

## Supplementary Material

### 1. Participatory workshop: perspective of key stakeholders and experts

There are several ways to evaluate the impacts of public interventions, such as the opening of the Fadura Public Park to the general public in Getxo. The CBA in Thinking Fadura aimed to be framed as 'social participatory', and key stakeholders have participated both in the design of the interventions and in their qualitative assessment. The combination of participatory processes with representatives of different social groups along with the opinion of experts should lead to a more precise evaluation regarding the impacts of public interventions on the welfare of society. In the case of the CBA of Thinking Fadura, the participation process was used as a tool to complement the economic assessment of the costs and benefits from a social point of view: specific objectives include the identification of impacts of the park, taking into account impacts on different population groups and sectors, and the qualitative evaluation of these impacts. In addition to this workshop organized by BC3 in collaboration with the municipality of Getxo, other stakeholders' workshops have been organized specifically by the municipality to involve key agents in the design of the interventions themselves.

The stakeholders' workshop organized by BC3 was held in Fadura, Getxo on May 24, 2018 and included stakeholders and experts from the public and private sectors to discuss about the social, environmental and economic impacts of the opening of the Fadura park. A total of 20 participants attended the workshop including members from public services of different areas such as social welfare, equality, multiculturalism, development cooperation, environment, urban planning, housing, civil protection, economic promotion and health and Fadura sporting area (Getxo Kirolak). In the development of the workshop there were two people facilitating the session.

The workshop had three main objectives: i) to identify the elements and the population that could be affected (positively and negatively) with the opening of the park, ii) to identify new uses of the park that could impact these populations, for example, access the river or the use of bicycles instead of cars, urban gardens and links to healthy food consumption, iii) to relate to each new use of the park the impacts of removing the fence in terms of costs and benefits and iv) to assess the costs and benefits identified through a Likert scale.

Impacts have been categorised by the participants themselves, who identified 8 different categories of impacts, as reported in ANNEX 4: environment, living place, community and society, safety and comfort, employment and economy, food, mobility and physical activity. For each category, stakeholders have identified specific indicators distinguishing among positive and negative effects related to the interventions of Thinking Fadura park, measures to encourage positive impacts, and measures to minimize negative impacts.

The results of the workshop show that the most relevant positive impacts, as a consequence of opening the Fadura park to the general public, were those within the category of "environment" and "community and society". Within the category of the environment, the most notable positive impacts were the creation of green areas and itineraries and the improvement of the environmental awareness of society. Within the community and society category, the most relevant positive impacts were a greater space for children to enjoy, improvement of the well-being of the elderly, recreation, use for economically disadvantaged groups and social integration. Other categories of impacts include the creation of urban communication networks, and physical activity. Finally, the possibility of creating urban gardens and organizing healthy food education are related to new future uses that could be created within the park, though they have not been planned yet.

Among the negative impacts, those related to “environment”, “community and society” and “safety and comfort” received the highest score. The most notable are related to people carrying dogs without leash with the risk of making the area dirty or suffering environmental degradation due to an incorrect use of the restored green areas. Related to community/society and safety/comfort, the most relevant negative impacts were possible social conflicts between users, the possibility that the area might become a frequent place to drink alcohol among young people, vandalism, and a decrease in citizen security because the area could be open to anyone outside the sporting facilities.



Figure S.1. Exercise in the evaluation workshop of impacts of the opening of Fadura to the citizenship (Getxo, May 24, 2018).

## 2. Survey to visitors of Fadura Municipal Sports Centre's (FMSC).

### *Objective*

This survey aims to study the affluence and profile of users of the areas of Fadura's Municipal Sports Centre's (FMSC) green areas that are currently open to the public. Through this survey we have obtained both qualitative and quantitative information that has been used for the different analysis carried out in this study.

### *Target population*

The target population is made up of people who transit through the green areas of FMSC that are currently open to the public. Both people under 16 years of age and Fadura's workers (whether hired or subcontracted) have been excluded from the sample. To identify these two types of subjects, two screening questions have been included in the introduction of the survey. A total of 250 surveys have been carried out.

### *Structure*

The survey has the following sections: introduction and screening, user profile, means of transport, frequency and uses, impacts, self-reported health and socioeconomic data.

The introductory section has a double objective. On one hand, to explain to the potential respondent the objective of the survey and to ask for his or her consent in order to proceed with it; and on the other one, to screen for potential respondents.

The user profile section aims to categorize the type of user, as well as to know the reason why he or she goes to the park. This section explains the Thinking Fadura project and asks the respondent if he or she knows or has participated in the collaborative reflection that has led to the opening of the park of FMSC to the public.

The means of transport section contains questions that provide the necessary information to quantify the recreational benefit of using the park; to do so, the travel cost method has been used (del Saz Salazar, 1997; Farré and Duro, 2010; Nogueraet al., 2010).

In the section related to frequency and uses, the actual frequency of use of the park is asked. In addition, the respondent is inquired to determine the future potential frequency of use, as well as the means of transport that he or she plans to use, taking into account the road and bike lane connections that will exist once the park is fully opened.

The impact section aims to know the impacts that could occur as a result of opening the park. The set of impacts has been obtained from the work carried out with a stakeholder's focus group. The scale proposed allows the respondent to categorize the impact as positive or negative, and also to determine to what degree he or she considers it positive or negative.

The section of self-reported health includes a question that helps to determine the self-perceived health status. This question has been obtained from the health survey carried out by the Department of Health of the Basque Government in 2018 (Departamento de Salud del Gobierno Vasco, 2018).

Finally, the socio-economic data section contains information on gender, age, descendants, level of education and family income.

### *Visual Aids*

In order to support the explanations of the interviewer, a series of visual aids have been created to help the interviewee better understand the current and future state of FMSC's public park. Specifically, 4 types of visual aids have been used, as follows:

- a) A map of current and future features of the FMSC's public park (Figure S.2)
- b) An illustrative photographic infographic about the future shape of the park (Figure S.3)
- c) A map of the area of influence of FMSC's public park (Figure S.4)
- d) A visual scale that supports the question about impacts that could occur as a result of the opening of the park (Figure S.5)

To determine the area of influence of the park, a review of the literature has been conducted. Different studies (Sturm and Cohen, 2014; Nutsford et al., 2013; Van Den Berg et al., 2010; del Saz Salazar and García Menendez, 2005; World Health Organization, 2017) delimit the area of influence between 400m and 1000m. Taking these studies into account, and for the purposes of our study, we have considered 4 zones in the area of influence of Fadura (see Figure S.5). Being zone 1, the one that includes a perimeter of 250m counted from the limit of FMSC; being zone 2 the one that includes a perimeter of 250m counted from the limit of zone 1; being zone 3 the one that considers a perimeter of 500m counted from the limit of zone 2; and finally the zone 4, which considers everything that exceeds zone 3.

### *Inflow*

To determine the number of users of the park, visual counting has been made by interviewers. The counting has consisted in observing and taking note of the number of people who have transited through FMSC's green areas that are currently open to the public. Such registry has been done with indication of whether these people were alone or accompanied, and in such case, those accompanying were counted as well. Likewise, the way in which users moved through the area has been observed and described (being the registered options: walking, running or going by bike or by other means). The observed information has been collected in Table S.1.



Figure S.2. Plan of Fadura's Municipal Sports Center (FMSC).



Figure S.3. Photographic infographics about the future shape of the park.



- ZONA 1: 250 m
- ZONA 2: 500 m
- ZONA 3: 1000 m
- ZONA 4: >1000 m

Figure S.4. Area influence of Fadura's Municipal Sports Center (FMSC) public park.

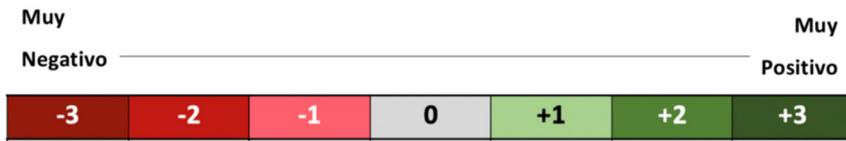


Figure S.5. Scale of potential impacts.

Table S.1. Counting people.

**CONTEO PERSONAS.**

DÍA: \_\_\_\_\_

Apunte	Acompañamiento		¿En qué va?			Comentarios
	Solo/a = 1 Acompañado/a = 2	Si acompañado, ¿Cuántos son?	Andando	Corriendo	Bicicleta u otros medios	
1						
2						
3						
4						
5						
6						
7						
...						

### 3. Physical exercise in the park: the iSOPARC method

The number of people in greenspaces such as parks is usually measured through the use of fixed counters that can inform the total number of visitors at every time of the year. In Fadura, there were no fixed counters in the pathway an estimation had to be done. The tool System for Observing Play and Active Recreation in Communities (iSOPARC) was utilised to quantify the usage and the physical activity in the greenspaces of Fadura.

iSOPARC is an established and validated observation tool to assess the use of public spaces in community settings (McKenzie et al., 2006). iSOPARC is used to record individual (gender, age, physical activity level, and ethnicity) and contextual characteristics (in a given area) and primary activity for each observed person. The tool is typically used for assessing physical activity on parks and recreation aiming to assist to generate important data from the field and to store, process and export it. The main features are a digital counter, paperless collection, consistency and foolproof, project oriented, easy exportation and fast development. Through visual scans, iSOPARC determines the usage and physical activity of the greenspace at a determined time.

In Thinking Fadura, the iSOPARC assessment was carried out in order to determine the number of people increasing physical exercise as a result of the restoration of the pathway and the improved accessibility in Fadura.

The green areas of Fadura occupy around 4ha and was divided in 5 target areas (Figure S.6). The observations were done by two observers (Ander Aranceta and Silvestre García de Jalón) in August 2018. In total sixteen site visits were done in each Target Area (5 TAs) at different time of the day. These times were at 9.00am, 12.00pm, 5.00pm and 8.00pm. The site visits were done in twelve different days covering both weekdays and weekends. Table S.2 shows the temporal distribution at different times. Every site visit covered the five target areas.

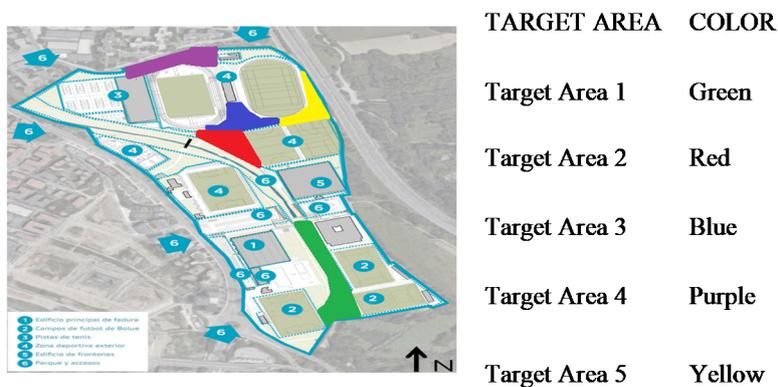


Figure S.6. Target areas in the iSOPARC assessment in Thinking Fadura.

Table S.2. Site visits in the iSOPARC assessment in Thinking Fadura.

Visit time	Visit days												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
09:00		1		1	1		1						4
12:00			1					1			1	1	4
17:00	1	1	1			1							4
20:00			1			1			1	1			4

In the five target areas, the iSOPARC tool counted an average of 2.05 people per scan. For the physical exercise benefit only those people who were doing walking or vigorous activities were considered. Thus in the five target areas, the average of people increasing physical exercise for walking and vigorous activities were 1.06 and 0.21, respectively (Table S.3). Hence, the sum of people increasing physical exercise was 1.27 (people / iSOPARC scan).

Table S.3. Mean number of people increasing physical exercise in the iSOPARC assessment in Thinking Fadura.

Type of physical activity	Mean number of people increasing physical exercise (people / iSOPARC scan)
SEDENTARY	0.78
WALKING	1.06
VIGOROUS	0.21
TOTAL	2.05

## 4. Survey to the general public

### *Objective*

This survey aims to study the opinion of the citizens of Getxo with regards to Thinking Fadura's initiative of opening Fadura's Municipal Sports Center's (FMSC) green areas to the general public.

### *Target population*

The target population is made up of people over 16 years of age and registered as citizens of the municipality of Getxo. To identify this population, two screening questions have been included in the introduction of the survey. In total, 256 surveys have been conducted in 12 different areas of the municipality. The surveys have been conducted at street level. The sample is representative of the population of Getxo and considers the area of residence.

### *Structure*

The survey has the following sections: introduction and screening, user profile, impacts, attitudes, push & pull factors, and socioeconomic data.

As in the user's survey, the introductory section has a double objective. On one hand, to explain to the potential respondent the objective of the survey and to ask for his or her consent in order to proceed with it; and on the other one, to screen for potential respondents.

The user profile section aims to know if the respondent is an actual user of FMSC (or not), and whether (or not) he or she has heard about the Thinking Fadura project. It also seeks to identify the reasons, uses and frequencies of current users of the park, as well as the reasons for not using it. After explaining the Thinking Fadura project to both profiles (users and non-users) they are asked to assess the possibility and the potential frequency of the future use of the public park of Fadura. In order to know if the respondent spends leisure time in open spaces at Getxo, a specific question is posed regarding places and frequencies.

As in the user's survey, the impact section aims to know the impacts that could occur as a result of opening the park. The set of impacts has been obtained from the work carried out with a stakeholder's focus group. The scale proposed allows the respondent to categorize the impact as positive or negative, and also to determine to what degree he or she considers it positive or negative.

The attitudes section contains 3 subsections: environment, self-perceived health, and physical exercise.

*The subsection environment* tries to determine whether or not the respondent is concerned about environmental issues, and in that case, to what degree.

*The subsection self-perceived health* includes a set of questions that help to determine the state of self-perceived physical and mental health.

In *the subsection of physical exercise*, the respondent is asked whether he or she exercises and, if so, how often it is done for the following types of activities: vigorous activity, moderate activity or walking.

The Push & Pull section seeks to know the opinion of the respondent in relation to different factors that may influence the general use of urban parks. These factors have been identified from different studies (Barker et al., 2017; Kothencz and Blaschke, 2017; Noralizawati and Othman, 2012). As it has

been done in the impact section, the respondent is asked to categorize the impact as positive or negative, and to determine to what degree he or she considers it positive or negative.

Finally, as in the user's survey, the socio-economic data section contains information on gender, age, descendants, level of education and family income.

#### *Visual Aids*

As in the user's survey, to support the explanations of the interviewer, a series of visual aids have been used to help the respondent to better understand the explanations in relation to the current and future state of FMSC's public park. In addition to the 4 types of visual aids described in the user's survey, this survey, has also used photographs of the park's green areas that are currently opened to the general public (see Figure S.7).

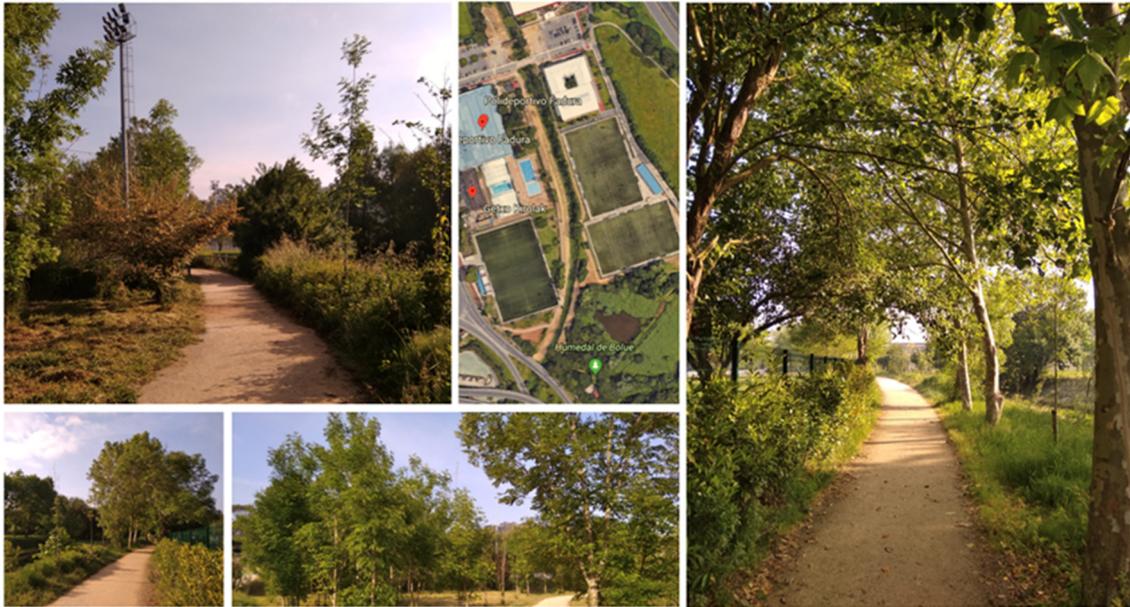


Figure S.7. Photos of green areas nowadays opened to the general public.