

Almada, Portugal

Project city profile

City description

Almada is one of 18 municipalities within the Lisbon Metropolitan Area, with 176,000 full-time residents in an area of 72 km². In spite of being mostly urban, it still manages to maintain and preserve 25% of its territory as a protected area of great natural richness and biodiversity. Almada is bordered entirely by water, with the Tagus River to the north and east and the Atlantic Ocean to the west. Almada's Atlantic beachfront extends for approximately 13 km and is a popular leisure destination within the Lisbon Metropolitan Area, attracting an estimated 8,000,000 visitors per year. Due to the City's location in the Lisbon Metropolitan Area and its urban nature, transport and buildings (comprising services and residential) are the most important sectors in terms of energy consumption in Almada.



Sustainability profile

Each decade, Almada's local development strategy has focused on a particular topic related to the local needs and situation of the time, allowing the City Council to follow a balanced, smooth and coherent development pattern based in solid sustainability criteria. For the current decade, Almada City Council has adopted the motto "Almada+: Sustainability, Solidarity and Eco-Efficiency". Almada aims to pursue a development pattern along the following guiding principles:

- Establish Almada as a city of high environmental quality;
- Consolidate Almada's green infrastructure;
- Achieve an efficient, smart use of natural resources; and
- Reduce environmental impacts of activities and promote efficient energy use, to foster a progressive energy transition, leading to a low carbon city.

Facts & Figures

Population / Land area

176,000 / 80 km²

Municipal budget

€ 85 million

Mayor

Mr. Joaquim Judas

Partner city

Saanich

Website

www.m-almada.pt

Sustainable mobility

Almada defines sustainable mobility as, “mobility that responds to the needs of the society to have access, communicated and socialize freely, without sacrificing other essential goods.” Almada’s main goal is to bring life together in the city center. A huge challenge Almada is facing is that 73.2% of households own a car and only 35.9% of citizens own a bicycle. Almada’s strategy to combat this is based on four main points: planning and developing a multimodal transport system, creating better infrastructure for existing public transportation, promote the use of new technologies, and create awareness and involve citizens.

Almada is looking to shift the modal transfer from private cars to public transportation and looks to also improve public spaces to create better conditions for cyclists and pedestrians. Almada has created award winning programs such as “Trips for Trash,” where citizens trade recyclable waste for free travel tickets. As a result of its efforts, Almada won the European Mobility Week award in 2010.

Urban agriculture

Agriculture in Almada has strong cultural traditions and is a key priority to citizens. Despite urbanization and socio and economic transformations, agricultural land remains at 23%. Almada’s Vegetable Gardens Network was established to promote local food production in the Municipality and region. Through municipal organic farming, new green areas and parks were expanded and nature and biodiversity became protected. The urban area of the city benefited from food production for local, organic sources. The program also saw an improvement in social interaction, economic opportunities for citizens, and more social cohesion. In addition to promoting urban agriculture, Almada also provides services in biodiversity, soil protection, water, food production, climate regulation, and cultural and leisure services.

Parque da Paz: Low carbon urban park

Parque da Paz is Almada’s 50 ha urban green park, which has been developed into a sustainable and biodiverse epicenter. The main goals in creating the park were to solve the city’s rain water drainage problem, to maintain the natural woodland ecosystem, and to preserve the natural biodiversity. The park contains over 50 plant species and more than 90 bird species. To combat the drainage problem, numerous retention basins have been integrated into the park. The park continues to adopt sustainable measures including composting all green waste, promoting the use of bicycles, and planting native species. Almada hopes to define Parque da Paz as a zero carbon urban park through the improvement of energy efficient features, such as LED street lamps and solar hot-water heaters. Almada uses the park to promote environmental education through field trips and nature walks.

Project Team

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Public lighting

The City of Almada has greatly prioritized energy efficient municipal lighting to save cost, decrease energy usage, and decrease carbon emissions. 58% of the energy consumed by the municipality is public lighting, equating to 2.2 Million EUR in 2013, and 5.5 tons of CO₂eq. In order to combat this problem, Almada created a system of intelligent street lighting, which uses remote controlled management tools to connect light points with a central server. Intelligent street lighting allows for scheduled parameters, dimming, maintenance planning, and diagnosis from a computer. In additional, Almada is in the process of replacing lights with LED technology. As a result, the City saw 50% savings in energy and carbon emissions, reduction in maintenance costs, and more control over light pollution.

Thematic areas and goals

Ecosystem services

Almada is interested in boosting adaptation through the use of blue and green infrastructure. Projects with ecosystem-based approach to adaptation have been designed for microclimatic regulation, urban heat island effect mitigation, storm-water flood control, nutrient recycling and groundwater supply, erosion control, food production, and social cohesion. However, ecosystem-based adaptation can also require significant changes in urban planning practices and may present considerable challenges. Almada therefore seeks to discuss approaches with other project cities.

Goals: During the Second Working Meeting in Almada, Almada's partner, the District of Saanich, presented on the Bowker Creek Project. Moving forward, Saanich will share the bylaw and regulation language that has been used to ensure that future developments in the Bowker Creek area take into consideration the 100-year plan of restoration of the creek. Additionally, the 100-year plan concept, or a 25 or 50 year plan concept, could be used by both cities to tackle difficult sustainability issues that need to be addressed but which have inertia in getting started due to the complexity of the challenges.

Resilience and adaptation

Almada uses different methodologies such as coastal hazard zone mapping and urban heat island modeling to assess its vulnerabilities and better inform its adaptation strategies. It is also integrating adaptation measures into a range of policies, programs, and actions.



Segregated bike paths in Almada, Photo credit: The City of Almada



A section of Paque de Paz, Photo credit: City of Almada



An urban garden in Almada, Photo credit: City of Almada

Within this partnership, Almada seeks to share its experiences, discuss solutions and methodological approaches, and compare results with other cities.

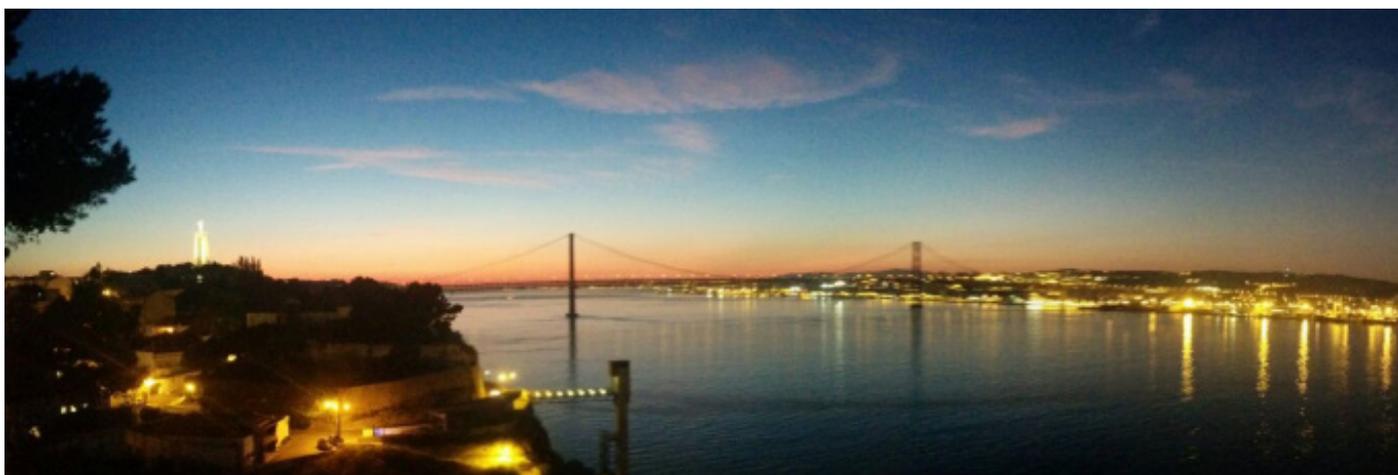
Almada has integrated resilience and adaptation into a core value of its strategic plan. According to city officials, land use planning must be tied into climate change and must address impacts including the urban heat island effect. Adaptive measures include:

- Smart urban design to facilitate the natural cooling and solar energy;
- Increase energy conservation and efficiency in buildings;
- Urban design that takes into account sea-level rise limits;
- Protecting buildings and people from floods with special construction and considerations;
- Promoting water infiltration and permeable pavements;
- Rehabilitation of river banks and natural vegetation; and
- Promoting green urban corridors.

Low-carbon development

Almada's many smart city development projects, such as its public lighting tele-management system and various e-mobility projects, are all being developed with a low-carbon agenda in mind. Almada created the Low Carbon Climate Fund in 2009 to support municipal investment in energy efficiency. The goal of the Fund is to reduce energy consumption and increase renewable energy use. The Fund has financed numerous projects including tele-management system for public lighting, solar water heaters in public sports facilities, LED traffic lights and efficient lighting in municipal buildings and public space, electric vehicles for the municipality, energy certifications for municipal buildings, and the utilization of biomass from parks for heat production.

Goals: Almada's partner city, the City of Saanich, has identified that the energy agency format used in Almada could provide a potential model for a retrofit agency. The potential benefits of this model includes, 1) increased effectiveness of retrofit programs, 2) increased community engagement, 3) openness to independent advice and opinions, and 4) inspired additional actions for the partners to lead.



An overlook of Almada and Lisbon taken during the Second Working Meeting in Almada, October 2015

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