Design manual for spaces dedicated to waste bins and containers in public spaces

Waste Flow
Several Waste (organic waste, plastic waste and other family waste)

Impact on PESTEL categories
Economic, Social, Technological, Environmental, Legal

Location of the good practice
District of Altona, Hamburg

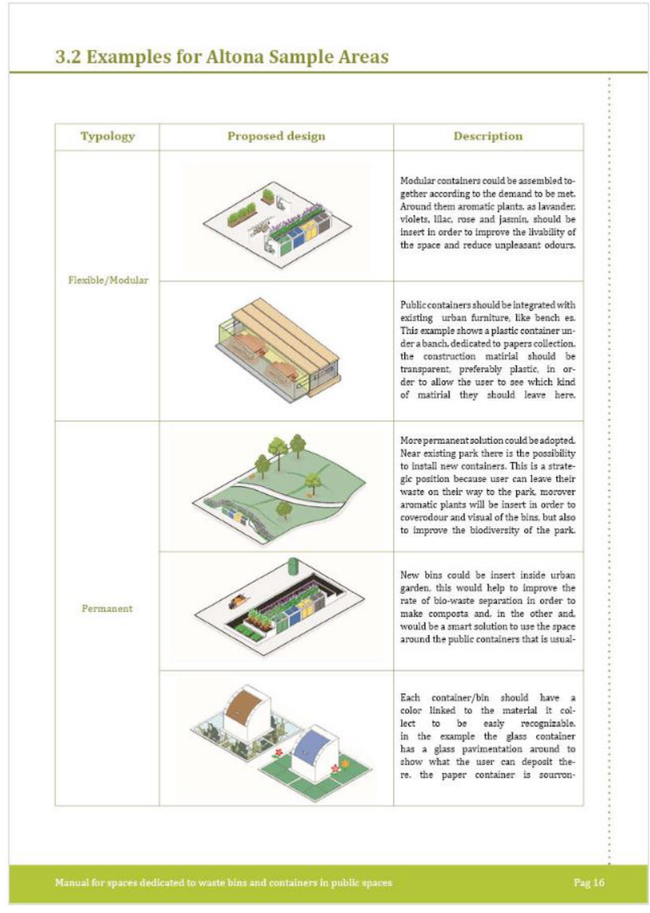
Stakeholders involved
Ministry of Environment and Energy Hamburg, Ministry of Urban Development and Housing Hamburg, Stadtreinigung Hamburg, architects, planners and engineers, public and private housing companies

Keywords
supply chain, selective waste, protect health

Description
In general, there is a lack of public recycling container sites. Existing container sites often suffer from littering and some of them are not well accessible for elderly and persons with a handicap. The sites where private bins are located especially in larger housing estates are often not well designed as one consequence citizens often do not separate waste correctly. Both public and private containers sites often have a negative impact on open spaces. Therefore, a design manual for architects and planners is proposed to improve private and public container sites in cooperation with citizens.

Objective
The solution aims to improve design and accessibility of containers and bins which will lead to a better usage. Consequently, the correct separation and recycling rate will increase, while littering will decrease. Environmental aims are reducing the odor; improving the environmental quality by greening the containers sites with aromatic plants or bushes and recycled materials for constructing the containers. Economic aim is an improved and more efficient waste management, caused by a better recycling rate. Social aim is to make neighborhoods more livable by redesigning the waste sites.

For further information
Link to D5.7 Eco-innovative solutions Hamburg



3.2 Examples for Altona Sample Areas

Typology	Proposed design	Description
Flexible/Modular		Modular containers could be assembled together according to the demand to be met. Around them aromatic plants, as lavander, violets, lilac, rose and jasmin, should be insert in order to improve the livability of the space and reduce unpleasant odours.
		Public containers should be integrated with existing urban furniture, like bench es. This example shows a plastic container under a banch, dedicated to papers collection. the construction matirial should be transparent, preferably plastic, in order to allow the user to see which kind of matirial they should leave here.
Permanent		More permanent solution could be adopted. Near existing park there is the possibility to install new containers. This is a strategic position because user can leave their waste on their way to the park. morover aromatic plants will be insert in order to coverodour and visual of the bins. but also to improve the biodiversity of the park.
		New bins could be insert inside urban garden. this would help to improve the rate of bio-waste separation in order to make composta and, in the other and, would be a smart solution to use the space around the public containers that is usual-
		Each container/bin should have a color linked to the material it collect to be easly recognizable. In the example the glass container has a glass pavimentation around to show what the user can deposit there. the paper container is sourron-

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Figure 4.28 Examples of public bins in the Sample areas. From the top left to the bottom right (HCU - TUD students SoSe, 2018).