



T-FACTOR PILOTS

REGENERATION PROJECTS
MASTERPLANS
TEMPORARY USES



Executive summary



This document outlines the key points for the planning and implementation of meanwhile uses in the context of six early-stage regeneration projects across different European cities. It results from research work developed in **T-Factor**, a **Horizon 2020** project that seeks to boost temporary uses as a driving force for more sustainable, thriving, and resilient urban regeneration.

The document dives into the masterplan vision and local context of these urban redevelopments, namely the **Aleksotas Innovation Industry Park** in Kaunas, **Amsterdam Science Park**, **Euston** in London, **MIND Milan Innovation District**, **Trafaria** in Lisbon and **Zorrotzaurre** in Bilbao. In T-Factor, these are the so-called **Pilots**: historical urban areas characterised by different degrees and forms of abandonment and decay in the past decades, and now under early stages of regeneration processes that will transform them into cultural and creative hubs, though with different positionings and connotations of ‘culture’ and ‘creativity’. These areas are about to be impacted upon by an overall financial investment that exceeds ten billion euros, providing an indication of the breadth of the physical interventions envisaged and the variety and complexity of interests, challenges, risks, and opportunities at play.

Developing an international platform of meanwhile city-making support, mentoring and knowledge exchange and engaging with local partners and stakeholders, **T-Factor** will co-produce temporary or **meanwhile spaces** in these **six regeneration areas** through participatory methodologies. These meanwhile spaces will turn the waiting time in urban regeneration into a transformative time of innovative placemaking.



T-Factor has received funding under HORIZON 2020 Research & Innovation programme with Grant Agreement No. 868887

Authors

Editors:

Karla Berrens, Blanca Calvo-Boixet, Vasilis Niaros and Ramon Ribera-Fumaz (UOC)

Aleksotas report:

Aiste Eidukeviciute (KTU), Karolina Senkiene (KMSA), Ruta Valusyte (KTU), Jurate Tutlyte (VDU), Kestutis Zaleckis (KTU), Angelica Peccini (KTU)

Amsterdam Science Park report:

Chris Julien, Rosalie Bak (Waag)

Euston report:

Rhianon Morgan Hatch, Melanie Dodd, Adam Thorpe, Jerneja Rebernak (UAL)

MIND report:

Elena Bologna, Valeria Soliano (PlusValue)

Trafaria report:

Guilherme Teixeira da Silva Costa (NOVA)

Zorrotzaurre report:

Asier Larrinaga, María Jesús del Blanco (Bilbao Ekintza)

Graphic Project and Visuals

Valentina Frosini

Illustrations credits

pch.vector / Freepik



The information, documentation and figures in this report are written by the T-Factor consortium under EC grant agreement n° 868887 and do not reflect the views of the European Commission. The European Commission is not liable for any use that may be made of the information contained herein.

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

T-Factor

PARTICIPATORY FUTURES REGENERATING CITIES WITH TEMPORARY USES

T-Factor is a **Horizon 2020 Innovation Action** dedicated to the topic of **temporary or meanwhile uses in urban regeneration**.

In the project, we argue that the time factor in urban regeneration can become a strategic asset when it is used as a means of collective place prototyping in light of stable uses and functions. It's a win-win situation for all stakeholders - governments, developers, academia, business, grassroots communities and citizens.

Our mission is to build a full portfolio of tested innovations embracing design, organisation, management, governance, funding and regulatory aspects of temporary spaces, so as to contribute to unlocking their transformative potential toward inclusive, sustainable and thriving cities.

[Discover more](#)

TERMINOLOGY NOTE

At European level, the topic of temporary uses in urban regeneration is a field of action, policy making and research that still lacks consolidated concepts, terminology and unambiguous understanding. Historically, the terms used to describe the reuse and reactivation of vacant, leftover and unused spaces in cities have been many, such as 'temporary use', 'interim use', 'pop up use', 'transient use' and the more recent term 'meanwhile use'.

Moreover, language and geography also matter, with place-based terms such as 'tiers lieux', 'broedplaats', 'spazi occasionali' that might get lost in translation, therefore adding to ambiguity and misinterpretation. In this Portfolio we mainly use terms such as 'temporary use', 'temporary spaces', 'meanwhile use', 'meanwhile spaces' interchangeably to generally refer to activities that take place in blank, vacant and unused spaces in cities.

However, this Portfolio explores a specific type of temporary spaces: those spaces that, in the context of urban regeneration processes, are temporary for a predefined period of time, and where permanent uses are somehow already defined in masterplans and planning documents. In the Portfolio, we often use terms such as 'spaces in waiting', 'waiting spaces' and 'waiting time' to refer to this specific type of spaces.

/TABLE OF CONTENTS



INTRODUCTION

8



PART 1 T-FACTOR PILOTS OVERVIEW

11



PART 2 PILOTS DEEP DIVING

25

| ALEKSOTAS INNOVATION INDUSTRY PARK – KAUNAS

| AMSTERDAM SCIENCE PARK

| EUSTON – LONDON

| MILAN INNOVATION DISTRICT

| INSTITUTE OF ART AND TECHNOLOGY AT TRAFARIA – LISBON

| ZORROTZAURRE BILBAO



PART 3 CROSS-CUTTING ANALYSIS

161

1. INTRODUCTION

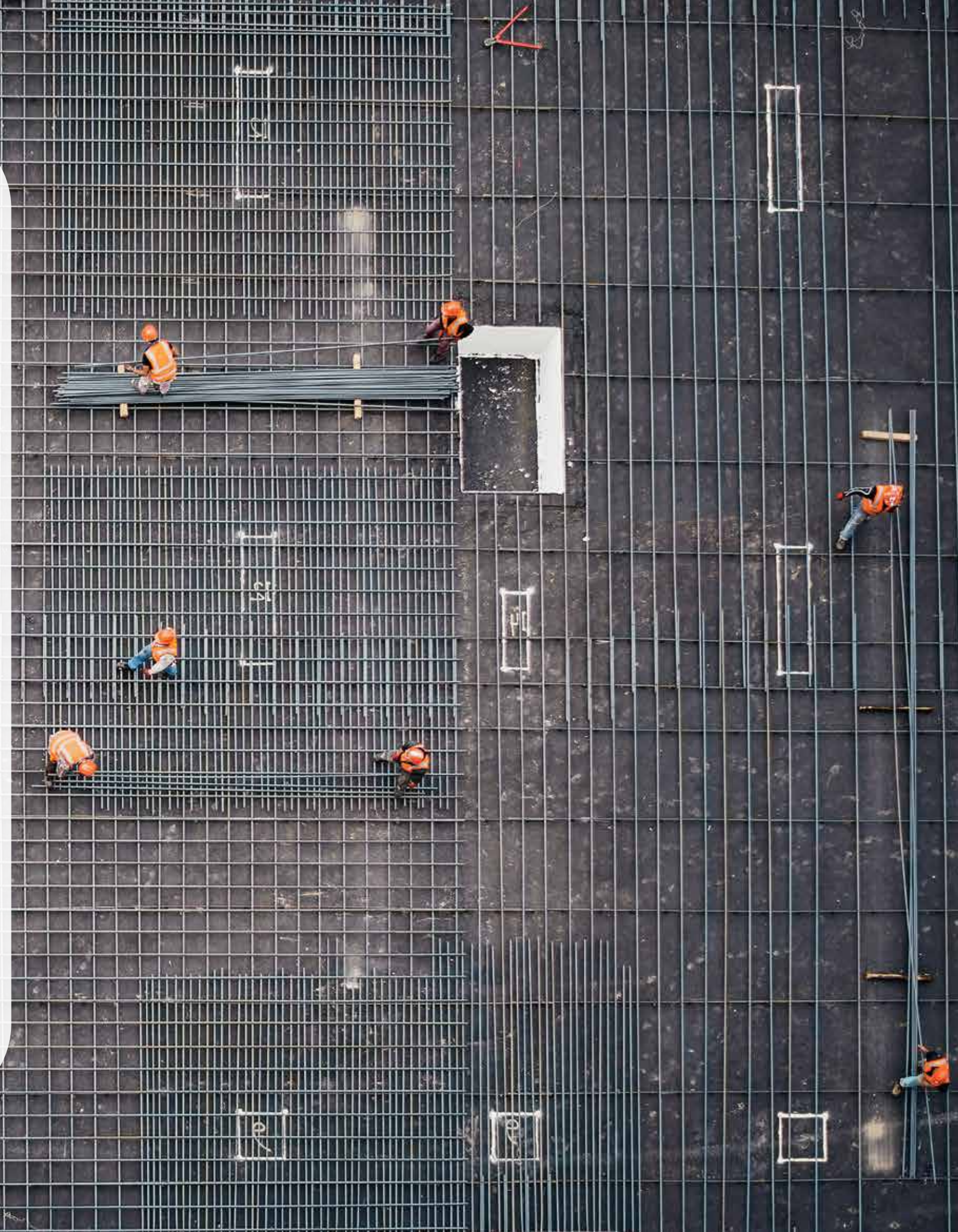
2. MEANWHILE USES IN THE PILOTS

3. CROSS-CUTTING CRITICAL ELEMENTS

4. A POST-PANDEMIC CITY

REFERENCES

174



Intro



This document analyses six early-stage regeneration projects in different European cities: the **Aleksotas Innovation Industry Park** in Kaunas, **Amsterdam Science Park**, **Euston** in London, **Milan Innovation District MIND**, the **Institute of Art and Technology at Trafaria** in the Lisbon metropolitan municipality of Almada and **Zorrotzaurre** in Bilbao.

These redevelopments are taking place in urban areas characterised by different degrees and forms of abandonment and decay in the past decades: former industrial areas such as Aleksotas and Zorrotzaurre; areas characterised by spatial fragmentation such as the Amsterdam Science Park and MIND; transport hubs such Euston or an abandoned prison in Trafaria where the Institute of Art and Technology will settle. All these projects aim to create vibrant cultural and creative hubs, yet with different positionings and connotations of 'culture' and 'creativity'. These are the T-Factor's pilots. In the next few years, T-Factor will co-produce temporary or **meanwhile spaces** through participatory methodologies, meant to turn the '**waiting time**' of urban regeneration into a transformative time of radically new, collective, city-making.

In particular, this document dives into the six pilots' local context and key characteristics, as well as into the regeneration vision and redevelopment plans. The focus on understanding the six different stories, visions and challenges is very important for T-Factor. Against the backdrop of global urbanism models that often reproduce one-size-fits-all solutions, **T-Factor** brings forward a bottom-

up approach embedded in the uniqueness of each urban context. Therefore, this document aims to provide the necessary background information to ensure that the T-Factor project can implement meanwhile uses that are meaningful and relevant to the six pilots.

The document is organised as follows. In the next section we will introduce the six T-factor pilots through a site snapshot and a factsheet that contains basic information about the areas. This is followed by six, in-depth reports of the pilots, each organised in four core sections that explore:

- Local context: we examine the pilot sites and their social, economic, and cultural profile.
- The regeneration project: we dive into the regeneration vision, the actual development, and the role of participation processes so far where relevant.
- Meanwhile uses: we focus on the 'meanwhile' dimensions of the projects, by looking at the existence of meanwhile spaces or strategies; second by mapping out the actors and participation processes in the area; third by identifying the assets and challenges that may help or make it difficult to implement build effective meanwhile strategies as well as existing challenges that can be addressed through meanwhile startegies.
- Conclusions: each report ends up with closing remarks made by the local research teams.

In the last chapter, rather than looking at the singularity of each pilot, we provide a transversal analysis. First, we will reflect on the existing meanwhile uses experience across the pilots. Second, we will explore five critical elements that need to be considered to produce successful meanwhile spaces and regeneration processes: local communities' participation in the co-design of meanwhile spaces; the necessity to think beyond the local; the different approaches to creativity; the importance of public spaces; and the role of nature in rethinking urban transformation. These are topics that, across the pilot sites, appear as shared challenges. We will conclude with a general reflection on the pilots and these topics in relation to urban transformation in post-pandemic times.

Methodology

This report results from eight months of research work carried out in the six T-Factor's pilot sites. Coordinated by the Universitat Oberta de Catalunya team, there has been a team of researchers at each pilot city. Research in Aleksotas was carried out by a team from the Kaunas University of Technology, in Amsterdam Science Park by Waag, Euston by the University Arts London, MIND by PlusValue, Trafaria by NOVA University and in Zorrotzaurre in Bilbao Ekintza.

For each location, local teams carried out in-depth qualitative and quantitative study for each project. Supporting each of these six teams, there has been an UOC researcher. The research first step consisted of a thorough review of each Pilot by the local teams. This included data collection on social, economic, and spatial developments, as well as review of relevant policy and research documents. After the data collection phase, UOC created fieldwork research guidelines to provide support for the on-site case study teams.

After finalizing this fieldwork stage, each local team developed an extended research document that has become the basis for this publication. All reports have been compiled with information obtained from different

public documents, public information on Pilot cities and their economic and social agents, as well as the analysis of the information obtained through meetings with municipal representatives and economic, cultural, and social agents on the Pilot's cities. These documents were transversally analysed by the UOC team to identify critical aspects regarding temporary use strategies in urban redevelopment processes.

Acknowledgments

We are grateful to all the people who contributed to this report by making available and openly sharing their own experience, knowledge, and points of view. Indeed, these people are just a small part of the broader ecosystem of actors and stakeholders at stake in each regeneration site; their insights and points of view do not embrace the much richer spectrum of voices and stories that certainly exist across the T-Factor Pilot Cities.

Yet, their contributions are extremely helpful for T-Factor to unpack the vivid local ecosystems around the six regeneration projects and, through meanwhile uses and spaces, start building participatory urban futures together. We hope in this report none of the voices heard have been neglected and none of the findings misinterpreted. The authors remain fully responsible for the content of this document.



PART 1

T-Factor

PILOTS

OVERVIEW



ALEKSOTAS INNOVATION INDUSTRY PARK (AIIP)

City: Kaunas
Country: Lithuania
Scale: ~30 Ha
Budget: €15,83M: €5,45M of national funds + €10,38M of EU funds
Promoters: City of Kaunas. Park operator yet to be determined
Land: Owned by Kaunas Municipality
Location: An old military airfield in the Aleksotas district
Vision: To create an Innovation Industrial Park that can become a landmark in Lithuania for academic and innovation research and development
Timeline: 1. Establishment phase (2018 - 2023)
2. Development phase (2022 - 2046), divided into three stages:
I. 2022 – 2031 (10 years)
II. 2032 – 2041 (10 years)
III. 2042 – 2046 (5 years)

KAUNAS Lithuania



AMSTERDAM SCIENCE PARK (ASP)

City: Amsterdam

Country: The Netherlands

Scale: 70 Ha

Budget: €570M: €220M in 2010-2016 and €350M in 2017-2022

Promoters: City of Amsterdam, University of Amsterdam and the Netherlands Organisation for Scientific Research

Land: City of Amsterdam, University of Amsterdam and the Netherlands Organisation for Scientific Research

Location: Amsterdam Science Park is on the outer part of Amsterdam, situated adjacent to an ecological passageway that connects the biodiverse regions to the south and east of Amsterdam with the waterways and regions to the north of the city

Vision: The plan aims to enhance 'the ecosystem for innovation' with 'human and non-human interaction' and 'integration into the urban fabric', as well as the 'interaction environment' as part of 'colouring' the area. The goal is to reframe the value of urban development away from gentrification towards an inclusive idea of 'liveliness' and nature-based solutions

Timeline:

- 2003 Masterplan approval
- 2019 Masterplan revision finalised
- 2028 End of the development

AMSTERDAM The Netherlands



EUSTON

City:	London												
Country:	UK												
Scale:	24 Ha												
Budget:	£52M												
Promoters:	Lendlease												
Land:	The railway station is owned by the Department for Transport and Network Rail												
Location:	Around the Euston Railway Station, Borough of Camden, London, UK. Euston Railway Station is the UK's busiest intercity railway station and the chosen Southern end of the High Speed 2 train line connecting London with Manchester, Birmingham, and Leeds												
Vision:	The regeneration of Euston is multifaceted however, the works around HS2 are central to the vast changes in the area, and the project has been described as an 'infrastructure led regeneration project' by the developers Lendlease who are leading on the design of the Over Station Development. Its main axis is a transport hub, Euston station												
Timeline:	<table><tr><td>2012</td><td>Start of compilation of information</td></tr><tr><td>2017</td><td>H2S project go ahead</td></tr><tr><td>2023</td><td>Area plan due to be finalised</td></tr><tr><td>2026</td><td>Works to start</td></tr><tr><td>2033</td><td>H2S finalised</td></tr><tr><td>2040</td><td>Development finalised</td></tr></table>	2012	Start of compilation of information	2017	H2S project go ahead	2023	Area plan due to be finalised	2026	Works to start	2033	H2S finalised	2040	Development finalised
2012	Start of compilation of information												
2017	H2S project go ahead												
2023	Area plan due to be finalised												
2026	Works to start												
2033	H2S finalised												
2040	Development finalised												

LONDON UK

MILAN INNOVATION DISTRICT (MIND)



City:	Milan
Country:	Italy
Scale:	100 Ha
Budget:	€2B public investment from the market value of 2015 Expo Buildings and Infrastructure + €2.6B private investments €250M NPV for surface right, €135M for urbanisation costs + all costs Lendlease will face for the construction)
Promoters:	Arexpo and Lendlease
Land:	Owned by Arexpo (Ministry of Economy and Finance (39.28% shares), Lombardy Region (21.05%), Municipality of Milan (21.05%), Milan Fair Foundation (16.80%), Città Metropolitana di Milano (1.21%) and the Municipality of Rho (0.61%)
Location:	The former site of Milan's 2015 World Expo, situated in the northern edge of the Milanese greenbelt, and represents a cornerstone in the connection between the Parco Agricolo Sud and the Parco delle Groane and the motorways to Turin, Lugano and Malpensa Airport
Vision:	Fostering economic growth and social progress, building on the scientific and industrial strengths of Milan and broader Lombardy region, and realigning the country to global technological and innovation trends. Also becoming a city-scale lab to experiment with new solutions for urban living.
Timeline:	2017 Masterplan design start 2021 Completion of Galeazzi research hospital 2025 Completion of scientific campus of the University of Milan Statale 2031 Completion of the development

MILAN Italy



INSTITUTE OF ART & TECHNOLOGY AT TRAFARIA (IAT)

City: Almada, Lisbon
Country: Portugal
Scale: 1,115 sqm
Budget: €11M: 40% from public sources (ERDF and Cohesion Fund) and 60% from private funds
Promoters: NOVA University and City of Almada
Land: City of Almada
Location: Nossa Senhora da Saúde da Trafaria Fort or Presidio, a former jail in the parish of Trafaria, Almada Municipality
Vision: To create an Art and Technology School that can become an international reference for teaching, research, and innovation practices in digital arts, while supporting local communities with skills development and educational programmes
Timeline: 2020-2024

LISBON Portugal



ZORROTZAURRE BILBAO

City:	Bilbao
Country:	Basque Country
Scale:	84 Ha
Budget:	Public investment of €197M exclusively dedicated to urbanisation works. There is not yet a comprehensive budget for refurbishments, new buildings and to attract investors
Promoters:	public-private-partnership
Location:	Zorrotzaurre is an artificial island in Bilbao's Estuary, it is a former industrial area, mostly related to the port activities, in the outskirts of Bilbao.
Land:	Phase 1: 51% of land is publicly owned (Municipality of Bilbao and Basque Government) and 49% privately owned
Vision:	To create the first urban innovation district in the Basque Country. The city aspires to create a space where people can enjoy a wholesome life in the best possible environment, become the young and creative district of Bilbao and to utilize it as an urban lab as a gateway to the future of cities.
Timeline	2004 Masterplan approved 2007 Masterplan revised 2012 Implementation starts 2052 Expected end date

BILBAO Basque Country



PART 2

Pilots

DEEP

DIVING

ALEKSOTAS INNOVATION INDUSTRY PARK (AIIP)

Lithuania's T-Factor's pilot is the Aleksotas Innovation Industrial Park (AIIP) located in Kaunas, Aleksotas district. This pilot is in a very preliminary stage; the Development Plan, which is the main document that will define the guidelines for the developers and investors coming into the AIIP, is expected to be ready in the beginning of 2022.

With an extensive timeline divided in four stages, this development is meant to last until 2046. The AIIP will be the first innovation industrial park in the city oriented towards low carbon companies that create high intellectual added value like scientific research and experimental development projects.

Recreation zone



Direct program

1. LOCAL CONTEXT

Kaunas is the second biggest city in Lithuania. It is located at the intersection of the two longest rivers of the country, Nemunas and Neris. The landscape of Kaunas is quite special; driving across city districts, one may experience rivers' valleys, green slopes, and curvy riverbanks.

Aleksotas district is located in the Southern part of the city, on the upper terrace of the Nemunas river. The convenient geographical location of Aleksotas ensures good accessibility for both foreign and local markets. Kaunas has a well-developed infrastructure network, with corridors belonging to the Trans European Network. The rail network contains the section of Rail Baltica, which branch reaches the Russian border. The second-largest international airport in Lithuania operates in Kaunas. This multi-layered infrastructure network provides good opportunities for the development of logistics and other businesses.

LOCATING ALEKSOTAS

Kaunas city is divided into 11 elderships: Aleksotas, Centras, Dainava, Eiguliai, Gričiupis, Panemunė, Petrasai, Sanciai, Silainiai, Vilijampolė, Zaliakalnis. Its size takes 24 sq. km, which is 15,3% of the whole Kaunas territory. 8,2 % of Kaunas' population lives in Aleksotas (23 794 inhabitants, source: Aleksotas Eldership data, 2021). Aleksotas eldership is divided into smaller administrative units: Aleksotas, Birute, Kazliškiai, Freda and Marvele. Its site is located in the Freda sub-eldership.

The AIIP territory is **relatively close to the old town and the city centre**. It takes only 7 minutes by car to get to the train or bus station, 10 min to reach the old town,

Kaunas University of Technology campus, 15 min. to the Lithuanian University of Health Sciences, less than 30 min to drive to the airport. All the main interest locations are in proximity for car users, however, moving around via public transportation is arguably difficult. The commuting time to the same destination doubles, and sometimes even triples, when using public transport. Nonetheless, Kaunas city is relatively small, which makes it very convenient to live in.

Aleksotas district used to be a quiet separated area from the rest of the city, therefore its urban morphology consists mainly of low rise monofunctional buildings, mostly residential. The situation changed in 2002, once the second bridge (M.K.Ciurlionis bridge) crossing the Nemunas River was completed. This new connection brought Aleksotas closer to the city by making the area more accessible. Since 2015 the city of Kaunas is putting a great effort and investment into upgrading the roads, providing missing water and sewage supplies. Due to Aleksotas proximity to the city center, it became an appealing location for housing development attracting many young families to move in.

There are some cultural and historical sites, industries and commercial activities, however, the area remains mostly monofunctional. Nevertheless, a growing demand for urban amenities is eventually going to facilitate diversification.

SOCIAL, ECONOMIC AND CULTURAL PROFILE

Kaunas is a centre of industry, trade, and services in Lithuania. The most developed industries include the food and beverage

industries, textile and light industries, chemical industry, publishing and processing, pharmaceuticals, metal industry, wood processing, and furniture. Recently, information technology and electronics have become part of the business activities taking place in Kaunas. In addition, the city also has a large construction industry, which includes, but is not limited to, commercial, housing, and road construction.

Students constitute 12% of Kaunas' population. Together with teachers, the high percentage of well-educated inhabitants' shows that Kaunas is a hub of knowledge and innovation (source: AIIP feasibility study). There are three big knowledge institutions that attract new talents to Kaunas who later on could have an opportunity to carry on their careers in the AIIP (Kaunas University of Technology, Health Sciences, Vytautas Magnus university agriculture academy).

The community of Aleksotas is getting younger, educated, and talented people are diversifying the current social profile. Aleksotas is becoming a prestigious area where to live in due to its proximity to the city centre and favourable housing market conditions. It is becoming a place especially for the middle class. As young people are more and more inhabiting the area, its potential is increasing rapidly. At the same time the demand for new services grows. Following the establishment of the AIIP, this tendency is likely to accelerate, making a huge impact on the social, cultural and economic profile of the whole district. Aleksotas community is very strong and active. It organises many events for the locals, gathers inhabitants for common activities.

Aleksotas has a few cultural and recreational attractions:

- VMU Botanical Garden
- The valley of Marvele creek
- Naugardiskiai and Antakalnis Parks
- Linksmadvaris square with a pond and

artist's A. Kuliesas sculptures

- Aleksotas funicular (only two of them are in the city, and both still in use)
- I, II, III Forts and supporting infrastructure as barracks, ammunition depots, etc of the Kaunas Fortress complex
- Jiesia mound; Historical Military Technology Museum
- Aviation Museum of Lithuania
- The S.Darius and S.Girenas airport used to be the military airport. It is the oldest functioning airport in Lithuania, established in 1915, making it one of the oldest airports in Europe. It has a status of cultural heritage. At the moment it is used for sports and tourism aviation purposes.

The territory of the Aleksotas Innovation Industrial park is a historical site known not only because it used to be a testing site for helicopters. Park's territory and its surroundings preserve the history of the Kaunas Fortress.

Kaunas Fortress is a fortress complex that was constructed between 1882 and 1915 to protect the Russian Empire's western borders (source: wikipedia.org).

Ammunition and gunpowder warehouses that are located on the North of the site, still remain. One of the warehouses is going to be transformed into the workshop and the administrative office of the "Kaunas Fortress". Other warehouses are abandoned and not used, however, they contain a great potential to be adopted to the public needs, events, etc. Public institution "Kaunas Fortress", which is responsible for the management of the Fortress complex, is actively working on finding ways to bring this heritage back to life and serve the current needs. This Fortress complex in combination with the AIIP development could create a significant recreational area not only for the future AIIP talents but also for the citizens of the whole city.

2. REGENERATION PROJECT

At this point in time the AIIP is still not fully defined. There are, however, a few key aspects of its development that are pivotal in the project.

The development of the AIIP is based on the national strategic goals that are the following:

- Promotion of direct foreign and domestic investment.
- Development of the production and manufacturing sector and increase of competitiveness.
- Promotion of medium and high technology manufacturing sectors.
- Creating favourable business conditions and improving existing conditions (both in the field of legal and bureaucratic regulation, as well as in the development of infrastructure and access to finance);
- Increasing exports and finding new markets.

In order to attract investments and investors, Kaunas needs to create appealing conditions for them and their businesses. One of the methods to achieve that is by creating industrial parks. The establishment of the Industrial Park is an important project throughout the country, as it can contribute to the implementation of the national strategic goals and objectives of the Republic of Lithuania.

In December 2020, the AIIP received national importance status. It means that the AIIP is recognized as a project contributing to national economic goals. The Park is going to be designated to low carbon companies that create high intellectual added value like scientific research and experimental

development projects. Three main directions are drafted: Biotechnology, bio-pharma and bio-food, although not yet confirmed.

See AIIP stages and indicators table here: https://docs.google.com/document/d/1eNBNUZNYqJvX5F1iS_IzwoFIRYUSJKz3/edit

2.1 DEVELOPING THE VISION

The goal of the AIIP development is to convert the former military base into an industrial innovation area designated to low carbon companies that create high intellectual value through scientific research and experimental projects. Three main directions are drafted: biomed, bio-pharma and bio-food.

The main document that will define the guidelines for the developers and investors coming into the AIIP is the Development Plan. It will contain various chapters, of which one will be a description of the urban vision. This document is also essential in defining the role of meanwhile uses in AIIP development. The content of the Development plan is clearly defined in Article 91 of the Law on Investments of the Republic of Lithuania, which defines the establishment of the Industrial Park.

Article 91 (5) states:

The industrial park development plan must specify the industrial park development goals, objectives, evaluation criteria and their meanings, as well as:

- 1) the types of economic and commercial activities envisaged in the industrial park;
- 2) ways to promote investment in the industrial park;

3) peculiarities of selection and use of industrial park plots (plots for infrastructure, business development, etc.);

4) efficiency criteria of the industrial park;

5) industrial park development measures;

6) the founder of the industrial park established by the laws of the Republic of Lithuania intends to create special investment, business and other conditions for the economic entities operating in the industrial park;

7) other information.

The estimated timeline for the project is divided into four stages, out of which one is an establishment phase and three are development phases.

ESTABLISHMENT PHASE (2018 - 2023)

The establishment of the park started in 2018 when Kaunas Municipality made the legal decision to start establishing the innovation industry park. The estimated end date of the establishment phase is 2023. During this phase, the city is going to:

- Develop infrastructure: underground facilities (electricity, sewage, water, rainwater drainage), 8 streets with sidewalks, bike paths, street lighting, and streets.
- The abandoned helicopter production facility is going to be renovated and adapted for the FlexStart type of office use.
- Legal procedures and documentation needed for the establishment of AIIP.
- The Development Plan - guidelines for the developer. This document is essential in defining the role of meanwhile uses in AIIP development.

Operator selection process. It is a very long procedure, which might take years. According to the plan, the operator should be selected within the establishment phase. In case it takes longer, the role of the operator would be taken over by the Municipality or its institution until the operator is found.

DEVELOPMENT PHASE (2022 - 2046)

This phase is divided into three stages:

1 development stage 10 years (2022 - 2031),

2 development stage 10 years (2032 - 2041),

3 development stage 5 years (2042 - 2046).

During these stages, the companies will come in and establish themselves in the AIIP. Also, the operator of AIIP will continue to invest in the park's infrastructure. The whole redevelopment is distributed through a period of 25 years (10+10+5). Accordingly, the measures that need to be achieved during each phase are already set. The infrastructure network divides the whole territory into plots of various sizes. The territory has a loan for use status. Although it is spatially divided, legally it is managed as a single plot. It is expected that the transformation of the former aviation hangar will facilitate further development around it; however, it is not stated in any document that the future development should begin in a specific location. If the developer asks for a 5Ha plot, which is on the other side of the whole territory regarding the position of the hangar, it will get the right to develop the plot.

Within the AIIP's territory and its surroundings, there are some abandoned buildings, some of which contain cultural heritage status. Existing buildings within the defined AIIP territory are the following:

- The former helicopter production facility (hangar). At the moment it is the only building on the site that is going to be renovated.
- An administration building that has heritage status. For the time being this building is not going to be renovated.

The former helicopter production facility (hangar) is going to be transformed into the FlexStart building, which will be suitable for office, and light industrial uses. The idea behind this FlexStart building is to create space for 2 main groups of companies:

1. Foreign investors who decide to settle in

AIIP, the construction period of their own unit in the AIIP.

2. Small R&D companies, startups, etc. who have grown out of the university and are searching for opportunities to expand. Both universities and start-up communities agree that this is the biggest gap in startup acceleration programs in Lithuania. Many companies are forced to stop their activity or stop growing because after moving out of the academic environment they lose their connection with the university, their support, while they are not strong enough for the open market. This building is suitable for the transition period.

It is known that the field of life sciences (this development direction is proposed by the city, yet needs to be confirmed) is a slow pace growing market; R&D parks take time to be realized. Companies need expensive equipment but not large infrastructure, so it is very hard to establish greenfield or brownfield investments. That is why this first building is the core of starting the AIIP. It would also host the AIIP administration and any other company that fit the requirements of AIIP set in the Development Plan.

Generally, the park is dedicated to R&D, small-scale production, prototyping, administration, labs. Since the site is located in the city, there are strict pollution restrictions - a company that shows interest in locating itself in the AIIP, must prove that their activity will not exceed certain limits (indicated in the feasibility study) of emissions. The residential function is prohibited.

At this point in time the activation strategy is divided in four main points:

1. Infrastructure network. To attract investors and companies in the AIIP, good infrastructure is needed. Therefore, the municipality of Kaunas initiated its implementation.
2. The helicopter production hangar is a huge facility already in place and contains over 7000 square meters of

available space. Its renovation into a hub for startups, offices, etc, would set an example of the possible program of the AIIP. It is expected that the renovated hangar would facilitate the surrounding area for further development. At the moment the municipality is leading and funding those processes.

3. In 2022 the Municipality expect to prepare the AIIP Development Plan - a very detailed document that would answer all park management and maintenance related questions such as what are the criteria to settle in in the park, how much does it cost, what are the incentives, who has the power to decide about new investors, how and when, what are the responsibilities of the park operator, what does it have to do. This plan could also indicate possible meanwhile uses.
4. The strategy of meanwhile uses could greatly contribute to the AIIP activation. It is going to be defined during the Development Plan development.

2.2 PARTICIPATORY PROCESSES AND TOOLS

Community participation practice in Lithuania has yet no strong tradition. Although by law, any new land development project is required to be publicly presented, the involvement of the local communities and the neighbouring inhabitants in the early project development stages is infrequent and slow.

In the case of the AIIP development, Aleksotas community expressed their great interest in the whole process. Professionals agree that community involvement could have a huge positive impact on urban regeneration. Community opinion could be obtained through surveys or creative workshops with the participation of representatives of a wider community. Such activities of participation where the first ideas are generated, might be seen as the first step in merging such territory in the socio-urban domain. Also, big

companies frequently want to invest in community ideas. It could be useful to think from the AIIP's operator side about the projects, which could be implemented in collaboration with incoming companies (e.g. the companies could invest in temporary modular kindergartens, recreational areas, etc., from which not only the AIIP employees, but also the Aleksotas community would benefit).

As the regeneration process is predicted to take 25 years, that gives a great opportunity for the city to involve its citizens into the development process. Through meanwhile uses various stakeholders could engage with each other and help to create a new identity both for the AIIP and for Aleksotas. The engagement might be positive, if well constructed. Therefore, there is always a challenge of deciding who manages and moderates the engagement process. Hence, in other words, who could be the best mediator between all parties, maintaining engagement and fluid communication?



Photo credits: Hadas Zohar

3. MEANWHILE USES

3.1 MEANWHILE USES

In the early stage of the project, the municipality was not even thinking about meanwhile uses because the main attention was paid to the main activity. Only after this project was thought in more detail, it was realized that the whole area will be developed in phases that leaves great plots of land unused. The participation in T-Factor raised the awareness of the concept of meanwhile uses and encouraged the pilot to start researching the possibilities of their adoption.

However, the concept of temporary use is not recognized as a practice by the municipal/cantonal/regional administration. The only thing that may be similar to meanwhile use can be called short term rent (up to 1 year) or loan for use ("žemės panauda" term) that means a temporary right to use municipality or state-owned land or property without any fee, if the activity that is carried out in the area, is indicated as municipal function as described in Local Governance Law (such as social service, education, healthcare, etc). The rules for getting this right are very strict, so it is not commonly applied.

Considering the speed of the field investments in the science R&D sector, the development will take years. It is estimated that only up to 30% of this site can be used in the first 10 years. All the questions about the meanwhile used are not defined yet. It is expected to be set in the Development Plan.

Interviews with various stakeholders were conducted, which provided useful insights and ideas that could contribute to a better area's integration into the city's fabric.

POTENTIAL MEANWHILE USES

Until the beginning of the T-Factor project, the municipality, as the initiator of the AIIP establishment, was so focused on the main AIIP's goal that the fact of the development taking around 25 years and holding hectares of vacant land for most of the period just did not cross their mind. Such a big unused area) would raise some safety concerns. Therefore, the municipality is interested in gathering the best practice examples to find low cost, low liabilities solutions for short-term use that would match the needs of the AIIP and investors.

Other interviewees shared some doubts if meanwhile uses could be the way to attract investors to the AIIP in Lithuania, but if it is, it should be related to innovation and technology, and social infrastructure for AIIP employees, such as:

- Startups or co-working spaces.
- Open spaces for everybody to use dirty techniques for free.
- Open spaces for conferences.
- Also, buildings and spaces could be available for cultural or social experiments, such as the implementation of design ideas, graffiti art, and so on.
- Temporary buildings and spaces are available for drones competitions.
- Robotics clubs.
- Set up solar power plants on the vacant AIIP's land.
- Creative workshops to test something.
- Spaces made from containers/modules.
- Various entertainments for the

community.

- Open concerts.
- Temporary modular kindergartens.
- Free lands are rented out for local farmers.

However, at this moment it is hard to indicate specific meanwhile uses that could be implemented in the park. Meanwhile uses will depend a lot on who is the operator - the city or a private operator. The city takes responsibility for many social and public services and has the interest to make this site useful for the public. The private operator's main goal is profit. It might be interested in implementing activities and functions that are in one or another way profitable (for example, attracting more or better investors, raising the rent price, etc.) or it will implement activities that are included in the contract. Since there is a long way ahead until AIIP starts operating, there is time to think about and search for the options that would be beneficial and set some guidelines for meanwhile uses in this park. The guidelines for meanwhile uses' implementation should be included in the development plan of the AIIP.

EXPERTS STAKEHOLDER SHARING VIEWS ON MEANWHILE USES

Professionals in the field of urban planning and architecture foresee meanwhile uses as a starting point for any urban regeneration that could work as a catalyst of activities and attraction. Most inhabitants in Kaunas, if asked, probably neither have heard nor have been in this territory. Making it open and showing it to the people of Kaunas through meanwhile uses can initiate the transformation of a formerly closed and unattractive area.

Meanwhile uses could encourage both the citizens of Kaunas and future investors to look at the former aviation site from a different perspective. Meanwhile uses can help attract people to the territory and invite them to discover it while showcasing its potential.

Proposed meanwhile uses:

- Expo and similar activities that require big available territory.
- Using the aviation hangar for extreme sports at least during the cold season.
- Celebrations (as the Architects Day (July the 1st)).
- The old railroad could be explored.
- Possible connections with the lower terrace.

Other examples of meanwhile uses/events in Kaunas that were organized in an abandoned areas/buildings:

- Textile biennale project in Pluoštas factory.
- Concert and exhibitions initiated by Maldžiūnas in former Mėsos kombinatas.
- Already closed café terrace on the roof of Lituanica factory close to the old town.
- The opening session of the 'KAFFE' festival on the top floor of an abandoned hotel in Kestucio str.

On another hand, for professionals representing research and innovation, it is important to build the connection between the space and companies/people working there. Proposed meanwhile uses:

- Testing site for various hardware products developed by different kinds of startups from Kaunas entrepreneurial ecosystem.
- Testing logistic solutions, how it operates, how sensors sense things, how they work.
- Social initiatives.
- Events.
- Drone competitions.
- Other events related to technology depending on regulations and certain requirements needed.
- Testing self-driving cars.
- This area could have special regulations for testing in order to allow the products

to reach the market faster.

Regarding the possible funding for meanwhile uses there might be some creativity needed. In general, there are funds available for various projects and initiatives, but not specific for meanwhile uses.

Meanwhile uses could attract people and companies - the ambassadors, to represent the 'future' of the place. Those businesses would attract other players. Kaunas is missing hubs of world-known brands. As an example - the Google development office is located in an old factory and around it grows with other businesses that collaborate or serve Google. This place could work in a similar way by building its biotechnology future that would serve not only the production but also the creative innovative society.

When interviewed, some stakeholders proposed some bottom-up meanwhile uses such as a temporary market, pop-up event constructions, degustation dinners, outdoor cinema, exhibitions, or musical events. For the hangar area, there were proposals for workshops and educational activities on how to grow vegetables. Some proposed leisure activities, or cultural and recreational activities for the community, a community house, or a multidisciplinary centre. Activities/events supporting the "eco-bio" mindset and thinking should be encouraged. Some stakeholders proposed an observation deck with Augmented Reality glasses where one can see what will happen in the next 10 years; this could be a measure to better understand the extent and detail of the development.

PPP in Lithuania is not common. Nevertheless, meanwhile uses could be organized in collaboration with businesses and together the identity of the AIIP could be created.

3.2 ACTORS

There are many actors involved in the development of the AIIP. The table below provides an overview of the most relevant actors.

PRIVATE

The biggest Lithuanian industrial and innovation parks operators (e.g. Kaunas free economic zone, Klaipėda free economic zone, Vilnius city Innovation Industrial Park, etc.)

Sharing the experience about creation of big industrial or innovation parks

Future operator of the AIIP

AIIP operator is not a stakeholder, it is a tool to reach the AIIP purposes (it is foreseen that Kaunas city municipality, or its company (municipal institution) could be the operator for a while, because of the possibility to attract EU funding)

Investors

Investing in the AIIP, creating job opportunities

Entrepreneurs

Using/renting the AIIP facilities for their workshops, businesses

Various businesses

Providing urban amenities like leisure, sports, etc. Businesses could contribute to facilitating the meanwhile uses.

PUBLIC

Municipality of Kaunas

Coordinating the process of the AIIP development, the main actor in urban regeneration and meanwhile uses implementation

Ministry of the Economy and Innovation

Strategic interest in AIIP to boost the country's economic growth

Ministry of Education, Science and Sport

Creating / using research facilities of the AIIP, may be an actor contributing to meanwhile uses

Kaunas In

The goal of Kaunas IN is to create a favourable environment for investment and 'soft services' for the AIIP. Responsible for attracting investments in Kaunas, aftercare of investors, and increasing the innovation outcome of the city and in the country. Kaunas In belongs to Kaunas city municipality

Invest Lithuania

Responsible for attracting investment in Lithuania at a national scale (also in Kaunas), aftercare of investors, and increasing the innovation outcome of the country. The rights and obligations of the owner on Invest Lithuania have the Ministry of the Economy and Innovation

Kaunas 2022

Working on the Meanwhile uses activation and all the events regarding Kaunas as European Capital of Culture 2022

Public institutions

Using the AIIP territory for their events, activating meanwhile uses (such as "Tvrtovės parkas (en. Kaunas Fortress)

Kaunas Artists' House (KAH)

KAH produces cultural and artistic content, coordinates the city's cultural information, and also acts as a mediator between the city municipality and the cultural operators and their audiences.

EDUCATION & RESEARCH

KTU (Kaunas University of technology)

T-Factor project coordinator, actively involved in the meanwhile uses strategy

High education and research institutions (universities)

Establishment of their research facilities in the AIIP

R&I community

CIVIL SOCIETY

Aleksotas community

Wishes to be involved in the development processes of the AIIP

Kaunas community

Could contribute to activating meanwhile uses. Also, branding the area and spreading the word

Table 1: Actors in AIIP pilot

3.3 CHALLENGES

The most important goal of the AIIP is focused on economic benefits. The thematic direction of the AIIP is still not confirmed, which makes it harder to envision how this park could look like in the future. It is still an ongoing process. The preparation of the development plan is already taking place. Urban vision was recently confirmed by the municipality. Although it gives a great preferable spatial result of how the AIIP could work as an urban domain, there is always a risk that the developer's vision for the site will be different. The only intervention that cannot be changed is the already existing road network, and what happens within the divided plots, depends more on the investor, who brings in the money, rather than the municipality. Therefore, it might be tricky to negotiate the importance of an integral urban vision if the developer goals do not align.

Since the term “meanwhile uses” is absent in Lithuanian urban planning, there was never a thought of the possibilities of using the empty land plots for other functions during the waiting time. As a result, at the moment there is no legal framework, which could define the guidelines and rules of possible “meanwhile” implementation.

We gathered the information from each stakeholder and their perspectives on the potential challenges the area might face, and we present here a list of the challenges identified:

Key **challenges in Aleksotas for the implementation of T-Factor** are:

- Low inhabitant density
- Empty space (no buildings suitable for hosting events and other activities)
- Few public and social facilities (schools, hospitals, children gardens, shops, cafes, restaurants, etc.)
- Lithuanian companies do not have the mindset of sustainable development
- AIIP timeframe is very long

Key **challenges in Aleksotas that meanwhile uses can address** are:

- Lack of identity
- Disjunction between the top-down perspective of an innovation area and the social perspective of a military area. There is a need for the social perspective to be brought towards an innovative area with social amenities.
- Raising awareness in the synergies and information between social fabric (community) and economic fabric would help to build social understanding and then the economic fabric at the same time
- The AIIP needs to be integrated in the urban fabric of Kaunas
- Open vs closed.
- Lack of communication between various stakeholders
- Citizen participation

3.4 ASSETS

Key assets identified for the AIIP are:

- New urban pole
- Large potential for growth
- Creation of workplaces
- Be competitive in knowledge, academic potential, and innovation
- SDG implementation in the AIIP could mean further EU funding, it might be an important incentive to focus on its applications
- Increase of green areas around the AIIP and facilities for families and AIIP workers
- More transport (public and private)
- Such allocation in urban structure defines the importance of the area. It calls for the presence of public functions besides the industrial ones. From the architectural point of view this territory has a big significance for the city because of its specific plane landing infrastructure network which might be

reflected in future architectural-urban solutions. The area should not be seen as an empty field, but the existing structural elements, if integrated/reflected in new projects, can create various added values: historical, cultural, social, etc.

- Reach the highway quite easily,
- Air-related technologies
- Great location, answering for the need of an innovation industry park inside the city
- AIIP area and surroundings will be the most modern urban area in the city.
- It follows the Lithuanian strategy regarding the foreign direct investment
- AIIP could adopt the Smart City solutions, sandbox facilities for prototyping and testing, validating the technology
- Park should offer a liveable environment to keep a good life-work balance.
- The synergy of socio-economic values could improve the image of the city.



Urban development vision of the AIIP prepared by feasibility study. Source: Kaunas City Municipality

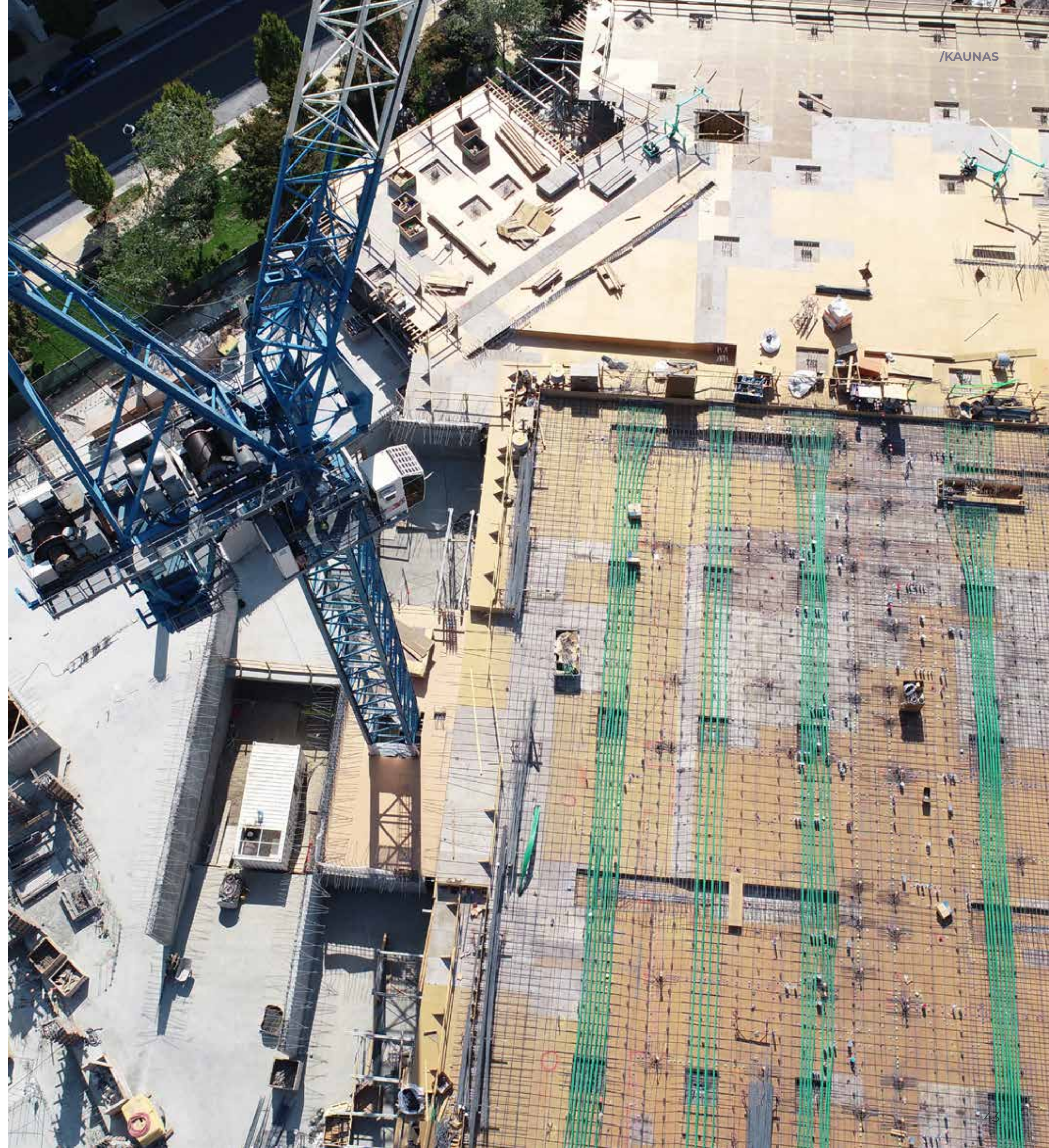
4. CONCLUSIONS

The AIIP project will set a great example of the establishment of innovation industrial parks. The ongoing processes already show great results, especially because nothing like the AIIP took place before. The development of the park represents an innovation itself.

Another important aspect and a foreseen innovative outcome is the integration of the concept of “meanwhile uses” in urban regeneration processes; the collaboration with T-Factor already raised the awareness across various stakeholders.

Since it is such an early stage of the AIIP development, it is hard to predict its success. Many challenges will appear not only directly related to the development, but directly influencing Aleksotas and the city. Creating jobs will in turn induce the need for basic living infrastructure. There are many questions that still stand open: How many new homes are needed in case new employees want to live nearby? How to avoid negative outcomes of gentrification? How many urban amenities are necessary to fulfil the demand of the population increase of Aleksotas? What kind of living quality can Aleksotas offer?

During the last months an integral urban vision was prepared, which foresees the AIIP area to merge with the existing urban domain and the concept of meanwhile uses is making its way to be included in the development plan of the AIIP. There is still a lot of work that needs to be done, but Kaunas city is on the right path towards innovative solutions and practices that can lead the city to a more sustainable future.





AMSTERDAM SCIENCE PARK

The Amsterdam Science Park (ASP) is already in an advanced development stage, and it is closer to its completion, expected in 2028. Because of the consolidated state of development, the ASP pilot will focus on ecological meanwhile uses. This makes the ASP the only pilot that has already set a clear theme for the implementation of meanwhile uses through T-Factor.

The development of the ASP is led by the three landowners of the campus, the City of Amsterdam, the University of Amsterdam (UvA) and the Netherlands Organisation for Scientific Research (NWO). The plan was to convert the ASP into a leading international location for high quality education, research and business. With this goal being greatly achieved, much of the focus has shifted towards creating synergies within the park and between the park and the outside world.

The pilot at ASP will be developed together with local communities within the framework of urban ecology. Following the logic of urban ecology, which rethinks the relations of people and environment within the city, the pilot will add an extra layer to the development of ASP.

1. LOCAL CONTEXT

The land that is now home to the ASP, known as 'Watergraafsmeer', was reclaimed from the water in 1629. When dyke breaks became a thing of the past, wealthy Amsterdam townspeople invested in the land to build country houses and farmsteads. Today, the monumental Anna Hoeve (Anna's Farmstead) is the only reminder of this previous life as agricultural land. On 15 September 1949 the AMOLF institute was launched by the Foundation for Fundamental Research on Matter (FOM) with the intention of placing the Netherlands back on the leading position in the field of physics and initiating the story of the area as a site for science.

In the mid 20th century, the Institute for Nuclear Physics Research (now Nikhef), was the first knowledge institute to settle in this 'remote' part of Amsterdam. In the 1990s, the City of Amsterdam, the NWO and the UvA envisioned the enormous potential of what was to become the ASP: an area where the university's science education and research, national research institutes, and science and technology-based companies come together to benefit from each other's proximity.

The ASP campus has the highest concentration of university science education and research organisations in the Netherlands, and one of the highest in Europe. The approximately 40 buildings in the ASP house teaching and research facilities of the UvA, Amsterdam University College (AUC), renowned NWO research institutes, Europe's largest internet hub¹ and

some 160 knowledge-intensive companies. These include promising start-ups as well as multinationals. All these entities together make the park a hub for research, innovation and entrepreneurship in the field of ICT, life sciences, advanced instrumentation and sustainability.

At the moment, the ASP has a supermarket and four catering establishments. This appears to be insufficient and there is a broad wish to create a centre on the campus. In comparison with other science parks, ASP already has a large residential function, which can play an important role in further supporting an attractive environment. There are today 314 residences and 721 student units in ASP. These are concentrated in one location and do not contribute to creating a feeling of liveliness in other parks of the ASP that have a feeling of insecurity at night. Another challenge is that what used to be the 'Kruislaan' is now a physical barrier that separates the two sides of the park, owned respectively by the NWO and UvA. This axis, with a swing around the AUC, is the busiest route on the campus today.

At the time of writing this report, the 8th matrix building (plot 12) is being finalised. This building will allow for the expansion of laboratories and offices. Other areas, such as plot 11, 12, 15 and 16 (a.o.) provide space for the development of a central area into a lively and attractive environment. Older buildings, in particular those of NWO on the west-side of the park are slated for renovations in the coming years and it is expected that there will be a lot of shifting-around. Some of these spaces may be used by the UvA to accommodate the growth of FNWI, in particular around Artificial Intelligence.

In terms of environmental qualities, the ASP

¹ The Amsterdam Internet Exchange (AMS-IX), the largest internet junction in the world, was initiated at the ASP. In February 1994, a layer 2 shared infrastructure, used between academic institutes, was connected with CERN to exchange traffic.

rests on fertile land reclaimed from the sea, at 3,5m to 5m under sea level (NAP). This soggy ground forms a basis for the present and potential types of ecosystems. In addition, the ASP is surrounded by a natural border made up of a former polder that over the years has transformed from peat meadows and allotments into reed marsh and scrub. This gives the campus a smooth inner world aspect that contrasts with the unpolished natural outer barrier. The rough vegetation, amphibian pools and natural banks form an attractive setting for leisure and recreation that are already being used by users of the ASP and volunteer groups. It also offers opportunities for educational and research activities. The UvA is already using the green outer edges as a teaching and research location for students.

At a broader scale, the ASP is situated adjacent to an ecological passageway that connects the biodiverse regions to the South and East of Amsterdam with the waterways and regions to the North of the city. As such, the ASP and the adjoining Flevopark area form the north-western tip of the **“Diemer Scheg”**. This area is described as the “green lung” of the municipalities Amsterdam, Diemen, Weesp and Gooise Meren². This type of passageways is part of the national ecological infrastructure, and therefore receive particular attention in terms of conservation and in the development of ecological niches in the urban environment. The passageway is subject to multi-level governance, as part of the Municipal structure vision 2040, the first one to explicitly anchor biodiversity as a policy priority.

SOCIAL, ECONOMIC AND CULTURAL PROFILE

Amsterdam is the capital and most populous city of the Netherlands with a population of 872,680 within the city proper, 1,558,755 in the urban area and 2,480,394 in the metropolitan area. Amsterdam is a touristic and innovation hub that has recently adopted a circular vision for 2020-

2025 and is the first city globally to integrate Kate Raworth’s Doughnut Economics as a key policy and planning framework.

Amsterdam is part of the **Metropolitan Region Amsterdam** (MRA, known in Dutch as Metropoolregio Amsterdam). The MRA comprises 32 municipalities, two provinces (North Holland and Flevoland) and the Transport Authority Amsterdam, making up 35 different authorities divided over seven sub-regions.

The MRA has a population of 2.5 million inhabitants, 300,000 businesses and 1.5 million jobs, making it the country’s most robust economic region, also performing well on the international stage. The region also contains two airports, seaports, the financial centre of the Netherlands, the world’s largest flower auction in Aalsmeer, Media Valley and clusters of creative companies. The MRA spans the ‘daily urban system’ of Amsterdam, which is roughly the area within which most of the daily commutes take place. Within this region, there are mutual dependencies between a wide range of domains – accessibility, job market, housing market, etc.

Beyond this area, Amsterdam is by international standards part of the **‘Randstad’ metro area**. The Randstad is a megalopolis in the central-western Netherlands consisting primarily of the four largest Dutch cities (Amsterdam, Rotterdam, The Hague and Utrecht) and their surrounding areas. With a population of 8.2 million people, it is one of the largest metropolitan regions and one of the most important and densely populated economic areas in north-western Europe.

It is sometimes argued that a cultural divide exists between the Randstad and the rest of the country. This distinction is usually made in relation to Dutch politics and media, who according to critics are mostly interested in the affairs of the Randstad. Both branches (government and media) have their centre in the Randstad; respectively in The Hague and in Hilversum. The Randstad itself, however, does not represent a unified cultural zone. While the cities and landscapes in the Randstad share some commonalities, there

are also large differences originating in centuries of divergent development. There are strong local identities within the region, especially in rural environments. In the broadest terms the Randstad is culturally divided between the more politically progressive northern urban centers of Amsterdam, Haarlem and Utrecht, and the more conservative southern urban centers of The Hague, Rotterdam and Dordrecht. However, the university cities of Leiden and Delft, while geographically located in the southern part of the Randstad, also have a more progressive outlook probably because of hosting two of the largest universities in the country.

The ASP is located in **Amsterdam’s Eastern district**, adjacent to the Indische Buurt and Watergraafsmeer neighbourhoods. Of the city’s total 872.779 inhabitants, 142.049 live in this district. These two neighbourhoods have very diverse socio-economic profiles.

In March 2007, Amsterdam East was designated as a “problem neighbourhood”³ by the national government, this relates in particular to the Transvaal neighbourhood and the Indische buurt, which is why they have received extra attention and money.

THE INDISCHE BUURT NEIGHBOURHOOD

The **Indische Buurt** is a neighbourhood in transition. In recent years, major redevelopment and housing renovations have taken place in the area around Javastraat, modernising the street scene. It is a neighbourhood with many shops and catering establishments, combined with housing. The Indische Buurt used to be one of the poorer neighbourhoods in Amsterdam. However, there is an increasing number of new residents who have higher education and income levels and belong to the group of new *Amsterdammers*. The number of owner-occupied properties in comparison to social housing has also

increased in recent years. One challenge is to allow the old residents to keep up with the development that the new residents are bringing with them.

According to OIS research, social cohesion is increasing in the neighbourhood. This social cohesion is also associated with a growing sense of security. This is also actively pursued by the cooperation of the district council, housing associations and social organisations. In addition, there are several foundations and neighbourhood initiatives going on at various levels.

The social economic status of the old residents is low, and poverty and a distance to the labour market are among the major challenges for this group. There are many initiatives that try to stimulate this group of old residents to get out of this socio-economic status by means of education and increasing networks. However, there is still a large number of people that cannot be helped. In addition, the difference causes cohesion problems because new residents like institutions to arrange everything for them by institutions and the poorer group has more complex problems, making participation in the neighbourhood not always a priority. As a result, there is little interaction between the groups.

Creative initiatives have been set up to tackle the problem of waste in the neighbourhood in a sustainable way. For example, there is a worm hotel, where waste is tackled in a sustainable way locally in the neighbourhood. There is also a nature group that, under the guidance of ecological experts, undertakes actions with volunteers to improve the flora and fauna in the neighbourhood. There are also apps that allow residents to indicate whether there is any litter on the street. This is also an attempt to curb the rat problem.

The Indische Buurt is **home to many young people**, some of whom are disadvantaged. Because of this, initiatives are being developed to give this group more development opportunities. These actions are also carried out to counteract nuisance caused by young people. This has mixed success. There are limited resources to help

² See Dimer Scheg video impression

³ In 2007, Minister of Housing, Neighbourhoods and Integration Ella Volgelhaar drawn up a list of 40 “problem neighbourhoods” that is popularly known as ‘Vogelaarwijken’. These neighbourhoods have a dedicated budget to address their social, physical and economic problems.

young people and for many, the drug trade, or other criminal activities beckon.

In squares and streets, there are small-scale initiatives aimed at strengthening local neighbourhood networks. Neighbourhood bbqs, information evenings and other activities stimulate active citizenship and contact between neighbours. The district council also plays an important role by making small budgets available for such **active citizenship** activities.

There are many neighbourhood projects and initiatives going on in the Indische Buurt. An area plan has been developed (2018) with residents, social organisations, entrepreneurs and civil servants, in which 64 projects have been identified. Seven priorities have been set:

- More development opportunities for youth
- Reduce poverty and unemployment
- Improving care for vulnerable residents
- Stimulate involvement of residents
- Improve safety and security
- Clean and green public spaces and sustainability
- Improving mixed community life and the neighbourhood economy

WATERGRAAFMEER

Watergraafsmeer is a significantly more affluent neighbourhood, with higher levels of education, lower unemployment, and lower percentage of residents with a non-western migration background. However, some of the eleven neighbourhoods do score below average.

The Watergraafsmeer consists largely of polders and is one of the lowest lying areas in Amsterdam. The area has many child-friendly neighbourhoods and characteristic villages such as Betondorp, Amsteldorp, Tuindorp and Park de Meer. Watergraafsmeer is also quite green. There are also many sports facilities, including the famous Jaap Edenbaan. On the edge of Watergraafsmeer lies the Science Park.

Watergraafsmeer has eleven neighborhoods, each of which is different and has its own characteristics. Middenmeer and Park de Meer are residential areas with a high average family income and large houses. Betondorp, Amsteldorp and garden village Frankendael score below average in almost all areas of life. These neighbourhoods are characterized by a high concentration of over-65s with low incomes. For this reason, these are amongst the district's focus neighbourhoods. The Eenhoornbuurt is developing from an industrial area into a residential area. The Amstel Quarter is still under construction and the Science Park is characterized by the many student dwellings and university buildings. The Weespertrekvaart is, due to the combination of companies, the Penitentiary and parts that are still being built or developed, the neighborhood that is perceived as most unsafe.

For many residents of Watergraafsmeer, sustainability and climate change are important themes. Many activities are already being undertaken. These range from setting up an energy cooperative to small green projects. Together with residents and entrepreneurs, initiatives are taken forward, new ideas are given a chance, and resident networks are strengthened so that experiences can be shared and inspire each other. A recently appointed agent now

has the specific task of helping residents' initiatives in the field of sustainability.

In recent years the municipality started an action-plan for the further development of Betondorp. Betondorp is home to many elderly people with low incomes, but they are now seeing a steady change in the composition of the population due to the sale and liberalization of the housing stock. Young families and people with different backgrounds are slowly moving into the neighbourhood and creating a new dynamic. Poverty and loneliness among the elderly, connection and social cohesion between different lifestyles and cultures, and attention to children and young people in poverty have received attention in the past year. Corona has made poverty and loneliness visible. In Betondorp, various residents have risen to the occasion to support their neighbours.

For the period of 2019-2022, the following points of action have been described:

- Enabling people to have control over their own lives for as long as possible
- Attention to the diversity of housing in the districts
- All children and youngsters can participate, counteracting the division of labour
- Improving and greening public space, responding to changes
- Making Watergraafsmeer a front runner in the field of sustainability and circularity

2. REGENERATION PROJECT

THE VISION

The current vision for the park is defined by two documents: The 2003 ASP Masterplan, which focus on the spatial development of the park, and the 2019 ASP Development vision, more focused towards the programme of the park. The masterplan envisions the ASP as a multifunctional campus that combines education and research with spaces for entrepreneurship development, residential and facilities to support life in the campus. The vision describes the park as a place where 'curiosity-driven research attracts top talent and acts as a driver of innovation,' and 'frontiers of knowledge are pushed back with research on the absolutely largest (Cosmos), smallest (Elementary particles) and most complex (complex materials, quantum computer) of our Universe, as well as life-science (Origin of life).' The ASP adds value by bringing concentrating education, research and business together in one location to stimulate a culture of innovation.'

Using the historic polder as a structuring element, the masterplan envisions the ASP as a campus that is set up as a network. To do so the masterplan adds to the existing campus a system of semi-public meeting places inside and in-between the buildings that is connected by a public tissue that extends over the whole area. To the already existing buildings from the NWO, UvA and intermediary organizations, the masterplan envisages new faculty buildings, research institutes, university facilities and homes. The development of the area started almost sixty years ago with the '**Watergraafsmeer Science Centre' zoning plan**. In 2002, the Municipal Council adopted the 'Watergraafsmeer Science and Technology

Centre' zoning plan for the area, which became irrevocable in 2004. Today there are two documents that dictate the future of the ASP: The 2003 masterplan and its revision, the 2019 Development Vision. These are explained below. In addition to this, a specific section on 'green' has been included to outline the most important aspects related to the future of the ASP in terms of urban ecology.

THE 2003 ASP MASTERPLAN

In 2003, the current **ASP Masterplan** was formulated to further develop ASP (then: Science Park Amsterdam) into a leading international location for high quality education, research and business. With its economic and urban development ambitions, this made ASP into one of Amsterdam's strategic projects. With it, the landowners City of Amsterdam, the UvA and the NWO initiated the joint development of the park, which had already developed for quite some time based on various zoning plans.

The basic structure of the Master Plan consists of five building strips (or 'fields') that run east-west, parallel to the original polder structure. The building strips are subdivided into a total of 19 building fields, about half of which have already been developed. The Masterplan assumes that ensembles of buildings will be built on the building fields. An ensemble is a coherent building complex or a combination of smaller buildings around a (possibly covered) collective space. An ensemble may also extend over several building plots. The entrances of the buildings form a junction between the network and the collective space of the building. All ensembles are directly

connected to an access road and therefore they are independent from each other.

The vision of 2003 was of a multifunctional campus driven by five factors:

1. Education: the strong presence of the UvA and Amsterdam University College has created an international academic community here, with many students also being able to live in the area during their studies.
2. Research: the area is characterised by large scientific knowledge institutes and highly regarded research facilities. In the last few years, an important knowledge centre for computer science and artificial intelligence has also developed here.
3. Entrepreneurship: the Startup Village and 7 'matrix buildings' on the campus provide accommodation to knowledge-intensive companies and entrepreneurs, who interact strongly with the research institutions around them. The business incubator buildings are the fruit of a public-private partnership between NWO, UvA, Rabobank and the municipality.
4. Facilities: around the above-mentioned core of education, knowledge institutes and business activity, a shell of supporting service providers has formed, which is also conducive to cooperation and encounters. The nearby Amsterdam Science Park train station provides a decent public transport link with Amsterdam and the region.
5. Living and recreation: with the arrival of (student) housing, a sports centre and two café-restaurants, the Amsterdam Science Park offers a good basis for relaxation, liveliness and encounters.

The masterplan made an emphasis on creating an easily recognisable public space to unify the great diversity in programmes and users. The design of the public space is described in the 'Bouwstenenboek

Openbare Ruimte' (Building blocks for public space). The book provides specific regulations for uniform paving materials, plants and trees, lighting and street furniture, so that the network public spaces described above is consistent and recognisable everywhere. Public open spaces outside the network have more design freedom.

THE ASP DEVELOPMENT VISION (2019)

In 2018, fifteen years after the approval of the ASP Masterplan, the three landowners drew up an interim balance sheet and concluded that the area held great potential for development. An important insight was there should be a stronger focus on creating synergies within the park as well as between the park and the outside world to convert ASP into a 'melting pot' of education, research, business and innovation. This insight led to the present ASP Development Vision, that outlines the plan for the final stretch of the Masterplan development until 2028. This document is an addition to the existing Masterplan from 2003. Whereas the Masterplan primarily focuses on spatial themes, the 2019 Development Vision provides direction for the manner of development, the desired programme, and the possibilities for strengthening physical and social connections.

The vision describes the park as a place where 'curiosity-driven research attracts top talent and acts as a driver of innovation,' and 'frontiers of knowledge are pushed back with research on the absolutely largest (Cosmos), smallest (Elementary particles) and most complex (complex materials, quantum computer) of our Universe, as well as life-science (Origin of life).' Based on this vision, the mission is formulated as: 'ASP develops fundamental knowledge and trains future talent with impact for sustainable economic and social progress. The Park adds value by bringing education, research and business together in one location to stimulate a culture of innovation.' The development vision describes a number of programmatic priorities for the park.

- *Colouring*: A mix of uses that creates an optimal interaction environment for cross-pollination between scientific research, education, business and the major current issues in society. The plan is to improve the offer of amenities and in-campus accommodation as well as to strengthen the three-way Research, Education and Enterprise (OOO) that attracted many companies and start-ups in a short time.
- *Densification*: Adding a building programme to initiate the desired 'colouring', and to give certain functions 'critical mass' so that they can have an even greater national and international impact.
- *Interweaving*: Stronger internal and external relationships through better routes in public space and traffic connections with the city and region. The plan is to keep the first corridor (MacGillavrylaan) as an open road for meeting/walking/connection and to transform the other corridors into 'green corridors'. Vehicles will also be removed from the street that cuts across the park and separates it in two, turning it into a 'shared space' for pedestrians, cyclists and occasional vehicles. The buildings layout along this barrier will also be altered to soften the current division.
- *Sustainability*: Showcasing the top position in science with sustainable designs, management and techniques that contribute to the liveability and environmental quality of the campus and play a supporting role in research and education.

Following these guidelines, the following buildings have been planned:

- **Lab 42 building**: A 'European hub for digital innovation' that will house the Instituut voor Informatica (IvI), Institute for Logic, Language and Computation (ILLC) and the Innovation Center for Artificial Intelligence (ICAI) and will be opened later this year.
- **'Sustainalab'** (still in the planning phase).

This follows a similar logic to that of Lab 42 and can provide notable opportunities on ecology and embedding meanwhile uses in permanent functions for the T-Factor pilot.

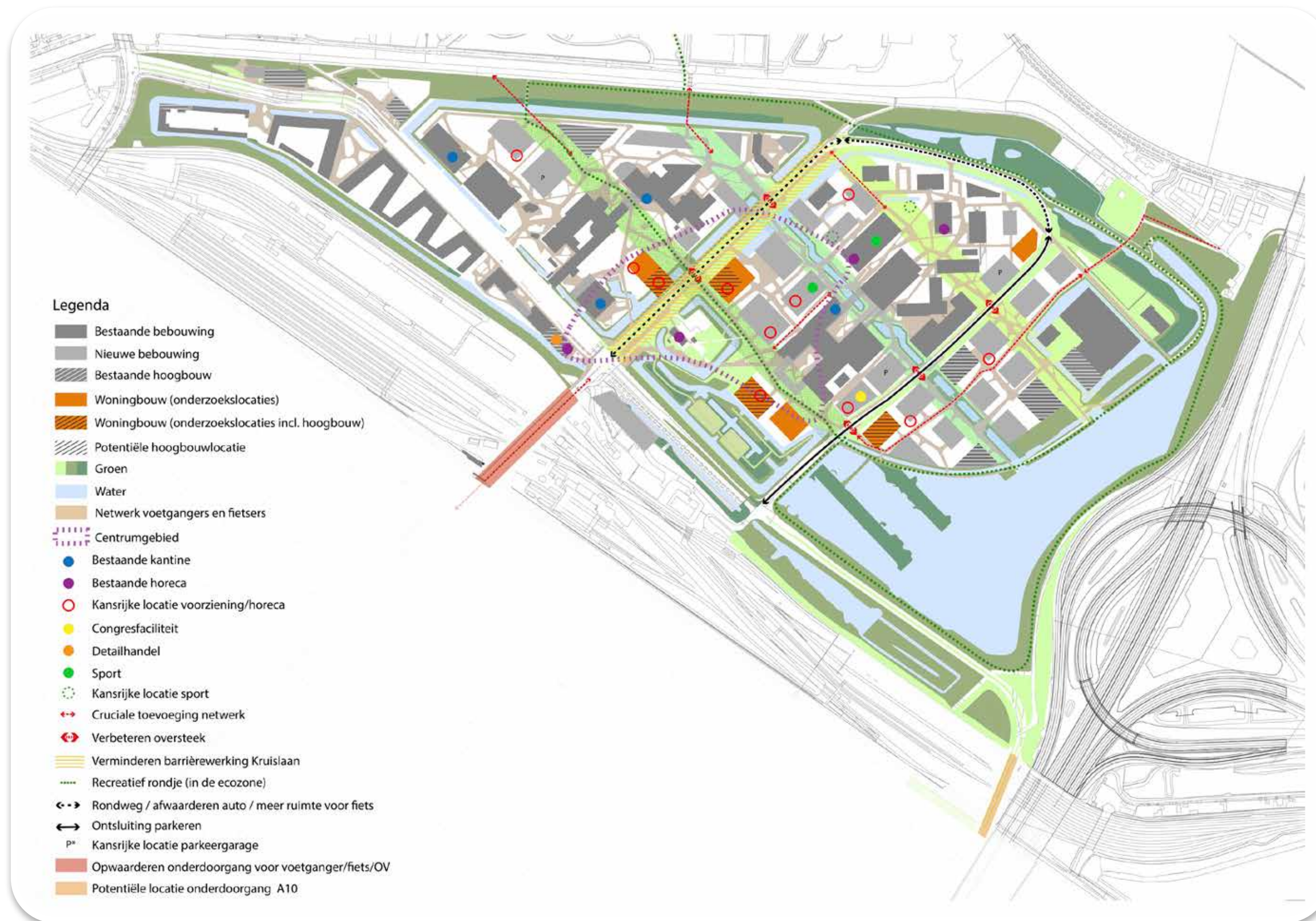
- **Conference facility** on building site 15.
- **423 new apartments and 617 student units** that will support facilities in ASP and bring dynamism, social safety and liveness at night and weekends. Housing is also seen as a tool to attract (top) talent who see the current Amsterdam housing market as an obstacle.

In addition to this, a wide range of facilities is seen as crucial to the appeal of the park, such as shops and restaurants, sports and leisure, healthcare and perhaps childcare. These could be integrated into a "centre" that is currently lacking in the park. This "centre" could also include ICT service points, sustainability products, public functions, an art & science gallery, a 'living room of the campus' (a fervent wish of AUC students), 'citizen labs', scientific shows, and a debate centre. Additionally, further development of (out- and indoor) sports facilities is seen as a priority.

FOCUS ON "GREEN"

Sustainability has always been important for all parties involved in the ASP. Examples of this earlier attention include the construction of an ecozone, the delayed drainage of rainwater, the application of vegetation roofs, the lobby for a good train station, the use of residual heat from a data centre and a master plan for energy storage in the soil. A **Sustainability Plan is being developed** as a follow-up to this Development Concept. As per the 2019 ASP Development Vision, the following topics have been developed: energy transition, circular construction and management, climate adaptation, ecology and mobility.

The ASP also strives for **cleaner and more efficient energy consumption**. About 75% of the energy used at the ASP is process energy (mainly power and cooling) and 25% is accounted for by the buildings



themselves. The starting point in the further development of the ASP is to create an area in which natural gas is no longer used and in which no more energy is consumed than that that is sustainably generated.

- The ASP has a good habit of collecting and disposing of paper, glass, plastic, textiles, residual waste and VGF waste separately. In addition to this, the vision points some promising opportunities to **work more ambitiously on circularity** on the campus:
- Introducing joint waste collection and disposal (less traffic from refuse lorries); Research into the possibilities of composting waste locally (biogas);
- Designing new buildings in such a way that they can easily be given a new function or can be dismantled into high-quality elements
- Apply recycled and/or bio-based materials as much as possible in buildings and public spaces.

The 2003 Masterplan also includes a **plan for water compensation**, with green roofs and rainwater storage in green areas. Following a study on water management, some buildings with critical equipment were made flood-proof. To prepare the ASP for the effects of climate change the following measures are considered:

- More surface water, shade-providing trees and roofs, green facades and building materials that emit little heat;
- A 'rainproof' development of the Amsterdam Science Park, with storage of rainwater on roofs and in the public space, with delayed discharge to sewers or surface water;
- Vital functions of buildings or infrastructure are elevated, or constructed with flood defences.

The 2019 ASP Development Vision identifies several opportunities for ASP to continue to develop its green focus. By further **enhancing the flora and fauna of the outer edge**, the area will soon become a

fascinating link in the ecological zone of the Diemerscheg. The landscape design includes, for example, a fully-fledged footpath. This will make the outer edge even more suitable for recreational walks, research or education. Inside the campus **green roofs or facades** (nature-inclusive buildings) and **green pocket parks and 'eco ribbons' in the public space** will draw the rich flora and fauna back inside. In this way, the outer edges contribute directly and indirectly to the identity of ASP as a green campus in an urban area.

Green 'corridors' following the original agricultural structure of the area will also be developed. These will follow 3 themes: intensive green (eg. extraordinary tree species), water/green, extensive green (eg. art). Some tree and water species may be placed into other streets/intersections. This will be achieved by removing barriers that disrupt the continuity of the corridors and by allowing the corridors to run from one edge of the campus to the other, improving therefore the Easter-West connection across the campus

The recent publication *Amsterdam Science Park natuurinclusief en klimaatadaptief* provides an additional set of insights and advice for the area. The report takes a closer look at the risks of extreme weather events and the resilience of the local ecology and its built environment. Demonstrating the effectiveness of nature-based solutions such as green roofs and the extensive planting of trees on temperature, drought resistance and flood-water-management. As well as some initial proposals for improving the biodiversity on site.

Ecology and greenery are not only useful 'environmental' themes, but are also seen as important for the liveability and attractiveness of the campus. The natural edge of the ASP is seen as an important asset in this regard. The **Nature Protection Act**, alongside other laws and further regulations, stipulates that ecological damage due to building activities must be compensated within three years by comparable ecological value at, or near the

building site. At the ASP, this compensation entails strengthening the natural edges of the area.

At a larger scale, the pilot may also draw and be influenced by the plan to redevelop the Diemerscheg's forested areas and waterways into a 'wet climate forest', capable of flourishing in a warming, wetter environment. This plan has been developed by the National Forestry Agency and the four municipalities that are part of the ecological passageway. The Diemerscheg is one of the four pilot areas of Staatsbosbeheer in the Green Metropolis programme because of the complex and dynamic nature of the Diemerscheg and the project goal of finding new ways to use green areas to contribute to a pleasant environment to live and work in. With this programme, Staatsbosbeheer is committed to a Netherlands where green is a natural part of the (urban) living environment.

CITIZEN ENGAGEMENT AND PARTICIPATION

Amsterdam has a strong heritage of citizen participation. A new national zoning law, the 'Omgevingswet', will enforce more intensive participatory processes in development and zoning projects, as well as a stronger emphasis on these processes in early phases of development. Although it is yet unclear how this law will impact the development of the ASP, both the civic tradition of the city as well as the national law support the inclusive and participatory character of the intended pilot.

Nevertheless, there have not been, nor are there at present, significant participatory processes involving the neighbourhood beyond the policy and legally mandated ones. The ASP Development Vision does not include any mention of 'participation' and it only states that stakeholders in the area were consulted during the drafting process and their insights were incorporated into the vision as much as possible. This is partially due to the specific, research oriented and often (inter)national function of the Science Park, and in particular its long development

history, which means change has been incremental over a period of 70+ years, with the emphasis on the past 20 years. Pointedly, the park's past experiences with local involvement in community gardens led to the conclusion that local residents shouldn't feel too much ownership, as this causes friction with development plans.

There have been several attempts by meanwhile users on site to engage the local communities of students, status holders, strollers and young adults living on site. Permaculture project Anna's Tuin & Ruigte manages the communal garden together with 30-50 active volunteers from the neighbourhoods and teachers and students from the universities on site. On the other hand, Spark Village engages their status holders in a variety of programs, from social events, to sport and career support. While both initiatives state an active participation, they do both express difficulties when it comes to finding and promoting more cross-exchange between the different stakeholders on site. A sentiment that seems to be shared by more meanwhile users there.

3. MEANWHILE USES

3.1 MEANWHILE USES

ASP has a long development time with an expected end date in 2028. This means that parts of the site will remain undeveloped for a long time. In the meantime, **the masterplan identifies temporary functions as potentially contributing positively to the atmosphere and image of the campus.** The public space and a few building plots offer sufficient room for such **placemaking** functions. Temporary functions are intended to be enabled as they **emerge spontaneously from the park community itself and are less subject to the rules of the aesthetics department and the zoning plan.** This means that such functions often have an unconventional set-up that is expected to radiate liveliness and enthusiasm. That is why **ASP will also have spaces for temporary initiatives in its final form** such as events, study presentations and parties.

A good example of an existing temporary use at the ASP is **Anna's Tuin & Ruigte (Anna's Garden & Wilderness)**, a permaculture project with a food forest and no-dig vegetable garden which is located at the border of ASP, in close proximity of Anna's Hoeve (now café Polder) and it is devised and managed by a small staff team and volunteers. Although the organisation does receive funding from the Amsterdam Municipality, these funds are not enough to maintain the garden as needed. Nonetheless, it still activates a lively community of volunteers, mostly from surrounding neighbourhoods, permaculture enthusiasts from across the city, as well as ASP students. It seeks to integrate the park governance through its board, which contains diverse senior officials from park institutions. The area where Anna's Tuin & Ruigte is located is

characterized by its wide waterways, built to drain excess water from the ASP which is well below ANP. The area connects the ASP to the ecological passage. Following the principles of permaculture, the garden is divided into several rings, whereby the outer rings have as little human interference as possible. As such a natural progression is developed to the ruggedness and passages. The aim of the project is to improve (bio)diversity. It functions not only as a garden but also as a living lab - for students of the adjacent university to conduct research activities- and as an educational platform with tours and workshops about permaculture and ecology. It also provides a green space for the community of the ASP to meet and experience the benefits of nature in an urban area.

Startup Village is currently a major temporary function on building field 18. Its flexibility and low threshold have proven a valuable addition to the campus; several start-ups are even developing into serious scale-ups. For this reason, a study is being carried out into where such start-up concepts can be given a permanent place. Startup Village consists of a variety of temporary containers that function as offices, workshops and presentation spaces. The open and playful structure of the place, with lots of glass windows, terraces and a roof garden contrast the fixed aesthetics of the rest of ASP. Startup Village opened in October 2016 and doubled its size in less than three years. The village now houses over 35 companies in the field of tech, AI and cryptocurrencies, as well as some initiatives who orient themselves toward green solutions - which is in line with their ambitions to increase the percentage

of sustainable initiatives. Due to its proximity with research institutions and corporations the village attracts entrepreneurs from all parts of the Netherlands. Startup Founder Femmie Gerarts also takes place in the 'holding' of the ASP - who regularly comes together to discuss the coherence and opportunities for the ASP and its businesses. As such the Startup Village now plays a vital role on site.

Next to this, **Spark Village** was opened in 2018 with Rochdale housing corporation. Spark Village is an experimental format to locate recently arrived refugees together with Dutch residences, seeking to create a community in which mutual support and social resilience play an important role. It is located adjacent to the Startup Village, and similarly takes a container-style approach to temporary building, planned as a semi-permanent function until 2028. Spark Village holds 240 container homes, 80 of which are let to students, 120 to refugees with a residence permit, and 40 for youth housing.

Spark is actively supported by a number of organisations to support the residents, in particular those with complex migration histories, challenges of adapting to a new context and integrating in Dutch society. Most of these organisations have left now due to Corona. At the same time, a strong sense of community has developed, 'a bubble' surrounding the area that can be seen as a little neighbourhood in the middle of a park that, at the eastern side, otherwise does not have residents and therefore is faced with a different user group by day (work/study) and a sense of insecurity at night. In all, the project is developing well, and has regular interaction with the park management in a monthly 'security meeting' with a broad agenda. The main challenge facing the project is its resilience and support activities after the NGO and government agencies withdraw from what remains a fragile community.

The **ASP Development Vision also mentions a number of potential meanwhile uses** 'floating around' at Amsterdam Science Park:

- Informal meeting places 'Free zones' as at

TU Delft

- Mobile kitchen/food trucks Picnic table Market/stalls
- Public relations and branding of Amsterdam Science Park
- Making empty spaces available for experiments w/ Solar panels on empty building sites
- Large atomic model
- Exhibition space
- Informative signs on buildings
- Lively appearance of empty lots
- Tree nursery
- Experimentation/ vegetable gardens
- Travelling functions/ events
- Sports facilities
- Mountain bike route, climbing and clambering objects, fitness route
- Sports field for e.g. volleyball or football

The project bureau 'ground and development' of the municipality is tasked with managing the permanent and semi-permanent uses of the area. They do not have an active strategy or team for meanwhile uses, and are **reticent to allow further meanwhile functions at scale, preferring to allocate capacity to the development of permanent functions at the park.** The exception to this is meanwhile uses that fall under regular events (up to 3 days) fall within the scope of regular event permits by the municipality, and therefore do not need approval from the project bureau.

3.2. ACTORS

The Park sees approximately 10.000 users a day in normal, non-Corona circumstances. In this mapping, the primary users of the park are listed, supported by a persona-based description of the user groups.

Beyond this, a pilot-specific mapping is outlined of institutional stakeholders and actors with whom active collaboration is sought in the pilot activities.

SCIENCE INSTITUTES

Anton Pannekoek Institute for Astronomy (API)	Astronomy research centre
Institute for Biodiversity and Ecosystem Dynamics (IBED)	Research centre on the functioning of ecosystems
Institute of Physics (IoP)	Physics research and education
Korteweg-de Vries Institute for Mathematics (KdV)	Mathematics research institute
Swammerdam Institute for Life Sciences (SILS)	Multidisciplinary research institute - Life Sciences
Van't Hoff Institute for Molecular Sciences (HIMS)	Chemistry research centre
Dutch Science Council (NWO)	Landowner and science funding body
Institute for Logic, Language and Computation (Instituut voor Informatica)	Interdisciplinary research institution
Physics of functional complex matter (AMOLF -ILLC)	Academic institute for fundamental physics
Advanced Research Center for Nanolithography (AMOLF ARC-NL)	Centre for fundamental physics. Public - private partnership
National Centre for Mathematics and Informatica (CWI)	National centre for mathematics and informatica
European Grid Infrastructure: Advanced Computing for Research Netherlands eScience Center (EGI)	International E-infrastructure
National institute for subatomic physics (eScience Center Nikhef)	Dutch national institute for subatomic physics
Innovation Center for Artificial Intelligence (ICAI)	Ai knowledge and talent ecosystem

BUSINESSES AND INTERMEDIARIES

Matrix Innovation Center	7 business centres (100+ companies)
Startup Village	Co-working in tech sector
IXA	Technology Transfer Office
Science & Business	Matchmaker between outside word and ASP
Equinix Interxion Digital Reality Nikhef	Data centre/internet node

EDUCATION & RESEARCH

UvA, Faculty of physics, mathematics and information sciences (FNWI)	Landowner. Academic faculty of Sciences - 7000+ students
Amsterdam University College (AUC)	900 students
Regulier	ca 900 residences
Studenten	1.325 residences
SPARK	250 rent-controlled residences

AMENITIES

Sportcentre Universum w/ café Oerknal	Sports centre
Anna's Tuin & Ruigte	Ecological garden/education centre
De Polder in farmstead Anna Hoeve Café Maslow	Café-restaurant
Conference halls CWI	Conference halls

Table 2: Actors in ASP pilot

URBAN ECOLOGY RELATED ACTORS

This specific list of actors has been produced for the Urban Ecology Pilot. The relevant actors and stakeholders are listed below according to the following taxonomy:

Tier 1: (key) stakeholders directly involved in park governance/policy

The 'Science and Business' activation is in the hands of the eponymous foundation. Their focus is mainly on connecting corporate actors with the (otherwise quite closed) academic community. They have a community manager, who is also involved in meanwhile activities as these enhance the attractiveness of the area to businesses, and are therefore a primary interlocutor for the T-Factor Pilot.

Amongst them you will find the main three actors; **Municipality of Amsterdam, NWO** and **UVA**, as well as associated organisations such as **KCAP, Karres and Brands, Green Campus** and **Sustainalab**.

Tier 2: stakeholders involved governance indirectly related to the park

Within the wider scope of the Amsterdam Science Park, governing institutions and organisations associated with planning, ecological development, cultural and economic development and funding are working together with the (key) stakeholders to align the development goals of the ASP with the requirements of sustainability and development goals. Their role here is to advise the (key)stakeholders on issues regarding climate resilience and urban planning or offer financial solutions and funding for local and citizen led green initiatives.

Examples are to be found for instance in the collaboration between **City Ecologist, advisory nature inclusive design and Green Campus coordinator, Els Corporaal** – who advises the municipality of Amsterdam on green maintenance, preservation, the flora and fauna law, participation, biodiversity and climate resilience) and **Sustainable city development advisory Valerie Deckers** – whom recently finished

a study on nature inclusivity, ecology and micro-climate: *Amsterdam Science Park natuurinclusief en klimaatadaptief*.

Another initiative spanning from the work of Els Corporaal is the **Academic table – Urban Ecology and Nature Based Solutions** which brings together exemplary initiatives and research in the field of urban farming, water-management and biodiversity and serves as a networking event for different stakeholders on site.

Organisations examples are for instance **Oost Begroot** - offering funding for local green initiatives, **Waternet** - who facilitates and researches the Amsterdam waters and **Amolf** - institute for fundamental science.

Tier 3: actors directly and indirectly involved in the park activities

Furthermore, there is a wide variety of actors currently involved within the science park. These meanwhile users span from green oriented initiatives such as a student and citizen led **Anna's Tuin & Ruigte** (Perma Culture initiative), **Jeugdland** (a non-profit youth nature playground) and **IBED** (research organisation on the topic of environmental dynamics), to **Spark Village housing organisation** who provides temporary housing facilities for youth in the age from 18-27, of which half of the locations are meant for status holders and **Future Planet Studies**. Other than that, you will also find a wide variety of start-ups and initiatives residing in the **Startup Village**; who rent out temporary facilities for the purpose of establishing a community of entrepreneurs in the field of tech, ai and soon also green developments. **Waag** has also set up residency within the Startup Village.

Through its diverse use, innovative aspect, as well as its meanwhile character, ASP has also managed to attract the interest of individual actors, initiatives and artists who currently do not reside at the location but have the intention to do so in the future. Whether that be for only a short project or event, or a longer period. Amongst them are bio-artist and material developers, storytellers, designers, art institutions and experimental

festival producers such as: **Dr. Esme Geerken, De Onkruidenier, Ambassade van de Noordzee, Fiber Festival, Waterwalks, Adriana Knouf, the Willem de Kooning Academie, Rietveld Academy, KABK, Theun Karelse** Though it's connection with Waag's Planet B and their Future Lab, Design and Technology program - more expeditions and relationships between the creative industries and this locality will be established.

3.3 ASSETS

Key assets identified for the implementation of T-Factor in ASP are:

- Dense governance, strong institutional presence
- Ecological passage (not only for biodiversity but also for strollers - recreation opportunities)
- Diverse, international university communities
- Capacity to develop and deploy **Nature-based solutions**.
- National science institutions of international standing
- Lively meanwhile functions (Anna's Tuin & Ruigte, Spark and Startup Villages)
- Development Sustainalab
- Cultural diversity - many perspectives present
- Legacy of successful temporary uses
- Meanwhile uses recognised and planned in ASP Regeneration Vision

3.4 CHALLENGES

Key **challenges in ASP for the implementation of T-Factor** are:

- Covid-related restrictions and their negative effects
- Isolation and disconnection with surrounding areas may make it difficult

to engage external actors

- Poor accessibility
- Reluctancy from the entity in charge of managing the permanent and semi-permanent uses of the area (project bureau 'ground and development') to allow further meanwhile functions at scale.
- Skepticism towards generating "too much ownership" through community involvement that may cause frictions with development plans by ASP decision-makers.

Key **challenges in ASP that the T-Factor can address** are:

- Thematic focus Smart & Green; 'Green' is underdeveloped
- Risk of becoming a 'concrete box' as the area becomes fully developed
- Enhancing liveliness of the area, especially outside office hours
- Participatory processes & connection to the surrounding neighbourhoods
- Opening up from the current introspective attitude of the area (lab-mentality)
- Vandalism and feelings of safety (open character of the urban space)
- Fragmentation contact points for park
- Limited exchange between biology-related research institutions - and the local ecology
- Flux of students; temporary residence
- On-site visibility of different stakeholders(meanwhile uses)
- Access to additional funding for local meanwhile uses
- How can a framework be developed to counter 'messiness' of the area due to fragmented governance?

The ASP Regeneration Vision has never been translated into a spatial framework. Without that framework, temporary initiatives cannot get a place.

4. CONCLUSIONS

The ASP will see a long evolution come to its final form in the eight coming years. In this period, many meanwhile uses have become established, yet, its ecological policy and green ambitions are only now beginning to show. As some interviewees noted, the park must avoid becoming a 'concrete box'. Until now, participatory processes have been underused in designing a future-proof park. Therefore, the potential of approaching meanwhile uses in terms of ecology has great potential in guiding the last years of development and adding a final chapter to the masterplan, where a living and lively world emerges.

The long arch of development of the ASP with a high level of realised masterplan uses, has led to the choice to focus on ecological meanwhile uses for the ASP pilot. The rationale for this choice is that successful meanwhile uses can extend beyond classical approaches that focus on cultural and economic activities in relation to the built environment, in particular where the space for such activities has become limited as the masterplan rollout continues. This means the context analysis has emphasised ecological functions and perspectives, based on an Urban Ecology framework developed in 2020.

With growing urbanisation and rising challenges linked to environmental degradation, a clear distinction between built and natural environments is increasingly hard to make. If anything, Covid-19, as a zoonotic virus borne from environmental degradation and spread through modern logistics, has driven this point home. Cities face complex questions in the mitigation of and adaptation to the impacts of climate change. Although these

developments can be daunting, they also open spaces for new and lively perspectives.

Urban ecology rethinks the relations of people and environment within the city, now understood as a living place co-inhabited by human and non-human forms of life. Such a city operates not by building machines that control processes, but by the mutual adaptation of living systems. Such adaptivity allows for our recognition of mutual dependencies on which to build relationships of care within the city. This shift in perspective potentially has a far-reaching impact, moving urbanism away from building and logistics, beyond people and 'man-made' material streams, to manifold ecological flows including geological, biochemical and living entities. From this follows an analysis of the city as a compound of flexible, nested realities, spanning ecological to technological agents.

Urban ecology reframes the everyday experience of urban environments. Rather than a world filled with distant and cold objects and their antecedent stressors (social pressures, noise, air and soil pollution, etc.), urban ecology emphasises a more intimate sense of place in which our environment is acknowledged as a living home that determines our wellbeing. Hence urban ecology is grounded in a physical, experiential and personal level, calling on the innate capacity of people to relate with the living world. In its aesthetics and economics, urban ecology departs from gentrification - the traditional perspective on the development of value in urban environments - articulating in its stead a notion of liveliness that arises from working with people and environment (and with all their surprises)

The thematic focus of the pilot actively engages with the goals of the ASP masterplan, as it was articulated recently in its updated 'Ontwikkelvisie' by enhancing 'the ecosystem for innovation' with 'human interaction' and 'integration into the urban fabric', as well as enhancing the 'interaction environment' as part of 'colouring' ('verkleuren') the area. The pilot focuses on the wellbeing of inhabitants in the area, as well as providing the facilities for the development of societal and ecological innovations.

The pilot at Amsterdam Science Park will be developed together with local communities within the framework of urban ecology. It will be structured as a series of thematic expeditions, which explore different aspects of the city as a living place. Each expedition includes artistic, scientific and citizen participants who bring together different perspectives and knowledge about their environment. In this way, values associated with 'liveliness' are explored as alternatives to traditional values of urban development. A preliminary set of expedition themes are proposed to develop this idea of liveliness:

- **Living memory** — hyperlocal (natural) histories
- **Sensing Habitats** — citizen sensing with nonhuman actors
- **Living architecture** — building with/for living environments
- **Polyculture** — community greening projects
- **Healing cities** — understanding the benefits of a living city
- **World without us** — rewilding the city

To support the expeditions, the planet B outpost at ASP functions as co-creation space, makers workshop, exhibition space and residency for guest artists and researchers - an environment for communities and shareholders to discuss urgent and mutual topics from a variety of perspectives and develop inclusive creative and cultural projects. The expected

outcomes are divided into 'meanwhile uses' that contribute to a socio-technical (ecological) infrastructure, ranging from 'prompt' events, to regular uses including training, incubation and workshops, to 'stable', potentially permanent uses such as markets, artist and community spaces.



EUSTON



EUSTON PLANNING
BRIEF BOUNDARY

London's T-Factor pilot in Euston is one of the largest and longest projects. Euston is a peculiar pilot because it is in proximity to other areas such as King's Cross which have themselves been under regeneration for the last twenty years. The implementation of the new development is expected to take at least twenty years; this makes the relationship with the community a key aspect of a successful implementation of the masterplan.

With an area covering 24Ha, in the heart of the UK's capital and involving one of the main country's land transport hubs, this pilot is extremely complex. Unlike the rest of the pilots, the Euston regeneration site is also in a densely populated area. Therefore, this report is extremely detailed so that it can capture the myriad of aspects that the development must deal with.

REGENT'S PARK ESTATE

1. LOCAL CONTEXT

Euston is located within the London Borough of Camden, on the Northern edge of central London, between King's Cross and St Pancras to the East, Regents Park and the West End to the West, Bloomsbury to the South and Camden Town to the North. Since the 1830s the area has undergone continuous change predominantly relating to updates in transport infrastructure at Euston Station. Euston station currently operates as a main transport terminus for London.

There are a number of defined neighbourhood pockets in the closer locality of Euston. To the East of the station, between King's Cross and Euston, is Somers Town which is a predominantly residential area with a mix of social housing. Bordering Somers Town to the East is the British Library and the Francis Crick Institute. Directly West of the station is Drummond Street, nationally famous for its variety of South Asian restaurants and sellers, and slightly further West are many pockets of social housing estates such as Cumberland Market and the Regents Park Estate.

Whilst there is a lot of residential use, there are also a wide mix of activities and land uses in the area. This includes commercial development Regents Place to the West of Euston station, on the North side of Euston Road. Opposite Euston station, to the South of Euston Road is cultural collection and museum; The Wellcome Trust, the large campus of University College London, the University College Hospital, a Quaker meeting house and St Pancras New Church, alongside residential street blocks. Euston station remains a major hub of activity and is used by approximately 50 million passengers each year. Euston Road to the South of the station is a main route across,

and in and out of, London, and is therefore busy with traffic and pollution, creating another complex pedestrian barrier between Euston, Bloomsbury and the city centre. Its architectural character has also been changed by a leap in scale and a shift from residential and smaller scale commercial uses to major office development. In its current formation, Euston station and the overground rail tracks create a harsh geographical divide between the East and West sides of the station, completely cutting these residential areas off from one another, with few routes across.

BRIEF HISTORY OF EUSTON

Up until the eighteenth century the parish of St Pancras was mostly common land and pasture, with the only buildings being the old church and two manors. However, change came rapidly after the 1750s and within less than a century the area had been transformed from open countryside to its present intensely urban form. The catalyst for change was the construction of the New Road in 1756-7, which ran from Paddington to Islington (now Marylebone Road and Euston Road). The most significant developments of the 1700's were the speculative venture by Jacob Leroux on land leased from Lord Somers and thereafter named as Somers Town, and the creation of Regents Park, designed by John Nash, a part of which was the creation of the Regents Canal. As explored in the Historic Area Assessment, 2013, 'The most dramatic intervention came in 1837 with the opening of Euston Station, with its cutting and railway tracks carving a swathe through the fields and streets of Chalk Farm and creating tremendous upheaval. Dickens, a one-time Somers Town resident, described the scene

as a “great earthquake” in his 1848 novel *Dombey and Sons*.’

Euston became the first inter-city railway terminal in London. The London & Birmingham Railway were authorised by Parliament to build their line between the two cities in May 1833 and by 1835 they had authorisation to build a terminus at Euston Square. This was shortly accompanied by a grand ‘Doric Arch’ gateway, designed by Philip Hardwick as an impressive entrance to the terminus site, and Euston station opened on 20 July 1837. In 1846 the station began its first major expansion and by the 1870s, passenger and parcel traffic had once more outgrown the capacity of the station; two new platforms, additional service roads and an additional entrance were created. By the 1890s, the Terminus had been enlarged once more, with four more platforms being created.

By the 1950s, steam locomotives were being phased out, and BR’s London Midland Region took the decision to completely rebuild Euston as part of the electrification of the main line between London and the North West of England. The restrictions of the original site layout meant that the redevelopment had to make use of the land occupied by the Great Hall and the Doric Arch, which were demolished in 1962. A total of 18 platforms were built; 15 for passengers, 3 for parcels. Building work started in 1962 and was completed in 1966 with the newly electrified main line. Phase two focused on the passenger station. A spacious, open concourse over two levels provided new access to London Underground services, shops, restaurants, and a new travel centre. Since its reopening in 1968 there has been little change to the overall design of Euston station, although in the late 1970s a bus terminal and three office blocks were added to the plaza to the front of the station.

HS2’S CONTEXT

In 2017 the High-Speed Rail Act 2017 authorised construction of the first phase of High Speed Rail 2 (HS2). High Speed Rail 2 Limited was set up as a separate body

by the Government to develop, build and operate HS2. It is a non-departmental public body, wholly funded by and answerable to the Secretary of State for Transport, and sponsored by the Department for Transport. HS2 is a high speed railway project linking London, the Midlands, the North and Scotland, eventually serving over twenty-five stations, including eight of Britain’s ten largest cities. The London terminus is at Euston and the construction of the new railway is split into three phases – Phase One linking London and the West Midlands; Phase 2a linking the West Midlands and the North via Crewe; and Phase 2b completing the railway to Manchester and Leeds. Phase One is between London and Birmingham on 140 miles of dedicated track, at an anticipated cost of £35bn-45bn and is currently planned to open between 2029 and 2033.

HS2 has become a highly disputed scheme that has also been recently scrutinised through an independent review, the Oakervee Review chaired by Douglas Oakervee, in 2020. Those who support the project say it will improve transport times, create jobs and help the country’s economy, especially the balance between the financial centre of London, and the North of the UK. Nationally, critics of it are worried about how it will impact wildlife, the countryside, their homes, the immediate and long-term effects of losing ancient woodland and how much it will cost. The scheme is not supported by a lot of the residents surrounding Euston. Residents and businesses are already facing years of disruption including severe dust and pollution, construction noise and vibration, construction traffic, issues with rats, road and path closures causing loss of footfall to businesses, and loss of green open spaces. Coupled with the HS2 construction works which have already begun at Euston, Network Rail, Crossrail 2 and Transport for London are also planning updates to their systems at the station.

SOCIAL, ECONOMIC AND CULTURAL PROFILE

Despite its proximity to the centre of London and being one the busiest transport hubs in London surrounded by commercial, cultural and educational centres, the residents of Euston continue to face many social, economic, environmental, health and educational barriers. Despite this there is a very strong sense of community, especially within neighbourhood pockets, and there are also many local organisations working to alleviate specific issues in the short and long term, alongside Camden Council.

Euston has a very diverse population with higher populations of people within a range of ethnic groups than Camden overall. A higher proportion of households live in socially rented accommodation compared to the rest of Camden, 56% in Euston compared with 33% across Camden. There are concentrations of social rented households in Somers Town, Regent’s Park Estate and Amptill Estate. Whilst the population densities of St Pancras and Somers Town ward and Regents Park ward are close to the borough average, areas nearest Euston Station are over twice the density of Camden’s average. Therefore, households in these areas report higher rates of overcrowding than Camden as a whole. A high proportion of families in Euston have dependent children (Euston: 54.4%, Camden: 44.5%), and a huge number of these children are on the children’s social care system, 53.8%, compared with 40.7% in Camden - this includes children who are disabled, who have to be protected from harm or who need to be placed in residential or foster care. There are also issues around loneliness demonstrated by the Phoenix Road area to the East of the station being in the top 10% in England for probability of loneliness in those aged 65 or over.

There are many economic challenges in the area relating to economic inactivity, low household incomes, older people and children living in deprivation, a high proportion of families in the area on tax

credits and a high percentage of working age adults in receipt of work benefits. In terms of the economic activity of residents, 48.3% of residents are economically inactive compared with 31.9% Camden overall. The mean annual household income is approximately £20,000 lower than Camden as a whole: £32,967 in Euston compared with £52,962 across Camden. There are a high proportion of working age adults in receipt of Universal Credit (Euston: 21.5%, Camden: 9.3%), many children are living in poverty (Euston: 44.6%, Camden 36.3%), a high proportion of families are on tax credits (Euston: 76.1%, Camden: 61.8%) and many older people are living in deprivation (Euston: 42.9%, Camden: 30.8%). Whilst there are 8,200 jobs in Euston, representing 3.1 jobs per capita of working age residents in Euston, the jobs are often not reaching the residents of Euston themselves.

Economic barriers are often caused in part by a lack of access to and attainment within education. This is demonstrated in Euston by a high proportion of residents having no qualifications, 18.6%, compared to 12.7% across Camden. In Euston there are also a much lower proportion of residents with Level 4 and above qualifications than Camden overall. There are also barriers around language in the Euston area where 6.1% of residents cannot speak English, or speak English well, compared to Camden at 3.2%.

Despite many residents reporting good health, there are some specific issues around health and well-being which pose challenges such as high levels of childhood obesity, and high rates of death by lung cancer. Whilst the total land area of Euston is 33.6 hectares, just 8.7% of this land is public green open space, which is extremely poor compared to Camden overall at 24.8%. This is reflected in public green space per capita at 8.5sqm in Euston, compared to Camden overall at 24.5 9sqm per capita. According to Camden’s Neighbourhood Profile for Euston, published in 2015, the Living Environment Deprivation in Euston (the larger of the two Lower Super Output Areas) went from

being within the top 10-20% most deprived in England in 2010, to within the 10% most deprived in England in 2015. This has already become further exacerbated by the loss of open green space due to the current HS2 works in and around Euston including the loss of St. James' Park to housing, the closure of Hampstead Road open space, Euston Square Gardens and the closure of ballparks in the area.

Whilst there is an intention for the regeneration project to actively contribute to the issues that residents in the area face, there are substantial embedded issues. There is also a population increase of 11.4% predicted by 2028, which will present challenges and pressures around the integration of new and existing communities.

2. REGENERATION PROJECT

2.1 THE VISION

The regeneration of Euston is multifaceted; however, the works around HS2 are central to the vast changes in the area, and the project has been described as an 'infrastructure led regeneration project' by the developers Lendlease who are leading on the design of the Over Station Development.

According to Camden, the planning of the regeneration project started in 2012 when they were compiling research and information for the Euston Area Plan (which would be published in 2015). At that point in time, Camden were opposing the HS2 scheme however, it became increasingly clear that it might be outside of their powers to resist it. Therefore, they decided to assign resources towards creating a strategy and planning framework ensuring economic leverage for the local area of Euston if HS2 was given the go ahead. At the time, in 2012, Camden set up the Euston Strategic Board and Management Board to bring together key stakeholders in the regeneration of Euston – Camden, GLA, TfL, Network Rail and HS2 along with Crossrail 2 and The Department for Transport. The Leader of Camden Council and the Deputy Mayor for Planning at the GLA jointly wrote to the Secretary of State outlining the need for the project to be viewed beyond a purely national infrastructure project but as a project that could provide benefits to the regeneration of Euston as a neighbourhood. The letter highlighted the need to ensure that the HS2 station was designed to enable development above the station and tracks as this would allow the creation of thousands of new homes and jobs.

In addition, Camden has secured HS2 assurances and funding to improve existing green spaces to mitigate against HS2 construction works and loss of public open space - this is known as Open Space Improvements but also referred to as Camden 6 Sites. The HS2 funding for this piece of work amounts to £2.7m. The project is currently being run by Camden council with Groundworks, a federation of charities mobilising practical community action on poverty and the environment across the UK. The main aims of the project are below:

- **Improvement of seven named public open spaces.** The sites are identified specifically in the assurance as Munster Square, Clarence Gardens, Cumberland Market, Amptill Square, Hope Gardens, Lancing Street and Tolmers Square. There is no funding limit specified for these projects.
- **Creation or improvement of other open spaces** (Up to £1.5 million, over and above the named site improvements) This is likely to include projects that create new green spaces where feasible, as well as improving the quality of existing green spaces and enhancing the benefits they offer.
- **Nature conservation enhancements** (Up to £500,000) Exploring opportunities within the impacted area for habitat creation and improvement, which could contribute to strategic ecological networks in Camden.

Engagement with the public on how these funds should be spent are currently underway. Concept designs are being developed for each site and engagement with the local community. The team is using

the online tool Commonplace to engage residents digitally but the tool is currently underused.

Broadly speaking there are five different components to the regeneration of Euston, as outlined in the following section.

2.2 DEVELOPING THE MASTERPLAN

EUSTON AREA PLAN

The Euston Area Plan is a policy document put together by Camden council outlining the development criteria for Euston as an Opportunity Area for Growth (defined within the Camden Plan 2017 and with the London Plan 2016 published by the Greater London Authority). The current Euston Area Plan was adopted in January 2015 however, the information gathered is now out of date by 6-7 years and was compiled before the HS2 Bill received Royal Assent, and the HS2 project given the go ahead in 2017. A revised Euston Area Plan is currently being produced by Camden council (alongside the Greater London Authority and Transport for London) informed by community engagement which is due to be finalised by 2023. The Euston Area Plan sits below the main policy document for the Borough, which is the Camden Plan 2017, usually updated every 5 years. Camden council's role on the project is to set guidelines for future development, seeking to address the needs and opportunities of the area which will be outlined in the Euston Area Plan. Their role also encompasses assessing applications for planning permission against planning policy for the future Lendlease Masterplan, and the Leader and Chief Executive of the Council are members of the newly formed Euston Partnership Board (which will eventually replace the Euston Strategic and Management Boards) where they promote local community and business needs and the creation of Euston as a place, not just as a transport hub.

HS2 is a project that was originally opposed by Camden council, due to the huge impact

it would have on the local communities at Euston. During the Parliamentary Process for the HS2 Bill (the Bill required to give powers to deliver HS2) Camden's petitioning resulted in the Council being given over one hundred assurances to mitigate the impact of construction on the area. Given the scheme now has Royal Assent and is being delivered the Council is now working to ensure these assurances are kept and working in partnership on the long term planning of the station and tracks.

HS2

The HS2 Bill received Royal Assent, and the HS2 project was given the go ahead in 2017 with early site works commencing in April 2017. Because the HS2 project is an Act of Parliament it has its own specific powers, which means that it is not held to the same planning requirements and regulations as other types of regeneration projects. As part of their role, HS2 will be creating new and replacement open space, bus, taxi and cycle facilities, as well as improvements to Euston and nearby Euston Square tube stations. They are also responsible for minimising the disruption and impacts of the construction works. An independent review, The Oakervee Review, was carried out in 2020, chaired by Douglas Oakervee, into whether and how to proceed with the High Speed 2 project. Supported by a panel of experts, a range of perspectives were represented from business, academia, and the transport sector to ensure an independent, thorough and objective assessment of the project. The review looked at whether and how HS2 should proceed, using all existing evidence on the project to consider its benefits and impacts, affordability and efficiency, deliverability and scope and its phasing.

The Oakervee Review gave the go ahead for HS2 to continue however, a series of comments, recommendations and requirements were issued. It outlined that the Euston station and approaches designs were not working and needed to be looked at in more detail. It also outlined that a comprehensive Single Plan for

Euston was needed and as part of this it stated that a SRO (Single Responsible Owner) station design process with four options was required in order to get closer to identifying a concept that could enable comprehensive redevelopment. The project was also under obligation to set up a new governance system which enabled a single entity to oversee all works - in response to this, sponsored by the Department for Transport, The Euston Partnership was established in July 2020 to actively promote and enable closer collaboration and joint working between all Partners working at Euston. The board consists of members from High Speed 2 Limited, the Department for Transport, London Borough of Camden, Lendlease, Transport for London, the Greater London Authority and Network Rail. The Euston Partnership aims to drive a singular focus on Euston, and achieve the benefits of integration across the three capital projects on the site. Achieving these benefits through improved decision making, effective collaboration and effective risk management. There is also a recommendation from the London Borough of Camden to create The Euston Partnership Community Review Panel in order to ensure that the local residents and the business community have the opportunity to contribute to decision making concerning current or proposed future works and plans in relation to One Euston and the future redevelopment of the area.

OVER STATION DEVELOPMENT (OSD)

Lendlease were appointed 'Master Development Partner' (MDP) of the Euston development by the Secretary of State for Transport and Network Rail in 2018. They are responsible for the planning and then the building of everything above, between and around the HS2 and Network Rail Stations - a site of almost 60 acres, encompassing the current station site, down to Euston Road to the South, until Eversholt Street to the East, areas of streets and buildings to the West, and all of the existing exposed rail track network to the North of the station up until the Parkway Road (A4201). This will

include new offices, homes, cafés, shops, community, leisure and entertainment facilities, and new public spaces including squares and green space.

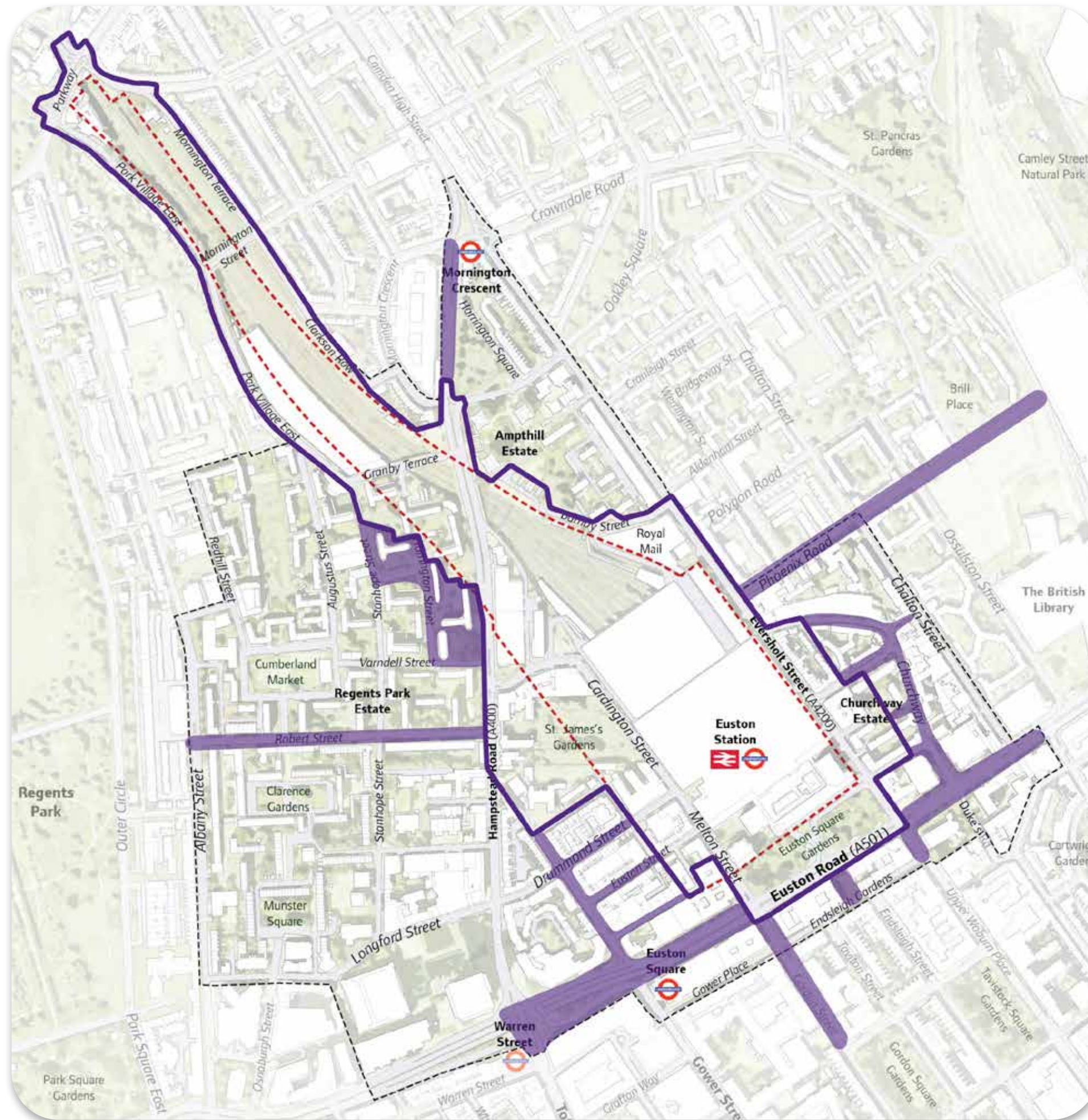
Lendlease are in the process of creating a masterplan for Euston however, there is currently very little information available about the specifics of the Masterplan and Over Station Development. Whilst they are not actually overseeing the build of the stations themselves, they are working closely with HS2 - who are responsible for delivering the new HS2 tracks and station, and Network Rail - who own and operate the existing mainline station, and are leading on the design of a new mainline station at Euston. In their role as Master Development Partner, they are working with the Department for Transport, Network Rail, Camden, HS2, the Greater London Authority, Transport for London, and the local communities to set out how Euston could be transformed.



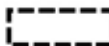
As part of the masterplan, Lendlease will be seeking planning permission to build above the station itself, with access via stairs, escalators and lifts to the area above the rail tracks. The current timescales being presented as the earliest estimate of when the Over Station Development construction phase can commence is between 2026 and 2028, with the current estimate of first HS2 trains between 2029-2033.

CROSSRAIL 2 AND NETWORK RAIL

Transport for London (TfL) operates tubes, buses, the Overground and strategic local roads. Many of these will be upgraded as a result of the HS2 works. TfL are planning to deliver CrossRail 2, which will include a station with entrances at Euston and St Pancras, connecting to stations in the North-East and South-West of Greater London. Delivery of CrossRail 2 was estimated for 2033 however, TfL do not have a viable funding package for the scheme at the moment and works on the project have stopped.

Network Rail manages the existing Euston



-  Planning brief boundary (proposed)
-  public realm wider zone of influence
-  Euston Area Plan boundary
-  HS2 safeguarding area

 Euston planning brief boundary with public realm zone

station and railway tracks and will be involved with redeveloping the existing Euston station and preparing the site for HS2 construction.

2.3 PARTICIPATION IN THE REGENERATION

There is a substantial amount of citizen engagement being carried out in the Euston area, contributing towards the different aspects of the regeneration project as outlined in the last section. An example is “The Euston Partnership Communications and Engagement Panel” as well as the monthly Euston Planning meetings. Due to the vast number of participation projects currently being carried out, there is also a group that meets once a month consisting of representatives from Lendlease, HS2, the Euston Partnership, Camden council, CSM, UCL and other external consultants such as Soundings. This group was originally set up by Camden Council to discuss the on-going government, institutional and developer participation strategies and projects currently being carried out in the Euston area. The group encourages a sharing of engagement activities across Euston to foster transparency between groups and ensure that different people and/or groups are not repeatedly asking residents the same questions. Camden are well aware of the engagement fatigue felt by residents and are looking for ways to make sure that there is a common communication strategy across those coordinating engagement activities in the area.

Types of Engagement:

- Statutory consultation carried out by Camden as part of the Euston Area Plan review
- HS2 consultation and engagement (not statutory but advised by parliament by Oakervee Review)
- Supporting information for Planning Application collected by Lendlease: engagement activities that support public consultation

- Day to day engagement carried out with local residents and businesses by local charities, social enterprises, neighborhood forums and other groups representing community voices and interests

In this section a variety of participation and engagement activities currently occurring in the Euston area are presented. This is not an exhaustive list but a cross section of the various activities.

EUSTON AREA PLAN

The EAP is a statutory planning document focused on change in the Euston area and as part of the process, consultation with residents is a statutory requirement. The purpose of citizen engagement and consultation for the EAP is for Camden council to understand what local residents and businesses think is important about Euston but also how the regeneration project might address some of the challenges being faced by local residents and businesses in the short and long term. The EAP is being run by LB Camden with inputs from delivery organisations including Transport for London, Greater London Authority, HS2, Network Rail and Lendlease. The current Euston Area Plan was adopted in January 2015 however, the information gathered is now out of date by 6-7 years. Therefore, a revised Euston Area Plan is currently being produced by Camden council (alongside the Greater London Authority and Transport for London), which is due to be finalised in 2023.

Alongside the Euston Area Plan (EAP), Camden produced the Draft Euston Planning Brief, which looks more closely at the HS2 and National Rail site, and the opportunities it could bring. Lendlease has been part of this process through formal consultation and discussions with Camden regarding the concepts, which could be brought forward in Lendlease delivering their comprehensive masterplan at Euston. Due to continued uncertainty around the station design the Planning Brief work has now been paused so that the update to the

Euston Area Plan can be prioritised.

RESIDENT ADVISORY GROUP (RAG)

As part of the statutory consultation by Camden on the Euston Area Plan, a Resident Advisory Group was set up in 2020. Approximately 30 local residents were chosen who are reflective of local demographics. Instead of only consulting existing community groups in the Euston area, the RAG was formed to ensure that resident voices were as representative of the different communities living in Euston as possible. There have been 6 sessions with the RAG so far and a list of recommendations has been advised, which will be reviewed by The Euston Partnership Board and the Group will also inform other engagement projects. The group will be brought back together to inform the Lendlease master planning process.

HS2 COMMUNITY LIAISON MANAGER

Camden employs an HS2 Community Liaison Manager who is also a resident of Regents Park Estate, one of the social housing estates being directly affected by HS2 works. Their role within Camden council is to work with residents in order to signpost them towards the bigger picture of the regeneration project, to empower residents to speak out and also to advocate on their behalf. From the HS2 Community Liaison Manager's point of view many residents are facing difficulties due to the on-going construction works in the area. There are also a vast array of barriers to engagement which have been made even more severe due to Covid, making it more difficult to reach some residents. Many local groups are also on their knees in terms of finances, this has particularly affected multicultural food outlets, shops and services such as those at Drummond Street: the construction works for HS2 have impacted on the day to day running of these businesses, and this has been coupled with a reduction in business due to Covid.

LENLEASE DRAFT CONSULTATION STRATEGY

The masterplan for Euston is focused on the Over Station Development being overseen by Lendlease, as a consultant to the landowners - Department for Transport and Network Rail. The objective, as stated on the Lendlease Euston website, is to work with local people to help them understand what benefits the masterplan can bring to them and to particularly target those who are seldom heard in consultation processes. Lendlease aims to complete their consultations before submitting a planning application for the masterplan to the London Borough of Camden in 2022.

Lendlease are currently undertaking consultations and engagement in preparation to support their planning application submission for the Over Station Development in 2022. Lendlease are working with various external consultancies to assess both the secondary open data available on the Euston area, and to deliver primary research. There are also intentions by Lendlease to set up a series of ‘Big Talks’ - inviting guest speakers and providing opportunities for members of the local community to open up the discussion on how global issues can be tackled locally.

COMMUNITY INTEREST GROUPS

Soundings have been working as citizen participation consultants for Lendlease on the Euston project since July 2020. Their role was initially around the mapping of the existing context and stakeholders to understand the lay of the land; specifically what participation work had been done in the area already, and any work that was planned. Soundings are now working on bringing together three Liaison Groups made up of residents and specific local groups. The idea is that these groups will become a sounding board for the wider masterplan within Lendlease and there is potential to grow capacity within these groups in order for them to become more established long term in the area as charities or community interest groups. The groups

will be representative of the area and are initially formed by geographical area but then they will be looking at cross-cutting themes across all three groups, making sure that there is common ground for discussion both around geography and themes between groups. Both Covid and budget issues with the larger project have delayed their work however, they will be working on the ground to set up the groups from Spring 2021.

PUBLIC LIFE STRATEGY

Publica were commissioned by LendLease to carry out a piece of research called a 'Public Life Strategy' at the end of 2019. The commission was started by Publica in June 2020 and has four different work streams. The first part of the work was an overview methodology looking at the wider area survey at Euston, closely examining the broader context of the masterplan and all the different communities surrounding Euston, then Publica were developing the public life strategy itself. The two other work streams were based on Lendlease's desire to tackle some of the key global social issues in the regeneration project at Euston, and the last work stream was a literature review looking at social isolation and loneliness, which has been a real concern for Camden. Publica have been bringing this work together to establish a set of principles for the masterplan, and to support the planning application.

GOOD LIFE INDEX

The Good Life Index is a project by The Institute for Global Prosperity (department within University College London) partnering with Camden council and local charity Camden Giving as facilitators who are both well connected into the local networks, and Lendlease as the developer and funding partner. They are working together to understand the experiences of local communities most affected by the major regeneration project in the Euston area, and to develop a new prosperity and wellbeing index for Euston which is co-

produced with local people and defined by their lived experiences. This involves teaching, training and designing curriculum, that in turn trains community members to become social citizen scientists. Each stage of the process is co-led by the participants via a Citizen Social Science process, which builds on methods and approaches from community based participatory research. Citizen Science is defined as members of the public having a greater role within research and recognising the invaluable role they play in providing insights a researcher may not typically have. This is seen as a way to decolonize the research process, and instead of extractive models of research, the project is offering a skill in return and is co-produced with local participants at every step. The process started in June 2020 and will conclude in March 2021. Phase 1 of the project started with a 6 week 'Young Euston Voices' research program and Phase 2 is a 10-week 'Euston Voices' research program. The intention is then to use the initial data to co-produce a conceptual model to represent what prosperity means to local residents, which is then translated into new ways to measure prosperity in the area. Household surveys and the survey results are used to construct Performance Indicators, which will be sent out to around 1000 local residents. The Euston prosperity and wellbeing index will then measure the impacts of regeneration on local communities over the long-term to support decision making and investment based on resident-led priorities that benefit local communities. It is also seen as a first step in building a borough-wide index across Camden.

EUSTON TOWN BID (BUSINESS IMPROVEMENT DISTRICT)

The Euston Town Business Improvement District (BID) was started in response to HS2's plans, and was initiated by the team behind a local BID, Camden Town Unlimited. At the time that HS2 construction works were about to begin, the consultation with local businesses was thought to be fairly chaotic, therefore Camden Town Unlimited

(a local BID) were approached by TfL to either expand their geographical remit or set up a separate BID for the Euston area which is what they did. The Euston BID works closely with Camden council, within a specific geographical area in Euston, representing businesses, both large and small. They provide a cohesive lobbying voice for their business members in all areas including HS2 works disruption. They comment on upcoming work programs on behalf of businesses that are impacted, and help them to engage with HS2 when there is a perceived breach of assurance. At the moment they are focussed around supporting businesses to thrive in very tricky conditions with the HS2 works and Covid, but they are also working to secure local businesses a place within the future of Euston as well.

HS2 ENGAGEMENT ACTIVITIES

The HS2 engagement activities in Euston are led by the Community & Stakeholder Engagement Team within HS2. There is a broad spectrum of engagement activities at Euston which is loosely divided into routine engagement with a broad spectrum of Euston residents, alongside regular recurrent community group meetings where more in depth discussions are had, and the Euston Community Representatives Group (ECRG) brings together people from specific community organisations in the area and meets quarterly. Whilst the HS2 Community & Stakeholder Engagement Team are not working on a specific meanwhile strategy for Euston, they are working on meanwhile projects such as wayfinding, and also confirmed that there is a wider strategy through the HS2 contractors MACE Dragados, who have proposals for seventeen potential meanwhile projects. They are currently in discussion about which of these projects will be prioritised for delivery.

THE EUSTON PARTNERSHIP ENGAGEMENT ACTIVITIES

The Euston Partnership was set up in July

2020 with a board consisting of members from HS2, the Department for Transport, Camden Council, Lendlease, Transport for London, the Greater London Authority and Network Rail, in response to governance recommendations from the Oakervee Review. Communication and engagement were key areas that The Euston Partnership was set up to focus on, making sure that the different partners were collaborating and working towards the same strategic goals. Alongside The Euston Partnership Board with leading representatives from each partner, there are a few sub-panels, these include Euston Integration Panel, Integrated Design Panel, the Place & Social Value Panel (which includes a sub-group 'The Meanwhile Use Working Group'), Construction Integration and Performance Panel, a Communications and Engagement Panel, Community Review Panel and Station Operations Panel.

According to the Communications and Engagement team within The Euston Partnership, their role is to facilitate the coming together of different partners in the planning and delivery of the various engagement and participation activities. This means they are not leading on specific projects but make sure that they have oversight of all activities. They are specifically working to make sure that the three different delivery organisations - HS2, Network Rail and Lendlease - are all aligned in terms of consistency of message and sending out timely, clear information to the different audiences that they all need to reach. The Communications and Engagement Team within the Euston Partnership convene a group that meets once a month with all of the communications and engagement representatives from The Euston Partnership organisations, where all engagement activities are put down on a Excel grid in order to have an overview of all activities in the area. They also facilitate the monthly Communications and Engagement Panel which agrees on the strategic communication and engagement

priorities across One Euston and facilitates joint working and collaboration. There is an intention, being driven by the London Borough of Camden, for there to be a Community Review Panel that feeds into the Euston Partnership in order to have a voice of the community at a higher level within the Partnership but this has not yet been realised.

SOCIAL ISOLATION & LONELINESS

One Euston presents a unique opportunity to tackle Social Isolation and Loneliness (SIL). As both a global issue, as well as a live concern for Camden, combating SIL is vital for all communities' wellbeing. For a number of years efforts in this area have been gaining momentum with work by the London Borough of Camden, as well as other initiatives led by University College London, Central Saint Martins, Global Generation, and many others. The Loneliness Lab was co-founded in 2018 by global property and infrastructure company, Lendlease, and social innovation non-profit, Collectively. The collaboration and research started in Elephant and Castle but also in Euston. The publication 'Using design to connect us' identified three key components in the urban environment to tackle loneliness: the physical environment, the programming and the policy of places.

NEIGHBOURHOOD PLANNING FORUMS

Neighbourhood planning was a key governmental reform from 2011's Localism Act, which has proved popular with communities. Neighbourhood planning has the potential to give communities direct power to develop a shared vision for their neighbourhood and shape the development and growth of their local area. They are able to choose where they want new homes, shops and offices to be built, have their say on what those new buildings should look like and what infrastructure should be provided, and grant planning permission for the new buildings they want to see go ahead. Neighbourhood planning provides a

powerful set of tools for local people to plan for the types of development to meet their community's needs and where the ambition of the neighbourhood is aligned with the strategic needs and priorities of the wider local area. There are two Neighbourhood Forums established as forums for neighbourhood planning in the Euston area: Drummond Street Neighbourhood Forum and Somers Town Neighbourhood Forum. Despite this there is no formal role for either Neighbourhood Forums in the planning of Euston currently.

The **Drummond Street Neighbourhood Forum** represents both businesses and residents on Drummond Street and presents a cohesive voice for these individuals and groups. As outlined in their constitution, the DSNF was set up to promote the social, economic and environmental well-being of the Area; and to draw up and maintain a Neighbourhood Development Plan for the Area. Being so close to Euston station, and the HS2 work sites, they are at 'ground zero' of the multiple challenges presented by HS2. Drummond Street has a large Bengali community and is known nationally for the range of South Asian restaurants present there. The traders there have faced a huge downturn in footfall and therefore customers in the last two years for many reasons including difficulty in wayfinding, construction traffic, construction noise and dust, road closures, two hotels being knocked down as part of HS2 (which were large customer bases for them) and Covid. The Drummond Street area has fought particularly hard to keep the direct route open from Euston to Drummond Street, and the businesses have been given assurance by the government that there will remain a route through.

The current chair of **the Somers Town Neighbourhood Forum** has been a local resident of Somers Town for twenty years. When the Localism Act was passed in 2011, Somers Town was one of the very first areas to be designated a neighbourhood planning area - the residents and interest groups knew that a lot of change was coming

down the line that they would need to be organised for and respond to. According to the Somers Town Neighbourhood Forum, 'it has been very difficult to make a neighbourhood plan in an area such as Somers Town, partly because we have a very deprived and diverse community that needs a certain amount of support in order to be able to engage with and develop complex planning policy. And secondly because community need in the heart of the Knowledge Quarter has to be balanced against national and international considerations. The community prioritises social homes and green and open space. The nation demands specialist hospitals, national libraries, biomedical research labs and international train stations. It is very difficult for a community group to have any kind of influence over the type of development that is coming forward.' The STNF was designated in 2013 and whilst they have a Somers Town Neighbourhood Plan in draft form, it is not yet acceptable to Camden council to put forward for formal examination. Despite this, the Forum has supported local residents to become more informed and engaged in planning issues than they were a few years ago, and this can be seen through their knowledge of local plans and involvement in discussions, such as the neighbouring British Library extension.

EUSTON HEALTHY STREETS

Euston Healthy Streets is a partnership between Camden and TfL focusing on placemaking improvements to three major roads in the Euston area. Engagement with local residents has been carried out to develop a joint vision and ensure there is no impact on smaller local roads. Initial views on draft visions were sought from the local community and businesses at a workshop in early Dec 2020. Wider engagement is planned via Commonplace for 2021.

OPEN SPACE IMPROVEMENTS

Camden has secured HS2 assurances and funding to improve existing green spaces

to mitigate against HS2 construction works and loss of public open space - this is known as Open Space Improvements but also referred to as Camden 6 Sites. The HS2 funding for this piece of work amounts to £2.7m. The project is currently being run by Camden council with Groundworks, a federation of charities mobilising practical community action on poverty and the environment across the UK. The main aims of the project are below:

- **Improvement of seven named public open spaces.** The sites are identified specifically in the assurance as Munster Square, Clarence Gardens, Cumberland Market, Amptill Square, Hope Gardens, Lancing Street and Tolmers Square. There is no funding limit specified for these projects.
- **Creation or improvement of other open spaces** (Up to £1.5 million, over and above the named site improvements) This is likely to include projects that create new green spaces where feasible, as well as improving the quality of existing green spaces and enhancing the benefits they offer.
- **Nature conservation enhancements** (Up to £500,000) Exploring opportunities within the impacted area for habitat creation and improvement, which could contribute to strategic ecological networks in Camden.

Engagement with the public on how these funds should be spent are currently underway. Concept designs are being developed for each site and engagement with the local community. The team is using the online tool Commonplace to engage residents digitally but the tool is currently underused.

GREENING PHOENIX ROAD, HIGH STREETS ACTIVATION AND CAMDEN RENEWAL COMMISSIONS

Camden has secured funding to improve green spaces in and around the Phoenix Road, which is just East of Euston station. Engagement with the public on how

these funds should be spent is currently being carried out. Concept designs will be developed for each site and engagement with the local community carried out. Through online platform Commonplace. LDA consultants will work with Phoenix Road residents on creating green links between Euston and St. Pancras station. Partnering with Global Generation on work around greening estates and courtyards. Covid-secure walk and talk sessions will also take place. The partnership consists of LB Camden, Phoenix Road residents, Groundworks, Environmental charity Global Generation (based at nearby Story Garden), Architecture, Design and Participation consultants.

High Streets Activation is being run by LB Camden with cross-council support, in partnership with Euston Town Business Improvement District, high street owners and tenants. It is a cross Council response in light of the pandemic to declining High Streets and how to bolster their recovery. Focusing on the physical environment on high streets and supporting the Euston Town BID to deliver their vision for Drummond Street, and the market and high street at Chalton Street. Linked to GLA High Streets For All, as part of GLA Covid Recovery.

Led by Camden Council and UCL's Institute for Innovation and Public Purpose (IIPP), the Renewal Commission will develop practical solutions to help achieve an inclusive and sustainable economy that addresses the inequalities present in Camden. The Participation Team at Camden are looking at Social Action pop-ups across the borough. Also using online tool Commonplace and a website to post notes, blogs and learnings.

CENTRAL SAINT MARTINS / PUBLIC COLLABORATION LAB

Public Collaboration Lab is a collaborative design platform, established in 2015 by Central Saint Martins/UAL and Camden Council, supporting strategic cross-sector and interdisciplinary collaboration with citizens and other local stakeholders. The Lab co-creates place-based solutions to

local challenges, delivering a portfolio of 'live' collaborative design projects, that draw on the publicly engaged and participatory practices of CSM/UAL staff and students from a range of disciplines including art, design, and spatial practices. Through challenge driven learning, knowledge exchange and action research, lab projects redesign ways of developing and delivering public services and spaces, promoting interaction, collaboration and social cohesion.

MAKE @ STORY GARDEN

Since August 2019 PCL has been working with council (Camden Council), community (Somers Town Community Association/ Living Centre) and commercial (Lendlease) partners in the provision of a public space for creative collaboration. Co-funded by all partners, MAKE @ StoryGarden (M@ SG) is a versatile community studio space for creative collaboration with and by the community, bringing together the skills and talents of those who live and work in the Somers Town and Camden area to address local issues and social challenges. The space hosts a diverse programme of college-led, community-led and partner-led events and activities in culture, arts and design. The facilities available include: hand tools, kiln, printing equipment, knitting and sewing machines, and digital tools including 3d printers and a laser cutter. The project is situated within The Story Garden, a meanwhile community garden behind the British Library in Somers Town.

PUBLIC STUDIO

The public studio aims to support implementation of existing projects, developed by CSM/UAL students working in collaboration with council and community partners, that have potential to address challenges and opportunities linked to Covid and disruptive development. The public studio is funded by UAL and project implementation is match funded by council and community partners. For this reason, public studio projects must align with and

support partners' existing project plans and objectives - bringing additional capacity to achieving partners' objectives. The studio brings together CSM/UAL students and graduates to work with young people from the local area supported by college, council and VCS staff. The studio will deliver projects over 6 months between Feb- July 2021.

Example projects include:

- Mobile Maker Space (MMC) provides an outdoor facility for creative participation and engagement. The project aims to create a mobile platform and service proposition that supports the delivery of participatory arts and making activities in Camden's parks and streets
- Service design for meanwhile access. Prototype and testing of a service model/ toolkit for brokering inclusive and equitable access to unused spaces
- A youth enterprise project developed over a year by BA product designers working with Somers Town Youth Club and MAKE
- Building on concepts developed through the 'Reclaim Public Space' studio delivered in Summer 2020 this project provides opportunities for greening and activating the public realm in Somers Town

Public Studio provides a prototype for T Factor project delivery.

VCS LED ENGAGEMENT ACTIVITIES

There are many well-established VCS organisations in the Euston area. Each of these organisations carries out their own extensive engagement activities with the local individuals and groups they specifically represent. Sometimes Camden council and/ or development partners support these programmes financially but they are also funded through many other avenues. Two local charities, Hopscotch and Fitzrovia Youth in Action, were interviewed as part of the T-Factor Pilot research. Whilst the activities of these organisations are not always specifically involved with the

regeneration project directly, they represent local residents who are directly affected by the works and therefore are a key part of the citizen participation network. The below represents the specific viewpoint of these organisations however, there are a vast array of other similar organisations in the area working with other specific groups, as outlined in the Actors' Mapping.

HOPSCOTCH WOMEN'S CENTRE

Hopscotch traverse a line between grassroots organisation and major charity. They are the only provider of services to women on the intersection of gender and racial inequity, often supporting very hard to reach women and girls in the Euston area. Hopscotch provides a holistic service so that their users can access welfare, have support tackling poverty, and also support in tackling domestic abuse. Hopscotch also offers employment programmes to tackle economic independence issues and throughout all of their programmes they offer mental health support. Whilst there are many ongoing difficulties and barriers for the Hopscotch service users, the situation has been made worse by the HS2 construction works through confusing communication of construction works, language barriers, re-location of homes, wayfinding and general disruption through dust and noise. Hopscotch have built strong and lasting relationships with residents in the area, and also have strong collaborative relationships with other local organisations such as the nearby Camden People's Theatre who have run collaborative workshops with their service users on a number of occasions. An example of this was Camden People's Theatre using HS2 funding to create a theatre piece about the history of the area, created using dialogue collected from local people. They collaborated with the Hopscotch older women from their older women's project, and it was well received as a reciprocal collaboration by Hopscotch. Hopscotch has also recently collaborated with an artist from the local area, who has been running workshops from their centre.

FITZROVIA YOUTH IN ACTION

Fitzrovia Youth in Action is a youth action charity based on Warren Street to the South West of Euston Station. FYA have been running since 1997 and they work to empower Camden's young people to create positive change in their communities and their lives. FYA supports local disadvantaged young people in developing projects which address the issues they care about and that affect their communities such as community cohesion, healthy living, conflict, drugs and alcohol. They run an extensive range of programmes and projects mainly aimed at school age children. These include activities such as peer education projects looking at social action themes and well-being, peer to peer mentoring, film screenings, outdoor pop-up events and football tournaments. A lot of the programmes are youth-led where young people will be trained to offer support to other young people, and to organise programmes and events themselves. It is also important for FYA to have youth representation in their governance structure to ensure that young voices are helping to steer the direction of the charity at all times.

FYA are currently involved in lots of consultations and conversations around the regeneration at Euston, and their Warren Street building was funded from the original HS2 community fund. The construction works in the area have substantially affected their users and the communities they are a part of already and they are aware that this will continue for a long time. FYA are thinking about how organisations in the area can work together to help mitigate some of the disruptions.



MAKE @Story Garden
UAL copyright, Photo Credits: Adam Razvi

3. MEANWHILE USES

3.1 MEANWHILE USES

Whilst meanwhile use is well understood in the area and supported as a strategy by many groups including governmental, private and community, there is not a comprehensive meanwhile strategy across the various arms of the regeneration project at present. The site at Euston is complex in terms of land ownership and land and property availability, which means that the scope for meanwhile use in a strict physical sense is limited for many reasons. The station must also remain operational throughout the course of the regeneration project, which adds to the operational and construction complexity of the scheme. However, the approach from many of the project partners has been to survey the existing context of Euston as closely as possible to formulate a comprehensive understanding of the area before a meanwhile strategy is proposed. Lendlease's approach has been to concentrate on investing in existing initiatives and building relationships in the area, including investing in MAKE as a meanwhile space, and supporting other local initiatives.

Possibilities for meanwhile use:

- Changing perceptions about the area. People don't say that they live in Euston, Euston is only seen as the area
- Embed meanwhile use in the business case
- Build capacity within local groups
- Create a 'preview' for longer term uses
- Provide space for existing traders in masterplan and OSD designs
- Enable the construction site to become

inhabited during the construction process

- Create a generosity and feeling of reciprocity with the neighbouring communities who currently feel undervalued

PAST MEANWHILE USE

- **Community Events / Festivals:** There are a host of community events and festivals that have been organised by various groups in and around Euston over the past few decades such as community festivals in Cumberland Market and Somers Town. Somers Town Festival on Chalton Street celebrated its 21st anniversary in 2019, with three stages and stall holders selling goods in between. LB Camden has contributed funding towards community festivals as part of their arts and culture programming. Lendlease and many other local businesses have also sponsored events.
- **Temporary Theatre Shows:** Camden People's Theatre is based to the West of Euston station at the West end of Drummond Street where it meets Hampstead Road. CPT have been making theatre in Camden for 25 years. Since 2018 there have been various initiatives and performances focussed around HS2 and the effects of large-scale regeneration on the surrounding communities. This includes Human Jam, their 2019 in-house show in which CPT artists and community members united with the ghosts of Euston past to address the effects of the HS2 railway development on their neighbourhood.

They have also collaborated with Hopscotch Women's Centre with workshops around collecting narratives of people living in the area, alongside acquiring HS2 funding to do a pop up performance in a dis-used retail unit within Euston station.

- **Temperance Hospital:** Affordable workspace run for 2-3 years by Euston Town Business Improvement District but subsequently demolished as part of HS2 works. Open from 2015-2017, the project occupied 24,000 sq ft of the National Temperance Hospital, an art deco building that had been derelict for over a decade. Collective Temperance was a workspace that housed five floors of creative startups, combining hot-desking, meeting rooms, event space, breakout space, workshop space, as well as subsidised individual lockable offices for companies looking to expand their business.

EXISTING MEANWHILE USE

- **Story Garden:** Since June 2019 Global Generation have been designing, developing and building the Story Garden through collaboration with local people including residents, families, children and young people, local workers, companies and institutions. To date they have designed and built the garden with over 650 adults and nearly 300 children and young people. It's important to GG to foster collective ownership over the Story Garden as community space, and ensure local people have the power to influence and contribute to their local area. So far, the main ways in which they've been building the garden with the local community have been:
 1. Design and Build session for Children and Young People
 2. Community Workshops
 3. Collaborative Projects with Students & Others

4. Drop-in Volunteer Sessions
5. Organised Volunteering Days
6. Construction support and collaboration from local companies

- **MAKE at the Story Garden:** a public space for creative collaboration with, and by, the local community in Somers Town and St Pancras. Their aim is to bring together local communities around a programme of arts activities, projects that address local issues, and skills development. Central Saint Martins, Somers Town Community Association, Camden Council and Lendlease run the project. STCA will be taking over the governance of MAKE this year.
- **Hoardings:** they were taken down at the Piazza in front of Euston station as HS2 put these up too early and were blocking off public space that was usable in the short and medium term.

PLANNED MEANWHILE USES

- **The Euston Community Hub:** a proposal for a centralised hub for community consultation being planned by The Euston Partnership, with Lendlease as a partner and in collaboration with many other local stakeholders. The HS2 Community Liaison Manager for Camden can see the value in the proposals for a physical space as being proposed by The Euston Partnership and other partners such as Lendlease because it would bring a physical presence to a complex project and could enable co-location of local organisations and their programmes, encouraging cross-fertilisation between groups which enables localised support structures to emerge and re-generate.
- **Euston Construction Skills Centre:** there is a plan to move the Construction Skills Centre from its current location in King's Cross across to the ex-site of the Maria Fidelis school to the West of Euston station (which has now moved to the East of the station). The site is part owned

by Camden and London Continental Railways. The ECSC is to share the space with HS2 contractors for the duration of the HS2 construction works.

- **Greening Phoenix Road:** HS2 impact mitigation funding is being used to create a green route between St Pancras in the East and Euston in the West. The project includes a period of meanwhile prototyping.
- **Changes to Drummond Street:** Euston BID received funding from HS2 to work on a co-visioning project for Drummond Street looking at different types of short term meanwhile and longer term interventions. Shopfronts have been re-designed and there are plans for these to be installed later in 2021.

PROPOSED MEANWHILE USE

- **Chalton Street Market:** Chalton Street has been a market street for a long time but has suffered from low footfall and a lack of trading in recent months and years, there is a wish in the locality to think about how a thriving market could be re-established.
- **Mural:** Lendlease explored an intervention for art and/or greening on the East side of the existing Euston Station facing Eversholt Street, which causes a large barrier to movement and is currently a bare wall however, proposals did not go forward.

3.2. ACTORS

GOVERNMENTAL / PUBLIC

London Borough of Camden	Local authority, planning responsibilities, strategic oversight of regeneration from council perspective (EAP)
Greater London Authority	
Historic England	Listed Buildings
Department for Transport	Landowners of HS2 site at Euston, funding HS2
Network Rail	Landowners of site at Euston
HS2	HS2 reports up to the DfT
The Euston Partnership	Members from HS2, the Department for Transport, Camden Council, Lendlease, the Greater London Authority, Transport for London and Network Rail

PRIVATE

Lendlease	Developer for masterplan and Over Station Development, working on behalf of and reporting to the DfT and Network Rail
British Land	Developer for Regents Place
Stanhope	Developer for British Library
Soundings	Citizen participation consultants for Lendlease
Publica	Researchers commissioned by Lendlease
MACE Dragados (MDJV)	
CSJV	Contractor working on HS2 infrastructure
SCS	
Euston & Somers Town Association of Businesses	
Drummond Street Traders Association	
Stephenson Way Group Members	
Local Globe	Funding and masterplan
The Wesley Group	
Euston Town BID	
Urban Partners	
Groundworks UK	Euston Healthy Streets
Knowledge Quarter	Represents local businesses and cultural institutions

CULTURE & HERITAGE

Camden People's Theatre	
Bloomsbury Conservation Area Advisory Committee	
UK Mexican Arts Society / Chalton Street Gallery	
Small Green Shoots	
Camden Railway Heritage Trust	
Camden History Society	Culture and heritage groups
Camden CAA Conservation Area Advisory Committee	
Somers Town History Club	
Attitude is everything	
New Diorama Theatre	
Magic Circle	
Wellcome Trust	Cultural institutions
British Library	

EDUCATION & RESEARCH

University College London	Local Universities
The Institute for Global Prosperity (department within University College London)	University - Authors and researchers of The Good life index
Central Saint Martins, University of the Arts London	Local Universities
Francis Crick Institute	Biomedical Research Institution
St Mary St Pancras Primary School	
St Aloysius Catholic Primary School	
Netley Primary School	
Maria Fidelis Catholic School	School in the area
Regent High School	
Christ Church Primary School	
Regents Park Children's Centre	
Edith Neville Primary School & Family Centre	
Somers Town Islamic Cultural & Education Centre	Educational faith group

VOLUNTARY & COMMUNITY SECTOR

Bengali Workers Association, Surma Centre (BWA)	
British Somali Community Centre	
Camden Chinese Community Centre	
Camden Giving	Voluntary and community sector
Global Generation	
Hopscotch Women's Centre	
Kings Cross and Brunswick Neighbourhood Association (KCB)	
Somers Town Community Association	Voluntary and community, connected with the Job Hub and The Living Centre
Regents Park Somalian Welfare Association	
Royal African Society	Voluntary and community sector
West Euston Partnership & Hpod	
Young Camden Foundation	

VARIOUS TENANTS & RESIDENTS ASSOCIATIONS

CHARGE	Camden HS2 Association of Residents' Groups for Engagement
Tenants & Residents Associations	Camden District Management Committee, Amptill Square Tenants and Residents Association, Bloomsbury Residents Action Group, Drummond St TRA, Marchmont Association, Phoenix Court Community Tenants Association
Park Village East Residents' Association	
Somers Town Big Lottery	Tenants, Residents, Housing Associations and Key Residents
Camden Cutting Group (Mornington Crescent)	
Drummond Street Neighbourhood Forum (DSNF)	Voice for businesses and residents on Drummond Street (promote the well-being of the area) and draw up and maintain a Neighbourhood Development Plan.
Somers Town Neighbourhood Forum (STNF)	Tenants, Residents, Housing Associations and Key Resident. Making a neighbourhood plan for the area
Origin Housing Association	Tenants, Residents, Housing Associations and Key Residents

SPECIFIC INTEREST GROUPS

Quakers Friends	
Shahjalal Mosque (Euston)	
St Pancras New Church	
St Mary's Church	Faith Groups
Al Rahman Mosque	
St Aloysius Church	
St. Mary Magdalen Church, RPE	
Camden Climate Change Alliance	
Camden Clean Air Initiative	
Healthwatch Camden	
Mind Camden	Interest groups
Camden COVID-19 Mutual Aid	
Residents Advisory Group (convened through Camden Council for the Euston Area Plan)	
StopHS2	
Think & Do	
City X Youth Centre	
Mosaic LGBT+ Youth Centre	
Samuel Lithgow Youth Club	
Fitzrovia Youth in Action	
New Horizon Youth Centre	
Somers Town Youth Club	Youth group in the area
Somers Town Community Association Youth Club	
Plot 10	
Young Camden Foundation	
Youth Council & Youth MP	
Coram's Fields	
Third Age Project UK	Older Residents Groups
We are ageing better together / Age UK Camden	

Table 3: Actors in Euston pilot

3.3 ASSETS

- **Local Universities & Cultural Institutions:** enormous amount of resources such as space, knowledge and time that could benefit a wide range of local residents, groups and smaller local businesses.
 - **Routes Across the Station:** a huge geographical and in turn a social divide between the East and West communities either side of the station. There is hope that the Over Station Development will be able to connect these communities by creating pathways across the station.
 - **Affordable Workspace:** potential to provide an array of affordable workspace for community groups, artist studios etc. within the design of the Over Station Development.
 - **Communication between Community Groups:** As mentioned by Fitzrovia Youth in Action, despite the havoc that has been caused by Covid-19, it also means that local groups are more in touch with each other than they were previously, offering an organisational support network between themselves, checking in on one another and making sure that everyone is getting the support that they need. Community organisations have been on the frontline with Covid-19, providing vital contact and support to their communities however, it also means that they have come under enormous pressure and difficulties.
 - **Accessibility & Inclusion:** creating a truly inclusive society should present a baseline for any new development. When new areas are planned or designed,
- the needs of the community's most vulnerable members should always be considered.
- **STEAM agenda:** The STEAM (science, technology, engineering, art and math) agenda for the area is high on the list of priorities for the Euston masterplan, especially with the OSD developers Lendlease. STEAM is designed to integrate all subjects with each other for a way to teach across the disciplines. These programs aim to teach students innovation, to think critically and use engineering or technology in imaginative designs or creative approaches to real-world problems framed in social studies.
 - **Existing funding avenues:** Costs incurred by development partners to mitigate issues in the area:
 - Community Infrastructure Levy
 - Section 106
 - HS2 Community and Environment Fund (CEF)
 - HS2 Business & Local Economy Fund (BLEF)
 - Other: Big Local, Camden Giving, SpaceHive, Trusts and foundations, UKRI, Innovate UK, Phoenix Place works.

3.4 CHALLENGES

Key **challenges in Euston for the implementation of T-Factor** are:

- **Poor access to space in the involved areas:** the **land and property in the Euston station direct area** is currently all owned and under jurisdiction of the Department for Transport and Network Rail. It is currently difficult to negotiate access to space in these areas, even for short term use. **Construction**

derived issues as a result of the HS2 construction works on site at Euston, already being felt by those living and working in the area. This includes on-going air pollution due to construction traffic, constant dust and debris from construction works, vibrations from the construction works felt by those living adjacent to the construction site, issues with rats escaping from construction work areas and into residential areas. There is also considerable confusion around streets closing and wayfinding in the area, many residents have found it difficult to navigate their way around Euston and surrounding streets and are losing their way. This has also affected shops and restaurants, who have lost business due to the issues around wayfinding. However, it is also felt that the construction itself will be less inconvenient than the demolition has been.

- **Local community groups are not supportive of the HS2 project**, and that their voices are not being heard. According to the Drummond Street Neighbourhood Forum - 'the very word regeneration is a little bit controversial around Euston in the sense that it would have been perfectly possible to regenerate the blighted parts of Euston without knocking down anyone's home or building over any parks. I don't think the Euston community sees HS2 as regeneration. In general they see it as a railway that is being built and not built generally with their support.' This is a difficult narrative to counter because residents do not always see the benefits that the scheme could bring to their day-to-day lives in the short and medium term.
- **Homelessness:** Over the last decade Camden has performed well in managing homelessness when compared with other London boroughs. However, homelessness in Camden has worsened in recent years linked to austerity, inaccessibility of the housing market and expansion of transport hubs. The Euston

area is particularly affected linked to the presence of three national rail stations in close proximity. Homelessness has been exacerbated in the last year by job losses linked to Covid. Camden, like elsewhere, has 'hidden homeless' who are sofa surfing with friends or family. There are several homeless support organisations in the Somers Town and Euston area - including C4WS and New Horizons Youth Centre. The cost of accommodation drives overcrowding and homelessness in Camden as families seek to remain in the area as their families grow.

- **Affordable Housing:** Access to, quantity and affordability of housing is a huge issue across London currently, and can be felt acutely by the residents of Euston and is a real concern for the local community. People are aware that their children will probably not be able to stay in the area which could cause a high turnaround of local populations moving and existing communities being extensively broken up, the loss of which will be felt by those remaining tenants. Some residential buildings were knocked down as part of HS2 works and replacement housing sites have been built at Regents Park Estate however, there are also problems associated with the upheaval and disturbance of re-location - this was mentioned by both Hopscotch and Fitzrovia Youth in Action.

Key **challenges in Euston that T-Factor can address** are:

- **Cumulative Construction Impact:** Somers Town has been affected by construction works at King's Cross since 2008, especially the construction of the neighbouring Francis Crick Institute and Somers Town Community Improvement District. This area will continue to be affected by construction works at Euston until the 2030's, especially through the neighbouring extension to The British Library. These cumulative construction impacts wear communities down and there are also issues around the quality of life and the

environment during the development phase.

- **Engagement Fatigue and trust issues:** A lot of talking with little action has given way to a feeling of **mistrust towards the project** partners. Work needs to be done looking at methods of **mutual exchange and reciprocity** versus extractive modes of research. Community groups are especially interested in how material can be produced that can directly help them and impact their users in the short term, also leading to long term solutions. In response to this there is a necessity to re-frame engagement as capacity building for local residents and groups, and to bring the benefits of the regeneration project forward so that short and medium term goals are identified and reached.
- **Communication:** The regeneration project at Euston is incredibly multi layered and complex and there are substantial and continuous difficulties in capturing and communicating the project in a simple and straightforward way to stakeholders, especially residents. It was felt by some of the interviewees that there isn't a central physical or online space for residents or local organisations and businesses to find out about the regeneration project, or the multiple layers of consultation that have been done over the past few years and continue to be done. There are also considerable issues around **language barriers and illiteracy** in the area - the communication around works should be considered in other languages to support local ethnically diverse communities.
- **Institutional Memory:** There are also issues around the length of the project and the turnover of staff within larger companies and institutions and the knowledge that is lost through this process. The local residents are the experts on the local area as some have lived there their whole lives, but the value of this is often overlooked.

- **Crime and Anti-Social Behaviour** : areas such as Regents Park Estate, especially where there are complex streets, squares and buildings to navigate, become especially difficult at night. This is a theme that has emerged from the Residents Advisory Group and the citizen scientist Good life project. Locations most affected are Drummond Street, Regents Park Estate, and the borders of the construction works, open spaces, and Churchway.
- **Loss of green space to development:** this is a huge area of dispute and disappointment for the local communities in Euston. HS2 had powers to claim certain sites surrounding the development site as part of initiating their construction site. The issues around this are felt by all residents and community groups interviewed for this research, and has also emerged from consultations on projects such as Open Space Improvements / Greening Phoenix Road, and during the RAG sessions. The sites affected are outlined below. These sites as green open spaces are lost, and whilst £2.7million in funding has been given by HS2 to Camden as part of their Open Space Improvements / Camden 6 sites, the need for accessible green open space is felt urgently by residents, especially those who cannot easily reach Regents Park to the West of the site.

The sites affected:

- Euston Square Gardens (outside Euston station)
- Site of former St James Gardens (designated for housing)
- Site of Hampstead Road open space
- Closure of ball courts
- Closure of playgrounds
- **Social Isolation and Loneliness:** Nationally and locally, research has demonstrated the direct effects of social isolation and loneliness (SIL) on

health as well as the indirect effects it has in terms of contributing to harmful behaviours. 42% of people over 65 in Camden were living alone in 2011, which is much higher than the London average of 34%. Older people in Camden score highly on Age UK's Risk of Loneliness Index – some areas (those in St Pancras, Somers Town and Kilburn) have a higher risk than others. Whilst people can experience social isolation and loneliness at any stage in life, transitions in life circumstances from one situation to another put people at greater risk of SIL. Life events such as changing schools, going to university, divorce, homelessness, changes in your health or that of your co-dependents, bereavement and retirement have all been identified as transition moments and trigger factors that can make people more likely to become socially isolated and lonely. Camden has a high representation amongst many of these at risk groups and so finding ways to reduce SIL, including through the design of public space is an important consideration to development and public space design within Camden.

- **Skills Development, Local Jobs & Training:** Euston Construction Skills Centre will bring a lot of opportunities to the area for those wanting to explore construction as a route however, many young people do not want to enter into the construction industry and feel that there need to be opportunities offered in other disciplines.
- **Local People Staying in the Area:** According to Fitzrovia Youth in Action, there is an expectation that due to the long timeline of the regeneration project, young people who are currently growing up in the area will become adults over the course of the regeneration project. In order to attract people to stay in the area, they need to feel that there are immediate opportunities for them. It is also thought that due to rising rent and property prices, there will be a massive

turnover in the population in the next 20 years.

- **Environment & Sustainability:** There isn't currently much visible work around carbon reducing targets etc. However, there are mitigation measures by HS2 to replace lost woodland on the HS2 route.

4. CONCLUSIONS

BRINGING BENEFITS FORWARD

It is crucial to bring into view a narrative for development and regeneration that focuses on the human scale of development, and building capacity with local people, groups and businesses ie. building social infrastructure in the process of building physical infrastructure. There is an ambition of partners to 'bring the benefits forward' so that residents can experience benefits of development within the development period (meanwhile) rather than simply after its completion.

OPPORTUNITY TO ADDRESS IMBALANCES

There are some clear indicators of the difficulties that residents are faced with in the Euston area. To name a few, these include social deprivation, educational attainment and access to employment. The arrival of the regeneration project is an opportunity to address some of these imbalances. This should be a key component of the masterplanning, ensuring that the lives of local people are improved not just in the longer term but in the short and medium term also. How can the regeneration project ensure that local people have access to some of the opportunities that will arise in this area of Euston?

ENGAGEMENT AS CAPACITY BUILDING

Moving away from consultation models towards participative models that enable capacity building within local organisations through engagement, which allows for reciprocal exchange as opposed to extractive methods of consultation.

ADAPTABILITY & ALIGNMENT

With such a high turnaround of people and change in our cities which is only going to increase, there needs to be a consideration of long term adaptability of methods and designs. There also needs to be a consideration of an alignment between funding, resourcing and areas of capacity with groups that need it.





MILAN INNOVATION DISTRICT

Milan Innovation District (MIND) is the legacy project of EXPO, the Universal Exhibition hosted in the city of Milan in 2015. The international event embodied Italy at its best, which became evident both in the national perception and the global audience. Public institutions invested EUR 1.6 billion to realize the EXPO, and 21 million people visited worldwide, thus becoming a matter of national pride.

To crown such a success, the Italian government championed establishing a new research centre on the future of health – the Human Technopole – committed to funding EUR 1.5 billion in 10 years. The research centre was dedicated to nutrition and human well-being.

1. LOCAL CONTEXT

MIND aspires to become a lively city district fostering collaborative innovation and the experimentation of ahead-of-the-times lifestyles to create social, cultural and economic growth and to serve people's well-being. The regeneration project foresees the development of 480,000 sqm of public uses and 480,000 sqm of private uses.

Public uses will include students' accommodation, social housing and leisure, sports and cultural activities, while 205,000 sqm will host the so called "Public Anchors" headquarters (Human Technopole, University of Milan, Galeazzi Hospital). The Hospital will be completed by 2022, the scientific campus of the Università Statale di Milano by 2025, and the Human Technopole is already operational and will reach its final completion in the 2026.

Concerning private uses, the masterplan includes commercial uses and offices, residential, retail, light industry and hospitality, a hotel, labs, culture and sport-related uses. A 12,000 sqm area will be dedicated to meanwhile uses, including flexible working and start-up spaces and around 1,000 sqm for events.

This report is based on PlusValue's previous and current work on the MIND ecosystem, as the developer's innovation consultant. It includes insights from interviews carried out with three main MIND's stakeholders: Università Statale di Milano (UniMi), one of the three MIND public anchors; Arexpo, the public entity and owner of the land; and Fondazione Triulza (FT), member of MIND Strategic Committee and key actor for the development of social impact programs and community engagement activities.

The EXPO2015 exhibition site was adjacent to the Fiera Milano exhibition centre. The Fiera Milano buildings were designed by the architect Massimiliano Fuksas and can be considered as the trigger project for the urban revolution and redevelopment of the entire area. The area was once occupied by industrial production facilities and was then used for agricultural purposes and for logistical and municipal services.

MIND occupies an area of over one million square meters. Reclaimed and equipped with adequate infrastructure, MIND has a high potential for development and attractiveness. Situated in between two highways (A4 Torino-Trieste and A8-Autostrada dei Laghi), MIND is located within the Milanese greenbelt, and represents a cornerstone in the connection between the Parco Agricolo Sud and the Parco delle Groane. It gives continuity to the park system of western Milan. The waterways of the site are part of a set of interventions aimed at improving the landscape and the environment of the Naviglio Grande's open spaces. The site benefits from a unique network of connections with the rest of the city, thus being entirely connected to Milan city centre (20' by train) and consequently to the main city airports (Malpensa and Linate) (30').

The exhibition area was organised as an island surrounded by a water canal and structured along the two perpendicular axes of the World Avenue (Decumanus) and the Cardo, taken from the architecture of Roman cities. In accordance with a principle of equality, all the national pavilions faced onto the large main avenue, 1.5 km long and 35 m wide. The pavilions of the Italian

regions and provinces were organised along the Cardo, 325 m long and 35 m wide. At the confluence of the two axes a large square (Piazza Italia) of 4,350 sqm was created. To the north of the cardo was the Palazzo Italia, the pavilion of the organising country, facing the Lake Arena. To the south was an Open-Air Theatre of about 10,000 sqm with a total of about 9,000 seats. At the end of the Decumanus, a large artificial hill was built on one side and the EXPO Centre on the other, consisting of three independent functional blocks: auditorium (south block), performance area (central block) and office building (north block), for a total of about 6,300 sqm. The first two blocks were designed to be dismantled when the EXPO closed, while the office building is permanent.

The Human Technopole, and later on MIND, came to be designed around the idea of fostering economic growth and social progress, building on the scientific and industrial strengths of Milan and broader Lombardy region, and realigning the country to global technological and

innovation trends. The key motive for the set-up of MIND was to capitalize on the positive experience of Milan 2015 EXPO, which helped to put the city on the map as one of the world's innovation hubs, and to create a gateway for the regional and national excellences in terms of scientific research and industrial production in the life sciences. A further purpose emerged over time: a city-scale lab to experiment with the new solutions for urban living.

SOCIAL, ECONOMIC AND CULTURAL PROFILE

MIND is the first Innovation District so defined in Milan, a city that already constitutes Italy's economic and innovation hub. Milan hosts 3,100 multinational companies' headquarters and attracts almost 50% of all private equity and venture capital investments. It is the capital of Lombardy, a region hosting about 22% of Italian start-ups, 28% of national scientific publications and 32% of national patents. MIND has been conceived as a flagship



MIND in Milan. Source: Lendlease

project for the nation to compete in the global innovation space.

Despite its physical location, MIND aims at becoming part of the city, both in terms of connection to the downtown area (i.e. non-discontinuity of the urban fabric) and as a new gravitational centre for Milan's urban life.

Adjacent to MIND, is located Milan Fair, the largest exhibition centre in Europe (750,000 sqm). To the south, a recent medium- large scale regeneration project that combine residential (Uptown smart district) and commercial developments (Merlata Bloom Milan shopping mall). The project also includes a 30 hectares and 10 kilometres long urban park and a school complex which will welcome about 920 students.

MIND'S FRAGMENTED SURROUNDINGS

The first results of a study commissioned by Fondazione Comunitaria Nord Milano show traces dating back to five centuries: in the present courtyard of Cascina Triulza there was a 16th century church and there are findings of a municipality surveyed by Charles V, the Holy Roman Emperor.

The area around MIND is made up of 16 small municipalities: Arese, Baranzate, Bollate, Cesate, Cornaredo, Garbagnate Milanese, Lainate, Novate Milanese, Pero, Pogliano Milanese, Pregnana Milanese, Rho, Senago, Settimo Milanese, Solaro e Vanzago.

This is a semi-urbanised area. Its rate of urbanisation is less than 25% of the territory, which contrasts with Milan's 60% rate. Despite the geographical closeness, MIND's location is characterized by strong spatial and socio-demographic fragmentation. First, there is an absence of road, pedestrian and bicycle connection pathways between MIND and the surrounding municipalities. Second, municipalities around MIND underwent different paths of development and urban changes throughout the last century, as they evolved from being mainly agricultural territory to industrialization, and emerging processes of deindustrialization.

The decline in some of those areas is traced back to the mid-1990s. Firstly, with the delocalization of large mono-functional production platforms, such as Alfa Romeo industrial plant in Arese, which formerly covered an extensive area that also included the municipalities of Lainate, Garbagnate Milanese and Rho. And then, followed by the dismissal of workers or the widespread presence of productive activities with low added value (such as for Stephenson and Mazzo di Rho are areas).

Of all towns around MIND, the city of Rho is the most developed one, where life is not as hectic as in Milan and citizens benefit from the green areas around, whilst Bollate is one of the municipalities with the youngest population in the Lombardy Region and Italy. In this context, the Lombardy Region's and the PGT of Milan's



Sources: Osservatorio 2018 Milano, June 2018, Booklet Italy, Lombardy, Milan of Assolombardia, January 2018.

Milan innovation ecosystem. Source: Lendlease

study of the perceptions of the inhabitants of the surrounding areas showed that their main concerns were:

- lack of services and infrastructures;
- high rate of commuting (for Milan's Stephenson area);
- particularly negative impact from the dismantling of heavy industry and lack of reconversion (for Milan's Gallarate district);
- lack of a social fabric and meeting places.

Issues such as the adequacy of services, the quality of the environment, and soil pollution are extremely felt by residents in all neighbourhoods and municipalities, but especially among those in Gallarate, Maggiore Musocco, Quarto Oggiaro, Sacco and Stephenson neighbourhoods. In fact, the ten-year experience of Negotiated Planning in the Lombardy Region has led to the recognition of the poor environmental and spatial quality of urban peripheries. Low quality of cities means low quality of living places, with a direct impact both on the quality of life and on the attractiveness of many territories. The poor quality of spatial organisation and architectural solutions adds to environmental problems such as air quality and traffic congestion. The quality problem also involves issues of territorial identity (cultural and social recognition of places), comfort (liveability and enjoyment of space) and environmental compatibility (healthiness of the urban environment). In this respect, the development in the area of the EXPO2015 had a positive impact, mainly by improving connections with Milan, though there is still a large social gap between these municipalities.

There are also other concerns for the residents around the area. On the one hand, Gallarate residents' expressed concerns about the project of developing a university district that could cause an increase in rents and force many historic residents to move. On the other hand, it is worth noting that there is one of the main penal institutions in the Region

close to the regeneration site, Carcere di Bollate, hosting more than 1,000 inmates. MIND has been able to turn this local configuration into an asset and an opportunity for the local community. In 2019, Lendlease, in partnership with the Italian Ministry of Justice and the support of PlusValue, designed and implemented "Programma 2121", a pilot project focusing on inmates' work inclusion. The programme aims to give inmates new skills and competences in traditional businesses to be competitive in the job market once they are reintegrated into society.

2. REGENERATION PROJECT

2.1 THE VISION

The Unique Value Proposition of MIND is a complex, interwoven strategy to ensure that it is nestled within a sea of regional innovation strengths, punches above its weight to compete on the European and the global stage. Having been conceived at times of economic crisis, the fundamental motive for the set-up of MIND was to capitalize on the positive experience of Milan 2015 EXPO, which helped to put the city on the map as one of the world's innovation hubs, and to create a gateway for the regional and national excellence in terms of scientific research and industrial production in the life sciences. A further purpose emerged over time: a city-scale lab to experiment with the new solutions for urban living such as driverless public transport with no private cars allowed inside the site, zero CO2 emissions, and local energy production.

2.2 DEVELOPING THE VISION

The project foresees the development of 350,000 smq of public uses and 100,000mq of privates. Public uses will include students' accommodation, social housing and leisure, sports and cultural activities, while 205,000 sqm will host the Public Anchors headquarters: the Galeazzi research hospital will be completed by 2022, and will host around 9,000 staff, mainly dedicated to orthopaedics and cardiology. The Human Technopole, an international research centre working on personalized medicine and nutrition to tackle cancer and neurodegenerative diseases by means of genomics, big data analysis, new diagnostics and innovative therapies, is already

operational but it will be fully completed in 2026, and will host 1,000 researchers and almost 500 administrative and technical staff. Finally, the scientific campus of the University of Milan Statale which will be completed in 2025 and will host around 18,000 students and 2,000 staff.

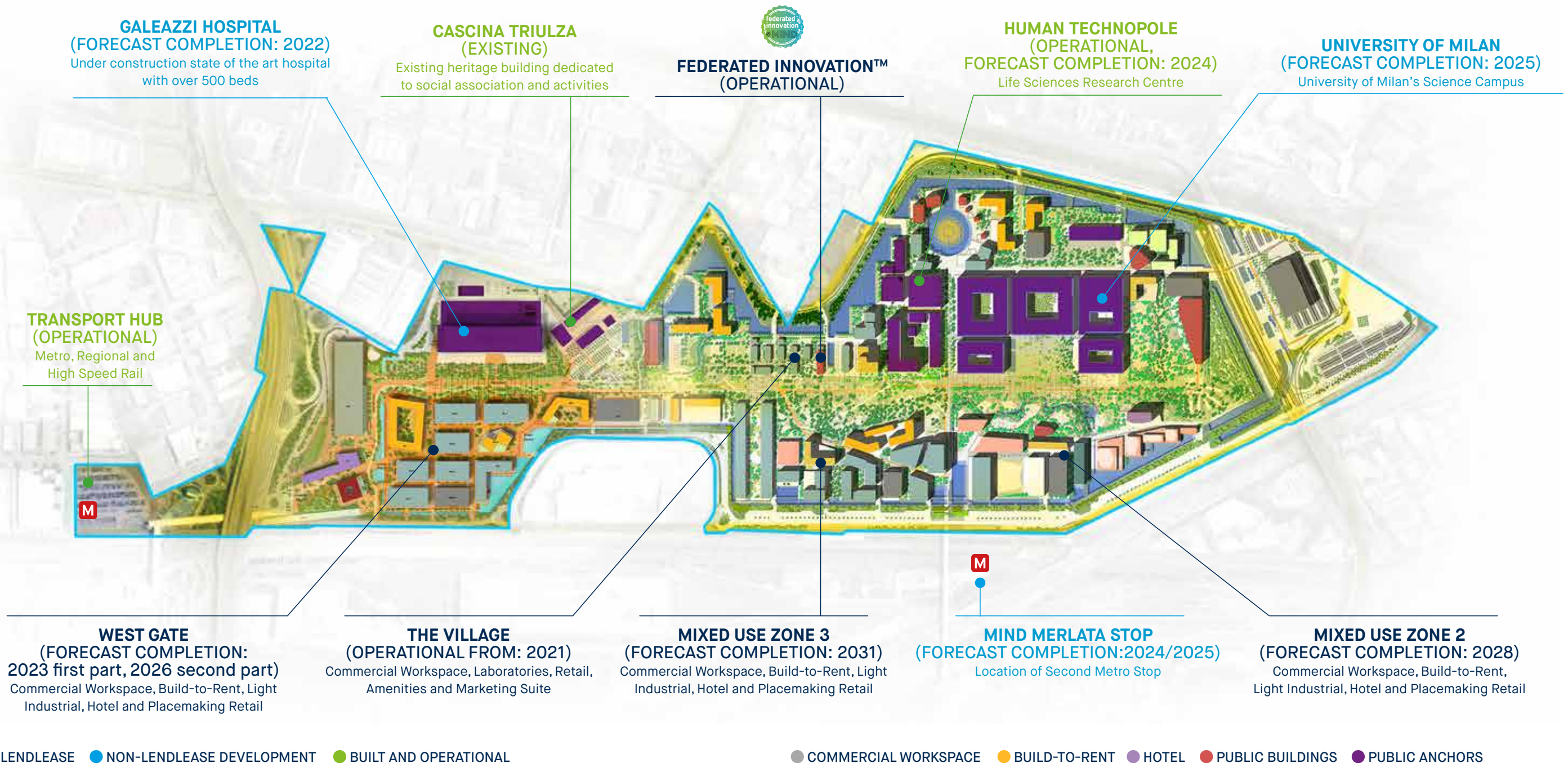
Concerning private uses, the Masterplan includes commercial uses and offices, residential, retail, light industry and hospitality, a hotel, labs, culture and sport-related uses. A 12,000 sqm area – the Village – hosting the research teams of the companies which will be joining the district, will be opened in January 2022 and will include flexible working and start-up spaces as well as a shared lab and around 1,000 sqm for events. In 2023 the second plot of private development – the West Gate - will be realised, bringing MIND's daily population to around 20,000 people. At completion, in 2031, the district will host around 60,000 people a day.

MIND aims to be an engine of economic and technological growth as well as of inclusion and sustainability to increase both people and the planet well-being by leveraging on a critical mass of public and private stakeholders committed to advance research and accelerate innovation by working together pairing world-class know-how in specialized, high-growth potential areas and an open-innovation, cross-sectoral, multi-disciplinary approach.

MIND is being built around two main clusters: City of the Future & LifeScience.

MIND will be developed in phases over the next decade

MIND
MILANO INNOVATION DISTRICT



MIND Milano Innovation Ecosystem Executive Update

Milan Innovation District plan. Source: Lendlease

CITY OF THE FUTURE

MIND aims at being a large-scale demonstrator for Smart Cities and Innovation Districts. Indeed, MIND is a city of the future designed from the very beginning to optimize efficiency and minimize waste. Not only will the buildings be designed, built and managed to reduce energy needs, but innovative thermal and electrical networks will connect them, operated through integrated digital predictive and self-learning systems. These will allow the recovery and transport of waste energy to users who need it or to storage units.

Data is the primary driver of MIND. The approach to data will be inclusive and not extractive: it will not only be transparent, but boldly open in its approach to data. This involves working with the MIND community (tenants and workers at MIND) to raise their awareness and create a system that allow to build in new services, products and processes, in a safe and controlled environment. MIND will be at the same time a huge repository of data and a place where to actively work with data. Data will also serve a better construction process. Lendlease is creating buildings that facilitate data driven insights for more intuitive, responsive and consistent experiences without the glare of screens and gadgets. And the unique design approach uses Design for Manufacture and Assembly (DfMA) methodologies to design and deliver more safely, quickly and efficiently.

LIFE SCIENCE

MIND gives access to a specialized network of research-intensive companies, multinationals, SMEs, start-ups, top international researchers, doctors, and patients. This extensive network provides a key element for experimenting and testing innovative solutions, all in one place, which might then be scaled-up regionally, nationally and internationally.

As of today, MIND Life Sciences stakeholders have prioritized three connected strands of work. These strands are leveraging advanced technologies (big data and AI, smart

materials and devices, -omics, advanced and additive manufacturing) to turn the city into a health prevention hub, and improve diagnostics and healthcare following a citizen-centred paradigm. The three strands are: i. from patient to citizen journey; ii. digitization and digitalization of the health sector; and iii. technology transfer and open innovation.

In addition, although not a precise vertical specialization, social impact constitutes the main horizontal focus for MIND with Fondazione Triulza already operating in this space at the local level. All public anchors are actively engaged in increasing positive socio-economic impacts of RDI activities.

Since the beginning, the masterplan has been led by the idea of creating a community of experts and citizens in a flexible, inclusive and adaptable space. It has been essential to learn from successful and unsuccessful Innovation Districts around the world. MIND aims to attract and concentrate critical players from different sectors and allow ground for knowledge creation, sharing and community building.

To that end, the ground floor of every building is designed to be a porous space, bringing the outside in and creating an abundance of opportunities for collisions. Similarly, some areas are designed to evolve and adapt over time, e.g. the parking slot space will quickly turn into another community or office space.

Today MIND is a private district but it aims to become a new neighbourhood and vibrant destination. The development of services, functions and variety of spaces are the main strategy adopted to create such destinations.

The meanwhile uses and the activation strategy (currently under development) will contribute to create such community interest in the project. The MIND community comprises researchers, academics, students, entrepreneurs, start-ups, doctors, patients and their families. The goal will be to reach an extended community from the surrounding neighbourhoods, the

Milan's inhabitants and the community of innovators (creatives, makers, young professionals, designers, artists) who will consider MIND a 'place to be', and to possible visitors from other areas of the region and neighbours (e.g. Piedmont, Liguria) who may be interested - for business reasons but especially for personal interest - to visit MIND. In addition to that, different community engagement projects, such as MIND Education led by Lendlease and Arexpo since the inception in together with Fondazione Triulza.

SUSTAINABILITY AND DECARBONISATION STRATEGY

In 2020 Lendlease Group announced its plan to tackle the climate crisis and set the target to be a 1.5°C aligned company. This means that LL will achieve: Net Zero Carbon by 2025 for emissions produced directly from the burnt fuels, and emissions from the power consumed; Absolute Zero Carbon by 2040, eliminating all emissions, those generated indirectly from inhouse activities, without the use of offsets. However, MIND decarbon strategy applies only to the private developemnt of the site.

MIND aims to be a frontrunner in urban regeneration and decarbonisation testing innovative solutions for the green transition. A few data describing how MIND intends to set the scene and surpass the challenges:

- All buildings exceed by 20% the regional energy requirements (NZEB - Nearly Zero Energy Building) and the 100% of heat/cool produced by heat pumps and decarbonised electricity grid as energy carrier. The whole electricity demand for common use will be 100% renewable through PV plants on building roofs and purchase of certified renewable energy on the market.
- The no waste approach is applied: it will divert 98% construction waste

from landfill; it will meet the 15% reduction target in the production of urban waste, 95% on-site recycling objective and only up to 5% of waste will be sent to a biogas energy waste facility by 2040, with the goal of reducing CO2 emissions by 40% compared to baseline.

- The mobility strategy for MIND includes fully electric vehicles onsite, walkable and cyclable routes, a broad range of green areas and a set of design strategies aimed at eliminating car-trips by 50% and encouraging walking/cycling as well as low-carbon modes.
- The water management strategy has set performances and an integrated approach to reduce sitewide potable water demand by specifying metering, low floor fittings and non-potable networks.

The decarbonisation strategy deployed in MIND covers not only all phases and elements of the construction life cycle, it also includes a plan designed with the district's public anchors and private companies, aimed at informing, educating and engaging different target audiences in relevant activities and projects, as well as incentives which make it easy to take the greenest and healthiest choices. Finally, outcomes and impact will be measured and monitored thoroughly for each stream of work and along the whole redevelopment life cycle according to state-of-the-art methodologies.

MIND's private-public partnership

In 2011, Arexpo was founded as a publicly owned company with the aim to acquire the land that would host the EXPO2015. Arexpo's main shareholders are the Ministry of Economy and Finance (39.28%), Lombardy Region (21.05%), Municipality of Milan (21.05%), Milan Fair Foundation (16.80%), Città Metropolitana of Milan (1.21) and the

Municipality of Rho (0.61%). The success of EXPO 2015 pushed Arexpo shareholders to invest in the site transformation as opposed to dismantling it completely.

The urban planning variance of the EXPO Plan Agreement (EXPO Accordo di Programma) envisaged that the area could become the territory capable of bringing the Milanese urban fabric closer to the Rho-Pero Exhibition Centre, in which the permanent structures may both maintain their original functions and be reconverted into other service structures. The infrastructure built for EXPO2015 is characterized by a typically urban functional mix (residential, commercial, retail). The Guidelines of the Strategic Plan for the Development and Enhancement of the Area, approved by the Supervisory Board of the Programme Agreement (13 December 2016), represent the long-term strategic direction for the final redevelopment programme of the site. This programme is based on the establishment of excellence linked to knowledge and research and, in particular, the establishment of the Human Technopole scientific research centre, the creation of the new Campus for the scientific faculties of the University of Milan, and the establishment of the IRCCS (Istituto di Ricovero e Cura a Carattere Scientifico – Scientific Institute for Research and Treatment) Galeazzi Hospital.

On this basis, today Arexpo has the strategic task of enhancing the public legacy of EXPO2015 and, at the same time, developing an innovative and vibrant neighbourhood. This would be achieved by transforming the area through the inclusion of public and private functions that will allow for an organic development of the entire area based on modern urban planning in terms of the construction and use of buildings and services.

The rationale behind the Public-Private Partnership (PPP), which was formed through traditional tender under public procurement law, was a combination of reasons, including the need to tap into private capitals to boost the effects of the

public investments (both in terms of land acquisition and the budget of the newly founded Human Technopole) and the need to share the risk burden for the regeneration project. Moreover, since the beginning, the public counterpart pushed for realizing the project according to a tight timeline, avoiding delays and postponements, meaning that a private partner's involvement was also considered a means to increase administrative efficiency.

The tender procedure developed for this project is to be considered innovative within the Italian context. The call for tender envisaged from the company selected, not only the site's development but also a real commitment to its management afterwards. In 2014, the first invitation to tender open to private companies to develop the EXPO site at the end of the event went void. In 2017, with the confirmed presence of three public anchors, the new invitation to tender the market's response was positive, reaching beyond national borders. In the new and definitive tender's provisions, the private sector was called to partner in the regeneration and development of the area starting with the design of the masterplan, business plan and innovation strategy, and then in the development and management of the site for 99 years.

Lendlease was selected as the preferred bidder and awarded the contract, making MIND the first project for an innovation district the company has embarked on.

Governance

From the operations' point of view, Lendlease will be responsible for the project development and construction, which is expected to last at least ten years, and after the construction phase for the management of the innovation district. Although the project's economic sustainability would be ensured by real estate dimension alone (i.e. renting of spaces and building to tenants), the long-term value creation for MIND will come from investment resulting on the innovation component. In particular, Lendlease aims to place new instruments

AREXPO

Arexpo is the publicly owned company owner of the site, its mission is to transform the area into a science, technology and innovation district of international relevance.

LENLEASE

LendLease is an Australian developer specialised in urban regeneration and infrastructure projects operating in North America, Europe, South East Asia and Australia, with total value of regeneration projects worldwide about AUD 76 billion.

Table 4: **MIND's Public-private partnership**

of value generated by the site's innovation dimension. This includes the definition of an industrial strategy – currently defined 'MIND Innovation Strategy' - that considers and amplifies the human capital and infrastructures of MIND's public anchors and the regional strengths in the Life Sciences sectors. According to the PPP agreement, the operational costs of the activities carried out within MIND will be covered by Arexpo, Lendlease, public and private sector stakeholders. While all construction and management decisions concerning the area interested by the PPP are and will be made by Lendlease, all main stakeholders will be involved and consulted on significant matters relevant to the management of the innovation district through a strategic committee composed by the top management of all anchors and major tenants (currently Arexpo, Lendlease, Human Technopole, Galeazzi Hospital, the University of Milan, and Fondazione Triulza), meeting monthly/bimonthly. To add strength to MIND's decision-making structure, especially from the point of view of its innovation roadmap, an international advisory council has been set up.

MIND's anchor institutions driving for long term value creation

The **Human Technopole (HT)** is the leading Italian research institute on Life science in Milano. HT's mission is to develop personalized medicine and nutrition to tackle cancer and neurodegenerative diseases by means of genomics, big data analysis, new diagnostics and innovative therapies.

Project: 5 research centres, 4 core facilities, 5 buildings fully operational by 2026.

The **Galeazzi Hospital's** mission is gathering together the excellence in the orthopedic field of IRCCS Galeazzi and the experience gained in the cardio-thoracic -vascular and bariatric field of the Sant'Ambrogio Hospital.

Project: more than 500 beds, 5,000 users and outpatient services, 700 doctors, 1,100 nurses, 500 researchers, up to 9,000 patients.

University of Milan (Università Statale di Milano) will build a new campus for its scientific faculties into the area, hosting more than 18,000 students. The goal is to create a modern campus, according to the most advanced international formats (teaching, research and facilities) and dedicated infrastructures (sports facilities and auditorium). Lendlease won the competition to develop, build and manage the new campus.

Fondazione Triulza is the local anchor securing the relationships between local third sector organizations and MIND since the closure of EXPO2015. From a strictly real estate perspective it is not relevant but it plays a strategic role for the development of the MIND community as a civil society hub of the project. It gathers 68 major national and local organisations and has been active in the site since 2015. It is the fourth component of the Quadruple Helix model.

MIND uniqueness is its 'cooperate to compete' model: competitiveness stands in the stakeholders' ability to work together and advance together, as the entire

community must be acknowledged and rewarded. Players in MIND will share some laboratories, machines, skills and networks. This will also mean savings for private companies and the public. The advancement of one player represents the advancement of the whole body, and in turn, of the city, region and nation in the long term.

To that end, Lendlease has created the so-called **'Federated Innovation™'**, a new legal entity to lead and coordinate the private companies' innovation creation process at MIND. The idea behind Federated Innovation is to assemble 36 companies from different industry sectors to lead together as equals the initiatives facilitated in the district by Cariplo Factory identified as Ecosystem Catalyst. The companies are: A2A, ABB, Accenture, AstraZeneca, Bracco, Cereal Docks, Cisco, Daikin, Enel X, E.on Italia, Elettronica, Esselunga, Fabrick, Forte Secur Group, Lendlease, Life Sciences District, Maire Tecnimont, Mapei, Nippon Gases, Novartis, Podium, Poste Italiane, Promocoop Lombardia, Samsung SDS, Schneider Electric, Sicuritalia, Stevanato Group, Stora Enso, TIM, VSBLTY, WINDTRE, Wood Beton.

Federated Innovation is based on the open innovation model featuring an additional legal framework layer to protect the intellectual property of all the parties involved in the projects. Federated Innovation is organized in 5 layers and 11 thematic areas: Greentech, Urban Digital Tech, Fintech, Agrifood Tech & Wellbeing, Retail Tech, Life Sciences & Health Care, Proptech & Smart Spaces, Security & Defense, Mobility and Logistics, Energy e Construction Tech.

In 2021, MIND's 'Service Catalogue & Marketplace' was created. It is the operating system that will include all value-added services available within the innovation ecosystem, accessible to MIND community members (companies). The Catalogue contains services, networking opportunities, such as real estate services (transactions on MIND's site, space rental, etc.), catalyst experiences for the business community

promoted by Lendlease and third parties (digital platforms, data exchange platforms, diversity & inclusion programmes, etc.) and, finally, access to an on-site network formed by MIND's partners, but also out-of-site, thanks to relationships with institutions, universities and businesses at local, national and global level.

2.3 CITIZEN ENGAGEMENT AND PARTICIPATION

There is a general acknowledgement that citizen engagement and participation are essential and must be included from the project's early development phase. This role is partly attributed to Fondazione Triulza.

According to the experience of Fondazione Triulza, citizens' response to various forms of community engagement has always been positive, often exceeding initial forecasts in terms of subscription and participation. People and especially schools are willing to take part in surveys, activities, projects and conferences. The network of Fondazione Triulza includes members from the local community and volunteer association, larger regional and national NGOs, entrepreneurs member-associations (e.g. Legambiente, ConfCooperative) and citizens at large. Regardless of activities or the citizens engaged, ensuring continuity and managing expectations remain key challenges and success formulas. Once trust is gained, and a communication channel is established, it is important to meet people's expectations and commit to the cause. There is a constant need to fuel citizens' engagement and to achieve concrete change.

Since 2016, community engagement has been scattered, while today a more explicit community engagement strategy is under discussion to be applied. There are three successful community projects worth mentioning:

- **MIND Education**, a joint programme founded by Lendlease and Arexpo, Fondazione Human Technopole,

Fondazione Triulza, IRCSS Galeazzi and Università Statale di Milano in collaboration with the European Commission's Joint Research Center and the patronage of the Milan Municipality and the Region Lombardy. It involves students in the creation of innovative and original projects for the Milan Innovation District. In 2019, Lendlease has involved approximately 2000 students from the Municipalities around MIND and the Municipality of Milan. <https://www.mindmilano.it/mind-education-terza-edizione/>

- **Programma 2121** is the first public engagement activity of Lendlease within MIND. The project aims at promoting work inclusion of ex-offenders from the Bollate prison in Milan and more broadly, contributing to the innovation of the judicial system in Italy. Developed with the Ministry of Justice, PlusValue and a wide set of local stakeholders, the Programme was launched in September 2018 as a pilot project involving 10 detainees of Bollate prison. The pilot phase terminated in June 2019 and 9 out of 10 prisoners have been confirmed - and still work - at MIND. The second phase started recently aiming to scale up the programme by increasing the number of beneficiaries involved.
- **Social Innovation Campus** is the first Italian Campus on Social Innovation organised by Fondazione Triulza since 2020. The 2-days event is dedicated to a new challenge every year. The theme of the second edition was "Social Tech: The Reaction to Be Reborn", inviting young people and new generations of cooperators, third sector and civil economy organisations, start-ups and technological companies, universities, research centres, local bodies and profit and social enterprises to start a conversation. A hackathon is always organised with local and national high school students inviting them to elaborate an entrepreneurial solution to that year's challenge. <https://>

www.sicampus.org/sicampus-2021/programma-culturale/

3. MEANWHILE USES

3.1 MEANWHILE USES

On the aftermath of EXPO15, the common agreement of the actors involved and in charge of the development of the area was clear: the site needed to be kept alive in the time running from the end of EXPO to the settlement of the new developer. Both Arexpo and Fondazione Triulza, the only two organizations working for and from the EXPO site, played a central role.

Cascina Triulza, the event space of Fondazione Triulza, has remained the venue of social innovation activities: the annual event Social Innovation Academy; contests and projects developed in partnership with local schools for students from primary to university; conferences and discussion panels.

Arexpo, with the financial support of Lombardy Region, organized two seasons of ‘experience’ activities: a concert by the Scala Philharmonic; Flight festival; Reality show (XFactor), etc. Over time the focus shifted from mere entertainment to events aligned with the area’s vocation, e.g. an event on ‘Digital Transformation Technology’ Forum was organized by Ambrosetti in partnership with Lendlease, a contest for start-up real-estate sector, etc.

In the masterplan there is a dedicated part to meanwhile uses: MIND Village. An extensive area (110,500 sqm area) in the centre of the former EXPO2015 site contains a group of retained pavilions. The Village will be one of the first areas to be redeveloped and will be a foretaste of the whole innovation district that will appear in the following years. The intention is that the Village will be a ‘mini-innovation

district’ incorporating flexible workspaces, event and marketing space and a mix of food and beverage units to support the first users. The Village will demonstrate and promote some of the critical principles of the masterplan as a whole – ‘the greenest and bluest innovation district in the world’. The Village comprises two areas: the North Village located north of the Decumano and includes the Intesa Bank pavilion; the South Village, south of the Decumano, has retained service buildings from the EXPO. There are three landscape areas: the Decumano that was the spine of the EXPO which will be temporarily redesigned but will form the basis of the longer-term vision for the development of MIND; Parco della Salute, the health park which will be permanent; and the former EXPO Children’s park. Car parks will enhance access to the Village, both retained and temporary new ones. One of the former EXPO pavilions is being used already for conferences and events (e.g. Social Innovation Academy, Jan 2020). One pavilion will be used as the single-entry point for welcoming activities such as concierge, reception and auditorium.

The north’s pavilions will be used for co-working areas with offices and spaces to collaborate with different companies. The pavilions on the south will be used for the Food & Beverage offer and offices and labs to test innovation. The outdoor areas will be used for sports, activities and a playground. The West Gate is the first significant development phase of the masterplan due to completion on Q1 2024. It will provide commercial offices, retail, residential and other space and be included in the activation strategy.

3.2 ACTORS

Since the launch of the project concept, MIND anchors have outlined, each in their capacity, a specific mapping of public and private institutional, industrial and local stakeholders and actors with whom active and strategic collaboration is sought.

It is an ongoing activity aimed at broadening and enriching the MIND ecosystem. Arexpo sits in a strategic position to address and engage with local and national public institutions and international stakeholders.

Lendlease has been building relationships with investors, private companies, research and innovation centres, universities

and start-ups within Italy and abroad. Fondazione Triulza, in charge of community engagement, has never conducted a stakeholder map as such but has adopted an empirical approach intertwining an extensive network of both local and national micro-entrepreneurs, artisans, and third sector organisations.

The list below provides an overview of the most relevant actors of MIND.

PRIVATE (INCLUDING FEDERATED INNOVATIONTM)

Energy companies (incl. A2A, Daikin, Enel X, E.on, Nippon Gases, Schneider Electric)	
Food & Beverage (incl. Esselunga Supermarket, Cereal Docks, Promocoop Lombardia)	
Pharmaceutical companies (incl. AstraZeneca, Bracco, Novartis, Stevanato Group)	
IT & AI/robotics companies (incl. ABB, Bosch, Accenture, Cisco, Samsung SDS, WindTre, Telecom Italia, Forte Secur Group, Sicuritalia, VSBLTY)	Partners for innovative projects and suppliers
Real estate companies (incl. Podium, Wood Beton, Stora Enso, Mapei)	
TELLCO and Logistics companies (Marie Tecnimont, Poste Italiane)	
Proptech companies (incl. Fabrick, Euromilano)	
Alisei Cluster (Advanced Italian Life Science cluster)	Partner for life science projects
PlusValue, PwC	Advisory companies
Cariplo_Factory	Innovation Catalyst for the Federated Innovation @ MIND

PUBLIC

Arexpo	Public investor made up by Ministry of Economy and Finance; Lombardy Region; Fiera Milano Foundation; Milano Municipality; Metropolitan City of Milan; Rho municipality. Member of the MIND Board as Public Anchor of the district
---------------	--

CoopeRho Consortium	CoopeRho is a consortium of 15 Social cooperatives, active in social entrepreneurship, Social Housing, health, work for special needs people. It works with Fondazione Triulza
Finlombarda	A finance company of the Lombardy Region and a financial intermediary supervised by the Bank of Italy with the institutional task of contributing to the implementation of the economic development programs of the territory
Lombardy Region Milan Fair Foundation Ministry of Economy and Finance Municipality of Milan Metropolitan City of Milan Municipality of Rho Rho Fiera Milano (Milan Fair)	see: Arexpo
Sercop	9 municipalities of Rho area for the management of social welfare services and the interventions are oriented to the weakest groups of citizenship in particular: minors, disabled, elderly and social inclusion interventions

EDUCATION & RESEARCH

Bicocca University	Public university, partner on the MIND Edu programme
Bocconi University	Private university, partner on the MIND Edu programme
Brera Academy of Fine Arts	Public university, partner on the MIND Edu programme
Cattolica University	Private university, partner on the MIND Edu programme
COSP - Centro Orientamento Stage e Placement UniMi	Internship and Placement Centre for students; partner on the MIND Edu programme
Human Technopole	National Research Center, public actor/ Anchor Member of the MIND Board and Strategic Committee as a public Anchor of MIND
IED - Istituto Europeo di Design	Educational institute, private actor and partner on the MIND Edu project
IRCCS Galeazzi Hospital (Gruppo San Donato)	Private health centre, accredited with the National Health System (NHS). Member of the MIND Board and Strategic Committee as an Anchor of MIND
IULM- Libera Università di Lingue e Comunicazione	Private university, partner on the MIND Edu programme
Joint Research Center (EU)	Research collaboration
Local schools: primary, secondary and high-schools (project MIND Education)	Partner on the MIND Edu programme, beneficiaries of the programme

NABA - Nuova Accademia delle Belle Arti (Fine Arts)	Private university, partner on the MIND Edu programme
Politecnico of Milano (Polimi)	Public university, service supplier for innovative research projects
Sant'Agostino Hospital (Gruppo San Donato)	Private health centre, accredited with the National Health System (NHS)
University of Milano Statale (UniMi)	Public university, service supplier for innovative research projects Member of the MIND Board and Strategic Committee as a public Anchor of the District
Vita San Raffaele University	Private research hospital, collaborating on various Life Science projects

CIVIL SOCIETY

Fondazione Triulza	Philanthropic actor, Member of the MIND Strategic Committee
Fondazione Feltrinelli	Philanthropic institution, partner on educational projects
Fondazione Cariplo	Philanthropic institution, partner on the innovation agenda / innovative programme of Federated Innovation
Fondazione Comunitaria Nord Milano	Philanthropic institution
Residents from local municipalities, especially: Rho, Arese, Musocco, Cascina Merlata, Bollate and Milan	Local actors, local beneficiaries
Bollate Prison and inmates	Participating in the 'Programma 2121'

Table 5: Actors in MIND

3.3 ASSETS

- **Geographical location:** easily reachable for Milanese, people from the outskirts, and other cities by car, train, and plane.
- It is an **empty area**, allowing experimentation at different levels and with greater flexibility.
- The **commitment of various big companies to be located in MIND** (the University of Milan-Statale with its campus; a national research centre, Human Technopole; and a Research Hospital, Galeazzi) offers the possibility to develop research and technology on a greater scale and be exceptionally competitive on a national and international level.
- If we consider the 'area' as a broader one, Lombardy Region, for MIND, building off the **strengths in the life sciences sector** is both wise and strategic.
- **Production in the Life Sciences** value-chain (excluding services) in Lombardy was worth 63.4 billion euros in 2017, equal to 31% of the national output and 12.4% of the regional GDP (against 10% of the national level). Health services (including both public and private hospitals, specialized facilities and ambulatories and socio-sanitary services) in Lombardy were responsible in 2015 for production values equal to 127 billion euros (+4,4% compared to 2014), an added value of 76,6 billion euros (+2,1%), and employed 1,4 million people in the public sector and 775,000 in the private or semi-private sector.
- **Growth in the Life Science value-chain** has been positive in the last two years: +13,7% in production value (vs +4,7% at the national level) and +13,4% in added value (vs +2,7%). Moreover, during the last five years of employment, and especially for young people, has been rising steadily.
- Lombardy is home to 14 universities, seven medical schools with 260,000

students, 32 research centres, 19 scientific institutes, 6,000 researchers active in the sector, 6 Sciences and Technology Parks, 182 innovative business and 267 in-house research institutes.

- With **18 research and clinical hospitals** (40% of the Italian total), Lombardy boasts Italy's record in the clinical trial sector, with more than 50% of the trials activated every year in the pharmaceutical field.
- Approximately **7 billion euros**, equal to 22,2% of total public and private investment in RDI in Italy's Life Science sector, is **invested in the region**.
- **Private RDI in life sciences is very strong in the region**, representing 23% of total investment in RDI across Italy actors in the biotech sector, and 27% in the Pharma sector.
- Lombardy is the **most developed Italian region in the Pharma** sector as half of Italy's 290 companies were located there in 2017. Around 50% of the production, added value, investments and workforce of the national pharma industry are produced in Lombardy.

3.4 CHALLENGES

There are several challenges faced by MIND, either in the wider area or arising from the masterplan, that T-Factor may encounter and are worth considering:

- Many big companies are involved in the innovation agenda of MIND, and although there is an alignment on the overall strategy, their own specifics objectives and approaches could differ, which might result in a longer and more complex **decision making process**.
- MIND main stakeholders (owner, developer, public anchors) are working to mitigate the risk of MIND becoming an **exclusive** (high-profile jobs and research) and isolated ('the island effect') area from which the local community is excluded. It is necessary to create a new identity for

the site.

- Currently MIND Communication strategy is reaching out to a larger audience: both to the general public and to the stakeholders, describing the regeneration project as a **collaborative and shared project** among multiple private and public actors and not merely a real estate one, as is often perceived.
- The regulation for temporary use of spaces by the Municipality of Milan limits meanwhile activities to 6 months. Consequently, temporary activities and installations should be perceived as such. That set the baseline for the use of construction materials, for example, wood and cardboard should be chosen upon concrete or drywall, even if only used for a temporary installation and define the type of installations and furniture, which should be movable at all times.

Challenges that T-Factor can address:

- On the one hand, there is a **socio-cultural and territorial fragmentation** among the 16 municipalities around MIND. On the other, MIND outreach is not limited to the immediate surroundings. Nevertheless, connecting and establishing an open and collaborative relationship with the local community is an opportunity not to be missed to create positive impact. According to Fondazione Triulza 'the challenge is not to leave anyone behind, especially small local businesses that somehow expect to be part of and to play a role in MIND. Nonetheless, it is worth mentioning that **small businesses might not be prepared to respond to such an innovative and ambitious project**. Thus, another challenge is to prepare them and to create opportunities for them to embrace this positive change. Local and third sector organizations would be involved in this process'.
- Many stakeholders will be actively involved in MIND: companies, universities, hospitals, research institutes,

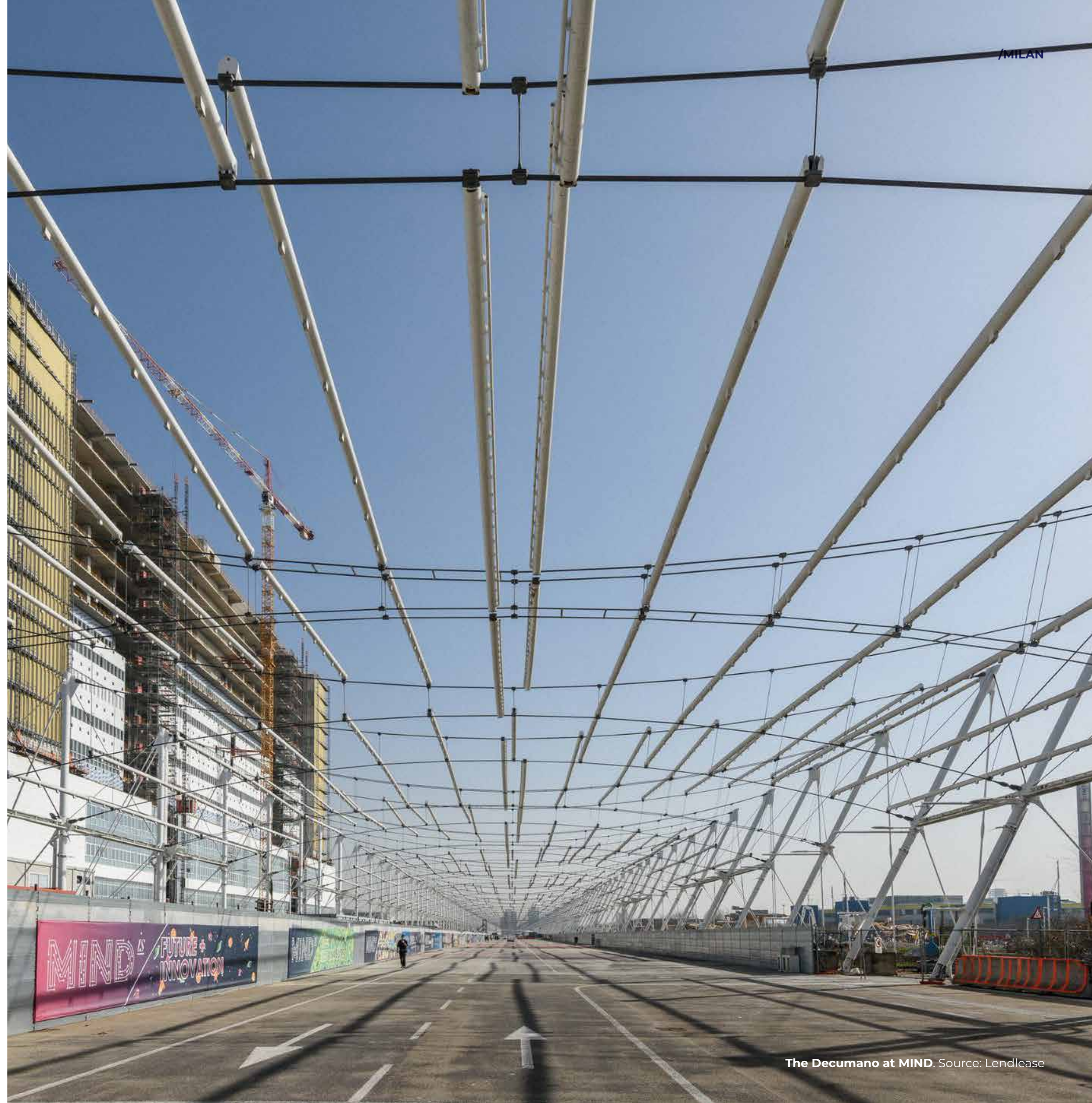
general public (youngsters and families), artists. A **well-structured management and coordination process** will be required to allow them to have an active role in the development of the site vision and objectives.

- At this stage, Lendlease's approach to the meanwhile strategy is top-down: events are meant to activate the site and collaborations are managed and coordinated by a dedicated LL team. At the moment the MIND community as such does not exist; first tenants will be using the first facilities (MIND Village) by the end of 2021, and the area will still be a working site which lays some access and engagement limitations to the surrounding communities. However, the long-term plan is to gradually allow the local population, including residents from the adjacent municipalities as well as a broader public reaching Milan, to play a more active and participatory role in the design, development, coordination and management of meanwhile. Until completion of the regeneration project, LL will most likely keep a facilitator role and the coordination of activities on site will be assigned to third partners.
- This is a critical time as it will be defining MIND identity and will be setting the basis for the relationships with its audience.

4. CONCLUSIONS

MIND is a city within the city, including an innovative science hub, a residential area, a university Campus and a brand-new hospital. Most importantly, MIND represents the opportunity to create a living-lab where the impact that different choices – from construction materials to onsite mobility systems, from green spaces to waste strategy, from retail offer to ventilation to digital approaches – on people's health and wellbeing, can be measured and monitored over time and action can be taken to improve such results. Because of its scale and the entity of the investment, MIND is a **unique example of Public-Private partnership** model for urban regeneration in Italy. The project comes with high expectations and its success will contribute to demonstrate that, when successful, Innovation Districts can increase the competitiveness of a country, paving the way for national scaling-up. Such complexity needs **management** to produce results: the Federated Innovation TM provides the legal framework to enhance the “cooperate to compete” model while securing MIND companies and partners' IPs.

MIND as an urban regeneration project has all the necessary requirements as **a place for innovation, competitiveness, culture and innovation**, being the first Italian centres to experiment with eco, socio and digital ideas and solutions in line with the National Plan for Revival and Resilience (PNRR). **Activation and community creation** is a major challenge that both the public and private developers have started addressing.



INSTITUTE OF ART AND TECHNOLOGY AT TRAFARIA



The Trafaria T-Factor project is the smallest in scale of the six pilot projects. It consists in the conversion of an ancient fort that has been used as a jail, Nossa Senhora da Saúde da Trafaria Fort or the Presidio, into the Institute of **Art and Technology of Trafaria** (IAT). The project brings together NOVA University's Faculty of Science and Technology (FCT) and the School of Social Sciences and Humanities (FCSH) to foster greater collaboration and research in the arts and technology, creating knowledge and value with a commitment to sustainability, impact in the local community and Portugal, and becoming a reference in the arts and technology education domestically and internationally.

The IAT will not only situate Lisbon and Portugal as a center of artistic creation dedicated to both valorization and transfer of technology linked to the Arts. It will also be a catalyst for development in Trafaria, a small and relatively isolated and underdeveloped enclave on the south bank of the river Tagus opposite the city of Lisbon, stimulating the local economy and supporting local communities with skills development and educational programmes. Meanwhile uses in Trafaria will be key in achieving this second goal. They will also be a tool for NOVA University to establish relationships and communicate the project to the local population.

1. LOCAL CONTEXT

Trafaria is an old fisherman's village located in the South bank of the Tagus river opposite the City of Lisbon. The origins of Trafaria date back to 1565. Trafaria's identity is strongly linked to its military function. Its strategic location at the river mouth converted Trafaria into a surveillance point of the Tagus River navigation channel.

Trafaria is a village of 5,696 people (2011 census) that belongs to the municipality of Almada and to the Lisbon Metropolitan Area (L.M.A) on a larger scale. At an administrative level, Trafaria is part of a union of parishes called União das Freguesias da Caparica e Trafaria that was established in 2013. The village is delimited by the Tagus river on its northern edge, the Atlantic ocean on the West and a mountain ridge that separates Trafaria from Almada city centre on the East. Despite its proximity to Lisbon, the town is quite isolated from the capital and the commute is only possible with public transport (boat or bus) or private car. Trafaria is about twenty-two minutes by car from Lisbon city centre with no traffic conditions and it takes only twenty minutes for the ferry to cross the Tagus river from Trafaria station to Belém, at the limits of Lisbon. However, the ferry service has a limited schedule and frequency and the commute from Belém to the centre of Lisbon adds about an hour to the trip by public transport.

The connection between Almada and Lisbon is much stronger and appears to confirm that the two municipalities work as a consolidated metropolitan region. According to a 2008 study entitled "comparative evaluation of the existing alternatives for the third crossing of the Tagus river in the metropolitan area of Lisbon" there is a daily commute from Lisbon to Almada of about 156.000 people (estimated data based on a survey applied to 46.000 people in 2007).

Trafaria is however in close proximity to the current NOVA University's Faculty of Science and Technology, which is located at the South West of Almada City Centre.

Its geographical location, close to the country's capital, has been at the centre of the debates around the development of the town. Trafaria has often been described as a "deposit of those condemned to exile" (Leal, 2014) and there is a concern that Trafaria may become a repository for the capital, forging a duality that could harm the village's identity and negatively impact the life of its citizens.

On the westernmost point of Trafaria there is one of the largest informal settlements in the country, the Segundo Torrão neighbourhood. This concentrates high levels of poverty and population with a migrant background. The Barrio dos Pescadores (Fishermen's Neighbourhood) also concentrates high levels of poverty as it is also located on the west side of the town.

Trafaria has a rich architectural heritage. Many of these buildings are in a bad state of conservation. The map and the table below provide an overview of the heritage listed buildings in the town. Many of these are in a precarious state of conservation. Indeed, Trafaria has many unused buildings that are in precarious condition. Many of these have been passed from generation to generation, making it complicated to find their owners who are often not interested in rehabilitating their properties due to their state of decay.

The Presidio, where the IAT will be located, is a building with a long and important history for the village and Lisbon at large. The space where the presidio is now used to be the Lazareto building, possibly the first building in Trafaria. It was built in 1565

to quarantine ships to prevent the spread of plagues in the city. In 1683, a fort was built next to the Lazareto to complement the defence of the capital on the Tagus South bank. By the year 1751 the fort was turned into a prison, a function that the building kept for some years before entering a period when it served different functions such as a dry cod factory and a theatre. In the early 1900s with the end of the Portuguese monarchy, most of the structures of the

fort were demolished and a jail, known as the Presidio. With the start of the republic, the jail started to receive civilian prisoners accused of political crimes. This status was consolidated with the dictatorship, the Estado Novo, when opponents to the regime were arrested in the Presidio. The building kept its military function until 1981. In the year 2000 the Municipality of Almada acquired the building. After several attempts of appropriation by civil society

EDUCATIONAL BUILDINGS	1 - Escola Primária da Trafaria / Escola Básica do 1º Ciclo e Jardim de Infância nº 1 da Trafaria – Trafaria Primary School
FINANCIAL SERVICE BUILDINGS	2 - Trafaria Marine delegation
MILITARY AND SECURITY BUILDINGS	3 - Fireman headquarters 4 - Trafaria´s fortress 5 - National Republican Guard
RESIDENTIAL BUILDINGS	6 - House in Av. 25 Abril, nº19 7 - Filipe Neto´s House Av. 25 Abril, nº 18 8 - Building in Rua António José Martins 9 - House in Rua António José Martins, nº3 10 - House in Rua 5 de Outubro, nº37 11 - Building in Rua 5 de Outubro, rP68 12 - Bragança´s couple 13 - House of Santa Maria Avenida Bulhão Pato, nº75 14 - House in Avenida Bulhão Pato, nº65 15 - House in Avenida Bulhão Pato, nº45 16 - House of Maria Manuel Avenida Bulhão Pato, nº 43 17 - Maria Hortense´s cottage Avenida Bulhão Pato, nº 4
INDUSTRIAL BUILDINGS	18 - Factory in Rua Guedes Coelho 19 - Narcissus fish canning factory

CULTURAL AND RECREATIONAL BUILDINGS	20 - Post office 21 - Cine-theater 22 - Casino
COMMERCIAL, TOURIST AND SERVICE BUILDINGS	23 - Municipal market
INFRASTRUCTURAL BUILDINGS	24 - Fountain
RELIGIOUS BUILDINGS	25 - São Pedro´s church 26 - Nossa Senhora da Conceição church
COMMUNICATIONS AND TRANSPORT BUILDINGS	27 - River Station

Table 6: **List of heritage buildings in Trafaria** (legend for Image 4.1)
Source: Viveiros, R. (2019), “Análise Urbana e Património Arquitetural da Trafaria”

groups, the space was finally inaugurated as a cultural space.

Today, the Presidio is made up of seven buildings and occupies a space of 1,115 square meters. It is a symbol of the military architecture of the coastal artillery regiment. After over 40 years of abandonment, the structure is now in ruins.

SOCIAL, ECONOMIC AND CULTURAL PROFILE

The town is often referred to as a marginalised or neglected place that has never benefited from the central government policies which, instead, benefited other touristic destinations. This, together with projects that resulted in broken promises, generated a stigma of rejection. On the flip side, this has resulted in a relative autonomy in overcoming local challenges and a rich local culture (such as music, theatre, artistic exhibitions, wine tasting, dances, jam sessions, fishing, etc) that positively contributes to the region’s

identity. According to the last census data available, Trafaria had a population of 5,696 people in 2011, representing a 4.2% decrease from the 2001 census data. A survey from 2017 (Malty, 2017) revealed that the population in Trafaria is quite aged and that there is a large number of elders who live by themselves. The results of this survey also shows that household sizes are smaller in the central part of the town while the Segundo Torrão neighbourhood has larger households. The socioeconomic challenges that people in Trafaria face are aggravated by the shortage of public facilities and amenities. The closure of the local Health Care Centre and of the Post Office are a matter of concern to the residents. The village also lacks some basic amenities, such as ATMs. These issues, combined with the poor public transport infrastructure and the isolation of the village, contribute to create a general feeling of discontent and abandonment by the Almada and national government. Another factor of frustration are the many

broken promises and unmet expectations of the residents with regards to the development of Trafaria. The one project that appears to be iconic for this is the Silos. The project is remembered for the promise of jobs for the locals and a swimming pool that never materialised.

Despite its many socio-economic challenges, Trafaria's population share a strong local identity. About 70% of Trafaria's population was born in the town itself and 64% of the residents have lived in Trafaria for over 30 years. This makes Trafaria a place with a very strong identity and where people know their territory very well. The interviews conducted to produce this report also showed that interviewees know the history of Trafaria.

2. REGENERATION PROJECT

2.1 THE VISION

The IAT project aims to transform the Presidio area into a center for arts, culture and creativity that is to become the main catalyst for new higher education, applied research and opportunities for enterprise. The requalification project of the Presidio is part of the Almada's development strategy, which aims to promote economic development, boost cultural activities and stimulate a new strategy for the requalification of public space. The new IAT will create a cluster for the concentration and development of qualified businesses in the region that is to become a reference in arts and technology education at the local, national and international scale. On a local level, the IAT is expected to become a driving force that brings local economic development to the town, contribute to the preservation of heritage and develop educational programmes for the residents.

The idea of the IAT is to create a centre for research, innovation, training, teaching and creation that enhances the connection between technology and the arts. To do so, the project brings together NOVA University's Faculty of Science and Technology (FCT) and the School of Social Sciences and Humanities (FCSH) to foster greater collaboration and research in the arts and technology, creating knowledge and value with a commitment to sustainability, impact in the local community and Portugal, and becoming a reference in the arts and technology education domestically and internationally. The two faculties currently have a total of 6,000 students and over 100 staff and researchers .

The IAT educational programme will combine continuous MA and PhD

programmes with one month certification programmes, short professional certification and skills development programmes for executives, arts events and residencies and labs. On a more corporate level, the IAT will have programmes for project prototyping and applied R&D, joint research projects between corporations and IAT fostering pathways to commercialisation, and a start-up accelerator. In addition to this, the IAT will also count with community impact projects.

These include collaborations between local corporations and the local community to promote economic development and cultural activities and Street Labs for local residents to access the school facilities and training.

2.2 DEVELOPING THE MASTERPLAN

The IAT is a NOVA University of Lisbon project and it will be located at the Presídio. A 50 year lease agreement - with a possible 20 years extension- has been signed between NOVA and Almada's municipality. The IAT will occupy four of the Presidio buildings and the central courtyard. The project has an estimated budget of about 7.7 million euros and it will be funded by NOVA University and the Comissão de Coordenação e Desenvolvimento Regional de Lisboa e Vale do Tejo that will fund 40% of the works. The Council of Almada will be in charge of renovating the courtyard and surrounding spaces. Construction works for the project are expected to last over one year, starting in June 2022 and ending in July 2023.

The architecture project for the IAT is in the process of being developed and it is expected by November 21. At this stage, the only spatial indication for the future IAT is the distribution of the different uses across the two floors of the four buildings in the preliminary programme proposal for the rehabilitation works. These include classroom spaces, Fablabs, spaces for art residencies, a blackbox, co-working spaces, a library, event spaces and the start-up accelerator as well as spaces for administrative staff.



Spatial distribution of the different uses in the IAT
Source: Preliminary programme for the rehabilitation works

At this stage, there is no information about how the IAT will relate to its immediate urban environment and to the City Council's adjacent museum project as it the city has not started the project yet. There will be a close collaboration between both entities to guarantee alignment.

The Council of Almada will keep one of the buildings in the Presidio. This plan for this one is to be a space for the historical memory, creation and exhibition.



Spatial distribution of the different uses in the IAT
Source: Preliminary programme for the rehabilitation works

2.3 CITIZEN ENGAGEMENT AND PARTICIPATION

In Portugal, public participation is not yet as developed as in other European countries but it is considered “necessary to legitimizing political decisions and as a way of holding stakeholders accountable” (Costa, 2014). According to the Plan’s Great Options Law, 2021-2023 (Law No. 75-C / 2020), the stimulation of citizen participation is a priority and a central goal for the Portuguese State to improve the quality of democracy with the “objective of involving citizens in the processes of collective decision and, in this way, increase their sense of belonging to the community in which they operate” (Law No. 75-C / 2020). To ensure that this is achieved, the law sets procedures to evaluate pioneering participatory methods, such as participatory budgets, encourage voluntary practises, evaluations of the Government Program by universities and randomly selected groups of citizens, and the creation of a permanent forum for citizens and social movements’ inquiry.

Several municipalities and parishes invest heavily in the active and direct participation of citizens, with the emergence of more and more voluntary initiatives. The Participatory Budget (PB) is an example of this new participatory dynamics today that constitutes a “new form of governance based on the direct participation of citizens in the identification of problems and local needs in the definition of priorities, in the implementation of projects, as well as in its monitoring and evaluation” (Allegretti, G.; Dias, N.; Antunes, S. 2016). The PB entails public consultations for citizens, split in age groups, to decide on budget allocation and the subsequent activity plan. This is done at a municipal level, and it has a dedicated annual share of the total municipal budget. According to the IN LOCO Association, the association responsible for the Observatory of Participatory Democracy Practices in Portugal, PBs have situated Portugal at the center of democratic innovation and the creation of inclusive cities. The City of Almada’s 2021 Participative Budget was held

during the first months of 2020 and had a total budget of €250,000 to be equally split across the five parishes. Thus, the PB budget for the Union of the Parishes of Caparica and Trafaria was €50,000. The areas covered under with the PB were: Solidarity, inclusion and housing; Education; Arts, culture and creativity; Transport, mobility and accessibility; Economy, innovation and tourism; Environment, public space, green spaces, energy, climate and sustainability; Strategic planning and territory management; Sport and youth; Governance, public services and citizenship;

The 2020 Almada’s PB was the first edition of the youth PB in the city. This encouraged the youth to identify problems, solutions and investment priorities in their city. This process intends to deepen the relationship between the youth and the city and to make public policies more aligned with the youth’s needs, ambitions and expectations, as well as to promote interaction between elected officials, technicians and citizens, in the pursuit of solutions to improve the quality of life in the municipality.

There has not yet been a participatory process for the planning and design of the IAT and it appears that citizens do not have much information about the project. As indicated in the masterplan section, the architecture design for the project has not been produced yet and it should come out of an architecture competition. This lack of participation was made evident by the answers obtained from interviewees during the research conducted to produce this report. The great majority of interviewees that were not directly connected with the regeneration project were aware that there was a regeneration project to take place in the Presidio, however most of them only knew that the Council of Almada had acquired the building and did not know what the regeneration was about.

However, as we have already indicated, there had been several attempts of appropriation by civil society groups of the Presidio. In 2014 the Ensaios & Diálogos Associação (EDA, see actors mapping section for more

information) was invited by the Council of Almada to undertake a participatory process to collectively envision the future of the Presidio. This process, named *Prisão Paraíso* (Paradise Prison), started in 2014 and lasted two years. It included artistic residencies, workshops and other events that eventually resulted in the creation of several socially-focused spaces such as a food garden, a community kitchen, and a wood workshop for several disciplines to work together in the co-production of urban spaces. This wood workshop, which could indeed be called a “makerspace”, has played a significant role in the production of pop-up or temporary urban interventions that test new ways of city-making and participatory design.



3. MEANWHILE USES

3.1 MEANWHILE USES

NOVA University already has some ideas and multiple activities integrated in the T-Factor project for meanwhile uses and activities that could positively contribute to the IAT as well as to local communities. The interviews carried out with this process confirmed the appropriateness of these activities.

- 1. Activities related to the history of the Presidio for the preservation of memory. Indeed, interviews confirmed that only older generations remembered the symbolic value of the building.
- 2. Activities related to strengthening communication with the local community to better inform them about the IAT project. The interviews with actors who were not directly involved in the IAT@T project clearly confirmed this need, showing that the project is largely unknown by the locals (see section 3.3 for more details).
- 3. Street Labs and other activities to integrate local communities, and particularly the youth, into the IAT through education and skills development. The poor education level in Trafaria, combined with high low household incomes, seems to confirm this need.

The Presidio, however, has already a history of temporary uses. EDA, a project partner, is established in one of the spaces in the Presidio and has been carrying out temporary activities with a strong

participatory and inclusive approach within this space as well as in other parts of the

village. As already mentioned above, EDA's wood workshop in the presidio has been used to produce pop-up temporary urban interventions to test new ways of city-making and participatory design.

3.2 ACTORS

PRIVATE

TERRATREME

Project partner. Film production company based in Lisbon that works with innovative production models based on research and creation

PUBLIC

Câmara Municipal de Almada

Owner of the Presidio and project partner.

Trafaria Parish Council

Pavilhão do Conhecimento - Centro Ciência Viva

Project Partner. Lisbon's science and technology Museum located in the former Expo 98 facility

EDUCATION & RESEARCH

Universidade NOVA de Lisboa

Developer. The university of the project leader. NOVA's faculties of Social and Human Sciences and Science and Technology are the ones that will be moved to the Presidio to create the IAT

University, Culture & the City Core Group of the Network of Universities from the Capitals of Europe (UNICA)

Project partner. Group chaired by NOVA and formed by several international universities. The UT Austin Programme

University of the Arts, London (UAL)

Project partner. There is a protocol for collaboration between the two universities that has a specific focus on the IAT

CIVIL SOCIETY

Ensaio e Diálogos Associação (EDA)

Project partner. Non-profit organization based in Trafaria. It hosts and interdisciplinary collective that experiments with alternative forms of interventions through culture, arts and architecture. They have a strong focus on community development and space activation

Associação Maumaus - Centro de Contaminação Visual

Project partner. Non-profit cultural association based in Lisbon that promotes the debate, knowledge and dissemination of contemporary art-related subjects

Humanitarian Association of Volunteer Firemen

Local association that provides relief services. Founded in 1931

Associations of Residents of Cova Do Vapor

Neighbourhood association neighbourhood in Trafaria called Cova Do Vapor. Established in 1976

Association Margin of Courage

Association focused on supporting the activities of the Biblioteca do Vapor

Associations of Residents of Segundo Torrão	Residents association established in 1998 in Segundo Torrão, the largest informal settlement in Portugal
Sports Group the Segundo Torrão Fishermen	Sports group in Segundo Torrão for fishing activities
Sociedade Recreativa Musical Trafariense (Trafarian Musical Recreational Society)	Club established in the year 1900 in Trafaria for musical culture through acting and teaching
Clube de Futebol da Trafaria (Football Club Trafaria)	Football club in Trafaria established in 1937
Saltapocinhas Btt Shortcut D´Aventura	Cycling-tourism association in Trafaria
A Tarrafa	Cultural and recreational association in Trafaria
Grupo de Iniciação Cultural da Trafaria (GTT - Cultural Initiation Group of Trafaria)	Theatre association in Trafaria founded in 1972
Recreios Desportivos da Trafaria, Casino (RDT - Recreational Sports in Trafaria)	Local club for cultural activities, sports, theatre workshops and music classes

Table 7: Actors in IAT

3.3 ASSETS

Key assets identified for the implementation of T-Factor in IAT are:

- Architectural and cultural heritage.
- Very positive reception of T-Factor and the overall IAT project by everyone interviewed in the research process.
- Supportive environment for the implementation of T-Factor and several invitations for collaboration and support.
- Strong partnerships between NOVA University and municipalities in Portugal and other universities in the country and abroad.
- Partnership with a local organisation (EDA) that is well-grounded in the area and has experience in similar projects to the ones planned in T-Factor.
- There are several local associations in the area that know the local dynamics. Many of these focus on culture.
- Request for the adjacent space in the Presidio (Building 3) to be used for art residents or for dance workshops and theatre.
- Legacy of participatory and inclusive meanwhile uses (by a project partner) in the Presidio and Trafaria at large.
- Proximity to the current NOVA University’s Faculty of Science and Technology.

3.4 CHALLENGES

Key challenges in Trafaria for the implementation of T-Factor are:

- Possible resistance related to the frustration and fatigue from local populations who have seen their expectations failed by several broken promises and failed projects (E.g. silos project)
- Non-participatory culture among older generations

- Isolation, poor accessibility and insufficient parking to deal with a great flow of people in Trafaria
- The new flux of students into a small and isolated community, such as Trafaria, may cause conflicts with the residents (e.g. noise at night, increase of housing prices) that may turn some sectors of society against the project.
- Political tensions in the Municipality of Almada that may result in opposition to the project
- Poor strategic vision for the development of the village.
- Lack of experience in Trafaria with projects of this type and this scale.

Key challenges in Trafaria that T-Factor can address are:

- Need to develop the “attractiveness” of the region.
- Divided social fabric between those who are seen as “elitist” and those who have lower educational levels.
- Poor level of public facilities and amenities in Trafaria.
- Unemployment, low income and education levels.
- Largest informal settlement in Portugal (Segundo Torrão)
- Large number of unused buildings (albeit risk of real estate speculation and gentrification)
- Poor popular awareness of the nature and the object of the regeneration of the Presidio
- Large number of elder people who live by themselves

4. CONCLUSIONS

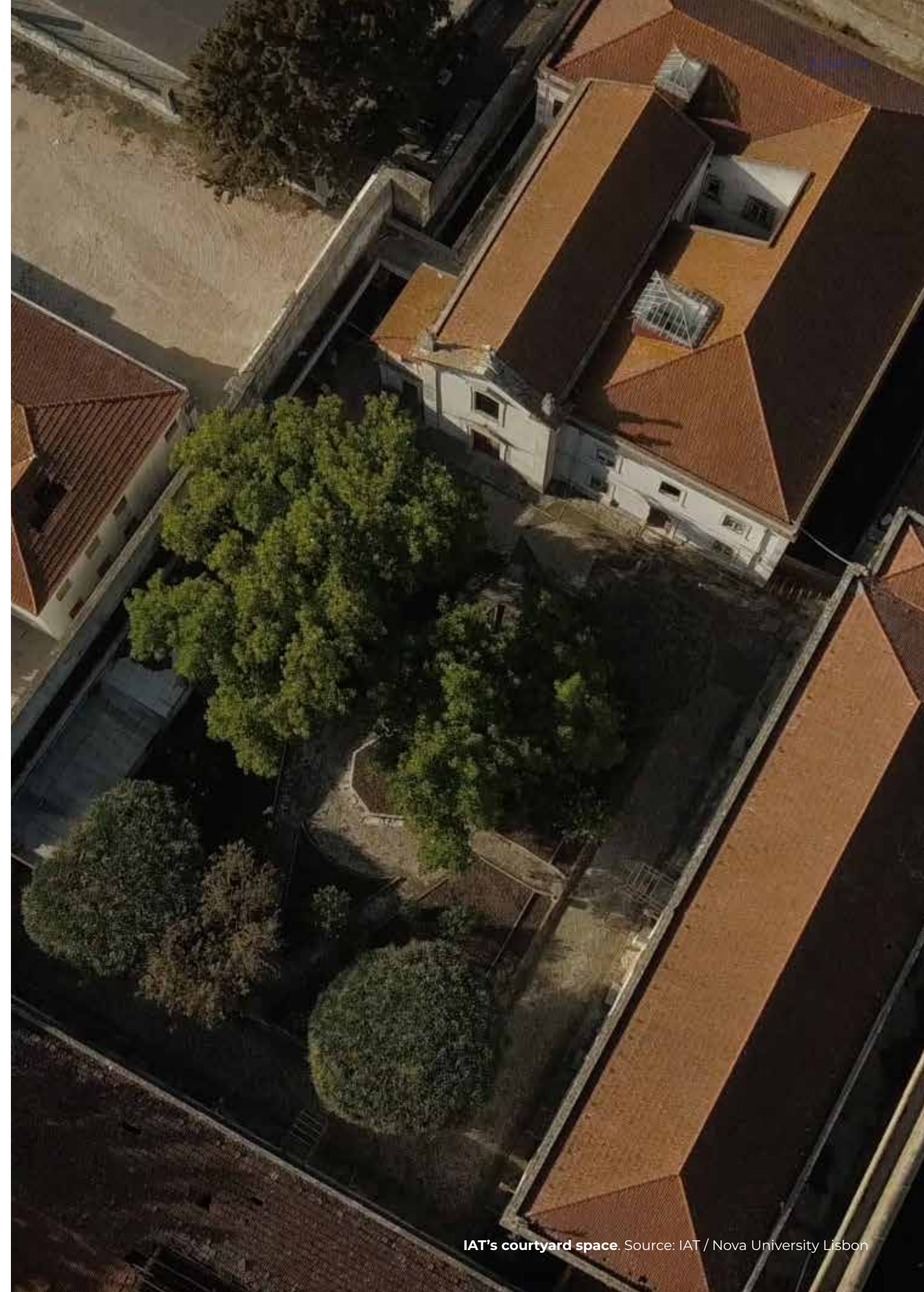
The research conducted to produce this report was very well received by all interviewees. Many of them offered themselves, or their organisations, to contribute to the T-Factor pilot in IAT. The research process was also very useful in creating a welcoming environment for T-Factor in Trafaria. Interviewees, especially community members and civil society organisations, also felt that NOVA University was making an effort to include them into the project. In this regard, most interviewees shared their vision about what the Presidio should become and how they see the T-Factor pilot developing in IAT. The main points are listed below:

- All interviewees agreed that the Presidio should be a place for the preservation of memory and the history of Trafaria and that it should be open to everyone.
- All interviewees think that the positive outcomes of the regeneration of the Presidio outweigh the possible adversities that the project may bring. In particular, the regeneration was seen as a way to improve the attractiveness of Trafaria and would result in jobs, greater interest in culture and improvement of other services in the village.
- The majority of interviewees expressed a wish for the Presidio to be a place for culture and arts and used local referents like LX Factory and Espaço Adão to explain what they expected the Presidio to become. The space interviewees imagined include services such as cafes, restaurants, art and history museums, sewing workshops, fab-labs and spaces for seminars, workshops and concerts.
- The issue of inclusivity was stressed

by most interviewees. The Presidio should be a place open to everyone and promote synergies between different kinds of actors. In this regard, there was also a particular emphasis on involving local communities in the cultural programming.

- T-Factor was also seen as an element that could encourage young people in the neighbourhood to study further before starting to work.

Some interviewees mentioned that they would like the building to be self-sufficient in terms of energy and that it was used to showcase and explain to local communities the advantages that science can bring.





ZORROTZAURRE BILBAO

Zorrotzaurre is one of the largest, most diverse and complex regeneration processes of the six pilot projects targeted by T-Factor. It is also one of the pilots with a longer implementation timeline. Zorrotzaurre is also special because of its history of temporary uses and the relevant role these take in the regeneration process. The current reality of Zorrotzaurre cannot be understood without the cultural initiatives that have occupied vacant warehouses since 1997, becoming a driving element of the transformation process.

Zorrotzaurre is currently the largest urban regeneration project in Bilbao. The regeneration, led by the Bilbao City Council, will convert a semi-abandoned and decaying industrial area into a new mixed-used 24/7 business district that will have an impact on the entire city.

Thanks to the strong legacy of temporary uses in Zorrotzaurre and the long-standing involvement of several agents, the pilot shows many opportunities for the implementation of T-Factor. There are however many challenges that T-Factor will encounter, many of these related to the current urban decay and isolation of Zorrotzaurre as well as the need to build a strong urban ecosystem for the future of this area. Nevertheless, T-Factor may contribute to addressing many of the current challenges in Zorrotzaurre, especially those related to the promotion of economic activity, collaboration between actors, and scaling-up of existing initiatives.

1. LOCAL CONTEXT

The Ribera de Deusto (the Ribera) and Zorrotzaurre used to be a marshland that was gradually drained and subsequently canalized. The Ribera, bathed by the Nervion (Ibaizabal) estuary, formed part of the old parish of Deusto which, together with Abando and Begoña, surrounded the city of Bilbao. Since the 18th century, it has been an area with vigorous port activity, shipbuilding, auxiliary industry and a place of agricultural activity.

With the Industrial Revolution, Bilbao began an unprecedented economic and social development based on the exploitation of the iron mines, with an important iron and steel and shipbuilding industry that became the driving force of Bizkaia's economy. Economic expansion was followed by urban development. In the 19th century, some of the city's major projects were undertaken, and many of its most representative buildings were erected. It is during this time when the city of Bilbao grew into what is now known as modern Bilbao. Activity in La Ribera and Zorrotzaurre also increased during this period. Its exponential growth together with lack of urban planning resulted in a lack of services and infrastructure and poor accessibility.

At the beginning of the 20th century, Bilbao was the main economic reference point in the Basque Country and one of the most important in Spain. Bilbao's spectacular growth was accompanied by an important cultural development. In 1925, the Deusto parish was annexed to Bilbao and the first project for the construction of the Deusto Canal was drawn up in 1928. This involved the radical transformation of the Ribera, separating it from Deusto to boost port activity. This project and the cultural and

economic development of Bilbao were interrupted by the Civil War (1936-1939).

After a tough post-war period, Bilbao resumed its capacity to create wealth. The town's urban and industrial landscape changed again to face an accelerated expansion, which reached the neighbouring municipalities on both the Nervión estuary banks. Construction works for the Deusto Canal began in 1950, opening a 100-meter-wide canal from the Euskalduna area to the Elorrieta curve. The canal works were never completed, and the area remained connected, as a peninsula, to the mainland by a stretch of land. The pier was in service from 1968 to 2006. The opening of the Deusto Canal strengthened industrial activity in Zorrotzaurre, which started to boom again in the mid 60s. In this scenario, various industrial activities were consolidated, mainly those related to port activity on both sides of the Canal and other productive uses that were established in the former River Bank.

At the end of the 20th century, the steel industry entered a deep crisis that forced the city to rethink the foundations of its economic development. In the 1980s, with the emergence of the Asian and the Southeast Asian markets in the global economy, Bilbao became a decaying industrial city unable to compete and attract new investment. The continuous closure of companies and businesses made the decay generated by the economic decline visible.

The decline in Zorrotzaurre started with the collapse of industrial activity in the Bilbao estuary, the progressive abandonment of buildings and infrastructure, and the loss of investment in the peninsula. The neighbourhood was a degraded and isolated

area of the city with certain industrial activities such as “Coromina Industrial”, “Metalduro Mefesa” or “Cromoduro”, whose buildings remain as good testimonies of what was once the skyline of Zorrotzaurre. After decades of industrial and social decline, barely 500 people live in Zorrotzaurre today and living standards have deteriorated as result of poor maintenance of aged industrial buildings and public and private spaces.

To address this situation, it was necessary to regenerate the city, adapting it to the new local and global demands. In this transition, public-private and inter-institutional collaborations (Bilbao Ría 2000 Consortium) became determining factors to unlock projects such as the regeneration and revitalisation of the estuary and its banks, transforming Bilbao's productive specialisation base towards new economic sectors. In the 1980s and 1990s, the city's overall development was based on a cultural policy for the urban regeneration and transformation of Bilbao alongside urban planning and sustainability. The city's strategy focused on the opportunity generated by the dismantling of the industry and the reform of the port and railway infrastructure, which freed up space in the city centre. These spaces were used for the creation of infrastructure and cultural facilities.

The opening up of the Guggenheim Museum in 1997, a milestone in the new city's history, was accompanied by many other projects such as the Bilbao Metro, the Euskalduna Conference Centre, the Azkuna Zentroa (La Alhóndiga) cultural space, and numerous architectural projects and urban planning interventions. Their objectives were to substantially improve the livelihood, sustainability and tourist attraction of the city and enable its adaptation to the new service economy and the attraction of financial investment. **Over the last 15 years, Bilbao's development policy has been based on new activities such as services, leisure, culture and tourism.**

The General Urban Development Plan

of Bilbao, approved in 1995, changed the industrial use of Zorrotzaurre to residential. At the same time, it called for the drafting of the Special Urban Development Plan (Plan Especial de Desarrollo Urbano - PEOU) for Zorrotzaurre to define the area's urban design. In 2002, the Zorrotzaurre Management Commission was created for the urban management of the future island and, more specifically, to promote and execute the urban regeneration plan for the area. **In 2004 the Master Plan, designed by the Anglo-Iraqi architect Zaha Hadid, was approved.** It was revised in 2007, incorporating the complete opening of the Deusto Canal that transformed the Zorrotzaurre peninsula into an island. On the 8th of October 2018, water began to flow through the canal.

The island of Zorrotzaurre was born with a surface area of 838,781 m². More than half of the land belongs to public entities (Basque Government, Bilbao City Council, and the Port Authority of Bilbao). The rest of the land is divided between several private owners. The works to open the canal, which cost more than 20 million euros, consisted of the construction of two parallel lines of quays that were 75 meters apart from each other and the subsequent emptying of 365,000 cubic meters of earth. **That moment symbolically marked the starting point of the transformation of the island, one of the most ambitious urban and social projects of the city.** Since then, the Bilbao estuary forks between its natural course and the Deusto canal in the area of the Euskalduna Palace and the San Mamés stadium to re-join at Elorrieta zone.

At present, Bilbao is facing new challenges that imply new urban renewal plans, as in the cases of the Zorrotzaurre Island and Punta Zorroza, a section of the Zorroza neighbourhood. These projects will have a decisive influence on the economic and social development of Bilbao. Simultaneously, the city continues to generate solutions to the current situation where technological innovation is radically changing the way of understanding the

world and facing and solving problems. For this reason, the metropolis is immersed in a second transformation to move from a friendly city to a smart city that continues to advance and innovate to build a more competitive and creative city.

SOCIAL, ECONOMIC AND CULTURAL PROFILE

On 1 January 2019, Bilbao had a population of 347,083 people and accounted for 40.4% of Greater Bilbao's population (858,236 inhabitants) and 30.3% of the territory of Bizkaia (1,142,853 inhabitants). Following a trend from the previous years, the city continues to grow thanks to the positive migration balance (5,211 people in 2018) that surpasses the negative rate of natural population growth (-1,740 people in 2018). Bilbao's population is slowly ageing, reaching its highest index of 24.0% in 2019 and an average age of 46.4 years old. Foreign population represents 8.6% of the city's total population and it grew by 2,206 people in the last year, reaching a total of 29,815.

Despite its industrial legacy, the service sector is the most active in Bilbao's economy today. Both average personal and household incomes in Bilbao grew by 1.4% and 1.2% respectively in 2018, the last year there is data available for, reaching 21,538 euros/person and 43,329 euros/household and surpassing those of the Territory of Bizkaia, Greater Bilbao and the Autonomous Community of the Basque Country. The city's unemployment rate stood at 13.05% in 2018 and it was higher for men than for women. After the economic crisis caused by the Covid-19 pandemic, the Basque GDP is expected to grow again in 2021 with estimates of 8.6% according to the Basque Government and CEPREDE (economic research centre) and 5.8% based on the BBVA bank.

Zorrotzaurre is one of the least populated neighbourhoods in the city with only 216 women and 209 men and it is home to a small population of homeless

migrants who occasionally occupy uninhabited post-industrial spaces. It is also one of the neighbourhoods with the **lowest individual and household income** of 16,810 euros and 31,782 euros, respectively, in the city. Despite the small number of inhabitants, residents are quite well organised. The Ribera de Deusto and Zorrotzaurre Neighbours Association, “Euskaldunako Zubia”, is the most active and numerous group. Other groups are also part of the history of Zorrotzaurre, such as the association of retired women, which is entirely made up of female members, or the “Ur-Artea Leisure Club”, which ceased its activity in 2018 after 30 years of organising leisure and recreational activities for the neighbourhood.

The emergence of “meanwhile” cultural and creative activities gave rise to actions that provided the island with social life and economic activity. In turn, these initiatives have been catalysts for attracting new projects to the island, contributing to its habitability and the creation and identification of opportunities. The relationship between the municipality and the neighbours and the actors involved in the “meanwhile” activities has gone through setbacks and conflicts. Nevertheless, it has many chapters of collaboration and mutual support to its credit.

Another issue that is sometimes seen as a reflection of potential conflicts, is the controversy that exists around the name of the area. Residents defend the name “La Ribera” because of the neighbourhood's past when the land was Deusto's riverbank. However, the local administration opted for the name “Zorrotzaurre.” This name only refers to the toponymy of the northern part of the island, which is located in front of Zorroza, the neighbourhood on the opposite side of the river. The name “Zorrotzaurre” means “In front of Zorroza” in Basque, the official language, together with Spanish, in the Basque Country. In June 2015, the Neighbourhood Association “Euskaldunako Zubia” organised a conference under the slogan “La Ribera vs Zorrotzaurre”. In these

meetings they debated the clear contrast between the realities that currently co-exist in the island: on the one hand, La Ribera as the existing post-industrial neighbourhood and, on the other hand, Zorrotzaurre as the new urban landscape outlined by the Masterplan.

2. REGENERATION PROJECT

2.1 THE VISION

The Zorrotzaurre project is the most recent major redevelopment project in Bilbao. The regeneration of Zorrotzaurre is meant to turn around the abandonment and decay in the island and turn it into a mixed used space where housing and knowledge-based economic activities coexist side by side.

The masterplan envisions Zorrozaurre as a sustainable, innovative, knowledge-based island that will have life 24/7. The transformation will turn Zorrotzaurre into a new business district, influencing the entire city.

The masterplan envisioned opening up of the Deusto Canal, transforming Zorrotzaurre into an island, to minimise flooding risks. Following the narrative of “becoming an island”, the plan converts the waterfronts into pathways with **green spaces and educational, sports and cultural services**, and it lays out housing in strips, perpendicular to the river and the canal, to ensure that everywhere has a sight of water.

In terms of environmental sustainability, the island will have flood risk reduction systems, zero-emissions buildings, 100% electric public transport, spaces for electric cars, and a pumping and cleaning system for street cleaning and irrigation.

2.2 DEVELOPING THE VISION

ZORROTZAURRE'S MASTERPLAN

The Zorrotzaurre masterplan was designed by the prestigious Anglo-Iraqi architect Zaha Hadid. It was approved in 2004 and reviewed in 2007. The masterplan organises the island

in two new self-sufficient neighbourhoods, one at each end. In between the two, an ‘old quarter’ will be developed around San Pablo church, where most of the existing housing is located. The compact mixed-use plan includes 5,473 dwellings, half of which are to be subsidised, about 200,000 sqm of economic activity, and public spaces and facilities. The latter will make up for two thirds of the total area and they include open spaces, concentrated on both river banks and on a linear park in the central area of the island, and public facilities. Economic activity will concentrate in two urban technology parks, located at each end of the island and in proximity to the bridges for easy access. The North Innovation Urban Park will have 50,000 m² of the buildable area in which seven new buildings will be constructed and four existing ones will remain. The South Innovation Urban Park will have 90,000 m² of buildable area, in which eight new buildings will be built.

Sixteen of the former industrial buildings in the island have been or will be refurbished and occupied by actors in the field of education and culture. Some of these buildings are currently housing **meanwhile uses that will be consolidated or displaced to make room for the building's final use.**

The Masterplan divides Zorrotzaurre in **two sections that will be implemented in two different phases**: Integrated Action 1 (Phase 1) and 2 (Phase 2). Integrated Action 1 has been divided into two sub-phases that should be urbanised and built in parallel (Execution Unit 1 and 2).

ZORROTZAURRE'S PLAN FOR SUSTAINABLE AND INTEGRATED URBAN DEVELOPMENT

The Bilbao City Council, in line with the Europe 2020 Strategy and the Sustainable Growth Operational Programme (POCS), developed the Implementation “**Plan for Sustainable and Integrated Urban Development**” (DUSI) in the Zorrotzaurre Area. This document is the closest to a unified strategy for the Island of Zorrotzaurre that currently exists. It is an ambitious multidisciplinary project co-financed by the European Regional Development Fund (ERDF), that counts with the collaboration of various municipal departments.

The DUSI aims to **transform the historical industrial area that is currently in disuse into a new business district** for Bilbao. Based on the DUSI, Zorrotzaurre will be an accessible and sustainable island, both in terms of economic activity and housing. It will have business areas, housing, numerous social and cultural facilities as well as extensive green areas and riverside walks for the enjoyment of the citizens. Zorrotzaurre's connection with the rest of the city will be strengthened with physical infrastructure and sustainable mobility. The strategic and integrated approach to the regeneration of Zorrotzaurre confirms the City Council's commitment to the **recovery of a historic area that will have a transforming effect on the whole city**.

The DUSI Strategy is structured along four priority axes:

1. Moving towards a **smart city**
2. Moving towards a **sustainable city**
3. Moving towards an **integrated and social city**
4. Moving towards a **competitive and innovative city**

BILBAO'S CITY COUNCIL MANDATE PLAN 2019 -2023

The Bilbao City Council Mandate Plan 2019-2023 outlines the actions for the coming years. The plan **promotes Bilbao as a cultural city, it includes specific actions to promote economic activity and to improve environmental sustainability and**

coexistence of different groups in the city.

Some of the most relevant actions in the plan for the T-Factor project contained in this plan are listed below:

- Economic activity and employment actions:
 - First phase of the Urban Technology Park in the Zorrotzaurre Innovative Urban District will focus on the governance, management and promotion **model to attract and generate an ecosystem of companies and knowledge and technological agents**.
 - Development of the Advanced Service Centre for Industry 4.0 and digital economy Bilbao AS Fabrik . The project aims to improve local companies' competitiveness and to consolidate Zorrotzaurre as a training and reference ecosystem in the field of advanced services for **Industry 4.0 and the digital economy** in Bilbao. The second phase of the project focuses on training, entrepreneurship and networking activities linked to Industry 4.0.
 - Launch of the **Social and Solidarity Economic Hub (SSE)** that promotes socio-economic activities that prioritise people's needs over profit. Among others, the SSE will facilitate the development of cooperative social entrepreneurship, supporting the creativity and start-up and company development. This facility is located in Bilbao but not in Zorrotzaurre.
- Transport, mobility and accessibility actions:
 - **Tramway extension to Zorrotzaurre**

- New Mobility Ordinance to adopt an **intelligent mobility** model
- Youth, values, education and training actions:
 - Implementation of new **training centres** with their corresponding auxiliary spaces (student residences, affordable housing, etc.) in the Deusto – Sarriko – Zorrotzaurre – Basurto axis and encouragement of alliances between training and research centres and companies as part of the strategy to position Bilbao as a knowledge hub.
- Sustainability and urban transformation actions:
 - Development of the **Estuary Revitalisation Plan** that will define the physical and jurisdictional framework of the Estuary, the design and development of the model of activities to be developed around it related to leisure, sport and culture.
 - Constitution of the **Zorrotzaurre Execution Unit 2 Concertation Board** that will formally concentrate land and building owners in the central area of Zorrotzaurre to initiate the urbanisation and construction of new buildings, reparcelling and land decontamination.
 - Finishing off Zorrotzaurre's urbanisation of the right bank of the canal and proceeding to the urbanisation of the island's northern and southern ends, where the two poles of the Zorrotzaurre Urban Innovation District will be located.

GOVERNANCE AND OWNERSHIP

The **Management Commission for the Urban development of Zorrotzaurre** was established in 2001 to make the necessary decisions to achieve the masterplan's goals and solve problems that may arise during the implementation of the project. This Commission also supervises the Special Urban Development Plan (PEOU), which was approved on November 29th 2012, ensuring that execution is in line with the provisions of the Master Plan. This Commission is made up of six proprietors, including public and private entities, that work in collaboration to implement the Zorrotzaurre project. The Management Commission includes an Operations and Management Office that is led by the current Zorrotzaurre Concertation Board. This board coordinates and monitors the different actions in the masterplan and oversees the technical works. This entity should also define a “Control and Monitoring Plan” for its implementation that informs of the progress of the works, ensures that standards are guaranteed, and promotes practices that encourage communication and participation of all agents involved.

At a higher level, the management, monitoring and evaluation of the development of the masterplan is carried out by a **structure led by the Mayor's Office in coordination with the Public Works, Urban Planning and Strategic Projects Area and the Area for the Promotion of Economic Development, Commerce and Employment**. Protocols for hierarchical distribution of responsibilities and horizontal management for joint-decision making are set to ensure that project objectives are met and guarantee horizontal integration of different municipal departments.

2.3 CITIZEN ENGAGEMENT AND PARTICIPATION

Bilbao has a tradition of popular participation in its neighbourhoods and districts, which is manifested in the active and vindicating role of the neighbourhood

associations. The citizen participation process in Zorrotzaurre is aimed at gradually redesigning the municipal strategy for Zorrotzaurre. The process started in 2004 after the approval of the Masterplan and included **different participatory methods such as presentations and conferences, meetings, workshops and online consultations.**

The **Forum for a Sustainable Zorrotzaurre** was established in March 2004 with the participation of the Neighbourhood Association, the Administrations and members from the technical team and architects, to generate dialogue, gather proposals and raise awareness of the importance of sustainability in the area. In November 2004 the Masterplan was publicly presented in a public exhibition and specific presentations were held for the Administrations, the District Councils, neighbours and agents of the La Ribera neighbourhood.

Around that time, the **“Workshops for a Sustainable Zorrotzaurre”**, organised by the Neighbourhood Association and the Local Administration, were also held. It involved 59 people that represented the residents, Administration, architects, town planners, ecologists, real estate companies and the technical team of the Management Commission. In these workshops different proposals, such as including green corridors for biodiversity, adopting an “eco-city” and “pedestrian city” model, building a promenade, maintaining and rehabilitating the existing residential buildings, were voted.

During the first months of 2005 the Deusto District Council held several meetings that culminated in the document **“Criteria, Objectives and General Solutions for the Modification of the General Urban Development Plan of Bilbao in Zorrotzaurre”**. This document was presented to the public in October 2005 in a series of presentations where 1,648 suggestions were collected and were individually answered.

Between 2006 and 2011 different meetings were held to review Bilbao’s General Urban Development Plan (PGOU), including Zorrotzaurre together with the rest of the city, which was finally approved by the Municipal Plenary on 20 April 2012. The review process was organised in three cycles (information, preparation and presentation) in which different participatory activities were carried out, including the development of an online participatory process and an online participatory tool. The participatory process initiated for the review of the PGOU in Zorrotzaurre has been continued throughout its implementation. To date, almost 800 people have been involved, 48,932 evaluations and 4,026 comments have been collected. The strategy’s participative process is expected to continue with workshops and sessions that will involve organisations, public bodies, private and civic agents and institutions as well as an online participation process.

Between November 2011 to July 2012 a new participative process took place for the “Zorrotzaurre Special Urban Development Plan” that involved several public institutions and the Deusto District Technical Commission, to whom the plan was presented. The different actors in the Deusto District Technical Commission provided comments and proposals, which were submitted to the Bilbao City Council. The process culminated in November 2012 when the Municipal approved the “Zorrotzaurre Special Urban Development Plan”. This was complemented in October 2013 with the “Urban Development Action Programme for Integrated Action 1” and the Agreement for the Management of “Execution Unit 1 of Integrated Action 1” after a period of public display and presentation of allegations that were individually addressed. On 16 December 2015, the Re-plotting Project for Execution Unit 1 of Zorrotzaurre Integrated Action 1 was added to the “Zorrotzaurre Special Urban Development Plan” after a long period of public exposure that started on January 2014 and had 44 allegations from owners and companies in Zorrotzaurre. 30 of these were favourably accepted, four of

them totally and 26 partially.

The Zorrotzaurre website (www.zorrotzaurre.com), which has been created to inform about the process and contains all the approved documents as well as those undergoing a review process, has an average of 1,500 visitors per month.

In addition, there are two participatory systems at the municipal level that are worth mentioning. The first one is the **Auzokide Plana (“Neighbourhood Plan”)**, a participatory process that was incorporated in the Bilbao City Council Mandate Plan 2019-2023. The *Auzokide Plana* reserves part of the budget for neighbours in each district to prioritise the improvement projects in their neighbourhoods to ensure that decision-making processes are more inclusive. The second one is an institutional arrangement for decentralisation and participation based on the **District Councils**. These are integrated by a diverse group of local actors. However, the only members of these groups that have voting powers are councillors that are nominated by the Political Groups with municipal representation and based on their representation in the district. Other non-voting members include representatives of the district’s political parties and representatives of the local associations





General view of the Zorrotxaurre masterplan
Source: Zorrotxaurre Masterplan

3. MEANWHILE USES

3.1 MEANWHILE USES

The island has a long history of temporary uses. These have taken the industrial spaces that became vacant with the deindustrialisation of the island. Some of these temporary uses are still in the location where they started, while others have already moved when the spaces they used to be in were developed into their final form. Most of these temporary activities are related to culture and creative industries.

1. Asociación Hacería Arteak, (from 1997): Pioneers of the meanwhile in Bilbao and actively involved in the development and visualisation of the island. The Hacería Arteak association works to ensure that art, culture and heritage strengthen, integrate and transform territories, communities and organisations with a clear neighbourhood vocation, promoting the attraction of activity to the area, facilitating work for entrepreneurs looking for a place to set up on the island, defending cultural heritage by maintaining abandoned facilities. Amongst the numerous projects set in motion by the association, the ZAWP (Zorrotzaurre Art Work in Progress) project stands out. This project was set up in 2008 to confront the state of interim and uncertainty created while the urban plan for the Ribera de Deusto and Zorrotzaurre neighbourhoods was being finalised.

2. Espacio Open (from 2009): Ecosystem of creative and social projects, which occupies the premises of a former biscuit factory in Bilbao (Artiach Factory) and to a large extent, thanks to their activity, they have helped to preserve one jewel of the island's

historical heritage, which in the future will become a public facility. The Espacio Open initiative is linked to the maker movement, developing an activity that navigates between contemporary culture, technology and social issues.

3. Piugaz (from 2004): Climbing school with a climbing wall that occupies a 2,000 square metre pavilion. It is one of the largest climbing walls in Europe for its size and for its more European vision of the sport of climbing and for its training techniques for beginners, amateurs and high-level competition and performance on rock.

4. GureTxoko (from 2006): Non-profit skateboard school that occupies 2,000 square metres in the facilities of the old Artiach factory. Its goal is to promote skateboarding.

5. Pabellón 6 (from 2011): Non-profit association of creators of Performing Arts established in Pabellón N°6. Their objectives are the organisation, generation, promotion and dissemination of different activities related to the Performing Arts in the Basque Country. In 2015, Pabellón 6 launched the first promotion of the Young Company, a pioneering performing arts project that arose from the initiative of the Pabellón 6's Theatre Laboratory and received financial support within the framework of the Bilbao City Council's and Landbide-Basque Employment Service's 2015 Employment Plan to hire personnel.

6. Zirkozaurre (from 2012): Centre of creation, training and exhibition of circus, street theatre and performative arts. The project is based on the School and artistic Residences. The goal is the professionalization of the circus sector,

emphasizing training, creation, and mediation. Nowadays, they are located at the old Artiach factory. However, they will go to the Deusto Riverside in a space with two circus tents, one for the School and the other for the professional residences and infrastructure for office space and bar area.

7. Karola Zirko (from 2012): Space for Basque, and Biscayan, professional circus and street theatre companies to develop their activities. Their goal is to disseminate circus and street theatre and offer a space designed by and for the companies.

8. Artiatx (from 2019) Project located in the Artiach Factory. It is an arts studio where independent artists offer their knowledge and resources to resident's projects. They also have an exhibition space.

9. Espacio 600 (from 2020) A cultural space that occupies a two-storey warehouse that use to house a mattress company. Espacio 600 hosts activities such as meetings, exhibitions, exhibitions, markets and all kinds of cultural events. They started their activity in December 2020.

The research conducted for this report showed that there was a general consensus among interviewees that temporary uses are instrumental to address some of the challenges in Zorrotzaurre in that:

- They can bring value to urban spaces with extraordinary architectural or historical importance, and prevent the degradation of environments.
- They can reduce insecurity in the area
- They can attract the public to an area that is largely unknown or not considered as a destination.
- They can support economic activity, making it possible to set up and consolidate projects that are fundamental for its present and future
- They can attract a diverse public with varied and attractive offers that enrich the area.

In addition, temporary uses in Zorrotzaurre are also seen as an opportunity in that:

- They can offer training, cultural and leisure alternatives that do not exist in other parts of the city.
- The characteristics of the industrial spaces make it possible to hold activities that would not have been possible in other parts of Bilbao.
- They can strengthen the concept of a cultural area in line with the area's character as an "island of knowledge".
- The combination of different types of temporary activities and educational centres has a "mutually-reinforcing effect" that brings value to students and meanwhile actors.

These projects also show some good lessons for the success of T-Factor:

- Need for clear progression ladders that encourage projects to set up in Zorrotzaurre.
- Avoid mistakes that formulate a mere continuous rotation of projects that do not become viable without ever leaving a mark and creating an identity for the neighbourhood

Those temporary uses that remain Zorrotzaurre, some of them surviving a move from their original location, display a high entrepreneurial capacity, expertise and perseverance to maintain and develop their projects.

3.2 ACTORS

PRIVATE

Asociación Hacería Arteak.	First cultural and creative actor to settle in Zorrotzaurre and pioneers of the meanwhile in Bilbao. They are very involved in the development of the island
Pabellón 6	Non-profit association of creators of Performing Arts established in Pabellón N°6. In Zorrotzaurre since 2011
Espacio Open	Ecosystem of creative and social projects in Artiach Factory. In Zorrotzaurre since 2009
Zirkozaurre	Centre of creation and exhibition of circus and performative arts in Zorrotzaurre since 2012. Currently in Artiach factory
Karola Zirko	Space for Basque, and Víscaian, professional circus and street theatre. In Zorrotzaurre since 2012
GureTxoko	Non-profit skateboard school in Artiach factory since 2006
Espacio 600	Cultural space for the organisation of activities, exhibitions, workshops, markets, events and filming
Artiatx	Independent artists' studio and exhibition space
Piugaz	Climbing school in Zorrotzaurre since 2004
Several private companies	There are several private companies based in Zorrotzaurre. These are not so related to the T-Factor project

PUBLIC

Bilbao City Council Works, Urban Planning and Strategic Projects Area	Entity in charge of ensuring that the DUSI is adequately implemented, its objectives are met and that horizontal integration of all actors is guaranteed
Management Commission of Zorrotzaurre	Decision-making body for the implementation of the masterplan and supervisory body of the PEOU
Bilbao Ekintza	Bilbao's City Council's public Agency under the Department of Economic Development, Commerce and Employment whose mission is to support and contribute to the municipality's economic development to achieve a better quality of life, inclusive prosperity and well-being for citizens
Bilbao Ekintza Urban Development Area	Department aimed at deploying economic development policies in the city's urban space. It is involved in the "meanwhile" in Zorrotzaurre

Bilbao Ekintza Intelligent Specialisation Area

Department for the promotion of sectors considered strategic for Bilbao's economy within the framework of its RIS3 strategy and to foster the creation of innovative ecosystems around these sectors. This area has established relationships with most of this type of agents in Zorrotzaurre through subsidies, sponsorships and events organisation. It is involved in the "meanwhile" in Zorrotzaurre

Basque Government

Department of Environment, Territorial Planning and Housing

VISESA

Basque Government's company aimed at promoting public housing and the rehabilitation and renovation of urban housing.

EDUCATION & RESEARCH

DigiPen Institute of Technology

European campus of the world's pioneering American university in video game-related undergraduate education. It was the first educational project in Zorrotzaurre (2018) and it now has around 300 students

IED – Kunsthal

Basque higher education centre dedicated to design training, the dissemination of Design Culture, and the development of projects in collaboration with its environment's socio-economic and institutional agents. In Zorrotzaurre since 2020

Bilbao AS Fabrik - Mondragon University

An innovation ecosystem aimed at improving the competitiveness of local companies and the consolidation of Zorrotzaurre as a reference in advanced services for Industry 4.0 and the digital economy by means of: **Training programmes (University Degrees), a Fab Lab, an incubator, an observatory**

Bilbao School of Cinematographic Creation – ECCBI

Small school that provides film courses and it is based at the former Artiach biscuit factory and that counts 60 students. In Zorrotzaurre since 2020

Tknika

Centre for vocational training it is planned to build its facilities in Zorrotzaurre at the time of drafting this report

CIVIL SOCIETY

Ribera de Deusto and Zorrotzaurre Neighbourhood Association. "Euskaldunako Zubia"

Neighbours association constituted in 1996. Highly involved in the neighbourhood. They organise informative talks, meetings, participative workshops and assemblies, the neighbourhood's festival and actively participate in all the forums where Zorrotzaurre's future is discussed.

In 2018, a group of neighbours of La Ribera occupied the Vicinay building, named after the company that owns the building.

The Neighbours association named the occupied space “Bizinahi”, meaning “wanting to live” in Basque, making a pun with the original name of the building. The occupation and transformation of the building into a space for public use to compensate the shortage of spaces for the residents in the neighbours. This shows that the objectives of the neighbourhood association go beyond that of denouncing the status of the buildings in La Ribera.

Residents in Zorrotzaurre

About 500 residents

PARTNERSHIPS

Management Commission for the Urban development of Zorrotzaurre

Commission integrated by private and public entities established in 2001 for the implementation of the masterplan

Zorrotzaurre Execution Unit 2 Concertation Board

Entity that will formally concentrate land and building owners in the central area of Zorrotzaurre to initiate the urbanisation and construction of new buildings, reparcelling and land decontamination

Table 8: Actors in Zorrotzaurre pilot

3.3 ASSETS

Key assets identified for the implementation of T-Factor in Zorrotzaurre are:

- Strategic and relatively central location between two historic districts of Bilbao (Deusto and Olabeaga)
- Development of an Integrated Strategy for Sustainable Urban Development in the Zorrotzaurre area to convert it into a new driving force in Bilbao, well connected to the rest of the city employing infrastructures and a sustainable mobility model, non-polluting business implantation, accessible housing, numerous social and cultural facilities as well as large areas for the enjoyment of the citizens.
- Financial support from public administrations (local and regional government) for the project's activities in the meanwhile.
- Cultural and social agents of the island with strong roots and involvement in the transformation process.
- Meanwhile activities in phase 2: ZAWP, Espacio Open, Zirkozaurre, PiuGaz and GureTxoko.
- Recovery and maintenance of post-industrial facilities as new facilities on the island with consolidated projects:
 - Pabellón 6 and Garabia. Pabellón 6 Association.
 - Paper Mill Building. IED-Kunsthal School of Design.
 - Beta 1 Building. Digipen. Institute of Technology.
 - Beta 2 Building. Bilbao As Fabrik. University of Mondragon.
- High capacity for entrepreneurship and perseverance in the “meanwhile” projects, both those that occupy a space permanently and those who temporarily use spaces.
- Commitment from the local government to the refurbishment of buildings and dwellings. Maintaining a neighbourhood

inhabited by the same neighbours as always.

- Neighbourhood association with a high engagement in the habitability of the island in the “meanwhile” and in the process of transformation.
- Bilbao is currently participating in ATELIER, a European project aimed at creating and replicating Positive Energy Districts (PEDs) within two Lighthouse Cities (Amsterdam and Bilbao) and six Fellow Cities. In this case, Zorrotzaurre is also presented as an area for the implementation of the solutions prototyped by the project.
- Positive perception of the existing meanwhile uses that are seen as an added value for Zorrotzaurre and Bilbao.
- Widespread interest in generating a balanced and inclusive plan for a kind of “cultural pole” that includes the current meanwhile uses into the final plan for Zorrotzaurre, turning them into permanent uses.
- No significant tensions in the area at present, with neighbours, businesses and cultural and creative agents coexisting without problems and, with some specific exceptions, the relationship between the different creative projects is cordial.
- Attractive and consolidated cultural identity and “brand” of existing meanwhile uses in Zorrotzaurre.
- Willingness to “convert Zorrozaurre into an island-laboratory in which to formulate better futures in line with the SDGs and the concept of just transition”.

3.4 CHALLENGES

Key **challenges in Zorrotzaurre for the implementation of T-Factor** are:

- Insufficient public transport infrastructure that has not caught up with the increased demand (both bus - in terms of frequency - and public bicycles- in terms of quantity). Transportation through the estuary is

suggested as an alternative.

- Despite its centrality, Zorrotzaurre is now very isolated from the rest of the city and it is perceived as a peripheral space because of its accessibility problems.
- Insufficient parking, resulting from insufficient public transport.
- Feeling of insecurity related to the lack of urban lighting in certain parts of the island and the presence of squatting groups that live in some of the vacant warehouses.
- Tensions related to conflicting expectations of the public, private actors and associations in Zorrotzaurre that may hinder collaboration if not properly addressed.
- Difficulties to comply with the existing regulations make it challenging to integrate temporary uses in Zorrotzaurre's strategy.
- Public health problems related to soil pollution, greenhouse gas emissions, low levels of recycling due to insufficient waste containers, and vulnerability to environmental risks and natural disasters (floods, drinking water, etc.).
- Economic challenges in Bilbao such as the concentration of 40% of the economic activities in central districts, increasing youth unemployment, 15% decrease in the total number of businesses established in Zorrotzaurre in the last seven years, vulnerability of SMEs.

Key **challenges in Zorrotzaurre that T-Factor can address** are:

- Improvement of the collaboration between actors to ensure that the potential for shared projects and to generate synergies is realised. This could be done through multi-agent meetings and business project incubators that establish links between various agents on the island. Generating a sense of belonging to a shared project.
- Poor links between Zorrotzaurre and the rest of the city and similar spaces in other

parts of the world.

- Feeling of insecurity related to the low number of people circulating during non-working hours.
- Need for student accommodation in Zorrotzaurre.
- Tensions related to conflicting expectations of the public, private actors and associations in Zorrotzaurre.
- Need for a continuous review of Zorrotzaurre's development strategy due to the continuous transformation of the economic and social context and the lack of certainty about the future.
- The socioeconomic changes that come with urban upgrade (price increases, strictness in uses compatibility, etc.) may expel ongoing meanwhile activities that thrive in current conditions but can hardly survive in other situations. Over-protective models, however, may cause ghettoisation.
- Need for a new horizontal form of governance that adapts the existing "administrative machinery" to upcoming challenges such as aging, digitalisation, climate change, etc.
- Lack of regulatory framework for temporary uses.
- Lack of a meanwhile uses strategy
- Lack of periodical and systemic risk management to anticipate major issues related to current global transformations such as climate change, digitalisation, labour market disruption, etc.
- Social issues related to the vulnerable groups that live in some of the vacant warehouses that can lead to urban and social polarisation if not correctly managed.
- Lack of green areas and spaces for pedestrians and bicycles to meet daily recreational needs.
- Growing imbalances between neighbourhoods in terms of income, educational level, employment, social housing, accessibility to public facilities and services and socio-cultural activities.

4. CONCLUSIONS

Finally, in this section we share reflections that emerged in the fieldwork research and analysis done by Bilbao Ekintza that might contribute to a better understanding of the pilot's context and masterplan vision and the planning of meanwhile prototypes. Some of the topics and issues have already been mentioned previously in other sections. Others correspond to other reflections that are not included in other sections of this report. These are mainly based on the perceptions of the Bilbao Ekintza team and they are not contrasted with data.

CONTEXT

- The City Council Mandate Plan 2019 - 2023 identifies the island of Zorrotzaurre as one of its strategic projects. Zorrotzaurre the island of knowledge.
- The industrial past of Zorrotzaurre conditions the future skyline of the island, with the maintenance of housing and industrial buildings.
- The City Council, the Basque Government and the Management Commission have committed to the maintenance of housing through subsidies for the rehabilitation of old buildings.
- Temporary uses have been a reality for more than 20 years. There are mature projects with a vocation to remain on the island at least during its transformation.
- The area has a neighbourhood involved in the regeneration of the island and its consequences. Neighbours are concerned about maintaining the area's identity.

- Both the neighbours and the island's activities point to the need of providing accessibility, transport, and security to the island during the transition to the new urban situation.

MEANWHILE ACTIVITIES

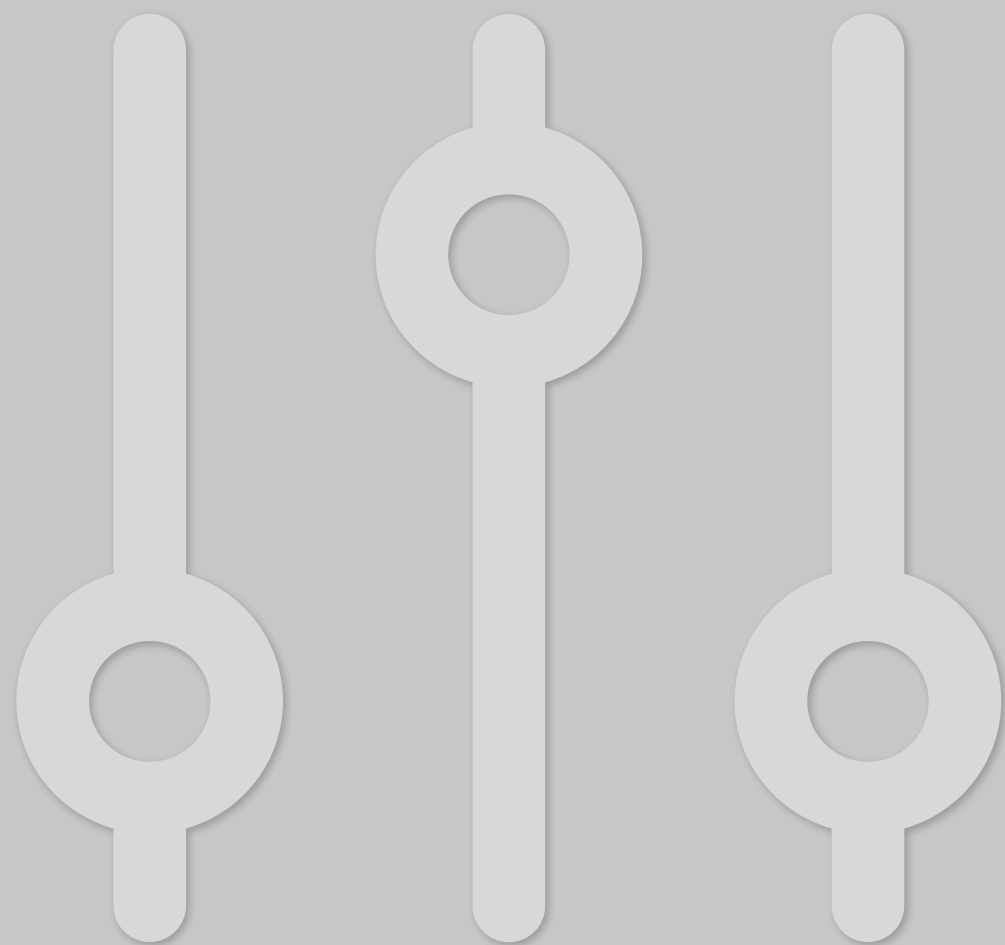
- High capacity for entrepreneurship, risk aversion.
- High resilience of the creative sector to engage with and manage meanwhile uses.
- Suitability of the post-industrial spaces for meanwhile activities, empty and ample spaces that allow different uses
- Lack of investment by these activities in the maintenance and refurbishment of buildings due to the context of uncertainty.
- There is a clear need for a legal framework to facilitate meanwhile uses and reduce the degree of uncertainty in which they are currently operating on the island.
- A need is identified to make visible, through in-depth analysis, the volume of turnover of the meanwhile projects and their economic impact on Zorrotzaurre and the city and quantify the costs that their absence would generate.
- Forums between stakeholders could generate synergies that enhance the value of the uses and activities in the Zorrotzaurre's "meanwhile".

CITIZEN PARTICIPATION

- The need already identified in the Mandate Plan to improve citizen participation processes (Auzokide Plana, Observatory, Participatory Budgets) is corroborated.



Interactive installation at Makers Faire Bilbao. Photo credits: Borja Agudo



PART 3

CROSS **CUTTING** **ANALYSIS**

Intro



In this document we have provided an overview of the T-Factors pilots and regeneration sites, where we will contribute to building participatory futures. In each pilot report we have presented the geographical, social, economic and cultural profile of the site; their masterplan vision and development of the regeneration project; and, explored how they articulate meanwhile uses alongside mapping actors, assets and challenges. At this stage of the project, our aim is to provide the necessary background information to ensure the successful implementation of meanwhile uses across the six pilots. For the T-Factor approach, the local matters, people matter, as do their knowledge, plans and worries. Place also matters, its social and cultural fabric, its economy, assets and challenges.

Rather than looking at the singularity of each pilot, in this chapter we provide a transversal look. We start in the next section by reviewing the different approaches to meanwhile use in each pilot's site. In section three we will explore five critical elements that need to be considered in order to produce successful meanwhile spaces and regeneration processes: local communities' participation in the co-design of meanwhile spaces; the necessity to think beyond the local; the different approaches to creativity; the importance of public space; and the role of nature in rethinking urban transformation. These are topics that, across the pilot sites, appear as recurring challenges. At the same time, during T-factor's workshops and brainstorming sessions with pilots' actors and experts, other issues have emerged as relevant for the pilots. Thus we want to revisit the pilots

reports to complete an analysis of local contexts and visions in order to think on the challenges that remain ahead for triggering participatory futures through meanwhile spaces. We will conclude with a general reflection on the pilots and these topics in relation to urban transformation in post-pandemic times.

Meanwhile uses in the pilots

Almost all pilots have already experimented temporary spaces. Meanwhile uses in **Euston** include community events and festivals, temporary theatre shows by Camden People's Theatre based on the West of Euston station, and a community garden with a dedicated space for creative collaboration. Regarding Camden People's Theatre, some of its shows have addressed the effects of the HS2 large-scale regeneration on the surrounding communities. They also collaborated with Hopscotch Women's Centre with workshops around collecting first-hand narratives of people living in the area, alongside acquiring HS2 funding to do a pop-up performance in a dis-used retail unit within Euston station. The Story Garden has been designed and built by the Global Generation environmental charity in collaboration with residents and workers. The garden is a community space aimed at ensuring that local people have the power to influence and contribute to their area. MAKE @ Story garden is a public space for

creative collaboration with, and by, the local community aimed at bringing together local communities around a program of arts activities, projects that address local issues, and skills development.

In **Amsterdam Science Park**, existing meanwhile uses are diverse. Anna's Tuin en Ruigte (Anna's Garden and Roughness) permaculture garden is run by a community of volunteers that also functions as a living lab for research and an educational platform. Start Up Village consists of a variety of shipping containers that function as offices, workshops, and presentation spaces. It opened its doors in October 2016, and it doubled its size in three-years-time. The village now houses over 35 companies in tech's field, artificial intelligence, and cryptocurrencies, as well as some initiatives in green solutions. Due to the successful scale-up of a few start-ups, a study is being conducted to turn the Start Up Village into a permanent use. Finally, Spark Village opened in 2018 as an experimental format to house recently arrived refugees with local students, seeking to create a community in which mutual support and social resilience play an important role. The project has resulted in the only inhabited space in the regeneration area. However, after supporting organisations withdrew with the Covid19 pandemic, its sustainability is now challenged.[1]

In **Trafaria** meanwhile spaces and activities have been happening since 2013 thanks to the collective Ensaios & Diálogos Associação (EDA). EDA, a key partner in the development of the IAT@T project. EDA is an association that experiments with participatory placemaking in Almada, leveraging and combining art, culture, architecture, education and environmental sensibilization. These have included projects in the actual facilities such as Prisão Paraíso (Paradise Jail) to rethink the Presidio's and fostering projects such as Gato Morto, an itinerant carpentry workshop to construct collective spaces, or the Garden Project, a community garden and kitchen. EDA has also led other community projects in the

vicinity of Trafaria including the construction of temporary buildings such as Casa do Vapor, a community center and communal kitchen on the sea-side location of Cova do Vapor (3km from Trafaria). In addition, EDA has been generating events in the Presidio since 2014.

MIND **Milan's** experience has been based in generating temporal events. MIND is being constructed over a space originally designed for a temporal use - 2015 Expo site. Since the end of this world fair, Cascina Triulza, the event space of Fondazione Triulza, has hosted several events such as the annual event Social Innovation Academy; contests and projects developed in partnership with local schools for students from primary to university; conferences and discussion panels. In addition, the MIND promoters have started to produce events related to boost the economy (e.g. 'Digital Transformation Technology' Forum, a contest for start-up real-estate sector, etc.).

Meanwhile uses in the above T-Factor pilot cities have emerged in accordance with regeneration promoters, be they private developers or the public administration. This is not the case in Bilbao. In **Zorrotzaurre**, meanwhile uses spontaneously started around 1997 and focused on cultural and creative activities. Many of these receive support through local and regional government funds and subsidies. An example is the Zorrotzaurre Art Work in Progress (ZAWP) project. Promoted by the Haceria Arteak Cultural Association, ZAWP gathers people that work in the social, economic, and cultural revitalisation of the neighbourhood through the creation, intervention, and enhancement of memory. There are also other meanwhile uses' agents, such as Espacio Open, that contribute to public participation by making their space available to the local neighbour's associations. These meanwhile uses have worked as a catalyser to attract new projects and people into the area, they have created a legacy and knowledge about managing the meanwhile, have brought value to a decaying area, made it safer, have

attracted visitors, and have strengthened the “cultural area” concept in line with the “island of knowledge” vision. All of these are seen as key factors in tackling some of the challenges in Zorrotzaurre. In addition, they offer services that do not exist in the rest of the city because of the characteristics offered by its industrial spaces. Some of the meanwhile spaces have been closed because the building has already acquired its final use. Nonetheless, in many of these cases, the meanwhile use has been able to be kept in the Island in another location. Thus, showing the resilience of this type of activities in the area and how meanwhile uses can be as well strategic for boosting creative economies and social life in the regeneration area and survive.

In sum, there is a great diversity of meanwhile uses, spaces and strategies. Despite the differences, in all cases, meanwhile uses have been critical in bringing different economic, cultural and civic actors to start generating a creative ecosystem around the regeneration project. Besides, meanwhile use is embedded in different urban planning cultures and regulations. These differences are about how meanwhile use are deployed in different contexts. They are also about targeting the specific characteristics and needs of each pilot.

There are different dimensions that transversally affect all pilots. First, there are differences in the composition of the local social, economic and cultural ecosystem and how these communities are engaged, and participation is enacted (e.g. Camden People’s Theatre, Anna’s Tuin en Ruigte, Casa do Vapor and Espacio Open). This is a critical factor since T-factor aims at prototyping meanwhile uses and spaces through participatory processes. Second, there are also differences on how meanwhile spaces connect with metropolitan, national or international actors (e.g. Cascina Triulza, Prisaio Paradiso). In this regard, a critical issue for a successful regeneration is also how decaying areas are re-connected with the rest of the city and help bring the

city in line with national and international processes and actors. Third, they mobilise culture and the arts in very different ways, from artistic interventions for rethinking or dealing with the impacts of redevelopment and community engagement (e.g. Camden People’s Theatre, Prisaio Paradiso) to boosting entrepreneurship, creative industries and skills development (e.g. start-up Village, events in MIND, ZWAP and MAKE @ Story garden). Fourth, the spaces where meanwhile uses take place, are also diverse. Some re-use vacant buildings (e.g. all temporary uses in Zorrotzaurre, Prisaio Paraíso, The Skills centre for Euston), some take place in open spaces (e.g. Garden Project, MAKE @ Story garden) or natural spaces (e.g. Anna’s Tuin en Ruigte) and others take place in specially-built temporary structures (e.g. Start-Up Village). Thus, five of the six pilot cities have a solid base for building a new round of meanwhile uses and spaces that can help transform the urban scenario. In this regard, the Aleksotas Innovation Industry Park, which is still at an early development stage can learn through T-Factor’s ways to enhance communication and community engagement while at the same time preventing crime in the area by keeping it active.

Cross-cutting critical elements

ENGAGING WITH LOCAL COMMUNITIES

T-Factor aims to contribute to trigger the creation of participatory futures in cities. Therefore, a critical issue is how it can support co-design and co-production of meanwhile spaces. The readiness of communities, practitioners and government officials for adopting participatory processes depends on many factors. Some of these are the level of familiarity and experience with this type of processes, the availability of mechanisms and regulations that facilitate and enforce participatory processes, and the

level of organization and representation of the affected communities. In some contexts, public participation is a relatively new concept, and therefore not easy to introduce.

In this regard, Amsterdam and London are located in countries where consultation processes are in motion but also some forms of public participation are mandatory in urban regeneration processes. Indeed, the new national zoning law *Omgevingswet*

in the Netherlands enforces more intense participatory processes in urban development and zoning projects. This contrasts for instance with Kaunas, where urban planning regulations and culture come from a different planning tradition, where citizens participation is not actively incorporated from the beginning and tends to take place when projects gain momentum and citizens react to them.

/ASSET

CIVIL SOCIETY GROUPS AND ACTIVE CITIZENSHIP

A shared asset for urban transformation

All pilots are located in contexts where there is some form of community organizations and active citizenship. Some local civil society organisations with great knowledge and experience in community engagement, such as Euskaldunako Zubia (“Neighbourhood Association”) in Zorrotzaurre and the non-profit association Ensaios & Diálogos Associação (Essays & Dialogues Association) in Trafaria, have already been involved or will be soon involved in the pilots. In the case of Trafaria, it must be noted that the T-Factor project was very well received and there was a strong will to cooperate from the existing local organisations that were interviewed in the research process despite not being previously informed of the project.

In Euston and ASP, there are many community groups that can foster engagement. In ASP, volunteer groups made up of students and neighbours as well as some permaculture enthusiasts are already involved in the management of the natural bank. There are also small-scale initiatives financed by the local council to strengthen community cohesion in Indische Burt and climate change initiatives in Watergraafmeer, the neighbourhoods surrounding ASP. These groups could potentially be involved in the ASP pilot.

A second asset that is found in most of the pilots is connected to the community developments in the respective areas. For instance, there is a strong heritage of participation in Amsterdam with small scale initiatives being financed to strengthen community cohesion. Similarly, there are many community-led initiatives and associations in Euston, Trafaria and Zorrotzaurre, which are experienced in community engagement and in the types of activities that are planned to be implemented through the T-Factor project. Also, in the case of AIIP, new land developments are booming and the area is becoming home for many young families, which could form a community in the neighbourhood.

In between the two approaches, the rest of pilot cities are located in contexts where participatory processes exist but not as developed as in the previous cases. However, local and national frames for urban regeneration increasingly encourage participation. For instance, the Portuguese government increasingly supports and invests in promoting voluntary participatory processes. There are also legal mechanisms in Portugal to guarantee that citizens can participate in decision-making, such as participatory budgets. In addition, a dedicated association has been established to monitor public participation in Portugal.

In a similar vein, the Bilbao City Council introduced *Auzokide Plana* (“Neighbourhood Plan” in Basque), a programme with a dedicated budget of €48M for four years for the implementation of projects prioritised by citizens through a decentralised governance structure called the District Councils. These entities are mostly integrated by political actors, who are the only ones that have voting powers and it is therefore not clear the level of participation that can be achieved through them.

In this context, there is an uneven development of public participation in the six urban regeneration areas. Possibly because of their long history and their urban scale, Euston and Zorrotzaurre projects have already undergone long periods of public participation. Euston engagement with community groups, such as local charities, social enterprises and neighbourhood forums that have been in the area for the last 20 years when the urban regeneration project has been planned, is very strong. These groups support day to day engagement with local businesses and residents, which was further strengthened in 2020 with the creation of a resident advisory group. Participatory processes in Euston include the statutory consultation for the Euston Area Plan 2023 and the HS2 consultation process, in addition, the recent experience of King’s Cross, in the same borough of Camden.

Zorrotzaurre has also held several participation processes since the public presentation of the masterplan in 2004 and counts with a platform with residents’ representation for the regeneration process, the Forum for a Sustainable Zorrotzaurre. The most participatory process was the “Workshops for a Sustainable Zorrotzaurre” where participants suggested and voted for interventions that were incorporated and effectively changed the masterplan. Other participatory events, such as public presentations and display of plans, have mostly been informative and restricted participation to the presentation of allegations, something that may cause tensions as the project develops. There are however some innovative methods of participation in Zorrotzaurre such as the creation of online participatory tools. However, there is an awareness that public participation must be improved.

Public participation for the ASP, Trafaria and MIND projects appears to have been more limited. Most interviewees in Trafaria had never been engaged in the participatory process. Despite the strong legacy in participation in Amsterdam and the Netherlands, ASP has never had a significant participatory process beyond those mandated to obtain municipal permits and zoning. The updated ASP masterplan does not mention participation either and some resistance may be encountered from the developers after a past experience with community gardens led to the conclusion that local residents should not feel too much ownership, as this causes friction with development plans. Overall, there is a feeling that participatory processes were underused and there was a missed opportunity to design a future-proof and inspiring park in ASP.

These cases share that they are located in areas with small clusters of population, which might also be a hurdle for active participation. However, this has also been the case of Zorrotzaurre where participation has been more present, and the project is seen in the city as a key cornerstone of

Bilbao’s urban futures not only for residents but several stakeholders from the quadruple helix. To this low-density characteristic, ASP, Trafaria and MIND share also that the areas are mostly driven by non-government entities.

Unlike the rest of pilot cities, where masterplans of the selected areas have been developing for a relatively long time, the AIP masterplan has not been defined, and therefore, there has not been the possibility of enhancing public participation. Yet, the above experiences can be helpful to devise and enact public participation in Aleksotas project.

ENGAGING BEYOND LOCAL

All six pilots aim to generate lively, creative and innovative ecosystems and bring together high added-value economic activities, research institutions, public services and aim at being inclusive and including local communities. All aim to create lively urban experiences that are usually related with mixed-use. In contrast, all of them are located in places that local residents and actors consider not central. As such there is a general mobility challenge across pilots. This might not be the biggest challenge for Euston, as the development of HS2 might increase the number of commuters (expanding possibly the real Greater London) and generate new centralities on the one hand, and the masterplan vision of creating an urban corridor connecting the railway station with King’s Cross, on the other hand. However, these might be a big challenge for the rest of the cases. In particular those where mobility infrastructure is not fully developed (e.g., Zorrotzaurre), public transport connection with the rest of the region is relatively difficult (Trafaria and Amsterdam Science Park), or unpopulated areas (MIND) and where urban barriers exist (Amsterdam Science Park and MIND).

ENGAGING WITH CREATIVITY

Many of the pilots consider their cultural value and identity as an important factor in making them more attractive. For instance, Trafaria has been hosting numerous cultural activities (e.g. music, theatre, artistic exhibitions etc.). Further, Zorrotzaurre has developed an iconic character through its industrial and housing heritage. As for Euston, the presence of local universities and institutions has already created a cultural and artistic hub. Last, in Aleksotas, the plan is to refurbish the relevant buildings while recuperating their cultural heritage value.

Another element that is seen as an asset for the pilots is their connection to research and development (R&D). Apart from the Amsterdam Science Park, which has one of the largest concentrations of science institutes in Europe, MIND is located in Lombardy, a region where approximately 7 billion euros have been invested in research development innovation. In addition, Aleksotas includes a park that is dedicated to R&D and Euston is working on STEAM.

The presence of the abovementioned initiatives, associations and institutes has created a favourable environment for the creation of synergies. In some cases, such collaborations are already in place (Amsterdam Science Park, Zorrotzaurre and Euston). However, in other pilots, there is a strong will by many stakeholders to participate in the respective projects and contribute in different ways (Trafaria, MIND). In this context, the support from public administrations (local and/or regional government) and the political will is regarded as a valuable asset (Aleksotas, Zorrotzaurre and Trafaria).

MAKING PUBLIC SPACE

Streets, parks, or squares articulate not only urban mobility but also urban life. They are critical spaces for making the city

lively and connecting the different publics and audiences in participatory processes. Thus, the role of designing and enhancing public spaces is key for the success of the regeneration processes.

At the time of writing, all pilots are in different stages of the planning process which results in different levels of detail of their public spaces. The most advanced in this regard is the Amsterdam Science Park. This pilot does not only have a general spatial layout of public spaces but also a document that describes how public space in the park must be designed and that provides specific regulations for uniform paving materials, detailing and street furniture.

The approach to public space in the masterplan varies across the different pilots. In Amsterdam Science Park and Zorrotzaurre, public spaces play a key role. In Amsterdam Science Park, public space is seen as a unifying element that brings together the diverse programmes and users in the campus and brings coherence and a clear identity to the park. The reviewed masterplan adds a network of bicycle and pedestrian paths to the existing public space structure, which already combines semi-public meeting spaces in between the buildings and a more public tissue that extends over the whole area. Public space in Zorrotzaurre is mostly concentrated on a linear park in the central part of the island and the two waterfronts, which will be converted into pathways with green spaces along with educational, sports and cultural services. Public space in the other pilots' masterplans or pre-masterplans does not appear to play such a central role. In the cases of Trafaria, MIND and Aleksotas this may also be related to the early planning stage these projects are at.

However, two different types of open spaces can be found across the different pilots based on their governance structure. There are open spaces that are owned and managed by public entities. This is the most

common type of open space in projects where the developer is a public entity and that has an urban scale like Zorrotzaurre and Aleksotas. Another project that will also have publicly owned open spaces is Euston. However, it is possible that many open spaces in Euston will actually be a privately owned public space (POPS). POPS are open spaces that are owned and managed by a private entity but are open to the public. Indeed, next to Euston there is King's Cross, where a large area of the site is a privately owned public space and its management is carefully curated. Open spaces in Trafaria, Amsterdam Science Park, and MIND might be considered POPS as well.

POPS are an attractive planning solution because they release municipalities from managing and maintaining open spaces that are accessible to the public. However, accessibility and inclusivity is often problematic. Rules imposed by private owners and enforced by private security in POPS often result in the exclusion of certain groups of people and certain activities that would usually be allowed in publicly owned and managed open spaces. In addition, POPS can also generate confusion to whether there is free circulation or unwritten rules. Nevertheless, it must be acknowledged that POPS can host meanwhile uses. In terms of existing meanwhile uses, only the Story Garden at Euston and Anna's Tuin en Ruigte permaculture garden at Amsterdam Science Park are located in public spaces.

ENGAGING WITH NATURE

Most master plans and local stakeholders' visions express the need to tackle environmental challenges. This includes generating green economies in AIIP, MIND, ASP; and to generate green areas in ASP, AIIP or MIND or keeping already existing green areas such as in the case of the ASP and Euston. This latter issue is critical as there is growing evidence around the relationship between health, vulnerability

and urban greening. Indeed, Euston, Trafaria, AIIP and Zorrotzaurre are either located in neighbourhoods that have an average income that is lower than that of the overall city, deprived areas in terms of jobs, health and education, or areas that are yet to be fully connected to city's health facilities.

The environment is not just another layer of urban regeneration. As David Harvey famously stated, 'there is nothing unnatural about New York City' (Harvey 1996: 186). Indeed, the urban (e.g. built environment, neighbourhood life, etc) should not be produced against or separate from nature, but understanding that socio-environmental flows and processes are integral part of

the urban (Kaika, 2005). In times of Climate Emergency and of zoonotic-based pandemic such as Covid-19, nature or the urban natural environment is not another layer but a critical part of present and future urban life and challenges. This is an approach that the Amsterdam Science Park's masterplan sets a novel and welcoming vision based on urban ecology. Therefore, Amsterdam Science Park's approach can be very useful to think of meanwhile uses that can bring an urban ecology perspective and experiments in the rest of pilot cities.

/EXAMPLE

AMSTERDAM SCIENCE PARK's

Urban ecology approach

Urban ecology rethinks the relation between people and environment within the city, now understood as a living place co-inhabited by human and non-human forms of life. Such a city operates not by building machines that control processes, but by the mutual adaptation of living systems. Such adaptivity allows for our recognition of mutual dependencies on which to build relationships of care within the city. This shift in perspective potentially has a far-reaching impact, moving urbanism away from building and logistics, beyond people and 'man-made' material streams, to manifold ecological flows including geological, biochemical and living entities. From this follows an analysis of the city as a compound of flexible, nested realities, spanning ecological to technological agents.

Urban ecology reframes the everyday experience of urban environments. Rather than a world filled with distant and cold objects and their antecedent stressors (social pressures, noise, air and soil pollution, etc.), urban ecology emphasises a more intimate sense of place in which our environment is acknowledged as a living home that determines our wellbeing. Hence urban ecology is grounded in a physical, experiential and personal level, calling on the innate capacity of people to relate with the living world. In its aesthetics and economics, urban ecology departs from gentrification - the traditional perspective on the development of value in urban environments - articulating in its stead a notion of liveliness that arises from working with people and environment (and with all their surprises).

A post-pandemic city

If we are to name the most disruptive event in the past years, putting cities and communities' resilience across Europe to test, this is the Covid-19 pandemic. As early as June 2020, the OECD (2020) had already assessed the economic, social and health impact of the pandemic was highly uneven between regions and cities across the world and across countries. More importantly, as other reports show, the effects of the pandemic across city neighbourhoods were uneven, having more severe effects on areas with economic deprivation, poor housing, poor green and public space quality, and less access to health care being amongst the critical determinants for such different impacts.

Populations in these areas have indirectly also been hit because of the acceleration of the digitalisation of society. As schools and many activities such as relation with public administration have gone digital, it has also made the digital divide visible, with different access to the internet (because of lack of infrastructure, devices, data plans or digital literacy). Economically, as qualified jobs and sectors have shifted to teleworking, the impact of the pandemic has hit jobs and industries that cannot shift to tele-working. Low skilled urban services jobs related to retail, tourism and leisure or office maintenance have been drastically reduced. The effects are not only economic. The Covid-19 pandemic has also implied an increased number of vacant ground floor spaces and, thus, an impoverishment of urban life on commercial streets. These are few illustrations of the many effects of the pandemic and the measures to mitigate its effects. Some of these disruptions seem to have become semi-permanent and hence, they may establish new patterns of urban life. However, they are quite indicative of the challenges that remain ahead and

where cities and regeneration processes should react and adapt. Hence, making participatory meanwhile spaces both an ideal laboratory to experiment with solutions to those challenges and helping adapt cities to this 'new normal'.

Indeed, it is precisely the urgency and scope posed by the pandemics' effects and challenges, that local authorities across Europe have embraced experimenting with new forms of using and transforming space and face challenges that face strong opposition or were considered difficult to implement. For instance, it has helped to imagine how new forms of sustainable and healthy mobility are possible as many cities have experimented with removing the cars from their streets. These pandemic-led interventions have also deployed forms of public space that might be very useful in tackling climate change. It has made cities and citizens more open to experiment with temporal urban solutions.



Open your Ganbara flea market in Zorrotzaurre. Photo credits: Karim Asry



References

Interviews & Meetings

These is the list of people who were interviewed during the pilots' research or with whom the local research teams had a meeting in which the T-Factor project was presented and a questionnaire was distributed. They all that have agreed to be named in this document.

- Benaifer Bhandari, Hopscotch Women's Centre
- Ellie Rudd, Fitzrovia Youth in Action
- Georgie Street, Euston Town BID (Business Improvement District)
- James Shraiky, Institute for Global Prosperity, University College London
- John Myers, Drummond Street Neighbourhood Forum
- Louise Duggan, Greater London Authority
- Lucy Musgrave, Publica Lucy Pritchard, Publica
- Nassar Ali, London Borough of Camden
- Mary-Anne Lewis, London Borough of Camden
- Therese Gallagher, London Borough of Camden
- Paul Gilfedder, HS2
- Safina Mirza, The Euston Partnership
- Shaparak Rahimi, Lendlease
- Slaney Devlin, Somers Town Neighbourhood Forum
- Steve McAdam, Soundings
- Lauren Horwill, The Euston Partnership
- UVA / IBED, Institute Manager for Biodiversity and Ecosystem Dynamics
- Head of projectbureau, NWO.
- Amsterdam Science Park, director Science and Business
- UVA, policy officer.
- Rochdale, district administrator Amsterdam Oost and IJburg Noord. Meanwhile housing project for newcomers and students.
- Startup Village, director. Meanwhile start-up community, offering flexible work and meeting spaces, oriented towards AI and technology.
- Anna's Tuin en Ruigte, garden-coördinator. Meanwhile Permaculture initiative, working with a team of neighborhood volunteers to run the garden.
- Municipality of Amsterdam, city-ecologist. Ecology advisor for the city of Amsterdam and initiator of open-research Urban Ecology and Nature Based Solutions of the Municipality of Amsterdam.
- Municipality of Amsterdam, advisor sustainable developments Amsterdam

Oost.

- Chiara Pennasi, Director of Fondazione Triulza.
- Ilaria Mariani, Communication Manager at Arexpo Spa
- Paolo Milani, Professor at the Department of Physics at the Università Statale di Milano.T0 DO
- Francisco Javier Garcinuño. General Manager of Bilbao Ekintza
- Jordan Guardo. Advisor to the Mayor's Office.
- Juan Carlos Sinde. Manager of the Management Commission of Zorrotzaurre.
- Mikel Ocio. Bilbao City Council. Area of Works and Urban Planning.
- Xabier Iñigo Ochandiano. Bilbao City Council. Economic Development, Local Commerce and Employment Area.
- Gonzalo Irigoras. Gure Txoko. Skateboard school.
- Inés Delgado and Cristina Crespo. Zirkozaurre. A centre of creation and exhibition of circus and performative arts.
- Irati Hernaiz and Gianni Fagianna PiuGaz. Climbing school.
- Karim Asry. Founding partner of Espacio Open.
- Manu Álvarez. ZAWP (Haceria Arteak)
- Ramón Barea. Pavilion 6. A fringe theatre.
- Amara Mosteiro. Partner and founder of Escuela de Creación Cinematográfica de Bilbao.
- Gaizka Zuazo. Project Area Director of IED - Kunsthall. School of Design.
- Ignacio de Otalora. Director of Digipen Institute of Technology Europe Bilbao.
- Luis Berasategi. Bilbao As Fabrik Coordinator. University of Mondragon.
- Management Commission of Zorrotzaurre.
- Works and Urban Planning Area. Bilbao

City Council.

- Economic Development, Local Commerce and Employment Area. Bilbao City Council.
- Gure Txoko. Skateboard school.
- Zirkozaurre. A centre of creation and exhibition of circus and performative arts.
- PiuGaz. Climbing school.
- Amara Mosteiro. Partner and founder of Escuela de Creación Cinematográfica de Bilbao.
- Gaizka Zuazo. Project Area Director of IED - Kunsthall. School of Design.
- Kaunas City municipality,
- Public agencies Kaunas IN
- Invest in Lithuania
- Kaunas Science and Technology Park (MTP)
- KTU National Innovation and Entrepreneurship Centre (NIEC),
- Kaunas architecture and city planning experts,
- Kaunas community association,
- Kaunas small businesses
- Patiomkinas
- Landscape design festival, Performative Design Association
- The National Association of Creative and Cultural Industries (KKI).

Papers and essays

Harvey, D. (1996) *Justice, nature and the geography of difference*. Blackwell, Malden, MA.

Kaika, M. (2005) *City of Flows: Modernity, Nature, and the City*. Routledge, London.

Monográfico La Transformación de Bilbao (Junio 2017 / nº3588) Revista de Obras Públicas. ROP.

VIVAS ZIARRUSTA, I. y LEKERIKABEASKOA GAZTAÑAGA, A. (Mayo 2018) La Ribera de

Deusto y Zorrotzaurre en la Ría de Bilbao. Análisis Urbano, Sociocultural y Estético del espacio marítimo. Bilbao: Museo Marítimo de Bilbao.

VIVAS ZIARRUSTA, I (2006) La Península de Zorrozaurre y el barrio de Olabeaga. Un problema urbanístico para Bilbao. Bilbao: KOBIE (Serie Antropología Cultural). Bilbao Bizkaiko Foru Aldundia-Diputación Foral de Bizkaia N.º XII, pp. 87 a.l 17, año 2006/7. ISSN 0214-7971. Available at: https://www.bizkaia.eus/fitxategiak/04/ondarea/Kobie/PDF/5/Kobie_12AC_LA%20PEN%C3%8DN-SULA%20DE%20ZORROZAURRE%20Y%20EL%20BARRIO%20DE%20OLABEAG.pdf?hash=6b892e012e2617f8fc0ffbb160380543> [consultation: 25.01.2021]

Reports and plans (government or civil)

Aleksoto seniūnija. Aleksoto seniūnijos 2019 metų ataskaita. (2019).

-> en. Aleksotas eldership. The Aleksotas Eldership Report of 2019. (2019)

Anuario Socioeconómico Bilbao (2019) Observatorio Bilbao Ekintza. Available at: https://www.bilbao.eus/cs/Satellite?c=Page&cid=1272993174224&language=es&pageid=1272993174224&pagename=Bilbao-net%2FPage%2FBIO_Observatorio.

Arexpo, Informazioni Ambientali (2019). <https://www.arexpo.it/wp-content/uploads/2021/01/infomazioni-ambientali-2019.pdf>

Camden Neighbourhood Profile: Euston, published by Camden council, December 2015

Development Vision Amsterdam Science Park, supplement to Masterplan. 2019, Amsterdam Science Park, Municipality of Amsterdam, University Amsterdam, Dutch Research Council

<https://www.amsterdam.nl/projecten/amsterdam-science-park/#hc4ead18b-8607-499a-9723-cf6db85251d1>

Documentación Completa del Plan Especial de Ordenación Urbana de Zorrotzaurre (PEOU) Comisión Gestora de Zorrotzaurre. Available at: <https://www.zorrotzaurre.com/en/planning/documentacion-completa-del-plan-especial-de-ordenacion-urbana-de-zorrotzaurre/>

Draft Euston Planning Brief, published by Camden council, January 2020

EAP Business Workshop, published by Camden council, the Greater London Authority and Transport for London, 2017

Eindrapport Amsterdam Science Park Natuurinclusief en klimaatadaptief 2020, by Amsterdam Municipality, UVA - University of Amsterdam, NWO - Dutch Research Council

Euston Area Context Briefing, Somers Town Information Exchange, published by Camden council, Feb 2021

Euston Area Plan, Planning Brief Boundary with public realm zone, published by Camden council, 2020

Euston Area Plan, published by Camden council, adopted January 2015

Euston Historic Area Assessment, published by Allies & Morrison & Urban Practitioners, 2013

Euston Station Masterplan by Wilkinson Eyre, December 2017

Gebiedsplan Watergraafsmeer 2021

<https://www.amsterdam.nl/bestuur-organisatie/stadsdelen/gebiedsgericht-werken/gebiedsplannen-2021/oost/watergraafsmeer/>

Green City Development Vision 2020-2050

<https://www.amsterdam.nl/bestuur-organisatie/volg-beleid/coalitieakkoord-uitvoering-sagenda/gezonde-duurzame-stad/groene-stad-groenvisie-2020-2050/>

HS2 Euston Station Design Development Survey and Summary of Responses, published by ARUP working on behalf of HS2, 2018

Informe Trimestral de la Economía Vasca. Tercer Trimestre de 2020. Departamento de Economía y Hacienda. Gobierno Vasco. Available at: https://www.euskadi.eus/contenidos/informacion/informe_trimestral/es_def/adjuntos/Informe-3I-castellano.pdf

Infographic, Euston is Changing - Who is doing what? Published by Camden council, 2020

JRC – European Commission, (2020).Case study on PPP for Science and Technology, MIND – Milan Innovation District <https://ec.europa.eu/jrc/en/publication/public-private-partnerships-science-and-technology-parks>

Kaunas city municipality administration. (2020). Kauno Aleksoto inovacijų pramonės parko sukūrimas. 2020 m. gegužės 4 d. galimybių studijos korekcija. <https://e-sei-mas.lrs.lt/portal/legalAct/lt/TAD/TAIS.84573/asr>

Kauno miesto savivaldybės administracija (KMSA). (2020). Kauno Aleksoto inovacijų pramonės parko sukūrimas. 2020 m. gegužės 4 d. galimybių studijos korekcija.

-> en. Kaunas city municipality administration. (2020). The establishment of the Aleksotas Innovation Industry Park. 2020 May 4th Feasibility Study Correction

Keen On Green, Making Amsterdam Science Park Climate Adaptive, by Merel de Klerk and Karin de Vries, academically supervised by Dr. Gerard Oostermeijer from University of Amsterdam

MASH studio. Aleksoto inovacijų pramonės parkas (AIPP). Urbanistinio vystymo galimybių studija. (2021).

-> en. MASH studio. Aleksotas Innovation Industry Park (AIPP). Urban development feasibility study. (2021)

Natuurinclusief bouwen en ontwerpen in twintig ideeën. Municipality of Amsterdam https://issuu.com/gemeenteamsterdam/docs/brochure_nibeo-definitief-web02_1

One Euston: Combating Social Isolation & Loneliness, published by Publica and Lendlease, DRAFT FOR COMMENT - 13/11/20

Osservatorio 2018 Milano, June 2018. Booklet Italy, Lombardy, Milan of Assolombardia, January 2018

Plan de Mandato 2019 – 2023. Bilbao City Council. Available at: https://www.bilbao.eus/cs/Satellite?cid=1279123253084&language=es&pagename=Bilbaonet%2FPage%2FBIO_documento

Plan for the Implementation of Sustainable and Integrated Urban Development (DUSI) in the Zorrotzaurre Area (2015) Bilbao City Council. Available at: https://www.bilbao.eus/cs/Satellite?c=Page&cid=1279195665802&language=es&pageid=1279195665802&pagename=Bilbaonet%2FPage%2FBIO_contenidoFinal

Post EXPO: Primo inquadramento della Proposta di Masterplan in attuazione

dell'accordo di Programma. Valutazione Ambientale Strategica Documento Scoping (2017) <https://www.comune.milano.it/documents/20126/97043533/DOCUMENTO+DI+SCOPING+POST+EXPO.pdf/e7c67d14-cfc3-abd8-93a2-5e9d5018108e?t=1587997886415>

Press Release - Federated Innovation™ <https://www.mindmilano.it/federated-innovation/>

“Ricerca e Innovazione: Lombardia leader in Italia e competitiva in Europa” (2019) <https://www.regione.lombardia.it/wps/portal/istituzionale/HP/lombardia-notizie/DettaglioNews/2019/12-dicembre/16-22/sala-ricerca-e-innovazione-lombardia-leader-in-italia>

Somers Town Neighbourhood Plan 2016-2026, Somers Town Neighbourhood Forum

‘Our Euston’: A Report of the work of the Euston Residents’ Assembly (September-December 2018), The Campaign Company

Urban agglomeration know as The Randstad, [https://nl.wikipedia.org/wiki/Randstad_\(gebied\)](https://nl.wikipedia.org/wiki/Randstad_(gebied))

Online sources

<https://www.ahn.nl/ahn-viewer>

<https://www.ahn.nl/>

<https://www.amsterdam.nl/projecten/diemerscheg/>

<https://www.amsterdam.nl/in-dische-buurt-oostelijk-havengebied/>

<https://www.amsterdam.nl/watergraafsmeer/>

[https://nl.wikipedia.org/wiki/Randstad_\(gebied\)](https://nl.wikipedia.org/wiki/Randstad_(gebied))

https://www.noord-holland.nl/Onderwerpen/Natuur/Natuurnetwerk_Nederland

https://www.noord-holland.nl/Onderwerpen/Natuur/Natuurnetwerk_Nederland

https://www.noord-holland.nl/Onderwerpen/Natuur/Natuurnetwerk_Nederland

<https://www.parool.nl/nieuws/geld-voor-indische-buurt~b49b3c38/>

Bilbao As Fabrik – Mondragon University. <https://www.facebook.com/BilbaoAsFabrik/>

DigiPen Institute of Technology <https://www.digipen.es/>

ECCBI. Bilbao School of Cinematographic Creation. <https://eccbi.es/>

Espacio Open. Ecosystem of creative and social projects. <https://espacioopen.com/en/>

Gure Txoko. Skateboard School. <http://guretxokoskatepark.com/>

Karola Zirkoa. <https://www.facebook.com/karola.zirkoespazio>

Kunsthall IED - Higher School of Design. <https://www.kunsthall.es/>

PiuGaz. Climbing School. <https://www.facebook.com/Piugaz-Bilbao-736307989824138/>

ZAWP. Zorrotzaurre Art Work Progress. <https://www.zawp.org/>

ZAWP. Urban Memory. The visual memory of Zorrotzaurre (available in English) Includes four routes to visit Cultural hubs, Business, Bars and fourth one for neighbourhood understanding. <https://memoriaurbana.net/en/>

Zirkozaurre. <http://zirkozaurre.com/?lang=en>

Zorrotzaurre web www.zorrotzaurre.com
www.kaunotvirtove.lt

kvr.kpd.lt

<https://www.lendlease.com/euston/>

<https://publica.co.uk/news-publica-joins-arup-grimshaw-hs2-london-euston>

Good Life Index, Camden Giving. <https://www.camdengiving.org.uk/euston-voices>

Good Life Index, UCL, Euston Young Voic-

es: Citizen-led research shaping regeneration. <https://www.ucl.ac.uk/bartlett/igp/news/2020/nov/euston-young-voices-citizen-led-research-shaping-regeneration>

Euston Town BID. <https://www.euston-town.com/>

Camden Town Unlimited (running Euston Town BID). <https://www.camden-townunlimited.com/>

Camden Collective (enterprise by Euston Town BID). <https://camdencollective.co.uk/>

Drummond Street Neighbourhood Forum. <https://drummondstreet.org/>

Somers Town Neighbourhood Forum. <https://somerstownplan.info/>

Euston Area Plan, Camden council. <https://www.eustonareaplan.info/>

Network Rail, History of Euston Station. <https://www.networkrail.co.uk/who-we-are/our-history/iconic-infrastructure/the-history-of-london-euston-station/>

Commonplace Website for HS2 in Euston. <https://hs2ineuston.commonplace.is/>

LÓPEZ, I. (17/05/2018) “Ur-Artea, adiós a treinta años de educación en el tiempo libre” in EL CORREO (online version) <https://www.elcorreo.com/bizkaia/urartea-adios-treinta-20180517175615-nt.html>

ALONSO, J.M. (08/10/2018) “Bilbao ya tiene su isla... 68 años después” EL CONFIDENCIAL (online version) https://www.elconfidencial.com/espana/pais-vasco/2018-10-08/canal-deusto-isla-zorrotzaurre-bilbao-peninsula_1627249/

Kauno tvirtovės parkas. Istorija. Retrieved from <http://www.kaunotvirtove.lt/istorija> -> en. Kaunas Fortress. History. Retrieved from <http://www.kaunotvirtove.lt/istorija>

Lietuvos Respublikos investicijų įstatymas. 1999 m. liepos 7 d. Nr. VIII-1312. <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.84573/asr> -> en. Republic of Lithuania Investment Law. 1999 July 7th No. VIII-1312. <https://e-seimas.lrs.lt/portal/legalAct/lt/TAD/TAIS.84573/asr>





t-factor.eu

