This project has received funding from the European Union's Horizon Europe Research and Innovation programme under Grant Agreement No. 101056946.
Document Information

Deliverable: D3.1: Common Approach to Pilot and Intervention Selection

Authors: Andrew Switzer, Federica Cefis Colombo, Ruben Loges, Mareile Zuber, Maria Kapteijns (AUAS), Cecilia Mazzoli (UNIBO), Tomáš Vacha (CVUT)

Lead Beneficiary: AUAS

Contributing Beneficiaries: UNIBO, CVUT, all partners

Project: CrAFt – Creating Actionable Futures

Work Package: WP3 – Sandbox Cities

Project Duration: 1 May 2022 – 30 April 2025

Project Coordinator: Annemie Wyckmans, Norwegian University of Science and Technology

Dissemination Level: PU-Public

Deliverable version: v.05

Due Date: 31.10.2022

Licence: CC-BY4.0 Creative Commons Attribution, except where otherwise noted. https://creativecommons.org/licenses/by/4.0/

Article 17.3 Disclaimer

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.
<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Author</th>
<th>Substantive changes made</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.06.2022</td>
<td>v.01</td>
<td>Federica Colombo, Andrew Switzer, Mareile Zuber (AUAS)</td>
<td>Preliminary overview of the approach to WP3</td>
</tr>
<tr>
<td>23.09.2022</td>
<td>v.02</td>
<td>Federica Colombo, Andrew Switzer, Ruben Loges, Mareile Zuber, Maria Kapteijns (AUAS)</td>
<td>Draft deliverable, including references suggested by partners</td>
</tr>
<tr>
<td>08.10.2022</td>
<td>v.03</td>
<td>Federica Colombo, Andrew Switzer, Ruben Loges, Mareile Zuber, Maria Kapteijns (AUAS), Cecilia Mazzoli (UNIBO)</td>
<td>Improved draft deliverable with input from WP3 Partners</td>
</tr>
<tr>
<td>26.10.2022</td>
<td>v.04</td>
<td>Federica Colombo, Andrew Switzer, Ruben Loges, Mareile Zuber, Maria Kapteijns (AUAS), Cecilia Mazzoli (UNIBO), Tomáš Vacha (CVUT)</td>
<td>Complete deliverable with input from CrAFt consortium partners</td>
</tr>
<tr>
<td>23.01.2023</td>
<td>v.05</td>
<td>Federica Colombo, Andrew Switzer, Ruben Loges, Mareile Zuber, Maria Kapteijns (AUAS), Cecilia Mazzoli (UNIBO), Tomáš Vacha (CVUT)</td>
<td>Improved deliverable after comments from partners</td>
</tr>
</tbody>
</table>
# Table of Contents

**Document Information**  
2  
**Document History**  
3  
**Table of Contents**  
4  
**Executive Summary**  
5  
**1. Introduction**  
1.1 CrAFt rationale: NEB values as base for local collaborative governance  
7  
1.2 CrAFt Objectives  
8  
1.3 The CrAFt Sandbox Cities  
10  
**2. Methodology**  
2.1 Definition of Sandboxing  
12  
2.3 Selecting Sandbox pilot projects  
13  
2.4 Selecting Interventions  
14  
2.5 Upscaling  
15  
2.5.1 Scaling Deep  
16  
2.5.2 Scaling Up  
16  
2.5.3 Scaling Out  
18  
**3. Activities in Sandbox Cities**  
3.1 Phase 1: Start-up  
20  
3.2 Phase 2: Implementation, reflection, monitoring & adaptation  
26  
3.3 Phase 3: Refinement & Finalisation  
29  
**4. Approach in the three Sandbox Cities**  
4.1 Sandboxing in Amsterdam  
31  
4.1.1 Projects initiated by the municipality  
31  
4.1.2 Bottom-up projects  
32  
4.1.3 Amsterdam LAT  
35  
4.2 Sandboxing in Bologna  
35  
4.2.1 Quickscan of potential pilots in Bologna  
39  
4.2.2 Bologna LAT  
40  
4.2.3 Potential interventions in Bologna  
41  
4.3 Sandboxing in Prague  
41  
**Common Approach to Pilot and Intervention Selection**  
4
4.3.1 Prague’s focus
4.3.2 Selection of pilot projects
4.3.3 Potential pilot projects
  4.3.3.1 Smart Prague Centre (SPACE)
  4.3.3.2 Exhibition focused on process learning
  4.3.3.3 NEBfying development project in Horní Počernice district
4.3.4 Prague LAT

5. Conclusion
References
Annex 1
Annex 2
Executive Summary

CrAFt’s Sandbox Cities (Amsterdam, Prague, and Bologna) are places where we will experiment and refine local collaborative governance models and contribute to the NEB objectives of making cities climate neutral, inclusive and beautiful. This document defines the CrAFt sandbox approach. During the project we will also facilitate the upscaling of the local collaborative governance models beyond the project to aid other actors in the Sandbox Cities, in the 60+ CrAFt Cities and city clusters and elsewhere in a climate neutral transition that is timely, sustainable, inclusive and contributes to aesthetic quality. We will do this by facilitating learning among practitioners, citizens, students, researchers and politicians in the cities and between them. Finally, we will make our results transferable by sharing our learnings with the 60+ CrAFt Cities and city clusters, NEB Lighthouse projects, and other Cities Mission and NEB communities (Work Package, WP 4). We also realise impact stories (with WP 6) and contribute to the Smart Cities Guidance Package (SCGP) NEB edition (with WP 2) and the refined NEB Impact Model (with WP 1). Our approach consists of three phases. In phase one (start-up, completion: March 2023) we will:

- Make a quickscan of emblematic urban planning projects (potential pilots) and challenges they are facing. We focus on projects representative of Europe’s cities: inner city renewal, new developments, restructuring post-war estates and new developments. For the scan, we will use a common framework of local collaborative governance.
- Select projects and challenges in coordination between the cities and project partners to ensure relevance for the CrAFt cities and the aforementioned WPs.
- Select existing local collaborative governance interventions from the Sandbox Cities and other sources, refine them and make them actionable for application in the pilot projects.
- Develop a plan to collect impact stories to monitor and evaluate the interventions in the three cities.

In phase two (implementation, reflection, monitoring and adaptation, completion: October 2024) we will apply the interventions, monitor them, study their working, refine them and develop impact stories to share the results. Along the way we will organise exchanges between Sandbox Cities and with the CrAFt Cities and city clusters and test the usability of the impact stories and the contributions to the SCGP-NEB edition and NEB Impact Model. In phase three (refinement and finalisation, completion: May 2025) we will complete the piloting process, organise final meetings in the cities and finalise the impact stories and other contributions.
1. Introduction

This document lays the groundwork for the common approach in the three CrAfT Sandbox Cities, Amsterdam, Bologna and Prague. The sandbox concept is explained in Section 2.1. The aim of the work in the Sandbox Cities is to identify local collaborative governance models that facilitate New European Bauhaus (NEB) values and a better understanding of the potential of involving arts, culture in collaborative projects in European cities (see Table 1). Local collaborative governance refers to “the processes and structures of decision making and management that engage people constructively across the boundaries of public, agencies, levels of government, and/or the public, private and civil spheres in order to carry out a public purpose”.

The three CrAfT Sandbox Cities will serve as innovation playgrounds to document and optimise the real-life performance of the NEB inspired local collaborative governance models, in different stages of development, and will serve as trailblazers to learn, inspire, and share project and process knowledge within the cities themselves and across the CrAfT Cities and city clusters and other cities in Europe. We will contribute to the 160 governance models, tools, stories and examples for the SCGP–NEB Edition and the 80 emblematic projects for the NEB Impact Model (Outcome 1). Emblematic refers to projects that are innovative in the way they try to organise the local collaborative governance and/or are already trying to embrace the NEB values of beauty, sustainability and inclusivity.

In the following chapters we will elaborate on how we are going to work in and with the Sandbox Cities for CrAfT. To a large extent we will focus on how the three Sandbox Cities will select pilot projects and local collaborative governance interventions. First, we will discuss CrAfT and the three cities in more detail.

1.1 CrAfT rationale: NEB values as base for local collaborative governance

CrAfT – Creating Actionable Futures – is an EU funded coordination and support action to identify local collaborative governance models for New European Bauhaus (NEB) transformations towards climate-neutral, beautiful, and inclusive cities. The NEB core principle is described as: ‘Beautiful are the places, practices and experiences that are: enriching, sustainable, inclusive’. The underlying assumption is that by simultaneously focusing on the NEB values of sustainability, inclusivity and aesthetics, the transition of our cities towards climate neutrality will be accelerated.

1 Emerson et al. (2012)
2 https://europa.eu/new-european-bauhaus/index_en
In the CRAFT project we therefore operationalize the NEB principles and values into processes for collaboration and execution on project level (see explanation in Table 1 which is based on the NEB Impact Model that the CRAFT consortium has identified).

1.2 CrAFt Objectives

As CrAFt is a coordination and support action, we have the ambition to move beyond one-off pilots and experiments and contribute to the upscaling of outcomes of the project. We have defined three main goals we want to achieve with our project:

1. **Refining and developing actionable local collaborative governance models to enable the combination of the three NEB values and thereby accelerate the climate neutral transition.** Cities aim to find ways to foster shared ownership in the process of becoming climate neutral, inclusive for all groups of residents and attractive places to live, work and play\(^3\). Fostering citizen endorsement and involvement of artists and creatives can improve concerted actions on climate neutral urban development. There are many good examples in Europe of collaborative approaches that have the potential to be scaled and adapted to the context of NEB. The NEB edition of the Smart Cities Guidance Package\(^4\) which will be a tool to share experiences from the Sandbox Cities.

---


Table 1: Operationalisation of the NEB values at the project level

<table>
<thead>
<tr>
<th>A beautiful project...</th>
<th>A sustainable project...</th>
<th>An inclusive project...</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activating</strong></td>
<td><strong>Repurposing</strong></td>
<td><strong>Including</strong></td>
</tr>
<tr>
<td>(Re)activates the cultural, social, or natural qualities of a place to create a meaningful sensory or emotional experience for the individual;</td>
<td>Aims at environmental repurposing, and grants durability, adaptability, recyclability and minimum use of resources. It looks at the scale of one entity:</td>
<td>Grants accessibility (physical, cognitive, psychological...etc.) and affordability to all, regardless of gender, racial or ethnic origin, religion or belief, disability, age or sexual orientation;</td>
</tr>
<tr>
<td>Improves liveability and fosters awareness to place and heritage in all its diversity;</td>
<td>Closing the loop</td>
<td>Prioritises less-represented individuals, groups and communities;</td>
</tr>
<tr>
<td>Connecting</td>
<td>Aims at closing the loop and at reducing or transforming linear processes in circular ones. It looks at the scale of the lifecycle;</td>
<td>Consolidating</td>
</tr>
<tr>
<td>Enhances the relationship between different places and people.</td>
<td>Regenerating</td>
<td>Fosters and equalizes relations between users and/or communities, safeguarding the principle of equal treatment and social justice over time;</td>
</tr>
<tr>
<td>Generates or reinforces a sense of belonging and care in creating meaningful connections and collective experience;</td>
<td>Enables creation, and the collective reinvention of the places, lifestyles, and communities we identify with;</td>
<td>Secures inclusion and open access to services through formal, structural mechanisms such as funding instruments, business models, planning, policies, regulations and other institutionalization processes;</td>
</tr>
<tr>
<td>Integrating</td>
<td>Integrates new cultural and social values, not merely through the meaningful experience of a broader ‘us’ (e.g. that includes the non-human world). In doing so, it aspires to anticipate future transformations, and may generate a long-lasting movement.</td>
<td>Transforming</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Understanding of the potential of involving arts and culture in the collaborative governance of projects focused on climate neutrality. There is still little knowledge available about the ways in which the arts and culture as well as creative methods can be used in the collaborative governance of projects focused on climate neutrality. The expectation is that arts and culture and creative methods can be used to engage with stakeholders and carry out dialogue in a different and more effective way, by triggering imagination of new possibilities and futures and reinforcing values and the soul of public urban spaces. More and more cities are looking for new arts and culture-based ways of organising co-creative urban development projects and processes. In the three Sandbox Cities we

---

5 Based on the draft NEB Compass booklet
will gather proof-of-concept of the impact arts and culture can have on collaborative actions toward climate neutral cities.

3. **Initiating learning processes to facilitate both vertical (institutionalisation and system change within one city) and horizontal upscaling (transfer of knowledge to other cities).** In our efforts to share knowledge between cities, we are aware that the ideal city does not exist, nor does the single pathway to climate neutrality or the ideal social innovation process. Every city has a different context, scale, history and people, and hence different concrete challenges. Every city finds itself at a different stage in a trajectory towards climate neutrality, and the trajectories themselves differ from city to city. Yet, in CrA Ft we see that those contexts are often comparable, and the challenges typically relate to known transition bottlenecks – challenges in changing behaviour, setting long-term goals, finding money and overcoming regulatory barriers and disciplinary silos. It is the local flavour of these challenges that differs from city to city, implying an approach that is standardised yet also customisable. The local testing and analyses of comparable challenges and scalable approaches will be the core task in the Sandbox Cities.

1.3 The CrA Ft Sandbox Cities

In CrA Ft we have selected three Sandbox Cities: Prague, Bologna and Amsterdam to test NEB inspired collaborative governance interventions in North-Western, Southern and Eastern Europe. These three cities face similar challenges in engaging in meaningful, productive partnerships with stakeholders in and outside of the municipality and creating effective working relationships with the private sector. At the same time the Sandbox Cities have embraced the NEB principles in their own specific way and are trying to realise them in practice.

**Amsterdam** faces the challenge of developing and mainstreaming collaborative governance models to make the development of climate neutral projects more inclusive and democratic and enable the municipal government to structurally facilitate bottom-up developments. Amsterdam is characterised by a municipal government that traditionally plays a central role in spatial planning and a civil society that (in some cases) is well organised and able to articulate their interests, both representative for many Northern European cities. But this is not the case with all groups. Attempts to develop new models have been undertaken in recent years. For example, the burgerberaden (citizen assembly initiative) and

---

6 Doren et al. (2018)

donut deals\(^8\) in Amsterdam, but these are not yet the mainstream in climate neutral projects. Integrating the arts and culture into collaborative governance processes remains largely unexplored and will be a second focus in Amsterdam.

In **Bologna** the challenge is to develop collaborative governance models that enable inclusive urban planning and transformation at the level of the city district. Collaborations between the municipality, civil society\(^9\) and University of Bologna have resulted in promising models. For example, projects and labs\(^10\) that have created local spaces for structured dialogue with different stakeholders (citizens, students, professionals, ...) on urban planning\(^11\). The temporary character of the space creates new dynamics in local communities and leads to better urban planning in line with the needs of the inhabitants and the area. As part of the “CO-Bologna” project, Bologna has adopted a “Regulation on Collaboration between citizens and cities for the care and regeneration of the urban commons” based on the CO-CITY approach (see Annex 1).

**Prague** will develop, test and share approaches supporting social and organisational learning in sustainable transformation projects. The challenge is to learn how to seize the potential of NEB interventions to generate transformative experiences for key stakeholders and citizens. Prague will experiment with involving the art and creative sector in boosting the impact of urban experiments and pilot projects to drive broader urban transformation. Prague’s innovation ecosystem will be also engaged in supporting mutual learning exercises with the CrAfT community.

---

\(^8\) https://amsterdamdonutcoalitie.nl/project/6821/donut-deals

\(^9\) Urban Innovation Foundation (FIU)

\(^10\) Neighbourhood Laboratories, the Spaces Laboratory, the Neighbourhood Houses, the Participatory Budget, etc.)

\(^11\)https://www.fondazioneinnovazioneurbana.it/images/RINNOVARE_CANTIERI/2022__cantiere_Spazio_a_Bologna_urbanistica_tattica_Presentazione_metrodo.pdf
2. Methodology

In this section we will elaborate on the methodology to be applied in the Sandbox Cities. In the following section we will present a concrete work plan for the activities discussed here.

2.1. Definition of Sandboxing

The methodology to be used in Amsterdam, Prague and Bologna is Sandboxing. The idea of sandboxing was introduced in 2015 in the area of financial technologies as “a safe space in which businesses can test innovative products, services, business models and delivery mechanisms without immediately incurring all the normal regulatory consequences”\(^\text{12}\). Others emphasise the ability “to create a ‘space’ (often virtual) in which developers can play around with an innovation to get a feel for how it might be used, add/delete features to it, comment to one another about it, ask a variety of ‘what-if’ questions of others playing in the sandbox about the innovation and related innovations... (and)...show it virtually to prospective purchasers/users of the innovation to get their reactions, ideas, and suggestions”\(^\text{13}\). Given the ambition of CrAFt to test and refine existing local collaborative governance models prior to sharing these for broader implementation, we chose sandboxing for use in CrAFt. Figure 1 shows Sandboxes in relation to other demonstration terminologies.

---

\(^{12}\) Leckenby et al. (2021)

\(^{13}\) Arntzen et al. (2019)

\(^{14}\) Arntzen et al. (2019)
2.3. Selecting Sandbox pilot projects

In order to find out which local collaborative governance challenges are forming the most important bottlenecks to implement the NEB values in emblematic urban development projects, we will use a common methodology to select and evaluate potential pilots in the three Sandbox Cities. This quickscan will be coordinated with Work Packages 1, 2, 4 and 6 to ensure that we collect information that is useful for their work (e.g. best practices of local collaborative governance or inspiring impact stories). As such, even if a project is not selected for carrying out interventions, it could still be involved in CrAFt by the aforementioned Work Packages. During CrAFt, the partner university in each of the three Sandbox Cities will study in total 20 potential pilot projects. For the purposes of CrAFt we have decided to focus on the following type of projects: (proposals for) spatial development projects aiming to (re)develop an area of the city or decision-making processes taking place at the level of the city influencing how local spatial development projects take shape. We will focus on projects that the municipality or other parties in the city are already running or in the process of getting initiated and that are valuable from an NEB perspective and experiencing challenges around local collaborative governance.

The three partner universities in the Sandbox Cities will develop a protocol to structure the quickscan of governance challenges in potential pilot projects. A draft version of the protocol is shown in chapter 3. It will be inspired by Emerson et al.’s (2012) integrative framework for collaborative governance (see below). This protocol will be made available to the 60+ CrAFt Reference Cities and other cities that want to better understand and map the local collaborative governance challenges they are facing in bringing NEB into practice.

The Emerson framework offers an overview of variables and factors that could influence local collaborative governance processes. We will operationalise the Emerson framework focusing on relevant factors that lead to climate neutral transitions and citizen engagement. As seen in Figure 2, the Emerson framework is characterised by three dimensions that are nested within one another:

1. **The system context**, (e.g. political, legal, socio-economic, economic, and environmental influences) can create chances and constraints which, through the agency of actors, can lead to the development of so-called drivers and influence collaboration.

2. **The collaborative governance regime**, which is based on principled engagement, shared motivation, and capacity for joint action.

3. **The collaboration dynamics between actors** that may lead to impacts (i.e. the results on the ground) and adaptations (the transformation of a complex situation or issue), either within or external to the regime.
2.4. Selecting Interventions

After the quickscan of the local collaborative governance challenges, each Sandbox City will select pilot projects in which we will develop and apply in total 10 local collaborative governance interventions. This number was selected to allow for variation in a number of key dimensions. These include: the party starting the project (bottom-up or top-down), stage in the planning process, type of development (e.g. inner city renewal, new developments, restructuring post-war estates) and new developments and the type of governance challenge (e.g. citizen engagement, financial, procedural, conflicting interests/expectations). Chapter 4 presents a preview of possible interventions in each of the Sandbox Cities.

This process can be completed and repeated whenever necessary as new pilot projects become involved in the CrAFt Sandbox Cities.

Interventions are defined as following: Changes to the local collaborative governance approaches and tools as well as methods for involving and engaging stakeholders at one or more phases in a pilot. They aim to address a specific governance challenge. Interventions can focus on new ways of reaching, engaging and co-creating with diverse stakeholders, stimulating envisioning future scenarios for new sustainable neighbourhoods, or co-designing public

---

15 Emerson et al. 2012
spaces. Although the interventions are very specific to the local needs and circumstances, there are a couple of general elements which are part of each intervention: inclusivity, diversity and interdisciplinarity.

We will attune the way participants are approached as well as the set-up of the pilots (e.g. composition of groups, creative methods used) to ensure inclusivity and diversity (according to our Inclusiveness and Diversity Management Plan) and the facilitation of an open debate and a trust-relationship between all participants. In addition, interdisciplinarity is a crucial factor for the interventions. We will make sure that input given by the different stakeholders will be checked and evaluated in feedback-loops to create long-term commitment and ownership of the project outcomes.

For selecting and adapting interventions we will involve different kinds of partners. The primary group are the local pilot project partners such as project leaders and other project stakeholders. By developing the interventions in co-creation, we aim to profit from their local knowledge and increase their openness to use the interventions thereby raising the chance of success. Furthermore, we will involve the Local Advisory Teams (LAT) to profit from local and national expertise and experience and coordinate with the other Sandbox Cities to draw inspiration from their approaches. This will also help to ensure that interventions developed complement each other, especially if they are focused on the same challenge. Per pilot, depending on the available resources, the needs of the project team and the project planning, we will carry out multiple iterations that can vary from co-creation sessions to roundtables or artistic interventions.

2.5. Upscaling

CrAFT addresses the challenge of upscaling NEB local collaborative governance models. Replication and scaling of innovations in European society are our principal goal.

The approach to be used in the Sandbox Cities is designed to support both horizontal (scaling out) and vertical upscaling (scaling deep and up) of NEB from the very start of the project, during, and after it.

We will **scale deep** by influencing the values, practices and networks of individuals and communities on a local level in the Sandbox Cities, to better align ideas, values and resources across our target stakeholders.

We will **scale up** our experiences in the CrAFT Sandbox Cities to influence standards, policy and regulatory frameworks, guidelines and recommendations at various levels of governance. This is also called horizontal scaling.

---

And finally, we will **scale out** by trying to broaden our impact by replicating good practices focusing on their actionability and the principles on which they are developed to other cities, while learning from failures, combined with horizontal diffusion of the constitutive elements through replication and reproduction in other contexts and by extending to more types of different stakeholders.

In all these types of upscaling process learning between different stakeholders is key. The conceptualising learning and the mechanisms that can support learning in CrAFt will be developed with our CrAFt partners in the NEB inspired learning framework (WP4). The activities discussed below will also be integrated in our work for the SCGP–NEB Edition, the collaboration with the CrAFt reference cities and the storytelling campaign to contribute where possible to their work.

The upscaling is conducted at four levels in the CrAFt project: the pilot projects, the individual Sandbox Cities, the three Sandbox Cities and the European reference cities. We will collect best practices in NEB–inspired collaborative local governance models, test them in the three Sandbox Cities, and make them available to the Reference Cities and beyond.

### 2.5.1. Scaling Deep

For scaling deep, we focus on the individual pilot projects. In addition to the interventions which in themselves encourage learning, we will organise Learning Sessions in the pilot projects. The form of these learning sessions will vary depending on challenges encountered in the specific pilot. In the most extensive form, we will focus with our interventions on building shared understanding of challenges in a project. In the most intensive form, the learning sessions will be embedded in the process of carrying out the interventions. We would carry out an intervention and collectively reflect on the impact on the governance challenge and adapt the intervention or develop a follow-up one and apply it in a second round. In designing the Learning Sessions, we will make use of the NEB inspired learning framework\(^{17}\) and the NEB Impact Model\(^{18}\).

### 2.5.2. Scaling Up

In each of the three Sandbox Cities we will organise reflection and learning moments between different projects and stakeholders in the city to share learnings and receive input for the interventions. This will take place in four ways.


1. Round table sessions with local project leaders of climate neutral projects facing local collaborative governance challenges similar to those in the pilot projects (3 per city). These activities will be organised with Local Advisory Teams (LAT) in each of the Sandbox Cities. The formation of the LAT will be elaborated upon in the next section.

2. Three learning and co-creation sessions with policy makers of the municipalities. These will focus on how challenges encountered in the individual pilot projects can be addressed more systematically on an institutional level. For example, by developing city-wide guidelines, procedures and processes.

3. Involving students in the Sandbox Cities pilots and sharing their insights and prototypes with local stakeholders. This will be done throughout the whole project period in collaboration with the STEAM teams (WP5). Depending on their educational programme and planning, results will be shared with stakeholders of the pilots. Students carry out the whole cycle from exploring challenges in a pilot, to developing governance interventions including co-creative methods to involve citizens or in facilitating the reflection with policy makers and the LAT or collecting impact stories for the Storytelling campaign of WP6.

4. During the CrAFt project, AUAS, UNIBO and CVUT will organise regular Coordination & Reflection meetings between the university partners in the three Sandbox Cities. The goal is to share results and learn from each other’s challenges and successes. Where possible and relevant, other parties from the Sandbox Cities and/or the Student Core Group of the Next Generation CrAFt think-do tank (organised by WP5) will be involved in these meetings.

All these activities will contribute to the target of 800 participating stakeholders in at least 30 activities and workshops organised by the CrAFt partners in the three Sandbox Cities (this indicator contributes to CrAFt’s Outcome 2, further detailed in D7.3 CrAFt M&E framework).

---

19 This is elaborated upon in CrAFt deliverable D5.1 Model of Governance for Next Generation Think/Do Tank of Students (https://craft-cities.eu/wp-content/uploads/2022/08/CrAFt-Governance-for-Next-Generation-ThinkDo-Tank.pdf). It is defined as an interdisciplinary, international body of students that maintains an overview of the many diverse student(-led) activities and collaborations within the project framework and facilitates the feedback processes. It functions as an umbrella over all CrAFt student activities, but also expands and shapeshifts in relation to other actors and the issues.

20 Increase awareness, empowerment and social engagement towards the benefits of climate-neutral urban transitions as opportunities to re-think and co-create qualitative, sustainable, inclusive and aesthetical urban spaces, inspired by NEB. KPIs: 30 Internal co-creation activities, workshops, and other events organised e.g. in the Sandbox Cities; 40 External events (co-)organised by CrAF, 800 Stakeholders participating in CrAF events. More details available at D7.3 CrAFt M&E framework to be released in January.
2.5.3. Scaling Out

The third level is to scale our learnings and insights to other European cities and involve them actively in the CrAFt approach. We will reach this objective in three ways:

1. We will coordinate the selection and testing of governance interventions with Work Packages 2 and 4 to ensure the relevance for the SCGP-NEB Edition and for the mutual learning exercises in the 60+ CrAFt Cities and city clusters\(^2\). This way we make sure that our pilots and interventions are useful also for other cities.

2. We will use the results of the interventions in the Sandbox and CrAFt Cities to collaboratively update and refine the SCGP into NEB edition (WP2). Here we will develop best practices to easily allow other cities to select and apply interventions focusing on the actionability of the practices.

3. We will develop 160 impact stories in our three Sandbox Cities as input for WP6, Dissemination and Exploitation. These stories of stakeholders will inspire others, share the proven ways of addressing local collaborative governance challenges and share evidence of the added value of NEB in the climate neutral transition.

Figure 3 on the next page presents a visual representation of the key activities in the Sandbox Cities.

Figure 3: Visual representation of the approach to Sandboxing
3. Activities in Sandbox Cities

This chapter presents a precise work plan for our activities in the Sandbox Cities showing how we will carry out the activities discussed in the previous chapter. Our approach in the Sandbox Cities can be divided in three phases:

In the **first phase (start-up)**, we will do the following:

- Explore, with local stakeholders, pilot projects and governance challenges at various phases in the project development process.
- Make a definitive selection of projects and challenges in coordination with the three cities and with other Work Packages to ensure we account for the needs of the CrAft Cities and city clusters, the development of the SCGP-NEB Edition and the testing of the NEB Impact Model.
- Select existing collaborative governance interventions and models, refine them and make them actionable for application in the pilot projects.
- Develop a plan to monitor and evaluate the interventions.

In the **second phase (implementation, reflection, monitoring and adaptation)** we will apply the interventions in the three cities, monitor them, collect data about how and why they work, reflect and refine them and develop impact stories to share the results with others. Also, we will add new pilot projects when relevant. At the same time, we will organise various types of exchanges within and between the Sandbox Cities and with the CrAft Cities and test the usability of the impact stories and the contributions to the SCGP-NEB Edition and NEB Impact Model.

In the **third phase (refinement and finalisation)** we will complete the pilot projects that are still ongoing and organise final meetings in the cities and finalise the impact stories and other contributions.

### 3.1 Phase 1: Start-up

During the Start-up phase the following tasks will be carried out in each of the Sandbox Cities allowing for local variations with regard to the exact approach used. This phase will last until March 2023 with some last start-up tasks taking place in April and May.

1. **Preliminary selection of potential pilot projects.** In coordination with local partners including the municipality, in each Sandbox City, the university partners will make an overview of emblematic projects that have embraced or are interested in embracing the NEB values in practice and at the same time are interested in becoming involved in CrAft.
2. **Quickscan potential pilot projects.** In coordination with local partners, the university partners will carry out a quickscan of the governance challenges that the urban spatial development projects (selected in step 1) encounter when trying to realise the NEB values in practice. In Chapter 4 we discuss the specific approach used in each of the three Sandbox Cities. The protocol for the quickscan of potential pilot projects for reporting on challenges is being developed in coordination with Work Packages 1 & 2. The scan will be completed in January 2023. Figure 4 presents a draft of the protocol.

3. **Selection of pilots.** The definitive selection of pilots will take place in two steps. Firstly, each university partner will make an internal selection of pilots and types of challenges encountered there. The selection criteria depend on what is needed for upscaling. In terms of horizontal upscaling the criteria include the needs of the CrAFt Cities and city clusters to implement NEB values. For vertical upscaling in one Sandbox city the main criteria are the needs of the municipality and other local partners represented in the LAT. Following the internal selection, the three Sandbox Cities will meet to make a first coordinated selection of pilots. Of importance here is ensuring that there is enough variety in the types of challenges to be addressed and to explore possibilities to address similar challenges to improve the generalisability of findings. This step should be completed in February 2023. The selection made will be supplemented or amended during the Coordination & Reflection meetings (see level three at the beginning of section 3) to take account of new insights and needs.

4. **Selection of interventions.** Based on the challenges selected, governance interventions will be explored for the initial application in Phase 2. Here we will largely make use of (adaptations of) existing interventions from sources.\(^{22}\) This is to be completed for the first pilot projects in March 2023.

5. Each of the Sandbox Cities will form a **Local Advisory Team (LAT)** of local stakeholders. The LAT will advise on how the lessons from the pilots will be shared with other parties in the Sandbox Cities. Prior to this the Sandbox Cities will include a shared set of expectations for participation in the LAT including a code of conduct. The LAT is an advisory body, but has also the function to facilitate knowledge transfer, mutual learning and scaling of successful approaches throughout the city and within different parts of society and sectors. Members of the LAT will be carefully selected and invited by the universities and represent different sectors, stakeholders, personal backgrounds (including students) and therefore ensure an

---

\(^{22}\) E.g. Best practices NEB projects (CrAFt WPI), The NEB Impact Model, Smart Cities Guidance Package; Lighthouse Smart Cities/NEB, Relevant publications and experiences of the CrAFt partners such as Kennis ligt op straat! (Eijden *et al.*, 2022), the eCityx Change, SHIFT and IN–HABIT projects, and the COST Action CA19122 EUGAIN; Methods for creative and inclusive cocreation processes such as the Key enabling Methodologies.
inclusive and diverse participation in the CrAft project. The participation of citizens is an important aspect of the LAT. The LATs will be formed in February and March 2023.

**Quickscan Protocol**
The objective of the quickscan is to map and coordinate the selection of emblematic projects with based on their local governance challenges for the application of interventions in the Sandbox cities. In addition, it will be used to map good local collaborative practices for multiple purposes: delivering input for governance interventions to be tested in the Sandbox cities and impact stories (WP5&6), selecting cases for the Smart Cities Guidance package (WP2) and sharing with the CrAft cities (WP4) and selecting projects where the NBB impact model (WP1) could be tested. This will include documentation of existing practices and demonstration that they have achieved a positive NBB-proof impact (WP1).

This template can be used during five (1-on-1 / online) interviews, using examples (also impact Stories) / visual to collect important parameters about pilot projects.

**Goal:** Facilitation & monitoring ➔ Later on this could maybe be automated All metadata can be used for filtering and giving advice (combining insights).

**Categories**

**SITUATIONAL / WHAT (current)?**
- [definition & visual] City / project name / type
- [definition & visual] Phase of the process in your project (SU/PPP)?
- [definition & visual] Which stage of the process of your project (SU/PPP)?
- [definition & visual] Project goal?
- [definition & visual] Scale of the project
- [definition & visual] Length of process/line frame?
- [definition & visual] Size and composition of the network?
- [definition & visual] What are the larger groups’ interests/needs (SCP?)
- [definition & visual] NBB impact model indicators (which ones)?
- [definition & visual] Use of NBB values (NBB Compass)?

**INSPIRATIONAL / HOW (To Do & Done)?**
- [impact story usage] Type of interventions already done?
- [impact story usage] Use of creative methods?
- [impact story usage] Cultural engagement?
- [impact story usage] Impact Stories / Storytelling used?
- [impact story usage] Share results / achievements?

**GOVERNANCE INNOVATION / HOW (done, possible or not)?**
- [definition & question] Reusability / Scaling

**REFLECTIVE / What is holding you back?**
- [definition & challenges] Bottlenecks – any of above or what went wrong, what was difficult?

---

**Figure 4: Draft of the protocol for the quickscan of potential pilot projects**

The following coordination activities will be carried out in this phase by the three universities and led by AUAS.

1. The protocol for the **round table sessions** with a broader group of project stakeholders will be developed by the universities in coordination with the LATs in March 2023. Following this, the protocols for **learning and co-creation sessions** with local policy makers will be worked out in April/May 2023.

2. Under the lead of ECF and WP6 in December 2022 and January 2023 we will develop a **plan for impact stories** to define the types of impact stories we want to make and plan their collection. At this moment we can distinguish...
two broad categories of impact stories. Firstly, those sharing results, lessons, inspiration, best practices that are already present in the cities. The quickscan of potential projects will provide insight into where relevant stories are and ECF can with the help of the university partners collect them. The second type are stories that share the results of the local collaborative governance interventions. These will be developed during the interventions in the Sandbox Cities.

3. **Development of the monitoring and evaluation strategy for Sandbox interventions.** This strategy will focus on the way in which the interventions to be carried out in the pilot projects in the Sandbox Cities will be monitored and evaluated to ensure that we collect the information necessary for the impact stories and other Work Packages. The data collected will largely be qualitative and focus on the working mechanisms in the local collaborative governance interventions, taking account of contextual factors (e.g. institutional, regulatory and cultural). For the purposes of monitoring, the quickscan of pilot projects discussed above can be seen as a zero measurement. During the monitoring we will, furthermore, collect quantitative data to measure the contribution of the interventions in the Sandbox Cities to the KPIs discussed in the CrAfT impact canvas. The development of the monitoring & evaluation strategy for the Sandbox interventions will take place between January 2023 – March 2023. It is closely related to the Monitoring and Evaluation plan delivered in December 2022. The monitoring and evaluation strategy will provide the basis structure for the monitoring and be specifically worked out for the first interventions. The strategy will be developed in following steps:

   a. In January 2023 a start meeting to define the qualitative data to be collected during the monitoring of the interventions in the Sandbox Cities will be organised. More specifically we will take account of:
   
      i. the needs of WP1 for the refinement and development of the NEB Impact Model;
      ii. the information required by WP2 to develop the NEB edition of the SCGP;
      iii. the needs of WP4 for the learning exercises with the CrAfT Cities;
      iv. the requirements for the impact stories. These will be developed in coordination with WP6 which is responsible for the storytelling campaign.
   
   b. AUAS will develop a draft monitoring & evaluation strategy for the interventions in the Sandbox Cities (February 2023) and deliver a definitive version in March 2023 after receiving feedback from ČVUT.

---

23 This is part of Deliverable D7.3 CrAfT M&E Framework to be delivered 31 December 2022
UNIBO, NTNU and partners involved in the development of the NEB Impact Model and SCGP-NEB edition. The preliminary sources of data include cross-sectoral roundtables, and in-depth interviews with stakeholders involved in the interventions as well as city diaries that will be kept by the researchers and stakeholders in the projects.

c. For the first interventions to be carried out each of the three universities will operationalise this strategy for data collection in their own pilot projects. This will be completed in March 2023.

Figure 5 presents a timeline of the specific activities to be carried out in this phase.
Figure 5: Timeline of activities in phase 1
3.2 Phase 2: Implementation, reflection, monitoring & adaptation

This phase starts in March 2023 and lasts until September 2024. Here we will apply the local collaborative governance interventions with partners in the three Sandbox Cities. This phase should not be seen as linear. We will continuously monitor the interventions to observe, analyse, reflect and adapt interventions in a participatory way. In addition, we will continue our dialogue with the municipalities, the LATs and the Reference Cities and where relevant and necessary we will repeat steps in phase one. For example, if new pilot projects become relevant, we will explore the challenges they are facing or when new challenges emerge, we will develop interventions to address them. In this phase we will organise reflection and feedback on the following groups.

- Between the Sandbox Cities. As discussed in Chapter 2, AUAS will organise **Coordination & Reflection** meetings between the three Sandbox Cities. These will occur every two to three months starting from April 2023. In addition to sharing experiences and inspiration we will, during these meetings, discuss, reflect on and refine the monitoring plan to capture what we need. Furthermore, we will also discuss lessons that could be relevant to share with the 60+ CrAFt Cities and city clusters and consider how our work in the Sandbox Cities can address their needs.

- Target groups of impact stories. In this phase we will collect and analyse the data and build the beta versions of the impact stories for testing in collaboration with ECF and WP6. This refers to the second type of impact stories mentioned above and will take place two times during the project.

- Work packages 1 & 2. This will focus on the NEB Impact Model and the SCGP–NEB Edition. Each of the universities in the Sandbox Cities will regularly collect monitoring input for and coordinate this with the responsible partners.

Figures 6 and 7 present a timeline of the activities in this phase.
### Figure 6: Timeline of activities in phase 2 (1)

<table>
<thead>
<tr>
<th>Month</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>Preparation protocol manual tables</td>
</tr>
<tr>
<td>May</td>
<td>Preparation protocol manual tables</td>
</tr>
<tr>
<td>June</td>
<td>Ongoing planning</td>
</tr>
<tr>
<td>July</td>
<td>Ongoing planning</td>
</tr>
<tr>
<td>August</td>
<td>Ongoing planning</td>
</tr>
<tr>
<td>September</td>
<td>Ongoing planning</td>
</tr>
<tr>
<td>October</td>
<td>Ongoing planning</td>
</tr>
<tr>
<td>November</td>
<td>Ongoing planning</td>
</tr>
<tr>
<td>December</td>
<td>Ongoing planning</td>
</tr>
</tbody>
</table>

**Key Activities:**
- Preparation protocol manual tables
- Ongoing planning
- Work out beta version impact stories
- Monitoring impact stories
- Common Approach to Pilot and Intervention Selection
- Summer holidays

**Legend:**
- Green: Preparation protocol manual tables
- Blue: Ongoing planning
- Pink: Work out beta version impact stories
- Yellow: Monitoring impact stories

---

**Common Approach to Pilot and Intervention Selection**

27
Figure 7: Timeline of activities in phase 2 (2)
3.3 Phase 3: Refinement & Finalisation

The third phase starts in September 2024 and lasts until the end of the project. We will focus on refining interventions, models, approaches and impact stories to make them adaptable, scalable and transferable. We will carry out the following activities:

- Finalise the last impact stories and use them (in coordination with WP6) to communicate what we did to a wider audience. We reflect on the challenges all European cities might face and we offer them suggestions on how to address them. Deadline October 2024.
- Finalise our contribution to the NEB Impact Model (in coordination with WP1). Deadline January 2025.
- Finalise contribution to the SCGP–NEB Edition (in coordination with WP2). This will build on the contributions that were made during phase 2. Where necessary these will be refined to disseminate and make accessible, and easy to use. Deadline January 2025.

Figure 8 shows the timeline for the planning for this phase.
Figure 8: Timeline of activities in phase 3
4. Approach in the three Sandbox Cities

This section elaborates in more detail on how each of the Sandbox Cities will approach the selection of pilot projects.

4.1 Sandboxing in Amsterdam

In Amsterdam we use two parallel strategies to make the selection of pilot projects and, where already known, interventions.

4.1.1 Projects initiated by the municipality

We make a selection of pilots together with the Department of Spatial Planning and Sustainability and the Project Management Bureau of the Municipality of Amsterdam. We will select urban development projects that are of interest to them with regard to realising the NEB values or understanding the added value of creative co-creation approaches. This was carried out during a first explorative meeting with the municipality in November 2022 and will be continued during the projects’ duration.

An example of a municipality initiated project is the Marineterrein24, Figure 9.

In 2011, the Ministry of Defence decided to vacate the Marine Etablissement Amsterdam, a process that began in 2015. In 2013, the Dutch government and the municipality of Amsterdam drew up a strategy document to define a common framework for the development of the Marineterrein area. In the administrative agreement. The Dutch government (as current owner of the Marineterrein) and the municipality of Amsterdam (as the intended buyer) have made clear agreements on the ambition, the assignment to Bureau Marineterrein Amsterdam (as project bureau), the temporary letting of vacant buildings, the completion of the first projects, and the development method.

The Marineterrein will be developed progressively and experimentally. This means research will be carried out to determine which activities will make the biggest contribution to the defined goals. The companies and organisations located at the Marineterrein must therefore demonstrate their ability to innovate and their willingness to share knowledge. This is a different approach than traditional zoning plans, which have clear results in mind. The Dutch government and the municipality have opted for this organic (or adaptive) approach because it makes it possible to respond flexibly to new insights and future challenges.

24 Text copied from https://www.marineterrein.nl/en/city-quarter/
Bureau Marineterrein Amsterdam is responsible for initiating and supervising the temporary developments on behalf of the Dutch government and the municipality of Amsterdam. The local and national governments will jointly decide on the final development of the area.

Figure 9: artist impression of possible development at the Marineterrein

4.1.2 Bottom-up projects

We look into potential bottom-up projects related to sustainable urban development. These are projects that have been initiated by parties other than the municipality (e.g. citizens, NGOs, knowledge institutes, businesses).

An example for a bottom-up pilot: the Green Mile, see figure 10.

The Green Mile is a project that created a movement around the transformation of the Stadhouderskade. The street is one of the main entries and exit points of the city centre of Amsterdam, but it is also the busiest and most polluted one. A series of stakeholders in the area (Hogeschool van Amsterdam, Heineken Company, Rijksmuseum, UNStudio, De Nederlandsche Bank, Blending Bricks) took the initiative for this movement setting out together the vision and goals to transform it into a future-proof street for people, animals and plants. And they engaged the municipality of Amsterdam and citizens to share the ambition of making the area healthier, safer, greener, sustainable and more inclusive.

26 See: The Green Mile (greenmileamsterdam.com)
For the potential scaling we will take into account the types of locations in the city (inner city renewal, new developments, restructuring post-war estates) and at the various phases in the project (see Figure 11).

---

27 The Green Mile (greenmileamsterdam.com)
A first selection of pilots and interventions include the following:

- A project where solutions for radical sustainability are approached as an architectural challenge – bridging the technical solutions and lived space needs.
- A project with housing corporations that aims to tackle various objectives (koppelkansen) during the sustainable renovation process. How are those values defined and made transactional? Like examples with block chain or...

---

28 http://www.urbanlearning.eu/toolbox/planning-process/
local currencies? And what is the geographical or cultural space that is
signalled out to explore?

- A project focusing on rethinking and redesigning the public space – from
  the focus on enabling flows to a focus of regenerating value
- And/or a focus on a newly developed living lab, like Markthallen.

Interventions will depend on the specific needs of the pilots, but will consist of
cross-sectoral roundtables and creative co-creation sessions to work on the
governance challenges that arise when trying to realise NEB projects focused on
climate neutrality in practice.

4.1.3 Amsterdam LAT

Together with ELIA and ECF we will establish in January 2023 a Local Advisory
Team for our pilots in Amsterdam. We will use their network to complement that of
the AUAS. We will involve stakeholders from projects related to a pilot project to
enable knowledge sharing and capacity development and include students and/or student associations.

Inclusiveness and diversity are key principles in the organisation of interventions,
but also in the selection of members of the Amsterdam LAT and of participants
and the organisation of the Amsterdam pilots. For example, we will attune the way
participants are approached as well as the set-up of the pilots (e.g. composition
of groups, creative methods used) to ensure inclusivity and diversity and the
facilitation of an open debate and a trust-relationship between all participants. In
addition, interdisciplinarity is a crucial factor for the interventions. We involve
students to have inter-generational debate. We make sure that input given by the
different stakeholders will be checked and evaluated in feedback-loops to create
long-term commitment and ownership of the project outcomes.

4.2 Sandboxing in Bologna

In Bologna the CrAfT pilots were selected using the following procedure.

1. Selection of pilots with municipal policy makers. In collaboration with the
   Municipality of Bologna, UNIBO has identified the areas that are currently
   abandoned and degraded. These areas represent a priority for urban
   regeneration and an opportunity to re-shape interventions. Prior to the
   start of CrAfT, the Metropolitan City of Bologna selected four proposals,
   each composed of several interventions from the projects submitted by the
   Municipalities and Unions of Municipalities. Each intervention is
   characterised by a broad metropolitan relevance and aims at achieving
   three macro-objectives of the metropolitan mayor’s mandate: ecological
transition and combating climate change; reducing inequalities and fragilities; enhancing and developing the “metropolitan knowledge network”. These interventions are included in the Piano Urbano Integrato (PUI) / Urban Integrated Plan, thus functionally and strategically unified with the vision of enhancing the metropolitan knowledge and research network.

Bologna as a Sandbox City selected the “City of Knowledge” project, as one of the projects in the PUI on which most of the Municipality’s current and future actions are being concentrated. The “City of Knowledge” winds around the “Way of Knowledge” (See Figure 13) which aims to connect and integrate places of knowledge, research and education, located in the north-west quadrant of the city, through an infrastructure dedicated to slow mobility that will shape a new linear cultural centrality. The route will be characterised by information and knowledge points (the “Knowledge Stations”), located at intersections, points with the science and research route and the historical memory route. The stations along the route are also valorised through the eco-sustainable reuse of existing public building structures (Caserme Rosse, Giuriolo, guardhouses at the Sostegni del Navile etc.). This makes it strictly linked to the NEB values of sustainability, social inclusiveness, and beauty in terms of arts and cultural values.
2. Selection with FIU. “Bologna Attiva” is one of the most concrete and already activated projects where the NEB principles are coming to life. Located in “DumBO”, a 40,000m² space within the “Ex scalo Ravone” area, which is a former freight yard in Porta-Saragozza district. “Bologna Attiva – Metropolitan Workshop for New Work, Mutualism and the Collaborative Economy” is a human, urban, and social regeneration project based on an unprecedented collaboration, which sees public, private and community realities working together on different levels. The space hosts a co-working space, a study room, and various proximity services for students, professional accompaniment paths, mutualism, and cultural and community activities. Thanks to the redevelopment and animation of the various spaces, the objective is to create a space for work, study, cultural activities, and open dialogue between the community, professionals and students, experimenting with innovative practices to reuse part of an area, that due to its size and location, represents an important opportunity for the territory and its citizens, for urban transformation and for responding to new needs.

Figure 12: The Way of Knowledge in Bologna

[Figure of the Way of Knowledge in Bologna]

29 https://daei.interno.gov.it/documentioui_3_-_bologna.pdf
30 Fondazione Innovazione Urbana (FIU), a multidisciplinary urban regeneration centre for research, development, co-design and production, and communication to build the city of the future
31 https://fondazioneinnovazioneurbana.it/progetto/bolognaattiva
32 https://dumbospace.it/?lang=en
3. Collection of ideas, projects, and visions about the selected areas. An important moment of recognition of the needs and the collection of project ideas was in September 2021, when the “UTOPIE REALI” interdisciplinary workshop was held. This initiative was promoted by FIU and SOS – School Of Sustainability by Arch. Mario Cucinella – with the collaboration and patronage of the Municipality of Bologna, UNIBO, the Order of Architects, Planners, Landscapers and Conservators of Bologna and the Order of Engineers of the Province of Bologna, and it was born out of the City of Bologna’s interest in investing in urban regeneration for the city’s north-west quadrant (see Figure 14). The workshop aimed to build a scenario and future vision on six strategic areas of the city: Bolognina, Lungo Reno, Lungo Navile, Lazzaretto, Borgo Panigale, and Prati di Caprara and Ravone.

The project proposals that emerged for each of the six areas were collected and handed over to the new administration of Bologna as a contribution to reflection on the process of transforming the city, thus being a relevant contribution for the elaboration of PUI, published in March 2022.

Figure 13: North-West quadrant of the city

Among the six areas analysed during the workshop, the Prati di Caprara and Ravone district stands out (see Figure 15). This area is characterised by dense residential areas and large urban voids. Spaces largely inaccessible that struggle to enter the daily life of our city and the perception of its

33 UTOPIE_REALI.pdf (fondazioneinnovazioneurbana.it)
inhabitants. However, these large voids play a key role for the future of Bologna due to their size and centrality within the urban fabric. In this direction, the future vision for this district is based on four principles which emerged from the dialogue with citizens: social restitution of places; infrastructural reconnection; spatial justice; environmental sustainability.

![Figure 14: “Prati di Capra and Ravone” District](image)

### 4.2.1 Quickscan of potential pilots in Bologna

The identification of critical points to be solved, expectations, and objectives to be achieved will be done by collecting the outcomes of the above-mentioned activities, which will also include interviews, live/digital questionnaires, and direct dialogues with the local governing bodies and target groups.

Citizens’ engagement will be a key element for the actions to be developed in Bologna within the framework of the CrAFt project, so the LAT will organise several initiatives for involving them in the process of transition of Bologna towards climate neutrality.

This strategy of social and cultural involvement of communities is closely linked to the theme of strengthening the Metropolitan Network of ‘Knowledge’ by focusing on attracting new investments with a high innovation content in order to foster processes of social inclusion and strengthen the metropolitan democratic fabric.

The strategy for the realisation of the Metropolitan Knowledge Network indicates three priority areas:
• science, research, and advanced training: encouraging growth and attraction of new research and advanced training centres, their connection and relationship with major national and international centres;
• innovation and impact for economic development, quality work and international attractiveness at different levels: economic, technological, social, environmental and cultural;
• knowledge policies: promoting the knowledge and culture of science and humanities, and the development of a critical capacity to analyse and understand major global transformations.

Knowledge is therefore the thread that holds together the interventions that make up the PUI, intended as an action plan to trigger the development of a wider metropolitan network.

The initiatives will be managed in the form of “District Labs”34, that is Democratic and accessible discussion labs to define the future of the City and its neighbourhoods, with the aim to activate stable processes of listening, dialogue, and collaboration, and also in the form of participatory labs and working groups, such as “U-Lab”, which was dedicated to the university zone under the “ROCK – Regeneration and Optimization of Cultural heritage in Knowledge and Creative cities” project, promoted by the City of Bologna and the University of Bologna and coordinated by FIU35.

4.2.2 Bologna LAT

The LAT for the Sandbox city of Bologna is mainly composed of:

• University of Bologna (UNIBO) with the interdisciplinary scientific research community and the STEAM students;
• Municipality of Bologna, represented by the “Europe and International Sector” Office focusing on EU, national and regional funding, coordination of the “City of Knowledge” and the “Way of Knowledge”, leasing with knowledge institutes and the Bologna Climate 2030 initiative
• Fondazione Innovazione Urbana (FIU)36, a multidisciplinary urban regeneration centre for research, development, co-design and production, and communication to build the city of the future.

34 http://www.fondazioneinnovazioneurbana.it/en/project/districtlabs
35 http://www.fondazioneinnovazioneurbana.it/en/project/ulabproject
36 https://www.fondazioneinnovazioneurbana.it/images/2022_FIU_ChiSiamo/2022_FIU_BROCHURE_PRESENTAZIONE_INGLESE.pdf
4.2.3 Potential interventions in Bologna

In Bologna, the interventions will focus on involving target groups for embracing a shared vision of what is defined as beauty in the built environment, to enable them to conceive, plan and implement courageous and long-term actions.

For achieving these goals, the Bologna LAT will organise co-design activities for contributing to the participatory process of city transformation. These activities will be mainly based on work tables, surveys and interviews, ethnographic on-site observations, seminars, workshops (such as “UTOPIE REALI”), and living labs.

The final outcomes of these initiatives will be reports, charts, drawings, graphic, visual and practical experiments to explore the perceptions of citizens and stakeholders with regard to the concept of beauty and its assessment by different stakeholders in different space-temporal contexts. In terms of practical experiences, punctual interventions based on the Tactical Urban Planning approach will be developed (such as the transformation of Piazza Rossini parking in a grass field in the historical centre, in the framework of the “ROCK” project).37

In this co-design process, the role of STEAM teams is crucial, especially for the city of Bologna, where the world’s first university was founded in 1088, and which still sees a huge influx of international and interdisciplinary students. STEAM teams will be asked to produce ideas, visions, sketches and design concepts for the urban reshaping of selected open areas in Bologna, in cooperation with young professionals where relevant. These actions will be shared within the framework of public events involving local authorities, citizens, and other relevant stakeholders to share and converge on possible interventions of urban re-shaping in open (green) areas, streets, and abandoned urban spaces.

4.3 Sandboxing in Prague

4.3.1 Prague’s focus

In Prague CVUT will build on the city’s learning experience of being a Fellow City in the first-generation H2020 Smart Cities and Communities Lighthouse project, Triangulum38, and the positive experiences generated by the Urbania39 interactive city exhibition that involved citizens and professional stakeholders in exploring how to replicate good practices from other projects. The next generation of the

38 https://triangulum-project.eu
exhibition will take place in accessible public spaces to engage diverse groups of people. Interactive exhibits will be distributed throughout the city to reach people of various socio-economic backgrounds and will be co-created with local students and key stakeholders.

In addition, Prague will further develop its Mutual Learning Exercises between real estate investors and local authorities in WP4. NEB impacts are dependent on the ability of citizens, jointly with investors and property owners to positively influence urban regeneration projects. In practice this requires a transparent, trustworthy and cost-efficient mechanism for negotiation between all parties involved in the project. The mechanism is conditioned by functional ecosystems and culture of cooperation resting on established governance models. This method will be further tested and expanded including cultural sector methods - both within the city, for replication with the other Sandbox and Reference Cities, and uptake in the SCGP-NEB Edition.

4.3.2 Selection of pilot projects

Prague selects potential pilots using the following criteria.

1. Pilots should come from and use the learnings from previous Smart City and Urban Transformation projects. Prague participated as a follower city through the Institute of Planning and Development of Prague and implemented several urban experiments, pilots and innovation projects coordinated by Smart Prague team at Operator ICT Prague. These projects generated valuable lessons on challenges related to implementing systemic changes and driving broader urban transformation. Interviews with stakeholders involved in SCC1 project Triangulum will be the base for selecting pilots in Prague. These interviews will be part of the quickscan which is part of the Sandbox City approach.

2. Pilots need to fit in the concept of the interactive Urbania exhibition. The concept enables replicating the learnings generated by direct involvement in pilot projects to a broader audience through creating a transformative experience. The exhibition was designed together with the local creative sector and social scientists. The emphasis was put on space for reflecting the experience with other participants and translating the lessons into professional and personal life.
4.3.3 Potential pilot projects

Prague preselected three pilot projects that align with the selection criteria. All projects primarily focus on boosting social and organisational learning related to urban transformation. These projects will test tools and frameworks for creating transformative experience in local stakeholders to develop a shared understanding of local challenges, available solutions and role of local stakeholders in implementing them. All projects have a strong emphasis on close collaboration of organisations active in the area of Smart cities and urban innovation with local artists and creative sector.

4.3.3.1 Smart Prague Centre (SPACE)

Smart Prague office at the Operator ICT is designing a centre that will provide physical space for presenting challenges of the city in the area of sustainable development and showcasing urban innovations that can address them or are already being implemented in Prague. The centre will host an innovation team serving municipal organisations and working closely with local NGOs, academia, businesses and citizens on co-creating and implementing innovative solutions in Prague. SPACE will include exhibition spaces with audio-visual equipment and dedicated co-creation spaces. The centre will put emphasis on close cooperation with the creative sector and utilising art as means of communicating complex issues to a broad array of stakeholders. The centre is intended to be built in a
historical market/warehouse space in the centre of Prague and is part of a broader renewal process. It will interact with other projects in the area and utilise open public spaces to test and demonstrate small scale interventions and to conduct urban experiments together with local partners and the creative sector.

Figure 16: Historical market/warehouse space in the centre of Prague

The centre will also host “Data hub” - dedicated co-creation space for engaging local authority, key stakeholders and citizens in co-creating services and solutions based on Prague’s open data and the Golemio.cz data platform.

4.3.3.2 Exhibition focused on process learning

Prague plans to follow up the Urbania exhibition with a project focusing on taking the concept to public space and deepening systematic collaboration with the creative sector. The exhibition will present selected challenges in the area of sustainable development, trends, examples from partner cities and proposed interventions. The goal is to create a repeatable process of designing and producing exhibitions as a part of urban innovation projects - as a tool of process learning. The pilot project focuses on co-designing the framework for “Process learning exhibitions” that will help create transformative experience in relevant stakeholders leading to social and organisational learning. The learning generated by these exhibitions aims to empower local stakeholders to implement
coordinated changes and adopt new sustainable, creative and inclusive solutions.

4.3.3.3 NEBfying development project in Horní Počernice district

Last potential pilot seeks to implement NEB principles into a planned development project in Horní počernice district.

The project in Dolní Pocernice is overseen by Prague’s municipal development company (PDS). In 2028, the total area will be 13ha, of which 4ha green space and 30,000m² dwellings owned by PDS. The project is linked to Horizon Europe ASCEND focused on positive energy districts.

The exercise in CrAFt will include engaging key stakeholders in looking for concrete ways to implement NEB in the project both in the design phase (making the process creative, sustainable and inclusive) and in the design of the district itself. The main focus will be on social and organisational learning of key stakeholders of the project. The pilot will help identify and implement systemic governance changes related to the implementation of NEB in development projects in Prague. The project presents an opportunity for engaging the creative sector and student STEAM teams.
4.3.4 Prague LAT

Prague established an Innovation Team for NEB early in 2021 which will take on the role of LAT in CrAFt. The core of the team is formed by city departments, municipal subsidiary organisations and companies, and representatives of the academia. The members include:

- Smart Prague Office, Operator ICT Prague (coordinator of the innovation team)
- Municipal departments for
  - Culture
  - Project management
  - Environment
  - International cooperation and diplomacy
- Institute of Planning and Development of Prague
- Creative Prague
- Prague Development Company
- Prague Innovation Institute
- The Czech Technical University in Prague

The goal of the group is to coordinate implementation of NEB across organisations and projects of the city, enable process learning and exchange on local level, coordinate international cooperation and align roles and competences of key organisations in implementing Collaborative Governance and NEB. The group meets regularly at least every two months and organises dedicated sessions around specific projects or challenges.

Prague Innovation Institute together with Creative Prague organise quarterly meetings with a broader stakeholder ecosystem to engage NGOs, businesses, municipal districts, cultural organisations and academia. Prague aims to further develop its Innovation team model including templates for meetings, activities, memorandums and events and share this with the CfAfT cities.
5. Conclusion

In this document we have presented the common approach to pilot and intervention selection for the CrAfT Sandbox Cities. The three CrAfT Sandbox Cities, Amsterdam, Prague and Bologna, are places where we will experiment and refine models for local collaborative governance that make it possible to realise the NEB objectives of making cities climate neutral, inclusive and beautiful. Our approach to Sandboxing contributes to the scaling of NEB and specifically NEB local collaborative governance models. On the level of urban development projects we will strive to scale deep and to develop a shared understanding of new practices that lead to actionable changes in the governance of emblematic NEB projects. By engaging broader groups of stakeholders at various levels (local, national and international) we will contribute to scaling up. Finally, we will contribute to scaling out by developing impact stories and contribute to the Smart Cities Guidance Package: NEB edition that inspire and foster learning from our experiences and those of our partners in the Sandbox Cities.
References


Annex 1

A CO–CITY Protocol

The “CO–CITY Protocol” envisages six phases: cheap talking; mapping; practicing; prototyping; testing; modelling.

Figure 6: The CO–CITY Protocol © LabGov

The “CO–CITY” project implemented in Bologna was the first project LabGov followed, focusing on the development of initiatives according to the “City as a Commons” approach.

The basic principle is that the commons can be an infrastructure for experimentation, giving rise to new institutions and new economic initiatives based on the idea of cooperation, sharing, collaboration and coordination among peers.

“CO-Bologna” was applied to 3 experimental sites in the city through relevant and valuable collaboration paths: Bolognina, Pilastro, and Piazza dei Colori, within the municipal policy “Collaborare è Bologna” (http://www.comune.bologna.it/collaborarebologna/).
Annex 2

Summary of integrative framework for collaborative governance

Emerson *et al.* (2012) suggests that the presence of four drivers will encourage parties to undertake collaboration in the first place. These drivers include:

- **Leadership**: a leader to initiate the collaboration and secure resources and support for the collaboration. The leader can be a member of one of the organizations involved or a representative of a trusted third party. Emerson *et al.* (2012) emphasize the importance of the leader’s: commitment to the collaborative process, preparedness to remain impartial with regard to the solution selected and the preferences of participants, and preparedness to absorb the high transaction costs for starting the collaboration.

- **Consequential incentives**: internal (problems, resource needs, interests or chances) and external (situational or institutional crises, threats of chances) drivers. Of importance are the salience to actors, the timing and the realization that ignoring them would lead to negative impacts or missed opportunities. An example of an incentive could be a new funding opportunity.

- **Interdependence**: the realization that objectives could not be achieved without the contribution of other parties.

- **Uncertainty**: issues that cannot be resolved internally can drive groups to collaborate in order to reduce, diffuse, and share risk.

*Figure 1 Integrative framework for collaborative governance (Emerson et al. 2012)*
Collaboration Dynamics

Emerson et al. (2012) distinguish three aspects of collaboration dynamics.

- **Principled engagement:** this describes a situation where actors with different content, relational and identity objects work across institutional, sectoral and jurisdictional boundaries to solve problems, resolve conflicts and create value. It is considered of central importance to involve the right people and to follow the next four steps iteratively:
  - Discovery: mapping the individual and shared interests, concerns and values.
  - Definition: building shared meaning by explicating shared goals and ambitions; making agreements on language and concepts; clarifying and adjusting tasks and expectations of one another; determining criteria to evaluate information and alternatives.
  - Deliberation: this is more than the aggregation of interests. It includes the studying of interests, listening to the perspectives of others and reaching a well thought-out decision regarding the shared interest.
  - Determination: making decisions about procedures (agenda setting, creating working groups) or content (action points or final suggestions)

- **Shared motivation:** this describes the interpersonal and relational aspects of collaboration, or the social capital. Four elements are important here:
  - Trust: arising from principled engagement and further develops as parties collaborate and get to know each other. Contributes to mutual understanding, which contributes to legitimacy and commitment.
  - Mutual understanding: the ability to understand and appreciate the differences in others.
  - Legitimacy: the confirmation that stakeholders in a collective project are trustworthy and credible, with interdependent interests, legitimizes and motivates the collaboration. Here shared norms and reciprocity are important.
  - Commitment: joint orientation towards a shared path making it possible to cross organizational, sectoral or jurisdictional borders.

- **Capacity of joint action:** this describes a new capacity of collaborative action that did not exist previously and makes it possible to reach objectives. This is comprised of four cross-functional elements creating the potential for effective action:
  - Procedural and institutional arrangements: procedures, protocols and organizational structures – both formal and informal. These are
needed to manage repeated actions over time. These concern the ways of working both within as between organizations.

- **Leadership:** several types are needed: sponsor, convener, facilitator, representative of an organization or community, translator of science, technologist. The form that this takes depends on the phase and situation.

- **Knowledge:** this concerns shared knowledge which focuses action. This is the result of a process of collecting, separating and sharing relevant knowledge as well as the generation of new shared knowledge.

- **Resources:** financial recourses, but also time, technical, organizational, logistical and administrative support, competencies for the analyses of implication, expertise etc, power. This concerns sharing these resources to reach the objective of the collaboration.