

The Urban Cooperation Action Plan (UCAP) at a Glance

Cities	Hirosaki	Donostia / San Sebastian
State/Country	Japan	Spain
Population	170.766	186.500
Size in km²	524,2 km ²	60,89 km ²
Pairing agreement signing date	2019/05/03	2019/04/26
Date of city visit to counterpart city	2018/10/01	2018/04/24
Theme of cooperation	<p><Donostia San Sebastian> Buildings and site regeneration: The objective of this coordination is to exchange experiences and know-how within the scope of environmental sustainability, and more specifically in energy efficiency, renewable energy, especially photovoltaic solar energy, managing resilience to climate change, retrofitting existing buildings and energetically managing them, and the smart city concept.</p> <p><Hirosaki> Smart City, Energy Efficiency, Landscape Renewal, Measures against Global Warming, Building Renovation, Energy Management</p>	
Key challenges of cooperation theme	<p>These are the Urban Agenda for the EU topics tackled by the city: Urban mobility, Energy transition and Climate adaptation.</p> <p>And these are the Sustainable development goals to be reached:</p> <p>GOAL 9: Industry, Innovation and Infrastructure GOAL 11: Sustainable Cities and Communities GOAL 13: Climate Action</p> <p>The Environment Area of SANSEBASTIAN has been working in the Local Agenda 21 since 1998. In January 2008 a Local Action Plan against Climate Change (Plan Local de Cambio Climatico, PLCC) has been approved after a long public participation process. The PLCC has four strategic lines one of which is precisely Energy Efficiency. In June 2008 the Mayor signed the Covenant of Mayors and therefore SANSEBASTIAN is committed to curb its CO2 emissions by at least 20% by 2020.</p> <p>In December 2010 the plenary session of SAN SEBASTIAN approved the Local Energy Plan within the Covenant of Mayors project.</p> <p>The city of SAN SEBASTIAN, deeply aware of the challenges that cities are facing nowadays regarding energy, is highly involved in the implementation of measures to reduce CO2 emissions, including monitoring of CO2 emissions for more than a decade and planning and implementation of specific measures to reduce GHG emissions.</p>	

	<p>Regarding energy performance on buildings, the municipality of SAN SEBASTIAN approved in 2009 the municipal ordinance on energy efficiency and indoor air quality of buildings. It goes beyond the requirements established by national regulations and sets specific targets for both the building envelope and installations. Furthermore, energy consumption is being monitored in all public buildings, which has enabled the implementation of several energy savings measures and provided energy savings between 10% and 33%.</p>
<p>Main Objective of UCAP</p>	<p>Donostia side: Specific Objective n°1: <i>Construction and refurbishment of new and existing buildings with special focus on historic buildings, with energy efficiency criteria.</i> Specific Objective n°2: Increase the production of renewable energy, especially photovoltaic solar energy. Specific Objective n°3: The implementation and development of the Smart City concept.</p> <p>Hirosaki side: Specific Objective n°1: <i>Area Management by public-private partnership (Mainly for multipurpose use of historic buildings and its thermal efficiency improvement)</i> Specific Objective n°2: Improve the energy self-sufficiency by promoting regional energy supply system, and the energy use efficiency Specific Objective n°3: Create opportunity and raise consciousness for the Smart City realization</p>
<p>Short description of main activities and key outputs</p>	<p>Donostia side: 1- Refurbishment of municipal kindergarten. <i>Reduction of 40% of the heating demand. Maintain 21 celsius degrees comfort temperature all day long.</i> 2- Research of technical and economic viability of the refurbishment of a municipal palace with energy performance criteria. <i>Reduction of 40% of the heating demand. Maintain 21 celsius degrees comfort temperature all day long.</i> 3- Installation of Solar PV for self consumption of the municipal buildings. <i>Installed PV power: 200 Kwatts</i> 4.- Searching potential areas to implement district heatings. <i>Provide a tested and user friendly open source software which is based on user needs to develop heating and cooling strategies on local, regional and national scale, thus, analysing new possible areas in San Sebastian to implement District heatings</i></p> <p>Hirosaki side: 1- <ul style="list-style-type: none"> • Yoshino Town Green Area Maintenance Project • Station Square & Yamamichi Town Hinokuchi-machi Line Street Maintenance Project • Ex-Dai Goju-kyu Bank HQ Main Building Maintenance Project 2- <ul style="list-style-type: none"> • Regional Energy Promotional Project </p>

	<p>3- • Smart City promotion activity</p>
<p>Expected results - benefits</p>	<p>Donostia side: From each specific objective: 1.- We want to reduce the energy consumption on the buildings constructed or refurbished. 2.- Increase on the amount of Solar PV installations on municipal and private buildings (dwellings) 3.- Several actions of the smart city project (REPLICATE, Horizon 2020 project) should decrease the energy consumption and related fossil fuel consumption of the city.</p> <p>We have learned about these key issues: Mainly about the importance of renewable energies and the dependency on fossil fuels and other non clean energies. To overcome this problem, we need to boost: The use of renewable energies wherever possible. The use of photovoltaic solar panels for selfconsumption of the building. The use of unusable urban spaces for the placement of photovoltaic solar panels.</p> <p>About the concept of Smart City: The prevention of natural catastrophes implies a more resilient city. Hirosaki, due to the catastrophes that occurred in 2011, became aware of the need for energy independence. In our case, we conclude that we want to implement a Smart City Plan through our climate change strategies. The goal is the same. They are planning a district heating in the core of the urbanized city, in our case, we cannot do that in the constructed city, so we have done it in a new residential urbanization.</p> <p>Similar goals. Different solutions. We have a former landfill in which we use biogas to produce electricity and heat for greenhouses. We could study the placement of the panels in the landfill, as Hirosaki has done in theirs.</p> <p>Likewise, we are going to install a photovoltaic installation for self-consumption in a municipal building (a social shelter). So far, all the PV installations have been for sale in the electricity network.</p> <p>We will continue with the resilience studies and apply corrective measures for the floods. We must go deeper into solutions based on nature.</p> <p>San Sebastian is also developing a new residential area with resilience criteria, due to the proximity of the river and its continuous floddding episodes throughout these last 50 years.</p>

	<p>The triggers for the two cities seem different. Hirosaki has mainly evolved from the 2011 catastrophe implementing different strategies towards CO2 and energy dependency reduction.</p> <p>Donostia - San Sebastian started with Local Agenda 21 and mobility issues and from 10 years to now, is becoming more aware of climate change by the increase on flooding episodes in the city.</p> <p>Hirosaki side: From each specific objective:</p> <ol style="list-style-type: none"> 1.- Start using historic buildings for multipurpose and revitalize the region to create opportunity for industrial development by tourism promotion, and for education including study of history and culture. Reduce the amount of energy consumption by improving energy efficiency without affecting historic value at renovation. 2.- Improve the city's energy independence by promoting local energy production and consumption and reduce the environment load by the use of carbon neutral wood biomass. Expect the revitalization of the regional economy by flowing back of energy fee, which flowed out of the region before. 3.- Accelerate projects toward the Smart City by new business creation with collaboration between industry, academia, financial institutions and government, and by promotion of the understanding of citizens and business operators.
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