


**Good Practice in Integration of Waste Management Solutions
into the Urban Décor of Heritage Areas**

N°.	Section	Description
0.	Title of the practice	<i>Encasement solutions to improve urban integration</i>
1.	Photograph	 <p>The top photograph shows a close-up of a grey metal enclosure housing a waste bin. A red fire pipe runs horizontally across the wall behind it. The enclosure is partially covered with graffiti in purple and yellow. The bottom photograph shows a wider view of the same enclosure on a cobblestone street. The enclosure is decorated with a colorful mural of abstract shapes in blue, yellow, and white. In the background, there are historic buildings, including one with blue and white geometric patterns on its facade.</p>

2.	Proposers	Municipality of Porto
3.	Contacts	Pelouro da Inovação e do Ambiente: pelouro.ia@cm-porto.pt +351 222 097 161
4.	Useful links	www.cm-porto.pt
5.	Start date	Year 2014
6.	Activities' state of the art	Finished
7.	Location	Portugal, Porto, Heritage City Centre
8.	Inhabitants in the area	420
9.	Description of the practice	
	<p><u>Origin:</u></p> <p>Overtime we have been working to improve the waste management system of the Heritage City Centre. As we explained before, in this area the system is an integration of various subsystems to enhance its adaptability to the area particularities and unique requirements. Knowing that underground containers are the best solution in terms of urban integration, storage capacity and operational efficiency, we have been installing this kind of bins in some locations in the Historic Centre, trying to replace as much surface bins as possible. Although, because all the factors implied in the installation of an underground container, in some collection points it was impossible to replace the surface bins.</p> <p>One of these points is located at a crossing path to <i>Ribeira</i>, the riverfront area, one of the most visited places in Porto. This specific collection point used to have several problems regarding the aesthetics and causing a negative visual impact. Because of the local waste production, the collection point couldn't be removed. Furthermore, once we couldn't replace the surface bins for underground containers, we're forced to get an alternative solution to minimize the aesthetic problems.</p> <p>After studying the available options, we decided to go for an encasement solution: a metallic structure was built covering the bins so they were not visible from the sidewalk. The structure design is very neat and simple, not drawing attentions. With this structure, the bins go unnoticed for those who are walking by and even if there's some waste deposited outside the bins, it's not visible. Therefore, the collection point is now blended in the urban structure and its negative visual impact is not a problem anymore.</p> <p><u>Development and Timescale:</u></p> <p>The structure installation was part of a much bigger project. It was integrated in a rehabilitation project of an area with around 11 000 m², located in the Heritage City Centre.</p> <p>The structure was built in 2014.</p> <p><u>Actors involved:</u></p> <p>The project was developed and promoted by the Urban Rehabilitation Society (<i>Sociedade de Reabilitação Urbana - SRU</i>). However, because of the project dimension and the diversity of structures and services implied, SRU needed the collaboration of several entities. In what concerns the waste management system, there was a collaboration of the Urban Cleaning Office of the Municipal Direction for Civil Protection, Environment and Urban Services. The public works were carried on by the municipal company for this matter (<i>Gestão de Obras Públicas - GOP</i>).</p> <p><u>Legal framework:</u></p>	

	<p>There is no legal framework on waste that applies directly to this intervention. However, the need to keep the collection point in this location, besides the local waste production, is related with the obligations imposed by the national regulator for the water and waste services (Entidade Reguladora dos Serviços de Águas e Resíduos – ERSAR). This entity defines the standards for accessibility to the waste system. According to ERSAR, a residency has access to the waste system if there's a collection point at a maximum linear distance of 100 meters. Therefore, to fulfil that standard, the collection point couldn't be removed. Moreover, the structure characteristics and installation process had to obey to the urbanistic regulatory instruments.</p> <p><u>Financial framework:</u> (activities' cost, activities' revenues (if any), model/s of financing used)</p> <p>The project was made in the scope of an Urban Rehabilitation Programme. The budget for the global project was around 31,5 M€ and it was partially financed by the European Regional Development Found (ERDF).</p>		
10.	Results		
	<p><u>Proven results (through indicators):</u></p> <p>Not applicable</p> <p><u>Possible success factors:</u></p> <p>Elimination of a source of several and iterant aesthetic problems and improvement of the waste management system urban integration, through a simple and minimal intervention.</p> <p><u>Main difficulties encountered:</u></p> <p>The main difficulty in this process was to find a solution that could solve the aesthetic problems of the collection point, keeping the surface bins and the same location and, simultaneously, improving the urban integration and minimizing the visual impact.</p>		
11.	<table border="1"> <tr> <td>Main lessons learnt from the practice</td> <td>With a minor intervention, by installing a very simple structure, we're able to solve a problematic situation, overcoming the iterant aesthetic problems and integrating an element of the waste management system into the urban décor. With simple solutions it's possible to achieve great improvements.</td> </tr> </table>	Main lessons learnt from the practice	With a minor intervention, by installing a very simple structure, we're able to solve a problematic situation, overcoming the iterant aesthetic problems and integrating an element of the waste management system into the urban décor. With simple solutions it's possible to achieve great improvements.
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