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Co-creating a public space with teenagers

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C3places
URBAN EUROPE

Edições Universitárias Lusófonas

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C3places URBAN EUROPE FCT Fundação para a Ciência e a Tecnologia

Imprint
C3Places - Using ICT for Co-Creation of inclusive public Places
www.c3places.eu | https://jpi-urbaneurope.eu/project/c3places

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Language revision Isabel Canhoto, 2021/2022.

FICHA TÉCNICA

Edição
Universidade Lusófona, **Departamento de Arquitetura e Urbanismo**
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www.ulusofona.pt | https://urbanismo.ulusofona.pt/

LNEC – Laboratório Nacional de Engenharia Civil
Av. do Brasil, 101 | 1700-066 Lisboa, Portugal | Telf: +351 218 443 000 | Fax: +351 218 443 011
www.lnec.pt

Propriedade
Edições Universitárias Lusófonas

Design Gráfico, Impressão e Acabamento
MCN - Comunicação Gráfica, Lda.

DOI
10.60543/ecati/8svp-d513

ISBN
978-989-757-180-0

ISSN
2184-8009

Depósito Legal
514257/23

Tiragem
200 exemplares

Ano de Edição
2023

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PREFACE

Territorial capacity and inclusion: Co-creating a public space with teenagers

SCOPE AND GOAL OF THE BOOK

The questions of civic participation in urban planning, in particular of the design of public open space, have grown in importance in recent years. This is associated with an increasing interest in the value of places for increasing the quality of living environment, for social interactions and for socialisation in urban development most likely questions of public health, inclusiveness and resilience will become relevant issues, as these intersect further central subjects of the built, natural and social environments. Citizens are undoubtedly key drivers in the transition towards more sustainable, resilient and inclusive places and lifestyles. This calls for sharing experiences with citizen participation and engagement.

This book help meet an important need, as stated by the UN Sustainable Development Goals (UN, 2015), the New Urban Agenda (UN-Habitat, 2017), European Green Deal (EC, 2019) and further national and international bodies: Provide evidences and discussing experiences on inclusion, improvements of the built environment and capacity building. On these particular matters, the insights of teenagers, who rarely have the opportunities to be heard and their views to be considered, become particularly important.

This book is an attempt to point to academics, practitioners, policymakers, students, and all others concerned with increasing intangible benefits of engaging young people in placemaking. Aiming to inspire progressive placemaking it attempts to reframe how vulnerable members of the community access public spaces, what are their needs and what would be their response to a more people-centred urban design. It is with respect to these points that the book **Territorial capacity and inclusion: Co-creating a public space with teenagers** provides reflections and draws learnings from engaging teenagers (young people aged 13-18) in the production of public open spaces. It provides the reader with an in-depth analysis and reflection gained with a case study in Lisbon. This case study was undertaken between 2017 and 2020 within the framework of the Project C3Places and includes a comprehensive coverage of topics related to spatial practices and needs of teenagers, while also being up to date at the time of going to press – the COVID-19 pandemic, which has awakened a new awareness and discussion about how the city of tomorrow will be.

Thus this book discusses the design and results of research organised in Lisbon, bringing along some reflections on placemaking activities. It proposes a conceptual foundation for current and future research to provide an answer to what is a **teenager-sensitive public open space**. Our purpose is not to propose one more ready-made approach, but to launch a debate on the longer-term prospects of granting teenagers a voice in a community-centred urban planning process. That is what is meant by an inclusive city, not just to benefit from urban spaces, but also be actively involved in planning and decision-making processes that foster sustainable development and promote social cohesion.

ORGANISATION OF THE BOOK

This book is structured into six chapters:

Chapter 1 introduces the Project C3Places, its goals and approach, and briefly describes the other Case Studies carried out in Ghent, Milan, and Vilnius. A transversal overview on the Project is used to look in particular at the contribution of social/ /urban living labs and collaborative methodologies. This chapter highlights the contribution of co-creation approaches for new ideas for public spaces.

Chapter 2 THE LISBON LIVING LAB sets the frame for the Living Lab in Lisbon, which focussed on teenage students. In this chapter the research questions and the work programme are discussed.

Chapter 3 THEORETICAL PERSPECTIVE opens a discussion on public open spaces, their social value and on the concept of territorial education in order to provide a theoretical framework to base co-creation and placemaking in the context of teenagers.

Chapter 4 TEENAGERS AS CO-CREATORS OF PUBLIC SPACES brings into focus the case study undertaken in Lisbon and the living labs with teenage students. It also addresses the research design and the analysis of achievements.

Chapter 5 A PLACE FOR TEENAGERS IN LISBON explores the use of public spaces by teenagers along with their spatial needs and preferences, towards discussing a place that is sensitive to teenagers.

Chapter 6 OUTLOOK outlines the experiences from the living labs and proposes new research questions for placemaking with teenagers.

ACKNOWLEDGEMENTS

The research and the work presented in this volume are part of the EU project **C3Places - Using ICT for Co-Creation of inclusive public Places**, which has received funding from the European Union's Horizon 2020 research and innovation

programme under the grant agreement number 693443, and from the FCT - Portuguese Funding Agency for Science, Research and Technology (contracts ENSUF/0001/2016 and ENSUF/0002/2016); www.jpi-urbaneurope.eu, www.fct.pt, www.c3places.eu).

We gratefully acknowledge the valuable input and dedication of Inês Almeida who from the very beginning was part of the C3Places team in Lisbon, and thus was deeply involved in the development and implementation of the living labs. Inês Almeida is also a corresponding author of several publications organised in the scope of the Project. In addition, we would like to also thank Carolina Anselmo and Ina Šuklje Erjavec for their participation and inputs in the living labs, and Filipa Lourenço for support and assistance in financial and administrative matters.

The authors would also like to acknowledge the close collaboration of the research team with our partner organisations the **Padre António Vieira Secondary School** (Escola Secundária Padre António Vieira), the **Alvalade Parish Council** (Junta de Freguesia de Alvalade) and the contributions of the other partners from the consortium.

In particular, the authors would like to thank the teenage students for their contribution to the successful development of the research, for their dynamic and lively participation in the living labs, and the secondary school government and staff that made this research and the exchange with teenagers possible.

CHAPTER I
THE PROJECT C3PLACES

1.1 THE FRAMEWORK OF THE PROJECT C3PLACES

The Project **C3Places – using ICT for Co-Creation of inclusive public Places** (www.c3places.eu) is concerned with places (parks, greenspaces, squares, streets, etc.) that affect each one of us on a multitude of levels: physically, socially, psychologically and culturally.

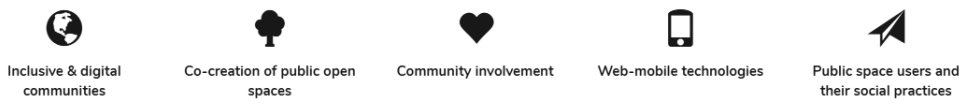
For the sake of clarity, public open spaces are henceforth referred to as public spaces.

The Project (grant agreement No 857160 - 05/2017 to 01/202), is one of the 15 funded projects under the ERA-NET Cofund Smart Urban Futures (ENSUF) call - a collaboration between JPI UrbanEurope and the European Commission. According to the call text of 2016, the ENSUF call selected transnational projects aimed to advance knowledge of the "urban condition and sustainable development through creating and testing of new methods, tools, and technologies required to overcome current economic, social, and environmental challenges", and those that support the "move to action through dialogue".

C3Places, granted under topic "Inclusive, vibrant and accessible urban communities" aimed at developing strategies and tools to increase the quality of public spaces with the help of Information and Communication Technologies (ICT) to positively influence inclusion and social cohesion effects. C3Places, backed by the experiences gained, is generating knowledge and know-how for a co-creation approach, merging the use of ICT within essential functions of the public open spaces.

The dynamics of public spaces, as common good and as trusted service for the community, require special heed to be given to stakeholders and the local social context towards meeting current and emerging citizens' needs. Among different functions and benefits of public open spaces, to mention are their role as enabler of a space for physical activities, to socialise, interact and exercise democracy. Issues that are relevant to quality of life (Smaniotto Costa et al., 2018) and to successfully engage teenagers in city-making processes (Almeida, Batista & Lourenço, 2020). Such breakthrough is pursued through four interconnected lines of activity: (i) joint coordination of citizen science actions and leveraging of existing resources in four cases across Europe, (ii) engagement of quadruple helix stakeholders at local, national and European levels (Miller et al., 2016), (iii) creation of a mutual learning space and a set of comprehensive tools for the different target audiences, and (iv) to increase scientific evidence in decision making, crafting an evidence-based public policy brief.

C3Places hinges on five major themes:



These themes – described at the C3Places platform https://myc3place.di.unimi.it - have guided the Project and acted as keywords for the entire research process. Thus, they gave the living labs credibility and provided guidance to explore new dynamics of placemaking as a service for the community, and this with the involvement of different stakeholders. C3Places research is backed by a multi / interdisciplinary approach integrating urban design and planning, social sciences and ICT development to tackle the nexus of public spaces, people and technology. The Project aims were:

1. **Increase attractiveness of public space –** Through testing and enhancing research methodologies into a new context, considering the service function of public spaces for their communities. The Project designed an interdisciplinary methodological framework to better understand the impact of public spaces in quality of life, co-creation as an approach to increase quality and inclusiveness of public spaces – making use of digital and mobile technology advancements.
2. **Increase responsiveness of public space –** Through exploring new dynamics of user's behaviour and characteristics of public spaces from social, technological and urban design perspectives. The Project implemented scientific research in different countries focused on local context and needs of different social groups.
3. **Increase inclusiveness of public space –** Backed by co-creation approach and multi stakeholder perspective, C3Places established in each case a local sustainable structure for co-creation with different users.
4. **Test the potential of ICT for social research –** Create and run tests of different methodologies and tools based on web and mobile technologies. This included apps for tracking people's movements in public spaces, social media apps for social reporting and interacting with different user groups. These apps enabled better and systematised information on users and uses of public spaces, and on how to deal with opportunities and/or risks of ICT usage in public spaces as well.
5. **Share local knowledge and lessons learned –** C3Places designed evidence--based strategies and recommendations in form of a policy brief, which is available in the e-platform and e-book ***C3Places - Using ICT for Co-Creation of Inclusive Public Places*** (https://myc3place.di.unimi.it), and at the C3Places website (https://c3places.eu/outcomes). **The C3Places policy brief**, heeding the sustainability calls for engaging concerned stakeholders in decision making, provides guidance on where to start, how to creatively approach placemaking and how to make use of digital tools. The overarching lesson is however that for placemaking and inclusiveness much unfinished business remains and there are many commitments that have to be fulfilled.

1.2. PROJECT CONSORTIUM AND STRUCTURE

The idea behind the Project was developed, submitted and got approved by a consortium encompassing researchers with different expertise and experiences. The

JPI UrbanEurope programme opened thus a great opportunity for these partners to work together in the context of co-creation of public spaces. The Project opened a singular opportunity for collaboration in a large interdisciplinary environment, with overall coordination of the Universidade Lusófona (Lisbon, Portugal), through its Department of Architecture and Urban Planning and research centre CeiED and in a joint effort with partners from five countries:

- LNEC – National Laboratory of Civil Engineering, Lisbon (Portugal, www.lnec.pt).
- MRU – Lab of Social Technologies, Mykolas Romeris University, Vilnius (Lithuania, www.mruni.eu).
- UGhent – Department of Information Technology, Ghent University, Ghent (Belgium, https://waves.intec.ugent.be).
- UIRS – Urban Planning Institute of the Republic of Slovenia, Ljubljana (Slovenia, www.uirs.si).
- UNIMI – Interdisciplinary Research Centre on Sustainability and Human Security, University of Milan, Milan (Italy, www.shus.unimi.it).

These partners shared different tasks (see Fig. 1.1) contributing in this way to accomplish a collaborative result. C3Places epistemology and scientific programme considered mutually three related areas: 1) public open spaces (their production and consumption), 2) ICT (opportunities, threats, novelties, potential for interacting with people and space, and in particular the use of digital technology for social research), and 3) social and behavioural research (socio-spatial practices and the public spaces value for society). The main project structure consisted of seven work packages (WP), their intercorrelation is depicted in Fig. 1.1.

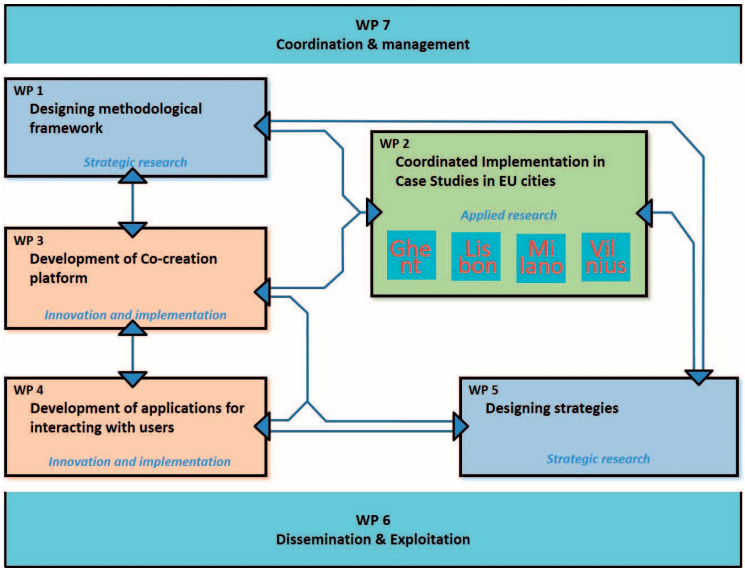


Figure 1.1: The workflow and the work packages that structured the Project performance.
Source: C3Places Archive, 2016.

WP1 – Designing methodological framework Strategic research **UGent**	WP2 – Case studies in EU cities Applied research **MRU**	WP3 – Development of Co-creation platform Innovation and implementation **UNIMI**
This WP aimed at creating an interdisciplinary conceptual and methodological framework for the research and development to be conducted by C3Places. For that purpose, it defined research methods and their rationale into the new context of people - places and technology, relating these to be applied in the case studies coordinated by WP2. The Methodological Framework for LIVING LABS is available at https://c3places.eu/outcomes	This WP explored new dynamics of user's behaviour and characteristics of public spaces from social, technological, and urban design perspectives. The WP covered the coordinated implementation of the four Case Studies - each one devoted to a different user group and different types of public spaces - enabling C3Places to reach a wide range of users and typologies of space. The studies in the case areas provided an update in the interaction between people - places and technology. From WP2 emerged the living labs in Lisbon, the context of this book.	This WP, acting as facilitator for all other WPs, aimed at delivering a virtual space and a set of services for base research, for the four cases and other communities interested and involved in C3Places. From this WP3 emerged the knowledge exchange platform myc3places (https://myc3place.di.unimi.it).
WP4 – Development of applications for interacting with users' Innovation and implementation ULHT	**WP5 – Designing strategies Strategic research UIRS**	**WP6 – Dissemination and exploitation Strategic development UIRS**
In this WP, considering the ICT opportunities, a digital research tool (C3Places app) consisting of a mobile app and a web service was developed for monitoring the behaviour of different target groups. It also included aspects of social reporting and augmented reality. These tools were applied in the cases. The manual for the tool application can be downloaded from https://c3places.eu/outcomes	This WP, by evaluating the Project performance and the Case Studies in particular, drew conclusions and lessons learned. The gained knowledge is tailored to aid further communities and cities in their efforts to create more inclusive urban places. This WP organised recommendations on policy packages and factors influencing their transferability for European cities. The C3Places | Policy Brief on Co-creation of inclusive public open spaces and the use of digital tools is available at https://c3places.eu/outcomes	This WP, running in parallel to the other WPs, focused on organising the dissemination and exploitation of the Project and its outcomes. It developed the **Dissemination Strategy** (D6.1) and coordinated its application. D6.1 ensured the widest possible dissemination among target audiences (i.e., stakeholders, society, urban practitioners, policy makers, ICT developers and researchers' community). Backed by the analysis of further exploitation methods, WP6 developed a related business model for the C3Places solution. Organising a business model for a public good (public spaces) and the involvement of their users in creating more responsive places posed several challenges and revealed a huge endeavour. The Exploitation Plan (Deliverable 6.3) as a tool to help rationalise public decision making is available at https://c3places.eu/outcomes

1.3. BRIEF HISTORY OF C3PLACES

The idea of C3Places started with the proliferation of digital and mobile technologies and was drafted in a meeting of the COST Action CyberParks (TU1306 - http://cyberparks-project.eu). CyberParks identified and addressed the opportunities digital tools opened for social and urban research. There was on the one hand, a call for increasing participatory approaches in urban development and for making inclusiveness a reality. On the other side, the advancements in digital and mobile technologies are making them an important social medium. The Project consortium identified in this

nexus, a potential for innovation and a source of inspiration for a new approach: co-creation of inclusive public spaces with help of digitalization. This triggered the proposal.

Digital and mobile technologies not only became pervasive in people's life (Castells, 2010; Boyd, 2014; Greenberg, 2013), but have opened different opportunities for research, for example to understand users' behaviour by monitoring and understanding their movements while strolling in a space. CyberParks pioneered research in the field of digital tools for interacting with public space users, increasing knowledge on the penetration of digitalization into public space (Smaniotto Costa et al., 2019). Such digital incursion adds to the physical space a virtual layer, and lends to it a hybrid character, transforming the physical space into a mediated one (Smaniotto Costa et al., 2020). Mobile technology and digital media open thus new and innovative ways of spatial appropriation and provide new tools for engaging users in placemaking (Šuklje & Smaniotto, 2015). Yet, it was not the intention of the Project to create high-tech places, but rather making use of technology advancements to create responsive and attractive places. Even in the digital era, the diversity of public spaces remains critical to stay physically active and in contact with nature, but such places have to be able to offer a space for all and be where people need them, i.e., within an immediate neighbourhood. Besides, relevant benefits for public health and well-being, people's spatial practices enrich public life as they provide the gathering points in the urban fabric and offer the place for interactions among acquaintances and strangers, generations and cultures, enhancing cultural identity. People of all ages need contact with nature and with other people, to develop different life skills, values and attitudes, to be healthy, satisfied with their lives and environmentally responsible.

For these reasons C3Places tackled different user groups in the four cases. This book is about the research with teenagers in Lisbon, which cannot be fully understood without understanding the research environment, trends and future projections, new technologies and digitalization, and strengths and competencies of partners.

1.3.1 Challenges C3Places met in the partnership

When C3Places earned in December 2016 the JPI UrbanEurope approval, the consortium was composed of seven institutions. The Italian partner Cooperacy Association (https://cooperacy.org/) faced from the very beginning difficulties imposed by the Italian funding agency, as Cooperacy, an independent, non-profit cooperation network could not comply with the strong regulatory requirements. Although the same alleged issues seemed to be already solved after the first phase approval in March 2016.

The call suggested the involvement of different types of organisations, and a stakeholder group like Cooperacy were welcomed. To keep the discussion on topic, members of Cooperacy participated in the beginning in some Project activities, but the strong

regulations made the participation almost impossible for a small stakeholder association. Without any perspective of funding, Cooperacy had to withdraw from the consortium. In this way, the only partner with an experienced background on collaboration awareness and cooperation-based ecosystems left the Project. C3Places was created as a collaborative framework, and these issues were at the core of all activities. The lack of expertise in the Project performance posed a constant challenge. This was however not the only problem the two Italian partners had to cope with. After two and a half years - in July 2020, the University of Milan got a funding contract finally signed with the Italian funding agency. Until this date, the University could neither hire additional personnel as planned nor spend any of the approved expenses. However, the University team participated in the Project activities and organised a Project meeting in September 2019. To finance these activities personal research funding provided by the University of Milan for the Principal Investigator had to be used.

Neither the JPI UrbanEurope nor any other national funding agency could provide support in solving the problems caused by the limited participation of the Italian partners, since funding issues are an exclusive matter of the national agencies. The main problems are related to organising, as planned, a case study in Milano, and to the development of the ICT tools. Since the web platform was paramount for all Project activities, the Project coordination had to take lead on some tasks planned for the University of Milan, in order to overcome some of these difficulties and prevent further delays. The coordination developed a web platform which serves as mobile application data storage, but it cannot be fully used for analysis purposes since it was not possible to merge the data directly from this platform without depending on the mobile application. Although the Italian Project partners were keen to start with assigned tasks, they could not fully fulfil the tasks due to lack of contract and financing. This situation was very unsatisfying and challenging for all parties involved. In particular, because the consortium had to find ways to additionally develop the signed tasks, and as above-mentioned, C3Places' strategy is backed by cooperation and complementing expertise and know-how. This situation was for the whole consortium a very frustrating situation.

The strategy for Joint Programming Initiatives (JPI) is to pool national research efforts to better tackle European goals, and this via decentralised funding. While this kind of simplified funding scheme cuts out traditional administrative and bureaucratic processes, on the flip side, when national agencies do not follow international agreements, the coordination has no power to make any amendment. Since the absence of the two Italian project partners has been a recurrent problem for almost the whole Project run time, C3Places had to find different ways to mitigate the impact of such problems and keep on track with the schedule. The Project C3Places notes with great satisfaction that the Project goals and outcomes could be only achieved by a strong commitment of all partners.

1.4 LIVING LABS AS A RESEARCH METHOD

C3Places explored the possibilities of ICT as a fuel and as collaborative methodology tools towards advancing knowledge for enhancing the attractiveness, responsiveness, and inclusiveness of public spaces. As digital technology and IOT devices are becoming increasingly ubiquitous, their usage goes far beyond only for learning and work-related issues. They are changing habits, expectations and motivations in the use of public spaces (Smaniotto Costa et al., 2019). In fact, digital and mobile technologies have evolved as an integral part of society, and more and more are becoming an indispensable companion in leisure activities - framing in this way one aspect in the nexus people, places and technology. The second aspect is related to the transformation of public space into a *place* - i.e., those spaces that are attached with a meaning by users (Strydom & Puren, 2014). In this context, C3Places is guided by the principles of inclusiveness and responsiveness. An inclusive and accessible environment is one where the diversity of people's backgrounds and experiences is given a proper "place", a one that boosts mutual enjoyment, respect and serendipity of encounters. **Inclusiveness** is not only limited to the right of accessing public spaces but to a commitment to improve people's lives considering their needs in both public policies and decisions. This means, in open space planning, in an inclusive city people can influence decision-making about how and what their physical spaces should become. **Responsiveness** is understood as the capacity besides providing a "space" also enabling different uses, so that spatial requests and needs can be supplied. In the process of transforming cities more inclusive and responsive, and spaces into places urban planning plays a prominent role as it facilitates the involvement of stakeholders bringing (technical and local) skills to improve quality of life, towards offering a healthy lifestyle for urban dwellers. Putting simple planning can be an important agent in increasing inclusiveness, responsiveness and to enhance democracy (Strydom & Puren, 2014).

Closely linked to both concepts are co-creation initiatives, which should be put in place not only to solve eminent problems but rather to foster social cohesion based on the broad citizen engagement and community participation. A vibrant community must rely on collaborative initiatives and on cooperation among citizens, for a better quality of life. For this purpose, living labs provide a qualified procedural approach to ensure better social cohesion (Strydom & Puren, 2014; Steen & van Bueren, 2017; Bylund et al., 2020) and the integration of various strands of activities (Chroneer, Stahlbrost, & Habibipour, 2019), especially when they are supported by the opportunities opened by hyperconnectivity (Smaniotto et al., 2017).

JPI UrbanEurope encourages the application of **urban living labs** by the funded projects, as it is considered an umbrella with different tools and methods able to bring about changes in a co-creative way (Bylund et al., 2020). C3Places adopted the concept of urban living lab provided by the European Network of Living Labs, which defined them as "… user-centred, open innovation ecosystems based on systematic

user co-creation approach, integrating research and innovation processes in real life communities and settings" (ENoLL, 2016). When such approach harnesses the cognitive power of the community, boosts a diversity of socio-cultural contexts, brings about a multi-stakeholder perspective, considers the community needs (Bulkeley et al., 2018), increases digital and spatial competencies and cooperation capabilities (Bylund et al., 2020), it provides good enough reasons to C3Places implement living labs in the four cases. They are also issues that must be taken into consideration to transform public spaces into co-created places. In this way, a living lab can provoke changes in mindsets, processes, and material solutions, as Bylund et al. (2020) aptly point out. As a lab, it is an experimental approach that, addressing societal challenges by facilitating co-creation in everyday urban settings, can be a change agent to enhance practices in urban governance.

For C3Places important aspects are a user-centred and open innovation ecosystem operating in an urban context, the integration of research on less represented user groups and innovation processes (co-creation) potentially relaying in building partnerships. These are also the aspects highlighted by Bulkeley et al. (2018) when the aim of a living lab is the transfer of research into demonstration and to leverage the transition within an infrastructure - in the case of Lisbon, C3Places tackled public open spaces by the perspective of teenagers to forward learning and to understand their benefits within the urban context.

Figure 1.2: Evaluating the digital co-creation in the living labs. Photo: C3Places Archive, 2019.

Towards considering the different groups of public space users and different contextual realities of appropriation of public space, C3Places devised four Case Studies with their living labs, each in a different city. A digital co-creation assessment methodology was created to compare and evaluate results from these Case Studies (Mačiulienė et al., 2018).

The Case Studies, following the living lab methodology, and undertaken in Ghent (Belgium), Lisbon (Portugal), Milan (Italy) and Vilnius (Lithuania) had different objectives and each lab adapted C3Places rationale and methodology to better suit the research. In this regard, due to the problems above-mentioned it should be stated that the living lab in Milan experimented a very fragmented and not a gradual implementation and did not follow the research schedule. Thus drafting lessons could be done only in the Project's final phase. As expected, the development and implementation of living labs encountered further challenges. This called for the development of mitigation strategies. One difficulty is connected to the lack of digital tools in due time, which affected the Lisbon and Vilnius case studies. Both cases were not able to use digital tools to interact with users as planned. However, despite this issue, the case studies were successfully implemented, achieving results and gaining relevant knowledge on co-creation and the relevance of public spaces.

To spark the discussion on the co-creation of public spaces the Project edited the volume **Co-Creation of Public Open Places. Practice – Reflection – Learning** (see Smaniotto Costa et al., 2020: https://doi.org/10.24140/2020-sct-vol.4).

This Open Access eBook brings together 16 different cases of co-creation. The authors followed an open call to identify and analyse experiences, methods and tools for both research and practice on the socio-spatial dimension of public space. The authors share the focus on co-creation and participatory approaches and deal with innovative uses of digital technology.

1.5 STAKEHOLDER ENGAGEMENT

In order to meet the objectives, the four living labs created local structures, relationships and governance processes. The labs were organised together with a set of local partners that provided support for the co-creation approach and partnering with local communities. They also provided feedback and insights for the evaluation and draw lessons learned. The Project C3Places is indebted to these local partners which trusted the Project, giving their time, sharing thoughts and ideas.

Name	Country	Type of Stakeholder
IMEC	Belgium	Research Centre for Nanoelectronics and Digital Technology
City of Ghent	Belgium	City Council
City of Antwerp	Belgium	City Council
Ringland	Belgium	Public agency, large-scale project redesigning the highway system Antwerp
"Città Studi": Università degli Studi di Milano, Politecnico di Milano	Italy	City Council
Municipality of Milan	Italy	City Council
S&H srl	Italy	Private company
Civic Network Foundation	Lithuania	No-profit organisation
Vilnius Municipality	Lithuania	City Council
Rimantas Petrauskas	Lithuania	Residents association
Algimantas Maciulis	Lithuania	Private architecture studio
Zivile Diavara	Lithuania	Private (Loftas co-owner)
Escola Secundária Padre António Vieira	Portugal	Public high school
Junta de Freguesia de Alvalade	Portugal	Parish Council
Jardim do Caracol da Penha	Portugal	Residents association
PPL.pt	Portugal	Crowdsourcing agency

Table 1.1: C3Places local stakeholders in living labs

In the Projects website (www.c3places.eu/publications) there is an extensive list of publications about the results of the four Case Studies and corresponding living labs.

The **Co-Creation Platform myc3places** (https://myc3place.di.unimi.it/), which could be established in July 2021, provides the description of the keywords that guided C3Places: Inclusive & digital Communities, Co-creation of public spaces, community involvement, Public Spaces users and their socio-spatial practice and Web and mobile technologies as well as an overview of the cases and findings from the living labs, as well as the living labs and C3Places **POLICY BRIEF ON CO-CREATION OF INCLUSIVE PUBLIC OPEN SPACES AND THE USE OF DIGITAL TOOLS**.

1.6. GHENT LIVING LAB

The **Ghent Living Lab** was centred on the soundscapes in greenspaces and the perception of the soundscapes by users. People gather in greenspaces due to a particular interest; they look for a nice place to relax and enjoy nature, but this is

often hampered by being exposed to a broad range of environmental pollution (e.g., air pollution, noise, etc.). An interesting feature of the Ghent living lab was not being attached to a single "physical" place, but rather to a system of places and their virtual (and social) counterparts. Such space becomes a meta-space with the physical and virtual amalgamation. The Ghent living lab analysed the perception of noise by different users in several sites in the city. One of the sites, "De Krook" is an old port area that is being transformed into a technology park housing various institutions such as the new city library, the Flemish Research Centre for Nanoelectronics and Digital Technologies and other labs of the University of Ghent.

Figure 1.3: Test of the sound space in the Zuidpark. Photo: Šuklje-Erjavec, 2019.

A lively public space connects the buildings and a shopping mall and works also as the link to the Zuidpark, an elongated park (80m wide, 300m long), officially named Koning Albertpark. This park, surrounded by double lane roads and five-story buildings, is also the main public transport hub. This transformed it into a rather noisy place. Nevertheless, it is also a recreational spot, where people walk or run, walk the dog, and during the summer intensively use the wide meadows. Further occasional activities, like Jazz in the Park add more attractivities to it. De Krook, being the hub for innovative technologies in Ghent, already has different technologies available, while the Zuidpark in comparison is very low-tech. This site however opens the opportunity to take digital technology outdoors and explore how it can change the use, experience, and perceived quality. It also opens the opportunity for a combined

indoor-outdoor experience. This site was chosen since it offers the possibility to explore how ICT-driven solutions can strengthen the connection between a high-tech (De Krook) and low-tech (Zuidpark) adjacent context.

The Ghent living lab was developed around the soundscapes. An active recruiting campaign has been performed with 100 participants that used the developed application. Results show this is a good example of the use of ICT to actually improve an aspect of the public space – the noise comfort. Also, the soundscape living lab has been repeated in a virtual setting (based on audio-visual recordings) using oculus glasses. Similar results as for the preferred soundscapes were found, as of April 2019 a successful soundscape Hackathon has been organised following the international urban sound symposium hosted at the University of Ghent.

1. 7. MILAN LIVING LAB

The **Milan Living Lab** is located in the "Città Studi" area, a district of Milan surrounded by several buildings of the University of Milan. Città Studi is rich in tree-lined avenues and greenspaces, and several services for students (canteens, dormitories, libraries, shops, pubs, sports facilities, etc.). It is well served by public transportation, bike and car sharing (also electric) circuits.

Figure 1.4: Information in strategic spots of the open space network in the Città Studi. Photo: C3Places Archive, 2019.

Conducted by the Computer Science Department of the University of Milan, the living lab aimed at exploring new dynamics of open spaces as a value-added service for the student community, but considering the different social groups that share the area. QR codes (to be replaced in the future by beacons), placed near different points of interest, build the link to a dedicated web app. The web app, which is accessed after registration, geolocates the QR code and allows the user to read it. This

contains meaningful, background information on the point of interest. Bringing people to gather around the places of interest is a way to create and intensify the community bounds. Users can also provide information, which at the end can generate opportunities for interactions.

The idea behind is to create new possibilities of communication in the community, and thus helping the network to grow, not only virtually but also physically by means of technology. Students can find out what peers have achieved through their engagement, boosting interaction and collaboration.

1.8. VILNIUS LIVING LAB

The **Vilnius Living Lab** was centred on senior citizens (aged 60 and over), as the proportion of older people in the population of Lithuania will continue to grow, posing different challenges to the whole society. This group of citizens have very specific needs and interests in the public spaces. To better understand what these are, the Vilnius lab organised a series of activities. The elderly population is considered a vulnerable group, mainly because they risk a reduction in participation in various domains of community life through the loss of paid work, a decrease in income and an increase in health problems. Becoming less self-sufficient also decreases the interaction between the elderly and others in the social system they belong to. Also in terms of digital competencies compared with the young generation, they are less able to cope with an increasing digitalization. However, ICT literacy is one interesting factor for improving the quality of life of ageing people and their insertion in the society. Backed by the understanding that public space is a service for community, the researchers analysed how ICT and open space are today used together and from there to come up with ideas on how to provide public services in a more efficient way and more specifically tuned to the local context and different community members' needs.

The Art Factory Loftas in the neighbourhood Aukštamiestis was selected, since it is a new type of cultural spot and started with new initiatives for this age group. This neighbourhood consists of residential and public buildings (governmental, institutions, university departments, etc.), cultural and leisure spots, including a club with activities for seniors, retails, shops, and business centres. The new mix of uses, in a former industrial area is a new component of the Vilnius urban fabric. The city has been faced in the last decade with the need of reusing industrial buildings. The mix of functions and uses, in a former industrial area is a new component of the Vilnius urban fabric. Reinventing this part of the city has a deeper meaning as this area makes many older people remember other periods of their lives. Thus the transformation is about both changes in senior's life and attempts to create a more responsive public realm. It is also about creating a virtual community[1].

[1] Aukštamiestis community on facebook: https://www.facebook.com/aukstamiestis/community.

Figure 1.5: The Art Factory Loftas. Photo: C3Places Archives, 2018.

The public spaces in the Art Factory Loftas illustrate a good and new practice of decreasing the gap between age groups, inviting seniors to be part of urban transformation and to keep abreast of new developments. A multi-stakeholder perspective and new business models such as crowdfunding and public-private collaboration in sustainable public development were key elements of research. The exploratory case of Vilnius provided substantial understanding for improvement of methodological framework, i.e. how and when different stakeholders need to be involved in the co-creative process. The model for digital co-creation offers dynamic ideas for future research to further conceptualise the underlying participatory perspectives.

CHAPTER II
THE LISBON LIVING LAB

This chapter is dedicated to introducing the empirical research within the **Lisbon Living Lab** and assessing its implementation. It describes the starting questions that motivated the development of the study and the framework to approach better understanding the role of teenagers in the production and consumption of urban spaces. The Lisbon living lab also aimed at gaining experiences on providing teenagers with a forum to debate their own spatial needs and preferences. The following chapters provide the context and background that enabled C3Places to develop a response to the issues. The related outcomes of the Lisbon Living Lab are extensively addressed in the forthcoming chapters of this book.

The work programme in Lisbon was structured by the C3Places approach – discussed in Chapter 1. This guided the case study performance and drawing lessons. All partners collaborated intensively in all tasks amalgamating their own expertise into an interdisciplinary outcome. The labs were conducted in cooperation between researchers from the Interdisciplinary Research Centre for Education and Development of the Universidade Lusófona (ULHT) and the National Laboratory of Civil Engineering (LNEC), and with an essential contribution of the local partners: Secondary School Padre António Vieira (ESPAV) and Alvalade Parish Council.

2.1 THE RESEARCH QUESTIONS AND CONTEXT

The Lisbon Living Lab, focus of this book, was centred on teenagers (13-18 years) as they are a particular group with specific spatial needs and interests on public spaces. The characteristics of teenagerhood and the spatial needs are deeply discussed in Chapter 4. This chapter also provides a discussion on public spaces and their social values. It should be stressed, however, that the study in Lisbon was not interested solely in an isolated perspective, but one from teenagers merged with other user groups. Particular attention has been given to the interaction between teenagers and adults, as conventional planning and decision-making processes rarely offer up a dialogue between the two. As Valentine (2004) asserts, in a typically adult-oriented urban planning priority is not often given to young people, and adults, regarded as a bulk sample, decide for environments that favour themselves. In C3Places view, an inclusive city, is not only the one where everyone has access to public spaces, but the one that engages and empowers citizens to actively partake in the process of making the city. Such a co-creation process results in a positive impact on citizens' lives, enhancing the cognitive and emotional connections between people and places.

2.1.1 Putting the questions into context

To get a holistic overview and to answer the question of negotiation of public spaces and the teenagers' needs and preferences, the study addressed the questions regarding: Teenagers, spaces and digital technologies (see Figure 2.1).

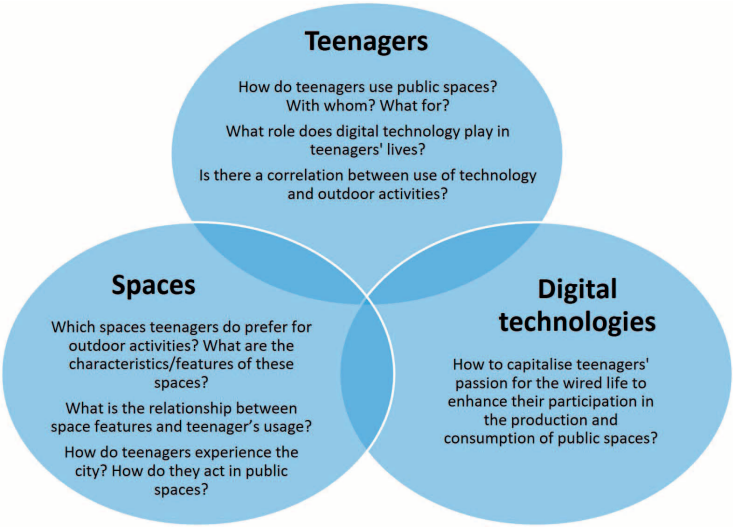


Figure 2.1: The questions addressed by the Lisbon Living Labs. Source: C3Places Archive, 2021.

All together these questions not only provide guidance for the research, but also insights regarding engagement, empowerment, urban literacy and the exercise of democracy. To get consistent responses calls for organising a framework to motivate teenagers to express their values and ideas on public spaces. This also opens the opportunity to explore further issues, such as:

- The role of citizens in the production of the city,
- The role of the urban fabric in the construction of citizenship,
- The role of teenagers in placemaking,
- The impact of public spaces at a social and environmental level,
- The space design effects on the relationship between different user groups.

For the Project, these questions mean stimulating debates and exchanges concerning the nature of contemporary cities. The living labs in Lisbon called for developing news and innovative ways of communicating and interacting with teenagers.

2.1.2 Research on and with teenage students

Backed by co-creation and co-research principles the Lisbon Living Lab was meant to provide a framework to engage teenagers towards gaining insights on their spatial practices, needs and preferences. The acquired knowledge is used to craft and design policies for an urban environment more sensitive to teenagers' needs. The idea of participating actively in an international research project found fertile soil at the Secondary School Padre António Vieira. An important aspect in working with this school is the fact that it is participating in a pedagogic pilot project of the Ministry of Education on sustainability and citizenship. This pilot project enables schools to decide the curricular contents for a certain number of hours. This was a relevant factor,

as it opened the opportunity to run the labs under an institutional framework, and not besides the daily school programme, and thus not becoming an additional burden for the students. The selection of the students to be engaged in the labs was undertaken by the school government after consultation with the Project. On the flip side, this means that the students have not freely chosen to participate in the labs. This fact however did not present a burden considering the positive aspects and the motivation of the students. The labs offered a forum for the students to freely express values, ideas, and preferences on the urban fabric and on public spaces, while creating an environment in which students are empowered, their urban knowledge fostered and their interest for placemaking captured.

The overarching aims of the Lisbon Living Lab were to involve teenagers actively within a co-research approach, and to further adapt methodologies and tools (from a collaborative perspective) to be used in the context of teenagers.

The interest and support from a secondary school located in the neighbourhood Alvalade was also a decisive factor to have access to teenagers. The school government was a supportive local partner in the development and operationalisation of the Living Lab. For the Project, it was also important to contact teenagers in a formal framework, not only due to data and privacy issues, but rather to involve them in "their" environment, as the school is one of the most pronounced and life changing factors at this age. Schools also play an important role in adolescents' identity development (Verhoeven, Poorthuis & Volman, 2019) and are one of the primary spatial experiences of students around the world as they travel to school.

The experience with Living Lab enables the Project to better understand teenagers' needs in the local context. This is also a way to enrich the practice of urban researchers, showing them that they are also unceasing urban learners.

2.2 THE ALVALADE NEIGHBOURHOOD AS SPATIAL CONTEXT

Empirically the research and living labs are grounded on the paradigmatic Alvalade neighbourhood[1] (Fig. 2.2). Developed in the 1940s, under the modernist premises this neighbourhood was planned to manage urban expansion. The secondary school is situated at the edge of the neighbourhood, whose brief history and its characteristics are described in Chapter 5.

The analysis of a territory of teenagers is important as it serves as the basis for anchoring the research on specific features of the city. In this context, territory is defined, not only as a physical space, but as an intersection of networks that besides a physical component, consist also of human, social, symbolic, values and formal, informal interactions. This understanding sheds light on different interdependencies

[1] Neighbourhoods in Lisbon (in Portuguese bairros) are historically meaningful due to cultural features, their contribution to local attachment and the city's identity building (CML, 2015).

among these networks, which strongly interlinked, turn space into a place, where the production, negotiation, experiencing and sharing common interests and displaying differences can take place. The social values of public spaces are issues extensively discussed in Chapter 3.

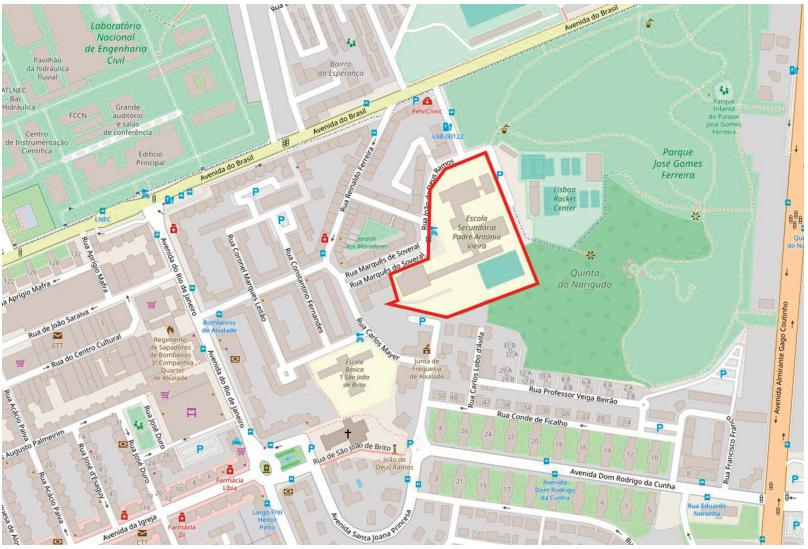


Figure 2.2: Overview of Alvalade and ESPAV school. Source: OpenStreetMap, 2020.

The relationship between teenagers and spaces can say a lot about a city - not only about how it is taking care of the new generation, but also the quality of life it offers for vulnerable groups. In the case of teenagers and youth groups in public spaces, being negatively stereotyped as trouble or source of problem (Skelton & Valentine, 1998), turn the spatial reference into a central issue, also because teenagers by gradually acquiring independence, can discover the city on their own. For this reason, it is important to investigate their daily trajectories in Alvalade to better understand the dynamics and conflicts they experience with and in the public spaces. This reinforces the call to expand the analysis to the values and meaning teenagers attach to places.

2.3. INSTITUTIONAL LOCAL PARTNERS

The development of the living lab methodology and the research design of the Lisbon study relied on partnerships and networks. These partners facilitate on the one side the access to students (the school) and insights into public spaces strategies of the municipality (council), and on the other hand, they were relevant to effectively discuss and validate the results. In all phases of the labs these partners were involved and contributed to the development of ideas and approaches. The results of the labs were also officially presented and discussed with both local partners. The results and ideas generated by teenagers were compiled in reports (in Portuguese) available at https://c3places.eu/cs-reports.

The Lisbon local partners are:

- **School Group of Alvalade** (http://aealvalade.edu.pt), which coordinates four public schools, including the Secondary School Padre António Vieira (ESPAV). The secondary school was intensively involved and strongly supported the Project.
- **Parish Council of Alvalade** (http://www.jf-alvalade.pt) the local authority responsible for the planning, management and maintenance of public open spaces in Alvalade. A "Junta" is in Portugal the local administrative and executive authority. It is the first tier of local government. The representatives of the JFA (Parish Council of Alvalade) participated in the urban planning workshops, discussed the findings and results, in particular the ideas of teenagers for space in front of their school in Alvalade.

Furthermore, the living labs counted with the support of ***PPL Crowdsourcing Portugal*** (www.ppl.pt), a crowdsourcing and crowdfunding platform supporting community projects, and the grassroots ***Movimento pelo Jardim do Caracol da Penha*** (www.caracoldapenha.info), a local non-profit association working to recover a car parking in the neighbourhood Penha as a public garden. Its proposal was elected to be financed through the Participatory Budget of the municipality. The garden is planned to provide a meeting point for the residents to meet and congregate.

Both PPL.pt and Caracol da Penha contributed with their experience by relating to the students not only their objectives but how they build their work programme.

2. 4 RESEARCH DESIGN

Tackling the relationship between public spaces and teenagers requires a multidisciplinary view – from the fields of anthropology, geography, education to urban planning and design, all of which have their own specific questions, work methods and tools. The analysis however must be juxtaposed, but still able to deliver responses for each discipline. This means establishing a consensus-building approach among the disciplines, at the same time generating multidisciplinary ideas and possibilities. This is crucial when bringing together ages and places that tend to be treated separately.

In Lisbon, the living lab aimed at exploring how teenagers appropriate and express needs and preferences towards public spaces. This has been conceived to provide a test bed for co-creation and co-research. The methodology used to engage teenagers included:

– Review of literature and research projects,
– Analysis of local socio-cultural context – the neighbourhood and in particular the vicinity of the school,
– Review of policy instruments and implementation processes, at municipal and national levels,
– Adaption and further development of ICT tools for research and interactions with teenagers and stakeholders,

– Assessment of the quality of the local public open space network, and discussing the results with key local stakeholders,
– Exploratory visits to the local public spaces, to learn about the local technical/ /conditions, spaces layout and service, and observer and mapping the frequency of users, to obtain an overview on possibilities and potentials, and to detect the places teenagers use,
– Interviews and questionnaire surveys with teenagers, teachers, and parents to capture how they use public spaces, how they learn and the patterns of ICT access and uses,
– Interactive engagement of teenagers, culminated in local Living labs, to capture the interest and needs in public spaces, also to increase capacity building, towards increasing their understanding of the city, its spaces, and environmental and socio-spatial structures,
– Interactive and dynamic exchange with local partners, organising their participation in the lab sessions, and via interviews capture their experiences and perceptions;
– Interviews with council planners of the Junta de Freguesia de Alvalade - JFA (Parish Council).

The research being multidimensional collected data from teenagers-students and different stakeholders. The different activities, their goals and components are depicted in the Fig. 2.3. These suggest a strong relationship between the components and the research activities, which has been confirmed by the results addressed in this book. In each chapter the methods and tools are taken up again and discussed more deeply along the results.

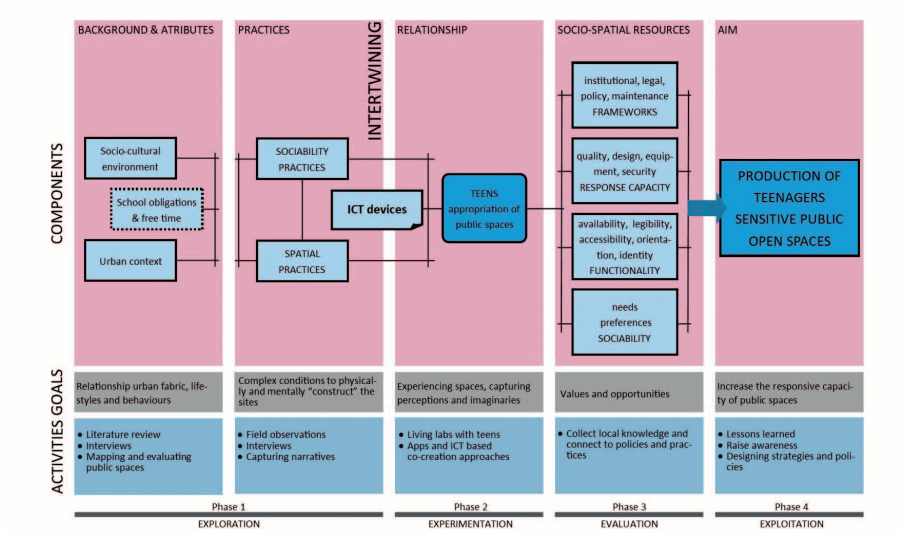


Figure 2.3: Methodological approach for the Living Lab in Lisbon. C3Places Archive, 2016.

CHAPTER III
THEORETICAL PERSPECTIVE

The endeavour across this chapter is by mapping and reflecting on different notions, concepts, strategies and frameworks to base a critical overview of the current state of research on urban environment, co-creation and placemaking in the context of teenagers. In doing so, the goal is not an exhaustive review of the literature, but rather to focus primarily on recent research and theory towards strengthening and helping underpin the local research in Lisbon.

This chapter aims also at providing the foundation for identifying the work methods and tools to better approach the goals of the research in Lisbon, enlarging the understanding of the relationship of young people with the public realm, and their impact in questioning "citizenship" in general, and of citizenship through the lens of teenagers in particular. Harnessing the knowledge of the crowd is a central approach in the Project C3Places. By reflecting on this aim, this chapter unpacks the different issues closely related to the nexus teenagers, public spaces and placemaking - and to open a debate on the concept of territorial capacity and education, as a raising issue in valuing and understanding the environment. This endeavour results in an emerging area for social and planning sciences in practice and research.

3.1 THE PUBLIC REALM – STAGE FOR SOCIAL LIFE

Public realm, public goods, public domain are terms used interchangeably, although there are several key differences that distinguish the different spheres of publicness. For the C3Places Project, the features of the public realm concerned are public open places, the dedicated physical space where public life and social processes among inhabitants occur.

Public spaces are one of the most pressing challenges in the urban world of today. Although their value and benefits are widely recognised, their accessibility, quality and a biased distribution within the urban fabric is part of the fight that must be won every day (Smaniotto, Šuklje & Mathey, 2008). Among the factors that put public spaces at risk are diverse and range from decisions in respect of planning, shortage in terms of design and maintenance, weak links between economic growth and socio-spatial progress, and the competition that takes place on the scarce urban fabric. The latter concerns specially the cases where the reliance on cars and an auto-centric urban design converge (Fig. 3.1), turning the public realm into unattractive and bleak places (Smaniotto, 2014). On the positive side, the network of public spaces is an important component of the urban structure and an inalienable resource that affects the quality of life - whereby the conditions of accessibility, usability, and safety subsequently affect community well-being.

Such perspectives have on the one side been exacerbated by rational planning actions, but on the other also by the commodification of public space by neoliberal and capitalist policies seeking to privatise infrastructure and essential resources. The city of Lisbon has not escaped this effect, as it is also affected by the accelerated process of urban transformation led by gentrification, mass tourism and real estate speculation

Figure 3.1: The open space in front of the Secondary School in Alvalade, a space dominated by the car culture that serves as a gathering point for the students. Photo: C3Places Archive, 2019.

(Sequera & Nofre, 2019). Such changes are, however, in accordance with the recommendations of the Lisbon Strategic Charter: 2010-2024 (2009) and the Urban Rehabilitation Strategy: 2011-2024 (2011). In these strategic documents, the city council highlights the need of reframing the city's development axes, improving only certain areas of the city, and investing in some of the public spaces to boost culture, creativity, cosmopolitanism, and diversity. These directed investments aim at enhancing the experience of multiculturalism, alongside cultural and urban heritage. Such an apparently positive urban intervention process has or should have at least as principle giving the city and its public spaces back to people. However, the intervention dynamics in public space, with a strong focus on tourism, may also turn out to have a "sanitation" perspective, creating well-designed spaces but not responding to the real needs of those who live and use the city on a daily basis. Such pressures show that public space reflects political, economic, and technological changes that in turn can influence socio-spatial perspectives – such that help the living environment become a place to be and belong (or not). The socio-spatial relations crucially reframe space in terms of creating places; enabling meaningful experiences is what motivates place attachment. These social and individual experiences, related to the use of the urban fabric, give public spaces the strength to become a crucial site of encounter and social transformation. This entails that the meaning of place not only refers to a physical asset where things happen, but also to the symbolic meaning of place in which social and narrative discourse are dynamically interwoven, overlap and intersect (Spatcheck, 2019). In a place-related context, this means that the spatial practices constantly define and redefine the public realm through a lived experience. Since the spatial factors are amenable to change this can be taken as strong evidence that making spaces sensitive to teenagers may lower exclusion and improve city's commitment to sustainability.

C3Places research focuses only on urban public open spaces referred to as public spaces. Public spaces are necessary urban goods for satisfying personal and collective needs - for a multitude of issues, such as physical, social, and mental well-being and cultural development. Closely linked to the above, is an open process to participate and have influence in decision-making about how and what public spaces should become.

Placemaking is an open process that is receiving ample attention. Because it capitalises on a local community's assets, potential and inspiring shared responsibilities, and with the intention of creating public spaces that promote people's health, happiness, and well-being (PPS, n.d.), at the same time pushing for policy changes. Both issues, increase the responsiveness of public spaces and crafting public policy provide the effective foundation for C3Places.

3.2 PUBLIC OPEN SPACES – A COMMON GOOD AND RESOURCE

C3Places borrows its understanding on public space from UN-Habitat (2015: 15): "all places publicly owned or of public use, accessible and enjoyable by all for free and without profit motive". As a collective term it defines, in its broadest sense, all urban places that are not built-up or are predominately free of buildings, yet intentionally created and maintained by public authorities to benefit all. Their purpose can range from providing infrastructure for circulation, creating a place for leisure and recreation or to preserve areas due to their landscape features and ecological-environmental merits (INU, 2013; Smaniotto, Šuklje & Mathey, 2008). Thus, a public space can take different forms, scales, purposes, and encompasses both man-made spaces and those with natural features or little human interference. Among them are streets, lanes, squares, plazas, marketplaces, parks, green spaces, greenways, community gardens, playgrounds, waterfronts, urban forests, and agricultural used land. As qualified spaces they should not be confused with the "leftovers" by the land take and urbanisation processes. A public space is neither a residual space nor that idle area waiting for a "use". As dedicated places, public spaces belong to and concern us all. Every single time we leave the private realm of buildings, we enter a space shared with others. As Gehl notes "First life, then spaces, then buildings. The other way around never works" (in Dalsgaard, 2012).

This makes clear that a public space is a plural object and not a single, linear one. To properly define it and discuss it, a multiplicity of subcategories and genealogies need to be amalgamated. A public space is material, geographical and/or ecological, but not exclusively a physical entity. It has social and relational dimensions, and it is a place where demography explodes or withers, it is the stage for sociological or political transformations, and the materialisation of economic or power relations (Lefebvre, 1991 [1974]). In this conception, public spaces are associated with human encounters, and communal celebration and negotiation (Carr et al., 1992), and

further with recreation and pleasure. A public space thus plays a critical role in building and renewing the city's social and economic base.

The public space is a research subject for multiple disciplines from geography to landscape architecture, engineering, anthropology, sociology, environmental psychology, archaeology, and once built, merged and reflected with a handful of others it uncovers its potential to inspire progressive placemaking. Urban planners, architects, landscape architects, local authorities, interest groups all came together in the making of the urbe. Space, in general, is also conceptualised theoretically under multiple dualities – it is either relative or absolute, real or virtual, natural or built, perceived, conceived or lived, represented or experienced (Low, 2017). This shows how complex and dynamic a public space object can be.

A public space is the main resource for social expression of a community, as it offers the place for interactions among and with other people and for people with the environment. This makes the public space a fundamental subject to understand the past and the present of a community, and to look at our common future - as it mirrors not only the community but public administration too.

In effect, the way in which the public administration handles public spaces is an indicator on how it values public goods and community assets. Taking care of issues of accessibility, attractiveness and responsiveness is an effort and an indicator for the good urban quality of life. Moreover, being a place for all, makes public space a window to the soul of the city where some of the best and worst characteristics of the society are materialised, observed, and reproduced (Smaniotto & Patrício, 2020). It is people who make places and with their spatial practices construct the vibrancy of communities and cities.

The city, as Lynch (1960) noted, is an object without an end. A city thus reflects life at its "messier", an accumulation of inputs, development phases, styles and techniques, stories, practices and uses by a diversity of people that shape and reconfigure, permanently or temporarily, the environment around them, and are, in turn, influenced by that same environment. In other words, spatial practice embraces production and reproduction of space. Jacobs and Appleyard (1987), in the seminar work "Toward an urban design manifesto" set as goals for urban life:

- Liveability of space,
- Clear identity and clear control,
- Access to diverse opportunities, to imagination and enjoyment,
- Authentic and meaningful space,
- Focus on community and public life,
- Priority to urban self-reliance and setting an environment for all.

These goals bring us back to the concept of space as a resource for urban life and a social product - as Lefebvre (1991) calls it. For this reason, in C3Places the terms "production" and "consumption" of public spaces are used to refer to the entire process of designing, constructing, managing (i.e., producing a space), and with its consumption on the other side, refers to its use, appropriation, representing, and imagining it.

Yet, if space is a product, it is expounded to the process of reproduction (Lefebvre, 1991). Bridging between the socio-spatial practices and the spaces as well as the urban imaginary is not just a practical possibility, but a necessity to understand the next related keyword: publicness. The "publicness" of space is a fundamental feature in its social meaning and function. Sennett (1977) brought attention to different public roles performed in and by the cities – as the audience, for the continuity of content; as the producer of a public geography (loyalties and movements); and as presentation of the self and in relation to others (social expression). Fundamental action in public is the "experiencing of diversity" (Sennett, 1977: 87) – the encountering of "others" that are part of "us". A range of social, cultural, and planning disciplines investigate the context and the environment in which public spaces are produced, reproduced and contested. This makes the theory behind public spaces an unlimited field of work. Although public spaces are being tackled by these different disciplines, each having its own perspective and working methods, they follow the common goal: to better understand the dynamics and the role of the space for people and their social life. Research is thus expected to enhance the knowledge base from the dynamics of biophysical systems (territory and surrounding land use), socio-economic and socio-cultural systems (people and their characteristics) linked to their imaginary (representations and values) to the set of driving forces (legislation, rules, and standards).

This evidences the multi-faced character of public spaces. Smith and Low (2006) remind us that the understanding on what constitutes public space differs across place and time. In their terms, the importance assigned to a space is susceptible to the context; and this makes its value more volatile too. There are many ways to define a public space, a fact that attests their multi-layered dis/junctures. For simplicity's sake, and because it best captures what people care most about, the Project C3Places, in turn extended to this book, tackles public spaces by their social value and contribution to the quality of urban life. Existing research shows that public spaces can foster social, cultural, and economic capital. The New Urban Agenda gives great importance to the quality of public spaces as indicators of the quality of life in cities, and considers public spaces highly beneficial for inhabitants, for example, as drivers of social and economic development or as intervening spaces to increase cities resilience to natural disasters and climate change (UN-Habitat, 2016). The Agenda highlights a global commitment to

> *"(…) promote safe, inclusive, accessible, green, and quality public spaces (…) that are multi-functional areas for social interaction and inclusion, human health and well-being, economic exchange, and cultural expression and dialogue among a wide diversity of people and cultures, and which are designed and managed to ensure human development, to build peaceful, inclusive, and participatory societies, as well as to promote living together, connectivity, and social inclusion" (UN-Habitat, 2016: 6).*

Among the network of public spaces, the greenspaces, or those covered by plants and with soft surfaces, offer further environmental benefits as they improve the urban environmental quality air purification, water storage, CO2 sequestration, among others (Smaniotto, Šuklje & Mathey, 2008). They also offer a site for physical activity (Fig. 3.2), to exercise and play sports, crucial in decreasing contemporary health problems, such as obesity and sedentarism (Godbey, 2009). Kong (2000) and Muñoz (2009) report about relationships found between access to nature and benefits for mental health, more robust immune system and better cholesterol levels.

Figure 3.2: Parque Quinta das Conchas in Lisbon. Engaging in any type of physical activity and being exposed to nature have both physical and mental health benefits. Photo: C3Places Archive, 2018.

There is a direct link between providing benefits and the quality of public spaces. To reap these benefits means dealing with creating high quality spaces that increase human health and well-being as an additional benefit of environmental sustainability. Indeed, the features of public space matter, such as those that make places safer, more inviting (Gehl, 1987 [1971]), easily accessible, near people's homes, attractive and inclusive. The question of accessibility and safety are key elements. In this regard, Jacobs (1961) states that perceived insecurity in cities cannot be easily solved by spreading people (i. e., with the expansion of the suburbs) since there is also a sense of safety that comes from the high use of public space. Safe public spaces and social peace are not maintained exclusively by formal authorities – as the police or administrative bodies – but by "a network of voluntary controls and standards among people themselves, and enforced by the people themselves" (Jacobs, 1961: 32). Such networks, however, can only fulfil functions and provide benefits when there is a clear

demarcation between public and private spaces, if there are eyes on the streets and sidewalks and the spaces frequently host users. This can be accomplished by creating attractive spaces, with amenities and equipment, such as good lighting, visibility for pedestrians and surrounding buildings open to the public view. All these make the public space an inviting place (Jacobs, 1961). The author also brings attention to the need for generalised public spaces instead of specialised ones, those that promote diversity, offer a variety of opportunities and activities, and of scenes and users. The author, conversely, goes on to point out that this generalisation should not be mistaken for lifeless and anaemic places. People in cities have quite different interests and duties, they hardly can bring life to a specialised, inanimate park. In Jacobs' terms, there is the need to mix primary uses with secondary diversity and the need for small territorial units, i.e., places for gathering and socialising. These aspects assure that a neighbourhood is diverse and inclusive. For Jacobs and Appleyard (1987) streets and neighbourhoods must be liveable within a minimum density of development and intensive land use; activities – as living, working, shopping – should be integrated and in reasonable proximity to each other. This assertion appears to support the concept of a 15-minute city, as it calls for a return to more local qualities (green, mixed-use, basic services, etc.) within a walking distance (Moreno, n. d.). To achieve such a community-friendly approach, Gehl (1987 [1971]) concludes that planners should focus on the public life happening "between buildings". The author reminds us that outdoors is where social interaction takes place, different recreational activities can be performed, and people have a sensory experience of the city. The author argues that there are three different types of activities in public spaces, starting from those necessary that happen regardless the quality/features of a space, to those optional/recreational which are dependent on the affordances of space, and the social that emerge when the quality and length of stay enable socialising (i.e., interacting with others). Gehl acknowledges an intrinsic relationship between the quality of the space and the amount of optional and social activities (Gehl, 1987 [1971]; Gehl & Svarre, 2013).

These urban theories highlight that public spaces should enable opportunities for social encounter, play, contact with nature and physical activities (Kong, 2000; Stevens, 2007; Smaniotto, Šuklje & Mathey, 2008; Godbey, 2009). Stevens (2007) further argues that the diversity of behaviour in public spaces goes far beyond linear definitions of function and efficiency. The maxim for planners should be to make public spaces 1) more useable and able to accommodate actions beyond a strict programme, as such that the place is 'completed' by those who use it; 2) more open, accepting complexities, ephemerality, tensions and unpredicted practices of people; and 3) more public, acknowledging that physical characteristics and affordances embody specific symbolic meanings which in turn limit the publicness of space. Versatility is thus, as Alves (2005) points out, a crucial feature for sustainable public spaces, since the needs and preferences of users are multiple, transitory, and constantly changing. A public

space, used and lived as common good, can boost a healthier, safer, and, therefore, more sustainable urban environment and more attractive for those who use it (Carr et al., 1992; Thompson, 2002; Carmona, 2015; UN-Habitat, 2015). Because, as Gehl (2012) put it, life must be what comes first and to be firstly considered in the production of urban space.

3.3 THE SOCIAL VALUE OF PUBLIC SPACES

Being an enabler of social interaction, public spaces act as a stage for the enactment of citizenship. In effect, public spaces perform a key function in the social fabric of a city. They create the physical environment for its social life and to practise publicness. An increasing body of literature acknowledges the value and attributes of this social function (Carmona et al., 2003; Gehl, 1987 [1971]; Innerarity, 2006; Jacobs, 1961; Lefebvre, 1991; Mitchell, 1995; Sennett, 1977; Smaniotto & Menezes, 2016). Indeed, a public space, being open to all, has in its nature the ability to enable, enhance and enrich interactions and be the forum where people's differences and similarities are put on display. It is also there that people manifest their sense of belonging to the society. Being open to all means also that distinct groups can claim their right to appropriate the space and negotiate its use with other users and/or groups, even with those who are considered undesirables (Smaniotto & Patrício, 2020). In other words, public spaces offer the fundamental context for the negotiation of social and cultural identities. In this way, they create the context for mutual understanding and respect, and enable the development of social bonds, resulting in building symbolic identification (Carmona et al., 2003). This reinforces the traditional role of public space, as a contested domain where conflicts or unrest gain the needed visibility (Lefebvre, 1991; Smaniotto & Patrício, 2020). The reasons for outbreaks of public dissatisfaction are manifold (OECD, 2011), but they all share a common ground, they use public spaces as an arena to reach the public at large. Because of this feature, offering the arena and the stage for visibility and publicness, a public space has been historically where power structures were manifested and dominant social and moral orders were produced, imposed, and perpetuated (Sennett, 1977). For Sibley (2003 [1995]), people's feelings about others (i.e., racism, oppression, culturally constructed exclusion and social categories), exclusionary discourses (as stereotypes built on and perpetuating fear) and moral panics (when a person or group is identified and recognised as a threat to society) all inform spatiality, working on a symbolic construction of boundaries and territories that exclude both socially and spatially certain groups or individuals (Smaniotto & Patrício, 2020). The spatial aspect of this segregation is a result of the dichotomy of the situation, between legitimate and illegitimate users, between affluent and undesirable users, and between appropriate and inappropriate use of the public domain. Socio-spatial segregation often goes unnoticed and is being reproduced without contestation, perpetuating thus broader societal divisions and conflicts over public goods (Bolt et al., 1998; Malone, 2002; Sibley, 2003; Smaniotto & Patrício, 2020).

A further benefit from public spaces is linked to the sense of safety. Jacobs (1961) sets safety in urban fabric (either real or perceived) as connected with the right to public goods and freedom of movement. The sidewalk emerges as a place for public contact and as a place for safety. The trust in the street is built also by social interactions, which implies an individual commitment with the space; it emerges from the balance between public and private life, and by sharing public spaces, since this dynamic is essential for a social space (Jacobs, 1961). Public spaces have been incremental in the making of the urbe, and that has been mostly a consequence of their social function. However, some authors point out a fragmentation of the contemporary city (Sennett, 1977; Goitia, 1982; Innerarity, 2006; Low, 2017). These authors argue that this fragmentation is a direct consequence of changes in public spaces functions, of a disruption of their significance as places of sociability and as the ground for "spatialised" social life and interactions. Instead of being places to stay, they are becoming mere spaces of passage and circulation, where people cross each other but are not together. Sennett (1977: 14) noted already in the 1970s the "perverse idea" in making "space contingent upon motion"; in transforming public spaces in mere paths and linkages towards going somewhere else. This would promote "the erasure of alive public space" (Sennet, 1977: 14).

Oldenburg (1989) highlights the transformation in the typologies of space. The sociability element has not vanished, but the author notes that other gathering places emerge. The author uses the concept of the third places, as a "generic designation for a great variety of public spaces that host the regular, voluntary, informal, and happily anticipated gatherings of individuals beyond the realms of home and work" (Oldenburg, 1989, n. p.). These places, i.e. coffee shops, taverns, pubs, local shops, and clubs (cultural, sports or other) may be public regarding the access, but they are not in terms of ownership. In the USA, according to the author, even if public spaces are still being used and shared by different groups, the ideal city has been replaced by the ideal home. People's expectations towards realms of experience – the domestic (home) and productive (work) – have increased since the realm of sociability is diminishing caused by the absence of informal public life. Sociability and public gatherings are not performed among strangers, neighbours, or acquaintances but with the family and co-workers, and this disturbs the community in the traditional sense. Community becomes elitist – a personal community, chosen by the individual – that disconnects more than connects people with surroundings since it is localised in spheres of less diverse life (in terms of people and interactions) then places of informal gathering (Oldenburg, 1989). Regardless of such pessimistic views on the fragmentation of urban space, the Project C3Places, learning from past experiences, takes the view that public spaces remain as crucial sites for social encounter. There is however a need to ensure an equitable distribution of public spaces within cities. As addressed in Chapter 6, a well-balanced provision of quality public spaces can directly influence urban dynamics, and this enables urban societies to reduce social

segregation, increase inclusiveness and social cohesion and mitigate economic inequalities. Thus, public spaces policies and social policies go hand in hand with quality of life and investing in both is a sustainable way to enhance urban liveability. Transition may be started only then when the negotiation of public spaces is set into a programme that puts people (and neighbourhoods as social units) at the centre of urban planning and design (Gehl, 1987 [1971]; Jacobs, 1961).

A higher use and care for public spaces can be boosted by more flexible and adaptive public spaces, better responding to needs and practices of users, and opening opportunities to engage them through participative strategies.

3.4 THE MEDIATED PUBLIC SPACE

The world has become increasingly hyperconnected; the Internet associated with mobile and locational services is accessible and immediate for almost everyone across the globe. Considering that ICT and their devices are becoming increasingly a companion in attending the outdoor real-world; the digital is also affecting the way people experience public space, to such an extent that it becomes fully mediated (Ioannidis, 2017) or a hybrid space, where the digital layer augments the physical one (Smaniotto, Menezes & Šuklje, 2015; Smaniotto et al., 2019). The Project CyberParks[1] embraced the challenge of setting a research focus on studying systematically and in-depth the ICT use patterns and their reflection in public spaces. The results of CyberParks, a forerunner in the field, inspired the C3Places, as the wired life is even more relevant when young people are in the centre of attention. Despite a significant amount of daily time youngsters and teenagers spend glued to screens and on the Internet, to study, work, get informed, communicate with peers, public space still provides, as described above, essential benefits in the networked world.

Emerging digital technologies also unlock new possibilities – especially regarding people's engagement. If versatility, flexibility, and adaptability are features for more inclusive public spaces, this can be better achieved by means of participatory strategies, and through co-research and co-creation approaches. Active participation from the community should be sought to make the process more interactive and responsive, and to provide fairer, more attractive, meaningful, inclusive, and sustainable results.

The topic of ICT penetration in public spaces and their contribution to enhance quality receive ample attention in the forthcoming chapters.

[1] COST Action TU1306 CyberParks; www.cyberparks-project.eu

3.5 URBAN PLANNING AS PROCESS FOR SOCIAL PARTICIPATION: THE INCLUSIVENESS OF PUBLIC SPACES

Inclusiveness is a topic that is receiving attention by policies and regulation. Attempts to make societies more inclusive are mostly based on the premise that setting standards and establishing measurable goals could improve individual and collective outcomes. In the case of spatial planning, the outcome of inclusiveness is equal access to the public goods. This is an important foundation to close gaps between policies and what citizens need and expect. In democratic societies the theory and practice of public administration is increasingly concerned with citizens taking an active role in decisions that concern their immediate environment, as cities should respond to policy challenges also on the ground. In increasingly complex systems, such as urban environments, to decide who is this "citizen" is also a complex issue. As Carmona et al. (2003: 158) assert, "urban design is about making better places for people, however the referred 'people' are all potential users of the built environment – old/young; rich/poor, male/female, those able-bodied and those with disabilities, the ethnic majority and ethnic minorities". Such understanding entails the meaning of being "open to all" – as discussed above. In fact, public spaces are also one of the few gathering possibilities (especially in segregated societies) where people of different ethnic, cultural, and socioeconomic backgrounds can come together. Idealised as democratic domains, this understanding reinforces the role of public spaces per se as places of inclusiveness. This inclusiveness is a product of the social function of spaces and a result of formal and informal gatherings, as these are a stage to be among friends and strangers, encounter differences and engage in planned or serendipitous interactions (Innerarity, 2006).

Project C3Places uses the terms inclusive and responsive place to describe a far-reaching framework of principles and best practice on which communities can build a shared commitment to sustainability in social and urban development. The social dimension of public space requires from planners the understanding of how people influence and transform their environment, and of what can be their contribution. Therefore, communities should be engaged – from the very beginning – in the making and transforming of public spaces.

Yet despite these benefits, it is known that not all citizens are given the same opportunities to participate and express their expectations for public spaces. The reasons can be manyfold, for example, due to socioeconomic, educational or age status (Armingeon & Schädel, 2015; Valentine, 2004; van Holm, 2019). However, listening to citizens has become a powerful and a pervasive mantra. The call for giving voice to citizens is not new. Back in the 1960s, Jacob raised awareness to the fact that in urban planning a general solution for all cases does not work, since "people do not use city open space just because it is there and because city planners or designers wish they would" (Jacobs, 1961: 90). The author notes that policy

makers, often missing the information on what makes streets safe and public space used, will continue with policies that, not only do not provide guidance, but as consequence may prevent people from using public space and create private territories (Jacobs, 1961). More effort should be put into observing public spaces and understanding why they are meaningful to people. More precisely, in 1965 Davidoff's called for a plural planning, one that includes citizens towards a democratic urban government. Inclusion, the author continues, can be only achieved when citizens do not only express their opinion, but are informed, prepared to discuss with professionals and able to present proposals of their own. More intensive scrutiny will also assure higher quality of plans. Davidoff (1965: 425) coined the term "advocate planner" as in plural planning processes, planners also become advocates, pleading "for his own and his client's [citizens involved in the process] view of the good society", and not only representing central interests. In such a role an advocate planner is more than a mere information provider, she/he becomes an analyst, supporter, and a channel to appropriately represent the neighbourhood, with good chances to be a proponent of specific substantive solutions. Gehl (1987), who is known for advocating the call for putting people at the centre of urban planning and design, recommends starting the process based on the analysis of public life. The guiding questions are how people appropriate places, and what are people's spatial practices and needs. The answers help create better, more inviting and inclusive public spaces. Having clear knowledge of how specific spatial characteristics and configurations shape peoples' experiences help planners and policy makers to | create broader strategies (Alves, 2005; Stevens 2007). Indeed, more recently the call for plural planning has been revamped and extended, as further participative strategies, such as inclusive design (Carmona et al., 2003;), placemaking (PPS, n.d.), co-creation and citizen science (Conrad & Hilchey, 2011; ECSA, 2015; EC, 2019), urban living labs (ENoLL, 2016; Bylund et al., 2019; Chroneer, Stahlbrost & Habibipour, 2019) are gaining ground. All these make the call for giving citizens more agency in the planning and design processes. In inclusive design, users are engaged directly in the design process so that the end-product is built of users' contributions. Carmona et al. (2003) point out that inclusive design should not, necessarily, be directed to the needs of a single group of users, but inherently a flexible design, attractive and adequate to the broadest possible group of people (regardless of the diversity and differences among them). The Project for Public Spaces, promoting user-centred design, conceptualises placemaking also as a collaborative process. It is an approach to bring people collectively to "reimagine and reinvent public spaces as the heart of every community", it refers to a collaborative process by which people shape the public realm to maximise shared value (PPS, n. d.: n. p.).

Concerned parties, be them different users' groups, community facilitators, professionals or local authorities and municipalities, should be engaged in the making of the city (Thompson, 2002; Carmona et al., 2003; Alves, 2005; UN-Habitat, 2015).

However, expectations should be realistic. Participatory approaches come with an attached set of challenges and different requirements in terms of time, resources, monitoring and structured process. If these requirements are too demanding, they can diminish potential advantages for planners and authorities. Such bottlenecks, as identify who to involve and how to approach them; the time between participating and earning benefits; due to transitory users' needs, low flexibility to provide an immediate response while changes have not been staged; dealing with issues considered for non-experts too technical; complex, to mention few (Talen, 2000; Valentine, 2004; Alves, 2005; Jupp, 2007). Talen (2000) also argues that planners and practitioners should not assume that they can "design" or "plan" a community by designing and planning spaces in the community. Any intervention always leads to unpredictable results and, although community participation is crucial in the making of more useful, open, and public "public space", community building should not be an end-goal, but a process to be encouraged through citizen participation (Talen, 2000).

Engaging users in placemaking may be perilous but creating collaborative environments for planning and transforming public spaces is fundamental for a more interactive process and for meeting the needs of the community. The goal is to produce public places that are more attractive, meaningful, sustainable, and, above all, inclusive. The C3Places Project, backed by such principles, seeks to advance knowledge, experiences, and benefits of more inclusive and shared urban fabric. Then, hopefully, more prosperous, sustainable, and people-centred urban environments.

3.6 FROM PARTICIPATORY PROCESSES TO CITIZENS SCIENCE: A TERRITORIAL CAPACITY PROCESS

3.6.1 Participatory processes and co-research

Public space, as a place to congregate both individually and collectively, is also the place where citizenship can (and should) be practised. The responsibility for the production of public spaces falls upon institutions of power, and upon citizens when they are aware of their role in creating community goods. Reflecting this on public spaces, it implies understanding spaces as a resource and a product, with social, economic, political, and symbolic values, and then assembling them into a useful service. This sets public space under the sphere of public power (Almeida et al., 2020; Habermas, 1984). The current call for participative processes is interlinked with the increasing pervasiveness of ICT. Castells (2010 [1997]), criticising the globalisation effects on economic activities, coined the term *network society.* For the author, this is a new mode of social organisation, with broader flexibility, but where labour and work are more unstable. The coronavirus pandemic 2020/2022 is also making visible the global interconnectedness and interdependence in mobility,

financial and economic transactions and on social and interpersonal relationships. Another consequence of the network society, according to Castells (2010) is the crisis of political representation since identity formation and state sovereignty are subject to potential changes in the context of global information flow. Political systems lose credibility due to the tensions between political participation, social claims, and the response (or lack of it) from democratic institutions. According to the author, in the (re)construction of democracy, it is fundamental to invest on a horizontal participation model, for which ICT open new windows. Participatory processes with help of digital tools create additionally the opportunity to enlarge the number of participants who can simultaneously provide direct inputs and feedback without high expenditure (Smaniotto, Menezes & Šuklje, 2015; Mueller et al., 2018).

Increasing the number of people involved regards relationships of power. Even if in the digital age power remains within the same traditional sources, a new power elicited by information codes and representational images is emerging. It is the power without physical materialisation, but ingrained in people's minds (Castells, 2010). The digital society supports the transfer of power to the individual who can participate autonomously and is bringing in new ways of collective organisation and responsibility sharing (Schmidt & Cohen, 2013). Digital technologies are expanding to what Jenkins (2009) calls 'participatory culture'. Here information is not unidirectional anymore but appropriated by consumers who (re)produce new content, it moves in an infinite loop blurring the lines between producers and consumers. Participatory culture expands the legacy of western ideology and bureaucratic welfare or social states, as it is influenced by community development, social work, and community radicalism movements of the 1950s and 1960s (Midgley et al., 1986).

As discussed above, the call for more and broader community participation in urban planning is not new. In recent years there has been a resurgence of interest in participatory planning with a considerable number of authors and researchers pledging for it. Such call is however not limited to urban planning, but it is rather the result of a general shift in diverse fields and disciplines. The theoretical foundations of participation emerged from the social sciences, particularly from political science and development theories (Lane, 1995). In this context, participation arose as a solution to overcome limitations and negative consequences of development strategies that, either in the context of international cooperation or national development, were imposed on the beneficiaries instead of including them (Holcombe, 1995). Claridge (2004) has shown the difficulty in providing a single definition for participation or empowerment. Both concepts are vague since people with different ideological positions and from different disciplines use the same terms but give them very different meanings. Participation has multiple definitions, and offers different applications and possibilities. It is also contextual and depends on a variety of variables, i.e., who should be involved, or what are the expectations and results to be achieved (Agarwal, 2001). The trend seems to indicate that participation

is mostly seen in relation to the role of the community in decision-making process (Claridge, 2004). Nelson and Wright (1995) identify two general features of participation, first as a means towards accomplishing a goal – more efficiently, effectively or cheaply; and secondly, participation as an end, where the community or a group sets up and controls the process. Arnstein (1969) describes a model with the different levels of citizen participation, control, and power in a simplified "ladder of participation". It shows in eight steps the spectrum from nonparticipation at the bottom to citizen control on the top. The first two steps are manipulation and therapy, where participation does not take place, rather a permit for those in power to educate or cure the "participants". The next steps are informing, consultation and placation, where participation remains as a "tokenism" - citizens have a voice and are heard, but hold no power to ensure that the action will take place. Finally, the highest three steps entail partnerships, delegation of power and citizen control, those where power is gradually shared and culminates with citizens handling the action. These three last steps are considered full participative processes (Arnstein, 1969). Backed by the "ladder of participation", Bizjak (2020) analyses the use of digital tools and platforms that support civic participation in spatial planning processes. Web tools can be powerful, among other things, in the communication between participants. The more information is available, the greater is its role in participation and decision-making power, according to the author.

Another way to understand participation is through the orientation of the process. If it starts or is managed by decision-making authorities, such as government agencies, it is called top-down, while a bottom-up strategy emphasises local decision-making and community/grassroots mobilisation. In the first, a professional or political leadership imposes decisions; while in the second, underpinned by the social development theory, the community initiates the process. The latter, according to Larrison (1999: 68), opens opportunities to learn and share knowledge, which in the end leads to a "sense of empowerment that comes with knowledge". Some bottom-up strategies include a "comprehensive community participation, motivating local communities, expanding learning opportunities, improving local resource management, replicating human development, increasing communication and interchange, and localising financial access" (Blanchard, 1988 in Larrison, 1999: 68).

In the 1980s and accelerated in the 1990s the push for participation became more visible and widely used. Participation became a kind of catchy keyword, a requirement from funding entities, as an alleged solution to better and more effective decisions (Claridge, 2004). In other fields, like anthropology, the call for participation also became embedded in the post-modernist discussion, as a need to better understand who is involved and how they influence the construction of knowledge (Clifford & Marcus, 1986). In research there was also a shift in the discourse from 'observed subjects' to 'participants', recognising participants' agency and voice in the research process. That helped to further promote co-research and co-creation methodolo-

gies, as both involve the collaboration between the researchers and participants. Academia is thus not the only source of knowledge, but the know-how and skills of others (i.e., practitioners or citizens) contribute to drawing complementary perspectives and building the knowledge base (Hartley & Benington, 2000). These approaches enable empowerment of participants, as they promote teamwork and dialogue, which in turn are extended into scaffolding and promoting participants' abilities. Scaffolding, borrowed from education, refers to support that is tailored to students' needs. It also evidences the need of empowering professionals with co-creation competences able to stimulate citizens involvement and progressive placemaking.

Regarding co-research, Kelty (2008) argues that in anthropology the decentralisation of power hierarchies is also provoking a shift in the field work, from traditional participant observation to a site of epistemological encounter. In the field, knowledge is constructed in a flexible environment, based on the know-how of all actors involved, instead of being merely anchored on legitimate sources (for academic or professional reasons).

The methodology of the Project C3Places for the Lisbon Living Lab follows co-research principles, acknowledging and respecting the inner bias and personal experiences of researchers and participants. In the context of co-creation and living labs methodology, this means reflecting upon and promoting an open environment for data collection, interpretation, and analysis, in which participants can freely express their views and interactively reflect on public space issues. The agency of participants was also assured through flexibility in activities and sensibility of moderators to allow the participants to reconfigure the activities to better fit their preferences, interests, and skills.

3.6.2 Co-creation as a process of co-research: the motto for territorial capacity

Co-creation, as a participatory strategy, is broadly defined as any act of collective creativity (Sanders & Stappers, 2008). Emerging from design and market-oriented fields, as a brand development and marketing, co-creation is often considered a business opportunity and a competitive advantage. A strategy that guarantees a higher product sales or service adoption. More precisely, for Pallot et al. (2014) co-creation is used to hit the market by a user-centred product or service that by identifying features valued by consumers directly adapts the products and services. Prahalad and Ramaswamy (2004) point out that in a consumer society, regardless of the many options available, consumers still report dissatisfaction with products. According to the authors, tackling this dissatisfaction leads to a shift from a "firm-centric" to a "co-creation" view when the consumer gets involved and "the roles of the company and the consumer converge". This favours the merging of sites of supply and demand and makes the interaction "the locus of value creation" (Prahalad &

Ramaswamy, 2004: 11-12). Co-creation includes collaboration towards creating something whose final features are not known in advance but emerges from the process and the results are adapted to the needs of participants (Sanders & Stappers, 2008).

> Co-creation, as a process of making better products or services to people, can offer a path to a more inclusive and responsive production of goods, both private and public. These could be more efficient and, through a more responsible resource use, provide more sustainable responses. Co-creation is a very broad term and can have many faces. It can happen within communities, inside companies and organisations, between companies and their business partners, or between companies and whom they target, as customers, consumers, users or end-users (Sanders & Stappers, 2008). Co-creation is a process, not an event or an action, since different phases must be implemented and evaluated to assure participation is attained.

Due to this wide range of possibilities, co-creation is on everyone's lips and has reached spatial planning, where it has great prospects. Scholars set co-design as the most common instance of co-creation (Sanders & Stappers; 2008; Žlender et al., 2020). Sanders and Stappers (2008) argue that participatory design or product design has been a long-applied practice in design. The authors argue that it took some time until these participatory strategies were well accepted. Among the main reasons for this shortfall are the lack of confidence in everyone's creativity or capacity to participate; a contradictory relationship between participation and consumerism; participation viewed as academic endeavour of poor competitive value; and lack of technological knowledge. However, the new highly technological society is given broader attention to integrating users, since in many manufacturing products the wide spread of information and technology leveraged the technological advancements and new tools to integrate the users' needs and experiences are cropping up (Sanders & Stappers, 2008). The authors further argue that since the roles are changing a user becomes now co-designer/co-creator and a researcher facilitator, as he/she is more than a mere translator of knowledge. In analysing the potential of co-creation for urban education, Estrela and Smaniotto (2019) point out that the focus of co-creation on the collective impact and share of responsibilities set it apart from conventional public engagement approaches, and Menezes and Mateus (2020) envisage co-creation with a continuous open learning process.

3.6.3 Co-creation in planning of public space

As seen earlier, co-creation is trending among planners and policy makers - it is praised as a tool to initiate spatial transformation, deepen democracy, and improve spatial governance. Šuklje and Ruchinskaya (2019) argue that co-creation, as a creative endeavour, should play a role in architecture, landscape design and urban planning; disciplines dedicated to spatial transformation. In the current academic

discussion, "smart city" ties together co-creation and public spaces. In a smart city, visions and solutions are driven by "technology and innovation". Digitalization in a smart city puts more participative, inclusive and empowerment forward, instead of just "imagining an ideal future vision" (Kominos et al., 2013: 34). For these authors, smart cities require new forms of innovation at two levels. Firstly, to co-create (both in business and society) through internet-based services and technologies. Secondly, to develop new forms of collaboration among different entities (public/private or profit/non-profit) with broader partnerships and more inclusive and tailored solutions.

Leading Cities[2] (2014: 3), an international non-profit organisation working on providing solutions for smart cities, defines co-creation, in the context of city-citizen engagement as "the active flow of information and ideas among five sectors of society: government, academia, business, non-profits and citizens" - aimed at developing policy, creating programmes, improving services, and tackling systemic change with each dimension of society represented from the beginning. The mentioned actors correspond to the Quintuple Helix – a model that stresses the socioecological transition of society and economy (Carayannis et al., 2012). In urban decision building, further on the definition of co-creation by Leading Cities, participation and engagement also leverage empowerment. It can be started for different reasons: "1. Public input and equality; 2. Citizen empowerment; 3. A more responsive government; 4. Increasing citizen awareness; 5. Increasing efficiency and effectiveness; 6. Cost savings; 7. Risk management; 8. Value creation through innovation" (Leading Cities, 2014: 5). To be successful it should be systemic, innovative, productive, collaborative, diverse, hierarchy-flattening, bi-or multi-directional, repeated and intense, mutually beneficial and trusted, and transparent - of course providing specific and local solutions (Leading Cities, 2014: 4).

There is not a single co-creation of public space - there are plenty of options. Šuklje and Ruchinskaya (2019) discuss different opportunities for co-creation for the different phases of the spatial development process. These are organised in a linear 4-D Model for Civic Engagement, according to the categories: Discover, Debate, Decide and Do. In the Discover and Debate phases, the authors mention, co-creating the context, defining problems, issues and aims, participatory analysis and evaluation, and information and data gathering. In the Decide phase, participatory decision-making allows for co-creation of solutions, while the Do phase encompass both co-production and implementation of the solutions for the spatial transformation, and co-management, through shared monitoring and maintenance (Šuklje & Ruchinskaya, 2019: 213). Moreover, the authors compile and analyse digital platforms that support spatial co-creation and reflect on digital tools, which may be useful to the different tasks or phases of the process. The proliferation of social media platforms and the pervasiveness of mobile devices are leveraging participatory urban planning

[2] www.leadingcities.org

because digitalization makes it easier to mobilise people and resources (Wortham-Galvin, 2013).

Digital tools can potentially also be helpful by making the process less demanding, time consuming or by allowing an interactivity or playability that provide an extra return from participation (Stevens, 2007).

Testing the potential of ICT tools in the co-creation of public spaces was one of the goals of the Project C3Places. However, actively engaging users and evolving into a vivid online community, could not utterly be achieved, as explained in section 1.3.1. This issue is a shortfall that stayed with the Project during this whole runtime.

Even though co-creation strategies are important, they are not easy to implement because they require high demands in terms of time, resources, and monitoring. They also require a structured, flexible and dynamic framework to tackle different stakeholders' interests and motivations, as well as different levels of involvement and/or knowledge. For spatial planning, a co-creation strategy poses a challenge for all parts involved, as it is by its very nature an open-ended process whose outcome cannot be guaranteed beforehand. In contrast, co-creation is a loop which runs for an unfixed number of iterations, but at the same time it opens a door for innovative ideas and solutions. A broad range of people come together around the same table to negotiate their needs and interests, aiming ultimately to develop more sustainable solutions. In that sense, co-creation ideally fosters a community around public spaces ensuring a more sustainable use.

For Project C3Places the living labs are the methodology to foster co-research and co-creation of public spaces.

3.6.4 Co-creation and living labs

The discussion on co-creation brings us to the main question of how to operationalise it, i.e., how to put co-creation of public spaces into practice - also in the context of the smart city. The smart city, as a scenario for empowerment and citizens participation includes "what is called, in different terms, an urban laboratory, urban innovation ecosystem, living lab, or agent of change" (Kominos et al., 2013: 40). As described earlier, utilising prior theoretical and empirical work in the area of interest is a great way also to identify a work methodology both in a scholarly manner and on its practical execution.

For the research in Lisbon the key is setting the quantitative research with respect to its qualitative counterpart. This amalgamation allows the inclusion of different kinds of data collection and analysis techniques such as participant observation in the context of living labs which result in a narrative, descriptive outcome. Relevant issues to better understand teenagers' behaviours, opinions, and experiences in addressing the question on their spatial needs and preferences.

As described in Chapter 1, living labs appear as the most suitable work approach, with a largely open procedure and different tools and methods. For Nesti (2018: 313), the pioneering spirit of "living lab", is an expression that appeared at the beginning of the 1990s in an article describing students' experience in a problem-solving process of a neighbourhood in Philadelphia. It was used again in 1995 in a test of new methodologies to approach complex social challenges. Living labs have gained since then popularity in the framework of creating new business innovation models. In 2006, the term was officially taken over by the European Union (Nesti, 2018).

As a framework, living labs enable changes to happen in a co-creative way (Bylund et al., 2020). Associated with urban issues, the urban fabric in living labs is therefore a place of reference and a critical mass for innovative initiatives and in the development and experimentation of internet-based solutions (Pallot et al., 2014). For Higgins and Klein (2011: 31), living labs attempt to address the active involvement of researchers and practitioners in "live" settings. As a methodology it was extended and redefined, leaning on features from action research, and is defined by an "active role of users as co-innovators (…) in order to inform technology development and innovation". For these authors, the living lab approach provides advantages as: 1) experimental framework that allows authorities and businesses to engage without compromising the conventional perspectives or ways of doing; 2) promotion of environments to exchange ideas; 3) way to develop a critical attitude and creative solutions; 4) provider of symbolic meaning for broader collective participation; and 5) tool to signal opportunities or contexts for participation.

A living lab is "an open research and innovation ecosystem involving user communities" (Pallot et al., 2010: n. p.), where researchers from different fields are joined by multiple and diverse stakeholders (from public, private entities and from the community), working across locations and negotiating the terms of engagement (Higgins & Klein, 2011). According to Pallot et al. (2010: n. p.), the main goals are "to explore new ideas and concepts, experiment new products and evaluate breakthrough scenarios that can be turned into successful innovations. As a laboratory, they facilitate experimentation about possible solutions allowing different "actors to design, test and learn from socio-technical innovations" (von Wirth et al., 2019: 229).

Regarding living labs is interesting to retain three key ideas: 1) the collaborative approach between people, organisations (public and/or private) and researchers; 2) the use of co-creative and co-design methodologies in the context of experimentation; and 3) the open context of innovation and learning (Menezes & Mateus, 2020).

3.6.5 Citizen science in a socio-spatial context: the end goal for participation

Citizen science is another concept of interest in the discussion on participatory processes and approaches as it integrates both learning and generating knowledge in academic activities. For the Project and the Lisbon Living Lab, citizen science has one more component of interest, the use of local knowledge generated by non-professionals. This is an interesting feature, as citizen science - making use of the different contexts in which knowledge production takes place and being therefore based on ideas, views of the civil society, has a transformative potential. As an approach, citizen science is new, but it has a long story behind it and is also referred to as participatory research, community-based research, community-based monitoring, science 2.0, open science, crowdsourcing science, or amateur science. C3Places uses the definition and the principles of citizen science as delivered by ECSA (2015).

The above-mentioned central arguments (citizens engagement and local knowledge) make citizen science an important tool and guidance in research. For this reason, it is also set on the European political agenda and is associated with responsible research, innovation, and open science (EC, 2017), since it can strengthen the democratisation of science as it is linked to stakeholders' engagement and public participation. Citizen science is taken by the European Union as a research policy (EC, 2017) and as a direct requirement in actions funded in the different community programmes. Citizen science can help researchers to collect much larger datasets than would be possible without it and it opens new opportunities to enlarge not only quantitative but also qualitative research. Intentionally engaging citizens in research provides benefits: they ask questions and support the definition of an issue, the data collection or processing, help interpret results, and/or help disseminate insights and conclusions. These issues are relevant as they bring to research on the one side, new participants with diverse (and unknown) backgrounds and skills, and on the other side, an important local knowledge developed with and within the community.

The current increased interest in citizen science is also related to the advancements of digital communication and information technologies. This is because a greater democratisation in access to ICT is linked to increased citizen participation in scientific and development projects. Although considered as an avant-garde response and entrepreneur of scientific practice, the term citizen science is marked by two events, the data collection by amateur naturalists in the 18th and 19th centuries, and the critical appreciation of science, as it happened between the late 1960s and early 1970s (Irwin, 1995; Strasser et al., 2019).

There is no universal agreement on the definition of citizen science, as it is characterised not only by a manifold of collaboration aspects and complexity, but also by a broad notion of a citizen – who can be an amateur, lay person, member of the public or a

non-professional (Conrad & Hilchey, 2010; Lukyanenko et al., 2019; Newman et al., 2017; Strasser et al., 2019). According to goals and who is involved, citizen science can have key characteristics, for example as contributory (linked to data collection), collaborative (linked to data planning, collection and analysis, and a limited contribution to decision-making and dissemination of results) and co-created (data collection and analysis, planning, taking decision-making and dissemination of results). In parallel to these characteristics citizen participation moves between different levels, from 1) crowdsourcing, where citizens act as sensors; 2) distributed intelligence – citizens as basic interpreters; 3) participatory science – citizens take part in defining problems and in the data collection; 4) collaborative science – citizens involved in problem definition, data collection and analysis; 5) collegial – research carried out independently by non-scientific individuals – with varying degrees of recognition by institutional science (Shirk et al., 2012; Haklay, 2013; Becker-Klein et al., 2016).

Citizen science, associated with a perspective of democratising science and its process, is also considered relevant to reinforce social trust in science and to highlight society's challenges into the scope of research. Citizen science has also been identified as a social capacity measure that, in addition to the co-production of knowledge, involves citizens in the decision-making process, helping them to deliberate based on scientific evidence and understanding. This refers to the process of developing skills and changing attitudes and behaviours to impart knowledge. As Devas and Grant (2003: 309) aptly point out, citizen participation is about the ways in which "citizens exercise influence and have control over the decisions that affect them", and in this way develop corporate social responsibility and citizenship. This entails the meaning of citizen science as a capacity building measure, which puts it in connection to education, as civic participation would increase citizens' scientific literacy. In this sense, public participation in research reveals two distinctions between "for the sake of garnering 'buy-in' and participation that enables social transformation" (Cornwall, 2008, in Shirk et al., 2012: 29).

These characteristics combined mean that citizen science is another "example of the coproduction of science and society" (Strasser et al., 2019: 53). The authors propose a typology aimed at analysing participatory projects in terms of their different knowledge practices, where knowledge production is seen as a qualitative process and often involves different modes of knowledge production. In light of this, other research practices even if they involve the public, would not be set under the aegis of citizen science. In this sense, the authors consider five "epistemic practices" related to participative research: sensing, computing, analysing, self-reporting, and making (Strasser et al., 2019: 55-58).

Many scholars are weighing in on the important questions around citizen science, the enduring controversy over its legitimacy, the yielded immediate, direct results, and achievements. Although a heroic pattern is allocated to it, citizen science is not secured against changes and challenges, i.e., difficulties for quality assurance in the

data collection process and even for the data itself; to get citizens interested in science and guarantee their involvement. These drawbacks seem to be easier to overcome in local and larger projects when a certain financial incentive is in place. However, a greater involvement of citizens gives rise to the question about the reward of volunteering in the generation of scientific knowledge and the "'uberizing'" of research (Strasser et al., 2019: 67). One might ask if the lay people's involvement is not just another effort at governing the critique of science, instead of equipping people with a "critical understanding of science and its role in society" (Strasser et al., 2019: 67).

In socio-spatial contexts, citizen science is a valuable working tool and an opportunity to address complex issues in both science and society. For Shirk et al. (2012), projects aiming to respond to societal challenges can be generally (individually or in combined modes) broken up into three main types of purpose: for research (e.g., scientific findings); for individual participants (e.g., acquiring new skills or knowledge); for social-ecological systems (e.g., influencing policies, building community capacity for decision-making and action). Regarding the challenges of urban society, Mueller et al. (2018) propose the term "citizen design science" for citizen participation in urban planning processes - with online design tools. Citizen design science is based on a "strategy for crowd-creative urban design", evidencing that the major efforts are on an active design by citizens and integrating their ideas, wishes, input and feedback. These citizens' inputs have, however, to be translated by designers into the 'design of urban designers' (Mueller et al., 2018: 183). Seen from this perspective, it nurses the question about the interface between both groups and the role of designers.

In projects with local approach and active processes of placemaking, Toomey et al. (2020) envision citizen science as an incentive to increase the multidimensional aspects of individual place attachment and of socio-ecological meaning. When centred on the relationship between connection to nature and sense of place, Toomey et al. (2020: 3) consider citizen science as a kind of placemaking, whereby citizen-scientists are "actively and continually involved in the production of place". This highlights interesting aspects, as in addition to the citizens' participation, the attachment and the bond to a place can be strengthened; in a collaborative effort, creating new socio-ecological meaning for the city. Both contribute to the development of place-based citizen science projects. In this sense, the authors call attention to the relevance of place attachment and the diversity of place meaning for community building processes. New technologies and media can be the fuel in creating a network for sharing attachment and meaning; this broadens and facilitates the collective understanding of the meaning attributed to a place.

The above-mentioned arguments set the scene for applying citizen science methods in urban environments and its design because "one yet unsolved task is to describe unambiguous criteria for liveability in cities" (Mueller et al., 2018: 183). More than

anyone else, members of the community who directly experience the environment are interested in increasing the liveability of their city and are more open to collaborate towards community-based and innovative solutions.

3.7 TERRITORIAL CAPACITY AND EMPOWERMENT: FROM CHALLENGES TO LEARNING

3.7.1 Defining territorial capacity

Returning to the issue of place attachment and meaning, these must be seen in the light of individual and collective bonds - those place-place bonds that evolve through an emotional, mental, and cognitive connection with a place and/or its features. However, individual bonds strengthen community ties. It is a strong sense of place, which in turn influences people's sense of belonging and attachment to places (also to culture), and this supports the building of territorial identity and topophilia (Oliveira, Rocca & Leitão, 2010; Tuan, 1974). The term topophilia, which literally means love to a place, is a starting point in understanding these affective socio-spatial bonds and place-related practices. As seen earlier, the social and individual experiences related to the use of public spaces are affected by their availability, accessibility and attractiveness - an issue discussed in section 3.3. The use and appropriation of public spaces is related to territorial capacity.

> The territorial capacity is associated with valuing and understanding the environment, those ties to a place that enable individuals to build, and appropriate knowledge related to territory, space, and place. It is the capacity to understand and make use of the knowledge rooted in places (Estrela & Smaniotto, 2018).

Territorial capacity is a recurring theme in the discussion of urban liveability and sustainability, as it suggests the need to better understand the bonds and interactions between people and their environment. Territorial capacity is related to those skills needed to understand and perceive the morphologic and topographic settings of the environment, which are crucial for developing a sense of orientation and direction. These in turn are key to feel confident and comfortable in using the urban fabric (Lynch, 1961; 1977). This place-related practice and the appropriation of knowledge in and about the territory calls for a capacity building process, as Estrela and Smaniotto (2018) pledge for. In this sense, territorial education is "to be understood as a capacity building process on the appropriation of knowledge in and about territory and spatial transformation" (Estrela & Smaniotto, 2018: 51). In this debate, the concept of human development (UNDP, 2020), which focuses on people, their opportunities, and skills rather than relying only on economic resources or generated income, is fundamental. In a nutshell, the main goal of human development is to expand people's choices so that they have skills and opportunities to live the life they value. Human development goes therefore beyond economic growth and reflects social, political,

and cultural characteristics that influence the quality and richness of human life. In this sense, human development has two dimensions: 1) enhancing human abilities, involving long and healthy life, knowledge, and decent standard of living; and 2) creating conditions for human development, involving participation in political and community life, environmental sustainability, human security and rights, and gender equality. Sen (2010) defends the need for developing justice models based not only on economic resources distribution, but also on capabilities distribution, which enhances the wealth of human life, going beyond economic development and human capital theory. Therefore, the concept of human development is assumed as giving more choice and providing people with opportunities, as well as increasing their capabilities, often framed in terms of whether people can "be" and "do" desirable things in life. For research, the axis of analysis must be shifted to the capacity of people to reach certain situations considered fair, which implies generating possibilities to different ways of life. This has also to be considered in light of the concept of humanisation and as a societal challenge, linking the individual to the collective.

The analysis of the case study in Lisbon on teenagers' use of public spaces as the focus of research, revealed two contrasting realities coexisting simultaneously - the recognition of the value of public spaces and a weak urban literacy. The latter is depicted by low spatial representation capability of young people, a poor capacity to identify public spaces, to reflect on their importance, and to propose ideas to better meet their needs (Chapter 4 opens the discussion on the key contextual factors that framed the research in Lisbon). This is not to say that teenagers were not capable of reflecting on the issues, quite the opposite, in Lisbon teenagers showed interest, debated, even passionately, and were able to design proposals for public spaces sensitive to their needs. However, these findings show that urban literacy and awareness clearly needs to be promoted. This is true not just among teenagers, but among people of all ages as well.

People experience urban spaces from a utilitarian perspective, people walk, use transport, housing, and public spaces, without necessarily carrying out an active reflection on the environment. This affects the capacity to express needs or preferences for public spaces. The ability to notice and talk about the environment, consciously reflecting on it, is a task, which both decision makers and citizens must understand and master. An active civic education is an empowering tool at both the individual and collective levels (Schugurensky & Myers, 2003). Civic (and territorial) education has the potential to raise the level of social and political responsibility in the society. Giroux (1980) reports that national governments have provided different strategies and levels of education fostering knowledge, skills, and virtues necessary for youth to become "good citizens". However, most civic education initiatives were developed to be an instrument to maintain and reproduce economic, social, and political structures of society (Almeida et al., 2020). Reflecting on the ideal context for promoting territorial capacity, as a connection between education and learning, environment, and urban fabric, demands understanding about "lifelong learning, places

and social practices" including how the process of "encounters, conflicts, negotiation and recognition – the lived practice of urban life" is addressed (Estrela & Smaniotto, 2018: 51). Indeed, since learning is a continuous process – everywhere and at any time (Bernstein, in Estrela & Smaniotto, 2018: 50) it is palpably obvious that promoting a holistic approach to education brings benefits. Especially because the relationship between people and places, territorial capacity and identity can play an important role in education (Estrela & Smaniotto, 2018: 50). Providing 'spatial' opportunities for everyone in the city is thus a commitment of decision makers with human development. This helps us to understand the role of the city (and the urban fabric) in education - in the spirit of the initiative Educating Cities[3] which states that "education transcends the school walls to permeate the entire city". Such endeavour is directly linked with equality, inclusiveness, cohesion, sustainability, and education for peace - dimensions first addressed in the Faure Report (Faure, 1972) and further developed among others by UNESCO in the report *Global Network of Learning Cities* (2012). Educative cities thus promote an integrated and lifelong learning based on knowledge, policies, and democracy, assuming the territory as both educational agent and content of learning (Bosch, 2008; Vilar Caballo, 2001). Klichowski et al. (2015) remind us that public spaces are learning contexts for lifelong learning of each citizen. This understanding of the urban fabric (being a cause and a consequence) brings us back to the topics of accessibility, safety, and quality of public spaces (as above discussed), as these are critical to enhance urban sustainability. Public spaces do not only provide important ecological processes and ecosystem services, but they can also be the platform for people's agency and empowerment - benefits that overlap and intersect. At this point, it might be useful to recall the crucial role of public space for cultural and identity development, as they are the gathering points in the urban fabric and offer the place for social activities enabling interactions among generations and cultures. Such understanding of the territorial/urban education goes in line with key skills for the Portuguese student profile for the 21st century, which are associated with social, emotional, cognitive, metacognitive, physical, and practice development areas (Decree-Law 6478/2017). While conventional participation approaches remain relevant, the nexus teenagers – public space – technology calls for reflecting on the potential of territorial education, since the city as learning space and content offers multiple sources of knowledge, which can contribute to create more inclusive and responsive urban environments (Estrela & Smaniotto, 2018).

Territorial education is to be understood as a capacity building process, an appropriation of knowledge in and about the territory and the spatial/environmental transformation. It is thus an open process for debating the urban fabric, and is an interface, aimed at increasing inclusiveness and empowerment. Territorial education can be "democracy in practice", as Estrela and Smaniotto assert (2018: 51).

[3] https://www.edcities.org

Territorial education and capacity calls to advance knowledge on how to increase people's ability and skills to understand, reflect and reason the urban space and urban environment. This ability to note and reason about the environment is what helps people to get familiarised and oriented in the city, feel comfortable, pay attention, care, and appropriate the spaces in a civic and sustainable manner. In territorial education a myriad of contextual, managerial, economic, social, and human factors and issues as formal and non-formal education (Freire, 2007), urban culture, community support and engagement, traditional economic and societal roles, infrastructure, and governance must be considered (Baser & Morgan, 2008). These issues support the development of a sense of territory, and promote territorial identity, which at the end will increase urban resilience. From the educational perspective, understanding the contextual factors in the urban fabric can also contribute to formal education. The benefits go from bridging the gap between theory and practice to freely choose the learning content and changing interests. Advancing knowledge on territorial education should result in measures to enable people to make judgments and have a voice in urban development issues (Estrela & Smaniotto, 2018).

Public spaces in the neighbourhood are good places to start, since through frequent daily interactions there is a proximity and attachment to those spaces. On the flip side, to build/increase territorial capacity, not only the "familiar" spaces should be the focus, since those close to home or work are often where necessary activities of daily life occur (Gehl, 1987), and likely more knowledge about them is available. That must not necessarily mean, however, that people reflect rationally, consciously on the use, interactions and needs even in those familiar spaces.

3.7.2 Territorial capacity and public spaces appropriation and negotiation

The different functions performed, and many benefits offered by public spaces make them a contested place. According to scholars, as Lynch (1960, 2007) and Jacobs (1961), feeling safe and comfortable in the urban space come from the knowledge one has on the spaces and the city. Lynch (1960) notes it in a more physical matter, the perception of the morphology and topography of a city helps develop orientation and direction skills that are crucial to, trustingly, navigate through different locations. In Jacobs (1961) the relation is more subtle. The safety one feels from knowing there are eyes (and other bodies) on the streets implies a tacit understanding of the subtle "rules" or "practices" (social or behavioural) in places outside of our homes. The confidence in using the urban fabric lies on a balance between expected behaviour and creative appropriations, encounter of known and familiar people and strangers, and between uses that may have conflictual elements. In order to fully experience public spaces or the territory in general, requires certain skills, or better, a certain knowledge, a piece of information mostly unconsciously acquired when we experience, observe, and appropriate the environment around us.

In a call to enhance territorial capacity, strengthening children's and young people's relation with their environment is fundamental. Related with Lynch's (1960) arguments, Van Vliet (1983) notes that the widening of the spatial range of action is a developmental step of adolescence, when a broader freedom of movement allows one to gain knowledge on surroundings and to acquire spatial competences through a playful use of space. Yet, when considering safety issues and knowledge about spaces, some of teenagers' practices in public spaces are often criticised because other groups seem to be more aware of subtle boundaries or rules of behaviour (Malone, 2002). A typical example is the noise caused by teenagers congregating in a particular area. However, the use of public spaces by teenagers seems to be decreasing, due to multiple factors (this issue is addressed in Chapter 4). This might mean that skills and knowledge required to fully experience and benefit from a connection with the environment are not being fully developed. To appropriate and navigate through the city requires to know the urban fabric, be it through the sensations, the motor function, or rational thought. The better we know the city the more and better we make use of it. For this reason, it is not enough to hope people will connect with their environment by creating spaces and wait for people to use them.

Conscientiously experiencing the urban fabric can be boosted by territorial capacity processes, complementing the "organically" acquired knowledge. This must be built on a logic of sharing collaboratively, and in a decentralised, open learning context that also embraces the diversity of backgrounds, ethnicities, and cultures that make up much of today's society.

3.8 STATUTORY PLANNING FRAMEWORK IN PORTUGAL AND LISBON

There are a series of legal mechanisms at different levels of government in Portugal; having different characteristics all define goals and strategies for urban development and education, that must be put into practice by the government, municipalities and local authorities.

At the national level, there is a comprehensive legislation setting or guiding public policies in land-use and urban planning. Relevant are the National Programme of Spatial Planning Policies (Law 54/2007), the Land-Use and Urban Planning Policy Basis Law (Law 48/1998), the Juridical Regime of Territorial Management Instruments (Decree-Law 80/2015), these establish the conceptual framework for planning policy, the development model for the country and set a normative framework for the land use planning of the Portuguese territory, providing the legal agenda that regulates planning at the national, regional and local level. OECD (2017) offers further information on the Portuguese planning framework.

Relevant for C3Places are those instruments that provide technical assistance for municipal/local planning. At this level there are three mainland-use plans: 1) *Plano Diretor Municipal* - PDM (Municipal Master Plan), which covers the entire municipality

and is the main instrument to guide spatial development. It is thus the reference document for elaborating other municipal plans and further sectoral interventions; 2) *Plano de Urbanização* - PU (Urban Development Plan), usually with a spatial focus on a part of the city, is a reference for the application of urban policies and defining the development goals for this area, it also defines the location of main infrastructure and collective equipment; 3) *Plano de Pormenor* - PP (Local Detailed Plan) sets a more detailed layout and urban design of a small area of the city. These land-use plans bind all government entities, and directly or indirectly, also private entities (CML n. d.: a, b, c). Usually, a PDM should foresee a revision process every ten years.

3.8.1 The urban development framework of the Lisbon Municipality

The current Municipal Master Plan (PDM) of Lisbon entered into force after its approval by the municipal assembly in 2012 (CML, 2012a). According to it, the development goals for Lisbon are committed to the quality of diverse public and social services in the city, and adapting them to contemporary needs. Central issue is the rehabilitation policy, which should be extended to the entire city, with new programmes for interventions in distressed areas and at punctually reactivating vacant buildings. With these systematic revitalization measures, the city defends the right to live in secure housing and environment (CML, 2012a). One of the main development goals is to promote more and better public spaces, considering that a "city with a better quality of life is also a city where people can enjoy public space (CML, n.d. c). Therefore, the Council will continue to invest in various programmes for requalifying public spaces, with special focus on reopening the waterfront for public use and bringing the population back to River Tagus.

In the context of C3Places, interesting is the Programme "A Square in Every Neighbourhood" which seeks to improve or create new centralities in the neighbourhoods. The programme's strategy is to strengthen the local communities by means of improving a public space, be it a square, a garden, a street, or a business zone) to be the fuel for creating feeling of own "place", connecting people with their environment as means to improve quality of urban life (CML, 2015).

The PDM sets as a further goal, to strengthen territorial cohesion and combat isolation of neighbourhoods through new green corridors. The different planning instruments and strategies by addressing the main problems of the city provide guidance to reach the ultimate overarching goals - create a competitive city, drive growth and improve the living quality, by attracting new and retaining inhabitants, strengthen the economic fabric, creating jobs in a globalised city and in a health environment - summarised with the three key outcomes more people with jobs in a better city - as depicted in Fig. 3.3.

Further technical documents and policy guides to mention are the PEDU - Strategic Plan for Urban Development, which focuses on listing key areas to prioritise using funds of the European Regional Development Fund. The PEDU has its operational

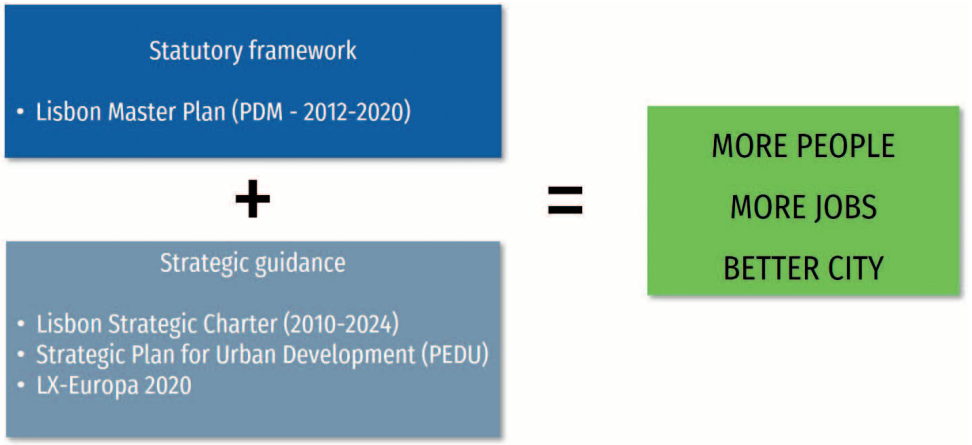


Figure 3.3: The framework for urban development in Lisbon and the main objectives.
Source: C3Places Archive, 2021.

programmes, defined in the PARU - Action Plan for Urban Regeneration; the PAMUS - Action Plan for Sustainable Urban Mobility; and the PAICD - Integrated Action Plan for Disadvantaged Communities (CML, n.d.: c). The last three are sectoral planning and dedicated to prioritising investments adopted by PEDU. PAMUS sets the goal to diminish the use of cars and promote pedestrian, bike and public transportation (CML, n.d.: b). Through these programmes different public space revitalisation projects could be realised (CML, n.d.: d), mostly within proximity to the historic city centre. An example is the refurbishment of the waterfront along the Tagus, which encompass different places (Cais do Sodré, Largo do Corpo Santo, Largo José Saramago, Ribeira das Naus). Still these re-emerged public spaces, as mentioned in Chapter 2.1, in spite of their contribution towards enhancing the public realm, impress as epitome of modern urban design. They are often criticised for not being able to become the focus of daily life (Smaniotto & Patrício, 2021).

Along these land-use plans, the Lisbon Council counts on a variety of charters and strategic documents regarding urban planning, public space and civic participation, this framework sets the council strategies, visions, goals, instruments of action and planning guidelines. These are either published by the council directly or by its departments, some having more strategic or political character, setting visions and strategic goals, while others are manuals or guidelines, providing the ways to operationalise these strategic goals. In general, the focus of Lisbon City Council seems to be mostly in tackling issues of mobility and accessibility, and regarding public space the goal is creating an inclusive city. These issues are reinforced in the Strategic Charter for Lisbon 2010-2024 (2009), out of the nine guiding principles two are of most interest for the C3Places Project. First, it is point out *"the need, urgent and before anything else, of a new urban model staked on multimodality and intramodality, as well as in the rethinking of streets network, converting street space from car uses to higher*

and better uses, i.e. qualified public spaces. Ultimately this new model is ascribed a huge capacity to generate diversity, in terms of urban spaces, mobility modes, people and opportunities" (CML, 2009: 8). To meet this goal the council will develop actions to 1) diminish the use of private vehicles; 2) revitalise the historic centre to make living there more attractive; 3) integrate the peripheric neighbourhoods; and 4) urgently improve life conditions for homeless people. The second goal is to create an efficient, financially sustainable and participative governance model. To achieve this model, seven principles are set out, 1) subsidiarity of public strategies and policies; 2) base these on a better understanding of the socio-economic scales and dimensions of the city; 3) close the gap between city administration and the citizens; 4) increase efficiency and quality of public services; 5) governance and connectivity with the city; 6) participation and civic engagement; and 7) information and knowledge (CML, 2009).

In 2012, Lisbon Council also introduced the "LX-Europa 2020 – Lisbon in the context of the next period of EU programming". It summarises the vision and the active role in the European programming period for the period between 2014 and 2020. The strategy also regards acquiring and optimising the use of European funds and resources available for the period. According to this document, also increasing the quality of life and urban environment is a key issue, to be achieved by urban regeneration and social cohesion measures. Interesting for C3Places, is the fact that this strategic scheme promotes active and participative partnerships "with all the necessary and indispensable stakeholders in planning and implementation of these projects" (CML, 2012b). This scheme is used to help disadvantaged neighbourhoods, mentioning the Madragoa neighbourhood as an example, and for revitalising the waterfront, mentioning Cais do Sodré/Corpo Santo, Doca de Pedrouços and Largo José Saramago/Doca da Marinha as requalified public spaces (CML, 2012b).

For the development of public spaces, the goal of the council is also set on creating meeting places (as squares and gardens) at the heart of each neighbourhood, in order to provide a place for socialisation and boost citizenship, both crucial for identity building (CML, 2015). The project "One square in each neighbourhood" (CML, 2015) focuses on the promotion of neighbourhoods life since this is a fundamental aspect in the urban and social history of Lisbon. The city is characterised by a high number of neighbourhoods, each one with its own aura. Altogether there are 30 planned interventions, these have emerged from the analysis and identification of a core place in the neighbourhoods. The project is also set out to mitigate a disproportionate occupation of public spaces by cars. By getting space back, the council also responds to the need for more inclusive, safe, and welcoming spaces. Creating attractive neighbourhoods is also a way to attract more residents. In Alvalade (see Chapter 5.3), the *Igreja Avenue* is listed to be refurbished under the project "One Square in each neighbourhood" (CML, 2015). The main issues to be tackled are connecting the avenue with the pedestrian network, replacing the sidewalks with safer and more

comfortable pavement; increasing the cycle network and developing initiatives with the support of commercial associations to attract people to the public spaces (CML, 2015). Associated with the project "One square" is the manual "*Lisboa - o desenho da rua*" (Lisbon - the design of the street). It addresses street design and encompasses recommendations and good practices for placemaking. The manual, published by the Public Space Department of Lisbon Municipality, sets out comprehensive guidelines regarding the streetscape, including geometry, materials, underground infrastructures, public lighting, signage, urban furniture and equipment, public art and greenery. Directed to the parish councils, it mentions to be an open list of ideas, providing the basic need to take decisions on local level, being therefore not a list of impositions, but a list of recommendations that can be tailored to local context. Here again the goals of both projects on public spaces are to promote "safe use and equality of opportunities for all citizens", as well as an "adequate, attractive public realm with visual and sensorial stimuli, assuring maintenance and durability, as well as versatility in adapting new use diverse from the one initially proposed" (CML, n.d., d: 18). These guidelines should be considered in all interventions in the public domain, as well as in private domain of public use.

3.8.2 Power decentralisation in Lisbon

The administrative reorganisation of Lisbon in 2012, transferred a range of powers from the council to parishes, assignments and responsibilities were established by Law nº 56/2012. The competences of the parish councils in urban planning and management were extended to encompass the management, maintenance of public spaces and further services; except the greenspaces that forms the main green infrastructure and are part of the interconnected ecological network. These spaces remain under the care of the city council. Alvalade has two greenspaces of this category: Campo Grande Garden and José Gomes Ferreira Park (see 5.2). Although an agreement between the city council and the parish, the council delegated to the Parish Council of Alvalade the responsibilities regarding the José Gomes Ferreira Park. Further assignments refer to public housing and social action policies and programmes.

Also in education, some important issues have been transferred from the national government to municipalities, and from these to the parish councils. Through the law nº 114/2017, which sets the budget for the school years, transferred over the municipality's competencies in pre-school to secondary education level; this includes the properties and equipment management. In Lisbon, the municipality delegated to parishes the maintenance and (small) repair in school facilities and of 1º level of education. In Alvalade, the school ESPAV is not included in the parish council jurisdiction since it is a secondary school. The section 3.10 addresses the issues of education relevant for the Lisbon Living Lab.

3.8.3 Citizen participation in land-use planning and urban regeneration in Lisbon

Participative processes in urban development are central issues in the statutory and in the strategic development framework of the city. Civic, citizen participation or engagement is encouraged and supported by laws, municipal strategies and guidelines (CML, 2012a). To explore participative strategies, the council shares recommendations and examples of good practices (CML, n.d. d). The council states that the dialogue between decision makers and local communities is a prerequisite for sustainable urban development (CML, n.d. c, e). Considering children and teenagers' rights, including their right to participate in decision-making, are also acknowledged as crucial, not only for urban development, but also for social cohesion and young people's psychosocial development.

The platform Lisbon Participates *(Lisboa Participa)*[4] (CML, n. d.: e) contains a compilation of different participatory opportunities, projects and initiatives. Since 2008, Lisbon has a participative budgeting programme, which annually opens for citizens an opportunity to participate in public-decision making. The participative budgeting is a way to reinforce democratic participation and to bring citizens and city council to work together (CML, n. d.: e). The council enacted a "Charter of Principles", a road map for citizen participation and for submitting proposals for interventions in the city. These can be submitted directly on the platform or face-to-face in the Participative Assemblies, and once approved these can be voted for by residents. As of 2018, 139 projects were approved, and more than 33 million euros were allocated to the participative budgeting programme. In 2019 the council started an information project with *Orçamento em trocados* (lit. Spare Change Budget), where it is possible to consult the municipal budget per area and investment, and simulate from the taxpayer perspective, in which areas they would like to see their taxes allocated. There is also in place, a School Participative Budgeting[5], promoted by the municipality it aims at enabling students to actively participate in the participative budgeting programme. The first edition in the school year 2017-2018 was nationally launched in the School Padre António Vieira in Alvalade. Relevant for the Lisbon Living Lab are its objectives: promoting education programmes for citizenship, to inform the competences of the municipalities, and strengthen spatial knowledge of young people.

Furthermore, there are interesting platforms[6] for citizens to exchange options and ideas and express their concerns about the city:

- The *Lisboa em Debate* (Debating Lisbon) shows the open processes of public consultation in planning issues and informs on how to participate. This platform

[4] https://www.lisboaparticipa.pt, last accessed on January 17, 2021.

[5] https://lisboaparticipa.pt/lisboa/c/op-escolar, last accessed on January 17, 2021.

[6] https://cidadania.lisboa.pt/ferramentas/em-debate; https://naminharualx.cm-lisboa.pt; http://lisboaaberta.cm-lisboa.pt, last accessed on January 17, 2021.

is a response to the requirement that local planning authorities are obligated to undertake a formal period of public consultation.

- *Na minha Rua* (On my Street) is a web and app service that enables residents to report to the municipality occurrences or problems in public spaces and municipal facilities, such that require the intervention of the city or parishes, i.e. regarding garbage, poor maintenance of greenery, defects in public lighting, sidewalks, etc. to name few. The app allows the creation of geolocated information, enabling citizens to follow the progress. When the issue is solved, the user receives a notification.
- The platform *Lisboa Aberta* (Open Lisbon) aims at implementing a policy of open data by making datasets available for the public, both data generated by municipality or by other agencies and partners.

These platforms maintained by the City Council apply to the entire city of Lisbon, including Alvalade. The Alvalade Parish Council does not provide further information on local participation opportunities or projects (JFA, n.d.).

The central tenet for urban development in Lisbon has been the belief that the participation of citizens in planning and policy making will produce better decisions and therefore more efficient benefits for society. The council offers diverse opportunities to participate and engage through a diverse body of activities and means. This understanding also encompasses people's agency and empowerment towards achieving an inclusive, sustainable, safe, diverse and accessible public space and a people-friendly city (CML, 2009). On the flip side there is a growing willingness on the part of authorities and professional planners to accept input from the public. However, there should be a platform for discussion and consultation, as well as enabling residents to participate in deciding the future of the city, rather than limited to solving conflicts.

3.9 FRAMEWORK OF EDUCATION

In education, recent public policies, made significant changes over the past 20 years in the way of planning the primary education is tackled in Portugal. The decree-Law 7/2003 established the compulsory creation of a Municipal Educational Charter and of an Educational Council to implement it; the Decree-Law 30/2015 specified several aspects of the decentralisation process and the Decree-Law n.º 21/2019 expanded the local authorities' competencies in education, teaching and vocational training. An Education Charter should be a response from the municipalities to the call for new education models and a general decrease in school population. As a planning instrument, the Charter was decisive in introducing changes (Santos et al., 2021), as it significantly affected young people's lives by providing wider opportunities at local level, opening opportunities to voice their needs and actively participate in the community.

Lisbon Education Charter (2008), published by the municipality and The Centre for Regional and Urban Studies (CESUR) aims at equipping the school network to better respond to the education needs; to manage educational resources; to aggregate school in groups for a more efficient performance; to guarantee the coherence between the education policies and urban policies of Lisbon; and develop progressive strategies of implementation. The Charter provides an overview of current education conditions in Lisbon, contextualised to the city's territorial features. It argues that despite the population decline, the municipal education facilities remain deficient to meet the needs, in both quantity and quality (CML & CESUR, 2008). The aim towards a better linkage between educational and urban development policies is important for territorial education. The Municipal Council of Education, establishing the principles for the education policy of Lisbon sets the goals: "*to modernise and improve school buildings; to promote success in education and increase quality; to diversify the learning opportunities; to foster social and individual development for the construction of a cohesive and solidarity society; to diversify the learning and qualification opportunities for children, youth and adults*" (CME, 2017: 8).

The Lisbon Education Charter provided the political backing by calling school governments to **"to take the city to the school and the school to the city"** (p. 90), and to enhance the social and individual development of students through the development of school projects considering both the formal and non-formal education (p. 172).

The PDM establishes as a holistic strategic document (as described in the section 3.9.2) these priorities of the municipality on education: 1) fighting school abandonment and illiteracy; 2) preventing violence; 3) developing programmes for social and educational integration; 4) promoting health and food education; 5) creating opportunities for leisure time. Further guidelines and priorities of the municipality provide political backing for co-creation approaches, as it brings out the need to adopt measures for civic participation, non-formal education and life-long learning. Furthermore, the PDM also draws attention to the need to grant "access to culture and sports, the culture and civic participation of youth", making these available in an equitable way to all, calling to grant access to those who do not have it yet (i.e., disabled people), as a "strategy of prevention against marginalisation and a contribution for the civic education of future citizens" (CML, 2012: 107-108). These issues are in line with the literature about teenagers, by acknowledging the risk of marginalisation and the call to include them in decision-making, even if their contribution is for the future city and not for the current one. In addition, other groups, as older and disabled people are mentioned as to benefit from opportunities to participate actively in the city, not in relative terms as the case of children and adolescents, which are always set in connection to their future not their present.

3.9.1 Pilot project “Autonomy and Flexible Curriculum"

Of the utmost importance for the Living Lab, is the pilot project "Autonomy and Flexible Curriculum" created by the Portuguese Ministry of Education. The corresponding Decree-Law 54/2018 establishes inclusive education as a response to students’ potentialities, expectations and needs and as a way to achieve greater levels of social cohesion. It also defines the Profile of Students by setting thus the general skills and knowledge the students must master at the end of compulsory schooling.

Through the pilot project the ministry challenged the schools by giving more autonomy to better tackle the needs of students in the local context to develop a more effective curriculum to assure the students achieve the goals of the Profile of Students. This opens the opportunity to schools to develop learning pathways, more adequate to students' needs, context and potentialities. The Decree-law also opened opportunities to schools to enter new partnerships, with other schools, local authorities or institutions in order to provide support to the school programme. Such partnerships have to be concluded by collaboration agreements (Decree-law 54/2018: 8). The Alvalade School Group and the Secondary School Padre António Vieira took part in the national pilot project Autonomy and Flexible Curriculum in the school year 2017/2018. The way the ESPAV organises its participation is discussed in Chapter 5.1.2.

Furthermore, the Alvalade School Group established different blogs where students can participate actively in the school community, mostly around specific subjects or themes. One of such platforms is the *Oficina das Ideias* (Ideas Workshop), where ideas developed by the students on different subjects are posted to be discussed online (AEA, n.d.).

3.10 Urban Living labs in Lisbon: a testbed for co-research, co-creation, and territorial capacity building

Co-creation is gaining ground as a method that fosters empowerment and capacity building. The living lab methodology offers the ground to articulate and operationalise these concepts. This associated with co-research approach, living labs tackle additionally the need for more agency of research participants. In spatial issues, Šuklje and Ruchinskaya (2019: 212) note low urban literacy and a need to boost the learning process if co-creation and participation is to be effective and sustainable. According to the authors, special heed must be given to acknowledging co-creation as a "co-learning process", where working together and sharing knowledge is paramount for the success of the endeavour. Co-creation is challenging since cities need to be more receptive to unpredictable results and be open for an increasing diversity. Estrela and Smaniotto (2018) note that this calls for changes in territorial governance practices and a mobilisation of local actors. Recent research projects indicate

that cities are willing to integrate territorial knowledge in their efforts to become more sustainable.

Integrating co-research, co-creation and collaborative approaches makes the processes circular and can result in more flexible and adaptive, attractive, meaningful, inclusive, and sustainable public spaces. Yet, to be effective and successful it is crucial to create mechanisms to empower participants, assuring they have the necessary knowledge to contribute as well as have the necessary channels to inform about the urban environment. That can be achieved by promoting territorial capacity building - addressed to children and young people as part of the learning curricula or complement to formal education. In turn, territorial capacity building can be "organically" advanced with the inclusion of co-creation and co-research principles, and this for inclusiveness and transparency sakes.

In Lisbon, the Project C3Places put to test all these concepts in engaging teenage students in placemaking. Through this lens, we can say that the Project did not meet significant problems in practice. As the Lisbon Living Labs served to test participative and collaborative methodologies tailored to the context of teenagers, the focus was on enhancing their territorial capacity by creating an environment that enabled the teenage students to voice their concerns and express their ideas. The topics discussed were: 1) A critical view of the city; 2) Building the city; 3) The digital era and the city; and 4) Designing a public space. Armed with this knowledge, the students were taken to different adventures, in the classroom through dynamic discussions, or through guided trips in the neighbourhood, to the public spaces network, enabling the participants to directly observe and reason about the different features of the environment around them. Strolling in the neighbourhood, or walking through the streets, squares, parks are suitable ways to get acquainted with the surroundings and to understand, explore, or at least be able to recognise different elements of the city (Menezes & Mateus, 2017; Menezes, 2019). Integrating such simple activities can be the starting point, or even a recurring component of all phases. As the authors note, the rationale of capacity building is about space affordances and socio-spatial practices - all important elements to understand the urban fabric.

The second topic addressed are teenagers' practices, uses, and needs in public spaces. This issue has been tackled with indoor and outdoor activities. Different brainstorming activities, some more structured, others less, demonstrated useful ways to start a reflection on teenagers' experience of the environment. Such activities, less formal, were well received, since they allowed the participants to engage directly with the topics of their interests, and to directly add contributions by moving around to the different groups, discussing with peers and facilitators. Class debates were also very successful and engaging. Further activities, such as interviewing classmates, also helped complete the data collection on teenagers' spatial practices, uses and needs, and foster participative research.

The Living Lab adapted a wide range of activities, already tested and age-approved, to the reality in Lisbon and used them as a starting point for the discussion with teenagers. Some of the activities were based on non-formal education strategies suggested by the Canadian Institute of Planners (2002) on the manual Great Communities. To boost the meaningful application of knowledge, the labs encouraged students to link what they are discussing with events and happenings in their everyday lives. When students are nurtured in such welcoming surroundings, they are likely to increase their intellectual accomplishments and learn more effectively. This is also true for the territorial capacity process, where not only the selection of engagement methods and activities is important, but also to present the city not as a set of regulations and legislation, but as a living element subject to changes. Such a learning environment also requires a flexible and open process, committed to becoming fully attuned to the different needs, context, and preferences of participants.

A third topic is related to experimenting co-creation with the help of digital tools. In Chapter 3 participatory strategies and opportunities were introduced and discussed. In Lisbon, beyond considering the school community and facilitators, further stakeholders, such as the local council authorities, people from a civic movement created to rehabilitate an urban space, and from a crowdsourcing and crowdfunding platform were also engaged. The experience of Lisbon shows that for territorial capacity, a wider interaction with the different actors in the community must be encouraged and put in place. Building the capacity of children and teenagers is fundamental. Even if adults are more familiar with territorial matters, especially when acting as planners, practitioners, or local authorities – they may not always be aware of the needs of empowering others on this matter. When all are part of the process, not only sharing the knowledge, but listening to the ideas, preferences, and concerns of others, better places will result for all of us. In addition, co-creation and other collaborative methodologies used for planning, design or rehabilitation of space must always entail an element of territorial capacity building, only then, when the necessary knowledge is acquired, can a dialogue among equals take place.

A further lesson learned from the Lisbon Living Labs, refers to a need, in co-creation and territorial capacity building processes, to communicate and share, clear messages, goals and expectations from the very beginning. The process of defining and framing these messages also must be consistent with the language of teenagers. On the other side, flexibility is also paramount as it can be a huge motivator for teenagers to participate in ways that are more suitable for them. Conversely, another issue refers to a need to be truly interested in teenagers' knowledge, abilities and motivations as well as hear their concerns and opinions. A common quality in these labs is their openness for spontaneity – to provide a learning environment where students can also learn from each other. Regarding the digital approach, flexibility means also allowing free use of tools and applications. In Lisbon, teenagers could freely search for other tools to help to design and display their ideas. Since digital devices are

pervasive and part of teenagers' everyday life, there are also benefits to be gained by motivating them to search for useful tools, increasing opportunities in this way to contribute to the results.

The research within the Lisbon Living Lab recognises that teenagers are competent social actors who can play an active part in the production of the city.

However, working with schools also has drawbacks. In Lisbon, the co-creation context, even leaning on non-formal education activities, the living labs were inserted in a formal context of education, as explored in Chapter 4. The labs took place within the set of school rules. The school environment was, however, essential to provide access to the teenagers, a target group that may be difficult to approach without the support of an institution. For instance, the school provided to the Project a consent for collecting data, taking pictures, etc., as well as solving issues on data protection and learning objectives. With a teacher present in all sessions, the students feel more comfortable to participate; these to the students' known teachers provided support and a sense of familiarity.

The Lisbon Living Labs contributed to the creation of a network of local knowledge, and an environment for dialogue and negotiation where teenagers, the school community, the parish council, and other stakeholders gathered to co-create more inclusive and teens sensitive public spaces. All produced materials and reflections are a product of that context. They show trends from a shared dialogue where different actors interacted and contributed towards a final product without a single author, but rather a collective assembly, emerging of consensus and negotiation. The Lisbon case is unique as it sheds light on how young people engage with an issue that can be the fuel for lasting local changes, by shaping and defining the places for the next generations.

CHAPTER IV
TEENAGERS AS CO-CREATORS OF PUBLIC SPACES

This chapter addresses the process and results of involving teenagers as co-creators of public spaces. It discusses their role in placemaking and the interrelation between co-creation and placemaking. The Lisbon Living Lab is based on a mixed-methods and involved a wide range of stakeholders from school leaders and local politicians to grassroot initiatives in a 24-month period (April 2018 to May 2019). The research approach was highly participatory, on the one side the labs created a forum for teenagers to discuss their relationship to the city, and on the other side they opened the opportunity to actively involve teenagers in research. The issues addressed here show empirically how teenagers can be involved in the production and consumption of public spaces. As explained in Chapter 3.2, by using the terms production and consumption, we refer to regulation, design, building, managing and maintaining, providing finances, and defending a public space, in a way people are able to benefit from it. Very little empirical work is available on involving teenagers in placemaking; this ensues a general lack of recreational facilities designed with their needs in mind. Seeking to understand the teenagerhood and its spatial significance, we have entered with the Lisbon Living Lab a new research field by amalgamating placemaking, co-research and co-creation with a vulnerable user group. The aim of this chapter is to chart a lively picture of debate and action for placemaking. Such efforts raise a question: Do teenagers have different spatial and physical activity needs relative to other age groups, such as children and older persons?

4.1 TEENAGERHOOD – AN AGE IN-BETWEEN

"Adolescence is the transitional stage from childhood to adulthood that occurs between ages 13 and 19" (Psychology Today, n.d.). In our study, the broader context of teenagerhood is channelised to learning and reflecting about young adults' participation in placemaking in practice. The most important aspects of adolescent growth are the development of one's own social life along with an increasingly spatial mobility, i.e. acquiring a greater autonomy and freedom to explore the surroundings. According to Aitken (2001), and as discussed in Chapter 3.8.2, consciously navigating and experiencing leads to different understandings and perceptions of spaces. In the case of teenagers, such social-environmental interactions have to be seen in the light of the physical and psychological changes that take place in adolescence; in doing so, it enables us to identify emergent teenagers' spatial logics, needs and patterns of socialising.

Adolescence can be understood as a biological process, it is the period of puberty in which one's body changes from a child to an adult. About the transitional status, Holloway and Valentine (2000: 2) state that for children it is widely assumed that, as they, not having yet reached biological and social maturity, still have to develop the full range of competencies adults possess. According to Erikson (1968), childhood comes to an end when one has developed the skills and tools to proceed into adulthood. This means that childhood, as Holloway and Valentine (2000: 2) further

stress, "is a time when children are to be developed, stretched and educated into their future adult roles, most clearly through the institution of schooling, but also through the family and wider social and civic life". In fact, adolescence is a multidimensional phenomenon, defined, represented and perceived in different ways. It has been addressed simultaneously as a biological process and a social category or representation; a product of age and/or of class; a phase of transition between childhood and adulthood, illegitimacy and legitimacy, freedom from responsibilities and citizenship (Lister, 2007), or as a period with a cultural and social significance of its own (Pais 1993; Holloway & Valentine 2000; Pappámikail, 2011). Teenagerhood is thus characterised by biological, physical, psychosocial and relational changes and transformations. In this developmental stage, teenagers improve social and emotional skills, behaviours and lifestyles that may shape and influence their identity and life choices. With lesser adult supervision, they experiment with new degrees of freedom, and test and develop their own identity (Aitken, 2001; Pappámikail, 2011; Valentine, 2004). Their practices are intertwined with a desire for social contact and leisure (see Fig. 4.1), to an apparent "doing nothing" that is crucial for group cohesion (Pais, 1993: 93ff) and for social development.

Figure 4.1: Teenagers use and value open spaces, but differently from adults. They need a space that enables group activities. Photo: C3Places Archive, 2020.

Teenagers are often granted no agency over their own lives and offered only "partial" citizenship (Percy-Smith, 2015). Qvortrup (1994), discussing the adult hegemony on space, argues that adults are often seen as qualitatively more important than young people, thus they feel legitimate to act in teenagers best interest. This is the thinking that led to a view of children and teenagers more as "becoming" than "being" humans, and may result in low self-esteem by teenagers. According to McClure et al. (2010) study, self-esteem is an important determinant of adolescent's mental health and development. The authors also suggest that low self-esteem in adolescence may be a harbinger for poor longer-term outcomes. Adolescence is thus understood

as a transitional and ambiguous phase - as an age in between – characterised by a temporary "mood" between two more permanent states – childhood and adulthood (Pais, 1993; Pappámikail, 2011). Nonetheless, there are fallacies in that understanding. First, the idea of the passage to adulthood as an "achievement", this implies that with adulthood certain structural changes will automatically happen. This goes however against the thinking of identity formation as a dynamic, ongoing process as advocated, for example by Boutinet (in Pappámikail, 2011: 86). Second, this idea is associated with forming categories according to the absence of something, rather than on existing features. Teenagers are still too often framed by what they are not, instead by what they actually are. This is underpinned by comparing them with other age groups (Pappámikail, 2011: 90). Third, Pais (1993: 328) notes that in such terms, adolescence can be summarised as "*time of waiting*"[1] – waiting to take fourfold responsibilities: productive (through a stable occupational, labour or professional status); marital (constitution of a stable conjugal relationship); domestic (owning stable and independent housing) and familial (formation of a dependent prole)". Such a critical perspective frames teenagers in terms of risk, disorder and disadvantage. However, the author argues that this waiting time is not free of actions, adolescents have a practical take on life and create "own specific ways" of earning, being with others and building their own domestic environments. Even if these may differ from those of adults, they should not be either rendered as less valid or relevant, nor teenagers' transitional phase should be interpreted as void of content and substance (Pais, 1993: 328). Furthermore, scholars note that this *waiting period* nowadays takes longer and longer. Taking responsibilities, considered as the milestones into adulthood, are more and more being achieved later, often many years after the "official" end of adolescence. There is a continuity of youth and a postponing of "mature", "adult" responsibilities (Calvo, 2011: 48).

These three fallacies seem to reinforce a misconception of identity building. Pais (1993) argues that it is important to reflect upon the use of the terms "adolescence" (developmental transformation) and "youth" (a more ample cultural category, not limited by age restrictions or physical characteristics). Adolescence and youth are interconnected, but binding together the age phase with certain cultural traits entails the risk of fostering an understanding biased by generational categories, that can lead to preserving practices and judgement of values and reproducing stereotypes without questioning them (Pais, 1998). The concept of "Moral Panic"[2] described by Cohen (in Valentine, 2004) is also related with a perception of youth cultures and behaviours by adult society as criminal or deviant. Moral Panic is, due to conflict of interests or discourses of power, frequently associated with particular "symbolic locations", such as "the street" - the classic arena of conflict, contestation and negotiation.

[1] Translation by the authors, original italic quotes have been maintained.

[2] Moral panic describes the phenomenon in which a social group or category is characterised by the general public as a danger to the moral order of society because of its behaviour (Valentine, 2004).

In this regard the above arguments demonstrate the need of identifying a common ground in understanding youth behaviour and practices, and recognising that "youth" is neither a concrete empirical reality nor a social homogeneous group - it is rather a divided one, by socioeconomic background, interests and aspirations (Pais, 1990, 1993). Massey (1998) notes that local youth culture is a product of connected to different levels – international by trends, lifestyles or structural transformations that impact the organisation of society, due to globalisation for example), national, regional and local (cultural and social variations, different cultures, practices and social norms, contextual factors). For this reason, there is no hegemonic youth culture, rather different 'hybrid cultures', locally constructed through active importation, adoption and adaptation (Massey, 1998).

In research about spatial issues of children and young people, as Aitken (2001) highlights, they are often based on general assumptions without considering specific contexts. The list of examples of those assumptions consider: space as a mere container for children's activities; childhood as a pure, more naïve phase and closer to nature; gender and class biased childhood "morality" which reproduces patriarchal relations; and development as a natural, uniform and progressive act (Aitken, 2001; Pais, 1993).

Since the concept of teenagerhood is constructed, the Lisbon Living Lab considers the age (13 to 18) as a parameter of research. Teenage years, as a development phase, are devoted to dealing with growing up and becoming an adult. Growing up is linked to a call for independence and privacy, which paves the way to the development of one's own social life and interest in relationships (ACT, 2013). In this stage of life, parents' and adults' supervision are contested, and teenagers can gradually decide on their own how, with who and where to spend their leisure time. Becoming autonomous and independent are major milestones in a teenager's life and important steps towards the development of citizenship. In the end, a great involvement of teenagers in placemaking is a warrant for a sustainable future, as it is at this age that young people develop social skills, behaviours and lifestyles that influence how they, as adults, will respond to challenges and triggers.

4.2 TEENAGERS IN THE CITY

Empirical observation and research demonstrate that young people are among the most frequent users of public space (Menezes et al., 2019). The authors mention two primary reasons – one leading to the other: first, young people are per se intense public beings, and second, often they do not have private spaces of their own. The lack of private space makes them more dependent on public space for both isolation and social interactions (Lieberg, 1995). In public spaces teenagers have a chance to be on their own and/or to mingle with peers. In this way, they attach values and meanings to these spaces – this reinforces the issue raised in the previous chapters:

Public spaces carry symbolic meaning because they are products of human appropriation and transformation.

To explore the relationship between urban fabric, lifestyles and teenagers' behaviour in public spaces calls to better understand the particular conditions under which teenagers' physically and mentally 'construct' their spaces. As discussed above, being a teenager is a challenging period, full of new milestones that come with physical, social and emotional changes. Public spaces are fundamental for teenagers as a stage for social interactions, contact with nature, or just to be among others and otherness. The access and use of public spaces influence teenagers' physical, cognitive and emotional development in multiple ways. Since the 1970s, studies have brought attention to a primary urge and desire in children to get in touch with their wider surroundings (Hart, 1979), to the key role of urban space in the teenagers' development into adulthood (Lynch, 1977) and to their right to participate in the processes of urban planning and design (Ward, 1978). The latter author, by exploring the relationship between children and the urban environment, highlights the need to strengthen these connections because children are positively influenced by the city, and the city has much to gain from their presence and inclusion.

It is worth to note that, there is a considerable amount of literature on teenagerhood, but very few tackle the spatial needs of teenagers and young people, and this did not provide a significant help to substantiate our knowledge base. For this reason, experiences on children's spatial practices are also taken into consideration.

Public space and access to nature influence both children and teenagers. This assertion entails that in public spaces the interplay between external stimuli (surroundings and social interactions) and internal inputs can take place, and this is fundamental for children's and teenagers' cognitive and emotional development (Strecht, 2011). In this line of thought, Erikson (1968) develops the idea of 'forbidding environment' in contrast to 'facilitating environment', based on constraints in the play and interplay in the cognitive development process that mediate between the inner life and the environment. For teenagers, the author points out, there is also an expansion in the radius of significant relations (peer groups and outgroups, and models of leadership). Strecht (2011) also notes that the space and the environment affect the process of construction of memory, and as consequence, they have influence on people's cognitive, emotional and psychological development, both at individual and social level. Studies on children point to a relationship between the time spent outdoors and the cognitive development, creative play activities and creativity in general, as well as benefits to the development of the immune system (Muñoz, 2009).

The expansion in the action radius that takes place in teen years, as exposed by Erikson (1968) also causes an increase in the degree of freedom and movement and this in turn triggers the spatial range of interactions. The act of exploring the

environment enables teenagers to develop spatial skills and environmental capacities, and by observing and appropriating behaviour to gain cultural experience. Being with others in public spaces fosters interactions, making it a collective experience (Lentini & Decortis, 2010; Thompson, 2002). Increasing the radius of action enables teenagers to gain a wider knowledge of the environment and acquire spatial competences, even through a playful use of space (Van Vliet, 1983). Flouri, Papachristou & Midouhas (2018) also conclude that children living in greener neighbourhoods have better spatial working memory, a feature of extreme importance not only for navigation and wayfinding, but also for academic achievements. In this respect, it is recalled that for many people the only "place" in the city where they can have contact with nature, and learn about its processes are public spaces, in particular parks and greenspaces. Klichowski et al. (2015) also point out to the importance of knowledge contexts for lifelong learning of each citizen.

Public spaces are fundamental social arenas, where teenagers may evade adult supervision, resist adult power and have freedom to be themselves (Valentine, 2004). In public spaces teenagers hang out, meet, chat with friends, peers and others. Woolley (2003) acknowledges that hanging out is for teenagers a means of marking and claiming their territories. 'Actively doing nothing' is a way to participate in the world, and a fundamental piece of social and relational development.

In effect, too often neighbourhoods and cities oppress and induce feelings of loss, lack of reference and dehumanisation, especially for vulnerable groups, such as elderly, teenagers and children (Strecht, 2011). Most people living in urban settings experience urban life from small apartments in blocks of flats, and are exposed to daily traffic in unsafe and uninviting streets. These conditions provoke disconnections with their surroundings (Strecht, 2011). In this context, teenagers suffer from the rising prevalence of passive activities, where the private space of the home and bedroom emerge as the sole space of recreation. According to Holloway and Valentine's (2000) study, the trends inherent to the use of public space by teenagers seem to point to a decrease, this reinforced by Kelly et al. (2015), who evidence a growing tendency of teenagers spending free time indoors, at home or in shopping malls. On the other hand, Menezes et al. (2019) report in their study that when public spaces are available, inviting and in immediate vicinity, teenagers use them. Moreover, Louv (2005) highlights a "nature-deficit disorder" caused by a decrease in the use of greenspaces, and a disconnection from nature. Connection to nature is however crucial for the physical, developmental and mental health, and this at any age. The author also suggests that it is not only nice to have "nature" around, but it is a definite need for physical health and cognitive functioning.

Teenagers' spatial appropriation and enjoyment in public spaces is affected by different factors in multiple ways. There are no easy answers to explain teenagers (and children) retreat from public space use. In the case of teenagers, even if they may earn

more freedom, their actions are still widely influenced by decisions of adults and at places appointed for them. "The spaces of others" – private or semi-private – seem to be gaining ground as preferred places for social interaction, as shown in Fig. 4.2. On the flip side, an increasing privatisation or commodification of public spaces is a phenomenon that diminishes young people's opportunities to be in public (Valentine, 2004). As Pais (1990; 1993; 1998) notes, "youth" does not describe a concrete, unified group, but it is rather an umbrella under which certain similarities of young people's behaviour are tied together. Along this line of reasoning, studies report that such generalisation also threatens to perpetuate the building of an image of "youth" that may (re)produce stereotypes. As discussed above, the "moral panics", such social norms-based fear used to mark a "good" or "bad" behaviour or practice, label teenagers as "perpetrators" just due to differentiating features (like age) and project thus a negative image of "youth". Matthews et al. (2000) note that streets are the place where teenagers contest imposed social norms and where a clash between different moralities and constraints take place. In this sense, streets are "dynamic zones of tension, 'discontinuity' and 'disjuncture', an 'interstitial space'" (Bhabha, 1994: 219), "where young people can express feelings of belonging and of being apart and celebrate the development of the sense of selfhood" (Matthews et al., 2000: 59-60).

Figure 4.2: A group of teenagers in front of the market hall of Alvalade.
Photo: C3Places Archive, 2019.

Furthermore, in all locations where public life is performed, there are, often subtle, hierarchies of authority and power at play. Carmona et al. (2003) argue that for defining and determining which social norms are to be respected and rules to be implemented (either formal or informal) in public spaces these are based on segmenting the population in terms of age (or other differentiation characteristics). Malone (2002), reporting from a case-study about Australian regulatory practices and other limitations, mentions suspicion, intolerance and moral censorship as main factors of teenagers' withdrawal from public spaces. The author recognises that boundaries are an essential physical concept, but that there are also other subtler 'geographies of power' that delimitate space configuration, use and conflict. In the space appropriation teenagers are pinned on being too loud, too visible and too disrespectful (Skelton & Valentine, 1998; Skelton, 2000). By the same token, teenagers should be more respectful and not violate informal *contracts* on the proper use of space. Conversely, teenagers complain of undue interference in their affairs and unfair treatment by authority figures, especially in instances where they have not broken any laws or committed a crime. Teenagers' practices, visibility and the contest for their own space puts them in the front line of conflict over/in public space (Malone, 2002). In this regard, according to Smaniotto and Patrício (2020) and Matthews et al. (2000) keeping teenagers (and the undesirables) invisible in the public domain is a way of maintaining public order. In fact, by "carving out their own territory" (Valentine, 2008: 326) in a hostile environment can spark more defensiveness and antisocial behaviour.

Teenagers and space contention seem to go hand-in-hand, but this is not always linked to poor behaviour. Teenagers are then often perceived as agents of trouble, as a "polluting" presence in the public space (Wyn & White, 1997), and their presence not always well accepted by other users or business owners from the neighbouring areas (Laughlin & Johnson, 2011). Although teenagers are perceived as troublemakers, their behaviour does not result necessarily in any real menace or public disorder. For Berman (1986) and Sennet (1994) a space fails not when it is full of "deviants", but when these are absent. Both authors assert that the main issue is to find ways to respond to differences and force us to engage with "otherness", as well as go beyond defined boundaries of the self. This means accepting shared use and the "unpleasantness" instead of destroying it through exclusion. Even when young people have innocent intentions, their presence in public spaces is often judged by adults as frightening and threatening (Corrigan, 1979). Aitken (2001) argues that teenagers' activities do not have malicious intent or gross negligence; according to Valentine (2004) this is the way they manifest disconnection and disaffection of being excluded from "adult environments". This perception, as seen before, is often based on misconceptions or misinterpretations, which need to be questioned. Such reflection involves challenging irresponsible media coverage and discourse on youth and developing appropriate participatory and planning frameworks (this issue is addressed in the Chapter 5). At the same time it is important to understand in

adolescence the value of variegated experiences in public spaces (Valentine, 2004). Another relationship to consider refers to parental fears (of outdoor and public spaces) and trends in contemporary parenting styles that limit the amount of time children (and teenagers) are allowed to spend outdoors (Muñoz, 2009).

Teenagers inhabit a world built and conditioned by adults and where they are often banned from public spaces and confined to specific institutions, such as family and school (Ennew, 1994). Teenagers face, in this sense, explicit restrains through limitations imposed by others - care givers, educators or regulators - as curfews or prohibiting/limiting teenagers time spent in public spaces, penalties for "unconventional" practices (as skateboarding, see Fig. 4.3), and conflicts with other groups of users' (Skelton & Valentine, 1998; Malone, 2002; Owens, 2002). An extreme example of a direct action aimed at keeping teenagers away from public spaces is the use of the device Mosquito in England. As an "anti-loitering solution" it emits radio waves in two frequencies, one audible by all ages, and the second, "affects only people 25 or younger"[3]. Such devices are used in areas, such as parking lots or in front of shops to maintain teenagers (unconsciously) at a distance (Carmona et al., 2003). Smaniotto and Patrício (2020) also reports from a series of design measures undertaken by municipalities to limit the use of public spaces by those considered undesirable.

Figure 4.3: Pig's ears are a common design element to deter unwanted skateboarding. The image shows a concrete block in the Jardin du Musée des Confluences, Lyon (France). Photo: Smaniotto, 2018.

[3] www.movingsoundtech.com

Many of the spatial restrictions are embodied in the safety perception in public spaces, which in the case of teenagers is aggravated by a duality of danger. Teenagers are excluded because others consider them a threat, while their caretakers see in public spaces a source of danger. Feelings of insecurity are also viewed as a threat among young people. Harden (2000) observes, in a study about children's perceptions of safety and risk regarding public and private spheres, that a public space is perceived as an unsafe place for children. The risk perception decreases however when the place is considered a 'local' place and located in a 'familiar' area. For older children and teenagers the risk perception is often imbued with particular physical configurations of the neighbourhood, such as type of buildings or the maintenance of public spaces (Harden, 2000). The lack of security and feelings of insecurity create barriers in the use of public spaces, what diminish opportunities to hang out, to talk to one another, to play and observe people, all fundamental components in the construction of an individual and social identity (Aitken, 2001; Malone, 2002; Pais, 1993; Strecht, 2011). Although the willingness to accept challenges and risks are also considered a normal path in teenagers development. According to Pais (1993), this is biologically driven by a desire for exploration and discovery, and results in acquiring experience and skills for complex decision-making teenagers have to take as adults.

4.3 SPACE COMMODIFICATION AND SUBTLE BOUNDARIES

The widespread phenomena of privatisation and commodification of spaces also limits the opportunities to claim public spaces. There seems to be a general increase in the offer and demand of private spaces for consumption, caused by a widespread gentrification that "commodifies" public space (Valentine, 2004; Skelton & Valentine, 1998) and changes in the value attributed to spaces. Breitbart (1998) argues that while middle and upper-class teenagers may overcome exclusion from public space by seeking refuge in commodified and expensive private indoor recreational settings, the less privileged ones make use of other mechanisms, such as street art, design and performance to claim their space in urban life and contest stigmatisation and discrimination. Aitken (2001) also notes a commodification of leisure and entertainment spaces whilst a disinvestment in public facilities, both affect mostly those financially dependent, as teenagers. Sorkin (1994) reports on a process of homogenisation and domestication of places. In places for children there is even an extreme phenomenon of creation of what the author called the *disneyfication* of public space. Despite this negative aspect, Holland et al. (2007) observed that function, use and experience of privately owned or "pseudo-public" spaces are the same as those of the public spaces. "Publicness" seems to be relocated to private spaces, as shopping centres and coffee shops, as other "third places" of informal gathering and social interaction (Oldenburg, 1989).

Matthews et al. (2000) argue that although there is a decrease of importance and use of streets by children, this trend is not a universal experience and for many of them

the streets are still fundamental spaces. The authors explain this by the fact that there are multiple "childhoods" where different realities of young people are uniformised and rendered invisible, and there are multiple levels at play in the decision to use public spaces. For this reason, Matthews et al. (2000: 66) refers to public spaces as "spaces betwixt and between cultures", whereas variables, such as the spatial and social context, the parental/caretaker practices and the socio-personal relations of both are side by side with the child agency (personality and preferences) in the decision to use (or not) a public space. The authors also note that outdoor spaces are an "archetypal gendered environment", traditionally used by males more than females (Matthews et al., 2000: 55). Skelton (2000) reminds us that the construction of male/female binaries is a trade mark of western society, and without prejudice to neutrality it makes one of the binaries always to be perceived as inferior. Attributing agency or focussing on specific actors to the detriment of all others, create often subtle boundaries separating spaces or identities. More precisely, Menezes et al. (2019) note that although female and male teenagers use the space in different ways and for different purposes, they appreciate those spaces that offer opportunity to both groups to mingle and socialise. Also the spatial binary public/ /private is pervasive. In the literature and more specifically in childhood studies the binarity emerges often in connection with female/male and adult/child. It becomes evident that the space use (be it public or private) varies according to each of the binaries. Malone (2002) notes that young people have different cultural values, understandings and needs that should be considered as social capital in the making of cities. Corrigan (1979) and Lieberg (1995) mention that young people complain about the scarcity of appropriate spaces available to their use and the unreasonable intervention of adults into their social world. This fact is also confirmed by the experts interviewed in Lisbon (this issue is addressed in Chapter 5). The lack of places free of adult interference, means that teenagers have to claim the "space of others" or "leftovers" (Childress, 2004), as depicted in Fig. 4.4.


Teenagers hanging out in a children's playground.


A group of girls sitting and chatting in the front door of a building in Alvalade.


Teenagers using the bike station to be in a group and socialise.

Figure 4.4: The space of others: when teenagers do not find suitable places, they have to claim those of others, getting exposed to different sources of conflict. Photo: C3Places Archive, 2019.

4.4 TEENAGERS AND DECISION MAKING IN URBAN DEVELOPMENT

The Project C3Places advocates the importance of public space for people's health and well-being and on the potential of engaging users in placemaking in order to assure more attractive and inclusive spaces. Considering teenagers as a key group in placemaking enables us to better understand a wide range of people's spatial practices, and to develop comprehensive responses to their needs. According to scholars, there is a lack of knowledge regarding teenagers' spatial practices and needs, and of experiences on engaging them in decision-making (Van Vliet, 1983; Lieberg, 1995; Skelton, 2000; White, 2001; Passon et al., 2008). These shortcomings call for building teenagers' capacity to enable their active participation in the production of the city, and to overcome stereotypes and/or teenagers' limitations. If teenagers are not involved in decision-making processes, they will continue to suffer implicit restrictions in using or accessing public spaces. Restrictions can be expressed in terms of design and planning decisions that neither consider teenagers' attributes nor understand both their physical and emotional needs involved. The lack of sitting arrangements to allow teenagers to be in groups and the design of residential areas and schools that attach greater importance to the control of teenagers' practices by adults (Owens, 2002; Strecht, 2011), are examples of such restrictions.

Children and teenagers are addressed together in this book as "young people", as in the literature there is no clear distinction between both. Initiatives to engage them in placemaking are supported by different good practices guidelines, but few legislation and statutory guidance. Maybe the most important is the United Nations Convention on the Rights of the Child (UNCRC) from 1989, which establishes the fundamental rights of children. UNCRC pushed forward concepts associated with children's participation, promotion of their rights and raising their capacity to contribute to decision-making in matters that impact their lives. UNCRC first had to be enacted into domestic law by state-members and incorporated in politics and practices (UN, 1989); of all United Nations treaties and conventions, it is the one more widely ratified, all together 193 states fully ratified it (only Somalia and USA not). Portugal ratified the Convention with all optional protocols in 1990. This means that there is a consensus about the need to protect children (and adolescents) rights. Four fundamental principles rule the Convention: survival, development and protection; devotion to the best interest of the child; equality and non-discrimination; and respect for the views of the child; and compiles the rights under four topics: civil rights and freedoms, family environment and alternative care, health and welfare, education, leisure and culture.

Furthermore, of interest to young people's participation, are specific rights, such as "right to express their opinions in the matters that affect their existence and that their opinions should be considered in an appropriate matter regarding their age and maturity" (Article 12º); young people should be prepared to live responsibly in a free society and should be involved in the participative processes of decision-

making (Article 29º). These articles, rules and topics are important as a framework for involving young people in participatory agendas.

Another relevant document that supports the call for young people participation is the World Programme of Action for Youth/WPAY (UN, 1995). The WPAY emerged as an international strategy, it however also provides a policy framework and practical guidelines for national action and international support to improve the situation of young people, in different dimensions affecting their lives, such as education, employment, nutrition, participation, access to places and facilities, etc. It's recommends actions to assure a full and effective participation of the youth in society and in the decision-making processes, such as access to information on possibilities to participate; development of opportunities for the youth to learn about their rights and responsibilities; encourage youth associations; consider youth contribution in the design, implementation and evaluation of policies and plans; encourage cooperation between youth associations at local, regional, national, international levels; strengthen the involvement and representation of youth in international forums and in national delegations to the United Nations (UN, 1995).

Directly related to space and the environment are the Agenda 21 and the Habitat Agenda also relevant. The Agenda 21 (1993) was a product of the UN Conference on Environment and Development (1992) and established directives for cooperation to reflect on spatial and socio-environmental problems and their solutions. It recognises the right of young people to be involved in all decisions (in chapter 25), while chapter 28 calls on local authorities to develop supporting initiatives towards new models of urban management, from the bottom-up and more sustainable (UN, 1993). As a breakthrough towards more participative planning models, the Agenda 21 was further developed into The New Urban Agenda (2016) by the UN Programme of Habitat and Human Settlements. Relating to young people, its Article 20 draws attention to groups that may suffer particular discriminations, such as children and adolescents; Article 34 calls on to provide access to basic physical and social infrastructure – equitable and affordable, and to assure that these are appropriate to particular groups. Article 39 regards the commitment to promote safe, healthy, inclusive environments in cities, again having in consideration young people as a particular group. Article 42 calls on local authorities to develop opportunities for dialogue and participation bespoke to different groups. Article 113 establishes strategies to improve road safety, again having children and youth as a particular group of interest. Finally, Article 155 promotes the development of capacity building initiatives to better prepare young people (along other groups) to participate in the decision-making processes, while Article 156 calls upon the creation and testing of appropriate tools, policies, and strategies to access the information and to make ICT accessible for all groups. The Child Friendly Cities is another initiative of importance. Launched by UNICEF and UN-Habitat in 1996, it supports the transformation of cities into a child-friendly, a city that adopts principles and implements responsibilities

towards respecting and promoting children's rights, as established by the UNCRC (UNICEF, 1996; UN Habitat, 2016). The principles of a child-friendly city are fundamental towards the development of a territorial capacity building process.

Despite the support and legislation in force, children and adolescents are excluded from full citizenship; this is also on account of contemporaneous understanding of childhood, which considers a child vulnerable and dependent on adults (UN, 1989; Qvortrup, 1994; Wyn & White, 1997; Sibley, 2003; Lister, 2007). That is the thinking behind the position, which adults believe that extending youth's rights would threaten their natural authority to decide what is in the best interests of young people. Adults are thus considered qualitatively more important and as the reference to act in children's and teenagers' name and on their behalf. Such a concept of vulnerability implies that adults know what young people need and want. Valentine (2004) also reports that adults also believe that children should not exercise rights until they can exercise responsibilities, whereas children should not be given responsibilities to risk undermining the right to a childhood free of concerns. Benedicto (2011) also refers to citizenship as a matter of legal status, this equals citizenship to age majority and adulthood. Nevertheless, the author also notes how essential it is to depart from an age-based concept of citizenship to one based on the actions of actors. Young people therefore became citizens when acting on their rights and participating in the public sphere (Lister, 2007; Benedicto, 2011).

Another issue to be considered is the extent to which public participation is set in the urban agenda, then even when legally framed, it is often top-down imposed by professionals rather than being initiated by young people, youth councils or forums, and this may jeopardise the process from the start. Hanssen (2019) illustrates this with the example of Norway, a country that, despite having thirty years of experiences with participation of young people in planning, faces major challenges at the implementation level, from disrespect of the procedures in smaller municipalities (alleging lack of skills and capacity), to a majority of municipalities choosing only to nominate a child's representative (mostly a municipal civil servant) instead of listening to young people directly. This kind of forum does not actively empower the youth, it rather represents tokenism (Storrie, 1997), since most are controlled by adults and absorb young people's views through the lens of institutional structures. Even though some practitioners consult young people, they often do it because they are obliged, and not truly committed to the process (Valentine, 2004). According to the author, these practitioners often have little or no training in working with young people, as well as they do not have a good enough understanding of how young people fit into planning. They consider young people to lack responsibility, experience, interest, legitimacy and power (Laughlin & Johnson, 2011). Such practitioners are thus not fully committed in building teenagers' capacity to actively take part in participatory processes. This issue was also raised by White (2001) in a survey conducted with architects, planners and urban designers; it revealed that they had

little knowledge about how children use public spaces, and thus rarely considered their needs. This reinforces the call to raise more awareness on children and youth rights and to acknowledge them as full citizens, with the right to participate in decisions that may affect their lives. Furthermore, consultations and participatory agendas work on different temporalities, usually focussing on past experiences and on planning for an abstract future instead of transforming the urban fabric here and now (Caputo, 1995).

The time gap between research, their reflection on policy design and especially in physical transformation can be very long, and young people tend to focus on the present (Holloway & Valentine, 2000), hence it can be hard for them to recognise any positive outcome from their involvement in planning. This reinforces the issue of appropriate communication. As discussed in section 3.8, it is paramount to link teenagers' involvement with the advantages of their engagement (Valentine, 2004), as this can boost motivation to participate, regardless of the awareness of the time gap.

4.5 PLACES FOR EVERYONE - THE LURE OF INCLUSIVE SPACES

In order to create teenagers-sensitive places it is necessary to better understand their spatial needs and requirements, bearing in mind that public spaces should always be shared and aimed at offering more inclusive environments. Those that in the sense of inclusive design can be accessed and used by as many people as possible, regardless of age, gender or disability. It is necessary to this end that places enable both an appropriation and the negotiation among different users. On that point, it is useful to recall Jacobs' (1961) claim: meeting children's spatial needs requires both streets for "normal" activities such as hanging out and play, as well as empty spaces where they can be on their own. Children (and teenagers) needed both, designed spaces for "normal" activities such as hanging out and play, as well as empty spaces where they can be on their own. Lieberg (1995) also distinguishes two types of "places" needed: those of interaction where adolescents are confronted with the adult's world, and those of retreat, where on the contrary teenagers can withdraw into an environment reserved solely for peers where adults are not welcomed. Such retreat spaces, as called for by several authors, must remain a less regulated public space, and examples cited include abandoned areas, parking lots, building entrances, or secluded and hidden spots in larger public spaces (Lieberg, 1995; Pais, 1993; Holland et al., 2007).

> Owens (2002: 156) reports that "unprogrammed" spaces are extremely important because they provide a "legitimate place [for teenagers] to be". Such retreat spaces, although public, are in a way what Pais (1993: 170) describes as pieces of the street converted into private spaces, where teenagers can be on their own and evade adult's control.

Connected to Lieberg (1995) statements, Owens (1997) defines three "place types" teenagers value and use: hangouts, look-outs and wipe-outs. Hangouts are places

where teenagers get together with peers. For this activity gathering facilities are needed, such as clustered seating, those that allow more private places away from traffic flow. Such places can be integrated in parks, gardens, commercial spaces, schools and in the neighbourhood in general. Look-outs are spaces teenagers go to be alone, to look at others and the surroundings without being seen, normally these are unplanned zones as vacant, abandoned lots or a crow's nest to view across the surroundings. Finally, the wipe-outs are equipped places used for certain recreational activities, such as skate parks or sports pavilions. These three types of places with similar features are also valued by other groups, what differs is the possibility for teenagers to (in a symbolic manner) appropriate the space for themselves and create a semi-private space (Owens, 1997). Owens (2002) makes clear that such types of places (with teenagers' tied values) are easy to be accomplished by a pro-active urban planning and design - and it is better to actively address these spatial needs than just leaving users to adapt to inadequate spaces. Back in 1960s Jacobs described some of the crucial needs of children to be assured in planning, as they need "a variety of places in which to play and to learn" with opportunities for physical activities and unprogrammed outdoors in proximity to home base [as the sidewalks] enabling play, hang out, and "to help form their notions of the world" (Jacobs, 1961: 80-81).

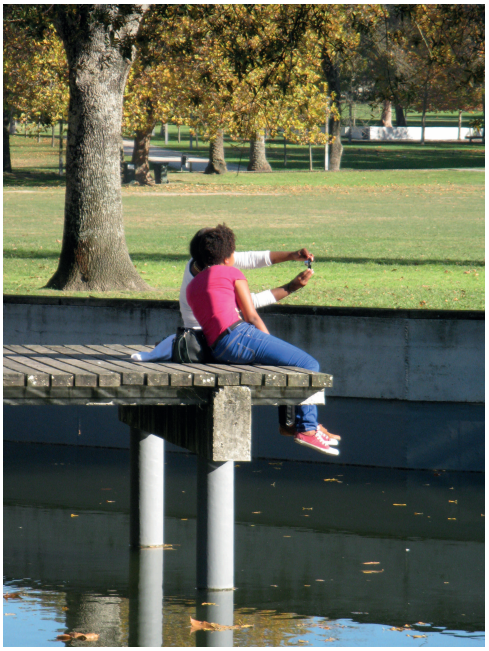


Figure 4.5: A lookout point and good place to be on one's own
in the Quinta das Conchas Park in Lisbon. Photo: C3Places Archive, 2019.

This brings us back to the issue discussed in Chapter 3 in the context of the social value of the public realm. A more flexible, multifunctional and adaptive public space

integrating different features and configurations would better respond to needs and practices of users. Features as walkable streets and with low vehicle volume, wide sidewalks, open spaces between buildings, etc. all combining elements such as trees and plants, water and lightning should be assured for a better spatial experience by children and teenagers (and consequently by all age groups). Mäkinen & Tyrväinen (2008) point out that the use of greenspaces by teenagers may differ from adults, either due to valuing different settings or through more diverse ways of use. Greenspaces in particular, either large or small, provide spaces of discovery, to explore and experiment the world (Mäkinen & Tyrväinen, 2008; Smaniotto, Šuklje & Mathey, 2008; Strecht, 2011), as depicted in Fig. 4.5. Other features mentioned in different studies refer to basic services and facilities, variety of settings and activities, places to play, protection from physical dangers, greenery and nature-like places, gathering places, equipment for special events or activities, comfortable seating or other site furnishings (Holland et al., 2007; Derr & Kovács, 2017).

Aitken (2001) claims the need to protect, what he calls "tick play", or the active exploration of individual and social imaginaries built up in places of everyday life. Regarding activities, according to Passon et al. (2008) teenagers prefer unstructured recreational activities, such as hanging out and standing around smoking, listening, and chatting with one another. These authors also claim that there is a need for a public space that is "tolerant" to teenagers' preferences. Jacobs (1961: 80-81) also mentions that the necessary "unspecialized play that the sidewalks serve" is not easily transferable to structured spaces as playgrounds and parks. Owens (1997), Lieberg (1995) and Pais (1993) reflecting on teenagers' spatial practices, point in their studies to a need for spaces that are not build-up, do not have a clear function and, in this sense, include both places of retreat and places of interactions. For sure, such a call poses a challenge to planning and design because in the context of land take for urban purposes, wild, unbuild and unused space do not match urbanisation priorities (Smaniotto, 2014). Whereas responding to teenagers' needs should not result in exclusive or segregated places, but in instigating design that can be shared among different users (Design Council, 2020). This implies a particular challenge to recognise that a shared space will not result necessarily in relationships between different users, but at least it can contribute to create fertile grounds for a fruitful and intergenerational socialisation (Pais, 1993; Owens, 2002; Strecht, 2011; Design Council, 2020).

Teenage years pose several challenges, and the development of one's own social life is one of the most important aspects of adolescent growth. Public spaces are the frame within which experience is acquired by interactions with peers and other people. The claim of places by teenagers in urban society is not supported by current living environments. Teenagers, not having places of their own, claim places of others and this bears potential for conflict. A spatial perspective for young people implies that the public realm should become a "place to be" and

"belong". When public spaces are not prepared to accommodate the needs of the youth, we risk damaging their physical, developmental and mental health. The active exclusion of teenagers from public spaces creates potentially further constraints, such as losing sense of belonging to a place and missing opportunities to exert control over the environment, which discourage in turn their synergistic participation in innovation processes.

4.6 TEENAGERS AND DIGITAL TTECHNOLOGY

There is no doubt that we have reached the digital age, the fast spread of digital technologies sets enormous changes in motion. Digital technologies and the internet are changing the way people work and learn, and the way we behave and communicate, this in turn are increasingly shaping the way our free time is spent. Within the Project CyberParks, which inspired C3Places framework and research questions, a small-scale, applied research was set out with the aim to capture a broad overview on the usage of public spaces by diverse sectors of the society. The results on different groups are analysed in several chapters of Smaniotto et al. (2019). One small-scale, applied research is devoted to teenagers' perceptions of public spaces and the usage of digital tools. To provide a deep analysis of how teenagers of different sociocultural contexts perceive and use public spaces and ICT, an informal interview, structured in the form of a questionnaire was developed and applied. The anonymous questionnaire is composed of 34 questions about the use of public spaces and the relationship to digital communication technology and was applied in the cities of Hanover (Germany), Lisbon (Portugal), Tel Aviv (Israel) and Volos (Greece). Project. Menezes et al. (2019) provide a deeper analysis of the survey in all four cities. This study enabled the CyberParks Project to explore, in a preliminary manner, the links between teenagers, public space and the use of ICTs.

Since it is interesting to Lisbon Living Lab, this section focuses on this survey in Hanover. The questionnaire was applied in the context of English lessons to 10th graders of a secondary school and polled over 21 teenagers aged 15–16. Obviously, a study with twenty-one participants does not intend to obtain a statistical representation, it was rather aimed to identify specific aspects and patterns of teenagers' behaviours to guide future research, in particular for the C3Places.

All teenagers, with a slim majority (54%) of females, possess a smart phone and have access to a (family) computer or tablet. All they have constant access to the internet both at home and school, and 45% say to be constantly logged into social media. All teenagers use online platforms and social networks for communication with peers; WhatsApp, Instagram and Snapchat are the most popular, Facebook and Skype are mentioned by few (10%). 71% report using more than one application to be in touch with peers, and 46% say to get in contact several times during the day. All teenagers report that they always use mobile phones in their daily life, thus also in pastime

activities outdoors. They use the devices for texting, chatting and sharing images. Regarding the use of public spaces, while all participants mentioned to live in a walking distance to a public space, the frequency of use varies considerably, 39% say to use a public space few times a week, 21% sporadically, 21% every day, 14% only on weekends and 4% several times during the day. The purpose also varies, 33% use the public space to spend time with friends, 19% to go for a walk; other reasons are listening to music, biking and studying. Another interesting issue refers to the time spent in public spaces. The answers varied from a range of minutes to large periods (3 to 5 hours); 21% say to spend 2 h per day, 18% 1 h, and 14% spend up to 1 h. Thus, the majority of participants (57%) use a public space up to 2 h/day. To this question, also some qualitative information is relevant, as some adolescents mentioned that the time varies considerably depending on the school workload and on the season; in summer they spent more time outdoors. Another interesting fact, while 53% say to go to public spaces to be with friends, 46% go with their families. This reveals a dependence of teenagers on their parents for recreational activities.

Teenagers are intensively using the most advanced tools and particularly smartphones, which have become quite a common device among them. Differences in socio-economic status do not matter, all teenagers use ICTs to a similar degree and to similar purposes. "*Possession of smartphones and other mobile devices gives teenagers a kind of social status, prestige and acceptance by their peers*". It serves also for showing off. Some parents are cautious and protective with regard to how their children should engage with technology, and in these cases, teenagers have to negotiate the access to digital media and technology (Menezes et al., 2019: 117).

Back to the matter in hand, equipping public spaces with advanced ICT services, could be a way to attract teenagers to spend more time outdoors and in public, but yet this requires the provision of appropriate spaces in the immediate vicinity where they live and this space should provide amenities valued by teenagers, such as "private" and retreat places they need for doing a number of activities, e.g. getting together, for entertaining themselves and for practising sports, etc.

As Childress (2004) terms it, public spaces can play a key role in teenagers' socialisation process. There is a clear need to mark "their" territories (with graffiti, skateboarding or even loitering). This calls for providing teenagers a legitimate and unchaperoned public space, designed in such a way as to make them feel welcomed.

CHAPTER V
A PLACE FOR TEENAGERS IN LISBON

Based on the results of the Living Lab organised in Lisbon, this chapter explores how teenagers use public spaces along with their spatial needs and preferences. To achieve a wide understanding of the potential and bottlenecks in co-creation with teenagers, several research methods and tools were put in place. This provides a rich set of features that helped to capture a comprehensive understanding of teenagers in an urban setting. Building upon the knowledge and experiences addressed in the previous chapters, the Lisbon Living Lab applied an experimental co-creative approach to investigate teenagers' relationships with public places. Teenagers require places to mingle, for group and for intimate uses, places that support their physical and social development. The Lisbon Living Lab enabled the Project C3Places to identify their needs and preferences, and to reflect on how to capitalise their participation to co-create a child- and youth-friendly city. The results show how it remains important to continually access teenagers' interests, developmental requirements and spatial needs when designing the urban fabric.

The provision of public spaces for different age groups does not mean to create age-specific spaces, but rather provide quality universal spaces, such spaces that can be shared by different groups. Multi-age spaces provide many opportunities for teenagers to walk, meet and socialise and explore the environment. This chapter is devoted to the discussion of such a place that is sensitive to teenagers.

5.1 ALVALADE & TEENAGERS AS RESEARCH CONTEXT

5.1.1 Research design

The work programme in Lisbon is structured by the C3Places rationale, all partners collaborate intensively in all tasks amalgamating their own expertise into an inter-disciplinary outcome. This rationale guided the Project performance and is now collectively bringing specialised and tailored knowledge, experience, and skills. Each Living lab included people from academia and community, business and grassroots movements or interest organisations and government bodies. They all support C3Places to achieve its aim of creating better places for all. In Lisbon aiming at exploring how teenagers appropriate and express needs and preferences towards public spaces, the Living lab has been conceived to provide a test bed for co-creation and co-research. The work programme and the methodology used to engage teenagers encompassed:

- Review of literature and other research projects,
- Analysis of local socio-cultural context, and review of policy instruments and implementation processes, at municipal and national level,
- Adaption and further development of ICT tools for research and interactions with teenagers and stakeholders,
- Assessment of the quality of the local public open space network, and discussing the results with key local stakeholders,

- Exploratory visits to the local public spaces, to learn about the local technical/ /conditions, spaces layout and service, and the frequency of users, to obtain an overview on possibilities and potentials, and to detect the places teenagers use,
- Interviews and questionnaire surveys with teenagers and teachers to capture how they use public spaces, how they learn and the patterns of ICT access and uses,
- Interactive engagement of teenagers, culminated in local living labs, to capture the interest and needs in public spaces, also to increase capacity building, towards increasing their understanding of the city, its spaces, and environmental and socio-spatial structures.

Tackling the relationship between public spaces and teenagers requires a multi-disciplinary view, such as anthropology, geography, education, urban planning and design, all of which with their own specific questions, tools, and work methods. The analysis however must be juxtaposed, but still able to deliver responses for each discipline. This means establishing a consensus-building approach among the disciplines, and at the same time generating multidisciplinary ideas and possibilities. This is crucial, when bringing together ages and places that tend to be treated separately.

5.1.2 The Urban Structure of Alvalade

The neighbourhood of Alvalade is taken as the ecosystem for the case study in Lisbon. Alvalade is a distinctive and paradigmatic neighbourhood, and considered an example of urbanity in the history of Lisbon (Costa, 2002). Until the early 20th century, Alvalade was predominantly rural, with farms and quintas – a typical family-owned large estate comprising a manor house, outbuildings and facilities, usually with orchards and olive groves and used to grow fruits and vegetables. Some of the quintas were used by the royalty as summer houses, later, as a space for recreation and sports by the population. Alvalade was created as a parish in 1852 and granted Lisbon municipal borough (bairro) status in 1885. Since 2013 Alvalade is one of the 24 parishes[1] of the Lisbon Municipality.

The area rapidly expanded in the 1930s, becoming a middle-class suburb of Lisbon. Between 1930 and 1945, the architect João Guilherme Faria da Costa designed the Urban Development Plan of Alvalade, mixing different urban models, from the traditional city, garden city, and German Siedlung to modernist planning. Focused on rent-controlled housing, Faria da Costa created a new urban layout aimed to respond to the chaotic urban sprawl at that time (Costa, 2002). Alvalade's main structure consists of an orthogonal road network, with broad avenues forming large blocks. Faria da Costa used the idea of neighbourhood subunits, creating eight blocks

[1] A parish (freguesia) is the smallest administrative unit of a municipality in Portugal and is governed by a Junta de Freguesia; it is the first level of local government.

with local retail and recreation opportunities, and with block interiors sometimes treated as common spaces. The pedestrian circulation should be concentrated in the interior of those blocks, leaving the broad roads for car circulation. While the building structure generally features tower blocks (large precast concrete panel apartment buildings raised on pilotis, as depicted in Fig. 5.1) along the main avenues, inside of the blocks, structured by irregular narrow street patterns, 3-4 storey detached houses with front gardens dominate the landscape. Along the main roads are shopping facilities and services (e.g. hall market). The network of public spaces is built by the urban Park José Gomes Ferreira (11 hectares), several small greenspaces (squares, gardens, and play areas) distributed within the blocks. Along the avenues three-lined wide sidewalks with benches offer liveable public spaces between buildings and blocks. As a focal point on the edge of the plan, between the residential area and the park is located a secondary school, which was involved in the living labs. The school environment is described below.

In Alvalade, the housing styles and size vary from small clusters of detached houses to high-rise buildings among a strong commercial zone. The neighbourhood is considered an example of well-distributed urban functions and amenities, and traffic hierarchisation. Built in different phases until the 1950s, the development of Alvalade stands in clear contrast to the far less controlled growth of other Lisbon neighbourhoods. This plan was a progressive leap for the time, for it earned Faria da Costa the title of the first Portuguese urban planner.

Figure 5.1: Typical high-rise building raised on pilotis; this design helps to create the sense of fluidity in Alvalade. Photo: C3Places Archive, 2020.

In 2012, as result of the Administrative Reorganisation of the City of Lisbon (see Chapter 2.8.3), the Parish Council of Alvalade has grown substantially. With this reorganisation, further responsibilities from the City Council were assigned to the parish councils, including the maintenance of public spaces. The current administration of the Alvalade Parish Council recognises this as a challenge, since it is now one of the larger parish councils of the country, both in area and number of residences, requiring an adequate management of resources. In the last population census (2011) and after readjustment of data after the administrative reorganisation, the Parish of Alvalade has an area of 5,34 km2, representing almost 6% of the territory of the municipality of Lisbon (INE, 2012) and with 31.812 residents it is the most populated parish in Lisbon and Portugal. Although Alvalade is also one of Lisbon's most aged parishes, the number of children (0 to 14 years old) increased 19,5% in the period of 2001 - 2019 (INE, 2019). The council also has a building rehabilitation rate above city average (5% against 4%) (INE, 2011). These are important aspects to consider for public space planning.

Figure 5.2: The open space situation on the opposite side of the Secondary School in Alvalade (ESPAV) – a gathering area for the students. Photo: C3Places Archive, 2019.

According to the Parish Council - as expressed in the interviews (see section 5.3), the priority of the current public administration is to transform public spaces to support children and young families, as a way to enhance the attractiveness of Alvalade as a residential area, and against the ageing of the population. This transformation includes more greenery and their maintenance, and creating new playgrounds. Another issue, to be tackled, as part of the integrated municipality plans for

urban mobility, is the promotion of more sustainable and alternative modes of transportation, this includes a better use of open-air cars parking lots.

Another public space issue of notice is the rehabilitation plans for a quarter called Bairro das Caixas, where the illegal appropriation of public land by private persons persists for more than 60 years. As provided in the initial Development Plan of Alvalade (1930), also in this quarter public gardens and playgrounds were planned, but once not build right away, the vacant spaces were taken in different ways, fenced as courtyards and allotment gardens or walled by companies to store materials and waste, etc. (Fontes, 2019).

In light of this perspective, Alvalade counts on a richness of stimuli offered by the urban environment to teenagers and their call for movement, action and exploring the city. Every effort must be made in order to provide safe, accessible, inclusive and liveable public spaces, places that enable interactions with other individuals and groups, but also with the city itself. If Alvalade offers these for teenagers and how they imagine a teenagers-sensitive place is tackled in the forthcoming sections.

5.1.3 The Secondary School ESPAV and the Marquês de Soveral Street

C3Places worked in Lisbon closely together with the Secondary School Padre António Vieira (ESPAV). In collaboration with students and after consultation with the Parish Council, the street area in front of the school was selected as a study case in the living labs. The Secondary School is located at the end of the Marquês de Soveral Street, in a residential quarter at the edge of the Alvalade Parish Council (Fig. 5.3).

Figure 5.3: The school main entrance and the dock station of the bike sharing scheme, which is used as a meeting point by the students. Photo: C3Places Archive, 2018.

In front of the school three different streets intersect – Marquês de Soveral, Eugénio de Castro and João de Deus Ramos – creating a particular width street crossing. Typically dominated by cars, the area is unattractive for people and for any social activity. The Marquês de Soveral Street has wide sidewalks with traffic lanes divided by the median with large trees and diagonal parking slots on both sides.

The school has four entrances, two for pedestrians and two with access to vehicles. In front of the main entrance there is a wide sidewalk with trees, some parking slots, a bus stop and a dock station of Gira bicycles (a municipal bike sharing scheme). The bike dock station provides free wi-fi access to the Internet. This broadband hotspot covers the area around the school entrance. The bus stop with a bench and shelter is located on a traffic island at the intersection of the streets Marquês de Soveral and Eugénio de Castro (Fig. 5.4). Most of the adjacent buildings have three floors; an exception is a nine storey-building located in the front of the school at the of the streets Marquês de Soveral and Eugénio de Castro Rodrigues. In this building there is a small snack-bar; opened only during the week it seems mostly to attract the students and local residents from the nearby buildings. In addition to the snack-bar, there are coffee shops and restaurants (medium to high prices) in a walking distance, as well as some other stores and services, such as grocery store, bathing products, repairing and selling of air-conditioning, home security products, a yoga school, a dance studio, an automobile repair, dentist, etc.

Figure 5.4: A detailed map of the Marques de Soveral Street. Source: OpenStreetMap, 2018.

Once around the school there are no appropriate places for students to gather together, they use the bike station, the bus stop and the entrance of the adjacent buildings. This behaviour becomes a latent potential of competition and conflicts, as addressed in Chapter 3.3.

Regarding mobility, the surroundings of the school are well served by public transportation. The bus line 744 circulates between the city centre (Marquês de Pombal) and Moscavide neighbourhood stops in front of the school. It operates from 6:15 am to 9:30 pm with the frequency varying between 10 to 20 minutes. In the adjacent streets at a 5-10 minutes' walking distance further bus stops are available with a broader offer of bus lines. The nearest subway station (Alvalade) is about a 12-15 minutes' walk.

5.1.4 Students' travel to school

Regarding student's mobility, the Lisbon Council conducts yearly the study "*Mãos ao ar Lisboa*" (Hands up Lisbon; CML, 2019) aimed at getting a picture of means of transport used daily by students at all schools in Lisbon. The survey consists of a simple and brief questionnaire, the students respond by raising their hands while teachers count them. For Alvalade, the study in 2019 shows following picture (N=3.338), 59,1% of students do the school journey by car, 17,9% by walking, 9,5% by bus and 7,7% by subway - these numbers are in line with the aggregated values for the whole city. Age was also found to be a significant factor in the student's mobility within home-school travel. The gain in autonomy by teenagers seems to be portrayed in a steep decline in the car use (22,3%) by upper secondary levels (usually aged 15 to 18) and an increase in other modes of travel (31,4% bus, 23% walking, 12,1% subway, and 7,6% train). However, this changes when comparing public and private school students (all ages), as in previous years, private school students are characterised by higher car use (78,4%). This number decreases only slightly in upper secondary levels (65,6%) (CML, 2019). The study also points out to the individual context of the students, particularly the socio-economic background, as a key factor influencing their mobility patterns and, in this way, acquiring spatial knowledge.

The increase of motorised transport in the home - school journey has important implications in young people's health, physical activities and in their perception of the city (Robinson, 2000). Those students who walk to school or take the bus on their own have a more positive perception of their environment. The relationship between environment and mankind development is reciprocal. It can be understood as a dialectical relationship that goes far beyond a simple interaction, as it is a key for the spatial awareness, sense of belonging, as discussed in section 3.3.

5.2 FIELD STUDIES THROUGH PARTICIPANT OBSERVATION

Observation research was the technique used to operationalise two of the main objectives of the Lisbon Living Labs. First, to assess the geographies and user-friendliness of public spaces, focusing on their features, typologies and facilities/equipment. Second, to explore teenagers' uses and behaviours in public spaces in order to identify their spatial practices, perceptions, needs and requirements on the use of a public space, and embedded in these issues, to detect potential conflicts of use.

The assessment of geographies and user-friendliness of public spaces was organised in two phases. For the analysis, the dimensions proposed by Project for Public Spaces (n.d.) as indicators of a good public place and the evaluation index developed by Mačiulienė et al. (2018) were used. The first phase was dedicated to getting an overview of the general characteristics of the public spaces network in Alvalade, considering the uses, users and facilities. This phase enabled the Project to gain familiarity with the local public space network and with the neighbourhood in general.

The indicators used are those proposed by the PPS (n. d) in "What Makes a Great Place":

1) **Access and linkages** consider how easy and convenient it is to access the space and scrutinising issues such as walkability, readability, connections, proximity and continuity.
2) **Comfort and image** are related to the perception of users in matters of safety, cleanness, greenery, attractiveness, or historic relevance.
3) **Sociability** addresses the purpose of use and considering the ways peopl appropriate the place.
4) **Uses and activities** are related to the social interactions taking place considering matters of diversity, stewardship, cooperation, neighbourly, pride, user friendliness, interaction or welcoming.

The space observation made it possible to establish that the distribution of spaces, their functions and equipment in Alvalade remains as planned and are well preserved, particularly it is to notice the role of public spaces in the social life of the neighbourhood. The broad pedestrian lanes edged by large trees and benches, and the small squares inside the blocks, typical for Alvalade, offer liveable space between the large main roads and buildings. The spaces around public transportation spots are, especially in rush hours, quite busy, with several people conducting their daily routines, entering and leaving the neighbourhood. These dynamics and exchanges are also noticeable through the several services offered in semi-indoors/outdoors public places, such as coffee/restaurants' terraces or kiosks. The Park José Gomes Ferreira (commonly known as Alvalade Woods) is equipped for a variety of activities, with barbecue facilities, a fitness circuit, a coffee shop and a playground area, and several benches and tables that provide different sitting arrangements in different parts of the park. With several entrances and cycle lanes around it, it is easily accessible from different streets.

In order to assess the features, and uses and users of the public space, identify teenagers' practices and their patterns of use, the field observations took place over a period of twenty days in different hours of the day and different days of the week (Table 5.1). The strategy was to collect data at different hours of the day in a

continuous period of time, considering the school schedule (before and after school times, beginning and ending of school period, at breaks and lunch break) and weekend, and from an established point of observation take descriptive notes and photographs to register use of space at different hours of the day. Two observation grids, adapting the above-mentioned dimensions and their indicators were created to record the field work, considering all users, in general, and by teenagers, in particular. While the grid one was used to qualitatively evaluate and comment on features and quality of the public space on their readability, convenience for movement, interlinking, accessibility, captivation, comfort and cleanliness, safety and available equipment, the grid two was used to collect quantitative data on the users of space, considering age group, activity, duration of stay, and mode of transport, as well as some subjective evaluation on sociability level, considering for example, kind of activity performed and interactivity among users. The observation grids were analysed together with the field notes and image library.

Table 5.1: Survey strategy and sessions of observation

Period	Days	Hours
May and June 2018 (total 20 days)	Different days of the week	Different hours of day, including evening
	Sunday and school holidays	Before and after school times

Additionally to the field work organised by the C3Places Project, an exploratory study was conducted by Radić (2018) in the course of a short scientific mission exchange to Lisbon, organised within the Project CyberParks. Radić (2018) mapped the social interactions of teenagers in public spaces in Alvalade, aiming at identifying their use patterns (practices and activities). Four public spaces were selected and visited at different times of the day during a ten-day period. Other methods were used to complement the field observation as literature review, semi-structured, informal interviews with teenagers met in the spaces, online questionnaire, analysis of Foursquare mobile application for the neighbourhood. Further activities encompassed mapping of urban features and creating a photo library. This study concludes that, in Alvalade the residential blocks are highly permeable, well connected to the surroundings, but many of the open spaces inside of the blocks were never fully created, and therefore never achieved their full potential as a public space, i.e. lack of facilities and activities suitable for teenagers (Radić, 2018: 10). It seems that, even if teenagers are engaged in sports, there is no public place in Alvalade to go after school. Radić (2018) also observed that teenagers seem to prefer large open spaces rather than more enclosed ones, these are common spots where they spend time with friends, hanging out or chatting, mostly being loud, and "having an annoying conduct" (Radić, 2018: 11). More precisely the author argues that according to other age groups, teenagers prefer to mingle only with the same age group (paradoxically, as the author reports, they like to participate in social events) and that teenagers usually do not use the space the way they are supposed to do.

In broad terms, both sets of field observations revealed that teenagers' usage of public space in Alvalade turned out much lower than expected. Some outdoor places were used by them, but more often they were spotted in private amenities, in particular in terraces of food chain restaurants, street cafés and shopping malls. In Alvalade, teenagers do not often use public spaces, and if they do, they are usually to be met in spaces closer to their schools.

5.3 SPATIAL AND TEMPORAL ANALYSIS OF SPACE SOCIABILITY

The streets around the ESPAV school as the area selected for a field observation. The school has two yards, a small one at the entrance of the building and a big one in its back. There the students have different possibilities to enjoy their breaks, and have different opportunities to be together, i.e. sitting on walls and staircases, tables and benches in a green environment with trees and flower beds. In the backyard, there is also a sports field. The schoolyards, according to the students, are used mostly by the youngsters who are not yet allowed to leave the schoolyard during the breaks. Thus "it is not cool" to stay in the schoolyard with the "children" during the breaks. For this reason the "older students" prefer to hang out in the open spaces around the school.

The social rhythms in these areas vary according to the day of the week, time and season. The patterns and frequency of use are deeply connected with the school schedule. A large contingent of school community members (students, teachers and educational support staff) evidences this. On weekdays, the area is more frequently used during the school breaks; usually the students have a 15/20 min break in the morning, midday and afternoon (from 9:45 to 10:05, 11:35 to 11:50; 13:20 to 13:35, 15:05 to 15:20 and 16:50 to 17:05) and in the lunch time (for some classes it starts at 12:35, for others at 13:20).

Students use the area also before and after the school period (starting at 8:15 and finishing at 18:35), but not for a long time, and not by the same amount of students as during breaks. As not all classes have activities every afternoon, the use of the space in this period is also less intensive, to almost no use on Wednesdays afternoon, when there are no classes. After classes, most students immediately leave the area, the vast majority by foot, some by car; very few take the bus or use bikes. There are also school transport services waiting for some students.

The survey findings provide strong evidence that the space in front of the school is the main site where students congregate in their free time. Both collective and fragmented use patterns show that this place plays a key role in providing the students the stage of social relationships.

Regarding accessibility and traffic, some issues could be identified. Although the Marquês de Soveral Street is not a busy street, and mostly with no traffic at all

(Fig. 5.5), there are moments of the day – usually in the afternoon, when it gets busy with different vehicles, mostly cars, vans, and children school buses circulating in front of the school. The few parking slots are not enough to accommodate all, so they park along the streets causing some traffic disturbance and jeopardising the safety of pedestrians. In addition, maybe due to the quietness of the streets, the area is used for traffic training by many driving schools. At night and during weekends the sidewalks are used as car parking, especially in the intersection between *Marquês de Soveral and Eugénio de Castro* e *Rodrigues* streets, even when there are vacant parking spots (Fig. 5.6).

Figure 5.5: The large empty traffic lanes in front of the Secondary School in Alvalade. Photo: C3Places Archive, 2018.

Figure 5.6: Cars on the sidewalk restricting the access of pedestrians. Photo: C3Places Archive, 2018.

Regarding pedestrian mobility, it could be observed that often the crossings were not used, and people cross the streets wherever they find more convenient, even diagonally. This happens especially in the intersection between Marquês de Soveral and Eugénio de Castro Rodrigues streets, close to the bus stop where the lanes are very wide. At the end of Marquês de Soveral Street, most people cross through the middle of the intersection instead of going to one of the crossings, since these are at an inconvenient location for the most common walking paths. This situation imposes risks for pedestrians, in particular to the vulnerable. As it could be observed, older people with decreased mobility circulate often in the middle of the traffic lane, also a teenager in a wheelchair was pushed by a classmate in the middle of the street. The sidewalks being not very wide and covered by the typical Portuguese cobblestone pavement, which has an irregular shape, difficult the pedestrian circulation and accessibility, in particular for disabled and older people.

Back to the matter in hand, regarding the time frame, most students arrive in the morning with a sizable number around 8 am and a larger wave arrives only very close to the school beginning (8:20 am). Some students arrive early and remain in groups outside, but the majority go straight to the school. As expected, some arrive late and in a hurry. During the lunch period, most of those who leave the school yard do not stay around in the area, and since only a few classes have scheduled classes in the afternoon it can be considered that many of them will not return. As the classes have different schedules, also for the lunch break, the students leave at different hours. Most students do not remain in the school area and quickly leave Marquês de Soveral street using one of the means mentioned in section 5.1.3. Some students use the breaks to go to the coffee shop across the street, others seem to return with food from the grocery stores. Apart from these periods the area in front of the school remains empty. Late afternoon some people of different ages gather at the entrance of *Centro Qualifica*[2] which closes at 8 pm, and some other young people cross the area with gym bags, since the school's sports facilities are rented out for other activities. During the weekend, the area is mostly empty, used only by a few people walking dogs or walking from/to adjacent buildings or parked cars.

When using the area, students are mostly in groups (of different sizes), but rarely alone (Fig. 5.7 depicts a detailed situation around the school). A set of activities could be identified, some are common and take place in specific parts of the area (determinant areas for activities):

– **Circulation** - most students cross the area to and from the school.
– **Smoking** (which is not permitted in the school grounds) - most groups gather during the breaks or in periods before and after classes. At least one member smokes but mostly there are more. Teachers and school staff also use this area

[2] "Centro Qualifica" is a specialised adult qualification and vocational training centre. In Alvalade this Centro uses the premises of the school, but uses another entrance.

for smoking. This raises the question if smoking is the reason to leave the school grounds in those periods.

– **Hanging out and chatting with peers** - this shows variegate patterns of getting together (Fig. 5.7).
– **Sitting around** - many observed students were sitting in different locations, i.e. on the bikes in the Gira station, on the curbs, on the sidewalks, walls and access ramp to Centro Qualifica, and at building entrances. The only bench available is the one in the bus stop, it is also short so that only few students can use it.
– **Playing with the *Gira* bikes** - students, as observed multiple times, rent bikes to cycle around and for racing games, stunts, tricks, etc. Once some students invent *crazy* tricks, more students are attracted to the area around the bikes.
– **Using the mobile phones** - mobile devices seem also in Alvalade to be an indispensable gadget. As Menezes et al. (2019) state the share of teenagers owning smartphones in Lisbon is almost 100%, and social media monitoring reveals the extreme levels of smartphone use among teenagers.

Figure 5.7: Detail plan in front of the Secondary School in Alvalade. Source: OpenStreetMap, 2021.

The hot spots for activities are the areas around the *Gira* bikes station, bust stop and the coffee shop. Although there are some other areas where teenagers gather, these are however only used when the hot spots are already taken. These hot spots having different features (or no features at all) afford different opportunities of activities.

As the Marquês de Soveral Street is in a residential area, during the day and at night, both in weekdays and weekends, people of all ages use it, mostly for crossing and/or walking dogs. Also a significant number of older people, and few younger families with small children could be identified. The *Gira* bikes station is vigorously used,

people from different age groups collect or leave the bikes here. The school security guard mentioned that on weekend nights (Friday and Saturday), and especially when the weather is good, the street gets busy with cars and pedestrian traffic until later hours (3 am). However, this was not directly observed in the survey.

In the space in front of the school, it was possible to observe some litter, and graffities, mostly in the walls of the building in the corner of Marquês de Soveral and Eugénio de Castro Rodrigues streets (Fig. 5.8). It is possible to notice that the wall was already painted in those spots to cover prior graffities.

Figure 5.8: The broad sidewalk Secondary School in Alvalade, a space dominated by the car culture. Photo: C3Places Archive, 2019.

In conclusion (see Table 5.2), the Marquês de Soveral Street is mostly used to cross and do reach different destinations, and not necessarily used as a place to stay. Students use the space due to the proximity to the school and their obligation to be there. The patterns of activities are limited to circulation and staying around (either sitting or standing). The users from other age groups mostly circulate either to other streets or to the buildings, or walk pets, likely due to proximity to their homes. Use pattern is likely more influenced by issues of convenience and proximity to school and home than matters of attractiveness of the streetscape.

Table 5.2: Synthesis of observed use patterns and spatial practices in front of the school

Period	Temporal use frequency	Spatial practices
Weekdays	*During the day:* More **intensive** During the school breaks and lunch time Before and after school, for a short time and by different groups of students Cars and school buses bring students Less **intensive** After the school times and after the school break, the area remains practically empty	*During the day:* Significantly used for crossing Training by many driving schools During the breaks, the students: – Go to a coffee shop or grocery stores across the street – Stay around, in particular for smoking – Hanging out and chatting with peers, often using mobile phones – Sitting around (bus stop, bikes in the *Gira* station, curbs, sidewalks and adjacent buildings entrances) – Playing with the *Gira* bikes
	At night: The training centre attracts people of different ages Adult and young people walking, walking dogs	*At night:* – Concentration of people of different ages on the sidewalk in front of the Centro Qualifica – Adults and young people walking (going or returning) from activities that seem to be associated with performing sports – Sidewalks are used for car parking
Weekends and holidays	*Day and night:* Mostly empty Parking cars	*Day and night:* Sidewalks are used for car parking. Few people walking dogs or walking from/to adjacent buildings

Since the friendliness factors are amenable to change, the survey findings are the strongest evidence that improvements could transform the space – from a mere street to a destiny. From the observation survey we could identify places where the students gather and socialise, and detect that their needs are opportunities to be in a group in an inviting environment. With better amenities this area could become a new meeting point for many students, even after regular school hours, as well as for other users, once for them this is just an uninteresting space, they only transit through it.

5.4 VIEWS OF PARISH PLANNERS ON THE PRODUCTION PUBLIC SPACES AND TEENAGERS' PRACTICES

Interviews with council planners of the *Junta de Freguesia de Alvalade* - JFA (Parish Council) were undertaken to complement the exploration of teenagers' practices and behaviours in public spaces. Collecting the perceptions of those who create and maintain the local public space is an essential source of information to gain knowledge on social and urban policies that provide support in drawing recommendations for more teenagers-sensitive public spaces.

Semi-structured interviews were conducted with the four experts of the Public Space Division of the Parish Council – two civil engineers, a landscape architect and an architect. The interviews focused mainly on discussing general experts' representations and perceptions on teenagers' appropriation of public spaces in Alvalade neighbourhood, on the contribution of different age groups in the production of public spaces and about public policies, and their connection to teenagers.

A concluding question asked for their views on the future of urban planning and on considering teenagers in participatory processes.

The interviews were transcribed verbatim, and the thematic analysis technique, as suggested by Braun and Clarke (2006) was applied in order to reduce data into workable patterns of meaning (themes). Therefore the themes emerged from the content, and were not pre-established; this means the analysis looked for the number of instances in the dataset. Thematic analysis is a flexible method that can be used for multiple purposes, framed in varied theoretical conceptions and either as an end or as a complementary tool. A theme "captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set" (Braun & Clarke, 2006: 10).

For the analysis, several steps should be undertaken, familiarisation with the data; generating initial codes which were then aggregated into potential themes; search and review of themes; identifying, defining and naming the themes; and producing the final analysis report (Braun & Clarke, 2006). Boyatzis (1998) divides the thematic analysis in four stages: 1) sensing themes; 2) doing it reliably; 3) developing code; and 4) interpreting the data and themes in the context of a theory or conceptual framework. At inclusion of the participants, a code key was established with an individual code for every informant, consisting of a number between one and four[3].

5.4.1 Content analysis and results

The interviews were analysed using the thematic-analysis approach (Boyatzis, 1998), this enables the identification of three main discourse themes and their dimensions (Table 5.3).

Table 5.3: Thematic analysis main themes and dimensions

Main themes	Dimension
General representation of teenagers	Inappropriate use of spaces and disrespectful behaviour
	Characteristics of adolescence and the ensuing use patterns
Intervention of the parish council in the public space network	Management of public spaces
	Promoting shared spaces
Involvement of adolescents in public space design	Civic education
	Urban policies, and parish competences
Future public space for teenagers	The role of the Parish Council

The first main theme encompasses the **General representation of teenagers' appropriation of local public spaces**, and emerged from the narratives related to how experts perceive the use of public spaces by teenagers. From this raised the

[3] Interviewee - E1 - the Portuguese word *Entrevistado* (E) is further used because it is less confusing than "I".

first dimension - inappropriate use patterns. The use patterns are described by positive and negative aspects. The positive aspects are related to a suitable use, such as for walking from home to school, to practise physical activities or to sit around. The negative aspects were related to an inappropriate use of spaces and disrespectful behaviour. The parish planners argued that teenagers make noise, vandalise and damage equipment, generating conflict with other users.

[Teenagers] … use spaces that are not designed for them […] damage the space, misuse it and do not enable others to use space. (Interviewee #1 - E1)

I noticed that sometimes, they do not take care in terms of cleanness, hygiene of the place, and end up appropriating somehow, even occupying it, without giving others opportunity, sometimes unfortunately these days, isn't that so? This is not always the case, and certainly there will be exceptions, but yes, there is a certain tendency in our parks and residential areas of those activities, those hanging outs of teenagers. (E2)

Sometimes it is not very easy, for example, the issue with music […] they turn the music loud and there is a drama right there with other people, this is normal, when we went through adolescence, we also found this funny, but then when we grow old, this is noise. I think sometimes there is not a lot of tolerance either from us, a bit older, with the younger ones, nor from them [Teenagers], they sometimes go beyond respect, because it is also a part of it. (E3)

The second dimension emerged from planners' discourse is related to the characteristics of adolescence and how they influence the use of spaces:

[…] especially those teenagers, ages 13, 14, 15, who are still at a stage they are not sure who they are […] because at the same time they want to ride on the swing, they are grown up now, so there must be an internal conflict of I want to walk on this, but I may no longer be here. The problem is that they often damage it. This is the worst part, as they do not know they do not correctly use the playgrounds […] and end up damaging the spaces a little […]." (E3)

When they get inside (the playground) they are already in a children play area […] because when they climb the rope net pyramid, they banish the poor little ones and others who are there, the same with swings, sometimes about 5 or 6 big kids are there […], they seize the tables too […] they still do not know to each age group they belong. (E3)

They [teenagers] create their own places, often with things that are not foreseen to, those they see as an opportunity to use as a meeting place, for gathering and socialising among them. Well, they are more inventive in occupying the space. What we do not think about, is when in the planning process at a later point, the use they make of an equipment could become the normal one. […] things have a purpose, they are more or less used for that purpose, and young people like to be more creative. (E4)

Associated with space usability emerges the understanding that the inappropriate use may damage the equipment. A solution to decrease such conflict is to create more flexible spaces.

The parish council does not have a defined strategy for coping with teenagers. What we do is let people use the spaces in the most appropriate way, so we do not create niches, i.e. this area is for small children; that is for the older ones … We try to create multipurpose spaces as much as possible in order to avoid any conflict situations. (E4)

The second main theme is related to the **Intervention of the Parish in the public space network**, how these spaces are managed and the ideas to promote shared spaces:

I think the most interesting thing is that we should have more diversified spaces, because it is good for everyone to interact. We learn from each other […], a child learns, and for old people it is also good to be around other people. I think diversity is always preferable, and I think that this Parish is increasingly improving this issue, opening up and also improving the type of equipment offered […]. We always try, without compromising the fact that all plans have always to be validated in the City Council, but we suggest it and more often we plan places for all age groups. (E3)

More and more, [in planning] a space is not limited for an age group, but has to be able to provide access to everyone, because there is a lack of spaces for young people, teenagers […] a lack of neighbourhood spaces, which is a kind of space that is difficult to know where it fits. The Parish is increasingly trying to make the spaces suitable for everyone. (E3)

From my experience, I do not think there are major conflicts [between users]. […] The tendency to create more open and more natural public spaces helps a little to make them more flexible in terms of use, except for playgrounds, but yet in some cases it is possible, we have already eliminated the traditional barriers around playgrounds, […] to avoid creating enclosed areas, and I think this can be an added value in interpreting public spaces new. We always try to create spaces that can be used by young and older people […]. For young people, we cannot say that we have a direct offer. We have some sports spaces that are programmed in this way, not so much from the conviviality perspective, but more from interaction in sports, those informal spaces that people can use to play ball. There are some spaces of this kind in the parish and that's sort of it. (E4)

The third main theme concerns the **Involvement of adolescents in public space design**. The first dimension of analysis refers to engaging teenagers in public discussions and in public space issues. Among the planners, there is an awareness that teenagers are not yet engaged in public matters, but it could be interesting to get them more involved in such affairs.

For example, we do not go to schools and specifically ask "what do you think about this space? We have not created any specific space for children or teenagers, the spaces are for everyone. We try to manage in this way the few public spaces we have in the parish. (E1)

We are not used to seeing kids participating in public discussions, especially not in those that are in the daytime, and therefore at normal school hours: If not at suitable hours, in fact teenagers do not show up. They do not attend because either they are not invited to, or it is not an interesting thing to be improved […]. (E1)

I know that sometimes different associations are contacted, especially those related to adolescents and children, which I think should be done as early as possible, to create a good basis […]. This [involving teenagers] is already being done for some actions, mostly at the social action level in order to involve them, for example, in painting a garden bench, as a way of refurbishing the spaces. (E2)

Communication is more targeted to residents […]; the invitation is for the general public. We do not think that they [participants] have to be adults, but it is not usual for younger people to join this kind of session […]. We do not seek this directly [to involve adolescents] in the kind of interventions we have been doing, for this age group […]. (E4)

What I noticed is that even if it [the project] is for the inhabitants, maybe it should also be taken to the nearby schools, to have teenagers' opinion, to question and to improve it […] and receive insights. (E3)

The importance of civic education is an aspect mentioned by the planners, highlighting the importance of involving schools in public space issues and teaching teenagers to be responsible for the public realm.

[In involving teenagers] schools should play their part, right? So, the school may, in the context of citizenship education or even in other subjects, like natural sciences, geography or history, as all they have their share in building citizenship, address this issue with the kids in school. (E1)

Apart from specific situations, I do not know to what extent, in this age group, if they [teenagers] realise or not how important the space is […], it is for everyone, it must be protected by everyone and so everyone can enjoy it. They should not damage, vandalise, or misappropriate. Not to use space without giving any other person […] the opportunity to enjoy it, right? (E2)

Why not bring them to the [Alvalade] Woods, or to this [park] that we are developing, for planting, to make the space their own […] and bring them later again to show that they also built something there and see that the space belongs to them too […] if we feel like owners, we do not damage it… we do not use it in the same way. […] someone protects what he/she builds. Maybe if we attract more teenagers to contribute, I am sure, we are forced to think about how they could be engaged and see the space like their own. (E3)

In the description of these resources for teenagers, informants conclude mentioning the need for civic education and the importance of involving teenagers and children.

If we prepare them [students], the sooner the better, if we introduce, even in mandatory education, a short introduction to everyone's responsibilities in living in a society and what this entails […], possibly they come to a space, they talk loudly, scream, make noise without realising that they are bothering others, because they do not care. […] to realise that because they are not 18 years old, it does not mean that they may not have to respond to inappropriate behaviours, there are no negative consequences […]. (E2)

It is important in adolescence to have more access to culture, to do activities, even if this means just enjoying a public space, various events, […] and demonstrating that one can enjoy a public space, valuing and preserving it […]. (E2)

It is necessary to remove from older people the idea that teenagers are only there to spoil […] this is not true, it is the use they do to what they have. […] bring different people together, promote actions in which people also interact, feel the sense of ownership […] this kind of activity is very important, even if a teenager who is more roguish, if he can get involved, he will be involved, be a part of it too. (E3)

The dimension **urban policies** was also raised in the interviews. Within this theme there are different aspects to be considered. These are related to the production and use of spaces, and encompass the planners' ideas on how to create spots for adolescents.

Teenagers do not have many opportunities […]. It is more like what we as professionals think, how they [teenagers] use the space. And they use it completely differently, don't they? […] For teenagers, a space is to be used in groups […] they have a different way of looking at it […]. A 15 years old kid will only ride a swing if the others are watching and making fun […]. They do this to have an audience and do this for their peers. (E3)

Creating a teenager friendly space is more complicated. I say complicated because it has to be planned for a group, including opportunities to lie down […]. They use what is available, and this may cause damage. Damage happens because they use equipment that is not meant for them, that is not appropriate for their use. […] There are some improvements and I think that we keep more and more the youth in mind, and how they would use a space. (E3)

There is always a conflict between maintenance and the inappropriate use of a space by adolescents. […] But they are not to blame, […] they are aware of this improper use, and of not acting responsibly, but where should they go to? […] There is no answer […] and close to the schools there are no places for them. (E3)

Furthermore, the way the parish understands the concerns of teenagers in the community development is also mentioned by the informants.

When there are summer concerts or activities, one realises that depending on the event, there will be a crowd or not, i.e. to face paintings, parents come with small children but also bring other older siblings along, this is for the residents and school kids, those who live close to the park. Sometimes when there are concerts, they [teenagers] also attend, such as the festival of Santos Populares. Actually they attend any event with music or any event that is a little bit out of the ordinary, but it should be an eye-catcher, they do not know how to use just the space. (E1)

We are designing a new playground, again a bit like the others, but in a wider sense, we are trying to reach out more age groups, not just children – although it is a playground, enabling all the space be used […] and expanded to other age groups. The selected equipment already allows other forms of interactivity, even for children. It is not only a swing

or a slide; we also want to offer other kinds of activities, for children's development of motor skills and cognitive learning. […] Thinking out of the box, also brings other users, young ones, to use the space. (E3)

Linked to urban policies is the parish power, competences and the statutory requirements to be fulfilled.

Parish councils are merely maintenance entities, but gradually they start to define their own actions and policies as well. […] We work together for a common goal, but we do not have, or I do not have any decision-making power, I am able, as a technician, to influence policies, but not take decisions. No, I am not the one who decides. (E1)

The regulations are addressed more to the children's playgrounds […] we have procedures and laws […]. We have to always comply with safety standards […] all equipment must meet safety standards. We have an accessibility plan, and we always have to follow it. (E3)

As a Parish Council, we have very limited competence, mainly restricted to the maintenance of public spaces; everything related to the planning of new spaces, we must always obtain approval from the City Council. We can make proposals, but we have to ask at different departments of the city. (E4)

The fourth theme addresses how the planners see a **Future public space for teenagers**. The responses are around the resources teenagers need in public spaces.

[…] therefore, having a place to listen to music, to sit, not in such small spots, but in bigger ones, so that the bunch of teenagers can use all the space and not be forced to share it, and if they can have food nearby, some place where they can grab something to eat, it would be great, these are the features that they most appreciate […] to gather or goof off, at a radical level. (E1)

[…] outdoor comfort; that is what large spaces offer, but we have other spaces, closer to the schools that are tiny and do not offer this, these are not at all enticing for teenagers, […] because they move in groups, or as a couple of sweethearts, but common use of space is in groups, so it has to be a larger space. (E1)

[The ideal public space for the teenager] should have elevated areas where one could be lying there and could have chats […] instead of having the common benches, more circular benches, to accommodate several people so they could be talking to each other, […] and also, with climbing scaffolds and swings, but swings for teenagers, for adults, why not […] spots where there could be a greater group interaction. (E3)

[…] the creation of a space that could be used by everyone, but then […] in the same space could be possible to do sports, read, have a spot to make graffiti and there are so many aspects, it is almost impossible to accommodate everything in one space […]. But it would be something that tried to be the most flexible […]. (E4)

Regarding the theme of future spaces for teenagers, planners also approached the role of the parish council. The importance of establishing partnerships with several entities could be important, as well the need to change assumptions about teenagers' behaviour in public spaces and their needs.

I think it is very important to approach the institutions located in the parish, […] there are many here with which we collaborate, mostly in social action and few in public space issues. […] it would be interesting to make some more partnerships, to call people to the street and use the city. (E1)

I think it is starting to be part of our attitude to realise that it is necessary [to consider teenagers]. […] bring the parish to the schools, and […] to think about groups and do things differently. (E3)

Sometimes we are machined in doing things and do not talk to outsiders and groups. There is the call to make schools be heard, also because people who work there are more aware of the needs […] create groups and this idea was very interesting. (E3)

All planners seemed well-informed about the understanding teenagers as a difficult group to work for/with, since they all expressed an awareness that in groups, teenagers often get a bad rap. Their behaviour is considered antisocial because they inappropriately use the space and/or its equipment, and can cause damage. Nevertheless, they are aware that adolescence is a period of transition, and that there is a large lack of public spaces that meet teenagers' needs, that they lack a place to go (especially close to the schools). The idea of strengthening the collaboration between the parish and schools to convey preferable values and behaviours was advanced. The influence of providing spaces for groups as an important factor for interactivity as well as the aspect of socialising and the influence of peer behaviour on teenagers' were also highlighted. The informants also mentioned the need for changes throughout the planning and production of public spaces necessary to make places more attractive for young people and abstain from anti-social behaviours. This is however hampered by several barriers. There is a lack of fit between existing policies and management issues governing local public spaces. This reflects in an inequitable provision and distribution of public spaces for all and reduces socio-spatial segregation. The parish with limited power has also restricted resources to work on its own. The lack of resources is perceived as an implementation barrier among the planners. However, there seems to be wide acknowledged the potential for improvements and implementing more flexible spaces, those that accommodate teenagers and meet their needs.

The Lisbon Living Lab highlights the necessity of knowledge transfer and sharing between practitioners and policy makers and young people, to avoid conflicting situations in the urban fabric, and to the foremost, to make use of synergies, skills and expertise towards co-creating a more inclusive urban environment.

In further opportunities to interact with the council members, such as meetings and public consultations, a weak presence of residents could be observed, and it could also establish a certain duality when the issue is related to teenagers. On one hand, there is an awareness that different (age) groups have different requirements, and

teenagers need a place to be in public, a place that meets their needs and preferences, but on the flip side, there is a representation of teenagers as a difficult group. This image is also built by the complaints the parish gets, pointing fingers and pinning the blame for equipment damage on teenagers. This bad reputation is also reinforced by youth vandalism and drug dealing/consumption, in some spots in the neighbourhood.

All planners expressed engagement and motivation for their work and suggested that they are open to engage with teenagers, and with all age groups – in order to facilitate well-informed decisions on the issue. The need of involving teenagers with other groups in planning and design is acknowledged, although with some difficulties at the local level. The issues with responsibility share in management and interventions in public spaces – which are in part of the established political agenda of the city council, may lead to an understanding by the council that it has the legitimation without need of participation of citizens.

5.5 THE PERCEPTION OF PROSPECTIVE PROFESSIONALS ON PUBLIC SPACE DEVELOPMENT

The views of future professionals can be a valuable source to better understand the transformative potential and trends in placemaking. This will enable the Project probing to elicit the right data, and ensure all relevant issues are covered. For the Project CyberParks, which inspired C3Places framework and research questions, a video interview with prospective professionals in fields of urban/landscape planning, urban sociology and computer sciences were conducted in order to reflect if and how changes are being introduced by ICT in participatory strategies and how ongoing professionals see the opportunities opened by ICT advancements. A thematic analysis (Braun & Clarke, 2006) of the transcribed interviews was performed. Again, the same codification was used, as described in Chapter 5.4, and an individual code was created for every informant (E). The findings are explored by Bocci and Smaniotto (2017); nineteen prospective professionals (master and PhD-students) from 10 different European countries were interviewed during a summer school in Lisbon of the Project CyberParks. For Lisbon Living Lab, their views on "if and how public spaces will change in the near future" are interesting and will be explored in this chapter.

Firstly, the common feature of informants is that they view themselves as strongly attached to technology. The use of technology is also related to the first emerged theme – **Interpersonal skills, social behaviour and interaction**. This theme describes how people can be attached and engaged in the virtual world. The consequences of being attached to a virtual world could result in an avoidance of the physical space and interpersonal interactions. This interpretation seems to be based on the increasing role of technology for interpersonal relationships. The informants are also aware of the benefits and risks, and the changes in social interactions due

to an increasing technology pervasiveness. Several of the informants state that mobile technology devices are becoming a central feature for communicating and sharing information. This is seen as a two pronged challenge. On the one hand, ICT provides unique opportunities to develop social contact with peers; on the other hand, this also means a growing risk of impoverishment of face-to-face interrelations, since these are being replaced "*no interaction between them [people], but interaction with a device*". This could increase the "*lack of normal communication*" (E13), with a possible risk of social isolation due to the "*disengagement of individuals of the actual space of interactions*" (E5). The Informants also stressed the added value of ICT for social relationships, expressed in the following ways "*with ICT connections are easier and more flexible*" (E14), and that they *increase opportunities for social mobility and particularly to be in constant touch with family and friends*" (E14). Some informants described that the nonverbal dimension of communication is increasing, even though ICT provides the means for it, as they open "*the opportunity to be in contact that was not [possible] before*" (P2). In line with this, some informants believe that the quality of those interactions is improving. However, they also express some concerns about a decrease in face-to-face interactions.

The second theme – **The access to knowledge and technology** – encompasses seeking for information and accessing knowledge through ICT. This is a disputed issue, as some informants argue while there is an increasingly amount of information available, this is also the cause of an "*attachment to technology and devices*" (E6), and of "*social detachment*", mentioning that mobile devices are "*becoming one's better half*" (E19). The informants also suggest a growing digital divide, which can generate or intensify social disparities and excluding those with fewer opportunities or possibilities; or as (E7) puts it "*if the development of ICT proceeds as it does currently, we might have huge gaps between different parts of society*". To these growing concerns, the informants also add the misuse of technology, privacy and personal data concerns. On the flip side, some informants pointed out some positive development, as technology may increase the use of the actual (physical) space and this lead to new ground, as "*it can be used to improve our contact with nature*" (E16), and "*ICT create huge opportunities to bring people outside*" (E20). Several informants emphasised that there is a wide array of information available, and technology brings openness to the world and wider possibilities of learning.

The third theme regards **Urban public policies** and is focussed on possible changes in the production of public spaces, as they "*evolve with history and socioeconomic conditions*" (E7) and as "*cities adapt to technology*" (E19). Several informants found it difficult to express what are the changes, however, having said this, they highlight the role of the public space for civic and political engagement, social interactions, contact to nature and "*for new and alternative [interactive] experiences*" (E11). According to some informants, special attention should be given to enhancing the attractiveness of public spaces also as a way to react against the *"threat of the market-oriented governance"* (E14) and *"privatisation of public space"* (E18).

In addition, two further sub themes could be identified regarding the future: **Public space identity** and **Functions of public spaces**. In the concerns of identity, some informants consider that technology has become too pervasive and will be more and more part of public spaces. But despite this fast pace of technological advances, public spaces will not entirely change, only minor visible changes are expected to take place on the spot. Especially because the "*life cycle of technology is so short, it doesn't really fit into the life cycle of public spaces, in terms of design, management and cultural issues*" (E7). Regarding expected changes in the function of public spaces, the view of informants is that there are already emerging new uses of public spaces. However, they all pinpointed the role of public spaces as a privileged environment for civic participation and co-creation, as an "*opportunity for us [young professionals] to influence and sometimes, co-design and discover these beautiful activities of the parks where people (…) gather together*" (E8). Several of the informants said that the expected changes will not provoke substantial changes in traditional functions, and the benefits they bring, such as "*enjoyment, relaxing, and contact to nature*", will remain the same (E23). The informants, however, anticipate new rules and usage policies of public spaces. E10 expressed such concern clearly in this way "*the motivation for public space to exist will not radically change in the near future. People need the same things (…). What will change is the way public spaces can exist (…) [they] will be subtracted and mixed with private agenda*".

This study investigates the perceptions of future professionals regarding the role digital technology plays in public space development – both in their production and consumption. The results indicate that future professionals are disquieted by an increasing commodification and privatisation of public spaces, but on the flip side they are confident that public space will remain an important and disputed issue, even in the digital age.

5.6 A COLLABORATIVE PROCESS WITH TEENAGE STUDENTS

Addressing the call for collaborative involvement in urban development requires application of processes that researchers can apply confidently to actively involve users and wider stakeholder groups (Brites, 2017). In placemaking, a co-creation and co-research approach enables civic participation by focusing on empowering a range of stakeholders with opportunities to create people-friendly places and influence the design of public policies.

The experience in Lisbon, backed by co-creation and co-research approaches and living lab methodology, is gained from a wide array of tools applied towards a holistic view on placemaking with teenagers. These tools were also used to raise awareness, build capacity and empower teenagers to voice their concerns and needs in public space. As addressed in Chapters 2, 3 and 4, co-creation and living labs are crucial tools towards collaborative processes of production, be it of products, services or

public goods – as public spaces (Šuklje & Ruchinskaya, 2019; Žlender, Šuklje & Goličnik, 2020). Recognising the need to give more agency to all participants in a research context also calls for more participatory research methodologies and even co-research. Teenagers have been assumed to possess weak or even no agency, so the Lisbon Living Lab provides a contribution to academic debate by examining young people's actual potential for agency in spatial planning. In a participatory, flexible and open research context all participants are part of the knowledge production process. Scientific findings emerging in such a context are, potentially, more transparent and reliable (von Wirth, 2019; Solipa Batista et al., 2019).

The knowledge acquired in Lisbon, explored and reflected from a co-creation perspective, through living labs and co-design approaches, showcases two important themes. Firstly, their potential to steer an active placemaking for a group who lacks agency. Secondly, it makes the call to reflect on the issue of territorial capacity – addressed to children and young people. The potential of territorial education is addressed in section 3.7.

Co-research also means an open and an educational process for researchers. Using the co-research method requires some paradigm shifts in the understanding of one's own role. First, the researcher has to new interpret one's own role, as he/she becomes an enabler, as addressed in section 3.6. Second, define research methods that enable the participants to take an active role, i.e. expand their own capacity to be a relevant part in the overall process. This shows that co-research establishes a dialectical process of creating knowledge, advancing experiences and of drawing on the complementary views, interests, skills, and most notable, on local knowledge bases. The Lisbon Living Lab, as explored in Almeida et al. (2018) and Solipa Batista et al. (2019), opened the opportunity to test multiple collaborative tools and activities, aiding interesting reflections on co-creation, co-design and collaborative processes with teenage students. These experiences suggest that there are issues that are crucial for successful advancements. Firstly, the particular co-creation context must be described and well-communicated to all parts involved. As in any research and interaction, the actors involved, in particular, researchers and those who bring an insider perspective are not neutral, impartial or unbiased. Secondly, external conditions, such as local features, individual and socioeconomic profile of participants, practical restrictions or unpredictable events – affect the outcomes. In Lisbon, the living labs leaned on non-formal education activities, inserting the process in the formal context of education. As the labs took place in a secondary school, the sessions were integrated in the context of learning with an internal set of rules, beyond the Project team control. The school environment was essential however to have access to the teenagers – an audience that may be far more difficult and demanding to engage without the support of an institution. Working with a school, implied also to pay attention to school rules and schedule. To all sessions

a teacher was present, this enabled the students to feel comfortable, since a teacher is someone they know and are familiar with.

The activities were developed for an active participation of the teenagers and to stimulate them also to revise the processes and methods, to gain better conceptual tools to reflect on public space issues and to empower them to express their values and ideas (Almeida et al., 2018). Teenagers, for example, interviewed each, or did field observations and analysed the use and features of the neighbourhood public spaces network. To harness their perspectives, researchers also became more sensitive to their preferences and ideas, sharpening the observation and perception senses. Some of the activities were organised in situ to respond to the teenagers' motivation.

The Lisbon Living Lab highlighted that teenagers who lack deliberative capacity can nonetheless demonstrate capacity for agency and be creative in providing insider knowledge and insights for placemaking.

5.7 LIVING LABS AND URBAN PLANNING WORKSHOPS

The **Workshops on Urban Planning** *(Oficinas de Urbanismo)* was a fundamental resource of the Lisbon Living Lab. These provided the room for the participatory process – backed by co-creation and co-research principles and framed the living lab methodology and non-formal education activities. The workshops were organised in two phases, each one with various stages and involved different methodological techniques and tools. **Field studies in Alvalade** (Chapter 5.2), and collecting **views of experts** (planners of the parish council – Chapter 5.4 and of **prospective researchers** – Chapter 5.5) complemented the knowledge base. Field observations aided a broader overview on the practices of teenagers in the public space network in Alvalade, and this enabled the identification of places for outdoor activities and the walking routes. Planners' opinion helped the selection of areas of study in the neighbourhood along with a better frame for understanding the role of teenagers in existing or planned urban space interventions. Two workshop series were held, both to collect narratives and to record insights from teenagers. A thoughtful structuring and facilitation of the workshops was crucial to the data collection process on:

- Demographic information data,
- Mapping out local socio-environmental and urban fabric features,
- Field observations on the local culture of teenagerhood,
- Observation of teenagers uses of and negotiations in places, and
- Raising urban awareness and capacities.

The Urban Planning Workshops explored the potential of digital co-creation in the production of more attractive, responsive and inclusive public spaces, a primary aim of Project C3Places, and gathered data on the relationship between teenagers

and public spaces. This underlines the research working hypothesis: Digital technologies can foster "participatory dynamics, either in appropriation and use of public spaces, or in the elaboration of proposals for a better adequacy of those spaces to youth needs" (Almeida et al., 2018: 15). The further questions the research in Lisbon addressed are discussed in Chapter 2.1.

The conceptual framework of the workshops was manyfold – as is depicted in Fig. 2.3, and had different goals. Firstly, the activities, discussion topics and strategies for engaging teenagers are also selected to empower and increase their interaction with the urban fabric and the environment around them. Secondly, the workshops were aimed at addressing and exploring teenagers' spatial practices, their perceptions on the urban fabric, their use patterns and spatial needs. This issue was also encouraged through outdoor activities. Thirdly, the workshops develop arguments with teenagers to question if public spaces respond to their spatial needs. Fourthly, the workshops create an opportunity for civic participation and provide an open forum for discussion. Finally, these outcomes formed the basis for crafting of recommendations, targeted at local authorities and municipalities and practitioners for building people-sensitive public spaces. The process of introducing scientific research to teenage students, presenting and discussing work methodologies and the applicability of research findings in citizens daily life, laid the foundation for a further component of empowerment.

The C3Places | Policy brief on co-creation of inclusive public open spaces and the use of digital tools is available at https://c3places.eu/outcomes

The Lisbon workshops consisted of two phases (a pilot and a design phase), and had the support of the local partners: Alvalade School Group and particularly the school where the workshops took place – **Secondary School Padre António Vieira (ESPAV)**, and the **Alvalade Parish Council**. The support of the school and Parish Council was crucial for the development of the Workshops – a brief introduction to their role is provided in Chapter 2.

Table 5.4: The main features of the Urban Planning Workshops

Phases		**Participants**
Pilot phase	FEB-MAY 2018	Two 10th grade classes (N=49, aged 15-18) - parallel sessions with each class.
		24 hours of intervention.
Second phase (Design lab)	MAY 2019	Two classes of vocational education and training (N=20, aged 16 to 18) - classes working together.
		6 hours of intervention.

A **pilot phase** encompassed four thematic workshops with two different school classes. Each thematic workshop consisted of four sessions of 90 minutes, for a total of 24 hours of intervention. The **second phase**, a week-long design lab was

organised, and two classes worked together, developing and justified design proposals for the space in front of the school (see Table 5.4).

The two phases were organised around interactive activities, with varying degrees of formal and informal tasks, always seeking to use materials that could be attractive for students and to allow them to express as freely as possible their ideas; some activities were based on suggestions of the Manual for Planners and Educators (Canadian Institute of Planners, 2002). The sessions took place both in the classroom and in public spaces in the Alvalade neighbourhood. The activities were aimed at exploring and discussing teenagers' knowledge on public spaces, and the role of public spaces on improving environmental quality and increasing citizens' quality of life. The second phase was more action and design oriented, and was focused on exploring digital co-creation.

Prior to the workshops, the programme was discussed with the school government, this included an introduction to the C3Places Project and its objectives, as well as goals and methodologies that would be used in the workshops. This enables the Project to include the views of the school into the workshops. Information was also provided to be circulated by the school among parents and caregivers about the Project and the participation of students in the workshops. This also had the objective to collect the permission of caregivers for the students' participation, including a consent for using audio-visual and textual materials produced. The permission specified the production and publication of materials (images, videos, texts) in the context of the Project with the exclusive goal of disseminating scientific research and results.

The Project found in the Secondary School Padre António Vieira, a fertile ground to develop the living lab, with C3Places taking advantage of the involvement of this school in the Ministry of Education funded project **Autonomy and Curricular Flexibility** (see section 3.9.1).

The living labs opened the opportunity to identify teenagers' spatial practices and needs, and to explore their involvement in placemaking. The labs were implemented with both indoor and outdoor activities and in two phases: a pilot phase was organised in 2018 with two 10th grades. The main insights are discussed in section 5.8 and used to buttress the development of the second phase (section 5.9). This consisted of a design lab organised in 2019 with two classes of the first year of vocational education and training.

5.8 PILOT PHASE – THE UNDERSTANDING OF TEENAGERS' PRACTICES AND KNOWLEDGE TOWARDS DIGITAL CO-CREATION

In the pilot phase, the strategy of engagement based on activities and themes aimed to foster the understanding of the relationship between teenagers and public spaces. All data and final findings are compiled in the following sections.

The structure, goals, operationalization, reflections, results and lessons learned from the pilot phase were explored in several publications: Almeida et al. (2018); Smaniotto Costa et al. (2018); Solipa Batista et al. (2019); Smaniotto Costa et al. (2020); and Solipa Batista et al. (2020).

The pilot phase was tailored around discussing with students their understanding of the city (Fig. 5.9) considering four themes: what is the city, the making of the city, the city in the digital era and the design of public spaces. Each of the themes consisted of four sessions with specific activities developed to engage teenagers. The themes, sessions, objectives and activities of the thematic workshops are depicted in Fig. 5.9.

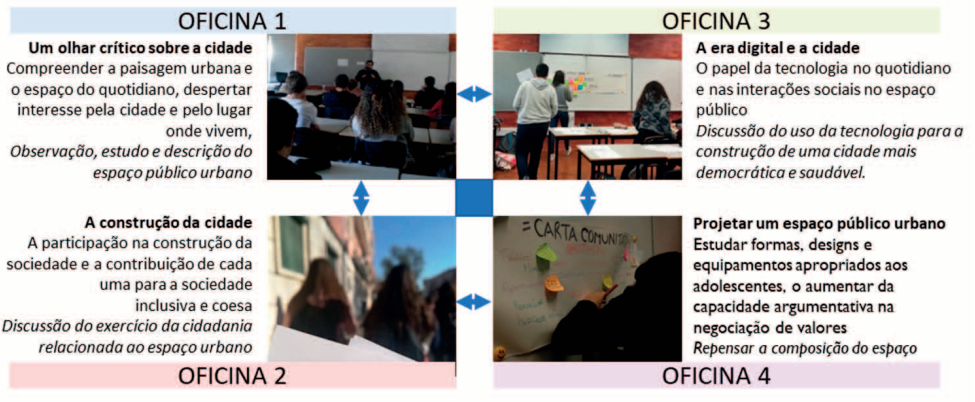


Figure 5.9: The workshop approach for the first phase and main topics of discussion. Source: C3Places Archive, 2018.

THEMATIC WORKSHOP 1 - A CRITICAL LOOK OF THE CITY

This workshop aimed at discussing the concept of a city, urban planning, urban morphology and the role of public spaces, and consisted of four thematic sessions, whose contents were enhanced and enlarged at each session.

Session 1.1 - Introduction to the Project C3Places, workshop goals and expectations, and an overview to urban planning, its goals and objectives

The discussion was organised around a historical overview of urban development, urban functions and links between city and country, urban and rural spaces, build and natural space, physical and social territory, and administration and management of the city, as well as the co-creation concept. A short questionnaire (Q1) assessed the students' demographic profile, use of ICT and connection to public spaces.

Session 1.2 - Expedition through Alvalade neighbourhood

The session consisted of a walking tour along a pre-established route to instigate the teenagers to observe and critically reflect on the environment (Fig. 5.10 and 5.11). Each student got a printed map of the area, a description of the activity with a glossary, an observation grid with some guiding questions. The students were

encouraged to observe the environment and take notes on different urban issues, such as differences between public and private spaces, the identification of urban space elements, such as circulation paths, different modes of transport, urban equipment and furniture, different materials and types of buildings, and people's activities in the spaces.

Figure 5.10: Students filling the observation grid during the guided site visit.
Photo: C3Places Archive, 2018.

Session 1.3 - How I see my neighbourhood

This session consisted of an introduction to research methods and data collection on the use of public spaces. It was aimed at identifying negative and positive patterns of use, and to discuss problems and solutions for public spaces in the neighbourhood. This session was initially planned to take place outdoors using the same route as in the previous session. Due to the weather conditions a classroom activity was organised, adapting a worksheet of Canadian Institute of Planners (2002). Research concepts, methodologies and tools of data collection and their importance for urban planning were discussed with students prior to the activity. The activities involved a semi-structured questionnaire (see section 5.9.3) the students applied to their classmates - as an informal oral interview aimed at exploring perceptions of teenagers in the neighbourhoods. The session encouraged teenagers to critically think about the place where they live, identifying favourite and less preferred places, listing existing problems or possible solutions, pondering on opportunities to participate in decision-making at the community level, and expressing their activities in public spaces or the needs that they would like to be met, etc. Teenagers, in an active role as co-researchers, interviewed each other (groups of two), analysed

colleagues' responses (in larger groups) and together with facilitators created a flipchart with results from the class interaction.

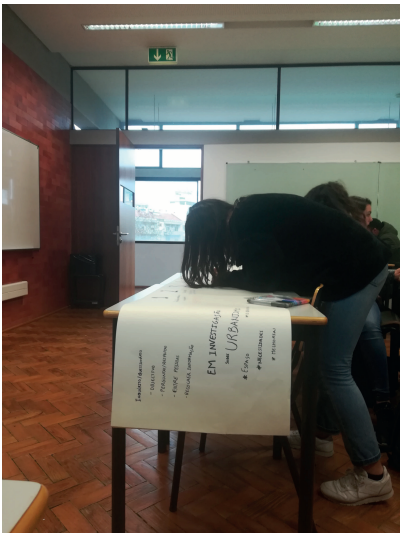


Figure 5.11: Students preparing the results of their research for the group discussion. Photo: C3Places Archive, 2018.

Session 1.4 - Searching for the lost public space

This session aimed at motivating teenagers to observe and describe a public space, and identify positive and negative aspects in planning and designing the city as well as reflecting on the features for a teenagers-sensitive space (characteristics, equipment, examples, etc.). In this session the concepts related to urban issues discussed in previous sessions were articulated in the dynamics of a non-formal activity, based on brainstorming structure and using sticky notes and markers to allow students to actively add their contributions, ideas, answers and suggestions to a flipchart. Four different exercises took place: 1) "*What I have learned so far*"; 2) recap on concepts from previous sessions; 3) identification of teenagers' preferred / more attractive spaces; and 4) "*My ideal public space has …*". The session promoted the share of ideas and on values about public spaces. The facilitators tried to foster the identification of a relevant public space in Alvalade as a place of reference for further activities. This was however not possible since the majority of mentioned spaces are either not well-known by all or are private spaces.

THEMATIC WORKSHOP 2 - CONSTRUCTION OF THE CITY

This workshop series addressed the planning and building of cities, the city's social and environmental role, and opportunities to participate in the planning process. Different discussing tools and same realised projects were used to approach those topics. This thematic workshop had the active participation of representatives of the Alvalade Parish Council.

Session 2.1 - The Alvalade neighbourhood and planning challenges

This session was organised together with the planners of the Public Space Division of the Alvalade Parish Council. They introduced the public policies, strategies and demands in creating or transforming public space in Alvalade, in general, and related to teenagers' needs, in particular. Teenagers were introduced to the planning history of Alvalade and the priorities for future interventions. During the session, the council representatives recognised the importance of creating opportunities for young people to use and enjoy local public spaces, and the added value of these opportunities for all users. Discussed are issues of safety, intergenerational interaction and sense of belonging. The session enabled an exchange between the adolescents and local authorities, in particular through the identification of specific problems in Alvalade public spaces. Teenagers called attention to the social aspects of public spaces, the need for social events and the importance of opportunities to be with friends outdoors. The planners also called attention to the difficulties and limits of civic participation, and in particular those targeted at teenagers.

Session 2.2 - Community Charter

This session was organised as a group discussion on issues related to housing, transportation, public spaces and environmental problems. It was initially planned as an outdoor activity returning to a public space selected by teenagers to analyse it and propose solutions to the identified problems. As the weather did not help again, the session was organised in the classroom. It involved discussing values, ideas and identified problems in the communal urban resources. Cards with a set of questions and topics for reflection were distributed for a group discussion, and later debated

Figure 5.12: Students working on the Community Charter. Photo: C3Places Archive, 2018.

with the entire class (Fig. 5.12). The discussion was registered in a flipchart by the students. The session encouraged students to question the impact of decisions in urban and public issues in their neighbourhoods. The result was a list of good characteristics a community should provide.

Session 2.3 - Opportunities for social engagement

The main topic was discussing with the students the issues of civic engagement. This session was organised together with the Parish Council, and attended by speakers of Caracol da Penha and PPL Crowdfunding Platform - bringing together representatives of a government authority (Parish Council), a community grassroot movement and a crowdfunding platform. Different possibilities to participate in decision-making through local initiatives, crowdfunding and participatory budget were discussed. PPL discussed known projects based on crowdsourcing and crowdfunding, such as Wikipedia or reCAPTCHA and the characteristics and examples from the PPL platform. Crowdfunding was discussed as an opportunity to collectively finance ideas. Caracol da Penha discussed own experiences and possibilities for participating in decision-making processes, particularly through the Lisbon Participatory Budget (see section 2.10.4). The Parish Council representatives shared an overview on tools and methods for civic participation, as public consultation for interventions at the local level, and useful approaches to share with the municipality ideas and suggestions for public space improvements. In the discussion, a student asked why the garden as proposed by Caracol da Penha was more relevant for the residents than the parking lots initially planned.

Movimento do Jardim do Caracol da Penha (https://www.caracoldapenha.info/) is a grassroot movement that developed in 2016 a proposal to transform an unoccupied, unbuild public space into a public garden. The plot, inside a block in the neighbourhood Penha de França, was planned to be transformed into a car park by the council. Caracol da Penha organised a proposal for the Lisbon Participatory Budget and got the highest number of votes ever since the beginning of this municipal programme. Since then Caracol da Penha, now transformed into an association, has been an active partner in the discussion with the City Council about refurbishing the area and the design of the garden.

PPL (https://ppl.pt/), a digital crowdfunding and crowdsourcing platform for the collective funding of ideas and ventures. Projects funded by PPL have mostly been in the cultural area, such as funding of music albums, books and movies, etc. The PPL provides opportunities for raising funds for different projects and test ideas, since the reaction to the proposal is also a kind of assessment of its quality and potential.

Session 2.4 - Achieving Class Consensus

This session was dedicated to a group discussion on the different proposals for refurbishing a public space in Alvalade and exploration of tools to reach a consensus on needs and requirements of different users. The group achievements are presented and discussed with the entire class. The consensus brought up three different options. In the next step, the students should find arguments and justify their opinion, reflecting on different needs and interests of multiple actors and on the opportunities, advantages and disadvantages, tools and processes of participation discussed in the prior sessions. The session aimed at training students' argumentative capacity and to give reasons for their choice, while exploring tools for citizen participation. It also reflected on the importance of negotiation and consensus building, on management of conflicts, and considering solutions that integrate interests of different user groups.

THEMATIC WORKSHOP 3 - THE DIGITAL ERA AND THE CITY

This workshop addressed ICT and lifestyles, exploring how the digital generation perceives differences and the role of ICT in the production of cities, considering daily social and spatial interactions.

Session 3.1 - Discussing the Technopolis

In this session, the issue of technology advancements was addressed and videos on related topics were shown to the students, and followed by a group discussion on advantages and disadvantages of technology. The students used an observation grid and list of topics for guiding the discussion. As an outcome they agreed on a summary of the advantages and disadvantages of technology development. To this summary the students came back in session 3.4. The session stimulated a critical reflection on ICT pervasiveness in teenagers' daily interactions, digital devices are frequently used without any questioning, also on the advantages and disadvantages, potentials and risks that influence the organisation and use of the urban fabric.

Session 3.2 - Screening a Documentary

The documentary film directed by Werner Herzog (2016) **Lo and behold, Reveries of the Connected World** was presented and discussed with the students. This film forced a reflection on impact and perspectives of technology. The documentary was used to confront different perspectives and actors (as ICT developers, computer scientists, philosophers, engineers, professors, psychologists, etc.) on impacts of hyperconnectivity, its advantages and disadvantages, and trends for the future. Originally, this session was planned to test outdoors a mobile app developed by Project C3Places, however the weather conditions and a delay in software development provoked a change in the programme.

Session 3.3 - "I spy with my little eye"

This session was dedicated to a structured field observation considering both users and technology in or being used in public spaces in Alvalade. Two different observa-

tion grids were provided to the students, (a) "*Walk through the digital world*" and (b) "*In this space I find…*". In the first grid the students should take notes on ICT elements/devices used in public spaces, and the second to register the observation on users and uses in a public space. The session allowed the students to work as co-researchers, the facilitators introduced methods of data collection and analysis, and considerations when observing public spaces. The session provided room to explore in loco, the relationship between the three research axes of Project C3Places: people – public spaces – digital technology. It also contributed to the data on characteristics, profiles and activities of public space users.

Session 3.4 - Advantages and Disadvantages of Technology

Following the issues of the two previous discussion topics, this session consisted of a structured debate about technology and transformations in the city. The session encouraged students to familiarise themselves with a fundamental mechanism of discussion of proposals in decision-making processes, in a democratic society - the debate. They practised how to develop, base and discuss arguments in a structured way. The debates were organised around having an opponent with reverse views. Students defended either the advantages or the disadvantages of ICT. During the discussion broad issues, such as pollution, communication, access to information and production of knowledge, security and privacy have arisen.

THEMATIC WORKSHOP 4 - REFLECTION ON SPATIAL NEEDS THROUGH A DESIGN ACTIVITY

The aim of this workshop was to discuss the planning, production and use of public spaces, considering technical, social and environmental aspects. The history, typology and functions of public spaces guided the discussion on needs, expectations and preferences of different users. Discussed were also the interactions and spatial needs of different users, and possible conflicts that may arise while competing for and negotiating the use of public spaces.

Session 4.1 - Introduction to urban design

The principles and orientations for spatial planning, the representation of the city in plans, and the different planning steps were discussed with the students. It also involved issues such as orientation, scale, shapes (etc.), that make people feel comfortable in the urban environment. These issues were addressed by the students through different design exercises. The session encouraged them to consider strategies and methods for spatial representation, i.e., they drowned a route between two points, named points of reference, and described details to facilitate the navigation of those who are not familiar with the space. In the session also the SketchUp design tool was applied in creating design proposals.

Figure 4.13: Developing solutions – a student designing a proposal for the area in front of their school. Photo: C3Places Archive, 2018.

Session 4.2 - Designing an open space (I)

On the basis of session 4.1, the students discussed a proposal for refurbishing the school yard - a well-known space that they could see from the classroom. This called again for a discussion clarifying the differences between public and private spaces. The students were introduced to tools to be used in drawing proposals for the space, to the different types of urban plans and their scales, and learnt to read a map discussing the symbols used by urban designers and planners.

Session 4.3 - Designing an open space (II)

After discussion the students should finish the design proposal and present it for a group discussion. This included the design and equipment to be installed as well as a justification of the proposal. All proposals were presented to the class and collectively discussed. The session encouraged students to express their values and ideas for the school yard, applying design principles. In teamwork the methods of debate, consensus building, and voting were used to select a proposal for the school yard.

Session 4.4 - Our public space in Alvalade

The session closed the Urban Planning Workshops, and combined different elements and exercises of previous sessions towards producing and drawing proposals for transforming a public space to meet students' needs. The area in front of the school – Marquês de Soveral Street was selected as it is a place known by all students.

Considering identified needs and ideas drawn for the school yard, the students reviewed the problems and opportunities of Marquês de Soveral Street in a site visit. In the classroom, the students moderated the discussion on developed ideas and solutions – these could be presented either in a more descriptive way or drawing the proposals.

The results from the four thematic workshops pointed to an adequacy of methods and the achievement of the established goals. Due to the cumulative feature of the workshops and the great articulation between themes and activities, the reflection on expectations and outcomes could be organised transversally.

5.9 RESULTS AND LESSONS LEARNED FROM THE PILOT PHASE

The Urban Planning Workshops addressed in different sessions teenagers' spatial needs and how to involve them in the development of design ideas. To analyse the results and draw lessons, during the workshops' pilot phase different data collection tools were applied. Given that the Lisbon Living Lab is based on a collaborative approach and involved different actors, they all contributed to a co-production of ideas, which emerged from collective reflections and discussions. At different degrees, depending on the tasks, both facilitators and teachers who accompanied the school classes also participated in the analysis.

Different external factors, such as weather conditions, absence of teachers, students missing classes or even labour strikes exposed the organisation of the sessions to different challenges, so that not all planned actions could be organised and had to be in short rethought. The articulation between activities and exercises had to be restructured from session to session. One of the recurring problems was the attendance of students, which varied from session to session, this reflected in the number of their responses to the different materials and exercises.

5.9.1 Students profile

In the first session, students answered a questionnaire (Q1) about demographics, use of ICT and public spaces. It also addressed their perception on public spaces and consisted of open-end and open-end questions: 1) Do you know any public space near your home and in Alvalade? 2) What is understood by city, public space, urban planning, and public space maintenance? 3) What could be your personal contribution to urban planning? and 4) provide a short description of your own neighbourhood.

48 students have answered the questionnaire (N=48), the majority (75%) is aged 15 to 17 years, and 56% are boys and 44% girls. Only 15% of the students are residents in the Alvalade neighbourhood, the majority live in other Lisbon neighbourhoods and even in other municipalities. The Alvalade School Group also provided some data about the students. For that reason the question about public spaces included one in Alvalade and one near their home. This question aimed at capturing a better

picture of use of public space and comparing possible differences between a space use near home and near the school.

Qualitative data analyses of the questionnaires are explored by Smaniotto Costa et al. (2018), in a broader discussion of young people's representations on the relation between people – public places – and ICT. For this reason, in this chapter we briefly address the analysis, when it is needed to justify the lessons learned from the pilot phase of the workshops.

5.9.2 The thematic analysis of students' statements

A thematic analysis of the open questions identified three main themes: 1) **conceptual perceptions,** 2) possible **actions in the space**, and 3) **experiencing the space** (either direct through use or indirect through proximity).

The first theme - students' **conceptual perceptions** - encompasses many of the different levels (demographic, social, and subjective features, physical, material, and administrative features) that are key in the discussion of urban fabric and public spaces. The answers reflect a simplistic, incomplete and, in some cases, revealing misconceptions. This theme is divided in four sub-themes:

- Demographic, social and subjective features: In the first dimension of analysis, students define the territory as a city or public space according to demographics or social characteristics, such as population or density of use and levels of conviviality (in the case of public spaces). A second dimension is related to a perception of space through subjective features, such as aesthetics or a "sensing" of the space, mostly described as a calm / quiet space. A third dimension is based on the perceived relationship between space and urban planning, and quality of life and fulfilment of needs.
- Physical, material and administrative features: The first dimension analyses students' visions of the city as a built environment. It is described through materials, infrastructures and public services. A second dimension characterises and describes a space according to certain typologies, i.e. urbanity or publicness. A third and a fourth prevailing dimensions characterise the space (city, public space and neighbourhood) either by matters of accessibility or structure (organisation, rules).
- Perceptions of space: A first dimension of analysis is related to perception on city planning as construction, transformation, management, organisation and maintenance of the city and public spaces. A second and a third entail a perception of public space in connection to its maintenance, either correct or misconception. A fourth dimension is connected with contribution to planning. This however just defines only what it means, not how teenagers can contribute.
- Perceived spatial characteristics in "lived" space: A first dimension of analysis refers to teenagers' perceived demographics of space - generational, cultural

and socio-economic, while a second describes the positive features of the neighbourhood, mostly relating to accessibility.

In the second theme – **actions in the space** – are expressed through the development of solutions and contributions to planning. Dimensions of analysis are divided in two main categories: the general, passive contributions and actions in situ. In the first category, the students notice that they can only contribute by maintaining an existing situation and not damaging existing spaces. In the second, students identify different ways they can contribute, by detecting and communicating problems, or by reducing the impact of pollution. None identifies a more direct and active contribution.

The third theme – **experience of space** – is connected to use of particular spaces or through experience in their neighbourhood, and is divided in three subthemes:

- Neutral experience of space use: In this subtheme teenagers identify and connect their descriptions of the city with the identification of different typology of spaces, both in Alvalade and near their homes, described in a neutral way. Two dimensions relate to the different typologies of spaces - commercial (prevailing in occurrences) or non-commercial (greenspaces, spaces related educational uses).
- Positive experience of space: A first dimension refers to students' experience in their neighbourhood, even when the perception of the neighbourhood by "others" is negative ("I like my home, even if [located] in a known deprived neighbourhood, because there's a lot of conflicts there" (Q1 – Respondent 13) or when the students can identify negative features ("In my opinion there is nothing interesting about my neighbourhood. Nevertheless, I like living there, since it is a quiet and calm neighbourhood" (Q1 – Respondent 36). A second dimension is related to a positive experience due to particular features of the neighbourhoods, such as calmness and tranquillity, access to multiple and varied spaces, diversified activities and social spaces. This was a common trend also in Q2. Students associate a positive experience in the neighbourhood with features of calmness, tranquillity and peaceful environment. Other characteristics that make their neighbourhood a good place to live were existing services and infrastructures, and the residents and their interactions.
- Negative experience of space: Finally, students describe a negative experience of space as a consequence of specific features as accessibility, social exclusion, unattractiveness and lack of safety.

Very similar topics emerged in the analysis of the activity ***"In search of the lost public space"*** (session 1.4). Students describe and perceive space either through referring to conceptual descriptions (as transmitted by facilitators) or by relating to their own experience in the urban fabric, from daily interactions and informal use. It is to note that, although this was the activity that closed the thematic workshop 1, some misunderstandings persisted, especially in differentiating between public and private spaces. Another theme emerged from this activity is the awareness that an

ideal public space cannot be achievable since an ideal space remains utopic or it sparks students' imagination into more fantastical solutions, such as *made of candy with chocolate waterparks*. In this activity, students also identified the spatial needs of themselves (as teenagers) and considering other users, and this either in Alvalade or in general. Requirements are either for specific typologies of equipment, such as more shops or more greenery, or for specific amenities, such as public lavatories and sports facilities, or requirements on equipment, accessibility and maintenance. The subjective experience of space is also mentioned in this activity, and the students valued features, such as comfort, fun and calmness.

Students identified in Q2 relevant problems related to the residents and their interactions, this included safety, public services and infrastructure (transports, cleaning, lightning, street conditions) and the offer of commodities (shops and cafés). Suggested development and improvements tend to relate to these concerns as safer public spaces, development or creation of services (public and private) of different types as educational, leisure, social and more commercial structures, as well as a better transportation network. In their neighbourhoods, the spaces that they value are those that are close to users and provide attractive and varied possibilities of use, and those important to safeguard the cultural and historical identity of the neighbourhood. Most students do not perceive their neighbourhood as unsafe or unattractive, but the majority identified spots perceived as less safe, mostly because of other users, lack of lighting and/or maintenance, and the degradation of spaces or infrastructures. When students mention that they would prefer to live in some other place, the reasons are better housing, closer to public transport and commercial spaces. Those that mention that their neighbourhood is a good place to live, mostly list the same reasons: access and proximity to different private and public services and facilities, and more greenery. The interpersonal relationships with residents are also a positive factor for valuing the neighbourhood.

In the **"*Community Charter*"** (session 2.2), students also identified several public spaces, both in Alvalade and in Lisbon, referring that they are enough for their needs, but they could have more amenities, such as sports fields, public lavatories or wi-fi. Students also mentioned the potential to refurbish existing spaces to meet their needs. They agreed upon the rules in using public spaces; these however could vary according to typology of spaces; mentioning that those rules should assure respect, responsibility of users and preservation of space. Being environmentally aware, the students acknowledged pollution and lack of cleanliness as problems in urban settlements, and considered themselves and their communities directly affected. However, they also recognise that they do very little to revert the situation and protect the environment.

Public transport was also discussed, and the students identified problems with traffic, safety, road signs, accidents, traffic lights that take too long to change, and disrespect for rules. Suggested improvements were, increase public transport (more

and better offer by buses and subway, more stops, limit of people, control of tickets, respect for bus lanes) and encourage the sharing of private vehicles. Also of note in this activity is the fact that prior to the session matters of housing and public buildings had not been discussed deeply, but the students yet managed to reflect on them and discuss interesting issues and ideas. On the flip side, it has been shown that the students avoided a discussion on difficult topics such as stigmatised social housing estates, distant and neighbourhoods with a bad reputation, evictions and homeless people in public spaces. The topic was abandoned as soon as these issues were raised by a classmate.

5.9.3 Students links to public spaces

A second questionnaire (Q2) was prepared as a base for students to question each other about their own neighbourhoods. It consisted of the questions: 1) What do you like or not in your neighbourhood? 2) Can you think of problems and develop solutions? 3) What do you do in a public space (which activities are performed? and 4) What are the best and worst places to be in the neighbourhood?

The questionnaire had a total of 44 respondents (N=44). Answers were written down by the students and transcribed. The analysis revealed that students do not frequently use a public space. This, however, contradicts the findings from Q1 (section on use of public space). A vast majority (94%) stated to use public spaces, and 81% of them often use public space, mostly few times during the week (65%), while 10% many times during the week, and a few use public spaces daily (6%). Yet, there is the need to ponder on the reported use of public space against the observed difficulties of students in understanding what qualifies a public space. However, they could identify different typologies of public spaces, such as parks, gardens, squares and streets. A comprehensive list of public spaces was compiled, including both the spaces close to their homes and in Alvalade. Almost all students could identify a park or greenspace near their homes and pointed out different purposes for using it. The list included classic activities, such as performing physical activities, spending time with friends or family, dog walking, playing and doing sports.

When asked to identify the best places in their neighbourhoods, many identified public spaces, mostly gardens and parks. Among the activities performed are doing sports, hanging out, mingling with friends or family members, dog walking, just relaxing and going to the restaurants and cafés nearby. To improve those parks they suggest to creating or improving sport facilities, increasing the leisure opportunities and/or cultural events, providing more shops, cafés or restaurants, more and better maintained greenery, more equipment for children, more supporting facilities (such as public lavatories, water dispenser, tables), improve cleanliness, and increase the space size.

The students discussed and reflected widely on the urban fabric, however, until the end of the sessions they faced difficulties in distinguishing public open spaces, public

closed spaces and/or privately-owned but publicly accessed spaces. When asked about the spaces they often use (Q1), the most frequent answer points to commercial places, such as shopping centres, cafés, coffee houses and restaurants and markets/supermarkets. Considering the places near their home, from a total of 144 entries, 47 (33%) mention commercial spaces, against 33 of parks and gardens (23%), and 19 of sports facilities (13%) – either private or public. For Alvalade, the results are similar, 36 entries mention commercial spaces (25%), 23 parks and gardens (16%), followed by 13 entries mentioning school yards (9%) and 13 of public transportation facilities (9%).

Surprisingly, the students consider a public closed space, such as shopping malls, as an open space, highlighting the free access to it – if it is open to the public and the entry is free of charge, the students perceive it as a public space, even if it is a consumption place. The analysis also revealed that the teenagers do not feel undesirable or excluded from this type of space. On the flip side, they are also not aware of limitations in using such spaces. Not being able to distinguish between a public and private is a recurrent issue, as observed in the brainstorming activities and in class interactions. Urban consumption places, such as shopping malls, hall markets and coffee shops are often mentioned as preferred places to hang out. The students also complained about the lack of more "privacy" in such spaces either close to their homes or in the school proximity, places they can be on their own without the supervision of adults.

Aspects of privatisation and commodification were not discussed by the students. This result fits into a general trend being observed in teenagers' behaviours of replacing public by private spaces (Valentine, 2004; ACT, 2013; Solipa Batista et al., 2020). It seems that accessibility is a key issue for using a space. This issue is also reflected in the notes of the field observation taken by the participants during the trips through Alvalade neighbourhood (session 1.2). The most data collected refers to private places and commercial spaces, followed by greenspaces. The analysis of materials collected in that session also reinforces the constant link between commercial and public spaces. However, during the walking tour through the neighbourhood, the spaces the students mentioned as those they like more are public spaces, and include gardens, squares and playgrounds. Yet, when questioned about how they would improve those spaces, they mentioned again the need of facilities, such as kiosks, cafés or coffee shops.

5.9.4 Students' knowledge of the city

Throughout the sessions, it could be established a general lack of knowledge on the urban functions and typologies. In general, teenagers revealed a weak urban literacy, and this could be the result of low spatial representation abilities. In the design exercises (sessions 4.1 and 4.2) the facilitators provided extra hints in order to enable the students to understand and accomplish the design exercises. This is

understandable since urban planning is seen as a technical and highly specialised field. For sure not all concepts and terms are widely known. This is also true for other age groups, thus, is not limited to teenagers.

In the last session "*Our public space in Alvalade*" (session 4.4), only one of the classes started to draw their ideas on the map. The second group, even with collaboration from facilitators, could not decide on the best way to display their proposal. To mention is that only in the subjects geography and history some aspects related to the territory and space are discussed. Concepts and common terms used in urban planning were introduced in the first session, and reintroduced later during several activities. A strong response from the students is the appropriation of those terms and their correct use in the following activities.

The workshops through dynamic discussions helped the students to build new vocabulary and improve fluency on topics related to city, appropriation and negotiation of urban spaces.

5.9.5 The lack of a teenagers' honeypot in Alvalade

One of the objectives of the workshop was to detect - together with the teens--students - a public space in Alvalade which is relevant for teenagers. This space was thought to be used as a reference in the discussion and for development of solutions, an issue tackled in the thematic workshop 4.

However, during the sessions, especially in the session 1.4 ("*In search of the lost public space*") with a group brainstorming to reflect on teenagers spatial needs, in the discussion with Parish Council representatives (session 2.1), and in the session 4.4 ("*Our open public space in Alvalade*"), it became clear that the students struggle in identifying "places of belonging and meaning" in the neighbourhood. Indeed, when referring to a place, they mentioned those in other locations. In the session 4.1, when asked to draw the way from the school to the Campo Grande Garden (one of the main greenspaces of Lisbon, at approximately 20 minutes walking distance from the school), many students did not know the way at all or used only points of reference they knew from cars and public transportation. Interesting is the fact that those who could create a map, are the ones who usually walk to the school. They presented better sketch maps compared to those who come by car or bus.

It seems that even if the students attend school in Alvalade, they are not attached to any of the local public spaces. A possible explanation is the fact that only 15% of the students are residents in Alvalade. The majority live in other parishes in Lisbon, or even in different municipalities in the outskirts of the city (only 60% are from Lisbon Municipality). Their preferred spaces are more likely located in their own neighbourhoods. The location of the school at the edge of a residential area does not help to create a bond with the neighbourhood. Another reason may be the large dimension of the parish council and the recent administrative reorganisation (see

section 2.9.3), these could make it difficult to understand which public spaces are located in Alvalade. The use of a public space by teenagers in the parish may also be conditioned by students' daily routine – mostly between home and school, concentrated around the school or between the school and the public transportation stops. Even the Park José Gomes Ferreira, the biggest greenspace in Alvalade, although very close to the school, is not often used by teenagers. They nearly never mentioned the park in the different tasks and discussions during the workshops.

Not being able to identify a preferred place, the students posed a challenge for the Project, as for the next steps, the students should concentrate in a space and develop ideas to make it more sensitive to their needs. Before taking a decision a series of local public spaces was analysed again, the observation notes reviewed, and the Parish Council was consulted – this resulted in selecting the open space in front of the school.

The public space selected as reference for the workshops and living lab is the space in front of the school – the Marquês de Soveral Street. Due to an intrinsic relation to school this space is used by students in their free time during the school period. This space was often mentioned by the students as the space they use to hang out and mingle with classmates and friends.

5.9.6 Addressing teenagers-sensitive places

When addressing the appropriateness of a public space to their need, students focused on quality, diversity and availability of services and infrastructures, mentioning coffee shops, bathrooms, sports facilities, water dispensers, to name a few. In section 4.4 which was dedicated to the development of solutions for Marquês de Soveral Street, the identified needs include more places to sit, more greenery, retrofitting traffic for more safety and to gain spaces for pedestrians, and move the crossing closer to the school. For the school yard (session 4.3) the identified needs also include places with contact to nature, such as a vegetable garden and space for pets, sport facilities, i.e. a swimming pool or a skatepark. Extremely important for the students is to count on a good network of public transportation around the school. Issues of accessibility, stops, frequency and quality of service were often raised. As discussed in section 5.1.3, many students live outside Alvalade or even Lisbon. Public transportation is thus an important feature in their use of public space. In section 5.9 the students' motivation to participate were assessed, while in section 5.11 the issue of design ideas will be tackled again.

5.9.7 Students' attachment to technology

The issues of pervasiveness and ubiquitousness of ICT (information and communication technologies) were discussed with students, e.g. in exercises to stimulate reflection on technology advancements and debate this with classmates. In particular,

the thematic workshop 3 and the Q1 allowed us to explore students' perceptions and their attachment to technology. Teenagers are aware of their hyperconnected lives and of the impact of technology in their own social dynamics. They are also aware of the associated risks and benefits, and can coherently discuss about, providing a differentiated judgement for citizens, families, communities and cities. Their narrative and discourse expressed a heightened concern with excessive usage of ICT on the quality of interpersonal relationships and psychological well-being. For cities, they consider that ICT have potential to create a more connected, efficient and sustainable city. On the flip side, they see the penetration of ICT into public space as paramount to increase the usage of a space. They claim that providing wi-fi signals holds the potential to attract more people and to motivate a more intensive use of public spaces. Free wi-fi would facilitate navigating through social networking sites and being connected to peers – online activities that are most popular among them, confirming the findings of previous research (Boyd, 2014; Derr & Kovács, 2017). Almost all students have a smartphone - only one respondent stated to not have it (Q1, N=48), and 91% stated to be either constantly connected or use for several hours during the day the internet, mainly for chatting with peers. Although digital natives, the students were not too keen on using their mobile phones during the sessions. The use of own mobile devices was encouraged during the session. They justified this little interest because of the limited data plan and the lack of storage space. Added to that is the fact that most teachers do not permit the use of phones in class, some of them even collect the phones and put them in a box, only returning them to the students at the end of the class.

It was planned to test with the students a mobile application for social monitoring and reporting in public spaces. This app should track most used areas and pose questions to get an opinion about the spot, and the analysis of data should support the decision on a student's preferred place in Alvalade (section 4.9.5). However, delays in software development compromised that task, forcing a reorganisation of the thematic workshop 3. The focus moved to a reflection of ICT advancements for urban development. Main discussion topics were potential tools for civic participation, advantages and disadvantages of applications, and the impact of technology in transforming the urban environment and public spaces. In the topic "*TechnoPOLIS*" (session 3.1), students discussed and listed digital devices and tools in the city - mentioning as example interactive and smart panels, smart equipment such as traffic lights and street lighting, information boards, municipal bicycles monitoring system, electric cars charging station, etc. These are perceived as a contribution to a more connected and sustainable society and city, supporting a better usage and maintenance of space. However, students also demonstrated concerns with the pervasiveness of ICT on social and interpersonal relations, as discussed above. A list of advantages and disadvantages was compiled and used in the final debate on "*(Dis)Advantages of Technology*" (session 3.4). The identified advantages include energy savings, security and safety, reduction of CO2 emissions, better communication

between people, production and access to knowledge, interesting learning and culture; increase investment and productivity, and more efficient services, transports and equipment, etc. Disadvantages listed were, social isolation, decrease of physical interaction and interpersonal relations, addiction to technology, risk of accidents, more pollution, cyberbullying, loss of privacy, increase in criminal activities, such as identity theft and piracy, unemployment, disconnection with the physical environment, etc.

The concern of students on technology pervasiveness shows how they are aware of the potentials and risks of digital advancements and that at the end it comes down to human interaction, and this is what they most value emphasising the importance of the impact on human instincts and needs.

5.9.8 Civic participation opportunities

Prior to the thematic workshop on civic participation, students were asked about how they see their contribution to the production of the city (Q1). Most answers remit either to a passive contribution, as helping with maintaining of spaces they use and keeping them clean, or to a more active contribution, in very specific instances, such as recycling and identifying problems. To this question however 37% of students could not provide an answer. This can be interpreted as clear evidence that there is a lack of understanding of what would be expected when asked to participate in urban planning. This was also observed during the class interactions, especially when the students discussed solutions for issues detected in public spaces.

In the second thematic workshop, the students were confronted with different kinds of civic participation, introduced by the council representatives and the grassroots movement. Both reported about the municipal participative budgeting programme (section 2.9.4), to which teenagers are not eligible yet (minimum age 18). However, the council members mentioned that this programme would be in the future open for young people aged over 16 years. The experts discussed other strategies that could be used to communicate with local authorities and propose specific solutions or ideas, but again these are not specifically designed for young people.

5.9.10 Students' motivation and engagement

C3Places considers a teenager-centred research the one that values adolescents' views and perspectives, and by utilising bespoke methods and tools opens a forum for their active and meaningful participation. The voice of teenage students was therefore at the centre of the research in Lisbon. Regarding their engagement in the workshops it was observed that they reacted differently to the same stimuli. There were two groups, while some students were motivated by the contents and thus participated and responded actively, some others got more motivated by the interactivity and informality of the activities. For the first group it could also be noted

that the students related and built on this new knowledge to the subjects discussed in their classes. This finding is in line with Faure (1972) and EdCities (n.d.) in their claim to expand the context of learning.

The applied non-formal education methods also contributed to the level of engagement. It became evident during the first sessions that a clear predominance of formal teaching methods in their class learning process makes it hard for them to fully engage in more informal activities, in which some degree of autonomy and flexibility are required. As the sessions progressed some activities had to be structured more deeply than initially planned. Further guidance and examples were then provided to facilitate the understanding and with this the engagement level. The request for flexibility from the side of facilitators persisted along the workshops, calling to adapt the activities according to the students' reactions and preferred exercises or modes of contribution. This also means that in some activities, not to disrupt the flow of activities, the students ran out of time to accomplish the tasks.

Classroom dynamics also influences the students to actively participate in the activities. It could be observed that the pressure from peers and the search for their approval is an important issue for most students. This was evidenced in volunteering to present to the peers the group discussions and their findings. It could also be observed some established dynamics and relationships between the students or between certain groups of students. This can facilitate - or difficult - the interactions in the classroom and in turn, the level of willingness to collaborate in a co-creation process. Own personality also conditions their participation. While there are some students who are shy and refrain from public speaking, others are more confident and prone to take charge of activities. During the sessions there was also a constant curiosity of students when researchers and facilitators were taking photographs. While some liked to be photographed, others hid their faces, and others asked where the photographs would be used. This shows how important it was to provide a clearer statement on the use of data in research and to collect in advance permissions to use of the data. On the flip side, every time photos from the prior sessions were shown, the students tried to identify who was depicted and commented on what they were doing. This cheered up the atmosphere and had a positive reaction to the classroom dynamic. Nevertheless, there were some activities planned to encourage them to team work that have not been well accepted, an example is the request to use their own mobiles to document elements of interest during the site visits or their way between home and school ("*Treasure hunt... in Selfies*"). None of the participants wanted to do this.

However, when the context moves to the issue of motivation for participating in urban planning processes, the students commented during different activities that there is a time gap between being engaged and sharing contributions, and until these can be translated into real interventions. Students are aware that they will not benefit, as a teenager, from their own inputs. This confirms what Valentine (2004)

rightfully notes, that teenagers are more focused on being in the present, in the here and now. This is however an important insight that has to be pondered when engaging teenagers in co-creation of public spaces. It should be assured that their contribution is valued even only for future generations. This issue should be properly communicated, as well as that co-creation is a process of empowerment, sharing and fostering new skills and knowledge.

5.9.11 Adequacy of activities

A final aspect to be underlined regards the assessment of the methodologies and hand-on activities organised in the first phase of the Workshops on Urban Planning. Most activities had positive reception and showed to be suitable for working with teenagers, despite the limited time frame. Notably, the outdoor activities were very well accepted – this was expected, as studies have shown that becoming involved outside of the classroom is one of the most enriching aspects of learning (Cantor, 1995; Louv, 2005; Klichowski, 2017). In the exploratory trips the students had an opportunity to be outside of the classroom, stroll and look around and reflect critically on the spaces they pass through in their daily movements. One of the strategies was to look for opportunities for students to find examples in the "real world" of the issues/phenomena discussed in class (Fig. 4.14). This is the case of the

Figure 5.14: A group of students taking notes on the observation grid in a square in Alvalade. Photo: C3Places Archive, 2018.

activity "*I spy with my little eye …*" (session 3.3), during the trip, the students raised questions, exchanged with classmates opinions about the public space characteristics and reflected on the issues in discussion. Cantor (1995) argues that learning outside of the classroom is not just beneficial, it is necessary, elemental to the learning process, both individual and social. This is also a relevant insight in the discussion about urban literacy and territorial education (see section 2.9).

Brainstorming activities revealed a duality in the interaction. On the one hand, in most discussions of this sort, as "*In search of the lost public space*" (session 1.4), "*Community Charter*" (session 2.2), "*Our open public space in Alvalade*" (session 4.4), it became clear a need for some more structure. On the other hand, the interactivity and the possibility to move around the classroom with markers and sticky notes to directly contribute to a common work was well valued and most students enjoyed it. However, it was also observed that some students also misused the materials, i.e. to send messages to peers or make jokes. This behaviour is taken as an indication of another observed feature during the sessions, they enjoy having fun and laughing with peers. Activities to engagement students should consider that not as a constraint but a potential. Hand-on activities should be fun and provide room for laughing together. Along with ideas of how to reinforce learning concepts, the activities should enable the students to participate in a playful environment. On the flip side, passive activities seemed to be the ones where keeping students' attention was more difficult. Examples are the introductory issues (sessions 1.1 and 4.1), organised in the school auditorium for both classes together. They became a seminar character although participants could ask questions any time.

The "*Class Consensus*" (session 2.4) resulted also in a lively activity. Even if all students decided for different subjects for intervening in a public space, during the discussions there was a genuine concern to base decisions on consensus of all members of the groups. The students also provided arguments to justify their decisions, actively complemented each other conflating different views. To note is that this activity could be organised in one of the classes only, so it is not widely tested as other activities. Also the debate session "*Advantages and Disadvantages of Technology*" (session 3.4) turned successful. Students' role was performed even at the level of the language used and type of discourse, mimicking wordings used in past sessions, not in a mocking way, but in a genuine engagement with the activity. In one of the classes, teachers also congratulated the students for their active participation and engagement, mentioning how to integrate similar activities in their own discipline. Group debates, once structured in terms of procedures and bosting individual capacity to develop own arguments, proved to be a good hand-on activity for the first steps of co-creation, even if there is not a general agreement. It is an activity that can be completely undertaken by students without interference of facilitators. This may help teenagers to become acquainted with raising their "voice" and practise active engagement.

5.10 SECOND PHASE - CO-DESIGN OF A TEENAGER-SENSITIVE PUBLIC SPACE

The second phase of the workshops, a week-long design lab was organised in May 2019 (four sessions of 90 minutes each) with two classes of the first grade of vocational education and training (N=20, aged 16 to 18). The sessions were organised with both classes together. To note is that the students are not the same as those who participated in the pilot phase. This was decided in order to tackle another age group among the teenagers - especially because of their increased autonomy in the use of the city.

Due to school schedules, the students first were introduced to the Project C3Places, the research in Lisbon and the co-design workshop goals and expected results. The students left the session encouraged to start a reflection on the public spaces and developing solutions. This second phase was therefore more practical and design oriented, and aimed to explore with students what a place would be like if they designed it. The co-design lab was also organised in different sessions, each one with its own hands-on activities.

5.10.1 Loom and Clothesline of Ideas

In order to take advantage of the time between the first introductory session and the co-design labs, and as a way to engage a higher number of students in a reflection on the public spaces, posters are displayed in the school calling attention to the forthcoming workshop (Fig. 5.15) and from May to July 2019 a board – called Loom and Clothesline of Ideas (from Portuguese: *Tear & Estendal de Ideias*) was placed in the school hall.

Figure 5.15: Posters were displayed in the school announcing the forthcoming activities. Photo: C3Places Archive, 2019.

The Loom and Clothesline of Ideas was an interactive board (4 x 1,5 m), developed with the support of design students of the Department of Design (DELLI) of the Lusófona University, with two parts, the loom and the clothesline (Fig. 5.16). The loom consisted of seven multiple choice questions displayed in columns with a nail indicating the place for each answer. For each school grade different coloured woollen yarns were selected, so that the students could provide their answer wrapping the yarn around the corresponding nail.

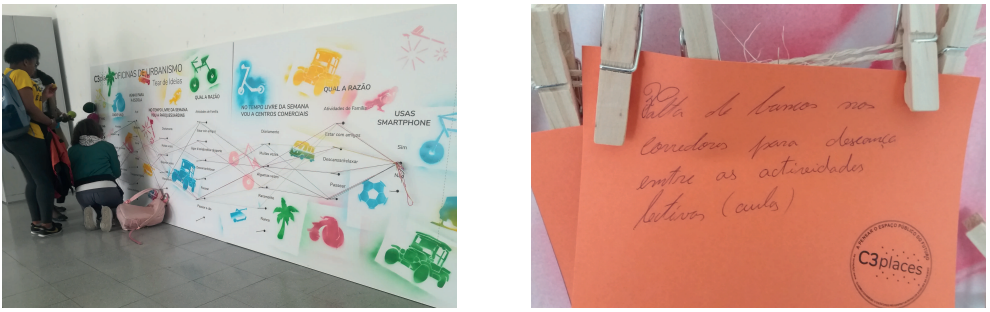


Figure 5.16: Students contributing to the Loom and cards with comments.
Photo: C3Places Archive, 2019.

In the clothesline, cards hanging as wash were displayed with clothespin on strings (Fig 5.16). The school community was invited to share comments, suggestions or ideas for the space in the front of the school.

The C3Places Lisbon team periodically controlled the Loom of Ideas, to take pictures of the answers and to ensure its maintenance. Two problems could be detected, the text mentioning the 6 school grades was set too close together and to accommodate the woollen yarn the nails had to be set apart. A clear distinction of grades and colours were not always possible. A similar problem is detected with the answers and the corresponding nails. The spacing between the text (answers) and the nails were always the same, this made it difficult for many students to identify the corresponding nail to an answer. This fact could lead to misunderstandings.

Regarding the loom it should be pointed out that its main aim was to call attention to the C3Places activities in the school, and not primarily to collect substantial data. The Loom of Ideas definitely created attention among students and teachers. The school even asked to keep it in the hall for a longer period of time as planned, longer than the end of the semester, to enable other teachers who had training in the school to appreciate it.

5.10.2 Results and discussion

With regard to the **loom**, a series of images were used for a visual analysis, as well as the counting on the site. Altogether 56 answers were collected. It is possible that the answers are not given individually, since it could be observed that students provide their replies in groups. It was also possible for the same student to answer

multiple times. The participation among the grades is - in order of highest scores, grade 10 (38%), grade 7 (27%), grade 9 (13%), grade 11 (10%), grade 12 (7%) and grade 8 (6%), corresponding to an average age from 15 to 18. The higher participation of grade 10 may be explained by the fact that the two classes participated in the first phase of the workshops.

Regarding the questions, the analysis is based on the volume of yarn for each answer. Once the yarns were not fixed, it could be that the colours changed over time. The first question is related to the residence place of the students, the volume of answers provides following results: (1) in the city of Lisbon, (2) in the metropolitan area and (3) in Alvalade. This in fact, is also confirmed by previous surveys, the most students do not reside in Alvalade (see section 5.9.5). To the question how the students usually come to the school the figures are: (1) by bike, (2) by car, (3) by motorbikes, (4) by public transport, (5) walking and (6) others (2).

The next question is related to the frequency of public space's use in the free time. The answers are: (1) many times, (2) often, (3) seldom (not often), (4) daily, and (5) not once. Considering the sum of those who frequently use public space, the scores achieve a considerable proportion of students. Regarding the reason to use a public space, although the answers are very balanced, the order of mention are: (1) to do activities with the family, (2) to meet friends, (3) to play ball, (4) to go for a walk, (5) to walk the dog, and (6) to take a rest.

The question that followed concerns also the free time and the frequency the students go to a shopping mall in their free time. The answers are: (1) many times a week, (2) few times, (3) on a daily basis, (4) seldom/not often, and (5) never. Regarding the reasons to go to a mall, the answers are again very balanced: (1) to do activities with the family, (2) to meet friends, (3) to stroll, and (4) to take a rest. Both questions related to the free time activities - to go to a public space and to a mall provided similar results, confirming the past surveys.

On the question concerning the use of a smartphone, the picture is very clear, only four students out of 56 reported not to have one. This reflects a clear trend, an increase of smartphone ownership and the time spent online among young people. In Portugal, the time children and young people spend online has more than doubled between 2010 and 2020 (Smahel et al., 2020). The authors also reported that Portuguese children and young people are among those who show confidence in dealing with risks of hyperconnectivity. More than two thirds of informants say they know how to react to behaviours they do not like on the Internet. Portugal is also one of the countries where respondents least associate risk situations with resulting damage. On the flip side, the same study reports that only 15% of children and young people in the country take advantage of opportunities for civic engagement and for participation in public debates.

Regarding the **Clothesline of Ideas** the cards with students' contribution were analysed towards providing to the workshop participants more ideas and concerns

on public spaces issues – expressed by classmates. All together 35 cards were collected. Considering contents, three different typical situations can be distinguished, (1) Those contents that are related to the topics of the workshop (urban design, use of public space or ideas/concerns for public spaces); (2) related to school and classes; and (3) those that are not related to both. This last group concerns mostly thoughts that are out of Projects or school influence, and included statements such as "To end with the national exams", or "To have more free time". There are also few that are considered invalid, i.e. the statement was not clearly written. To this group all together 13 cards could be selected, and are not further considered. In three cards the idea of the Loom is praised.

To group one, 13 cards are collected. The most common request is to provide opportunities to rest with seating opportunities; 6 out of 11 cards contain such a request or remark, and both in the school or around it. In some cards the students request to provide seating arrangements around tables. To have an adequate opportunity to rest can be therefore considered as the main issue raised by the students. Such a request does not only concern the outdoor situation, but also the missing opportunities to rest inside of the school building - 3 cards contain such remarks; one card expresses a call to provide such seating arrangements close to the classrooms. This also means, the students are aware about the necessity to be together in a comfortable environment. Further contents are related to the call for more greenery around the school and in Lisbon in general (2 cards), one with the request for less concrete and more greenery, and one card called for more football fields for children. Furthermore, the students' comments are to make it difficult for individual car traffic (1), provide better public transport (2), and more bike lanes (2). In one card, the student calls for more campaigns to raise awareness on actions for a more sustainable way of living, and another for less use of plastic.

To group 2, the most frequent statements are addressed to the school, and encompass the request to provide more interactive activities, such as the *Oficinas* (workshops), outdoor activities, trips, and less frontal classes. Three out of 7 cards contain such concerns; two contain the request to refurbish the toilet facilities. These cards were compiled and handed over to the school government.

Two main lessons can be drawn from the cards: The call for more opportunities to rest in and around the school, and the call for more outdoor activities. The first issue is something placemaking can make a direct contribution to. Yet, when the outdoor conditions are more suitable, the second call - more outdoor activities, can be easier organised. The cards of group 1 and 2 were taken to the workshops and discussed with the students. They are asked to think about the needs expressed by the other students, so they should ponder solutions to the problems raised. In this way the views of a wider number of students can be integrated in a co-creation process.

5.11 URBAN DESIGN LABS

The second phase of the workshops was organised around testing digital co-creation and hands-on activities to promote group work. In this phase some digital tools such as Padlet, image bank, presentation programmes and Google Maps were used by the students. They were given a range of materials like art markers, colour pencils, transparent sketching paper, coloured paper (different sizes and shapes), scissors, tape, drawing pins, post-its (different size and colour) but also technical devices such as tablets, digital cameras. The facilitators brought the material and tools, and the participants could freely choose the most appropriate one in all activities.

The main goal for the participants was to develop solutions for refurbishing the space in front of the school, and transform the Marquês de Soveral Street into a teenager-sensitive place. To facilitate the access to digital resources, prior to the sessions, different credentials were created and circulated among the participants in the beginning of the sessions.

The Urban Design Labs was divided into four sessions. Each of the sessions went on for 90 minutes, at different times, according to the school schedule. During which participants worked on hands-on subjects projects during each session. Just reminding that an introductory session was provided 3 weeks before the co-design sessions.

In the Urban Design Labs, the landscape architect Ina Šuklje-Erjavec, member of the Project C3Places of the Urban Planning Institute of the Republic Slovenia and the architect Carolina Anselmo joined the Lisbon team and exchanged their experiences in co-production of public spaces. In the case of Ina Šuklje-Erjavec, the participation was central as her team was in charge of theorising the issues of co-creation and the use of digital technology. Due to her participation, the students were also stimulated to speak English. They mastered this challenge well, and in session 1.1 approaching the space, they intensively discussed with her the qualities and problems of the space (Fig. 5.17).

The four days were broken up as follows:

– Session 2.1 - Public spaces, urban design and teenagers' spatial needs
– Session 2.2 - Approaching the Marquês de Soveral Street
– Session 2.3 - Design of proposals for Marquês de Soveral Street
– Session 2.4 - Teamwork, preparation and presentation of results

Session 2.1 - Introduction to urban design and co-creation process

The goal and basic concepts of urban planning, design and co-creation were addressed in this session. The students were guided to a visit to Marquês de Soveral Street and encouraged to reflect on the quality and attractiveness of the space. Prior to the visit, small groups were formed, each participant got maps of the area with a short introduction to reading a map. Outdoors the students were encouraged to

discuss the quality of the space and develop ideas for making it more attractive and responsive to their spatial needs, focusing on questioning what these needs are, and on how and where these can be met. The central idea was to start developing a programme for transforming the space, backed by a co-creation of ideas and scenario playing.

Figure 5.17: Students in a group discussion outdoors. Photo: C3Places Archive, 2019.

Session 2.2 - Approaching the Marquês de Soveral Street

Building on the reflection from the first session, the students discussed in groups the problems, constraints and potentials they encountered during the site visit and started sketching their ideas. The facilitators summarised the topics discussed and proposed five groups of topics that should be tackled by different teams. These are (1) accessibility, (2) possibilities to stay and meet in the place, (3) protection against the weather, (4) circulation places and sidewalks, and (5) shared zones. Tables were organised for the different topics and the students could join one, and move to the other any time. The project facilitated an image bank containing 800 ideas indexed for different issues of public space design. A Padlet page was created for each topic and students directly added comments, suggestions, ideas, images, etc. The work on developing solutions was also organised around each of the topics. The students should explore different features of design to meet the spatial needs and draw the ideas, using the digital tools and/or drawing materials. Reflecting on the list of needs, benefits for users, the students should start a "negotiation" about where these needs could be placed, how they could look like, and develop different scenarios for the

space in front of the school. In the last task, they should reflect on a guiding principle for their projects.

Session 2.3 - Design proposals for Marquês de Soveral Street

This session started by a brief debate on the results of the previous sessions. The discussion was directed to the development and design of ideas. This task included selecting materials, pieces of furniture and equipment, their features and colours. The students were also encouraged to develop arguments for their ideas, by describing and justifying why and how the needs are being covered. The work was oriented towards the final goal - organise a design proposal and present it to a class discussion in the last session. From the five topics introduced in the section 2.3, resulted in the formation of two different design groups. It turned out that few students took over the leadership of the groups, conducting the discussion, while others could move freely through the groups. The final task of the day was to create a title or a slogan for their projects and decide for "the story" that could provide an identity to the project.

Session 2.4 - Team work, preparation and presentation of results

The last session focused on completing the proposals, preparing and presenting them for a discussion to the class. The two groups prepared their presentation, integrating the ideas, solutions and suggestions, and other inputs from different sources - the cards from the Loom of Ideas with ideas from the wider student school community; the discussions in class between the different groups; and the inputs from facilitators. During the sessions, different size groups had been progressively organised, promoting the contribution to the different phases of the process of all students. In this final session, two groups organised and presented the final proposals to the class, teachers and facilitators from Project C3Places. At the end of the session, a questionnaire (Q3) to assess the satisfaction with the co-creation lab was circulated among participants.

5.12.CO-CREATION OF PUBLIC SPACES WITH TEENAGERS - LESSONS LEARNED

In the second phase, the strategy to reflect on the produced materials followed the same methodological path as in the pilot phase. However, reflections were mostly formulated based on researchers' field notes. In comparison to the pilot phase (section 5.8), the number of researchers and facilitators present in every session was higher while the classes engaged were smaller. This allowed a more focused observation of the sessions. The notes were analysed, and facilitators discussed, in group, observations and structure of the labs. That analysis was complemented with an informal and open reflection of all outcomes as the digital data compiled in the Padlet pages, the presentations, and the drawing materials. The focus was on the content of proposals, process and reaction to the activities. Main reflections emerging from the design labs can be organised in the following topics, (1) Students' spatial needs

and their ideas for public spaces, (2) Co-creation process with teenagers, (3) Digital co-creation process, and (4) Evaluation of co-creation process - this is the assessment of the design lab by the students.

5.12.1 Students' spatial needs and their ideas for public spaces

It became clear that the main concerns raised by the students were regarding improving accessibility and pedestrian safety, i.e. by improving the possibilities to cross the streets or changing the crossing at the end of the street. These issues were mentioned in the pilot phase. The students would like to have more space in front of the school, for example by moving the *Gira* bike station away. Although the space in front of the school is well visited during breaks, especially lunch breaks, since the students seem to like to go out of the school grounds. They also mention that they do not wish to stay longer after school. When they use the space, they want to be in groups and have possibilities to sit together. A current issue emerging in discussions is also the need for shadowy places, more trees or greenery.

Once around the school there are no opportunities to be together, this pushes the students to sit or lean on the bikes from Gira station or in the bus stop (Fig. 5.18), places that are not are adequate. This is however their way to claim their space here. In the neighbourhood of the school, there is a small garden inside of a block. Some students mentioned it as a place they go to. However, the Alvalade Parish Council announced that they are gating the garden and limiting access to residents, exactly because of complaints about the school students gathering here.

Figure 5.18: A recurrent situation in front of the school. Students using the bus shelter to hang out during the lunch break. Photo: C3Places Archive, 2019.

In the sessions, the group work was organised according to the topics emerged in the discussions, also the two proposals for a new design of the Marquês de Soveral Street were based on developing solutions to these topics. These proposals were presented to the entire class and debated in the final session.

The two proposals also provide an answer to the detected problems, briefly the developed solutions are:

– *ESPAÇO DE CONVÍVIO PÚBLICO* (a living civic place) proposes a public meeting place for social gathering. For this solution, it becomes necessary to change the streets patterns, narrowing beneficially the excess width of the street space. This provides extra space for social use and to increase pedestrian safety. This extra "space" taken from the cars accommodates now sitting facilities with tables and benches and with trees casting shadows. In order to provide a more natural and pleasant environment the group proposes a pergola alongside the road with climbing plants. This enables use of the space at any time of the day - as an answer to the call for shadowy places.

– *SOVERAL VERDE* (green Soveral) also proposes a new street design with less parking slots for more spaces for people, narrowed streets increase the road safety. The group suggests a greenspace with trees and circular wooden tables with benches distributed along the new space. A kiosk, a wi-fi hotspot and water dispenser should enhance the usability.

The students were able to create an inclusive space, one that works for all people. This was a recurring issue in the discussion; they did not want an exclusive space for them, but a space that can be shared with others. Their solution is a safe, socially and physically connected place, with amenities and services for people of all ages and abilities. They provide examples on how to transform an area created for cars can be transformed for group activities - this might be a simple request, but considering that they do not have anywhere this possibility in the neighbourhood they end up claiming a private space. In general, the students were aware that refurbishing the street space could create a more active space, providing an attractive interface also for the whole neighbourhood.

5.12.2 Co-creation of public spaces with teenagers

In general, the co-creation process seemed to spark interest by most students. There were different levels of engagement and participation - while some students were fully committed to the process, others were highly engaged in specific activities or topics, and other few with low participation levels. Just like in the pilot phase, it could be observed that peer pressure and recognition is important for most teenagers.

Limitations to consider are the available time for the living labs due to the school schedule and the Project agenda. These calls also for well preparing prior to the workshops logistical issues with a contingency plan put in place, since it was observed that the infrastructure, as the rooms in the school, influence and facilitate

co-creation. The possibility to move tables and desks for group work and use different parts of the room for different activities was an added value. Another issue was the access to the internet; months before the labs the school government decided to limit the internet access to the students. The Project had to provide the access by its own during the labs.

Communication confirmed to be a central tenet. The students may have other motivations that should be understood prior to the co-creation process. In that sense, the first session was dedicated to get to know the participants and observe the group dynamics – also in order to show interest in their knowledge, skills, and abilities. This was also high in the agenda to create through the labs an open forum to enable the students to learn from each other and freely share ideas and concerns. This task took into account that co-creation is an open process, inferring thus in a continual learning, so a flexible process had to be put in place.

The labs also provided an insight into the local conditions and to specific features that have to be considered in the co-creation, i.e. in the case Lisbon few of the students live in the school neighbourhood. The values the students attach to the public space, have to do with their own awareness and how they perceive the urban space. This, from another perspective, does not diminish the interest in participating in co-creation debates for a public space outside the own neighbourhood. The co-creation process must be approached from an open perspective, as the context is affected by different variables, for example, the dynamics of the living lab described here and the students' interest in the co-creation of a public space in the vicinity of "their school". The results were not only influenced by the fact that the students do not live close to the school.

Moreover, in co-creation processes with teenagers, it is fundamental to communicate a clear message with well-defined expectations and outcomes. Clarify what is going to happen and why, the structure and timings of co-creation and the expected results was central to earn good results. The direct benefits for participants must also be clear and discussed. This information, as in any co-creation process, has to be shared with all stakeholders involved. The facilitators should also be well prepared, once empathy and sensibility, good observation skills and fast adapting to the circumstances – proved to be fundamental for the success of the labs.

One issue to be raised again, is the disparity between the benefits of the school environment in accessing and engaging teenagers, and the need for a less formal learning environment for co-creation. In the Design Lab, for example, the group work was more challenging for the students, as the facilitators moved around and discussed from table to table. The flexibility to adapt in the moment to activities that are more productive or to change to activities and contributions that are preferred by participants should be the maxim. This is also related to an observed need for different approaches of co-creation in order to overcome limitations, problems, and the uncertainties – this fosters the achievement of the co-creation full potential.

5.12.3 Digital co-creation process

The test of the use of digital tools in co-creation also provided some interesting reflections. Firstly, it is important to provide devices and clarify the different ways they can be used. The participants should however be free to use the tools. These should be logically used, and provided to facilitate and boost the process, so that their use should be intuitive and not disrupt the flow of work.

It could be observed that teenagers often used Google Maps "to go back to the street" and get arguments for the discussion. They also used Powerpoint to discuss the ideas, working in this way constantly on the final presentations.

Secondly, the reluctance to use own devices emerged again, as observed in the pilot phase. To overcome that barrier, tablets were provided in the second phase. Providing digital devices results in an extra expenditure for those promoting co-creation, but this proved to be essential to get information, to enable the group discussion and exchange of files. Practical questions must be kept in mind when thinking on devices and tools to be provided towards a more efficient process. This raises the questions, for example, how many participants can use the ICT tools simultaneously? Is the software to be used adequate for the device being provided? Are they proper for the tasks and for the expected final format and for presentation of ideas? Are devices and tools intuitive or require extra skills? What are the technical requirements that may influence use? These are a few questions that have to be pondered to ease the process. Another option is to find strategies to promote and maximise the use of student's personal devices and increase possibilities to directly contribute to the work. Examples of direct incentives can be contests among participants for a prize or a direct return for all participants. For use of personal devices, it is also important to reduce any extra requirement and provide i.e. hotspot to connect to the internet or chargers for the devices.

A more general reflection concerns the process of digital co-creation, also discussed in the literature reviewed (Žlender et al., 2019; Šuklje & Ruchinskaya, 2019), which points to the potential of the ICT tools to be used also for those who not being experts are passionate about the place and want to contribute in some way, e.g. remote participation, sharing of ideas, development supporting tasks, etc. Such engagement could be complementary to face-to-face activities, and participants could have the chance, for example, to access information of interest, prepare themselves for co-creation, share their interests, skills and motivations, which would contribute, eventually, to increase the voluntary engagement dynamics.

5.12.4 Evaluation of co-creation process

To assess the success rate and overall satisfaction with the labs, a short questionnaire was distributed at the end of the last session asking students to indicate the perceived learning effect. The questionnaire is composed of 13 questions, consisting

of statements, to which the students should agree or disagree using a scale from 1 to 5 – where 1 means totally agree and 5 totally disagree. The value of 2.5 corresponds to the average of satisfaction, thus below this value means dissatisfaction.

The **learning effect** for the Project is that this students' evaluation provides an overview on the success of co-creation efforts and may allow us to shape the next living labs. In the analysis, a constraint could be detected as some statements tended to inherently assume a positive experience, this may compromise the responses. No demographic profiling questions, as gender or age, were part of the questionnaire.

Discussion of Results

Out of twenty participants, nineteen answered the questionnaire (95%). The first statement "I find the co-creation of public spaces cool" was used in order to get a general overview on the satisfaction of engaging in the co-creation labs. 31,6% of students agree that co-creating public spaces is cool, the same percentage of students responded with score 4. The scores 2 and 3 got the same value (15,8%), while only 5% completely disagreed. This is the question that got the highest number of scores 1 (31,6%). Considering the scores 1 and 2 together – as they reflect tendencies to agree – the results reached 47% against 37% (of scores 4 and 5). These numbers confirm that the level of satisfaction is above the average of the scale (2,6).

Regarding Q2 "I liked to participate because I learned about new issues", the responses are, in order of highest to low scores: 3 (42,1%), 4 (21%) and 5 (15,5%), while the scores 1 and 2 got to the same percentage 10,5%. Considering the average score – adding the scores 1, 2 and 3 (63,1%) show a very positive evaluation on participating in the workshops, against the opposite with 36,5%.

Q3 – I liked to participate but the time was short" is related to the adequacy of the time dedicated to co-creation. We found that the majority of students disagree on the time dedicated to the labs, as the most participants selected score 4 (42,1%), followed by 3 (26,5%). Considering the combined end values (scores 4 and 5) this is even more evident – 47,4% against 26.3% (scores 1 and 2). This question is also the one that got the smaller number of scales 1 with only 5,3%. The average score is very above the satisfaction scale (3,3).

Q4 "I could bring all my ideas to the group" reflected the opportunities to express and present ideas in the co-creation process. The answers provide an interesting overview on the participation as 36,8% stated a neutral answer (score 3), however, followed by score 1 (21%). The tendency to an agreement with the statement is more evident in observing both combined values while the disagreement reaches 26,3%, the agreement reaches 36,8%. The average score is, however, above the satisfaction (2,8).

Q5 "Group working is an interesting experience", the results show a balanced distribution among scores, with score 5 achieving 26,2%, 1, 2, and 3 with 21% each, and score 3 with 10,5%. Analysing the sum of both ends (1+2 and 4+5) we found that

the most scored answers were on the disagreement (47,4%), while the agreement reached 43,1%. These results show at the same time a balanced assessment, whereas more students did not consider the collaborative work something interesting. The average score is 3,1 shows the tendency of being an interesting experience.

The questions 6 to 12 are devoted to providing insights on the learning effect through the participation in the workshops. They all start with the sentence: After being involved in this project […]. It should however be noted that these issues had not been explicitly discussed with the students, since it was the intention to gain insights on the teenager's understanding of the city and participative approaches. The issues were however tackled by the facilitators on various occasions during the labs.

Q6 "I think the design of public spaces is more complex than I thought it was before" gives an insight on an understanding of the production of public spaces and if students recognise the complexity of such undertaking. The highest score becomes 2 (26,3%) followed by 1, 3 and 4 with 21% each; 5 got 10,5%. The sum of 1 and 2 shows however a positive signal with 47,3% against the 31,5% on the other end. The average score is above the satisfaction scale (2,73).

Q7 "I am now more aware about the city and the intervention and planning of its spaces" gives an insight of the awareness of the urban structures and their functions. The answers show that the workshops brought new insights to the students in terms of a conscious approach to the city, since the analysis of both ends indicates a for the 1-2 scores (42,1%) against 21% (4+5). The more answers were to scores 2 and 3 with 36,8% each and 4 with 15,8%. Both ends of the scale reached 5,3% each. The average score is above the satisfaction scale (2,78).

Q8 "I realise I can better understand the urban structures and feel safe using them", 26,3% of the answers are given to score 3. The second highest scores are 1, 2 and 5 with 21% each, and score 4 with 10,5%. Out of all thirteen questions, this question reaches the highest values in score 5 (21%). Considering both end values it reaches: 42,1% for 1+2 and 31,6% for 4 + 5. The average score is above the satisfaction scale (2,89).

Q9 "I feel I could be politically active (i.e.) contributing to social movements" provides an insight on the impact of co-creation in bringing awareness to political participation. The highest score becomes 2 with 36,84%, followed by 3 26,32% and 4 with 21%. Score 1 achieved 15,8% and score 5 did not get any single mention. Considering both ends, they show for scores 1 and 2 52,6% against 21% (4 and 5). These results are also the highest among the thirteen questions. The average score is 2,52, which is the lowest average value in all thirteen questions. The results to this question demonstrate the significant growth in awareness and reveal that the workshop achieved a major goal: opening paths for a conscious engagement in society.

Q10 "I have a clearer picture of functions and responsibilities of co-creation actors" gives an insight on the understanding of the co-creation process. The major score

achieves scale 2 with 47,4% followed by 2 26,3% and 1 with 15,8%. The analysis of both scale ends demonstrates again a positive feedback, as it reaches for 1 and 2 42,1% and 10.5% for 4 and 5. The score for end 4+5 is also the lowest among the 13 questions. The average score is 2,57. This result goes in line with Q9, since the figures highlight the interest aroused by the sessions, which is encouraging for all.

Q11 "I got to know I could engage in the co-creation processes", the highest scores were 3 with 31,6% followed by 2 with 26,3% and 1 with 21% each. Scores 4 and 5 get 15,8% and 5,3% respectively. Both scale ends show 47,3 for 1+2 and 21% for 4+5. The average score is 2,57. In fact, the results of Q11 demonstrate the achievement of the goals of the workshop, as highlighted by the highest proportion of agreed answers.

Q12 "The procedures of decision-making in public spaces design are clearer". The highest values with 31,9% got score 2 and 1 with 21%. Scores 4 and 5 got 15,8% and 5,3% respectively. The analysis of both scale ends reveals a score of 36,8% for 1 and 2 and 21% for 4 and 5. The average score is 2,73. As evidenced through Q6 to Q11, the results for question Q12 also got the most agreement, although the difference between the two ends becomes smaller. However, it should be noted that this question tackles a complex issue, which may have been too difficult to be understood only from a design exercise.

Q13 "I'd like to participate in other similar programmes" – the scores 1 and 3 become the same scores with 26,3%, while all others got 15,8% each. Analysing both ends of the scale 1+2 scored 42% and 4+5 31,6%. The average score is 2,82. This question was used in order to ensure the willingness of students to participate in further activities. As evidenced by the results, the interest in such extracurricular activities reached a high level.

In conclusion, the results highlight the key role of the workshop to increase the awareness of placemaking. The workshops provided a unique opportunity for teenage students to learn and discuss different spatial needs. While the questions 1 to 5, which are more related to subjective experiences in collaboration, exchanging ideas and own opinion, become little agreement scores, the learning effect by participating in the workshops (Q6 to Q12) got positive responses. It should be also noted that the students did not voluntarily participate in the sessions as the workshops were integrated in the school activities the students were selected to participate in. Therefore, their willingness and readiness to engage are limited and this also reflects the assessment of the workshop.

5.13 CO-RESEARCH WITH TEENAGERS – KEY TAKEAWAYS

A research programme on public spaces with teenagers involves making efforts to understand teenagers and actively listening to them. This calls for besides valuing them as social actors, reflect in particular on their condition as co-producers of knowledge. In the case of spatial issues also to consider their role in the urban

fabric. Co-research and co-creation processes are the best way to truly empower people and give them agency (Žlender et al., 2020).

A co-research context always faces uncertainties and unpredictability. In the case of Lisbon, further external conditions, such as school rules and procedures, interest of teachers, etc., were beyond the project control and are identified as influencing the outcomes. In some sessions, the disruption of the planned work flow or way data was collected, affected the analysis and interpretation of results. Uncertainties are an issue that has to be pondered when discussing the advantages and challenges of co-creation and co-research. On the flip side, researchers must learn to diminish their control over the process and be more responsive to a flexible environment of knowledge production, where at any moment unexpected events may affect the results. This brings back to the issue of the researcher's role, as discussed above. Taking the role of a mere observer (rationally or not) is not possible when employing participatory methodologies. She/he is thus an integral part of the team and contributes to the knowledge production. In planning processes, this also means to avoid in co-creation and co-design approaches a stringent work structure or an action plan. The main objective is to inspire participants to develop ideas, and raise concerns and needs (even when off topic).

Research with vulnerable groups must ultimately serve to promote their rights, to increase their skills and competences.

The time factor is also an issue to be considered, as it affects the outcomes. In co-creation and placemaking, time is a valuable resource. Rushing the process towards practical activities and contributions before it is assured that all participants have the necessary information to actively contribute, could be contra productive, driving dissatisfaction. This demonstrates that co-creation and participatory processes should start by establishing a common knowledge ground by sharing terms, concepts, and necessary skills. Another time constraint refers to planned activities and tools. Keeping the process flexible requires from researchers and facilitators the capability of being sensitive, and able to consider, at any moment, changes in the programme in order to meet preferences and needs of participants. This means, as it happened in Lisbon, that some planned and well-structured activities could not be performed exactly as planned. In the case of Lisbon, the participants (teenage students) should moderate the discussion and organise the collection of answers, but due to the amount of time necessary for its completion, it was done by facilitators. However, in some other cases, the opposite happened too. Teenagers took the initiative to be more active, volunteering for specific tasks. In some sessions the students asked for permission to present their results to their classmates. Such experiences provide good arguments to the debate on participative processes, and to the development of a bespoke collaborative process with teenagers: teenagers appreciate peers' recognition.

The concern for recognition should be considered as motivation and be integrated in the activities, even if this means sacrificing the time schedule due to a disruption caused by lively discussion. In practical terms, this means that teenagers should be encouraged to voluntarily share their contributions with classmates.

5.14 TEENAGERS-SENSITIVE AND RESPONSIVE PLACES - A NICE PLACE TO CONGREGATE

The design proposals developed by the two groups (described in the section 5.12.1) have some common points and tackle the problems the students mentioned several times in the different sessions of the Lisbon Living Lab. The key issues raised by the students enabled us to distil the features of teenagers-sensitive and responsive places - as shown in the Fig. 5.14.

The design lab with teenagers, organised within a school environment with a large majority of students residing in other neighbourhoods, brought up some issues that are worth further reflection and discussion. Based on the different spatial needs and benefits from the use of public space, the main call the students have is a place to congregate and be together with peers.

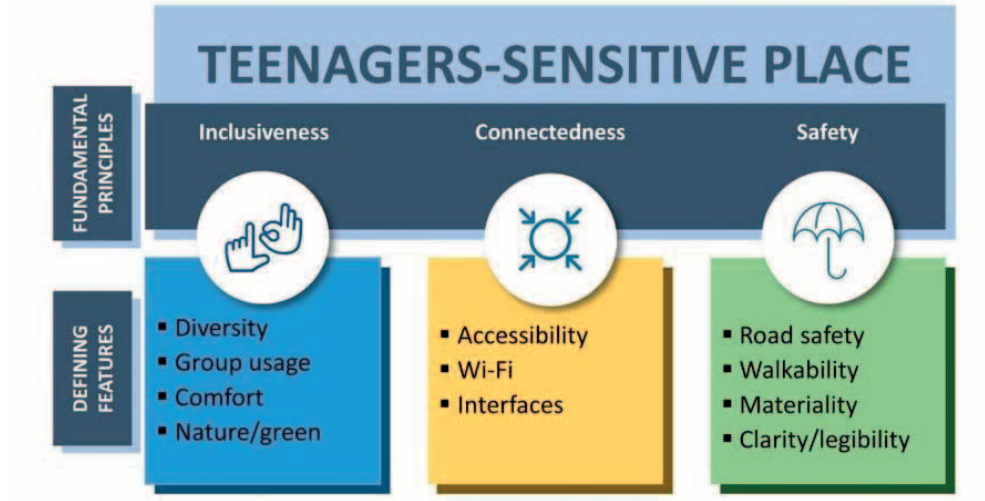


Figure 5.19. Dimensions of a teenagers-sensitive place. C3Places Archive (2021).

Engaging with the teenagers beyond their residential area allows us on the one hand to work with a broader sense of inclusion and responsiveness, and on the other to explore with them new spatialities, territories they are not familiar with. Getting acquainted with different "urban spheres" beyond those of daily affair spaces - from home to school, to places to spend free time, is a way to increase urban literacy. In other words, the experiences in Lisbon show that engaging teenagers calls for understanding young people as social actors and reflecting on their spatial demands and potentialities. For teenagers, a welcoming place does not need to be a flamboyant

place; the discussion and the two proposed designs show a clear preference for a small but inspiring place, a safe and green environment - just a nice place to be with peers, to hang out and look around. Such a place provides the spot to relax and socialise and thus to interact with other people and with the environment. This at the end contributes to a people-friendlier city.

This is also confirmed by the redesign of traffic and the car circulation in front of the school. The students discussed the lack of road safety and claimed for reducing traffic velocity and for more crosswalks. Narrowing the streets is the way they see for slowing traffic and increasing pedestrian safety. The space gain allows the students to imagine the future of the public space in front of the school as a shared place - one that also provides amenities for the neighbourhood. The design of interfaces (between traffic lanes and pedestrian areas) is acknowledged as important for safety and comfort. They see the traffic calming measures as a cost-effective investment for the future - also in terms of providing convivial places.

The participation of young people is essential to community change, to increase sustainability and inclusiveness and thus also resilience.

The shared place layout should provide amenities to stay and meet, and to be used individually and by groups. The call for a dedicated space for group use was a request that is often made by the students. They claimed and proposed design solutions for convivial spaces, with tables and benches - always calling attention to the fact that these amenities should be used by all user groups. This is also the reason they selected from the internet images of benches and tables that are traditionally used in the parks in Lisbon.

Another recurring issue was greenery and providing spaces for plants. The students were aware of the emotional relationships with the natural elements and the psychosocial benefits in being in a more pleasant environment. The importance of such claims for young people is also confirmed by Smaniotto, Šuklje and Mathey (2008). This issue also included claiming for protection from the weather, and in particular for Lisbon, for having shaded areas.

The contents emerged from the labs with teenagers also allows us to reflect about similarities and differences in the spatial practices, uses and needs, not only of distinct groups, but also of the same groups in different times of the day. Several authors point out to the fragmentation of the contemporaneous city, as a direct consequence of the loss of places. Places that "spatialise" social interactions and urban life. Public spaces are becoming the space of passage, where people mostly circulate, "crossing" each other but not "meeting" each other (Sennett, 1977; Goitia, 1982; Innerarity, 2006; Low, 2017). However, the proposals outlined by teenagers, as well as their practices of space use, as observed in Alvalade, remain in line with the social function of public space, as a place to meet peers, in groups, to chat or just "be" in public. The identified spatial needs and the proposed places to stay, with tables and

chairs for group use, protected from weather conditions for use at any time of the day or year, safer for pedestrians and with no supremacy of cars, are close to the needs of other age groups, and also with features already discussed in international recognised studies. Authors such as Jacobs (1961), Gehl (1987) or Whyte et al. (2005) called for integrating these characteristics in the urban fabric. These are spaces of excellence for social encounters. The proposals from the labs can be framed in the same terms: the call for a square in front of the school. In Lisbon, this request goes in line with a strategic vision for the city, as stated in the project "A square in each neighbourhood". A project that promotes the requalification of urban squares as strategy to revitalization of Lisbon neighbourhoods. These squares are small urban spots that embody the city's history and identity (CML, 2015). Also from Barcelona, Blanchar (2020) reports about projects for urban rehabilitation that include creating urban squares in front of schools. Around 200 schools will benefit from taking space from cars for creating places to stay and hang out. This is the way the city celebrates new public spaces aimed at protecting children and teenagers from noise and roads.

The proposed designs and the discussion confirm the Lisbon Living Lab as a place-making effort at its best. The students set up a situation where the area in front of their school becomes a destination for the whole community, taking room from traffic to create gathering and greener spaces. In C3Places, the students are regarded as future decision-makers. They have a high likelihood of becoming opinion-shapers in terms of making the urban environment more sustainable and resilient. They are a group of citizens that have no lobby in the construction of their own environment. Bringing to schools issues of civic engagement and making the city could form a collective pressure group to exert appropriate influence for changing unhealthy environments and adult-oriented urban planning.

Schools offer undoubtedly a good opportunity to contact and engage teenagers in co-creating their own environment. A school is for a teenager the most prevailing location for daily interactions. Accessing them in the school environment is easier and possibly more effective in terms of time and efforts to create a group (Smaniotto et al., 2021). Schools, being a pillar of the community, are important for providing an official framework, also towards attracting other stakeholders, among others local authorities.

CHAPTER VI
OUTLOOK

6.1 TERRITORIAL CAPACITY AND INCLUSION

In this book, we introduce and discuss a framework to make urban places more inclusive and responsive - and this through the lens of teenagers. An important step towards reimagining more liveable cities is a better understanding of spatial practices and needs of people, in particular of vulnerable groups. Vulnerable groups are especially exposed to social exclusion (Nelson & Wright, 1995; Numans et al., 2021), and this can have a direct impact on people's everyday lives and welfare. The spatial dimension of exclusion, e.g. reduction of mobility and enjoyment of the surroundings (Tournier & Vidovićová, 2021), has also further consequences, such as the reduction of participation in local life and unwanted behaviour outdoors (Smaniotto & Patrício, 2020). A better understanding of people's spatial practices and needs can motivate paradigmatic changes both in the production of urban spaces and in public policies. To better meet the social and spatial needs and deliver more responsive environments it is of utmost importance now to foster participation and engagement of diverse interest groups rather than to the unilateral implementation of urban policies. Another aspect addressed in this book is related also to planning practices. This has two aspects tackled here, the experiences of decision makers in engaging teenagers and the fact that practitioners need approaches that tie in to their existing work practices.

The issues addressed on vulnerable groups and spatial exclusion are not new, but the COVID-19 pandemic and the related restrictions affected almost all countries, and in a context of uncertainties it also hit the given values claimed for cities (Sennett, 1994; Smaniotto, 2014).

In **Territorial capacity and inclusion: Co-creating a public space with teenagers** we report the experiences and insights from living labs with teenage students. The Lisbon Living Labs, backed by an intensive theoretical discussion (addressed in Chapter 3), with an integrative, broad approach and manyfold methods (Chapter 4) have provided a novel means of investigating how to engage teenagers in placemaking (Chapter 5). The results shed light on the interactions between the use of public places on the one side, and the motivations and needs of teenagers on the other side. These issues are interwoven with the views of local institutions and governance structures.

Teenagers, both as individuals and as members of a community, find in public open spaces a context to experiment new degrees of freedom, which is relevant to their identity formation (Pappámikail, 2011; Valentine, 2004) and spatial abilities (Robinson, 2000; Passon, Levi, & del Rio, 2008). Spatial values are developed during childhood and adolescence, ensuing with these spatial cognition, navigation and mobility (Davis & Cashdan, 2019). Despite these beneficial arguments, children and teenagers are spending less and less time outdoors - and one of the reasons is the way the urban fabric is organised. As discussed in the section 6.3 the coronavirus

pandemic, exacerbated spatial inequities at the same time it has forced almost everyone to mobility restrictions and thus to interact with the immediate surroundings in new ways.

Nonetheless, teenagers are also among the most frequent users of public spaces; their needs are however not adequately mirrored in the urban agenda, nor they find places to be on their own or are actively involved in policy making. This is the request C3Places makes - to transform our cities in more inclusive environments. Inclusiveness as explored in Chapters 3 and 4, means not only benefiting from a responsive environment but also taking an active part in the decision-making process that shapes our environment. Thus an inclusive environment means that everyone finds a place, as the results of the labs show, discussed on the basis of the co-design approach (Chapter 5), teenagers do not want an exclusive place, but one that can be used and shared with other people. Just as society is many-faceted, so is placemaking. It is a relational, context-sensitive process of co-creating inclusive and responsive environments.

The experiences within C3Places create benefits for planning practice, policymaking and academia as well as for involved local communities. The experiences with participatory and innovative methodologies, as co-creation, to engage people in planning and designing their environment are unique, as the activities involve decision-makers (governments, regional and local authorities), private sector, civil society and academia. Findings, reflections and lessons learned from the experiences in co-creation and participation in the different cities also point to the (i) potential of mediating between the different groups, (ii) to raise awareness on public open spaces benefits for all users, and (iii) build capacity of people to a better understand, reason and participate in placemaking. With this book C3Places help to achieve sustainable goals by capitalising, communicating and sharing the gleaned knowledge of a teenager-sensitive public space.

6.2 Research perspectives

The lessons learned highlight the crucial role of public open spaces for quality of life. They also call for further research on the potential of digital co-creation for generating a more attractive, responsive and inclusive urban environment. The experiences from the Living Labs with teenage students in Lisbon, as well as from other methodological tools that complemented research on teenagers' spatial practices, uses and needs in public space, also identified research concerns and opened up some new research questions that could be better explored and addressed in future research. Some identified bottlenecks are related to the access and dissemination of knowledge and research, and with the challenge of promoting more participatory research strategies, towards co-research and co-creation of knowledge. These are:

1. Increase the access to knowledge on vulnerable groups, urban development, placemaking, etc. that are scattered in different scientific areas, and therefore in different locations.
2. Support interoperability of knowledge (contents, views and perspectives, and different formats and qualities), and interoperability of expertise and experts towards building and managing collective knowledge.
3. Enable teenagers and other stakeholders such as policy makers, practitioners, grass-roots movements, (etc.) to engage in research, and actively participate in co-creation processes.

To overcome these calls for creating an affordable and efficient research environment, addressing networking, and to test the potential of state-of-the-art digital technologies, and increase the use of digital tools and data mining, as solutions and enablers of a better research environment.

From the labs different topics raised that could be embraced in future research:

- Formal and non-formal education - In the domain of territorial education it could focus on teenager student's learning processes in outdoor spaces. This would also result in initiatives for citizenship building.
- Matters of:
  - surveillance and privacy and the publicness of urban space,
  - maintenance of public spaces,
  - accessibility, including for people with reduced mobility,
  - gender differences in placemaking and in the appropriation of public spaces, which might foster differences in spatial abilities.

The advancements of digital and mobile technology are opening new perspectives for research, as evidenced in the Project C3Places. Pervasive and mobile computing, locative and interacting technologies enable a new approach in socio-spatial research. They offer different ways to interact with teenagers, to better understand their behaviour and needs patterns, capture their ideas and narratives. ICT pervasiveness can be the starting point to help citizens to improve urban life, find new ways to gather in their communities, to challenge creativity and social initiatives. They can also help the vulnerable groups and minorities in promoting their values and interacting with other citizen groups.

Concerning the use of digital technology, the outcomes are also relevant to the researchers and ICT developers, as the Project offers new, comprehensive way of structuring ICT tools in relation to their use for different types (possibilities) of co-creation activities within spatial development process, as well as for practitioners to better understand different problems, obstacles and potentials of the ICT use for their work.

6.3 COVID-19 and public spaces

In 2020 and 2021, the COVID-19 took hold of the world, hitting the globalised economy, disrupting travels and social gatherings, and bringing the normal pace of life to a still stand. The Project C3Places also suffered from big discontinuities, the lockdowns hit the project in its final months, meetings and the final conference had to be postponed several times and eventually cancelled. The pandemic posed to the Project new challenges, which could be successfully mastered - being this volume one of its main outcomes.

With the pace of life slowed dramatically overnight for almost everyone, we had to cope with new ways of learning, working, shopping, and relating to one another. The pandemic surfaced social and health systems inequalities, and a biased distribution of public spaces in our cities. Restrictions on the use of urban spaces and the imposed social distancing worldwide have been unprecedented. According to Settersten et al. (2020: 2) the pandemic has far-reaching consequences, beyond biological nature and on health, which are influencing different interconnected life domains, citing the core relationship between school-work-family. The concerns surmise that these consequences will permanently affect people's sense of place (Vachianno 2020), influence public space uses and perceptions patterns (Honey-Rosés et al., 2020; UN-Habitat, 2020). According to Pineda and Corburn (2020), persons with disabilities are more likely to be exposed to vulnerabilities than non-disabled persons, because their needs were not sufficiently considered in urban health policies and practices. At the same time, UN-Habitat (2020) recognises public spaces as assets in times of crisis, as they support mobility, recreation and even livelihood for the poorest. Through the pandemic we have been rediscovering our cities as places of social and cultural vitality. Ribeiro (2020) also notes that the major lesson to be taken from the restrictions is to assure everyone's right to the city and quality of life. In view of the surmise consequences, OECD (2022) calls for further assessing the effectiveness of lockdown and restriction measures, and in particular on domestic violence, alcohol consumption, youth, and mental health.

> Inclusive and responsive public spaces should be part of the response to the pandemic. This calls for greener public spaces within an immediate neighbourhood, able to offer an inviting "space" for all.

For urban design and open space planning this means that we need to refocus the making of the city through the lens of public health concerns. Urban planning and research will certainly direct the attention in the immediate future, in finding a balance between preventing the spread of diseases and allowing a safe use of the urban fabric (Smaniotto et al., 2021).

Reis (2020) compiles several reflections and concerns of researchers working in Portugal about the pandemic, and brings among others: Branco and Casaleiro (pp. 15)

who note that the sanitary and health crisis affects children's rights, particularly the right of protection and participation. Castela (pp. 19), discusses how housing conditions, with adequate dimensions and outdoor spaces, are crucial. Most people however cannot afford such conditions as well as do not have access to experts who can consider housing solutions for the pandemics or climate crises. Santos (pp. 42) also discusses the importance of housing and how it influenced experiencing the lockdown. The experiences are very different, according to neighbourhood conditions and possibility to stay at home. Fortuna (pp. 28) points out that European cities have been capable of facing their own decline and finding sustainable and resilient solutions. The author believes that cities provide better solutions in times of crisis, but certain urban structures must be prioritised, such as complete street approach, sustainable mobility and buildings. Drago (pp. 35) criticises the model of monetising cities for tourism and for external markets as unsustainable, and calls for public policies that promote access to good-quality affordable housing, changes in the local tourist accommodation policies, and housing requalification and energy efficiency. Sousa Santos (pp. 40) calls for a new understanding of public policies, not as expenditures but investments in people's well-being, and for political reform so that representative democracy can be complemented with participative democracy. Fortuna (pp. 50) points out the yield difference between physical and social distancing. It is in the socially connected city that solutions can be found. Canto Moniz (pp. 58) calls for more inclusive cities, where the most vulnerable groups have access to the public space. Allegretti (pp. 77) expresses concern about the consequences of the current apathy for various processes of civic participation, and that the post-corona society might disrupt the participatory experiences permanently. The author notes the importance of "valuing the common social capital" and calls for finding mechanisms, tools and methodologies to continue with participatory processes. Reis (pp. 106) emphasises the need to focus on planning the territory in a coherent and sustainable way with the engagement of the society.

The pandemic has affected teenagers' well-being. Lockdowns, home schooling and social distancing altered fundamentally their lives. Even when family and school are prevalent in their daily life (Ennew, 1994), teenagers are at the stage when they are building new social and spatial connections. The Project C3Places, in the article Smaniotto et al. (2021) explores how the COVID-19 pandemic is affecting adolescents. It provides a comprehensive review of the evolving research on the issues related to the pandemic and teenagers and civic participation.

In short, all authors call for the need to tackle more sustainable, inclusive and resilient returns for all. How these issues are being taken, can say a lot about a city. Not just about how it is taking care of the new generations, but also about the quality of life it offers for families and vulnerable groups and in turn for everyone. Table 6.1 provides a synthesis from the literature review of the emerging impact of COVID-19

in socio-spatial relationships. These help us identify important research needs and avenues in order to provide a place-based approach to policy responses, in a common effort of policy makers, urban planners and researchers

Table 6.1: Early impact of pandemic in socio-spatial relationships

COVID-19 Pandemic and changes in the social public life	**Needs for Research / Actions**
Affecting sense of place, uses and perceptions	Rethinking the urban environment, assuring everyone right to the city, safe environment and quality of life
Public health and interrelated effects on family, work, education, economy and interpersonal relationships	Reinforcing the value of a compact, resilient and green neighbourhood
Home adequateness and changes in its function, since home is becoming the central place of work, education and living	Improving the accessibility to essential services in the immediate neighbourhood Changes in the urban structure and community planning directed to urban density
Economic shock of lockdowns and closed borders, still standing of regional and national economies, increased unemployment	
Privacy concerns with the emergence of smart city technology and tracking Contact tracing applications as a way of controlling the spread of the pandemics	Control over technology, ensuring privacy and data protection
Emerging anxieties and prejudices that may emerge in a context of social distancing, where a fear of the other is latent	As distancing is physical and not social, reflect on the consequences for the public life and space sociability towards increasing liveable environments, creating new greenspaces in the immediate surroundings - in order to make cities healthier and more liveable
Physical distancing, and the need to be outdoors and contact nature, for physical and mental health, and social and cultural life	
Encounters controlled by a set of new rules (e.g. keep distance from others, mask wearing, ban of equipment, curfew and amount of time to be spent outside, only to name a few examples of measures observed worldwide	Creating greater awareness of the social and cultural effects of space in people's life, and vice-versa
Emerging new forms of interactions (e.g.: chatting, singing and dancing in balconies and at windows with neighbours, sharing meals with distant friends or providing services for strangers at-risk, like grocery shopping; and people come together in safe proximity to sit around, to chat, play, practice group sports, or just walk)	Reinforcing strategies for healthier environments and reducing health inequalities Involvement of people and communities, and integration of different types of partners and sharing knowledge
New activities are emerging (e.g.: for recreation, play, and physical exercises, more creative use of space), and more children and older people are using the cities	Creating more flexible and adaptable public spaces
An increase of popularity of certain places by the new forms of space use, hampers physical distancing rules	
The effect on citizenship and civic engagement in public space development have implications in participatory methodologies development	Developing reliable participatory methods and paths that are cost efficient, innovative and cultivate social cohesion

Table 6.2: Teenagers - public space relationships before and after the pandemic

Impact pre-pandemic	Pandemic influences in public life of teenagers
A playful use of space widens teenagers' range of spatial action, enabling a larger understanding of the surroundings and the acquirement of spatial competences/capacities	Lockdowns restricted teenagers' benefits from public space for the construction of individual and collective identity
The collective experience increases spatial competences and capacities, and thus the collective and individual cognitive, emotional and psychological development	The lack of social contact could be minimised by online communication and interaction, but it cannot substitute the need for face-to-face contact
Public spaces play a central role for teenagers, they provide the setting for socialising, hanging out and mingle with peers	Teenagers miss physical contact and spontaneity of face-to-face contact of encounters
Teenagers, in particular in a group, are portrayed as pointlessly loud, and often as disrespectful. They are seen as a disturbing social group in the public realm	Teenagers were also more exposed to poor mental health, and to risks such as domestic violence and exploitation The slowdown of social life provides opportunities for teenagers to reconnect with household members
Teenagers are not often involved in planning practices, and urban agenda does not consider their physical and social characteristics, thus not responding to their space needs	Such biased situation can be exacerbated by an almost stop in participatory processes due to social contact restrictions

In the age of climate crisis and post-pandemic, sharing experiences and strategies for local communities to reduce the risk is seen as crucial. Both the climate crisis and the pandemic are highlighting the need for a more sustainable and resilient way of making cities, one that also better responds to the needs of all groups. In the realm of planning sciences, engaging with stakeholders (e.g., citizens, policymakers, NGOs, researchers, etc.) is an important method applied to explain the motivation, use and management of urban spaces. This is one side of the coin, then the pandemic also affected and still affects stakeholder engagement. The full and long term impact of the pandemic is still being assessed. Amid this exceptional situation are teenagers, who suffered on a crucial issue in a teens life, be with friends and peers. The fastness of youth, marked by sociability, creating memories and self-discovery, was replaced by a state of inertia and social isolation. On the flip side, teenagers are being recognised as an increasingly important group for placemaking - in building their own environment. This in terms of their social practices, their levels of influence toward family behaviour, and their trend setting influence toward peers.

To explore such influential power is the aim of this book! It intends to promote an understanding of the dynamics that are enacted out within public spaces through the lens of teenagers. Teenagers are incredibly inventive when given the opportunity, or encouraged to. This book is an example of this. The youth need to be invested as beacons of innovation and creativity. Creating more opportunities for engaging teenagers in placemaking should be not only a slogan but a development strategy. This book provides recommendations and practical actions to promote and maintain meaningful exchange with teenagers also in times of social distancing and pandemic.

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C3Places Projet - https://c3places.eu/

Movimento pelo Jardim do Caracol da Penha - www.caracoldapenha.info

Parish Council of Alvalade - http://www.jf-alvalade.pt

PPL Crowdsourcing Portugal - www.ppl.pt

School Group of Alvalade - http://aealvalade.edu.pt

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C3places

C3Places - using ICT for Co-Creation of inclusive public Places is a project funded under the scheme of the ERA-NET Cofund Smart Urban Futures / Call joint research programme (ENSUF), JPI Urban Europe, https://jpi-urbaneurope.eu/project/c3places. C3Places aimed at increasing the understanding of how to better provide public open spaces (e.g. parks, greenspaces, squares, streets) as a community service, reflecting the needs of different social groups through ICTs. The C3Places approach involves a set of research strategies to engage different stakeholders into placemaking while improving digital and mobile tools as research techniques, and thus to propose avenues for future research.

This book provides insights regarding the involvement of teenagers in the co-creation of public open spaces. It brings together conceptual reflections and an exploratory case study in Lisbon. It is an attempt to point out the intangible benefits of engaging young people in placemaking to academics, practitioners, policymakers, students, and all parties concerned with urban development.

This book aims at inspiring progressive placemaking and co-creation processes. It attempts to reframe the debate on how vulnerable members of the community access public spaces, what their needs are, and what their response would be to a more people-centred urban design. It is with respect to these points that the book Territorial capacity and inclusion: Co-creating a public space with teenagers explores and analyses the engagement of teenagers in the production of public spaces. A group who rarely have opportunities to be heard and for their views to be considered. On these particular matters, the teenagers' perspective takes central stage by seeking to explore what their engagement means for spatial inclusiveness and responsiveness.

This publication is based upon the work of C3Places Project. The C3Places Project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 693443 and from FCT (Portuguese Funding Agency for Science, Research and Technology).

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ISSN 2184-8009

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