

Article title: “Crowdsourcing” as a tool for e-participation: two experiences regarding CO2 emissions at municipal level

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Appendix 2: Suggestions made by citizens in Zaragoza.

INITIATIVES	VOTES
MOBILITY	85
Close downtown to the traffic or exclude polluting cars	15
Electric and hybrid vehicles (incentives...)	14
More cycle-lanes and bicycle use	13
Improving public transport	13
Public transport powered by electricity or natural gas	10
Traffic lights (elimination, intelligent...)	5
Subway	4
Reduce traffic in the city center	3
Remove the tram	3
Creation of Park & Ride spaces in the outskirts	3
Remove the 30 km/hour speed limit	2
SUSTAINABLE URBAN DEVELOPMENT	23
Photovoltaic panels	12
Stop the expansion of the city and recover the city center	5
Replace coal-fired boilers	5
Encourage the installation of plants (flowerpots) on balconies, terraces, etc. in buildings and homes	1
PUBLIC AWARENESS MEASURES	21
Public awareness of energy consumption and water recycling	7
Improving driver behavior with respect to cyclists and pedestrians	5
Politicians should use public transport to lead by example	4
Planting more trees	2
More renewable energy	1
Set the target of Zaragoza city Carbon Neutral by 2025	1
Totally organic waste containers for composting	1
SAVING IN PUBLIC BUILDINGS	18
Monitor air conditioning and heating in public buildings	9
Monitor lighting (especially in sport facilities ...)	9
ECONOMIC MEASURES	11
Water saving in irrigation (replacing sprinklers by trickle irrigation)	6
Reduction of Income Tax for companies with reduced CO ₂	3
Change from drinking water to grey water for irrigation purposes	2
LIGHTING	4
Savings in lighting (replacement by low consumption, less lighting, sensors ...)	4
MISCELLANEA	7
Resignation of politicians	1
Part of the local police patrolling on foot	1
Monitor polluting industries and anti-pollution measures	1
Develop a water consumption reduction system	1
Program for the energetic rehabilitation of buildings	1
Promotion of local products	1
Promote continuous working day for not taking the car at midday	1

Appendix 3: Suggestions made by citizens in Pamplona.

INITIATIVES	VOTES
MOBILITY	141
More cycle-lanes (city, metropolitan area and roads) / Improve cycle-lanes (reduce obstacles...) / More free parking for bikes/ Allow bikes in public transport	45
Improving public transport	34
Close (Reduce) downtown to the traffic or exclude polluting cars	21
Creation of Park & Ride spaces in the outskirts, eliminate parking in the city center	7
Promote vehicles powered by electricity or hybrids	6
More points for bike rental and increase the number of bikes	6
Public transport powered by electricity or natural gas	6
Promote walking among citizens/ create path, routes for pedestrians and bikes to schools and industrial areas	5
Reduce speed (Increase the areas 30 km/h; reduce speed on highways) and make effective controls	3
Promote a different model of individual transport (share cars)	2
Reorganization of traffic to avoid traffic jams / Reduce the waiting time at traffic lights	2
Make businesses responsible for their employees' transportation	2
Vehicle control (gases and noise)	1
Subway / Streetcar	1
ECONOMIC MEASURES	37
Cheaper public transport (continuous use, students, season tickets...)	19
Greater control over industries (emission taxes, sanctions...)	5
Awards/advantages for public and private institutions with low CO ₂ emissions (for example, less taxes)	5
Discounts or reductions in bike rentals	3
Payment for using the car in the city center	2
Responsible production: reduction of waste in industrial activities	1
Reduction of car taxes for electric cars	1
Different quality of water for different uses (grey water for irrigation and car wash...)	1
PUBLIC AWARENESS MEASURES	36
Public awareness about the consequences of pollution and climate change (experts conferences, recycling ...)	11
Promote the use of solar and wind energy, biofuel (grants, ...)	7
Road education for the coexistence of vehicles, bikes and pedestrians	4
Campaigns for the development of environmental civic-mindedness of children and adults	4
Give publicity to the different initiatives to reduce CO ₂	3
Campaigns to promote the consumption of local products	2
Promote outdoors activities to make people aware of the environment	1
Campaigns for the use of bikes	1
Urban ecological vegetable gardens for young and old people	1
More environmental information at universities	1
Promote the use of tap water (instead of bottled water)	1
SUSTAINABLE URBAN DEVELOPMENT	33
Do not eliminate green zones / Maintain the vegetable gardens of Aranzadi, etc.	10
More green zones in the city (especially with autochthonous plants)	6
Photovoltaic panels (mandatory implementation / grants)	6
Renovate energetic systems of buildings (grants to renovate heating systems and to improve thermic isolation)	5
Avoid city expansion and recover the city center / No more shopping malls outside the city	2
Renovate abandoned buildings and avoid new buildings / Do not leave works unfinished	2
Solve canalization problems and networks of technical infrastructures	1
Promote central heating in neighborhood communities	1

SAVING IN PUBLIC BUILDINGS	20
Monitor air conditioning and heating in public buildings	12
Review the effectiveness and isolation of public buildings	2
Centralize municipal services to reduce the number of public buildings	1
Reduce the use of paper in municipal mailing to citizens	1
Adapt public buildings to the law of protection of night sky	1
Selective waste collection	1
Turn off public building lighting when they are closed	1
Install biomass heating in public buildings	1
PUBLIC MANAGEMENT MEASURES	24
Official vehicles: share / reduce /eliminate /electric/ with low emissions	9
Politicians and the council should be an example in energy reduction and efficiency	6
Consider environmental criteria in ALL municipal activities / More information and training for politicians in environmental topics	2
Reduction of personnel (councilors, mayor assistants...)	1
Purchase policies that promote the use of local products	1
Favor action plans that promote a model of decreases in energy consumption	1
Transparency in the measures adopted and the rationale behind their adoption	1
Mandatory training for managers and employees of the business in sustainability topics	1
Promote teleworking to avoid travelling	1
Introduce measures of energy saving in public procurement conditions	1
LIGHTING	12
Reduce street lighting	6
Savings in lighting (replacement by low consumption, less lighting, sensors ...)	3
Eliminate or reduce Christmas lighting	2
Better lighting management in uninhabited areas	1
MISCELLANEA POLITICAL POLICIES	12
Increase citizen participation / Reach consensus on decisions with citizens	5
Improve waste treatment / Fulfill the recycling protocol in the waste collection points	3
Promote actions that reduce CO ₂ emissions	1
Implement initiatives that have been successful in other European cities	1
Greater cooperation among public institutions (universities and research institutes)	1
Promote vegetarianism	1
MISCELLANEA (NOT DIRECTLY RELATED WITH MUNICIPAL MANAGEMENT)	5
Facilitate the contracting of green energy	1
Increase R&D investment in energy effectiveness	1
Prohibit the use of energy from coal	1
Improve public transport between Navarre and bordering regions	1
Improve the effectiveness of household electronic equipment	1