve the quality of the public space in terms of mobility, activities and vegetation.

These are defined as “material solutions” and some of them will be built in the intervention area. Nevertheless, a part of these proposals has also direct relation with immaterial solutions, described in the other three categories.



**01. Outdoor space for sports and leisure activities**

**Decision/State of the art**  
To be developed  
Already incorporated in preliminary study



**02. Improvement of connective path between neighbourhoods and facilities**

**Decision/State of the art**  
To be developed  
Already incorporated in preliminary study



**03. Meeting spot next to Falcão Primary School with sensory garden**

**Decision/State of the art**  
To be developed  
Already incorporated in preliminary study



**04. Nature-based amphitheatre**

**Decision/State of the art**  
To be developed  
Already incorporated in preliminary study



**05. Existing ruin recovery**

**Decision/State of the art**  
To be developed  
Already incorporated in preliminary study



**06. Pedestrian connection to the Oriental City Park improvement**

**Decision/State of the art**  
To be developed  
Already incorporated in preliminary study



**07. Oliveira urban garden expansion**

**Decision/State of the art**  
To be developed  
Already incorporated in preliminary study



**08. Public multipurpose outdoor space with shared maintenance**

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



**09. Cerco do Porto Primary School surroundings improvement**

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



**10. Ring area recovery (Cerco do Porto)**

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



**11. Lagarteiro Primary School surroundings safety increase**

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



**12. Viewpoint reformulation next to Campanhã Cemetery**

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



**13. Lagarteiro neighbourhood access path requalification**

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies  
A cleaning action was already performed and improved significantly local environment



**14. Lagarteiro Street section requalification**

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



**15. Access to Pego Negro and Oriental City Park improvement**

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



**16. Playground in Corujeira Square**

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



**17. Lagarteiro sports hall access improvement (informal paths)**

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



**18. Lagarteiro sports hall access improvement (entrance door)**

**Decision/State of the art**  
Not to be developed



Figure 8. Proposed New Public Space and Nature NBS for Porto in the study area.

## Social economy and solidarity practices

This group organizes all the solutions co-designed with citizens that are related with social economy and solidarity practices in the Campanhã region and will contribute to improve community involvement in promoting the local economy. Based on partnerships between public-private entities and social solidarity institutions; in circular economy models for social purposes and interests; sharing of co-produced and co-developed knowledge that is innovative and social, both in its ends and in its means, it will be possible to dynamize the region socially and economically.



### 19. Campmarket

**Decision/State of the art**  
To be developed  
Being developed by APPC association



### 20. Community mobile kitchen

**Decision/State of the art**  
To be developed  
Waiting for development



### 21. Community-based management urban garden

**Decision/State of the art**  
To be developed  
Waiting for development



### 22. Support structure to the Oriental City Park

**Decision/State of the art**  
To be developed  
Waiting for development



Figure 9. Proposed New Social Economy and Solidarity Practices NBS for Porto in the study area.

## Culture and sports

This group organizes all the solutions co-designed with citizens that are related with culture and sports activities in the Campanhã region and will contribute to improve the cultural communication and boost the frequency number and quality of cultural events in terms of music, theatre, cultural and natural heritage, among others. It will also implement open-air physical and leisure activities to improve the citizens wellbeing.



### 23. Outdoor programme for sports and leisure initiatives

**Decision/State of the art**  
To be developed  
Waiting for development



### 24. Cultural platform – Campanh'UP

**Decision/State of the art**  
To be developed  
Being development by APPC and other citizens



### 25. Artistic projects – O Lugar do Olhar

**Decision/State of the art**  
To be developed  
Waiting for development



### 26. Initiative – Memories of Campanhã

**Decision/State of the art**  
To be developed  
Waiting for development



### 27. Local heritage route

**Decision/State of the art**  
To be developed  
Waiting for development



### 28. Initiative – Culture is Health

**Decision/State of the art**  
To be developed  
Waiting for development



### 29. Lagarteiro sports hall renting model improvement

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



### 30. Artistic hangar

**Decision/State of the art**  
Not to be developed



Figure 10. Proposed New Culture and Sports NBS for Porto in the study area.

## Education and Environment

This group organizes all the solutions co-designed with citizens that are related with recreational and educational activities in the Campanhã parish, that will improve a set of activities and structures to promote the relationship with space and the sense of belonging at the community level in conjunction with the region's school community. The educational solutions are also focus on environmental issues to create awareness and develop literacy for the environment challenges.



### 31. Educational Living Lab

**Decision/State of the art**  
To be developed



### 32. Eco-construction and urban farming activities

**Decision/State of the art**  
To be developed  
Waiting for development



### 33. Collective cleaning actions in public spaces

**Decision/State of the art**  
To be developed  
Waiting for development



### 34. Pedagogical farming related initiatives in local schools

**Decision/State of the art**  
To be developed  
Being developed by the schools and IAAC partner



### 35. Educational play equipment in the schools playgrounds

**Decision/State of the art**  
To be developed  
Waiting for the development of an initiative to build a collaborative element



### 36. Local primary schools playground improvement

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



### 37. Local primary schools access area improvement

**Decision/State of the art**  
Channelled for other CMP departments/municipal companies



### 38. Environmental Education Centre

**Decision/State of the art**  
Not to be developed



Figure 11. Proposed New Education and Environment NBS for Porto in the study area.

Finally, and although the different New NBS belong to specific groups and fields, it is important to highlight that, due to the multifunctional nature of the NBSs, sometimes an overlap between categories occurs among

the different categories, showing the added value and amplified impact of their implementation in the territory.

This aspect can be easily observed in the Figure 13, below.

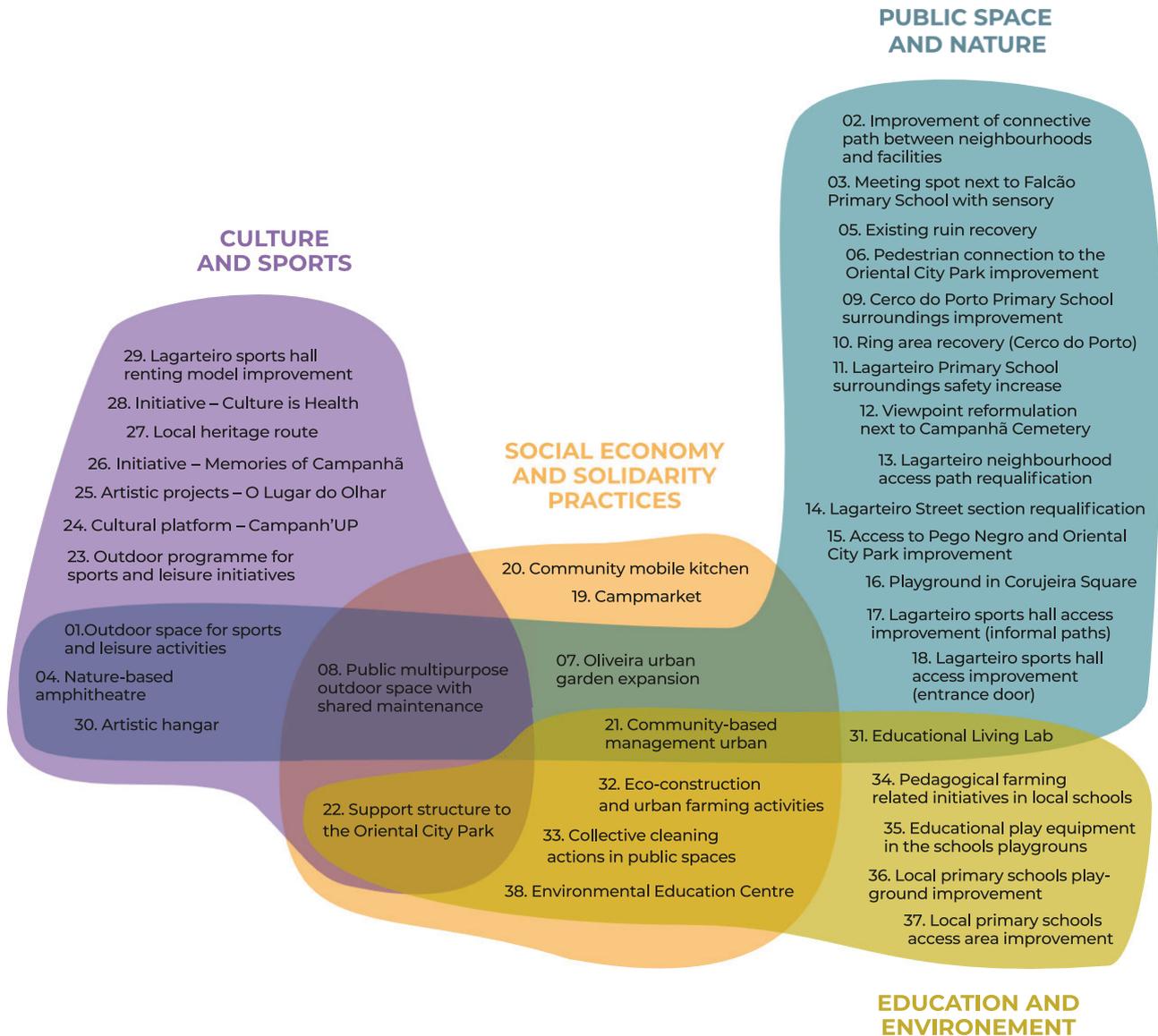


Figure 12. New NBS categorization Venn diagram.

## 4. Global strategy for the study area

The URBiNAT global strategy for Campanhã is based in the following URBiNAT main goals:

1. Promote social cohesion through the activation of a Living Lab and engagement of a Community of Practice to guide the participating actors and identify local needs and design innovative NBS to tackle them, with continuous support from the URBiNAT team, while actively sharing best practices with the other partner cities;
2. Achieve new models of urban regeneration through the creation of innovative multifunctional public spaces. The Healthy Corridor, as a cluster of NBS, is not merely a green area but also a social and cultural infrastructure and catalyser, creating benefits for the citizens' wellbeing, while allowing for a safer and harmonized mobility in the territory and climate change resilience;

Both objectives are aligned with the existing municipal strategy for the territory – elect Campanhã as a new development area for urban

regeneration, as stated in the urban planning documents – Plano Diretor Municipal – PDM (2016 and its revision in 2021) in a more strategic approach, and Operação de Reabilitação Urbana – ORU Corujeira (2018) in a more operative way, as already analysed in the Local Diagnostic report (D2.1) and resumed in the introductory chapter of the present document.

### 4.1. Goals for the study area: URBiNAT and Porto Municipality

In this sense, (Table 24) compares URBiNAT's challenges and objectives for the study area with the municipal strategy for Campanhã, showing that not only are they aligned but also that the first is considered an important (and crucial) catapult to accelerate the completion of the second.

URBiNAT CHALLENGES	PORTO URBiNAT OBJECTIVES FOR THE STUDY AREA	MUNICIPALITY OF PORTO STRATEGY FOR CAMPANHÃ PARISH
Public Space CH6 Urban Regeneration	Connections and mobility for all	<ul style="list-style-type: none"> <li>• Easier and smoother mobility between spaces;</li> <li>• Promote the creation of green corridors;</li> </ul>
	Urban fragmentation mitigation	<ul style="list-style-type: none"> <li>• Promote occupation of empty, obsolete or abandoned spaces in order to requalify a wider area considering social, economic and landscape aspects;</li> <li>• Implementation of a low-density urban system in Azevedo, a territory in the eastern end of the city;</li> <li>• Promote territorial, socioeconomic and cultural interactions with the rest of the city;</li> <li>• Eliminating the effects of spatial segregation and stigmatization;</li> </ul>
	Security by presence and maintenance Local safety for all Reduction of criminal activities	<ul style="list-style-type: none"> <li>• Urban requalification and rehabilitation, development of cultural and economic hubs predicted for Campanhã aims to bring a new dynamic to the area, promoting safety by presence;</li> <li>• Creation of open green spaces promotes leisure and sports activities which will also create openness in the territory and increased sense of safety (due to increased presence);</li> </ul>

	Space multifunctionality	<ul style="list-style-type: none"> <li>• Regeneration of urban space with a view to attracting new economic activities in multifunctional space;</li> <li>• Reconversion of the public space through places of sharing and conviviality and leisure activities;</li> <li>• Tax incentives that facilitate the dynamics of reconverting vacant industrial spaces into new urban functions;</li> </ul>
<b>Health and wellbeing CH9 – Public Health and Wellbeing</b>	More active inhabitants, social life and wellbeing	<ul style="list-style-type: none"> <li>• Improving the living conditions and well-being of the resident population;</li> <li>• Involve local actors around a clear action strategy;</li> </ul>
	New pedestrian alternatives to reduce walking distance between relevant areas	<ul style="list-style-type: none"> <li>• Promotion of pedestrian movements, supported by the intermodal transport system and implementation of “proximity urbanism”;</li> </ul>
	Better liveability	<ul style="list-style-type: none"> <li>• Attract new economic, social and cultural activities, creating a new functional pole to create new opportunities and better living conditions;</li> </ul>
	Open air physical activity	<ul style="list-style-type: none"> <li>• Integrating gentle modes such as bicycle lanes;</li> </ul>
<b>Environment CH4 – Green spaces management</b>	Environmental awareness	<ul style="list-style-type: none"> <li>• Promote everyday sustainability practices through projects of environmental education and awareness;</li> </ul>
	Qualification of green areas Improve autochthonous trees composition	<ul style="list-style-type: none"> <li>• Systematically re-qualify ecosystems by promoting ecological quality;</li> <li>• Intervention in the public space and improvement of access to the Falcão and Cerco do Porto;</li> <li>• Creation of an urban park in the surroundings of Alameda de Cartes;</li> <li>• Create green corridors, associated with smoother mobility and integrating Nature-based solutions;</li> <li>• Corujeira eco. corridor, a smooth mobility corridor between Corujeira square and the Oriental City Park;</li> <li>• Project FUN PORTO aims for planting 100 000 autochthonous trees in the city;</li> </ul>
<b>Participation CH7 – Participatory planning and governance</b>	Community empowerment Local partnership	<ul style="list-style-type: none"> <li>• Guarantee the creation of conditions to achieve a more attractive, dynamic, qualified and inclusive city;</li> </ul>
	Community network	<ul style="list-style-type: none"> <li>• Establishing new connections between residents, new users, new economic and social activities.</li> </ul>
<b>Culture CH8 – Social justice and social cohesion</b>	Sense of belonging (identity) identity an uniqueness (re)creation	<ul style="list-style-type: none"> <li>• Promote interventions without losing the local historical and urban identity and character;</li> </ul>
	Inclusiveness of the public space	<ul style="list-style-type: none"> <li>• Improvements in the public space to support user-friendliness and occupation of free time;</li> <li>• Qualify and make this a more inclusive territory;</li> </ul>

<b>Socio-economy</b> <b>CH 10 Potential for Economic Opportunities and Green Jobs</b>	Activate inclusion through solidarity activities	<ul style="list-style-type: none"> <li>• Promote community-based local development strategies, based on initiatives of solidarity economy;</li> <li>• Promote social entrepreneurship and social innovation, with the purpose of designing and promoting a metropolitan resource strategy, based on tackling situations of vulnerability, exclusion and social emergency.</li> </ul>
	Local economy, food products and services	<ul style="list-style-type: none"> <li>• Attraction of new economic activities and social interventions.</li> </ul>

Table 21. Relation between URBiNAT challenges, Porto URBiNAT objectives for the study area and Porto Municipal Strategy for Campanhã Parish.

Moreover, and based on the above general strategic objectives, URBiNAT has his own specific strategic objectives for the area, which are hereby presented in more detail and divided by categories:

### Urban Regeneration towards and inclusive public space

URBiNAT aims to develop an inclusive urban regeneration through the co-creation of innovative public space between social housing neighbourhoods, in the form of a Healthy Corridor, improving connectivity and mobility between different areas and decreasing urban fragmentation. Composed by NBSs, based on a human centered approach, this public space aims to be multifunctional and to address the safety challenges for all, namely for women, children and adults with advanced age.

### Wellbeing and health impact of co-created NBS

URBiNAT involved stakeholders in an active citizenship process to co-create solutions for local urban regeneration. In this sense, the Healthy Corridor is a product and also a process that aims to impact in the social and overall wellbeing of users by providing walking and cycling activities, open air physical and leisure activities, while the liveability of the public space with cultural, social and educational activities.

### Environment and a sustainable public space

URBiNAT healthy corridor is based on the green corridor concept implemented as a *continuum naturale* that integrates environmental services to qualify brownfields and existing green abandoned areas. This environmental approach aims to promote the increase in the number of autochthonous trees and wild nature

towards a more resilient public space, creating opportunities for environmental awareness and education.

### Participation and the community of practice

URBiNAT activated a living lab to engage the local stakeholders in a community of practice to develop solutions together. This strategy aims to empower the community and create a network for local partnership that aims to be continued after the project ends.

### Culture and sense of identity

URBiNAT living lab aims to dialogue with the cultural identity of the study area in order to co-create solutions that are site-specific and dialogue with the identity and uniqueness of the local community. In this sense, URBiNAT developed an intensive participatory process with 40 activities to improve the sense of belonging and the inclusiveness of the public space through culturally based actions and solutions.

### Solidarity Economy and network for local partnership

URBiNAT aims to activate inclusion through a network of local partnership as an opportunity for innovative processes in the social, political and economic relations for those who live in the neighborhoods, namely to improve local food products, services and solidarity activities.

Building on the general and specific strategic objectives mentioned above, and in order to frame the inclusive urban regeneration process predicted by URBiNAT, six main challenges<sup>2</sup> are now complemented with the work developed

<sup>2</sup> This six challenges are under development in task 1.2 and 5.6 to establish an URBiNAT Analytical Framework.

during these next stages, in order to identify strategic connections with the existing surrounding structures and initiatives – **Public space; Environment (Nature); Health and wellbeing; Participation; Culture (Inclusive); Socio-economy.** This attempted connection aims to amplify the work developed by URBiNAT and establish long lasting partnerships that will support and activate URBiNAT's initiatives beyond its implementation.

URBiNAT identified this integrated approach as an opportunity to contribute to a truly inclusive urban regeneration process, with methodologies and strategies that could improve, accelerate and amplify the process that was already being implemented in the field, by making strong connections with its surroundings such as the existing neighbourhoods and accesses, as shown in Figure 14 and Figure 15.

Nevertheless, it is important to highlight that this work was developed based on the acquired information during the implementation of the URBiNAT project so far and, hence, reflects the interpretation of the involved actors during this process.

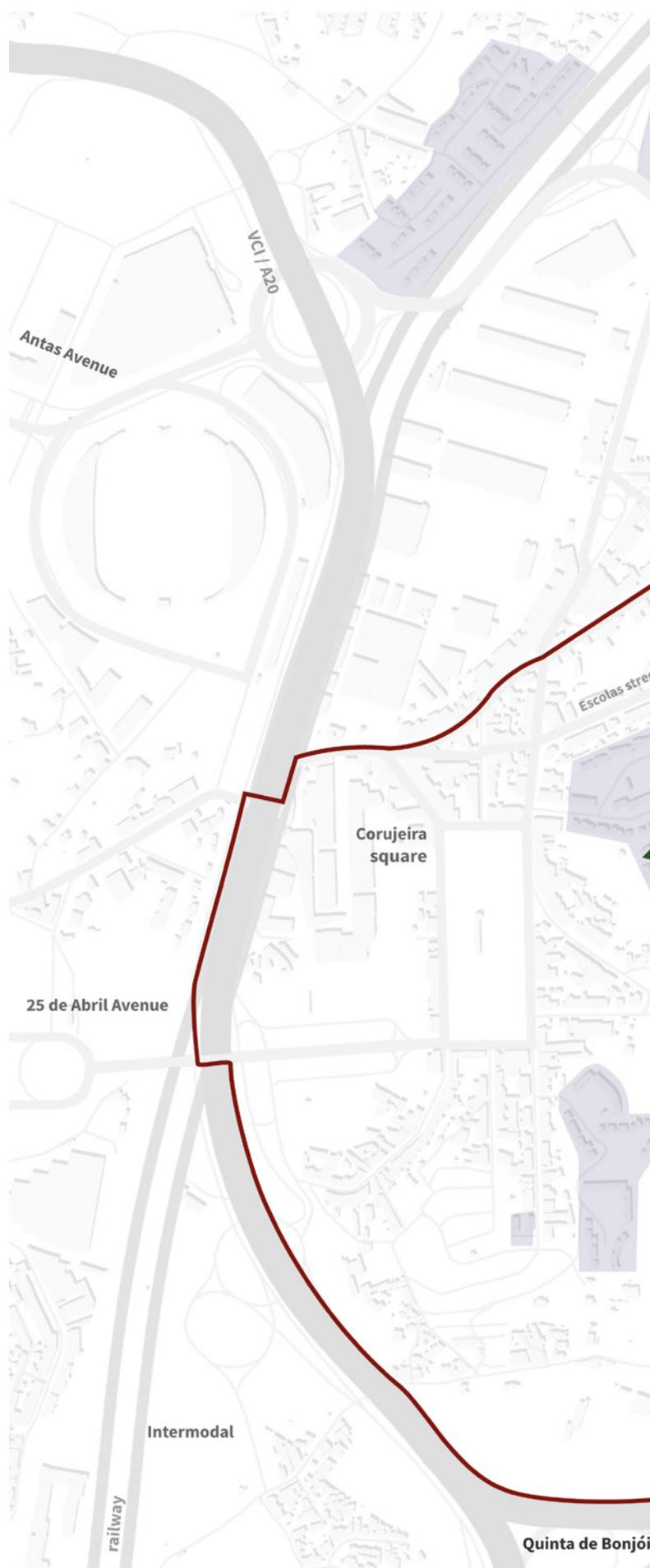
### **Healthy Corridor pathway and connections with the neighbourhoods**

In this area of Porto, URBiNAT Healthy Corridor is going to occupy a group of vacant lots between the three main neighbourhoods of the study area. This in-between characteristic offers the capacity to be a connector, improving physical and social relations between different area typologies.

This intervention aims to be a strategic occupation of what remains of an old agriculture area with farms, such as Quinta do Falcão (Figure 13), allowing for a better connection between the three municipal housing neighbourhoods built in the 1960-70 – Cerco do Porto, Falcão and Lagarteiro. A surgical purpose that will also upgrade the connection of the neighbourhoods with the existent pedestrian mobility network and, consequently, the rest of the parish/city.

Considering the multiple morphologies of this urbanized territory, with lack of an integrated infrastructure, this represents a key change for an increased quality of life, guaranteeing an easier access to the different areas of the territory and its usages – education, healthcare, culture and leisure.

Hence, URBiNAT Healthy Corridor is planning beyond the shape of its design and its physical condition and aims to absorb the territory local



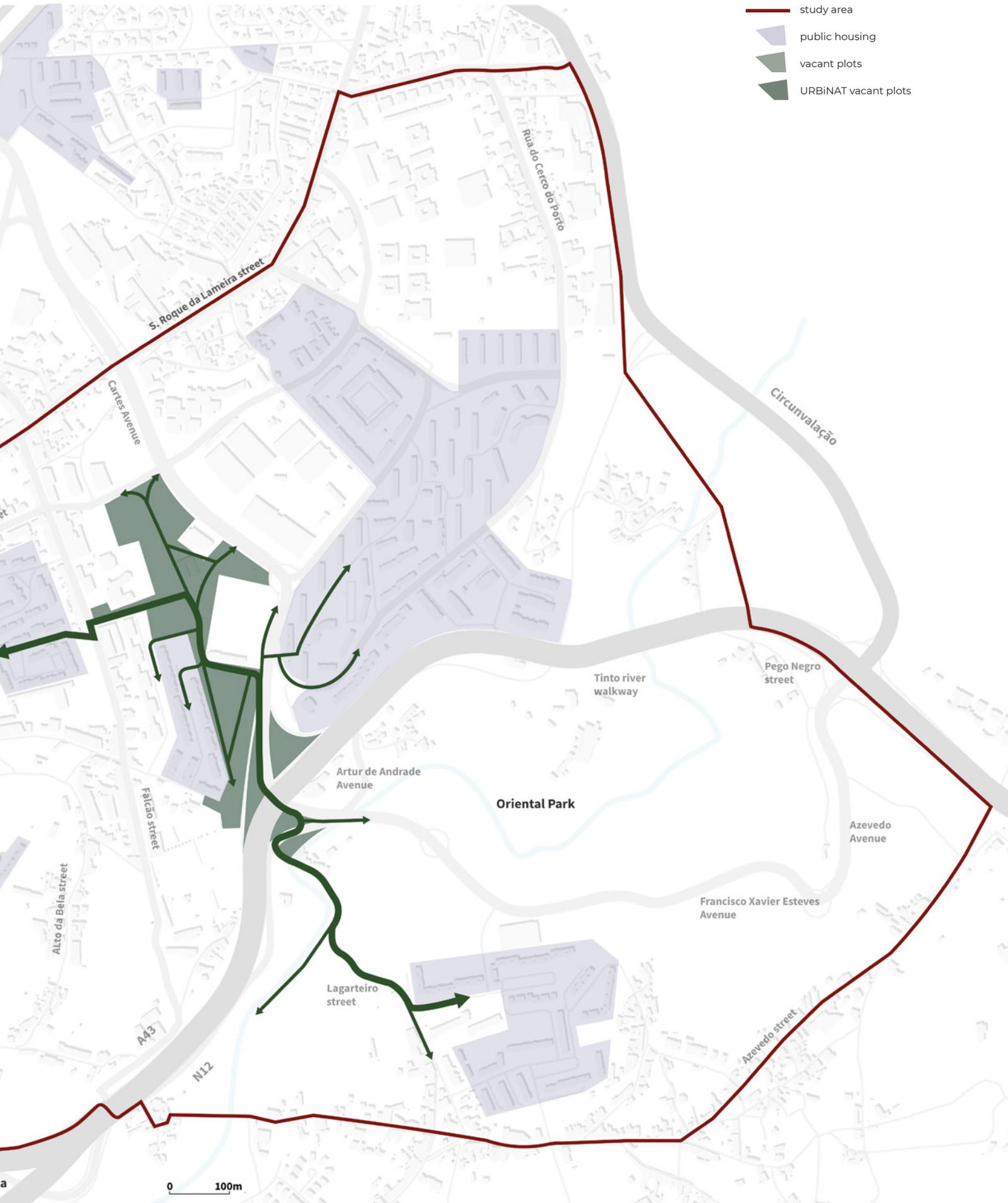


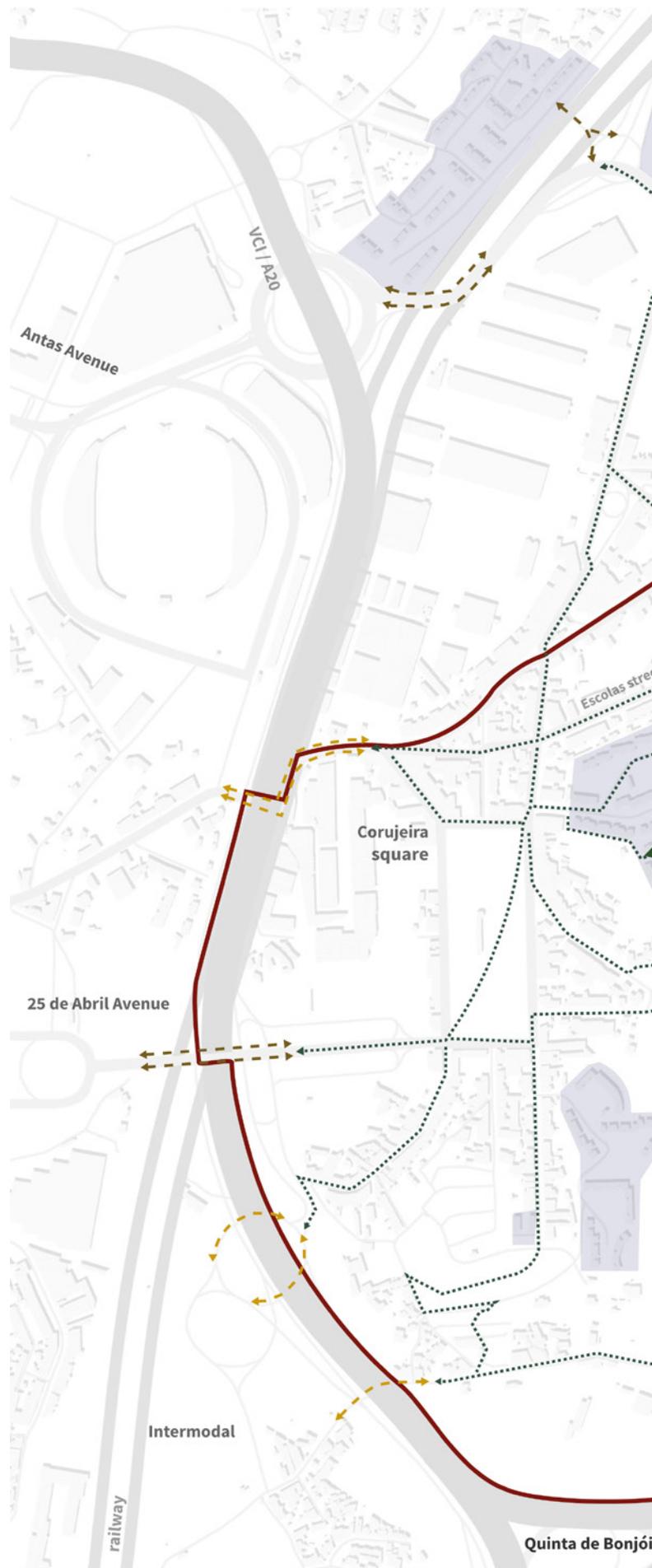
Figure 13. Healthy corridor pathway and connections with the neighbourhoods.

diversity, such as cultural habits, social quotidian and territorial features, and contribute to improve not only the fluidity of local mobility but also the everyday life of inhabitants in the area and its surroundings.

### Articulation of the healthy corridor with main accesses

Through the co-created NBS, aligned with the municipal masterplan for the area, the aim of the strategy is to enrich and activate the intervened spaces with the main objective of breaking the existent barriers on this heterodox urban tissue. According to the municipality, the new “Corujeira urban regeneration operation”, ORU Corujeira, will act as an “interface”<sup>3</sup>.

By improving the paths, lightning the ways and triggering new uses on the vacant plots (Figure 14), it is possible to articulate the existent flows and networks, while highlighting the visible and invisible reasons that can now re-connect the area and transform the territory, its density and its character. In this sense, the Healthy Corridor (Figure 14) proposes the redesign of the informal paths printed in the ground during decades of use by people who moved between Falcão, Cerco do Porto and Lagarteiro social housing neighbourhoods. This pathway and its several branches will then be connected to the pathways and sidewalks that structure the three housing states, as represented in the map, in order to improve mobility, accessibility, safety and inclusion. Some of these paths are being built or renovated in the frame of municipal interventions in the public space of these neighbourhoods, contributing to a new walking and cycling system.



3 PORTO (9th April 2019) “ORU da Corujeira está aprovada e vai acelerar regeneração de Campanhã”. Available in <https://www.porto.pt/pt/noticia/oru-da-corujeira-esta-aprovada-e-vai-acelerar-regeneracao-de-campanha>

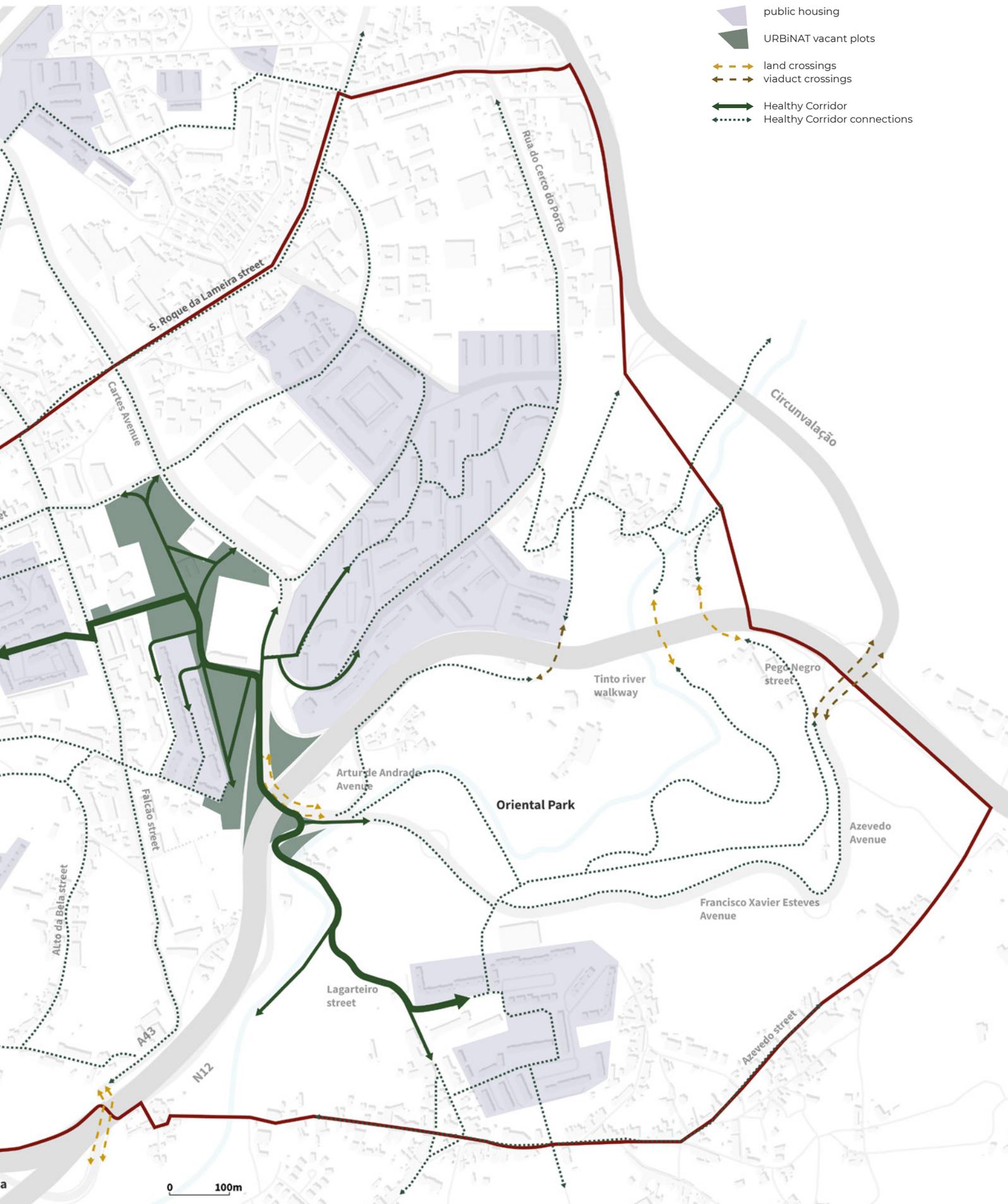


Figure 14. Map with the articulation of the healthy corridor with main paths of the neighbourhoods.

## 4.2 Study area and NBS networks

The Healthy Corridor's nature-based solutions will activate the use of public space, promoting multifunctionality with the involvement of the local community. These proposals can create a systemic impact with other key solutions, agents and actors already existing in the territory. In this sense, synergies are already being sought out in order to amplify the use and dynamic of the places that are about to be intervened. It is by understanding the existing dynamic and its historical evolution that the corridor is proposed.

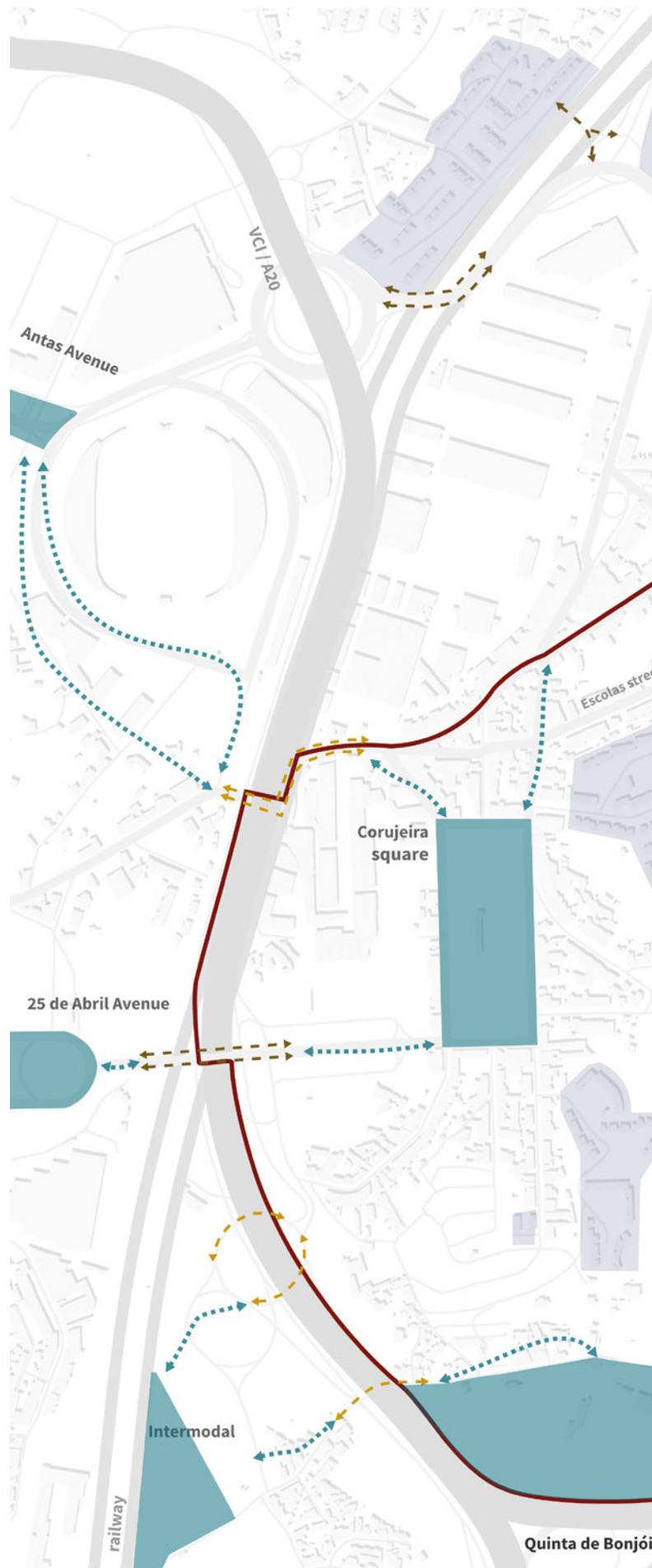
These old and new dynamics are illustrated on this subchapter, as multi-layered networks, separated by the groups of NBS, that allowed for a more rigorous systematization process and a closer and more accurate dialogue with the different municipal departments, based on the participants' interests and ideas.

As so, the following considerations are important to consider before the analysis of the networks' analysis:

- The network related to the available public space will have a concrete definition on the Healthy Corridor project, as some of the NBS will be implemented on the corridor and others were channelled to other municipal initiatives according to their characteristics and/or location, for future (potential) implementation;
- The networks based on culture and sports, social economy and solidarity practices, and education NBS are mostly formless and immaterial. Nevertheless, some of these solutions can also have a physical approach with impact in the public space, such as the "Outdoor space for sports and leisure activities" (sports) or the "Campmarket" (social economy and solidarity practices).
- None of these networks are purely analytical, but rather a mapping of empirical relations and synergies that URBiNAT aims to support and develop.

### Network of Public Spaces

The existent morphology of the study area acquired a great complexity created by the multiple layers of previous occupations. The rural and industrial old matrix, the uncertain occupation of the vacant lots and buildings, the late-modernist neighbourhoods and the mesh



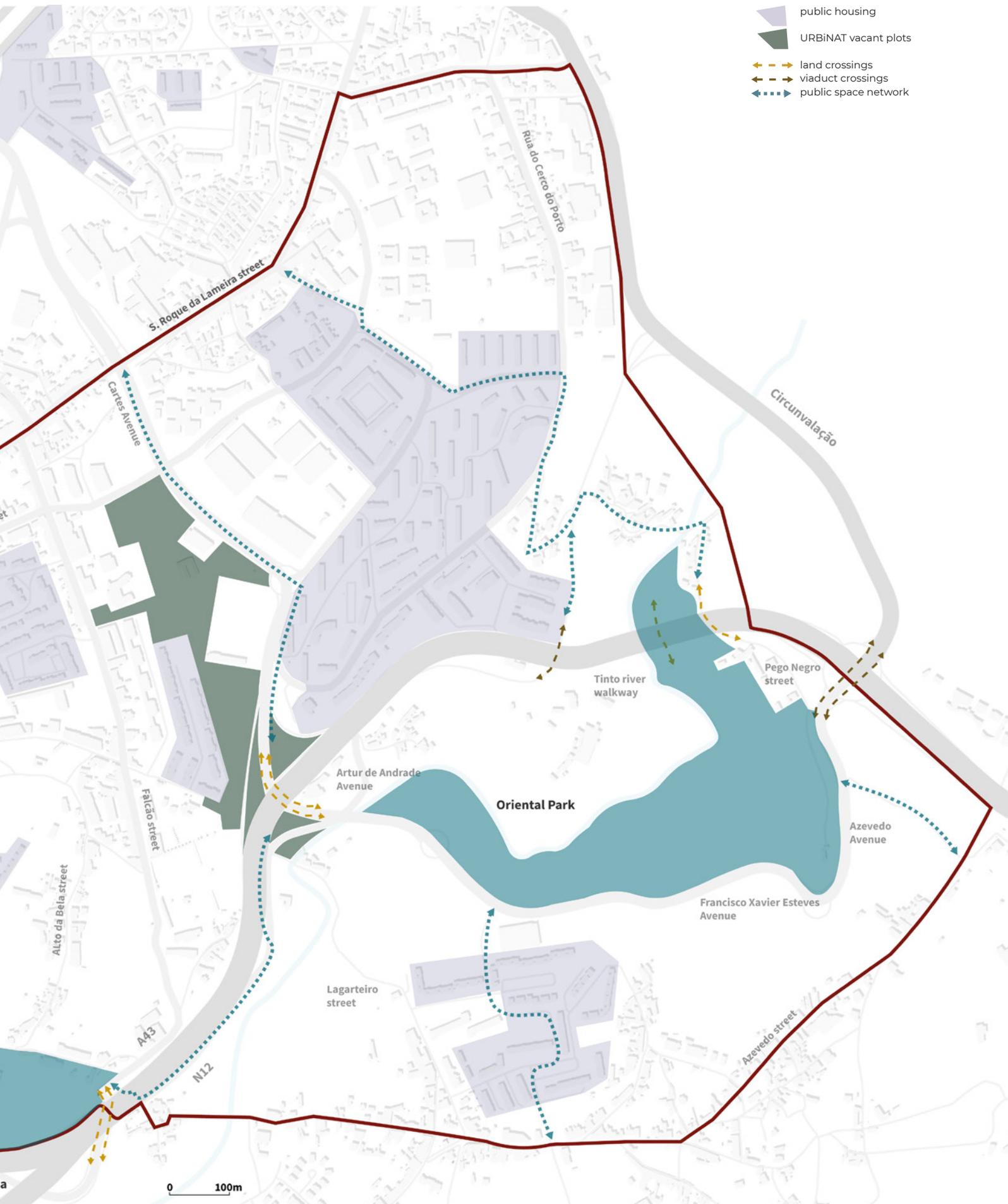


Figure 15. Map of the existing public space network.

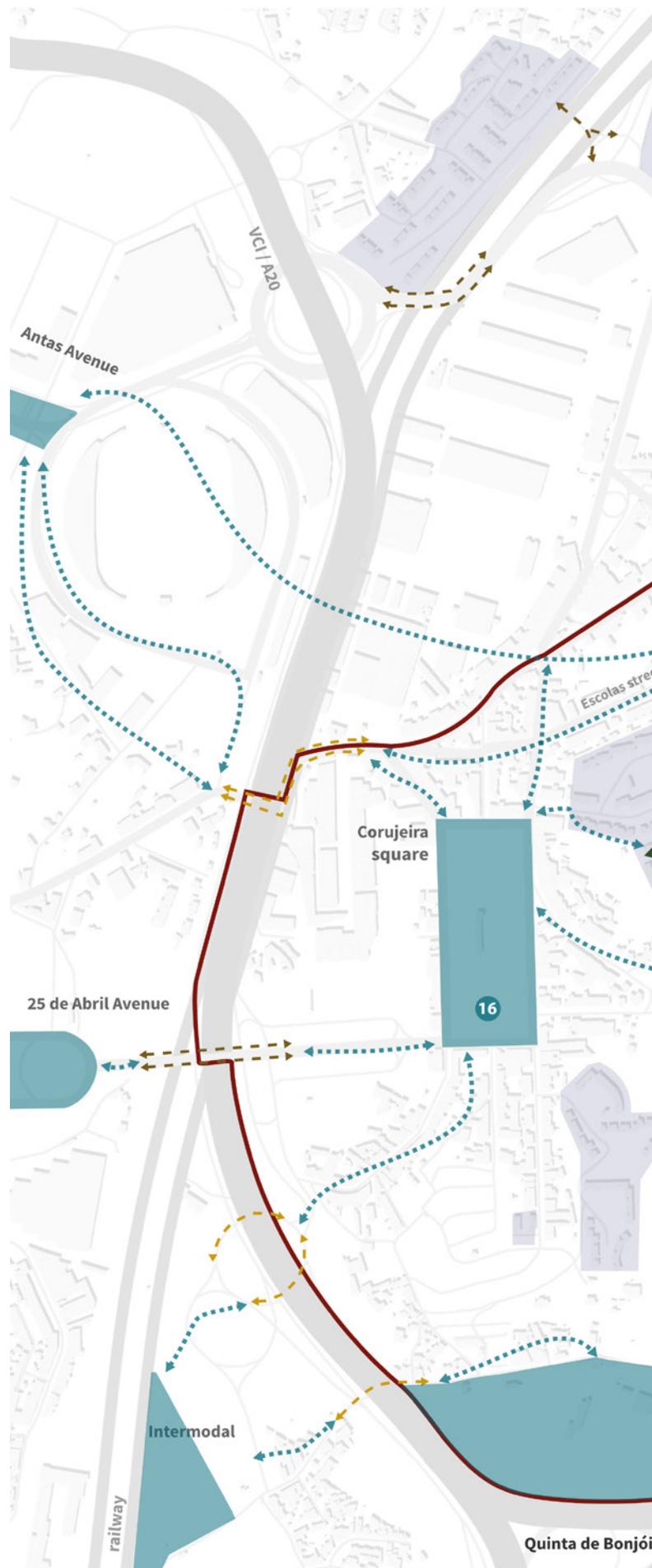
of vehicular and railways created a network of public spaces as mesh of non-fluid pedestrian connections.

This complexity can be acknowledged on the heterodox character of the existent public spaces, where Praça da Corujeira has a predominant role as meeting place, transformed during the last years as a space in-between the occidental part of the city (and the study area). Besides this, the remaining and more recent urban tissue is often discontinued and mainly dedicated to vehicular transportation. On this mesh, the historical streets of São Roque de Lameira and Falcão are still the most important veins of public transportation, pedestrian mobility and collective gathering.

On the eastern part of the study area, the recent Oriental city park is the highlight in terms of public green areas for leisure and sports, but it is also an important north-south pedestrian connection axis. However, there is a lack of staying areas for public meetings outside the surrounding areas, and the main streets (by their scale and character) are not very friendly for pedestrian mobility.

As so, URBiNAT's intervention aims to enrich mobility flows in the study area, contributing to a more walkable territory. This new fluidity can be a valuable input to the existing network of public spaces, collective facilities nearby, such as Praça da Corujeira and the Oriental city park (Figure 16).

In this regard, the proposed new NBS for public space will allow for: a concrete improvement of the existing public vacant lots (e.g., Improvement of connective path between neighbourhoods and facilities); attend the needs for multifunctional areas for sports and leisure activities (e.g. Outdoor space for sports and leisure activities and the Meeting spot next to Falcão); and to activate the new public space (e.g., Nature-based amphitheatre).



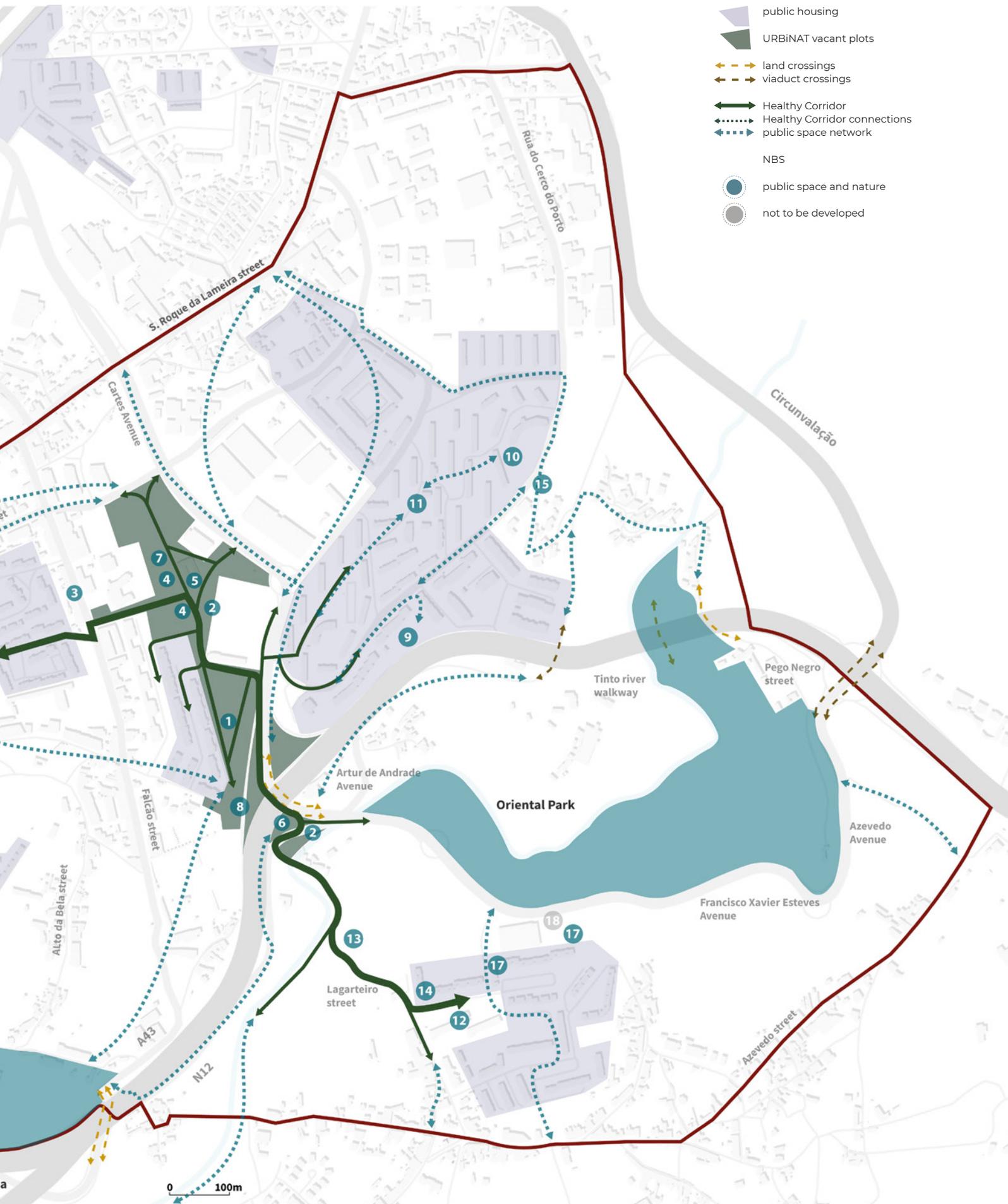


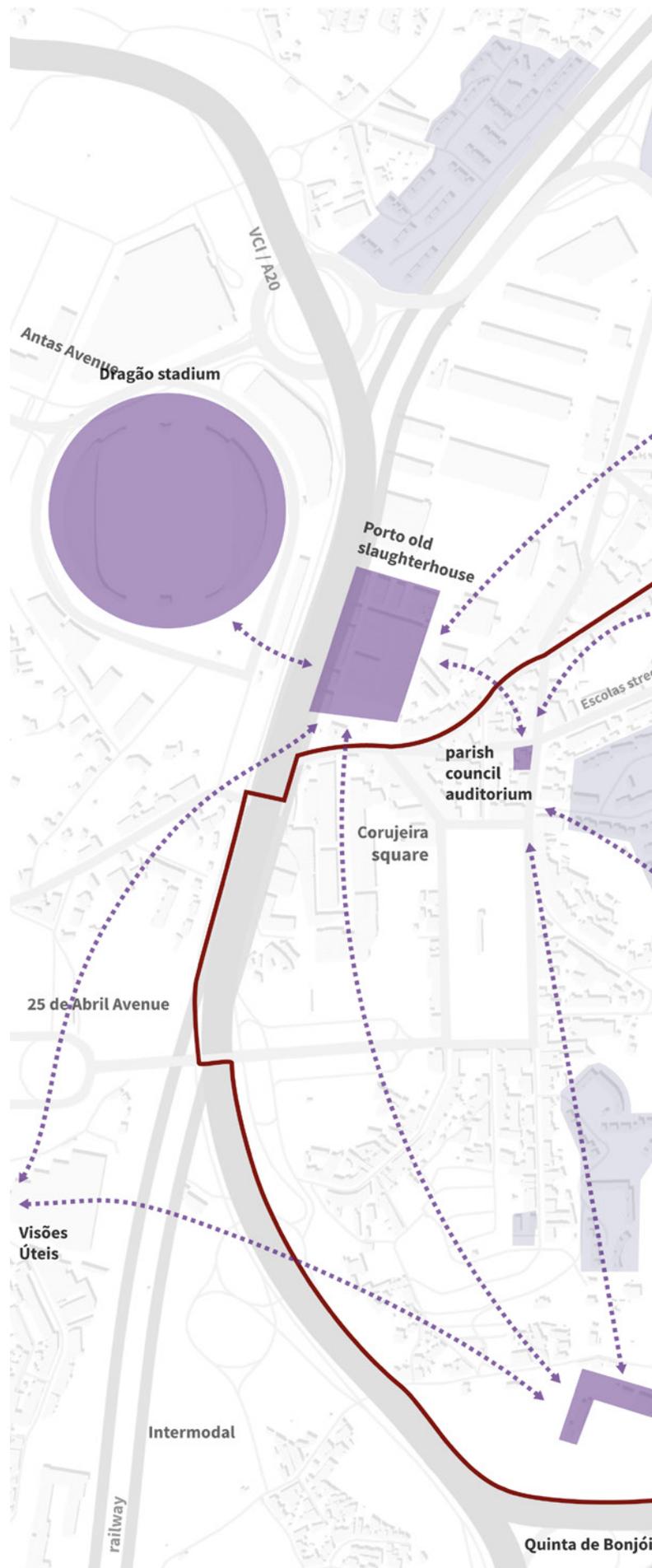
Figure 16. Map of the new public space network articulated with the Healthy Corridor and the new NBS.

## Network of culture and sports

This first network analysis includes culture and sports facilities and initiatives, as these two topics are under the same management organic unit in Porto Municipality and because many facilities/areas hold both events on culture and sports.

As it is possible to see in (Figure 17), the cultural network identified in the study area is not very dense. However, there is one notable place – Quinta da Bonjóia -, which is scarcely accessible for the local inhabitants. Also, it is important to point out the existence of important local associations, such as the parish council auditorium where main events happen, and the local high school, an important centre for sports and social events.

Moreover, one of the important investments that is being made for the area is the conversion of the ancient slaughterhouse, which is going to be transformed into a relevant public facility that will accommodate a cultural centre promoted by the municipality.





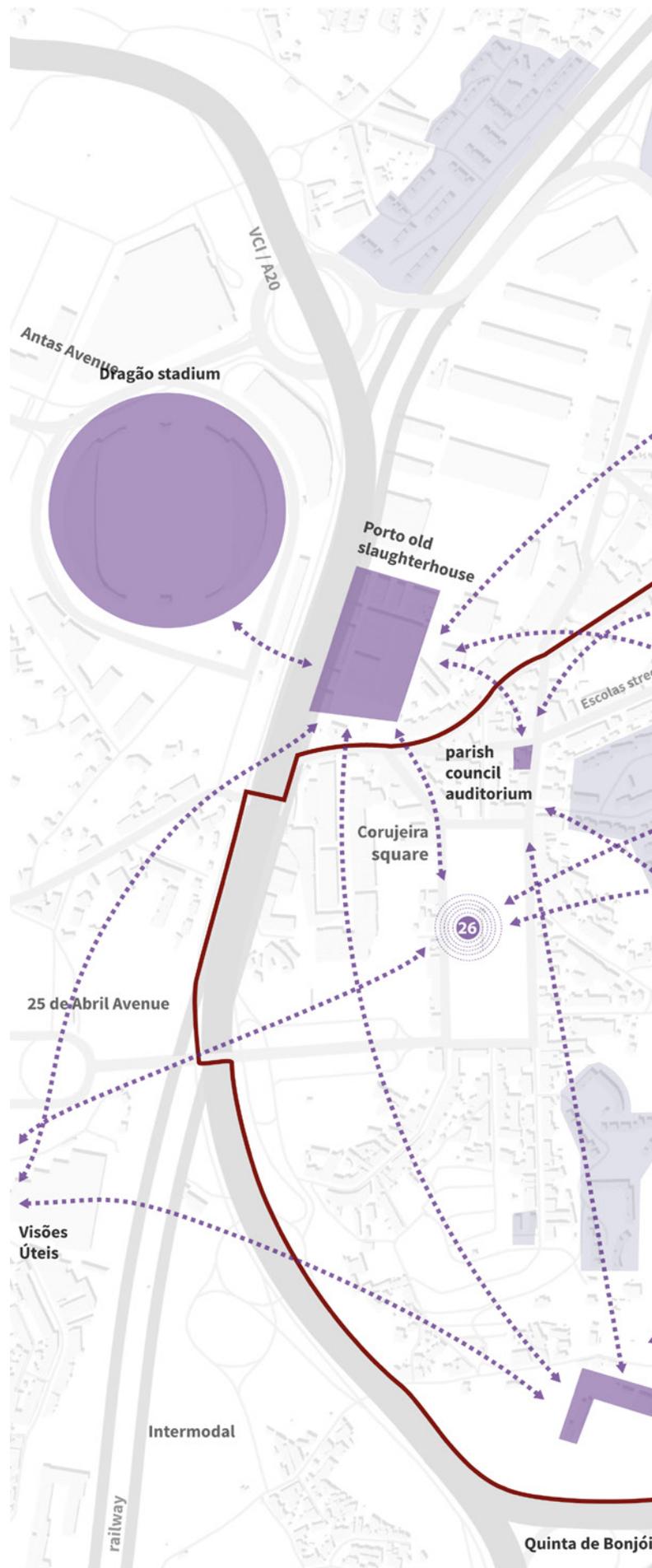
- public housing
- URBiNAT vacant plots
- culture and sports network

Figure 17. Map of the existing culture and sports network.

The presence of local artists and associations related with cultural activities during the participatory sessions motivated a very intense debate on cultural improvements and solutions, in order to promote the use of the Healthy Corridor and its consequent impact in Campanhã parish.

This discussion expanded the cultural mapping of the area that the project had developed and triggered the creation of physical solutions, such as the “Outdoor programme for sports and leisure initiatives” and more ethereal solutions, such as the “Cultural platform – Campanh’UP”.

It was not only a moment of great enthusiasm and desire to express the different cultures present in this part of the city, but it also allowed for critical thinking sessions about the parish, its identity, heritage, memories and local habits.



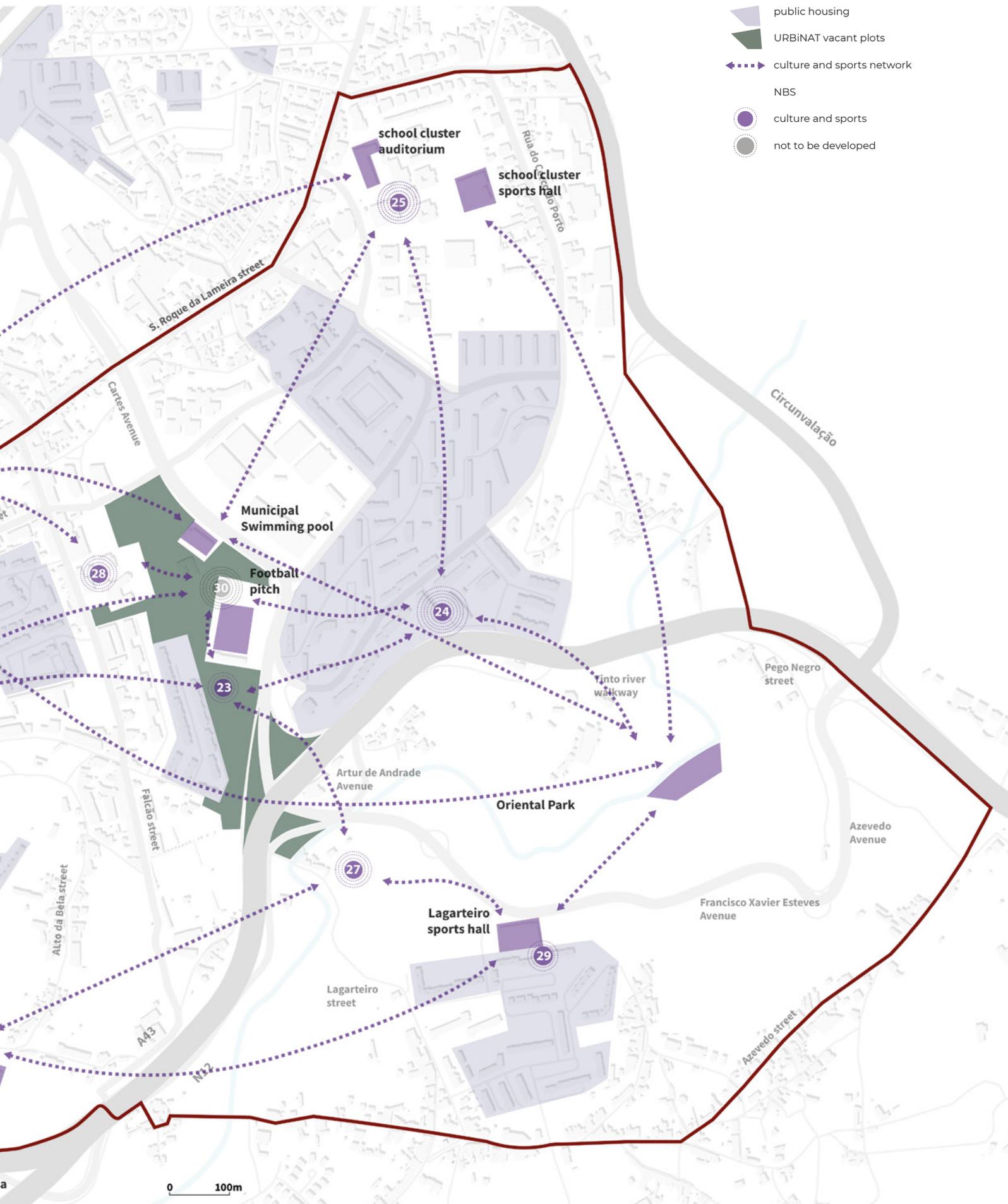


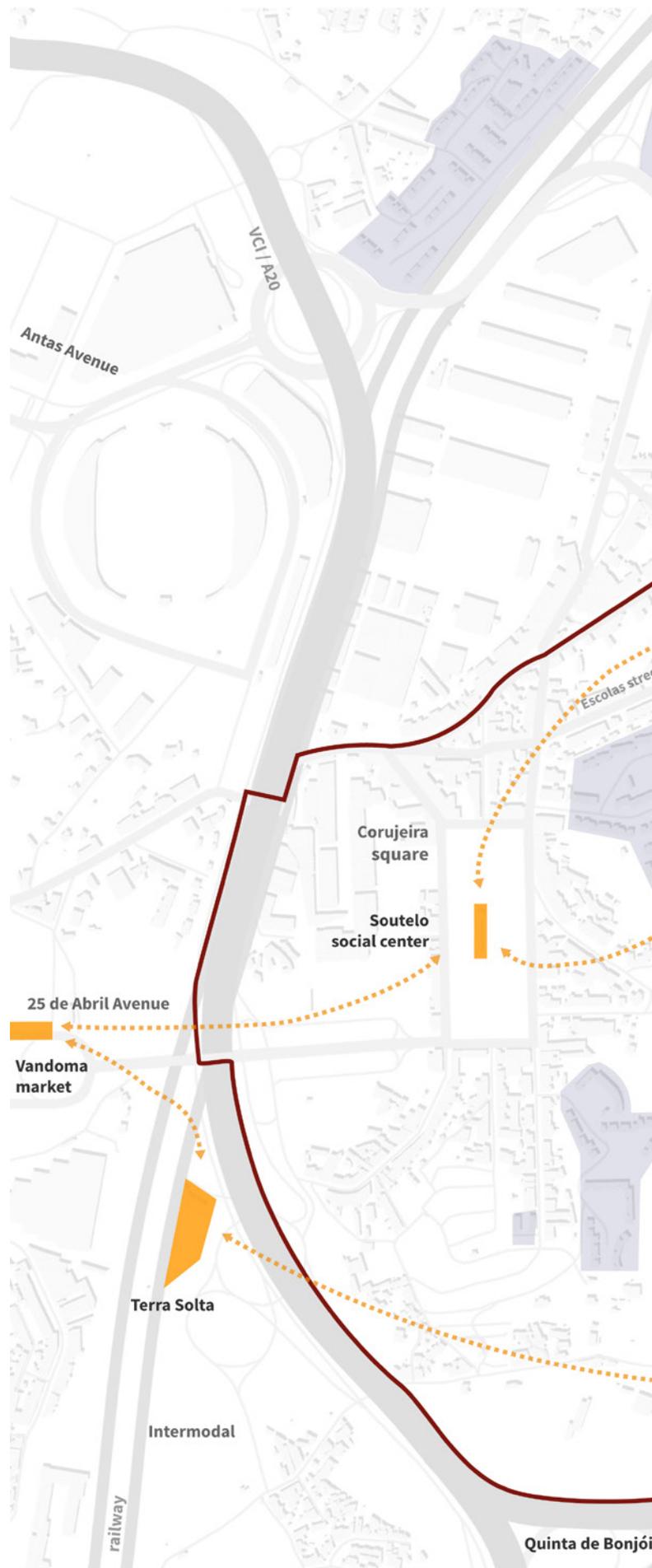
Figure 18. Map of the new culture and sports network articulated with the new NBS.

## Network of social economy and solidarity practices

The local associations are an important presence in the parish and in the study area. Although they are quite sprawled on this territory, they have an important work of helping to improve the socio-economic conditions of the inhabitants.

Their purpose and urban role are diverse and as a support for everyday life, they are sometimes used to overcome the lack of public spaces and other facilities by expanding their use as collective venues and mechanisms for local meetings and solidarity initiatives (Figure 19).

Besides the local associations, it is also important to point out other initiatives for the local economy identified in this network – local markets, such as “Feira da Alameda de Cartes” or “Feira da Vandoma” – which are key trade centres in the city of Porto and metropolitan area.



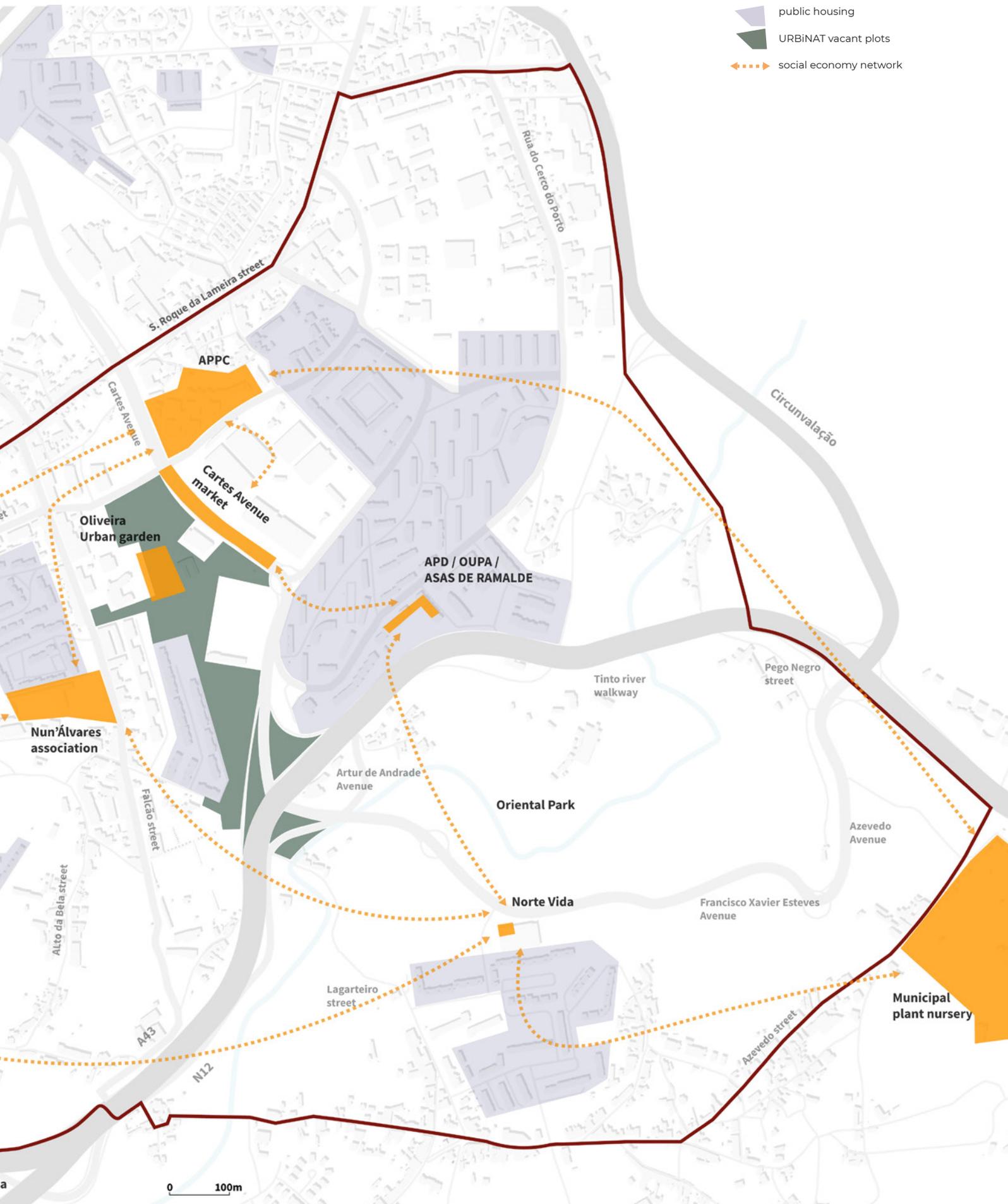


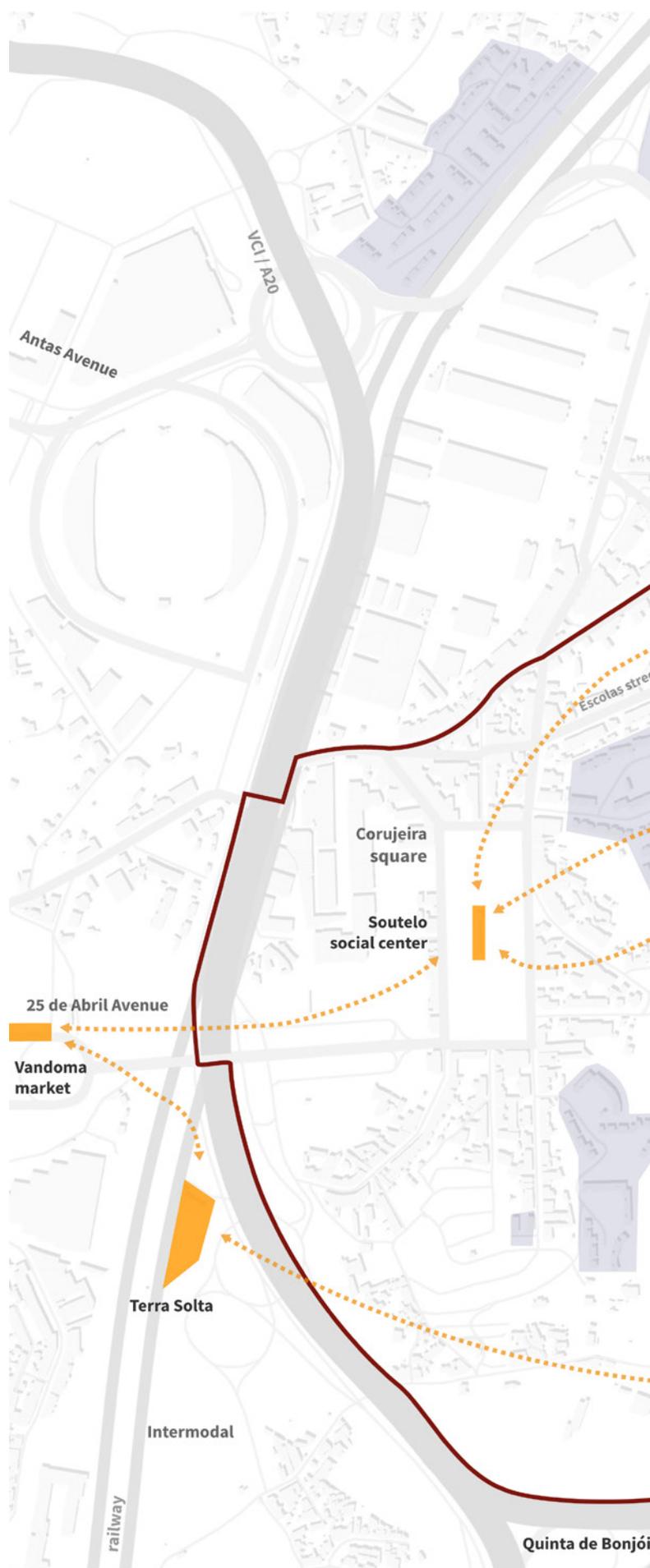
Figure 19. Map of the existing social economy and solidarity practices network.

The new NBS for social economy and solidarity practices aim to activate the public space in strong articulation with the institutions that are already established in the study area, such as APPC or Norte Vida.

Here, it is important to highlight two of these NBS proposals – “Community-based management urban garden” and the “Support structure to the Oriental City Park”. The first one will be the entrance of the healthy corridor, coming from Falcão neighbourhood, and the second can act as one important facility and entrance, near the new expansion of the Oriental City Park. In this sense, these two NBS are important connectors with the urban fabric.

The other two – “Campmarket” and the “Community mobile kitchen” – can happen in other places, but it will take advantage of the public space that is about to be created on the Healthy Corridor, namely the Falcão Square, in the old ruin of Falcão farm. All four ideas have the potential to promote a more active and livelier corridor and they can also contribute to a wider impact on the existing network of social economy and solidarity practices (Figure 20).

It is also important to point out that, during the co-creation process, some local associations were very keen on implementing these types of solutions and they realised the advantages from learning with URBiNAT, and vice-versa. Moreover, this triggered synergies with other associations and inhabitants for the collective purposes they were trying to achieve.



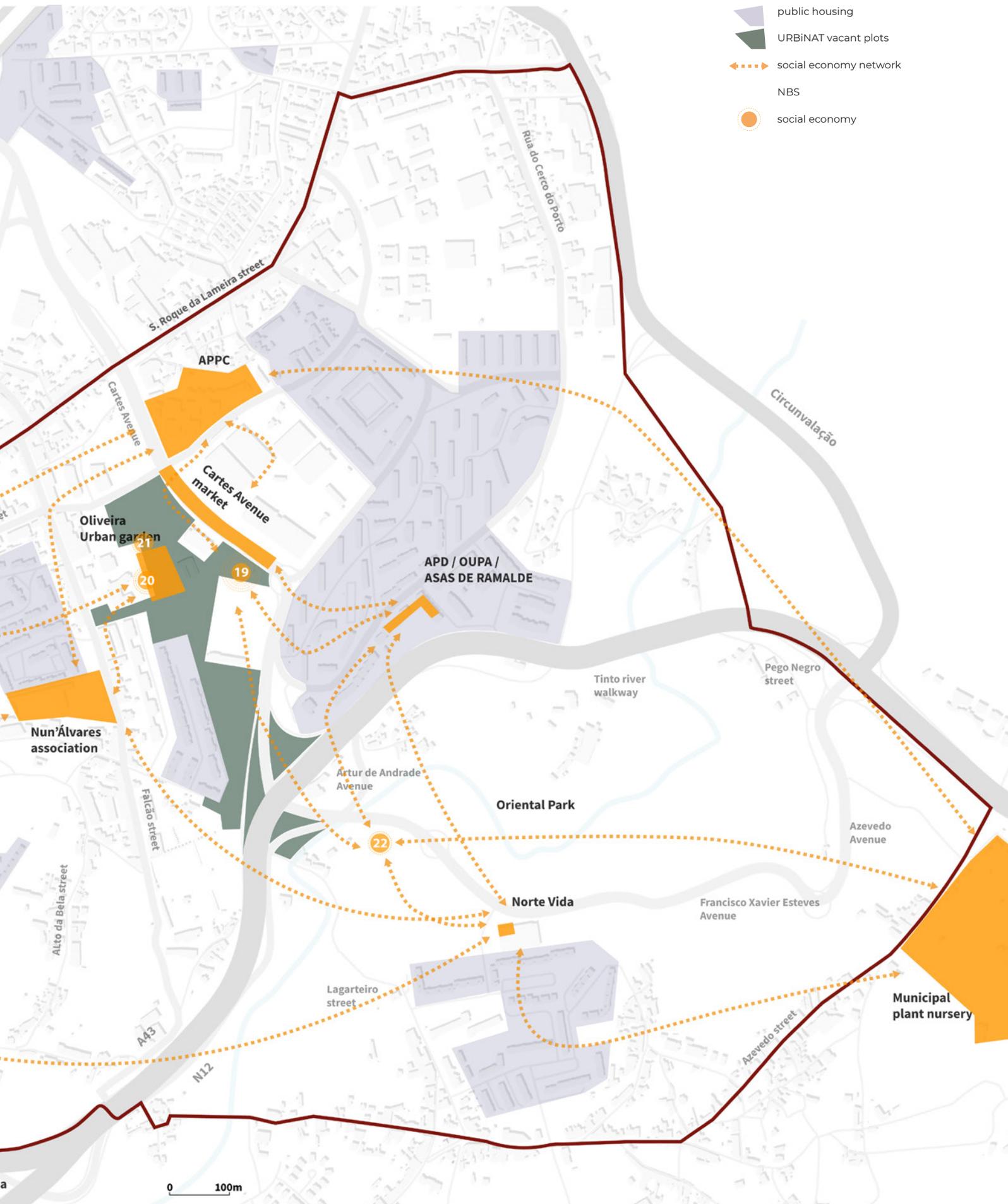


Figure 20. Map of the new social economy and solidarity practices network articulated with the new NBS.

## Network of education and environment

As mentioned before, the six local primary schools involved in URBiNAT (all belonging to the same Group of Schools of Cerco do Porto) are well spread on the territory. This allowed for an interesting flow of participants, mostly school-age children, to actively participate in the project in specific moments in time.

This network was pivotal for URBiNAT ideas that were developed, as the group of schools has a considerable size and hold many different initiatives, upon which URBiNAT can grow, amplifying their impact in the community (Figure 21). Also, it is important to note that from November 2020 on, a room in the local high school has been temporarily granted to the project for purposes of activating the URBiNAT Living Lab.

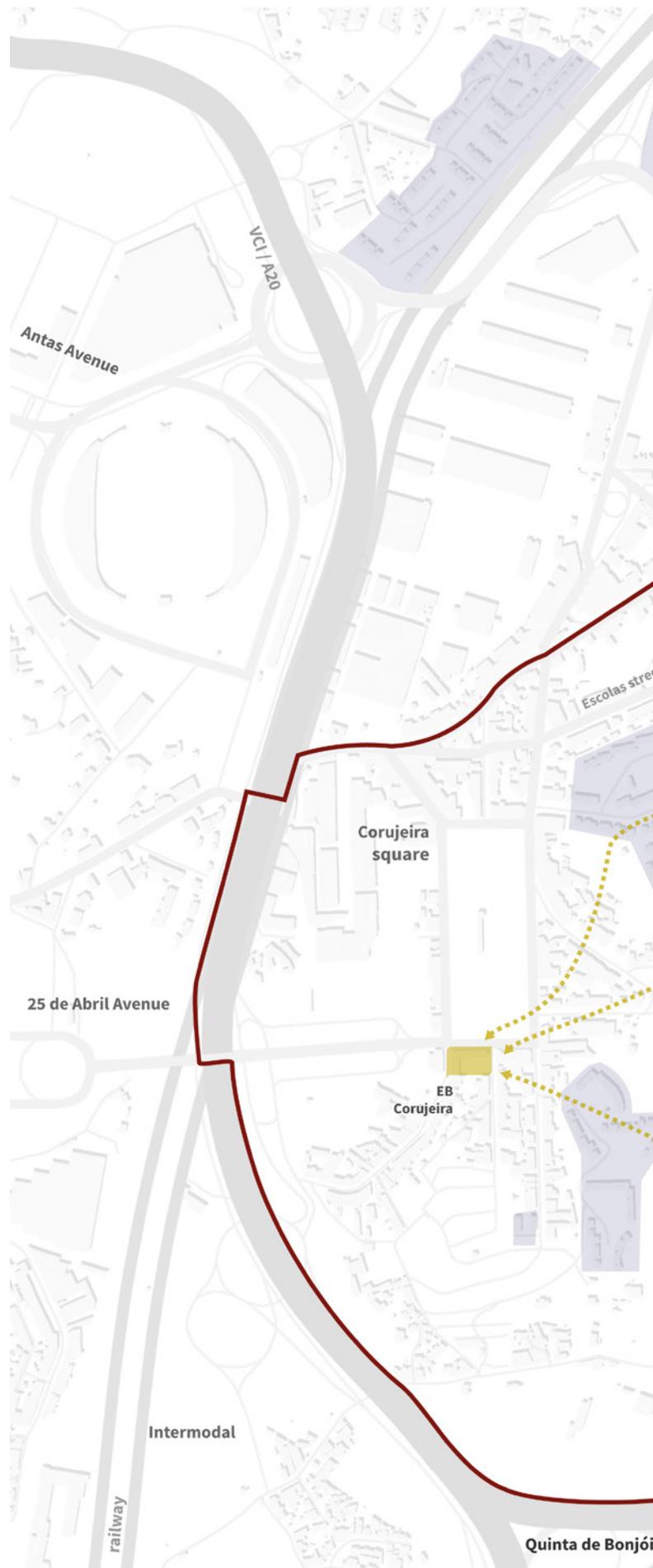




Figure 21. Map of the existing education and environment network.

Most of the so-called Education and Environment NBS are focused on improving the school premises (mainly interventions outside of the classrooms, such as the “Educational play equipment in the school’s playground”), while others are dedicated to the improvement of its surroundings (such as the “Educational Living lab”) (Figure 22).

For the design of the Healthy Corridor, it is also important to refer that some of the proposed ideas that arose from the activities developed with the school communities were considered as public space related solutions, such as the “Collective cleaning actions in public spaces”.

The solution “Pedagogical farming related initiatives in local schools” will be developed in the six primary schools under coordination of Group of Schools of Cerco do Porto in order to create a network pedagogical farming with different and complementary approaches (sensorial garden, vegetables, fruit, animals).

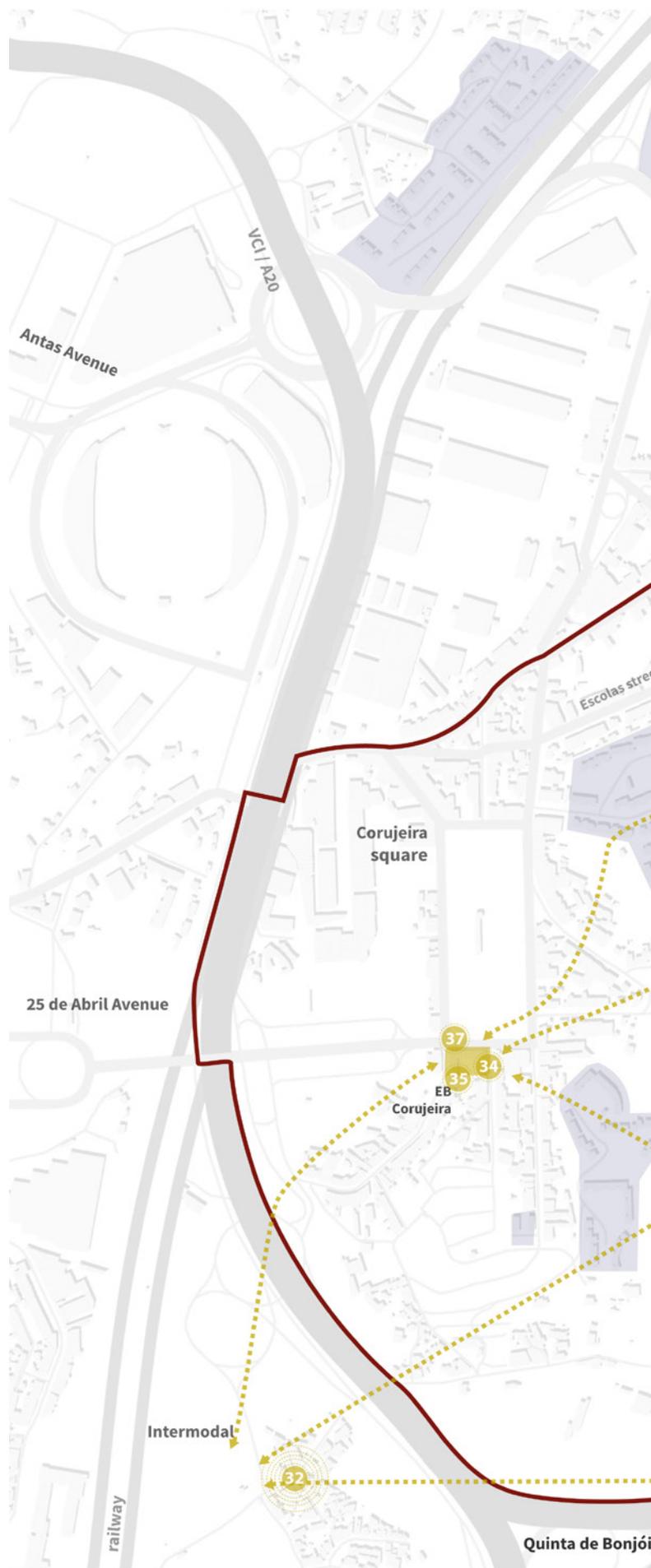




Figure 22. Map of the new education and environment network articulated with the new NBS.

# 5. Healthy Corridor Spatial Concept

## 5.1 Aims and Principles for intervention

The spatial concept for the Healthy Corridor is a result of the process explained in this document until this point. It took into consideration the information from the Local Diagnostic to the Co-design, including the continuous analytic process of finding smaller and more defined areas of intervention. The Healthy Corridor in Porto will be established at a multifunctional urban park that will feature a main corridor and will be composed by several nature-based solutions (material and immaterial, some existing in URBiNAT catalogue, others proposed by the participants along the co-creation – 3. Healthy Corridor NBS and (Figure 23). These solutions will address the needs and expectations identified in chapter 2.2. From the Co-diagnostic to Co-design. The project objectives are based on the organisation and design of a green park, in line with a programme that explores the following objectives:

- To design a public-access green park that is multifunctional, inclusive and a driver to improve quality of life for the local community;
- To design a green urban structure that fosters ecological dynamics and environmental quality;
- To develop a network of pedestrian and cycling routes that promote soft mobility;
- To create areas for resting, recreation, contemplation and meeting in an environment of high microclimatic comfort and safety;
- To create areas for social events and community initiatives;
- To underpin the functional and spatial cohesion of the urban network through connections to strategic points;
- To mitigate the visual, sensorial and environmental impacts of large road structures, namely the A43 motorway;
- To provide areas for educational outdoor experiences.

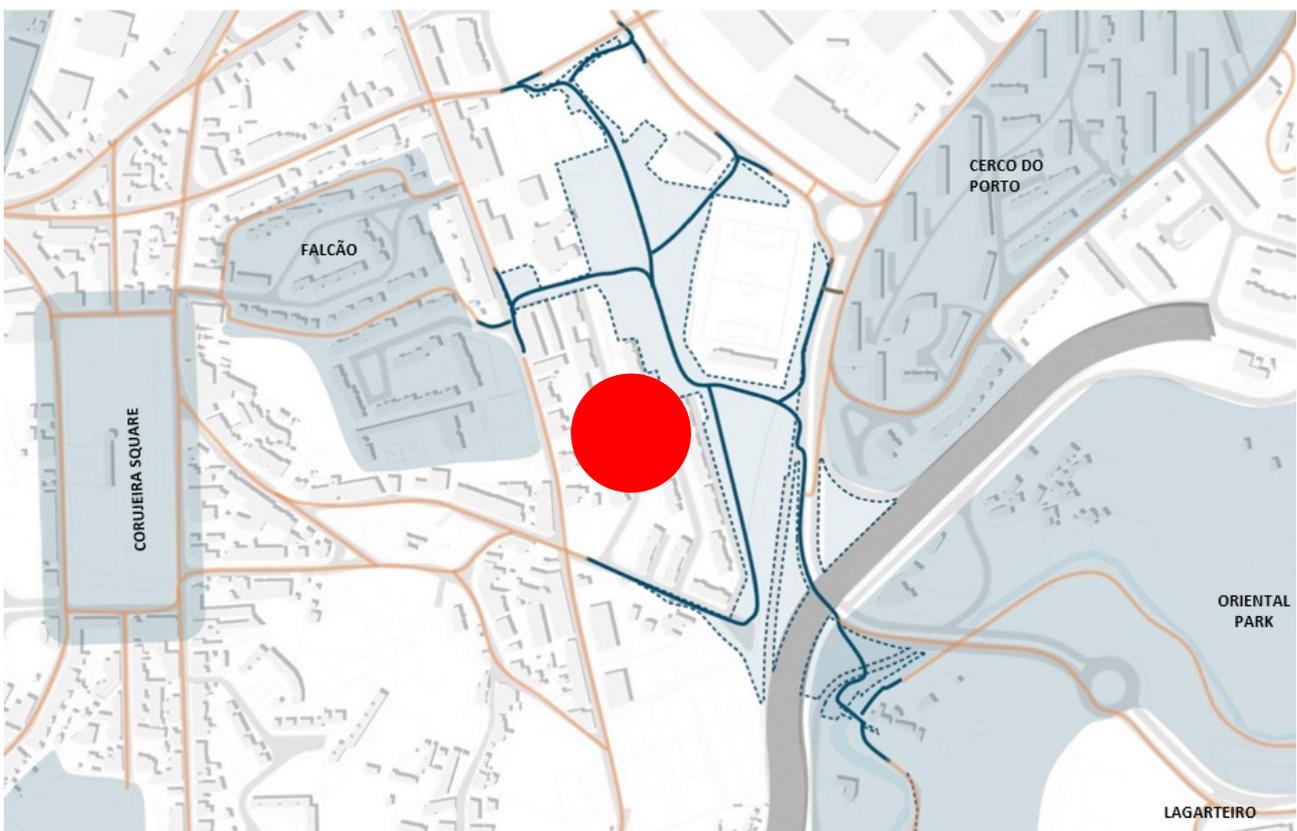


Figure 23. Spatial concept of the Healthy corridor.

## The intervention area

The intervention area is composed of several plots of public land, with 4 hectares (Figure 24 and Figure 25). It is bordered by Falcão, Cerco do Porto and Lagarteiro municipal social housing

and also by the Oriental Park expansion areas. The area is marked by physical discontinuities generated by a topography of steep slopes and by the fragmentation imposed by the various road infrastructures over time.

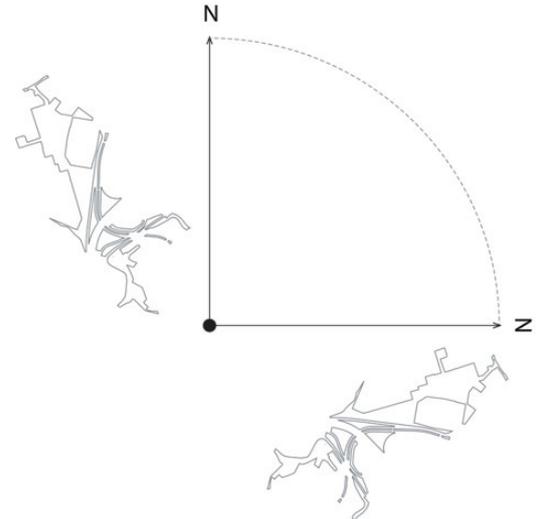


Figure 24. URBiNAT's limits for the implementation of the Healthy Corridor in Campanhã Parish.



Figure 25. Relevant features for the implementation of the Healthy Corridor in Campanhã Parish.

This place plays an important role for the inhabitants in terms of pedestrian circulation, even though the current conditions show clear signs of urgent urban regeneration. The intervention area is composed by the following areas:



Figure 26. Plot near falcão; Main path; Oliveira urban garden.

1. Plot near Falcão primary school, currently a vacant lot surrounded by walls interfering with visibility between spaces and compromising pedestrian circulation;
2. Existing informal path connecting Avenida Artur de Andrade to Falcão street and all other facilities/residential units along the way (Oliveira urban garden, Falcão neighbourhood, Campanhã Cemetery, Cerco do Porto neighbourhood);
3. Oliveira urban gardens are part of the intervention area and the access is made through the path mentioned in the previous point;



Figure 27. Clearing near Oliveira Urban garden; Existing ruin; Connection to Municipal swimming pool.

4. Flat clearing on the lower level of the Oliveira urban garden with several informal paths and pre-existing walls that divide the space into terraces, as evidence of its agricultural past;
5. Ruin of old Quinta do Falcão, a complex of house and patio with interesting archaeological value that can be partially preserved, although it presents a safety issue since it is used for illegal activities.
6. Area with informal paths near Municipal swimming pool (Piscina de Cartes);



Figure 28. Clearing near Falcão housing; Avenida Artur de Andrade; Connection to Oriental Park.

7. Moderately sloped clearing in front of the Falcão neighbourhood, where there are several informal paths;
8. Permeable areas along Avenida Artur de Andrade, where topographic features generate a sense of discomfort as they amplify the perception of verticality;
9. Connection to Oriental Park expansion area, currently only possible through stairs.

Main uses of the intervention area:

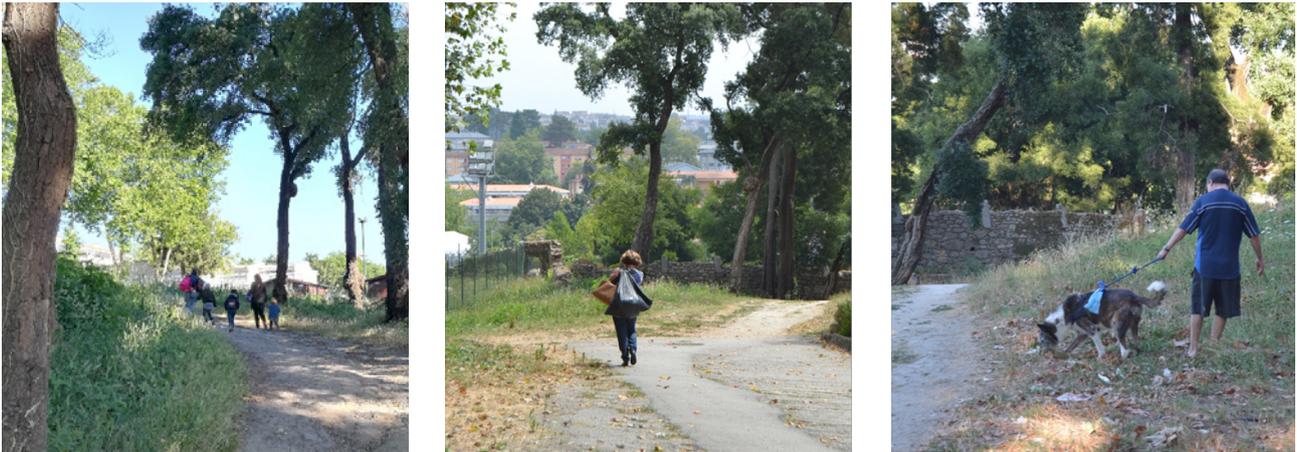


Figure 29. Children walking to school; Inhabitant crossing the intervention area; Inhabitant walking his dog.

Main constraints of the intervention area:

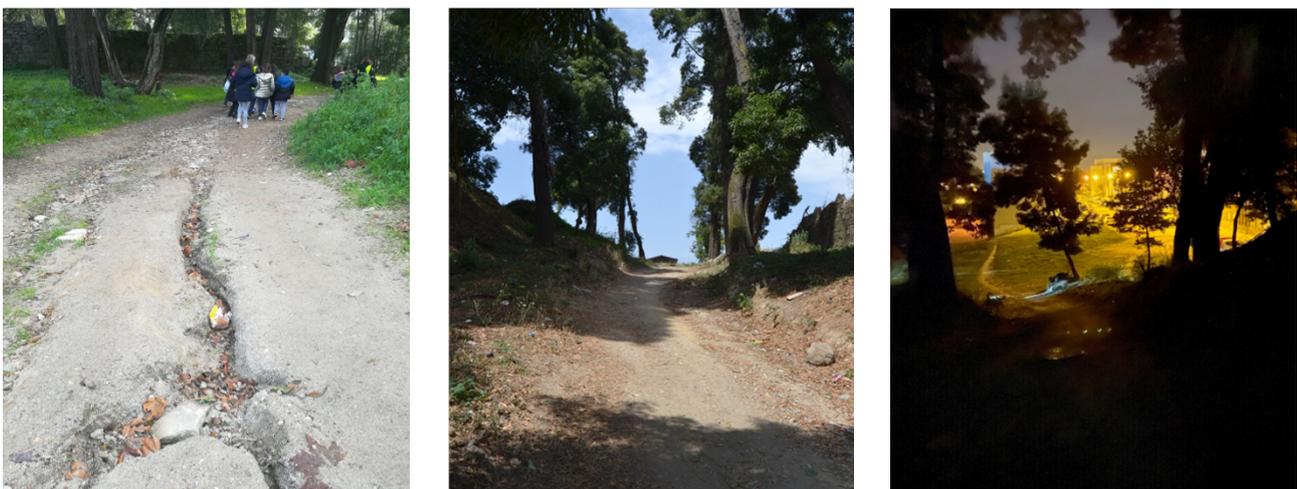


Figure 30. Pavement conditions (worst in winter); Extreme slopes in some parts of the path; Lack of light in the intervention area.

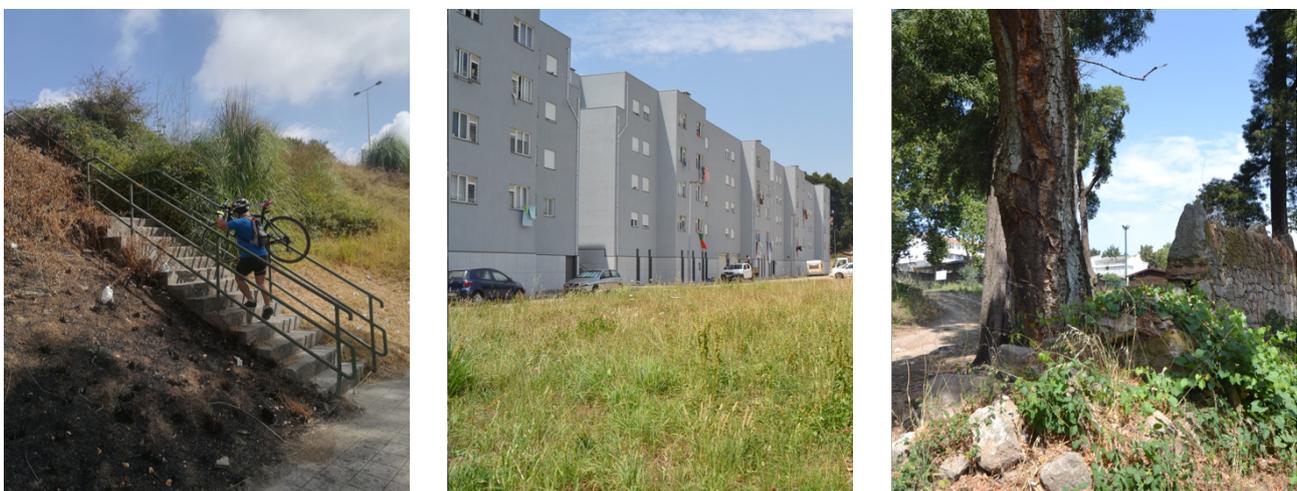


Figure 31. Architectural obstacles to pedestrian/cyclable mobility (many inaccessible paths); Lack of vegetation to balance exposure and bioclimatic comfort; Lack of sitting areas.

# 5.2 Healthy corridor as a cluster of NBS

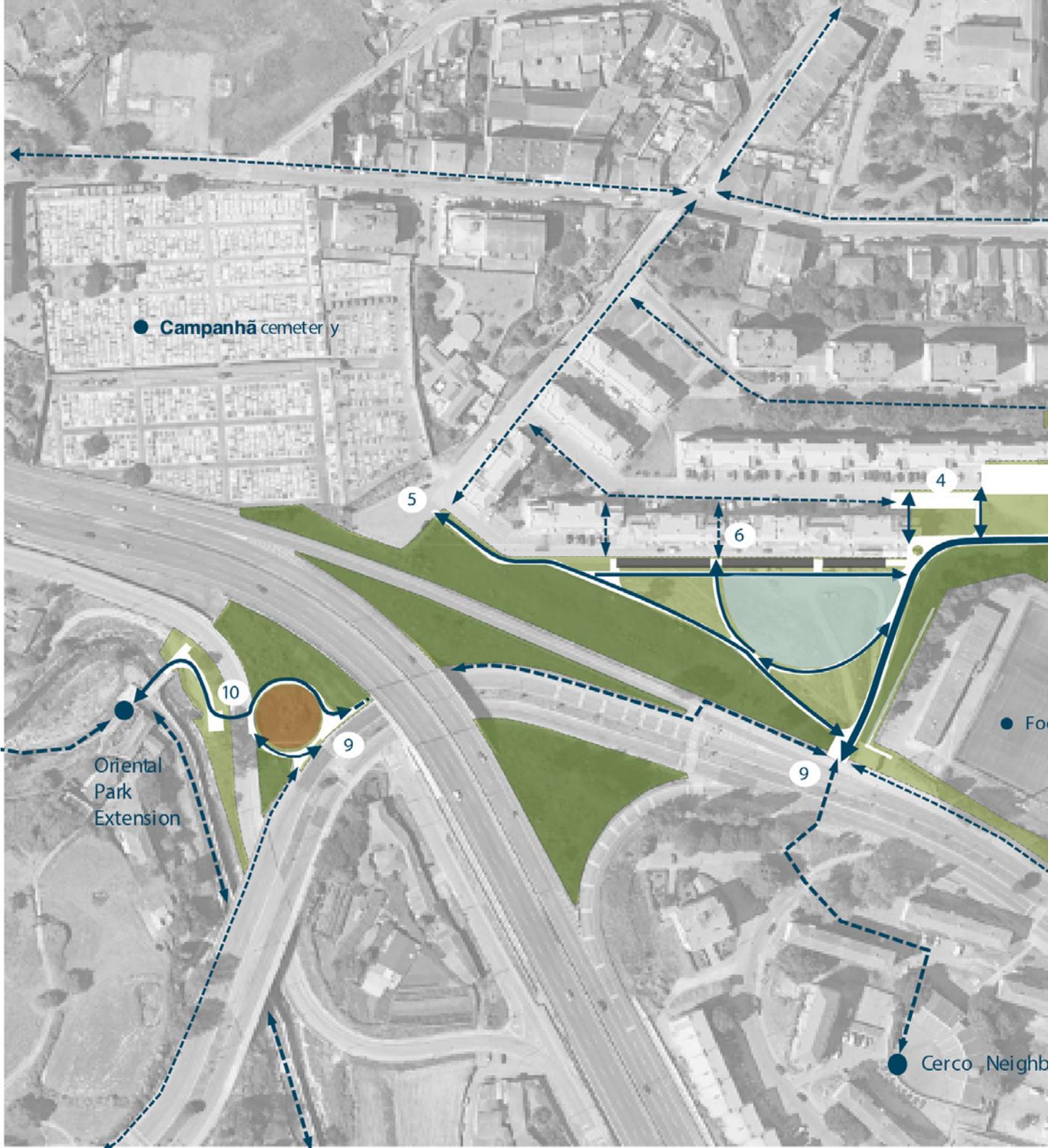
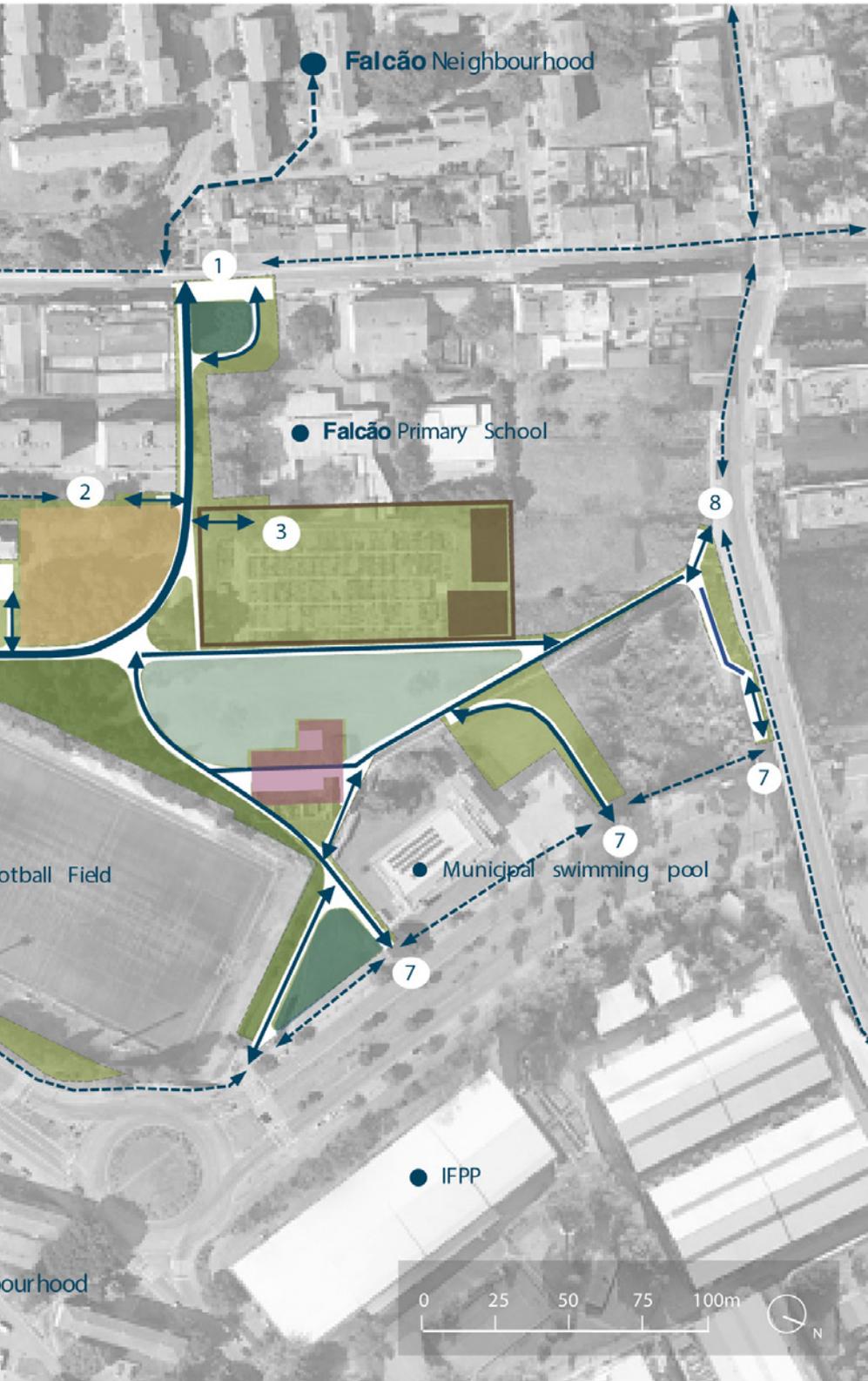


Figure 32. Conceptual plan for the spatialization of the Healthy Corridor.



Functional zoning

- Shaded resting area
- Sports and leisure area
- Framing native woodland
- Vegetable garden extension
- Internal pedestrian network
- External pedestrian connections
- Market and other temporary events
- Ornamental garden with sitting area
- Panoramic garden
- Parking lot

Urban connections

- ① Main entrance from Falcão street
- ② Access from C. Pego Negro street
- ③ Oliveira Urban Garden
- ④ Access from Reinaldo Oudinot street
- ⑤ Access from Monte de Campanhã street
- ⑥ Access from Ana Plácido street
- ⑦ Access from Alameda de Cartes
- ⑧ Access from Emílio Biel street
- ⑨ Access from Avenida Artur de Andrade
- ⑩ Access from Estrada da Circunvalação

The intervention is based on the development of a cohesive landscape. To this end, the following design principles are being embedded in the project (Figure 32):

- Inclusion and preservation of existing constructions in granite masonry, as a way of reconciling with the memory of the place;
- Preservation of natural values, namely the existing cork oaks;
- Enhancement of the ecology, by maximising rainwater infiltration in situ, minimising impermeable structures, improving soil conditions and implementing a diverse and resilient green structure;
- Optimisation of pedestrian and cycling routes, through more gently sloping paths, developed in line with the limitations and opportunities provided by the topography;
- Fostering of a sense of security inside the space, by removing visual barriers to increase visual depth along paths;
- Mitigation of steep slope's erosion and instability through the removal of large

embankments and the re-profiling of the most inclined slopes.

Inside this systemic approach proposed for the intervention area it is possible to identify opportunities for the proposals created during the participatory activities with citizens, and then developed with the local taskforce, municipal technicians and elected people. This conceptual plan ensures the conditions for some of these proposals to be implemented, such as outdoor spaces for physical activities, clearings for solidarity markets and even creates outdoor opportunities for learning by providing conditions for a local education living lab. Besides those proposals, the territory itself revealed the need for other territorial nature-based solutions, such as autochthonous urban forests, slope stabilizations and drainage systems. These needs (Figure 33) were identified by the extensive set of diagnostic analysis performed during the co-diagnostic and co-design phase.

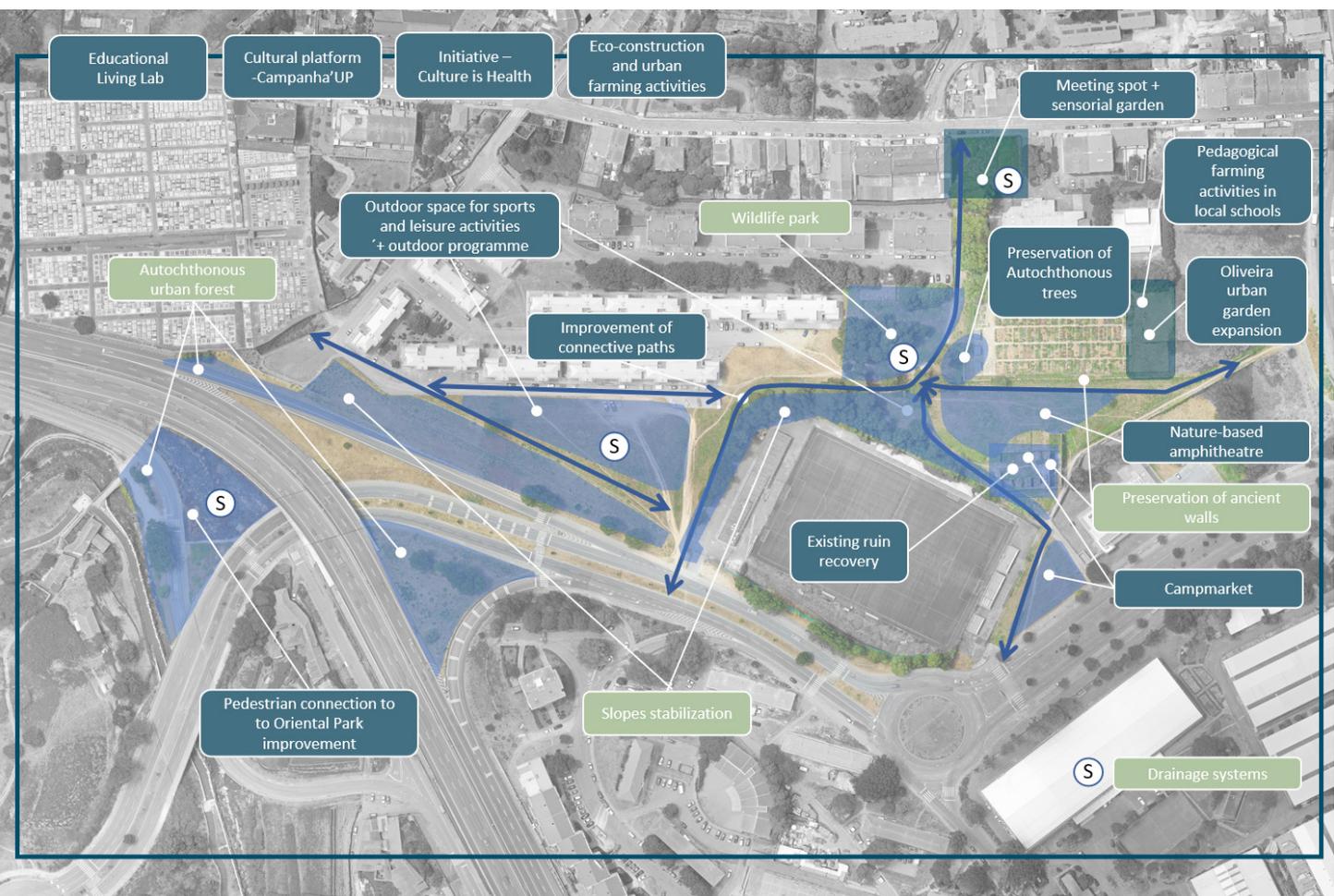


Figure 33. Territorial Nature-based solutions in the intervention area and proposals from the participatory activities.

## 5.3 Healthy corridor main areas



Figure 34. Urban project intervention area main areas.

**A) Meeting spot next to Falcão Primary School with sensory garden** – This area has the potential to serve as an important entry in the intervention area as well as to create a meeting point to serve the school entrance, as desired by the participants in participatory activities.

By removing the existing walls, the pedestrian connection and spatial intervisibility can be improved. A relevant constraint is the existing topography, resulting in a 4-meter difference to Falcão street.



Figure 35. Current state of the plot and handmade drawings exploring the design solution.

**B) Outdoor space for leisure and sports activities** – Flat clearing near Oliveira urban garden that will be transformed into a multifunctional space for outdoor leisure and sports activities. For this purpose, the design team is taking into consideration the existing topography and the right plating design to provide areas of light and shadow for different

types of activities, in different moments of the day, as alerted by the citizens during the workshops. The participants also mentioned the desire to see these outdoor opportunities for physical exercise as part of the global intervention, valuing its level of informality and multifunctionality.



Figure 36. Current state of the plot, handmade drawings exploring the design solution from the design team and some images with the result from the co-design workshop with citizens.

**C) Existing ruin of Falcão farm recovery** – The existing ruin of “Quinta do Falcão” is constituted by house and courtyard in an advanced stage of physical degradation transformed today in a precarious settlement for homeless and drug consumers.

socio-economy NBS, namely a nature-based amphitheatre and a solidarity market – Campmarket. The strategy agreed proposes the partial demolition of the existing structure in order to create a public space that preserves the main spatial qualities of the building memory. It also contributes to the mobility of the area and to the implementation of new NBS of the healthy corridor.

It is part of the local collective memory as was demonstrated in the participatory activities of the co-design phase, when were raised several proposals to use the space with cultural and

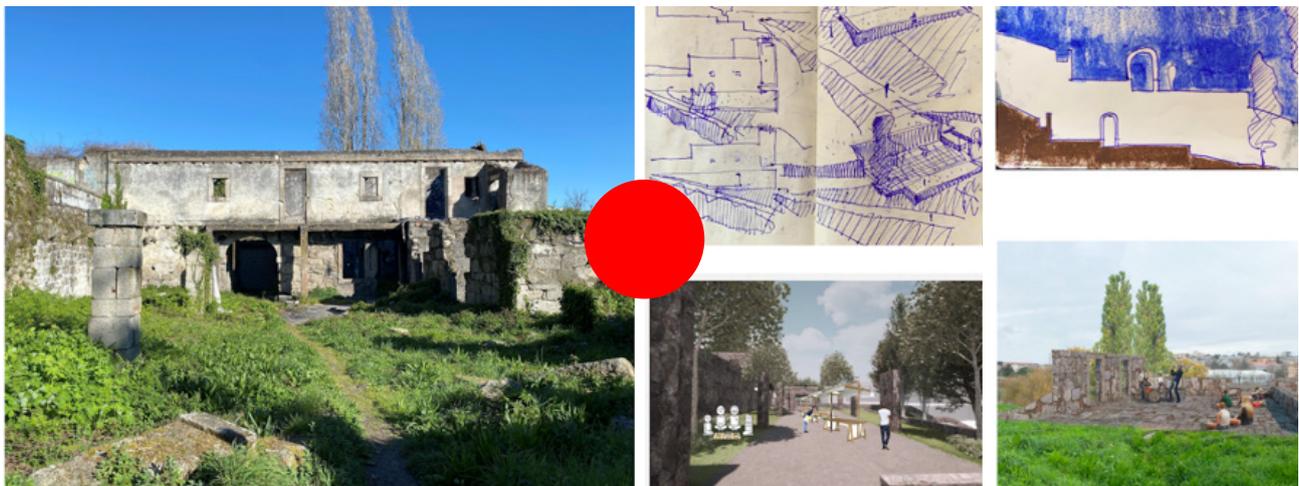


Figure 37. Current state of the ruin, handmade drawings exploring the design solution from the design team and and some images with the result from the co-design workshop with citizens.

**D) New entrance in the park** – Near municipal swimming pools, it will be possible to create a new entrance in the park, through a clearing that is deeply connected to the existing ruin. The intervention in both these spaces can address the need related to providing new

areas for temporary events and community activities, such as the Campmarket. The area is being designed to hold these and other events, as a multifunctional space but also to improve pedestrian connections, as developed with citizens during the workshops.



Figure 38. Current state of the plot, handmade/digital drawings exploring the design solution, from the design team and an image with the result from the co-design workshop with citizens.

**E) Wildlife park near main path** – Through terrain modelling and planting design, this area can be recovered and integrated in the park. Its

management and planting scheme will promote autochthonous species and allow for the establishment of natural ecological processes.



Figure 39. Current state of the plot and handmade drawing exploring the design solution.

**F) Preservation of existing memory** – Intention to preserve as much as possible existing structures, namely granite walls, as respect for their connection to the rural past of the territory. Also, the rocks that are now part of the

ruin can be relocated and used to create new paths, walls, and paved areas. This was a very important topic for the participants present in the workshops, mainly the ones with deeper connections to Campanhã.



Figure 40. Current state of the plot and handmade drawing exploring the design solution.

**G) Pedestrian improvement** – The Healthy corridor will mostly improve pedestrian circulation as it is one the most urgent needs identified by all the actors involved. Existing connections will be formalized and improved in terms of pavement, slope and intervisibility.

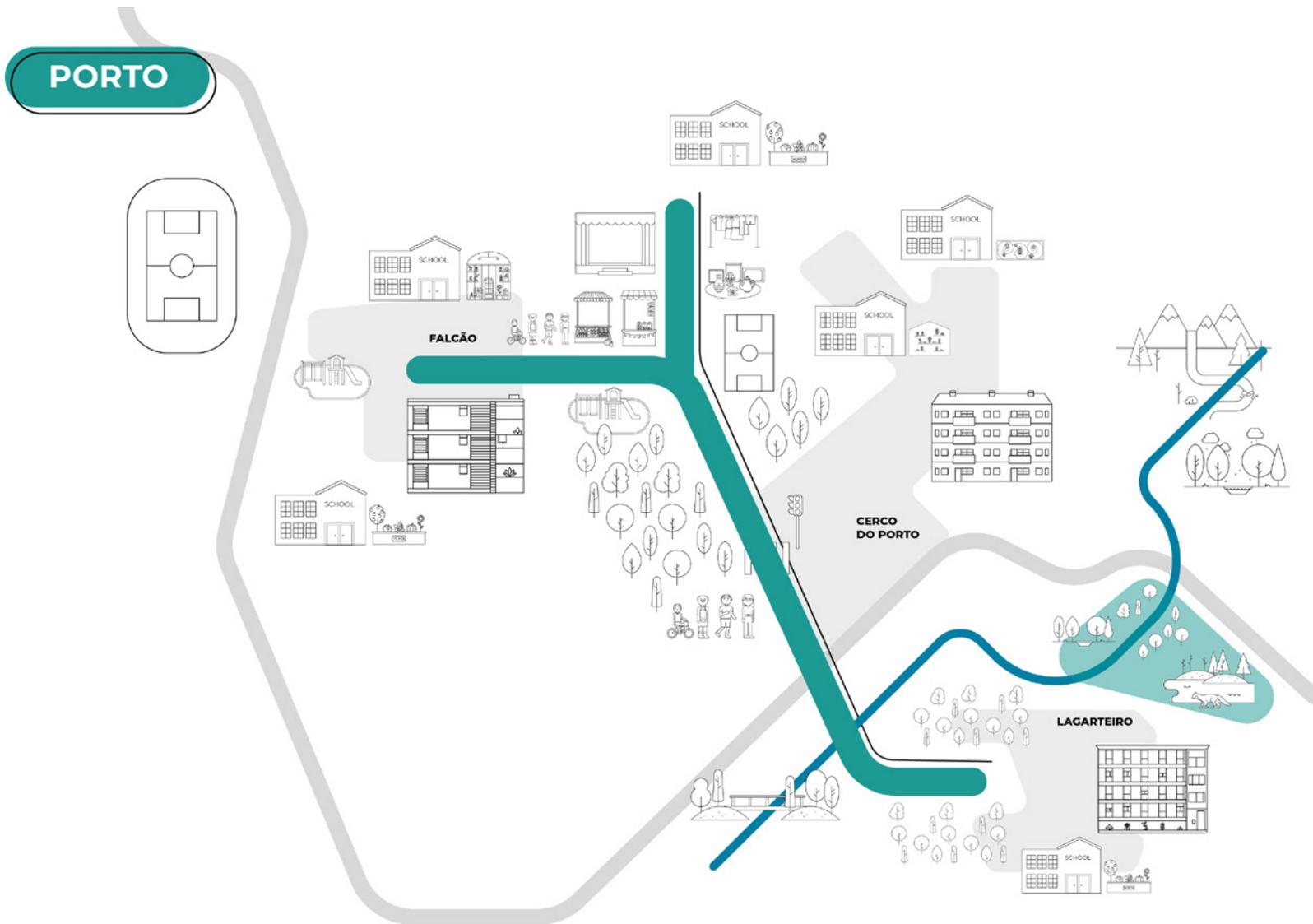
New connections will be created to solve inaccessibility issues and architectural obstacles. This will improve local urban regeneration and allow for the Healthy Corridor to relate with the surrounding territory (facilities, parks, housing units, schools and many others)



Figure 41. Current state of the plot that connects to Oriental Park and handmade drawing exploring the design solution.

# 6. Porto Healthy Corridor

## 6.1 Healthy Corridor Conceptual Diagram / Vision



## 6.2 Main achievements and next steps

Based on the important steps taken so far by the URBiNAT project, the main achievements are hereby resumed, followed by the steps that will compose the next phases – co-implementation and co-monitoring:

- Clear definition of the correlation between identified needs and the co-design proposals;
- Engagement of 500 children and 200 adults during activities in primary schools, in public spaces and presential/online workshops, resulting in 38 NBS proposals;
- Acquisition of key diagnostic data focused on the intervention area;
- Systematization of proposals into operative categories, with involvement of all actors – citizens, local associations, schools, municipal technicians, political representatives and URBiNAT technical team;
- Organization of the 38 NBS proposals in 3 categories: 22 NBSs proposals will be integrated in the Healthy Corridor plan; 13 NBSs were channelled to other municipal projects; and 3 will not be developed. In this sense, URBiNAT will develop 58% of the proposed NBSs, while 34% will (potentially) be considered in future projects;
- Stabilization of a Conceptual plan for the Healthy Corridor, officially approved by all the involved actors, that will convert 4 hectares of vacant lots into a Healthy Corridor, based on four types of NBSs – Public space and nature; Culture and Sports; Social economy and solidarity practices;

Education and environment – and connect the neighbourhoods of Falcão, Cerco do Porto and Lagarteiro;

- Establishment of important synergies with other municipal departments and projects for further integration of the co-created NBSs;
- Establishment of a working local Task Force that is active and committed in the role of implementing URBiNAT beyond its lifetime;
- Establishment of an important commitment and investment by Porto Municipality in the Healthy Corridor, by covering the needed costs for the implementation of the Healthy Corridor, beyond the available budget from URBiNAT, guaranteeing its full potential.

Next steps – Co-implementation and Co-monitoring:

- Further development of the conceptual plan for the Healthy Corridor into a more complete urban project (Deliverable 2.4);
- Further development of the immaterial solutions categorized as to be developed under URBiNAT, through close articulation with municipal departments and local citizens and associations;
- Further development and creation of a stakeholder advisory board, constituted by citizens, associations, URBiNAT taskforce and municipal technicians and representatives in order to develop and implement the NBSproposals, named “Comissão de Acompanhamento”.

<b>Public Space</b>	<b>92</b>
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<b>Social Economy and Solidarity practices</b>	<b>111</b>
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# Annex

This annex organizes the NBS proposals co-designed with citizens according to the NBS Card template developed in the frame of deliverable 4.1, as NBS Friendly Card. This template includes the decisions taken on the development of NBS, according to the analyses of the NBS developed by the task force, the municipality and the citizens.

In this sense, the template is organised in 6 topics and integrates the content systematized by the taskforce in several stages, taking in consideration the outputs of the workshops and meetings with citizens and municipal technicians and representatives:

- 1 – Title
- 2 – Description
- 3 – Positive aspects/challenges

4 – Participation process to develop the NBS

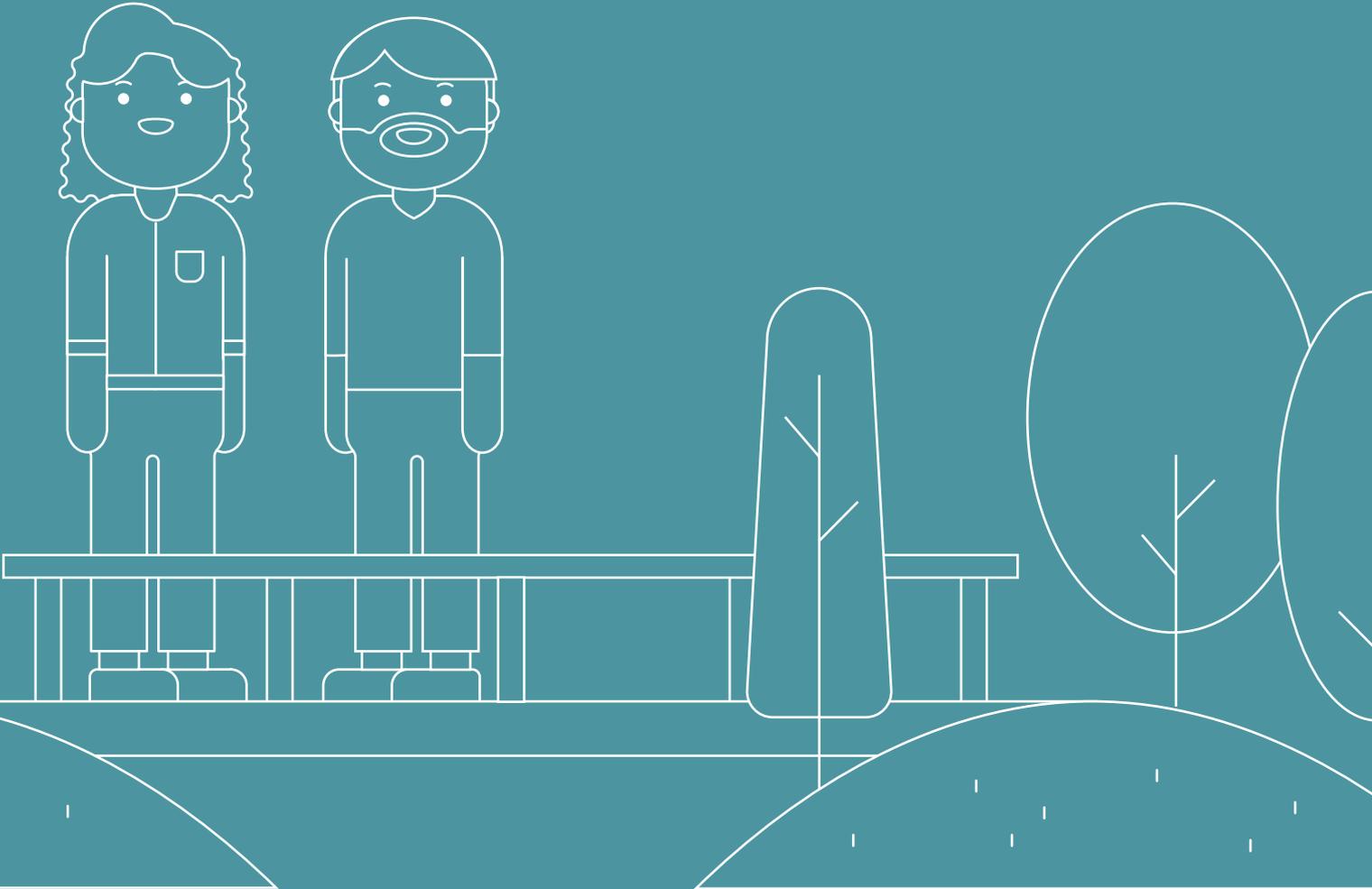
- Co-diagnostic – integration of the analyses developed in subchapter 2.2 From co-diagnostic to co-design

- Co-selection and co-design – integration of the systematization of participatory activities organised in subchapter 2.1 – Co-creation chronology and also the state of the art in terms of its current development.

5 – Best Practices and References

These cards offer a detailed description of each NBS including the participatory process and the decision-making process (see chapter 3 Healthy Corridor NBS). These cards will be developed in the next reports according to the developments taken under the co-implementation and co-monitoring stages.

# Public Space





# 01. Outdoor Space for sports and leisure activities

(Ágora/CMP) that promote Tai Chi, Yoga, Pilates classes in various parks in the city; *Domingos em Forma* (“Sundays in form”), one of the AIIA program (DMCS/CMP); and, more recently, the programme *Desporto no bairro* (“Sport in the neighbourhood”).



## CHALLENGES

- Need of a flat and shaded area in the intervention area, where the topography is currently very complex and heterogeneous.

## Participation process to develop the NBS

### CO-DIAGNOSTIC

The need for green areas and its connection to leisure and sports activities was identified through several methods and activities developed during the local diagnostic.

### CO-SELECTION & CO-DESIGN

The proposal of “outdoor space for physical exercise” was proposed by Alberto, a yoga teacher resident in the study area and co-designed during several participatory activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face interview with local facilitator (15.01.2020)
- Citizen’s video (26.06.2020)
- Workshop with citizens and municipal technicians (14.07.2020)
- Online workshop to co-design four NBS (07.11.2020)

## Description

Proposal to create a green space that favours the development of physical and recreational activities (namely Yoga and meditation). This outdoor space is also intended to be used for other purposes, such as board and traditional games.

## Positive aspects/challenges

### POSITIVE

- Promotion of sports and leisure activities and a more physically active population in the study area;
- Contribution to increase the appropriation of the public space;
- Consistent with ongoing local programs or initiatives organized by the Municipality of Porto, namely the municipal company *Agora – Cultura e Desporto do Porto, EM*, with the possibility to create synergies namely with: *Dias com Energia* (“Days with energy”)

**State of the art:** The proposal is already integrated in the healthy corridor preliminary study as part of multifunctional clearings.

## Best Practices and References

Porto Oriental and Occidental park, design by Sidónio Pardal

Asprela Park, designed by Paulo Farinha Marques and José Miguel Lameiras, et al.

## 02. Improvement of connective path between neighbourhoods and facilities



### Description

This proposal aims to improve existing pedestrian paths that are widely used by the population to reach Cerco do Porto / Falcão / Lagarteiro / Campanhã cemetery / Falcão Primary School/ Oliveira urban garden and others. The existing main path is not formalised, performing as an obstacle and source of insecurity for pedestrians. At the same time, the frequency of use by the residents proves the importance in their daily lives as a pedestrian connection.

### Positive aspects/challenges

#### POSITIVE

- Formalize and requalify a daily route used by the population that currently does not meet the conditions of safety or comfort;
- Opportunity to improve lighting, urban furniture and maintenance of the path and surrounding areas;
- Ensure universal mobility issues. In the intervention area there are several associations that represent users with some type of disability, whose accessibility to some services is restricted due to the path;
- Possible synergy with other citizens ideas as well as with existing projects: Viewpoint reformulation next to Campanhã Cemetery; Meeting spot next to Falcão Primary School.

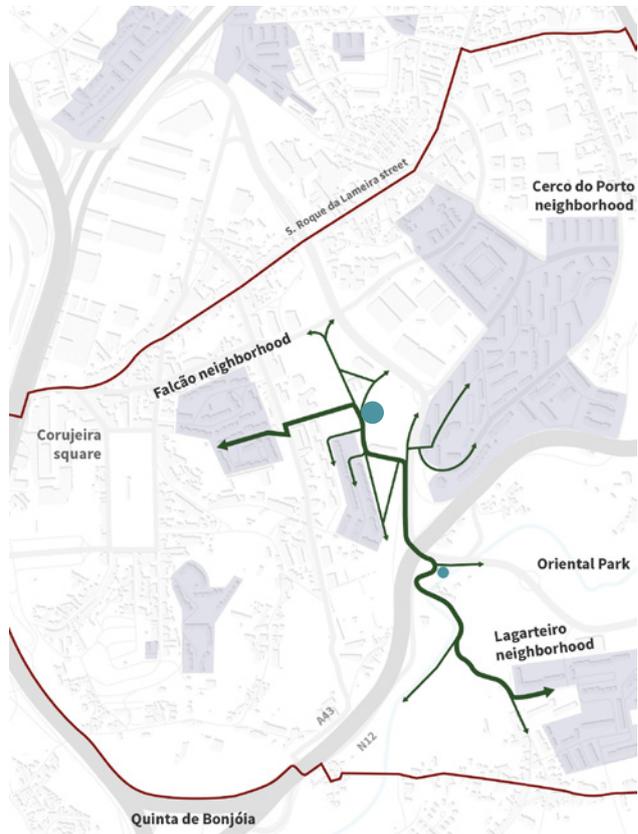
#### CHALLENGES

- Existing topography (not possible implement maximum regulated slope values in some parts of the paths);
- Articulation with the Mobility Municipal Strategy.

### Participation process to develop the NBS

#### CO-DIAGNOSTIC

The need for more accessible paths for all citizens and better conditions of pedestrian paths and new connections were identified by methods and during participatory activities.



#### CO-SELECTION & CO-DESIGN

The Intervention in accesses and pedestrian connections was proposed by several participants during the co-design activities and is being tested by the design team:

- Walkthrough with children from 4 primary schools (Dec. 2019/Jan.2020)
- Walkthrough with adults (14.12.2019)
- Citizens workshop with adults (15.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal is already integrated in the healthy corridor preliminary study, improving existing informal paths and creation of new ones.

### Best Practices and References

Rio Tinto pathway, designed by Sidónio Pardal



## 03. Meeting spot next to Falcão Primary School with sensory garden

### Positive aspects/challenges

#### POSITIVE

- Give a new purpose to a vacant lot, by including it in the urban system;
- Mitigate spatial fragmentation;
- Opportunity to improve the reception area of Falcão Primary School;
- Opportunity to Improve pedestrian access along the lot, used by residents/students of the school, residents and users of the Oliveira Urban Garden;
- Possibilible synergy with a sensory garden and with play areas for children.

#### CHALLENGES

- Constraints in terms of existing topography (4 meters topographic difference);
- The complexity of the proposal is limited by the overall project budget.

### Participation process to develop the NBS

#### CO-DIAGNOSTIC

The need for resting areas and areas for community' socialization and entertainment opportunities in the entrances of the schools, namely in Falcão Primary School, was identified in several workshops and methods during the local diagnostic.

#### CO-SELECTION & CO-DESIGN

The Meeting spot next to Falcão Primary School with sensory garden was proposed by children and teachers of that same school and developed with other participants in several activities:

- Walkthrough with children of 4 primary schools (Dec. 2019/Jan.2020)
- Walkthrough with adults (14.12.2019)
- Citizens workshop with adults (15.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal is already integrated in the healthy corridor preliminary study.

### Best Practices and References

N.A.



### Description

The proposal refers to a vacant lot next to the Falcão Primary School with the goal of transforming it into a space for socializing and reception for students/families. Falcão Street has no shade or conditions for the accumulation of so many people as seen during the morning (when school starts) and in the afternoon (when school ends). The space next to the school could help to improve better reception conditions, host a playground, physical exercise equipment and/or a sensory garden (with shared maintenance with school students). This intervention aims to improve the relationship between the school and the community and achieve social cohesion.

## 04. Nature-based amphitheatre

### Description

The proposal foresees the creation of an open-air amphitheatre to stimulate daily use for recreational, sports and cultural activities. This amphitheatre could be built through terrain modelling, taking advantage of existing topography, therefore creating a natural amphitheatre. It would contribute to social and cultural dynamization of the public space within the intervention area.

### Positive aspects/challenges

#### POSITIVE

- Integration in cultural programs in the intervention area;
- Role in public space activation with territorial impact (transformation);
- Possible synergy with other citizens ideas: Cultural platform (campanh'up) and Initiative "Culture is also health";
- The use is compatible with other planned studies and initiatives.

#### CHALLENGES

- Development of specific terrain modelling studies
- Ensuring that the structure does not promote fragmentation or compromise range vision;
- Need for regular cleaning and maintenance

### Participation process to develop the NBS

#### CO-DIAGNOSTIC

The need for community spaces for Socialization and entertainment opportunities were identified in the co-diagnostic activities and methods.

#### CO-SELECTION & CO-DESIGN

The Amphitheatre was proposed by a group of artists, namely Ricardinho Lopes and Marco, association OUPA and then developed in several participatory activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face interview with local facilitator (22.01.2020 and 13.02.2020)
- Citizen's video (26.06.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)
- Online workshop to co-design four NBS (07.11.2020)



**State of the art:** The proposal is already integrated in the healthy corridor preliminary study.

### Best Practices and References

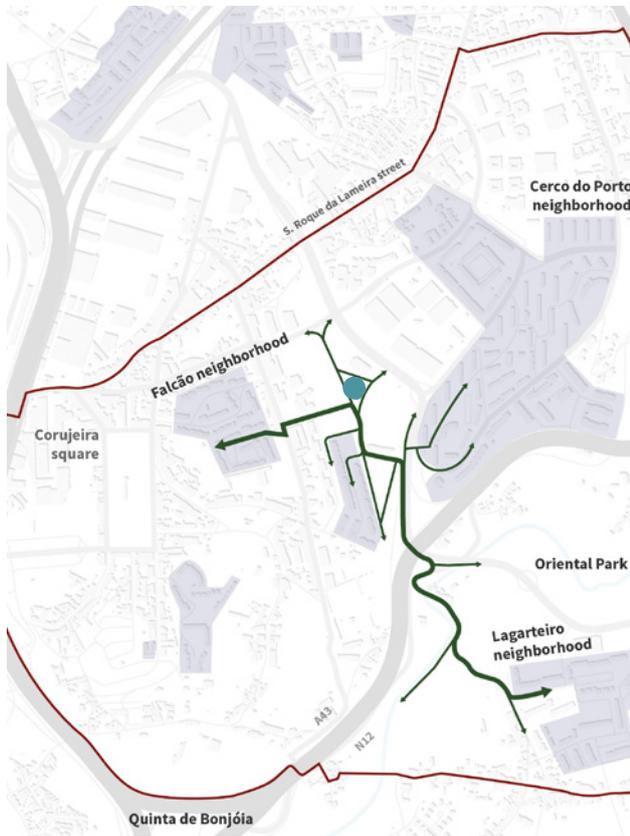
Porto nature-based Amphitheatres in the Oriental and Occidental Park, designed by Sidónio Pardal

Siena urban garden in San Miniato, with an amphitheater in the little forest for concerts.



## 05. Existing ruin recovery

- Enhance cultural heritage of Campanhã;
- Possible synergy with other citizens ideas as well as with existing projects: Artistic hangar; Nature-based amphitheatre, Educational Living Lab, Cultural Platform, Outdoor Space for Physical Exercise, Campmarket.



### CHALLENGES

- Building is not classified urbanistically or under classification;
- Ruin is in an advanced state of degradation, revealing potential danger of collapse; the building current conditions do not guarantee safety conditions for any type of occupation/use. Deep rehabilitation works are needed to ensure safety conditions for occupation and/or use;
- Current occupation for the consumption of narcotic drugs and possible practices of illegal activities;
- The reconstruction of the ruin cannot be supported by the URBiNAT, requiring external investment.

### Participation process to develop the NBS

#### CO-DIAGNOSTIC

The need to respect existing memory and to create community spaces for Socialization and entertainment opportunities was identified in the co-diagnostic activities and methods.

#### CO-SELECTION & CO-DESIGN

The intervention in the existing ruin was proposed by Carlos, association Visões Úteis, and then developed in several participatory activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face interview with local facilitator
- Citizen's video (26.06.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)
- Online workshop to co-design four NBS (07.11.2020)

**State of the art:** The proposal is already integrated in the healthy corridor preliminary study. Unfortunately, there are no conditions for the total reconstruction of the building, within the scope of URBiNAT, but the rehabilitation and integration of the ruin in a safe and respectful way is possible.

### Description

The proposal intends to intervene in the existing ruin of old Quinta do Falcão house, to preserve the memory of Campanhã's farms, and rural past. The intervention also aims to solve its current conditions that are a source of insecurity for pedestrians crossing nearby. The space, once recovered, could hold artistic and cultural temporary events.

### Positive aspects/challenges

#### POSITIVE

- Opportunity to solve a problem that influences local dynamics, and compromises the security of citizens;
- Recover/respect rural matrix of the former "Quinta do Falcão", an historic building recognized by the agricultural background of the area;
- Take advantage of this space to receive new activities/events;

## 06. Pedestrian connection to the Oriental Park

### Description

This proposal aims at the reformulation of the access stairs to the Oriental Park. Currently this connection is not accessible to all citizens and the existing slope compromises pedestrian safety and intervisibility between spaces. The surrounding green space also requires more frequent management.

### Positive aspects/challenges

#### POSITIVE

- Enable access for all (including for users with reduced mobility);
- Better integration of Rio Tinto walkway in the urban environment (connection to neighbourhoods and housing).

#### CHALLENGES

- Involvement of other entities for specific approval (IP – *Infraestruturas de Portugal*).

### Participation process to develop the NBS

#### CO-DIAGNOSTIC

The need for more accessible paths for all citizens and better conditions of pedestrian paths and new connections were identified during several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

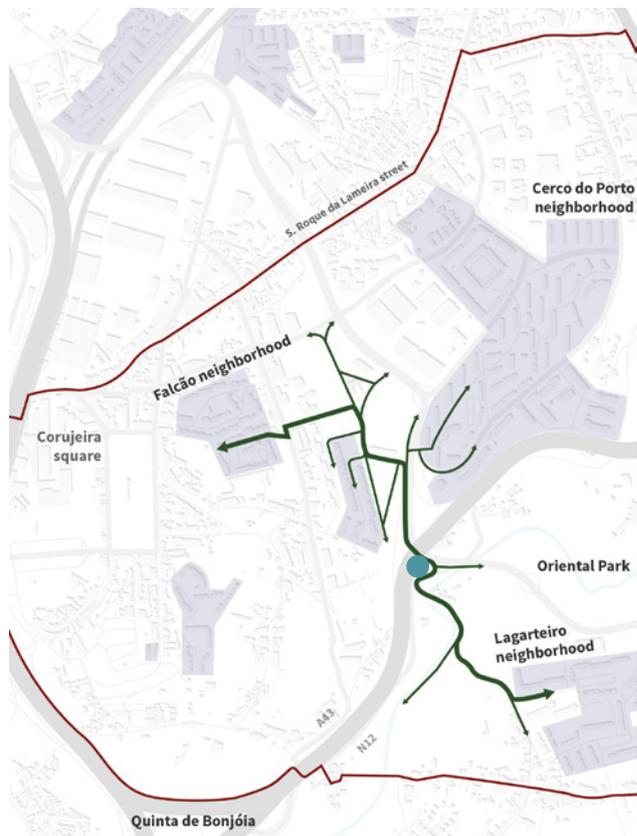
The Pedestrian connection to the Oriental Park was proposed by several participants during the co-design activities:

- Walkthrough with adults (14.12.2019)
- Citizens workshop with adults (15.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal is already integrated in the healthy corridor preliminary study.

### Best Practices and References

N. A





## 07. Oliveira urban garden expansion

The entity confirms the need for expansion due to the existence of citizens waiting to obtain agricultural plots.

### CHALLENGES

- Expansion is limited by available area (19 plots). Not possible to expand over existing limits given the fact that Campanhã is not one of the parishes with more requests within the scope of *Horta à Porta* project, therefore, it is not a priority area for the expansion of municipal urban gardens;

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need for Community spaces and Qualified green areas for urban agriculture and gardening, namely with the expansion of Oliveira urban garden was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

The Oliveira urban garden expansion was proposed by several participants, namely by the users Alberto Rocha, Adelaide Pina, and Associação Nun' Álvares during co-design activities:

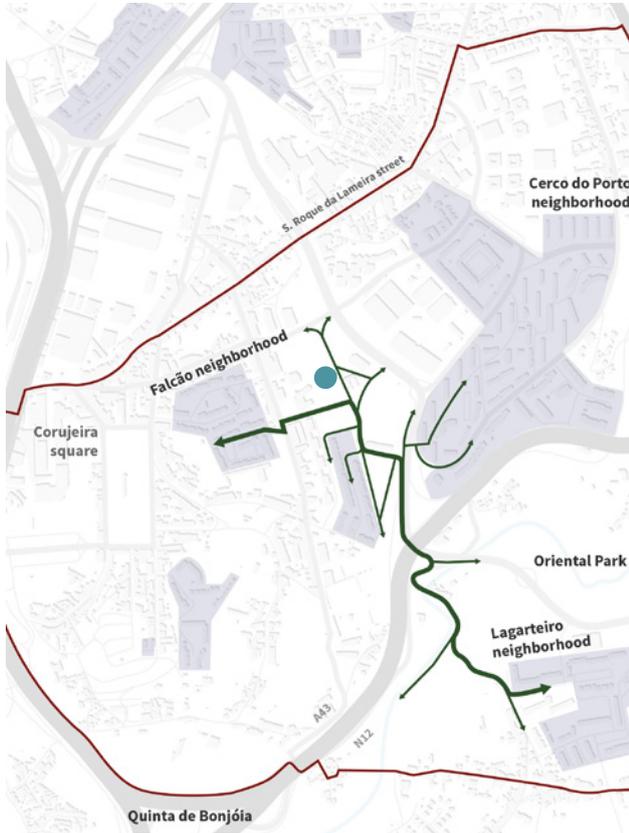
- Walkthrough with adults (14.12.2019)
- Citizens workshop with adults (15.01.2020)
- Face-to-face interview with local facilitator (17.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal is already being implemented by Porto municipality

### Best Practices and References

Siena urban garden in San Miniato

Several experiences promoted by LIPOR (intermunicipal waste management service of Grande Porto), with the municipalities of Grande Porto.



### Description

This proposal presupposes the expansion of the cultivation area to accommodate more plots, also admitting the improvement of the existing conditions, namely in terms of bathrooms, changing rooms and urban furniture (benches and tables).

### Positive aspects/challenges

#### POSITIVE

- Interest of the resident population in the involvement in urban agriculture activities (List of about 20 candidates waiting for the occupation of the plots);
- Possibility of increasing the existing garden up to 19 plots (25m<sup>2</sup>);
- Possible synergy with other citizens' ideas as well as with existing projects: Campmarket and *Horta à Porta* project – The proposal is framed with the strategy and in agreement with the managing entity of the garden.

## 08. Public multipurpose outdoor space with shared maintenance (Cercos do Porto)



### Description

The proposal aims to requalify the rear space of buildings no. 33 and 34 from Cercos do Porto social housing neighbourhood so that the associations based on the ground floor of those municipal buildings may carry out activities and common events, while increasing protection from the adjacent highway infrastructure. This proposal is primarily intended to use the space (currently without function or use) in an intergenerational, inclusive, and accessible way, once identified the need for staying areas and outdoor space to unroll multipurpose activities promoted by the associations and/or citizens. Proponents revealed interest in a shared maintenance and management of the space, as well as in a covered area and/or temporary physical structure.

### Positive aspects/challenges

#### POSITIVE

- Give function to a space currently unused, therefore contributing to increase the public security of the neighbourhood;
- Promote contact/relationship/shared responsibilities between associations;
- Bordering area of the municipal social housing neighbourhood under requalification (buildings refurbishment in construction stage and public space requalification in design stage);
- Possible synergy with other citizens ideas as well as with existing projects: local fairs, play areas for children, urban farming.

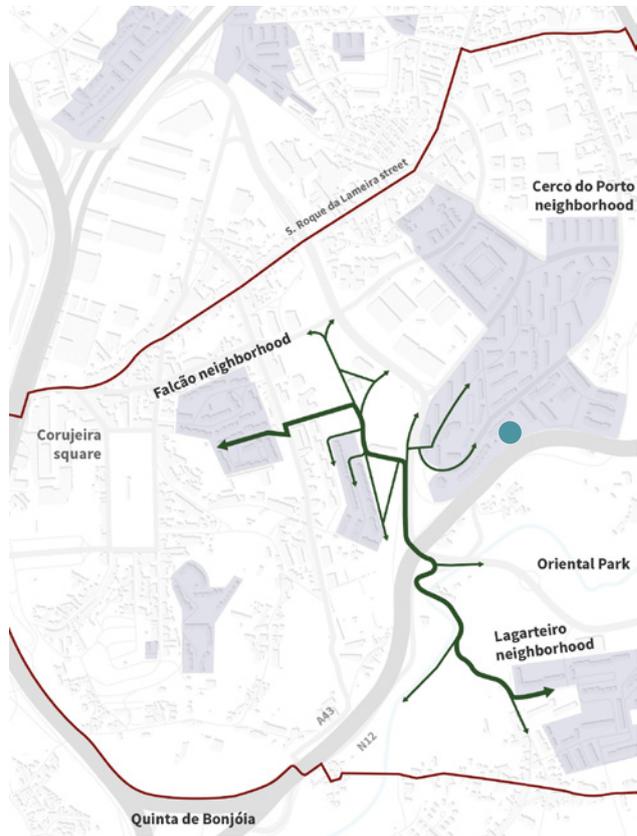
#### CHALLENGES

- Outside the defined intervention area;
- Isolation of the terrain, not exploiting the potential of a healthy corridor.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need for community spaces improvement with opportunities for socialization and entertainment, as play areas for children, was identified in the local diagnostic with several methods and participatory activities.



#### CO-SELECTION & CO-DESIGN

The public multipurpose outdoor space with shared maintenance (Cercos do Porto) was proposed by three association Asas de Ramalde, Todos, OUPA, APD, in co-design activities:

- Face-to-face meeting with local facilitator (25.01.2020)
- Citizen's video (26.06.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal has already been channelled to DomusSocial, EM to be eventually considered in the Cercos do Porto public space requalification project (design stage).

### Best Practices and References

N.A.



## 09. Cerco do Porto Primary School surroundings improvement



### Description

The proposal aims to redesign the surroundings and adjacent areas of Cerco do Porto Primary School. The idea previews, as impact, to increase street dynamic and sense of safeness while upgrading the urban design of the school surroundings.

### Positive aspects/challenges

#### POSITIVE

- Involvement of students and teachers in promoting the spaces surrounding the school;
- Cerco do Porto public space requalification project is under development (design stage);
- Possible synergy with other citizens' ideas: Outdoor spaces for physical activity.

#### CHALLENGES

- Outside the defined intervention area.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need for community spaces improvement and qualified green areas was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

The improvement of Cerco do Porto Primary School surroundings was proposed by pupils and teachers and developed with other participants in several activities:

- Walkthrough with children of 4 primary schools (Dec. 2019/Jan.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal has already been channelled to DomusSocial, EM to be eventually considered and integrated in the Cerco do Porto public space requalification project (design stage)

### Best Practices and References

N.A.

## 10. Ring area recovery (Cerco do Porto)

### Description

This proposal aims to reformulate the Ring (Cerco do Porto), for recreational purposes, the facility eventually supporting the dynamization of activities in the Healthy Corridor. It was also proposed the inclusion of urban furniture, such as benches, closer to the field.

### Positive aspects/challenges

#### POSITIVE

- Integrates the intervention area of Cerco do Porto public space requalification project (design stage);
- It may contribute to boost programming activities articulated with the Healthy Corridor.

#### CHALLENGES

- Outside the defined intervention area.

### Describe participation process to use the NBS

#### CO-DIAGNOSTIC

The need for adequate cleanliness and maintenance of the public spaces and play areas was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

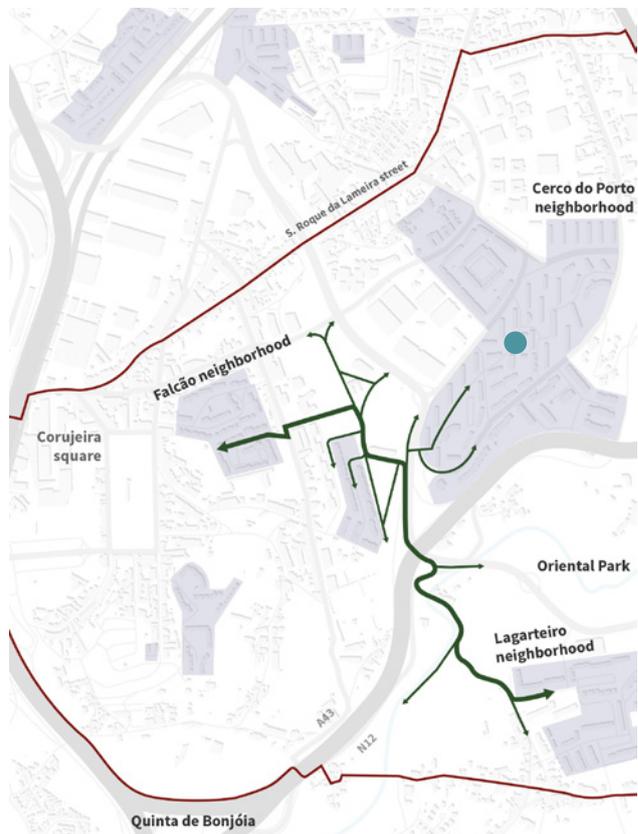
The Ring area recovery (Cerco do Porto) was proposed by pupils and teachers and developed with other participants in co-design several activities:

- Workshop and Walkthrough with children of Cerco do Porto primary school (13.12. 2019)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal has already been channelled to DomusSocial, EM to be eventually considered and integrated in the Cerco do Porto public space requalification project (design stage)

### Best Practices and References

N.A





# 11. Lagarteiro Primary School surroundings safety improvement

## Positive aspects/challenges

### POSITIVE

- Possible synergy with other citizens' ideas and existing programs: renovation of the Lagarteiro path and the Lagarteiro Street section;
- Provide better security conditions for the school community.

### CHALLENGES

- Outside the defined intervention area;
- Requires a holistic intervention from a social perspective.

## Participation process to use the NBS

### CO-DIAGNOSTIC

The need for community spaces improvement and qualified green areas was identified in the local diagnostic with several methods and participatory activities.

### CO-SELECTION & CO-DESIGN

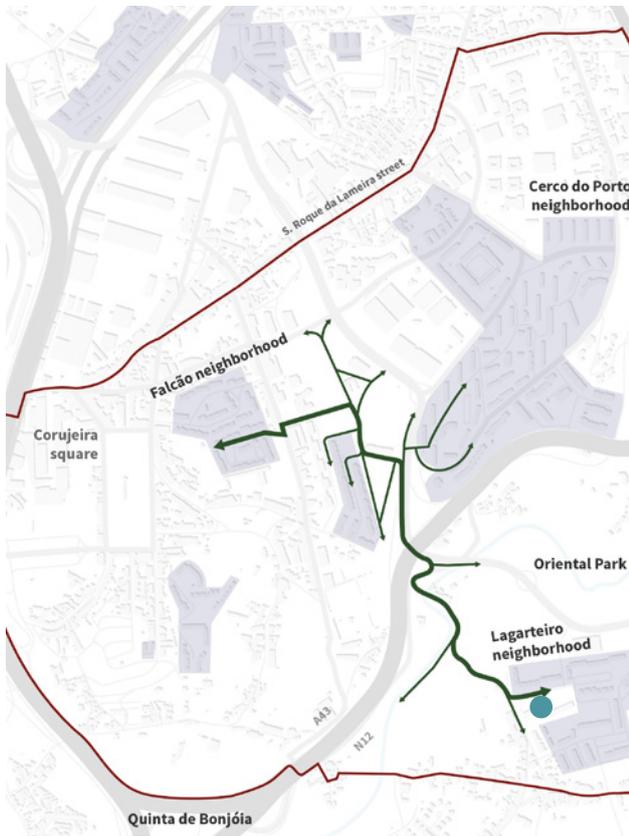
The improvement of Lagarteiro Primary School surroundings safety was proposed by a group of citizens, namely André Sousa, association Norte Vida and then developed in several participatory activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face meeting with local facilitator (21.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal was channelled to another municipality project.

## Best Practices and References

N.A.



## Description

This proposal refers to the surroundings of Lagarteiro Primary School, which lack in terms of dynamism and security. The school has serious social problems, enhanced by its surroundings and morphology. The intervention could “open the school” to the community in order to convey a sense of collective involvement. The objective is to /use the space for socialization between school and the surrounding community, making the area more dynamic and creating more security and circulation conditions. In short, this intervention aims to improve the relationship between the school and the community (reducing school dropout and achieving social cohesion).

## 12. Renovation of the Viewpoint next to the Cemetery



### Description

The proposal aims to renovate the viewpoint taking into consideration the location of the secondary entrance to the cemetery that is widely used by citizens and has interesting views over the Oriental Park and Campanhã rural landscape.

### Positive aspects/challenges

#### POSITIVE

- Possible synergy with other citizens' ideas: outdoor space for leisure and sports;
- Promotion of better conditions of permanence, crossing and safety.

#### CHALLENGES

- Need for regular cleaning and maintenance;
- Outside the defined intervention area.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need for better conditions of pedestrian paths, community spaces and qualified green areas was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

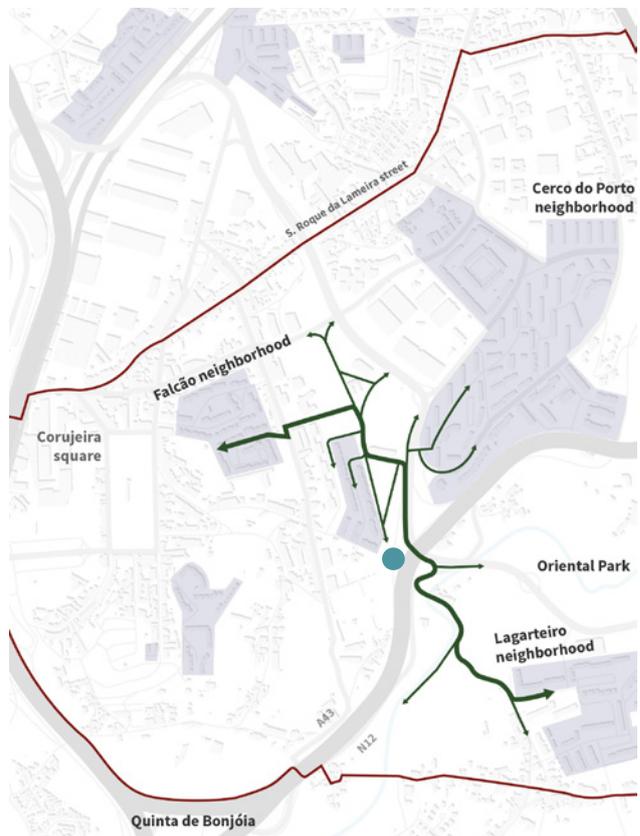
The Renovation of the Viewpoint next to the Cemetery surroundings safety was proposed by a group of citizens in several co-design activities:

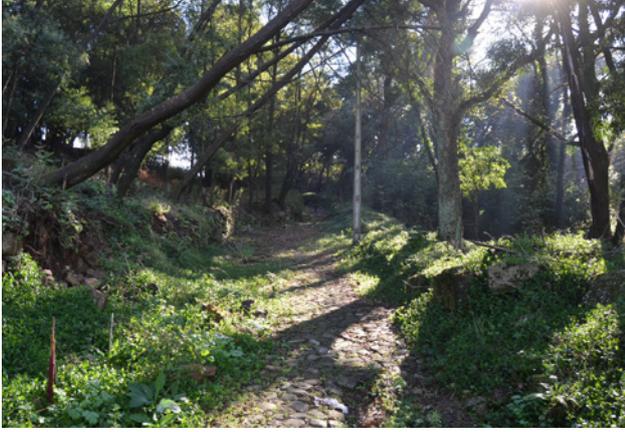
- Citizen workshop with adults (15.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal was channelled to other municipality departments

### Best Practices and References

N.A.





## 13. Lagarteiro neighbourhood path requalification

### CHALLENGE

- The complexity of the proposal is limited by the overall project budget;
- Requires an holistic intervention from a social perspective;
- The path is surrounded by private lands that also need cooperate in terms of vegetation control/maintenance, to ensure the success of the intervention

### Participation process to develop the NBS

#### CO-DIAGNOSTIC

The need for better conditions of pedestrian paths and the respect of existing memory was identified during the local diagnostic activities and methods.

#### CO-SELECTION & CO-DESIGN

The requalification of the Lagarteiro path was proposed by a group of citizens, namely Laurinda and Paulo Lima from Lagartixa Park association, and then developed in several participatory activities:

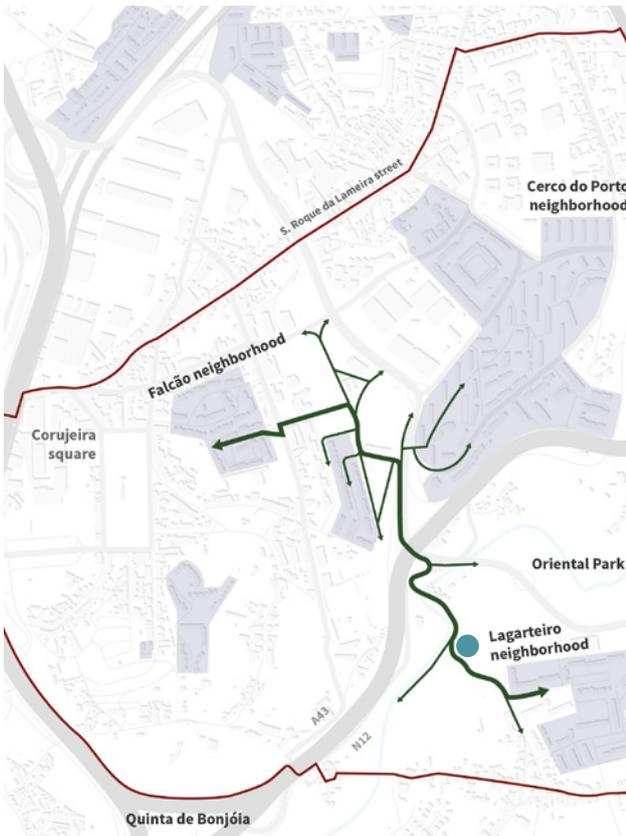
- Citizen workshop with adults (15.01.2020)
- Face-to- face interview with local facilitator
- Citizen's video (26.06.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal was channelled to other municipality projects due to its complexity. Meanwhile, Lagarteiro path and surrounding areas were included in the cleaning and maintenance agenda of the municipal teams and the impact on local safety and connections was already felt in the community.

### Best Practices and References

*Salemi Recupero strade e aree adiacenti a Piazza Alicia – link*

*Rua Direita in Porto, municipal programme*



### Description

The proposal foresees to improve the accessibility to Lagarteiro neighbourhood and its connection with the Oriental Park through the requalification of the old path, deeply connected with the ancient rural landscape of Campanhã. The intervention would be a contribution to an effective improvement in terms of public security and sense of safety, currently compromised by the path conditions and lack of visibility.

### Positive aspects/challenges

#### POSITIVE

- Opportunity to regenerate historic pathways as nature-based solution, preserving existing vegetation with ecological value, traditional walls and pavements

# 14. Lagarteiro street section requalification

## Description

This proposal aims to requalify a section of Lagarteiro street. It was identified the need to improve mobility and connection between *Parque Oriental* and Lagarteiro Neighbourhood.

## Positive aspects/challenges

### POSITIVE

- Dynamize Lagarteiro Street;
- Possible synergy with other citizens' ideas: Lagarteiro path requalification.

### CHALLENGES

- Outside the defined intervention area;
- Requires a concerted approach with Social Action Entities in order to carry out an intervention capable of solving the identified challenges, in a systematic and effective approach (with a sustainable resolution over time), it would be necessary to make a much higher investment than the available in URBINAT Project.

## Participation process to use the NBS

### CO-DIAGNOSTIC

The need for better conditions of pedestrian paths and the respect of existing memory was identified during the local diagnostic activities and methods.

### CO-SELECTION & CO-DESIGN

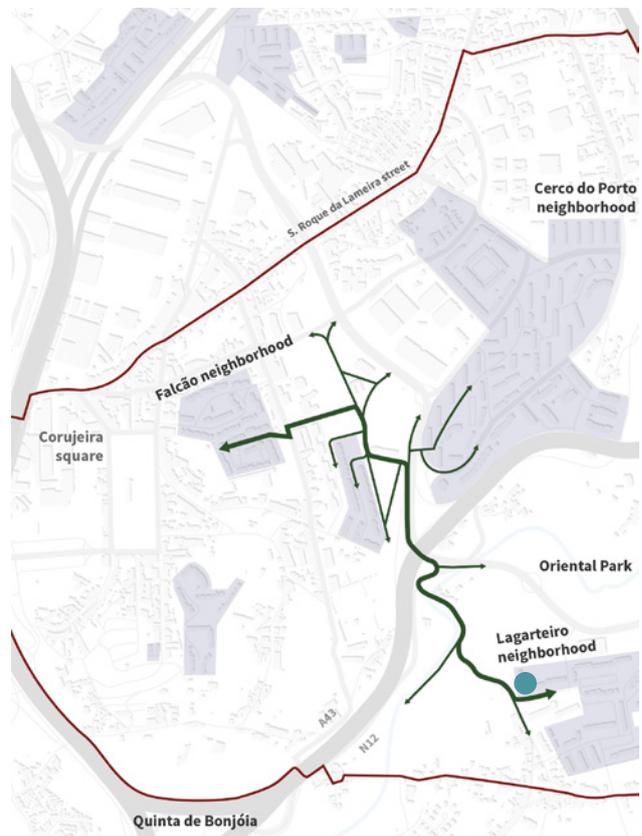
The renovation of a section of the Lagarteiro street was proposed by a group of citizens, namely by André Sousa, association Norte Vida, and then developed in several participatory activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face interview with local facilitator
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal has already been channelled to specific municipal departments.

## Best Practices and References

N.A.





## 15. Access to Pego Negro and Oriental City Park improvement

### Positive aspects/challenges

#### POSITIVE

- Formalize and qualify daily routes used by pedestrians that currently do not meet the conditions of safety or comfort;
- Ensure lighting and maintenance of the path and surrounding areas.

#### CHALLENGES

- Outside the defined intervention area;
- Some of the land/terrain used for the path is private.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need for more accessible paths for all citizens and better conditions of pedestrian paths and new connections were identified during several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

The Access to Pego Negro and Oriental City Park improvement was proposed by pupils and teachers, and developed with other participants in co-design several activities:

- Workshop and Walkthrough with children of Cerco do Porto primary school (03 and 13.12. 2019)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal has already been channelled to specific municipal departments.

### Best Practices and References

N.A.



### Description

The proposal aims to requalify pedestrian paths that connect Cerco do Porto to Pego Negro and Oriental Park. Due to existing topographic and built infrastructures (large roads), the pedestrian connections are compromised and dangerous. The idea previews, as impact, to increase the existent street dynamic and the sense of safeness.

# 16. Playground in Corujeira Square (Praça da Corujeira)

## Description

The proposal aims for the inclusion of a playground in Corujeira Square. However, the need for more playing areas is transversal to other public spaces in Campanhã.

## Positive aspects/challenges

### POSITIVE

- This idea is already being developed by the municipality as the ongoing project for the requalification of *Praça da Corujeira* (ongoing) does include, in its programme, children's equipment.

### CHALLENGES

- Outside the defined intervention area;
- Attending the level of development of the municipal initiative, it will be difficult to integrate the contributions from the school community.

## Participation process to use the NBS

### CO-DIAGNOSTIC

The need for green areas and their connection for leisure and sports activities and play areas for children were identified during several methods and participatory activities.

### CO-SELECTION & CO-DESIGN

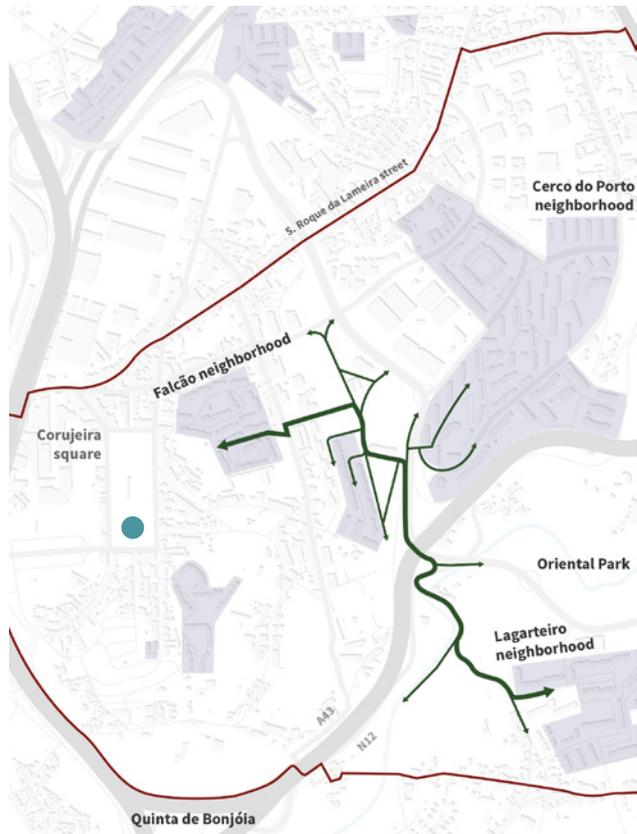
The Access to Pego Negro and Oriental City Park improvement was proposed by pupils and teachers and developed with other participants in co-design several activities:

- Workshop and Walkthrough with children of Cerco do Porto primary school (13.12. 2019)
- Walkthrough with adults (14.12.2019)
- Citizens workshop with adults (15.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal has already been channelled to specific municipal departments.

## Best Practices and References

N.A.





## 17. Lagarteiro sports hall access improvement (informal paths)

### Positive aspects/challenges

#### POSITIVE

- Possibility to promote and improve shorter routes between the municipal pavillion and the Lagarteiro neighbourhood;
- Formalize and qualify useful paths daily used as shortcuts through the area.

#### CHALLENGES

- Outside the defined intervention area;
- The referred paths used as shortcuts through the area do cross private property.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need for better conditions of pedestrian paths and qualified green areas was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

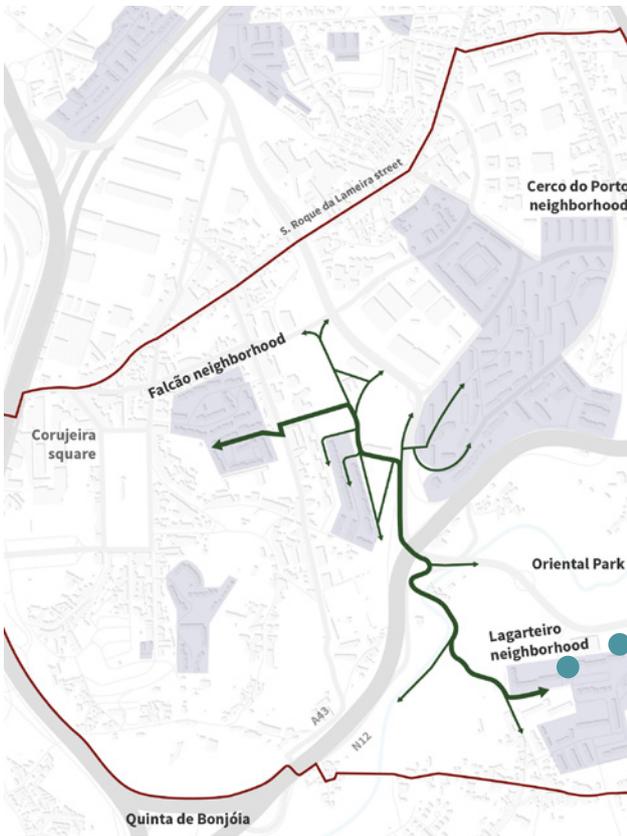
The improvement of Lagarteiro sports hall access (informal paths) was proposed by a group of citizens, namely by André Sousa, association Norte Vida, and then developed in several participatory activities:

- Face-to- face meeting with local facilitator (21.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal will be channelled to other municipal projects.

### Best Practices and References

N.A.



### Description

The proposal is associated with easing the access to the main entrance of the Lagarteiro sports hall, as citizens coming from the Lagarteiro neighbourhood use an informal, uncomfortable and dangerous path as an alternative shortcut. The reform of the path would then improve the connection/access system between the pavilion and the neighbourhood.

## 18. Lagarteiro sports hall access improvement (entrance door)



### Description

The proposal is associated with the difficulties of accessing the Lagarteiro sports hall. This difficulty of access comes from the fact that the main entrance of the pavilion is located next to a lane (Alameda de Cartes), making the youth and children living in Lagarteiro housing go around the pavilion to enter it. In this sense, a new entrance in the back or lateral side of the pavilion would facilitate the citizens/users coming from the Lagarteiro neighbourhood.

### Positive aspects/challenges

#### POSITIVE

- The new entrance would promote and improve shorter routes to the citizens living in Lagarteiro municipal social housing.

#### CHALLENGES

- Outside the defined intervention area;
- The new entrance would imply the interior space reorganisation and the reformulation of the security and control system of the building.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need for better conditions of pedestrian paths, community spaces and qualified green areas was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

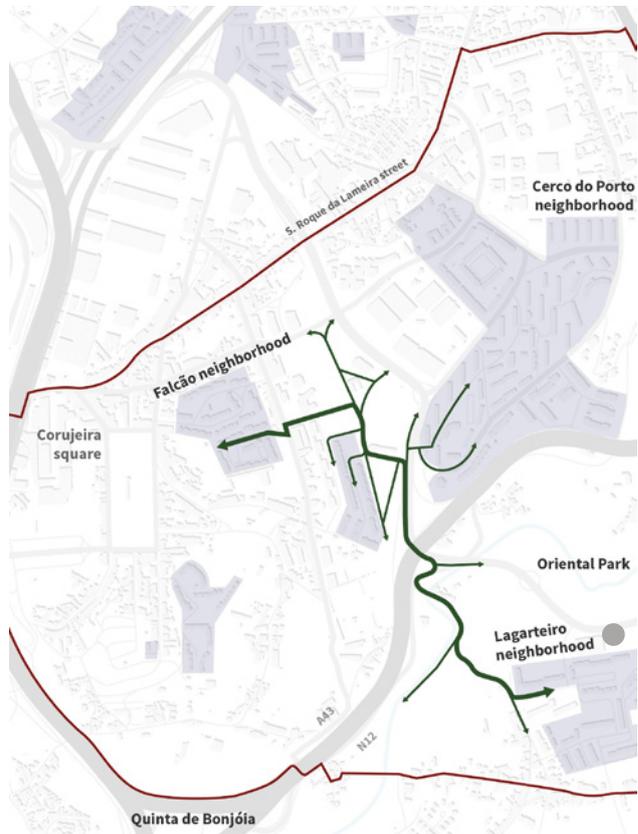
The improvement of Lagarteiro sports hall access (informal paths) was proposed by a group of citizens, namely by André Sousa, association Norte Vida, and then developed in several participatory activities:

- Face-to-face meeting with local facilitator (21.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal will not be developed i

### Best Practices and References

N.A.





## 19. Campmarket

### Description

The proposed idea aims to organize and establish the *campmarket*, a solidarity market with local producers and craftsmen, thus also helping to reduce unemployment and to support cultural activities, and promoting a circular economy.

The market could be organised in two spaces: one more related with fresh products (vegetables, fruits) and other with material (books, crafts, clothes). These spaces could be complemented with a market for children. The market can also organise cultural activities during the day.

### Positive aspects/challenges

#### POSITIVE ASPECTS

- Promote and contribute to local economies;
- Local citizens involvement;
- The market can be organized and established by local associations, in particular by APPC (*Associação do Porto de Paralisia Cerebral*) and *Fios de Desafios*, through REDES project;
- The market shall be integrated on already existing activities, so it demands an effort to verify already existing markets and fairs and local authorities licensing;
- The synergies with cultural associations will promote the sense of community.

#### CHALLENGES

- Organise a complex event on a regular basis.

### Participation process to use the NBS

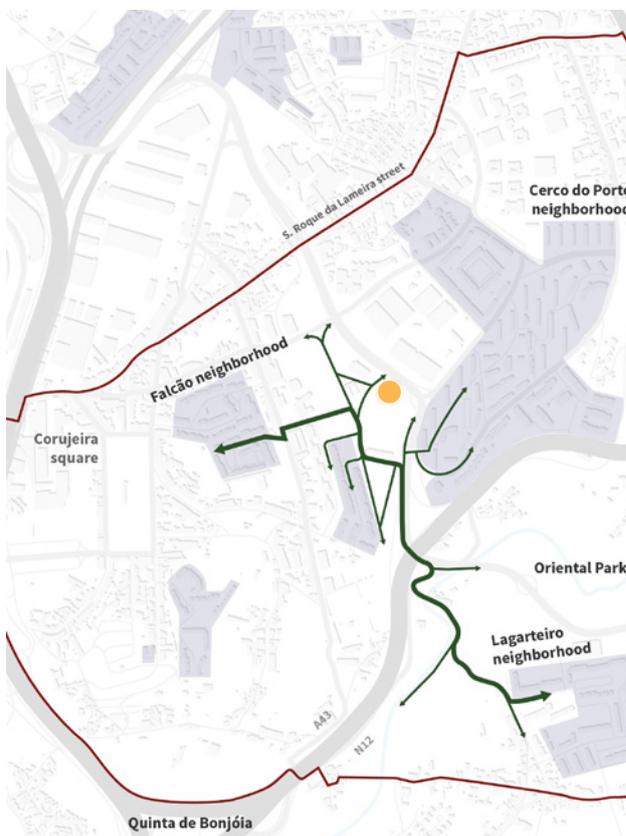
#### CO-DIAGNOSTIC

The need to improve the local economy and to create community and cultural opportunities was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

The initiative Campmarket was proposed by a group of citizens, namely by Isabel Rute Costa from association APPC, and then developed in several co-design activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face meeting with local facilitator (26.01.2020)
- Citizen's video (26.06.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)
- Online co-design workshop (7.11.2020)



**State of the art:** The proposal will be developed, namely in the public event “Experimento”.

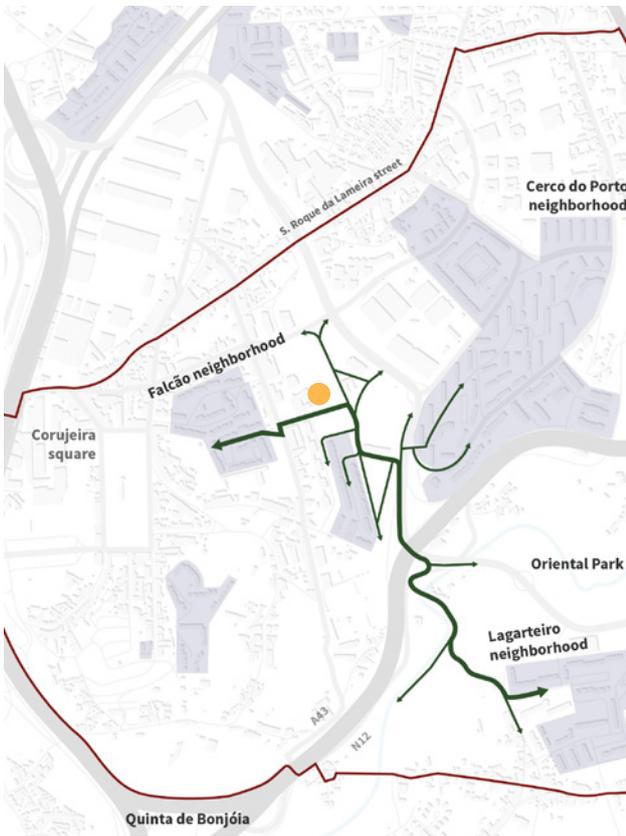
### Best Practices and References

Local fairs: *Feira da Vandoma* and *Feira de Produtos Biológicos do Parque da Cidade*.



## 20. Community mobile kitchen

municipal projects may enhance this initiative and eventually aggregate with others; integration in the Campanh'up platform (involvement of the cultural platform on this activity and other similar ones).



### Description

Proposal of a community kitchen that can be mobile or installed on a specific location, aiming to be an opportunity to share traditional recipes and to promote healthy food with the products from the urban garden. 'Community lunch' can be organised on a regular basis to promote the sense of belonging. There is the possibility of articulating with other programmatic and territorial proposals, therefore contributing to dynamizing the space and the community.

### Positive aspects/challenges

#### POSITIVE

- Potential use of products produced in the urban garden;
- Potential partnerships with public-private entities and social solidarity institutions for the provision of mobile kitchens;
- Possible synergy with other citizens ideas as well as with existing projects: articulation with

#### CHALLENGES

- Logistical needs: equipment, sanitary infrastructure and water supply;
- Need for licensing / authorization for implementation;
- The municipal experience alerts for the risk of vandalism;
- Articulation between the entities involved (URBiNAT partners, local partners and promoters of the initiative) for further development of a temporary demountable community kitchen (operationalization plan, management model, organization, partnerships, needs), so it can be tested firstly, to be eventually evolved to a regular initiative (periodic).

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need to improve local economy, to encourage healthy and traditional food/products and to create community and cultural opportunities was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

The Initiative Community mobile kitchen was proposed by a group of citizens, namely by Adelaide Pina (municipal tenant, Falcão housing) and Nuno Moutinho (Association *Terra Solta*), and then developed in several co-design activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face meeting with local facilitator (21.02.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal can be developed, namely in the public event "Experimento".

### Best Practices and References

The Association *Terra Solta* organizes a weekly community lunch in the urban garden.

## 21. Community-based management of urban garden

### Description

The proposal intends to implement a community-based management of urban gardens.

The development of this proposal evolves from the idea related to the expansion of the Oliveira Urban Garden's NBS.

### Positive aspects/challenges

#### POSITIVE

- Opportunity to create a pilot case to test a circular economy model for social purposes and interests;
- Sharing knowledge of agricultural practices and resources among users who currently explore the Urban Garden;
- Possible synergy with other citizens' ideas: Community kitchen;
- Learn from LIPOR experience with other municipalities.

#### CHALLENGES

- The community management needs to be adapted to the local management practices;
- Lack of definition of the concept of "community";
- Identify the association/citizens available to develop this proposal
- The municipal experience alerts that urban gardens up to 20/30 plots, and with reduced common space, are easier to manage.

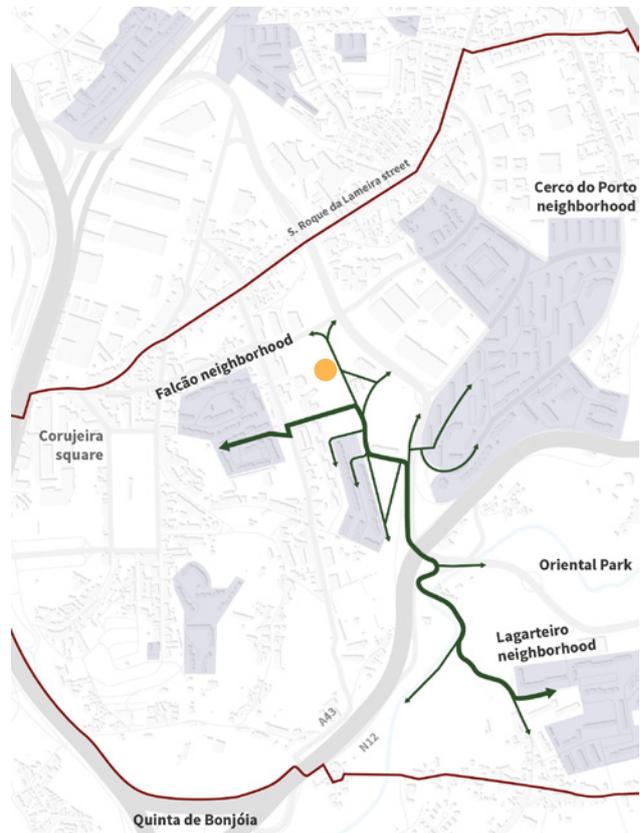
### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need to improve the local economy, to encourage healthy and traditional food/products and to create community and cultural opportunities was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

The Initiative Community-based management of urban garden was proposed by a group of citizens, namely by Nuno Moutinho (*Associação Soalheira*) and Vítor Parati (*Associação Terra Solta*), Alberto Rocha and Adelaide Pina, and then developed in several co-design activities:



- Citizen workshop with adults (15.01.2020)
- Face-to-face meeting with local facilitator (26.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal can be developed, namely in the public event "Experimento".

### Best Practices and References

LIPOR (intermunicipal waste management service of *Grande Porto*) – Urban Gardens Project  
Sienna Urban gardens



## 22. Support structure to Oriental City Park

### Positive aspects/challenges

#### POSITIVE

- Enhance public-private partnership (Lagartixa Park association owns a lot near Rio Tinto Walkway);
- Proximity to *Bairro do Lagarteiro* (isolated from the surroundings);
- Possible synergy with other citizens' ideas: Community garden management model; eco-construction and urban agriculture activities;
- Could be Included in the Municipal Fund to support popular associations in the Municipality of Porto.

#### CHALLENGES

- Outside the defined intervention area;
- Private property (conditioning direct investment within the scope of the project).

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need to improve the local economy, to encourage healthy and traditional food/products and to create community and cultural opportunities was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

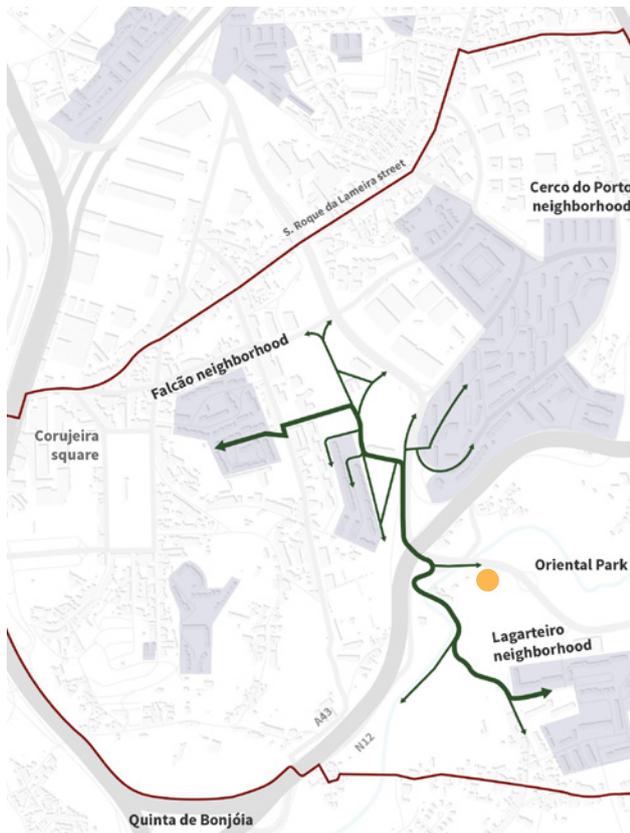
The Support structure to Oriental City Park was proposed by a group of citizens, namely by Laurinda and Paulo Lima, from Lagartixa Park association, and then developed in several co-design activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face meeting with local facilitator (26.01.2020)
- Citizen's video (26.06.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal can be developed, namely in the public event "Experimento".

### Best Practices and References

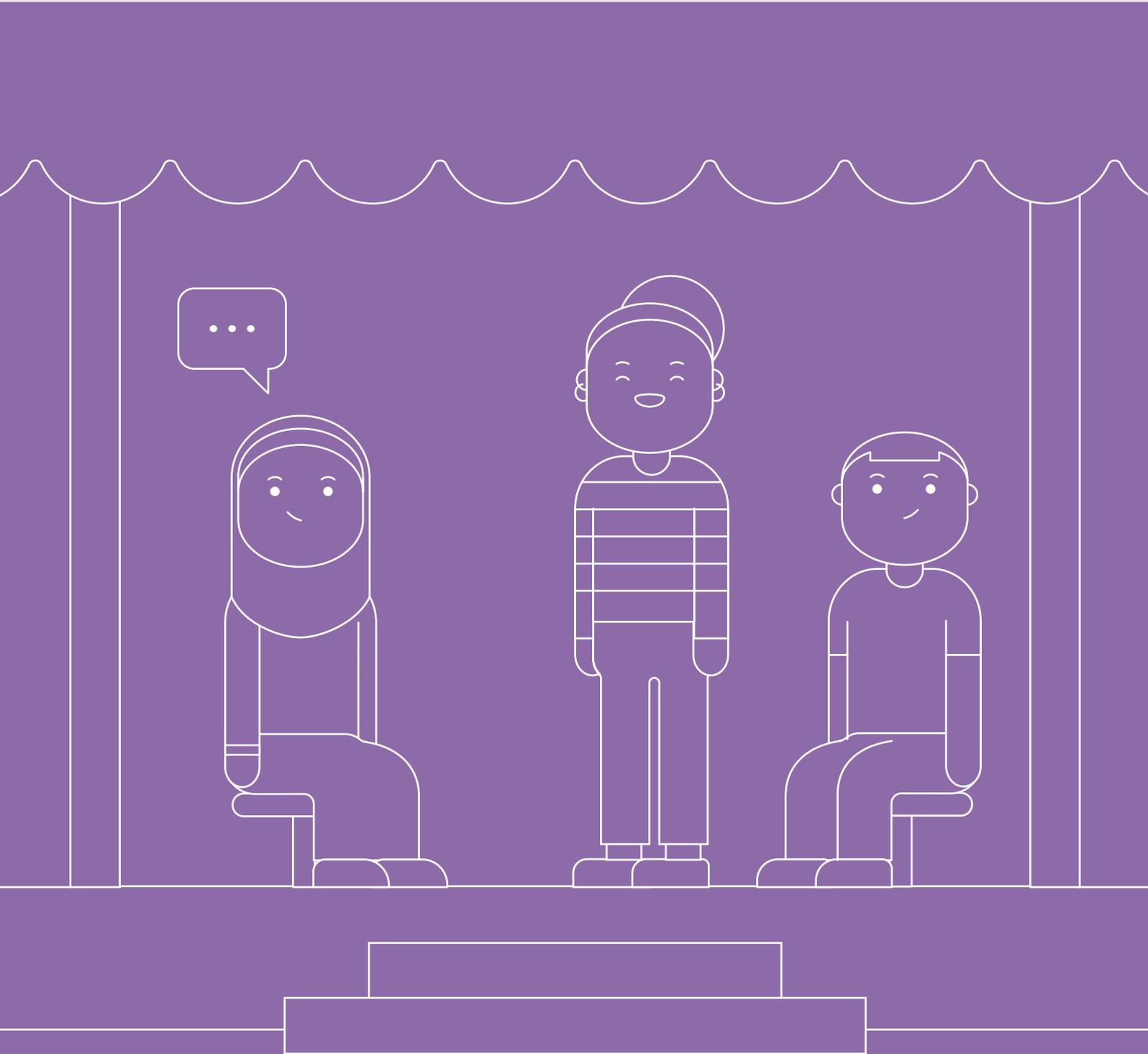
N.A.



### Description

The proposal foresees the creation of a support structure for the Oriental Park, where it could be possible to include different activities: Bread ovens, urban gardens; rest areas near the Oriental Park, among others. This proposal, in addition to enhancing the *Rua do Lagarteiro* (Lagarteiro pathway) and the *Passadiço de Rio Tinto* (Rio Tinto Walkway), also has the potential to host and connect with other initiatives and activities by local associations and such as: *Associação Soalheira* and *Visões Úteis*.

# Culture and Sports





## 23. Outdoor Programme for sports and leisure activities

with: *Dias com Energia* (“Days with energy”) (Ágora/CMP) that promote Tai Chi, Yoga, Pilates classes in various parks in the city; *Domingos em Forma* (“Sundays in form”), one of the AIIA program (DMCS/CMP); and, more recently, the programme *Desporto no bairro* (“Sport in the neighbourhood”).



### CHALLENGES

Engage local community in outdoor sports and leisure activities, as users and also as organisers.

### Participation process to develop the NBS

#### CO-DIAGNOSTIC

The need for the improvement of community spaces, play areas for children and green areas and its connection to leisure and sports activities was identified through several methods and activities developed during the local diagnostic.

#### CO-SELECTION & CO-DESIGN

The proposal of “outdoor programme for physical exercise” was proposed by Alberto, a yoga teacher resident in the study area and co-designed during several participatory activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face interview with local facilitator (15.01.2020)
- Citizen's video (26.06.2020)
- Workshop with citizens and municipal technicians (14.07.2020)
- Online workshop to co-design four NBS (07.11.2020)

### Description

Proposal to create a programme that favours the development of physical and recreational activities, such as board yoga, meditation, traditional games. These activities will use the green space that will be developed under NBS 1. Outdoor Programme for sports and leisure activities

### Positive aspects/challenges

#### POSITIVE

- Promotion of sports and leisure activities and a more physically active population in the study area;
- Contribution to increase the appropriation of the public space;
- Consistent with ongoing local programs or initiatives organized by the Municipality of Porto, namely the municipal company *Agora – Cultura e Desporto do Porto, EM*, with the possibility to create synergies namely

**State of the art:** The proposal is being developed in articulation with Ágora – Cultura e Desporto do Porto, E.M. and several associations, namely OUPA and APPC, in synergy with the REDES project.

### Best Practices and References

N. A.



notícias



projetos



entrevistas

## 24. Cultural platform – Campanh'UP

### Description

The proposal aims to create a cultural platform that allows the dissemination, creation of information, training and entertainment through various initiatives and mechanisms (e.g., website, workshops, radio station). The objective will be to streamline the process of creating a platform for disseminating information co-dynamized with the community, with content that is of collective interest, through diversified channels and actions: joint dynamization actions; experiments with different activities; workshops/training; content production; website development, social networks; other diversified products and channels of communication and interaction.

### Positive aspects/challenges

#### POSITIVE

- Platform useful for the development of participation activities within URBiNAT project and other projects, promoting greater involvement of the citizens of Campanhã;
- Ongoing development to support URBiNAT activities;
- High potential for synergy with all immaterial proposals (that consequently have in their essence cultural, artistic, recreational and sports activities);
- Synergies with other municipal projects. Possibility to contribute to a cultural agenda for Campanhã.

#### CHALLENGES

- Need for external support to ensure its sustainability after URBiNAT;
- Subject to the budget for participation activities.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need to improve community spaces to create cultural opportunities and participatory activities was identified in the local diagnostic with several methods and participatory activities.



#### CO-SELECTION & CO-DESIGN

The Campanh'UP cultural platform was proposed by a group of citizens, namely by Ricardinho Lopes, association OUPA, and then developed in several co-design activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face meeting with local facilitator (22/01/2020)
- Citizen's video (26.06.2020)
- Workshop and walkthrough with citizens and municipal technicians (14/07/2020)

**State of the art:** The proposal is being developed in articulation with Ágora – Cultura e Desporto do Porto, E.M. and several associations, namely OUPA and APPC, in synergy with the REDES project.

### Best Practices and References

*Cultura em Expansão* programme, Municipality of Porto



## 25. Artistic projects – “O Lugar do Olhar”

### Positive aspects/challenges

#### POSITIVE

- Programmatic proposals that may happen within the study area;
- Potential to involve local schools' communities and programs;
- Possible synergy with other citizens' ideas: Campanh'UP – Cultural Platform.

#### CHALLENGES

- Availability of the proponents;
- Subject to the budget for participation activities.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need to improve community spaces to create cultural opportunities and participatory activities was identified in the local diagnostic with several methods and participatory activities. (Fig.XX, p.XX)

#### CO-SELECTION & CO-DESIGN

Artistic projects – “O Lugar do Olhar” and others – was proposed by a group of citizens, namely by Joaquim Jesus and André Silva, and then developed in several co-design activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face meeting with local facilitator (29.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal can be developed, namely in the public event “Experimento”.

### Best Practices and References

*Cultura em Expansão* programme, Municipality of Porto

Temporary Peatonal zones, Municipality of Porto



### Description

This proposal aims to boost the Healthy Corridor as a whole by carrying out artistic projects that propose a reflection with citizens on the heritage values of Campanhã. The project “O LUGAR DO OLHAR” (The place of the gaze) will develop a Large-scale cyanotype with photographs and images collected by the participants to perform an artistic intervention. This proposal can integrate other artistic activities/interventions, such as a) Recreate and install a reduced version of *Praça da Corujeira* (or other square in this parish) next to Campanhã Station; b) Explore the memory of the existence of a playground in *Praça da Corujeira*; c) Elephant in the room; d) Railway; e) Shifting lines; f) Between walls

## 26. Initiative – Memories of Campanhã

### Description

The purpose underlying this proposal is to gather up stories and images from personal and municipal archives. Through participatory activities inhabitants of Campanhã could be invited to share their memories contributing to improve the sense of Campanhã belonging. The activities will focus on citizens with advanced age but can be extended to other groups.

### Positive aspects/challenges

#### POSITIVE

- Possible synergy with other citizens' ideas and other municipal programs: *Campanhã é a minha casa* ("Campanhã is my home") from *Cultura em Expansão* programme, and sensorial map of Campanhã; Campanh'up platform;
- Promote Campanhã intangible heritage;

#### CHALLENGES

- Availability of the proponents;
- Subject to the budget for participation activities.

### Participation process to use the NBS

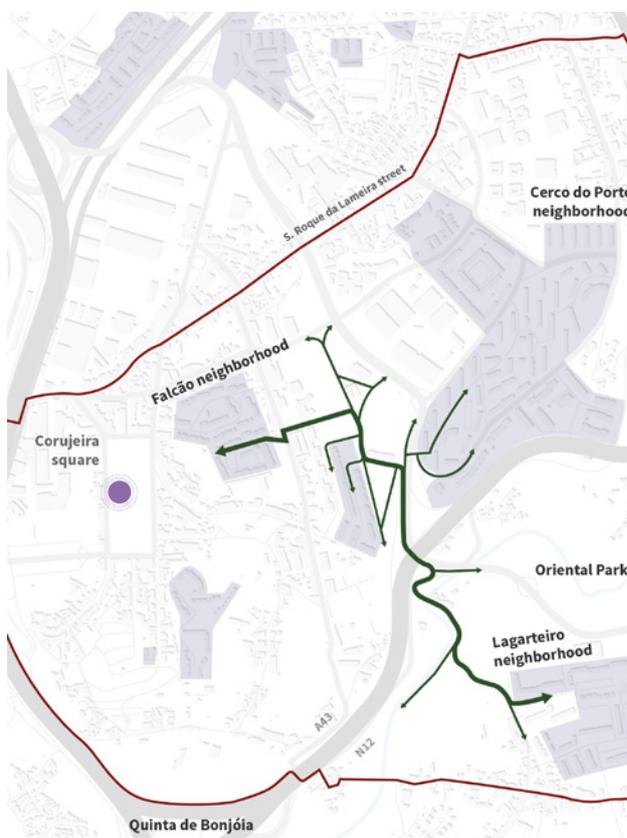
#### CO-DIAGNOSTIC

The need to create cultural opportunities and participatory activities that respect/activate existing memory was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

The Initiative Memories of Campanhã was proposed by a group of citizens, namely by Gisela Carvalho, association Soutelo and then developed in several co-design activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face meeting with local facilitator (06.03.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)



**State of the art:** The proposal can be developed, namely in the public event "Experimento".

### Best Practices and References

*Campanhã é a minha casa* ("Campanhã is my home") from *Cultura em Expansão* programme, Municipality of Porto

"Miraflor emotional map 2.0", Miraforum



## 27. Local heritage Route

### Positive aspects/challenges

#### POSITIVE

- Promotion of built, natural and cultural heritage in Campanhã;
- The initiative needs a low budget.
- Possible synergy with other citizens' ideas: Campanh'UP – Cultural Platform; Memories of Campanhã.

#### CHALLENGES

- Availability of the proponents.

### Participation process to use the NBS

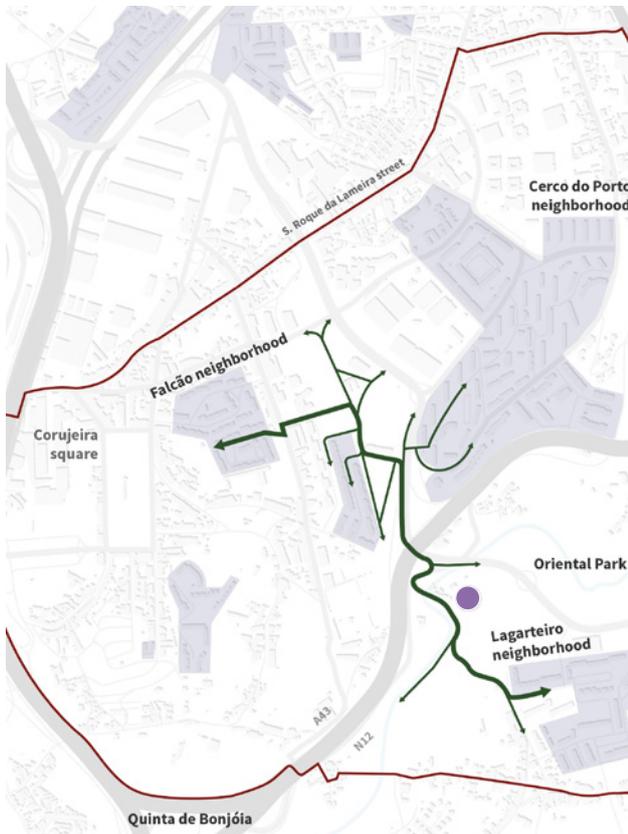
#### CO-DIAGNOSTIC

The need to create cultural opportunities and participatory activities that respect/activate existing memory was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

The Initiative Memories of Campanhã was proposed by a group of citizens, namely by Laurinda e Paulo Lima, from association Lagartixa Park and then developed in several co-design activities:

- Citizen workshop with adults (15/01/2020)
- Face-to-face meeting with local facilitator (26/01/2020)
- Workshop and walkthrough with citizens and municipal technicians (14/07/2020)



### Description

The proposal aims to create a Cultural and Heritage Route in Campanhã. It could include visits/routes focusing on agricultural/rural heritage of Campanhã (*Rio Tinto, Pêgo Negro*, among other places).

**State of the art:** The proposal can be developed, namely in the public event “Experimento”.

### Best Practices and References

Heritage routes in Nantes Nord organised by local associations.

# 28. Initiative – Culture is also Health

## Description

The proposal intends to boost a network of community spaces to promote well-being, inclusion and shared responsibility through art and culture (focusing on themes such as multiculturalism, interdisciplinarity), through:

- different local cultural projects and resources (sharing of knowledge);
- use of digital media to support communication/dissemination and aggregation (enhancing the Campanh'UP platform) to promote an artistic and cultural Local Agenda;
- revitalization of existing public spaces and outdoor facilities.

## Positive aspects/challenges

### POSITIVE

Creation of a citizens' network to promote cultural actions with an impact on health and well-being;

Possible synergy with other citizens' ideas: Campanh'up and Educational Living Lab

### CHALLENGES

- A strategy in the field of culture and sport for the oriental part of the city, is currently under development by the Municipality and other institutions;
- Manage and promote a citizens' network

## Participation process to use the NBS

### CO-DIAGNOSTIC

The need to create cultural opportunities and participatory activities and to improve literacy for environmental issues was identified in the local diagnostic with several methods and participatory activities.



### CO-SELECTION & CO-DESIGN

The initiative Culture is also Health was proposed by a group of teachers and then developed in several co-design activities:

- Online Citizen workshop with adults (17, 23, 25/06/2020)
- Workshop and walkthrough with citizens and municipal technicians (14/07/2020)

**State of the art:** The proposal can be developed in the frame of the Educational living lab and Campanh'UP

## Best Practices and References

N.A.



## 29. Lagarteiro sports hall renting model improvement

### Positive aspects/challenges

#### POSITIVE

- Increase the use of the sport facility by local inhabitants.

#### CHALLENGES

- Simplification of the renting process.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need for the improvement of community spaces and play areas for children was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

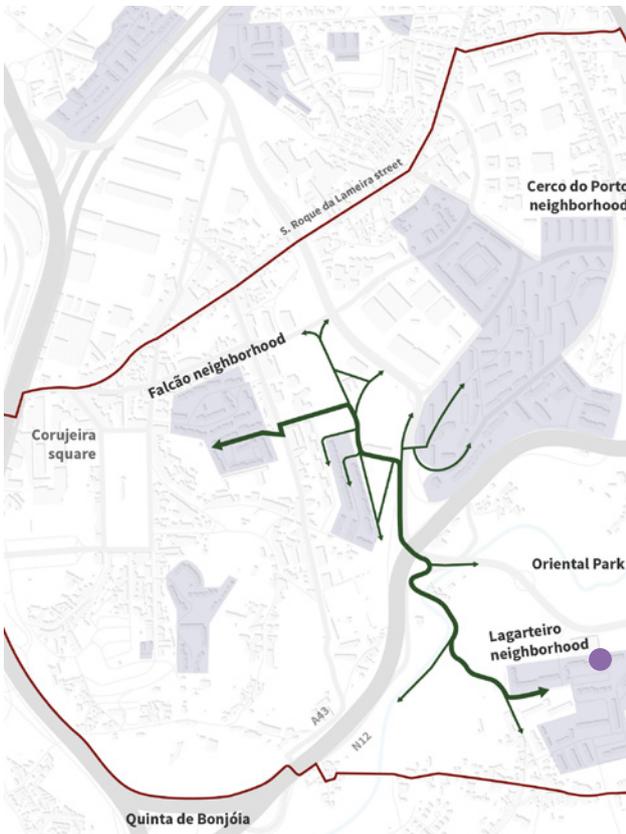
The Lagarteiro sports hall renting model improvement was proposed by a group of citizens, namely by André Sousa, association Norte Vida, and then developed in several participatory activities:

- Face-to-face meeting with local facilitator (21.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal will be channelled to specific municipality departments.

### Best Practices and References

N.A.



### Description

The proposal is associated with the difficulties experienced during the renting process of the Lagarteiro Sports Hall. The associations installed in the building would like to improve the renting model in order to facilitate the organisation of activities, based on the belief that better renting conditions for the local inhabitants would be possible

## 30. Artistic Hangar

### Description

It was proposed to build a physical structure for cultural dynamics and artistic training, focusing on the formation and development of local culture and art. It was also proposed the development creation of a local agenda, once diagnosed the lack of structures for such artistic and cultural purposes.

### Positive aspects/challenges

#### POSITIVE

- Possible synergy with other citizens' ideas: articulation with other NBS proposals e.g., Nature-based amphitheatre, Campanh'UP, etc.;
- The investment can help to plan and consolidate the healthy corridor;
- Relationship of this proposal with other ideas suggested in the scope of URBiNAT (multifunctionality);
- Possibility to renovate unused spaces with security problems (e.g., existing Ruin of Old Falcão Farmhouse).

#### CHALLENGES

- The development of this idea in terms of size and function is dependent on the URBiNAT budget or another external to the project;
- It requires a solid plan for sustainable use, maintenance and development, depending on the framework and follow-up given to the initiative by the Municipality.

### Participation process to use the NBS

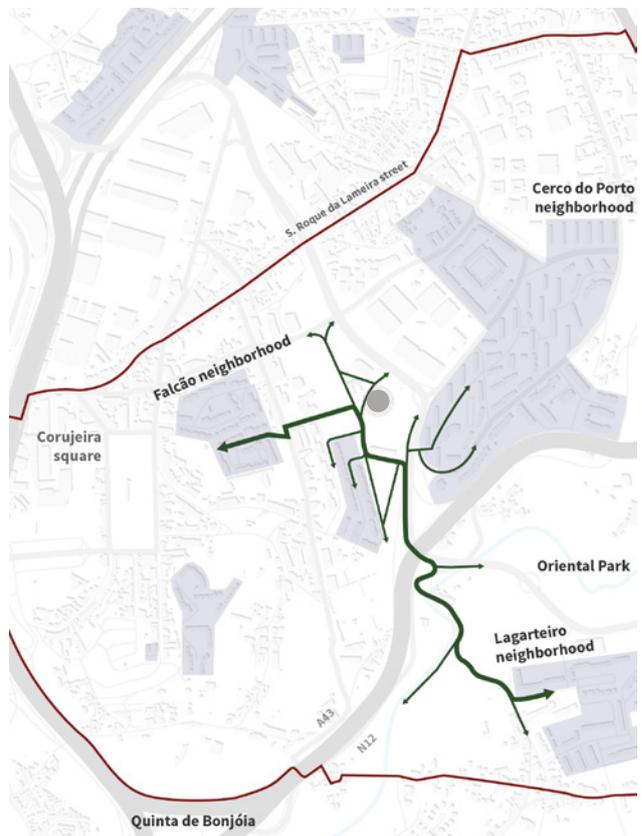
#### CO-DIAGNOSTIC

The need to improve community spaces to create cultural and entertainment opportunities and participatory activities was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

The artistic hangar was proposed by a group of citizens, namely by Carlos Costa, association Visões Úteis, and then developed in several co-design activities:

- Face-to-face meeting with local facilitator (30.01.2020)
- Citizen's video (26.06.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)



**State of the art:** The proposal will not be developed. URBiNAT doesn't have the needed budget to implement this proposed cultural facility. Moreover, this idea proposal was not aligned with the action cultural plan predicted for the area, nor is it answering the real social challenges of the territory.

### Best Practices and References

*Cultura em Expansão* programme, Municipality of Porto



# 31. Educational Living Lab

## Description

The proposal to create an Educational living lab embraces the healthy corridor as an opportunity to an inclusive learning space where interactive and intergenerational activities can be promoted. The interest behind this proposal focuses on creating an intergenerational learning space through *in-situ* experimentation, demonstration and motivation.

## Positive aspects/challenges

### POSITIVE

- Tool to activate the healthy corridor;
- Possible synergy with other citizens' ideas: Sensory Garden; Nature-based Amphitheatre; Eco-construction activities; and with other municipal educational programs or initiatives such as the curricular additional program *Porto de Crianças* ("Porto of children") with several school activities (e.g. *Políticos por um dia* – "Politicians for a day") or the Environmental Education sessions under the *Ambiente em Família* ("Family Environment") programme.

### CHALLENGES

- Dependent on external entities for its activation and development (meaning it is not self-implementable).

## Participation process to develop the NBS

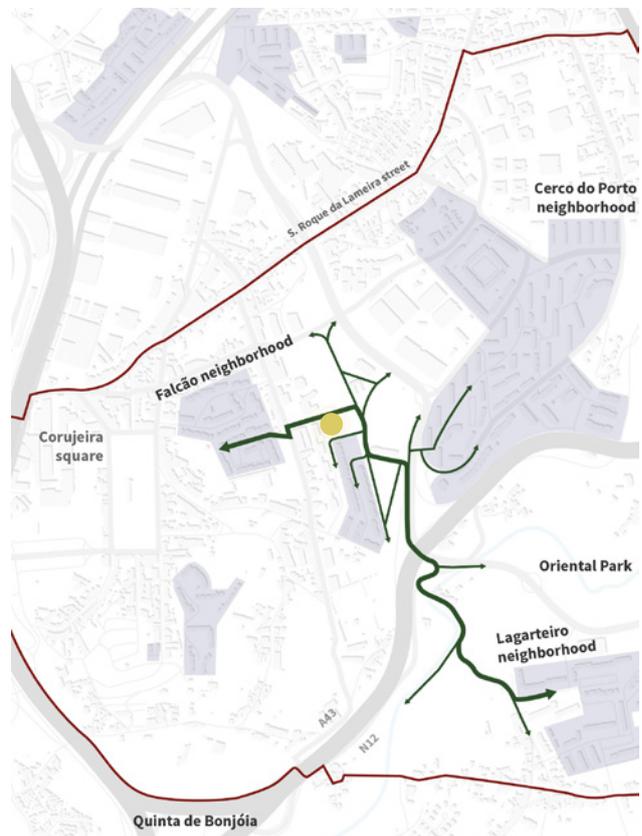
### CO-DIAGNOSTIC

The need to improve literacy for environmental issues was identified during the diagnostic activities.

### CO-SELECTION & CO-DESIGN

The Educational Living Lab was proposed by teachers of the primary schools and then developed in several participatory activities:

- Online workshop (06.2020)
- Workshop with citizens and municipal technicians (14.07.2020)



**State of the art:** The proposal is already integrated in the healthy corridor preliminary study. The activities programme can be developed with the teachers of the several primary schools.

## Best Practices and References

Environmental Educational Activities organised by the Municipality of Porto (environment Department and São Roque Environment Centre)



## 32. Eco-construction and urban farming activities

### Positive aspects/challenges

#### POSITIVE

- Citizens involvement in disseminating ancestral techniques and local traditions;
- Promote awareness to the value of local vegetation (cork oak);
- Possible synergy with other citizens' ideas: Campmarket, Campanhã'up.

#### CHALLENGES

- Need for authorization to boost activities in public space;
- Some activities with specific legal issues: e.g., cork extraction.

### Describe participation process to use the NBS

#### CO-DIAGNOSTIC

The need to improve the local economy, to encourage healthy and traditional food/products, to create community, cultural and participatory opportunities, to respect existing memory and autochthonous plants and trees and, finally, improve literacy for environmental issues was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

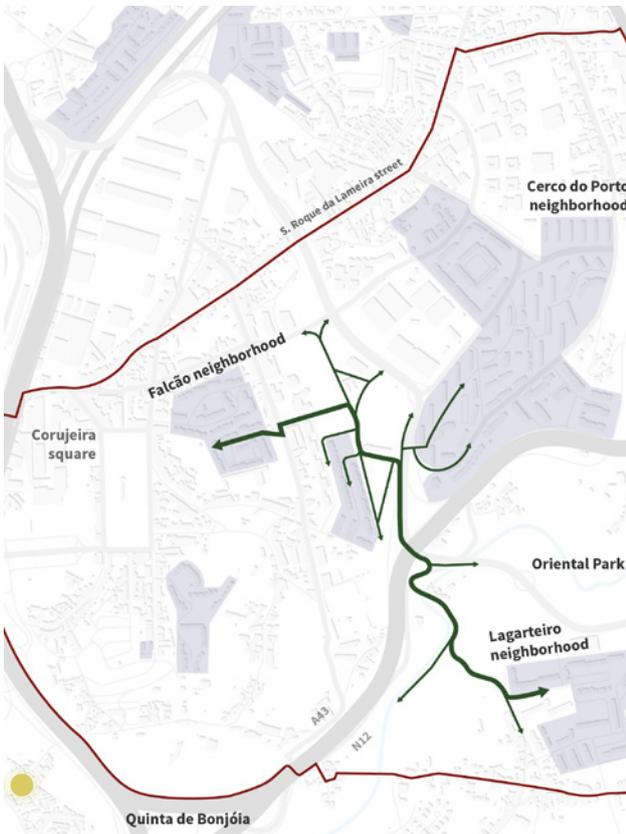
The Eco-construction and urban farming activities was proposed by a group of citizens, namely Nuno Moutinho, *Associação Soalheira*, and then developed in several co-design activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face meeting with local facilitator (26.01.2020)
- Citizen's video (26.06.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal can be developed, namely in the public event "Experimento".

### Best Practices and References

N.A.



### Description

The proposal aims to develop Eco-construction and urban farming activities to share knowledge about the landscape and local practices: broom production; cork harvest; planting and mapping cork oaks; tree planting; dynamization of urban gardens; tree climbing, among others.

## 33. Collective cleaning actions in public spaces

### Description

The proposal to organize cleaning actions follows on from several proposals and ideas that were given concerning the Campanhã area because there is a need to raise awareness for the maintenance and cleaning of public spaces. It is intended to carry out collective cleaning and pedagogical and awareness actions on garbage/consumption. This initiative aims to be included in the school's program to be developed.

### Positive aspects/challenges

#### POSITIVE

- Community cleaning as an opportunity to raise public awareness of the issue;
- Possible synergy with other citizens' ideas: Campanh'up, Educational living lab

#### CHALLENGES

- Implies ensuring security conditions to those involved so that the activity can take place;
- Requires articulation with municipal social action, civil protection and urban cleaning services.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need to create community, cultural and participatory opportunities, to respect existing memory and to improve literacy for environmental issues was identified in the local diagnostic with several methods and participatory activities.

#### CO-SELECTION & CO-DESIGN

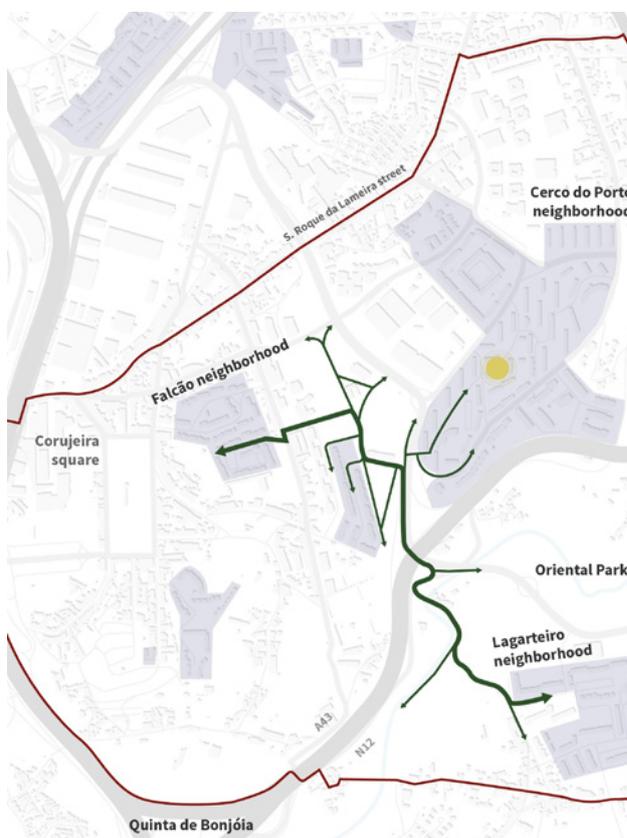
The Collective cleaning actions in public spaces was proposed by a group of citizens, namely pupils and teachers of Cerco do Porto Primary School, and then developed in several co-design activities:

- Cerco do Porto primary school workshop and walkthrough (13.12.2019)
- Citizen workshop with adults (15.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal can be developed, namely in the public event "Experimento".

### Best Practices and References

N.A.





## 34. Pedagogical farming initiatives in local schools

- Possible synergy with other citizens' ideas: Community garden; Educational living lab;



### CHALLENGES

- Regarding schools in the region: Falcão Primary School already has a plot in *Horta da Oliveira*; Corujeira Primary School has no space available; Cerco do Porto Primary School is very close to the future Pedagogical farm (Quintinha pedagógica);
- Several urban gardens distributed over different spaces result in an overload/dispersion of maintenance resources;
- Lack of human resources to ensure the maintenance of equipment and spaces, especially during school vacation periods;
- Nossa Senhora de Campanhã Primary School did not participate in URBinAT activities

### Participation process to use the NBS CO-DIAGNOSTIC

The need to Improve literacy for environmental and qualified green areas and nature in urban environment issues was identified during the diagnostic activities.

### CO-SELECTION & CO-DESIGN

The Pedagogical farming initiatives in local schools was proposed by pupils and teachers of the primary schools and then developed in several co-design activities:

- Corujeira primary school workshop and walkthrough (06.12.2019);
- Cerco do Porto primary school workshop and walkthrough (13.12.2019)
- Falcão primary school workshop and walkthrough (10.01.2020)
- São Roque primary school workshop and walkthrough (24.01.2020)
- Workshop with citizens and municipal technicians (14.07.2020)
- Online meeting with the head teacher and coordinators of Cerco do Porto group of schools and IAAC (14.01.2021)

### Description

This proposal to organize Pedagogical farming initiatives in local schools takes into account the relevance of agriculture in urban context. There is a general interest in promoting educational farms in the different schools of the Grouping of *Cerco do Porto*. In this sense, the proposal aims to expand the existing project "*Quintinha Pedagógica*" to every Campanhã primary school to create urban agriculture or gardening solutions.

In addition to the school community, it would be interesting to involve the local community and parents' associations.

### Positive aspects/challenges

#### POSITIVE

- Integration of local partners in the field of training, raising awareness and maintaining the garden;
- Raise awareness to the value of agriculture in school communities;

**State of the art:** The proposal is being developed in the frame of the technological solutions proposed by IAAC, with the co-design of one NBS per each school, articulated with pedagogical equipment in the schools' playgrounds.

## 35. Pedagogical equipment in the schools' playgrounds

### Description

The proposal aims to provide more/new pedagogical equipment for school's playgrounds, complementing existing ones, that, in some cases are not appropriate for age groups (usually are only fit for younger children). The proposal is part of the existing agenda aimed at investing in schools.

### Positive aspects/challenges

#### POSITIVE

- Provide recess facilities with educational and playful structures;
- Possible synergy with other citizens' ideas: Pedagogical farming initiatives in local schools.

#### CHALLENGES

- Outside the defined intervention area.

### Participation process to use the NBS

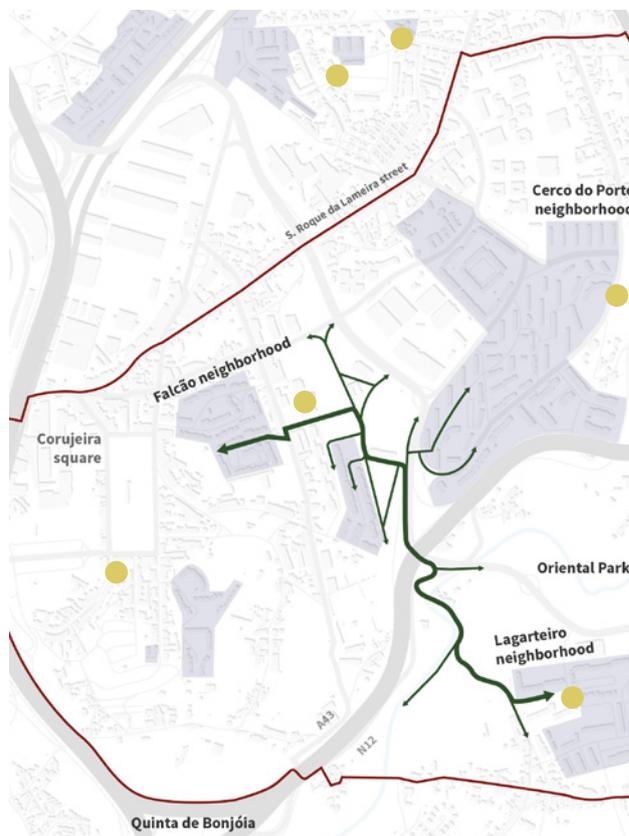
#### CO-DIAGNOSTIC

The need to qualified green areas, create play areas for children and entertainment opportunities was identified during the diagnostic activities.

#### CO-SELECTION & CO-DESIGN

The pedagogical equipment in the schools' playgrounds was proposed by pupils and teachers of the primary schools, and then developed in several co-design activities:

- Corujeira primary school workshop and walkthrough (06.12.2019)
- Cerco do Porto primary school workshop and walkthrough (13.12.2019)
- Falcão primary school workshop and walkthrough (10.01.2020)
- São Roque primary school workshop and walkthrough (24.01.2020)
- Workshop with citizens and municipal technicians (14.07.2020)
- Online meeting with the head teacher and coordinators of Cerco do Porto group of schools and IAAC (14.01.2021)



**State of the art:** The proposal is being developed in the frame of the technological solutions proposed by IAAC, with the co-design of one NBS per each school, articulated with the Pedagogical farming initiatives in local schools.

### Best Practices and References

IAAC technological NBS from URBiNAT catalogue



## 36. Local primary schools playground improvement

### Positive aspects/challenges

#### POSITIVE

- Provide recess facilities with educational and playful structures;
- Offer better conditions of use to students and staff;
- Possible synergy with other citizens' ideas: Pedagogical farming initiatives in local schools.

#### CHALLENGES

- Outside the defined intervention area.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need to qualified green areas, create play areas for children and entertainment opportunities was identified during the diagnostic activities.

#### CO-SELECTION & CO-DESIGN

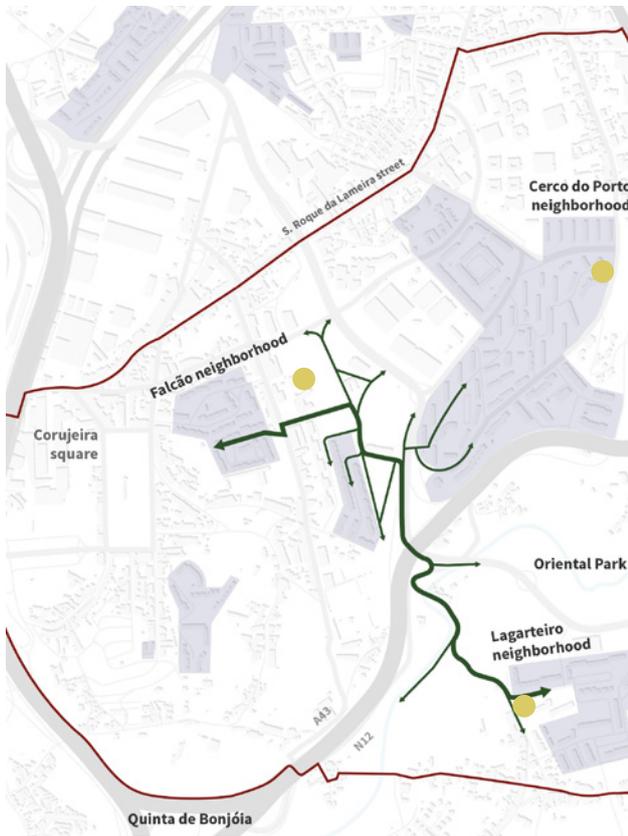
The Local primary school's playground improvement was proposed by pupils and teachers of the primary schools and then developed in several co-design activities:

- Corujeira primary school workshop and walkthrough (06.12.2019)
- Cerco do Porto primary school workshop and walkthrough (13.12.2019)
- Falcão primary school workshop and walkthrough (10.01.2020)
- São Roque primary school workshop and walkthrough (24.01.2020)
- Workshop with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal was channelled to other municipality projects.

### Best Practices and References

N.A.



### Description

This proposal aims to improve local primary schools' playgrounds and is also linked to the lack of pedagogical equipment. It would include: repaint facades, requalify green spaces and existing vegetation, installation of new equipment (drinking fountains, outdoor furniture).

## 37. Local primary schools access area improvement

### Description

This proposal to improve school entrances takes into account the widespread need to rethink school entries in terms of safety for both students, families and staff.

Each school has specific challenges:

- Primary School of Corujeira: Alteration of the entrance to the side street (entrance through the school playground);
- Primary School of Cerco do Porto: Change of entrance to the playground side;
- Primary School of Falcão: Change of entrance due to lack of space on the Falcão Street sidewalk (link with Meeting spot next to Falcão Primary School with sensory garden)

### Positive aspects/challenges

#### POSITIVE

- Provide better accessibility and security conditions to the school community;
- Possible synergy with other citizens' ideas.

#### CHALLENGES

- Outside the defined intervention area.

### Participation process to use the NBS

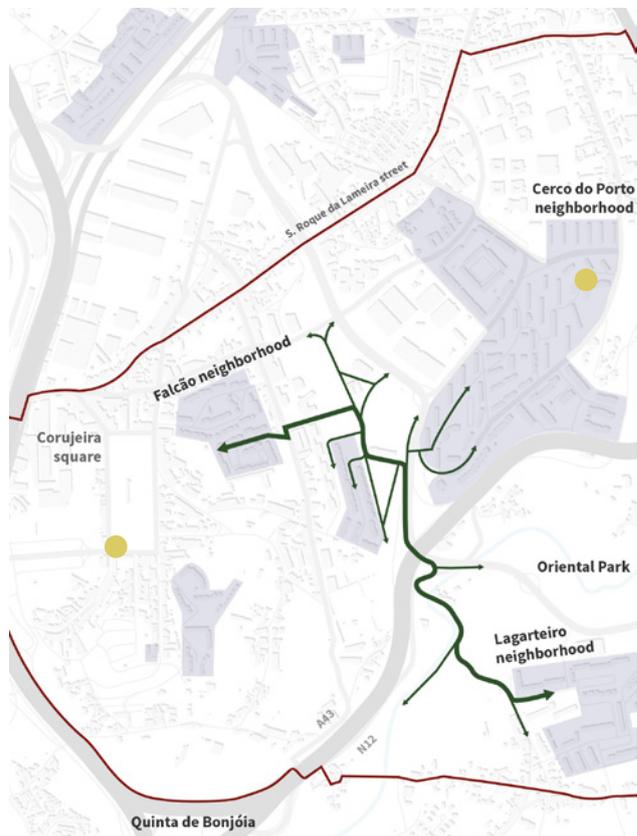
#### CO-DIAGNOSTIC

The need to qualified green areas, create play areas for children, resting areas and community opportunities was identified during the diagnostic activities.

#### CO-SELECTION & CO-DESIGN

The Local primary schools access area improvement was proposed by pupils and teachers of the primary schools and then developed in several co-design activities:

- Corujeira primary school workshop and walkthrough (06/12/2019)
- Cerco do Porto primary school workshop and walkthrough (13/12/2019)
- Falcão primary school workshop and walkthrough (10/01/2020)
- São Roque primary school workshop and walkthrough (24/01/2020)
- Workshop with citizens and municipal technicians (14.07.2020)



**State of the art:** The proposal was channelled to other municipality projects

### Best Practices and References

N.A.



## 38. Environmental Education Centre

- Alternatively, environmental activities promoted by the proponents can take place in Lagarteiro Primary School.
- Possible synergy with other citizens' ideas: Urban Garden expansion (*Horta do Oliveira*); Educational living lab, eco-construction.

### CHALLENGES

- The implementation of the Environmental Education Centre is not enough to solve the need to reformulate/reform the walkway or the insecurity issues identified in the space. It requires not only intervention in the territory but also in the social scope, demanding a more complex and integrated approach;
- Campanhã parish already has an environmental education centre (*Parque de S. Roque da Lameira*) nearby.

### Participation process to use the NBS

#### CO-DIAGNOSTIC

The need to Improve literacy for environmental issues was identified during the diagnostic activities.

#### CO-SELECTION & CO-DESIGN

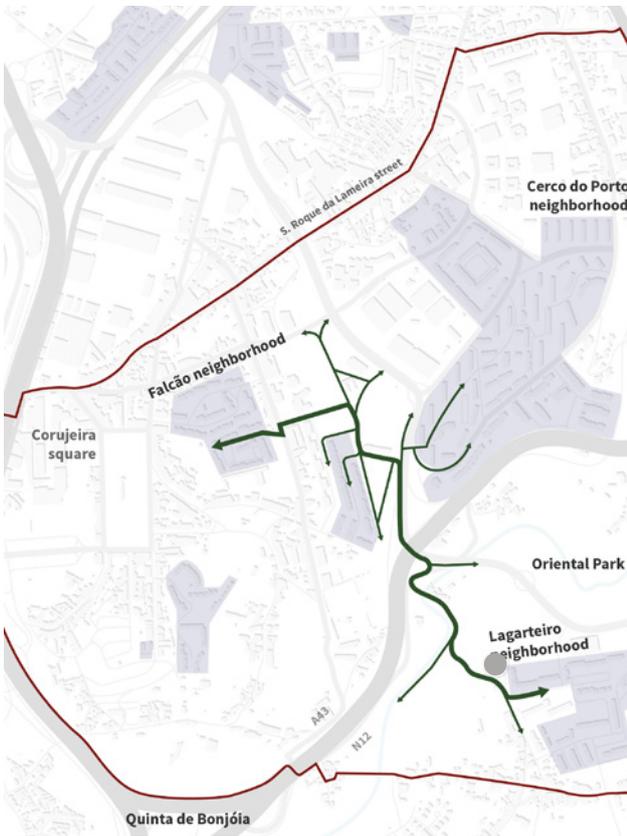
The Environmental Education Centre was proposed by Laurinda and Paulo Lima, association LAgartixa Park, and then developed in several participatory activities:

- Citizen workshop with adults (15.01.2020)
- Face-to-face meeting with local facilitator (26.01.2020)
- Workshop and walkthrough with citizens and municipal technicians (14.07.2020)

**State of the art:** The proposal is not to be developed because Campanhã parish already has an environmental education centre (*Parque de S. Roque da Lameira*) nearby. Environmental education will be promoted in the frame of the Educational living lab.

### Best Practices and References

Environmental Educational Activities organised by the Municipality of Porto (environment Department and São Roque Environment Centre).



### Description

The proposal to create an Environmental Education centre stems from the fact that there is an emerging need to “reprogram” the activities and features of the open space at the end of Rua do Lagarteiro through the creation of a facility (e.g., Environmental Education Centre) that leads to its use and maintenance. The proposed facility – URBiNAT school with an environmental education centre – would create awareness of green and natural spaces while increasing the affluence of people, thereby contributing to increasing the safety of the route/area.

### Positive aspects/challenges

#### POSITIVE

- Responsiveness by the Municipal Environmental Education Service to boost activities;

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# URBINAT



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