




Silvestre García de Jalón

[Silvestre.garciadejalon@bc3research.org](mailto:Silvestre.garciadejalon@bc3research.org)

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## Pilot study Thinking Fadura - CBA

Basque Centre for Climate Change BC3

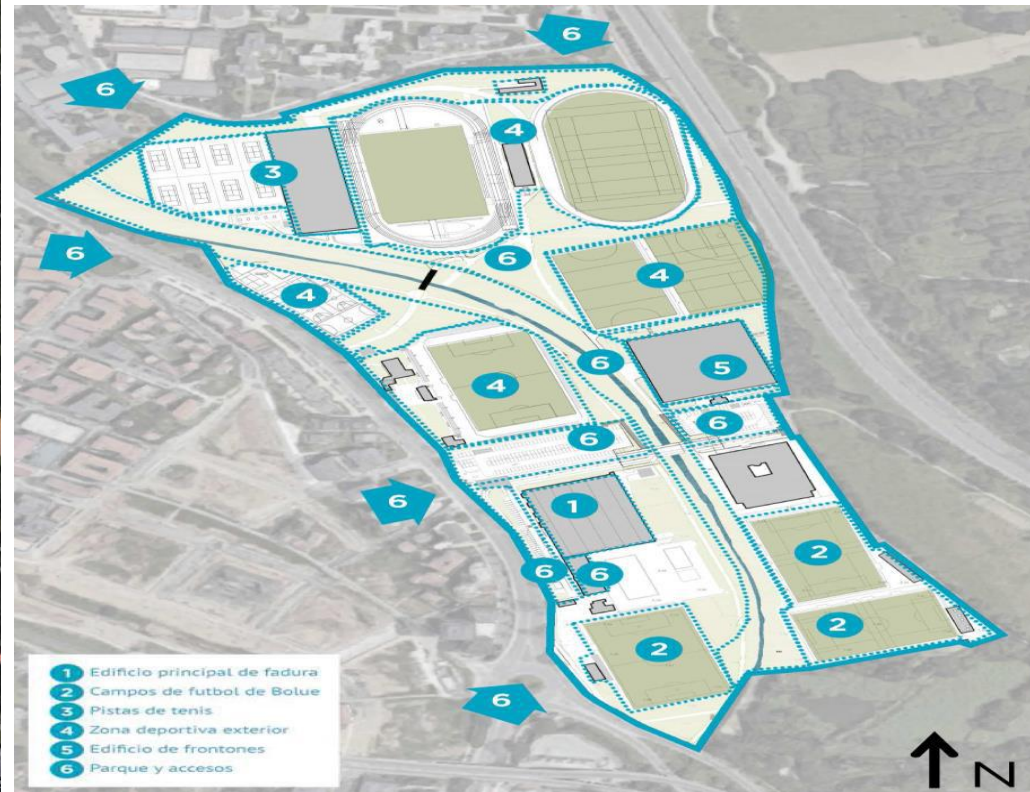
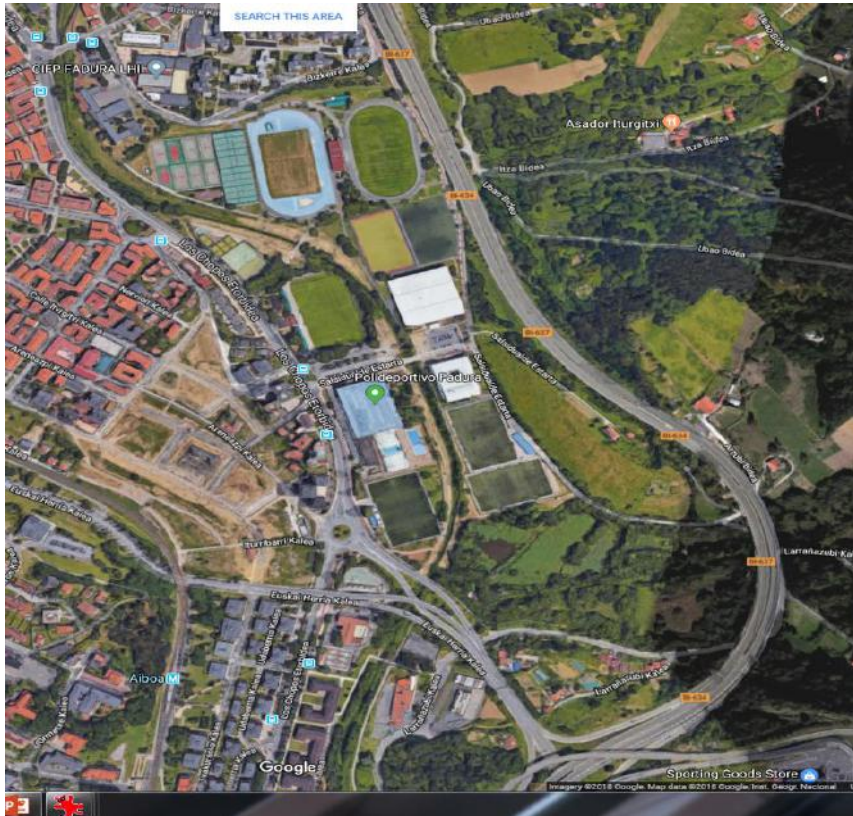
Vienna, 21 November 2018



# Thinking Fadura

- Fadura are sporting facilities and green areas (around 20 ha)
- Until recently Fadura was fenced
  - ➔ only members had access to the green areas (4ha)
- Main objective:
  - ➔ To remove the fence and **provide access** to the general public
  - ➔ Will allow everyone (all SES groups) to enjoy the green areas

# Thinking Fadura



# Green areas in Thinking Fadura



## CBA steps

1. Set the framework for the analysis (status quo, influence area)
2. Decide whose costs benefits should be recognized
3. Identify and categorize costs and benefits
4. Quantify costs and benefits over the analysed time horizon
5. Monetize costs and benefits
6. Discount costs and benefits to obtain present values
7. Compute net present values
8. Perform sensitivity analysis
9. Make a recommendation

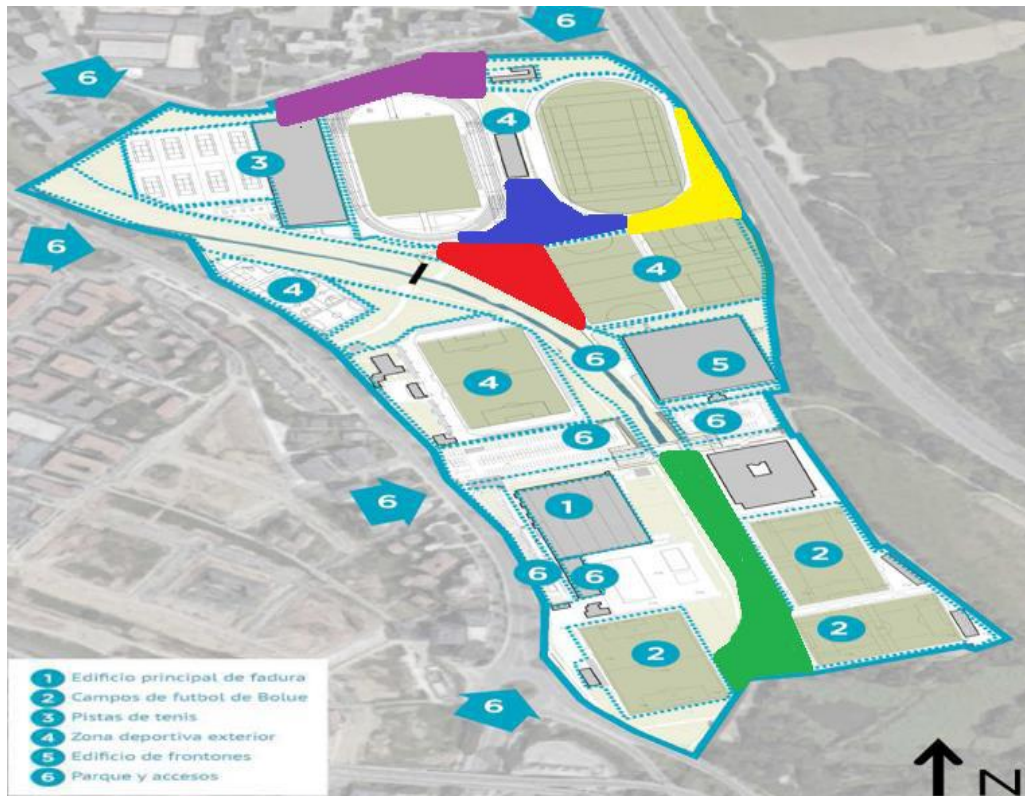
Done

In progress

To be done

# i-SOPARC in Thinking Fadura

16 site visits were done in each Target Area (5 TAs)



TARGET AREA COLOR

Target Area 1 Green

Target Area 2 Red

Target Area 3 Blue

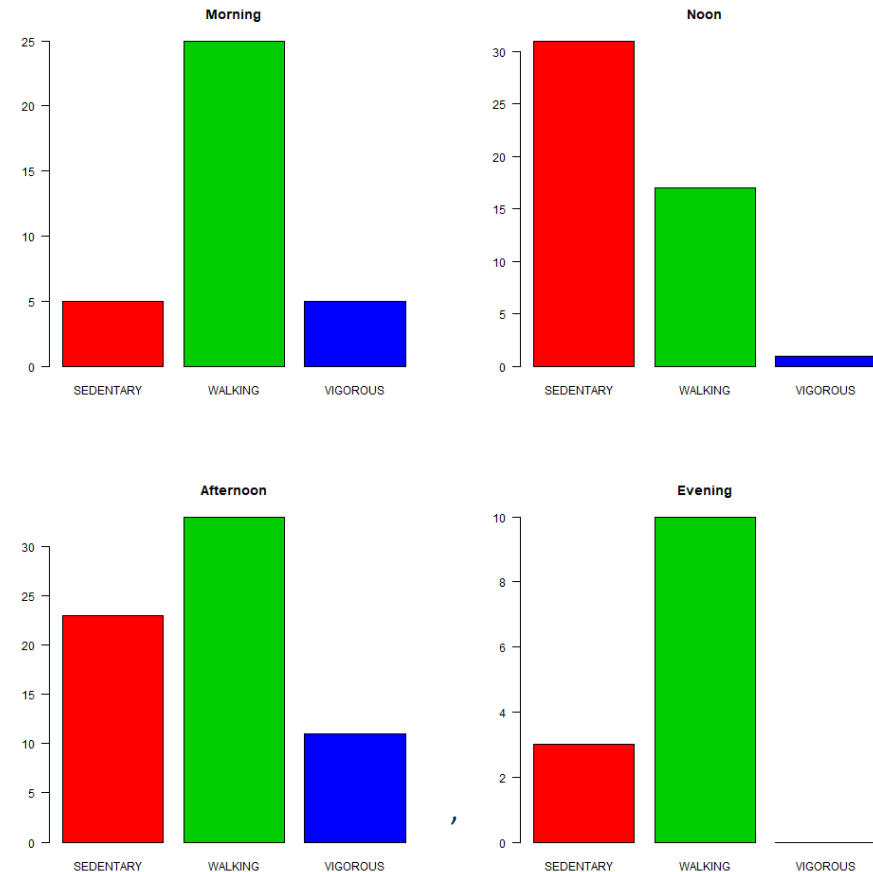
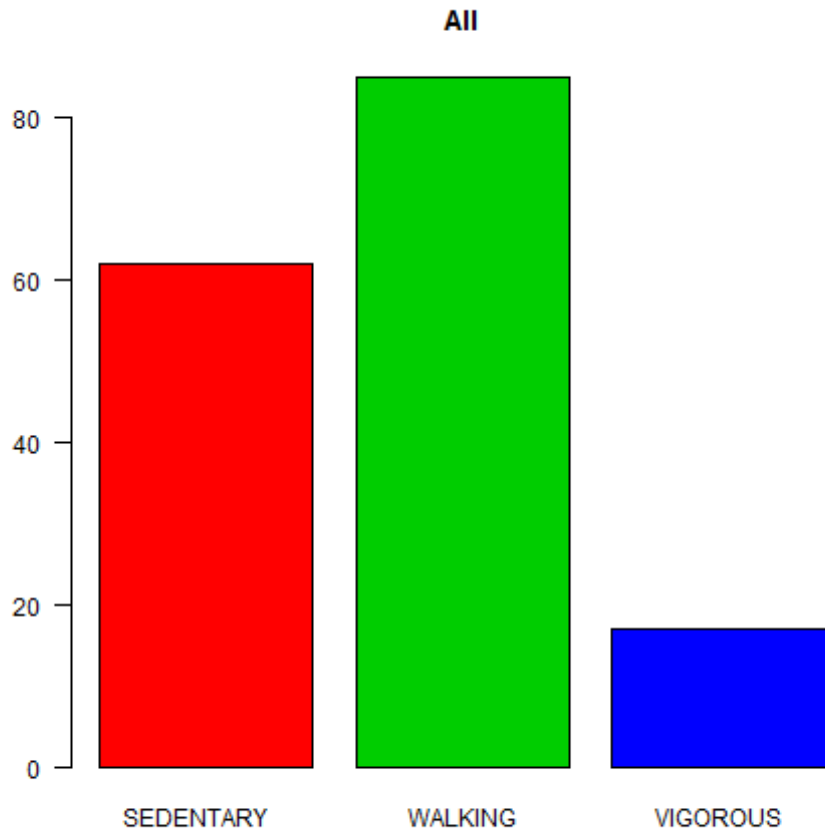
Target Area 4 Purple

Target Area 5 Yellow

# i-SOPARC: Physical activity

An average of 2.06 people per Target Area (5 TAs) per scan

➔ 165 people in total (80 scans = 5 scans/visit \* 16 visits)





INHI

# Positive indicators from the Workshop

Workshop Category	Identified indicators	Positive impact score	Measures to increase positive impacts
Environment	Green areas and itineraries Recreation Environmental concern of society Urban gardens	8.8	Dynamize activities related to ecology and the environment, create itineraries and green corridors.
Housing	NA	NA	Enhance a union of the park with the city
Community and society	Children Environmental concern of society Old people Outdoor sports Recreation Societal cohesion Walking	8.6	Design of leisure areas and free leisure, and sports areas for free use for visitors. Enable other non-sports leisure areas for adults and infants. Spaces for outdoor social celebrations,
Safety and comfort	Societal cohesion	2.0	Public toilet facilities all spaces.
Employment and economy	Business	3.0	Develop actions to promote companies in the sector and innovation and entrepreneurship.
Food	Urban gardens Education of healthy food	7.0	Promote the existence of gardens and activities related to
Mobility	Communication path Walking Green areas and itineraries	6.1	Promote the use of the bike and skates and raise awareness and minimize the use of the car., Promoting safe roads from different parts of the municipality and articulate public transport. It is necessary to open greater access to the park from different parts of the municipality.
Physical activity	Outdoor sports Walking Communication path New facilities Children Old people Poor people	6.9	Encourage spaces for the practice of outdoor physical activity and space storage for rainy season.





# The negative indicators identified in the Workshop

Workshop Category	Identified indicators	Negative impact score	Measures to minimize possible negative impacts
Environment	Botellón Dogs Dirt the area Environmental degradation	-10.0	Security and regulations for the use and enjoyment of green areas. Limitation of pets and permanent cleaning of spaces.
Housing		NA	
Community and society	Social conflicts Safety	-8.0	Regulation of uses and flows according to mobility styles and uses.
Safety and comfort	Vandalism Safety Dirt the area Noise generation Botellón	-7.5	Regulations of use and enjoyment, security measures
Employment and economy		NA	
Food		NA	
Mobility	Social conflicts	-2.0	Regulate the use of bikes and skates.
Physical activity		NA	

# Participatory Cost-Benefit Analysis (CBA)

- A large number of positive and negative impacts of opening the gate were identified through a process called *'Participatory CBA'*
  - ➔ Selection of survey indicators
- Lit. review ➔ Workshop ➔ Lit. review ➔ Survey indicators

# Main benefits identified in the steps

BROAD CATEGORY	MILESTONE INDICATORS	WORKSHOP INDICATORS		SURVEY INDICATORS	
		Pre-workshop category	Post-workshop category	Survey category	Survey statements
ENVIRONMENT	Reduced CO2 emissions Reduced air pollution Buffer extreme temperatures Reduced soil pollution Water retention Improved water quality	Environment	Green areas and itineraries	Green areas and itineraries	Greater availability of green areas for citizens
				Improved environmental quality	Improvement of the environmental status of the riverside of the Gobela River
HEALTH	Longer lives Healthier lives Mental health improvements (e.g. stress) Well-being	Food Physical activity	NA	Physical health	Improving people's health by being more exposed to green areas
				Mental health	Improvement of people's mental health by being more exposed to green areas
			Outdoor sports	People will do more physical exercise outdoors	
			Walking	Opportunity to walk	
SOCIAL	Recreation (use value) Equity Child and elderly welfare Social connectivity and cohesion Knowledge and education (awareness)	Community and society Safety and comfort	Recreation	Recreation	Increased enjoyment of recreational activities and nature
			NA	Opportunity to spend more time with family	Opportunity to spend more time with the family (e.g., children, old people)
			Children	Children	Meeting place for children and possibility to take them to play (games)
			Old people and collective activity	Old people and collective activity	Meeting place for the elderly
			Societal cohesion	Social cohesion	Union of different groups of society (social cohesion)
			NA	Socializing opportunity	Opportunity to socialize
			NA	Social equity	Improvement of social equity (in the absence of barriers that prevent access to the park)
			Educating people about the environment	Educating people about the environment	Improving citizens' education about the environment
			Awareness and perception of nature	Awareness and perception of nature	Improvement of awareness and perception of nature
			Opportunity for collective activities	Opportunity for collective activities	Opportunity to carry out collective or cultural activities
			Social inclusiveness	Social inclusiveness	Opportunity to integrate people excluded from society
ECONOMICS AND TECHNOLOGY	Fuel savings Increasing property values	Employment and economy Mobility Housing	Communication path	Communication path	Passage area for people who live nearby
			Poor people	Poor people	People who do not have the economic capacity to pay the registration to Fadura

## Conclusions

- Removing the fence in Fadura will provide more benefits than costs
- The highest number of benefits provided by TF are social benefits
  - ➔ Non-market benefits
- The number of users strongly influences the profitability of TF
  - ➔ Difficulty to estimate future usage of the green areas
  - ➔ Will be analysed in the sensitivity analysis (future usage scenarios)
- A participatory CBA process seems to be adequate to assess the profitability of public interventions considering stakeholders opinions

# Thank you

Silvestre García de Jalón

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