

## Annex 5 Determining the amount of reusable waste for sizing reuse centers

To estimate the investment costs for minor repairs an example from Bulgaria is described below. Table 1 presents the investment costs of a municipal site (Civic Amenity Site – CAS) for acceptance of waste delivered by householders (end-users), which is subject for preparation for reuse. Upon acceptance, the waste is divided into suitable for reuse and unsuitable for reuse. The waste unsuitable for reuse is placed in containers and the suitable waste - under a shed where minimal repairs and temporary storage are performed. In the exemplary site not only reusable waste is accepted - construction waste is accepted (only from household repair works, demolition and new construction waste is excluded), recyclable waste (eg paper from shops) and hazardous household waste (eg waste oils) ). In the table, the containers for Non-reusable waste are marked in yellow. If the calculations are to be adapted for a site where only reusable waste is accepted, then non-reusable waste containers should be removed and the total area of the site and construction work should be reduced. Site calculation for reusable waste only based on the CAS estimate from Bulgaria is presented in Table 1.

**Table 1** - Investment costs for recycling yard that includes re-use center

№	Activity	Price [€]
		Total without VAT
1	Truck weighbridge - existing near the site	
2	<b>Construction activities</b>	<b>213 605,27</b>
3	Excavation activities	7 669,38
4	Crushed stone pavement	24 542,01
5	Concrete (retention) walls and curbs	16 361,34
6	Asphalting	92 032,54
7	Shed for waste storage	58 500,00
8	Power supply, electrical wiring, electrical panel for office container, lighting	6 000,00
9	Traffic signalization and road marking	500,00
10	Information center and shop for selling second hand (repaired) goods - office container (from Sandwich-structured composite pannels)	4 000,00
11	Repair shop for minor repairs of - office container (from Sandwich-structured composite pannels)	4 000,00
	<b>Multilift containers delivery</b>	<b>73 400,00</b>
1	Multi lift container for "other" bulky waste	3 500,00
2	Multi lift container for car tires	3 500,00
3	Multi lift container for refrigeration equipment (refrigerators, freezers, ice machines, etc.)	3 500,00
4	Multi lift container for household appliances / small - irons, hair dryers, mixer, etc.	3 500,00
5	Multi lift container for household appliances / large - stoves, water heaters, washing machines, dishwashers, etc.	3 500,00
6	Multi lift container for construction waste - concrete, gravel, stone	3 000,00
7	Multi lift container for waste - plaster and sand	3 000,00
8	Multi lift container for waste - ceramics / tiles, bricks, etc./	3 000,00
9	Multi lift container for waste - porcelain - sinks, bathtubes, terracotta, etc.	3 000,00
10	Multi lift container for furniture other than wood	3 500,00
11	Multi lift container for wooden furniture	3 500,00
12	Multi lift container for sofas - sofas, mattresses, armchairs	3 500,00
13	Multi lift container for flat glass - window-frames, windows	3 000,00
14	Multi lift container for plastic - tubes, cans, tables, chairs	3 500,00
15	Multi lift container for waste paper from transport packaging	3 500,00
16	Multi lift container for information and telecommunication equipment - computers, telephones, printers	3 500,00
17	Multi lift container for textiles - clothes	3 500,00
18	Multi lift container for textiles containing leather - bags, shoes, jackets	3 500,00
19	Multi lift container for textiles not containing metal - carpets, rugs, blankets, mattresses	3 500,00
20	Metal containers for fluorescent lamps	2 500,00
21	Metal barrel for used oil - hydraulic and motor	400,00

№	Activity	Price
		[€] Total without VAT
22	Reversible Multilift container	3 000,00
23	Reversible Multilift container	3 500,00
	<b>Multi lift truck delivery</b>	<b>105 000,00</b>
1	Three-axle truck including a chassis with a cab and an installed multi-lift device for lifting containers	105 000,00
	<b>Equipment</b>	
1	Hand tools for repairing (drills, screwdrivers, electric welding machines, sewing machines, painting tools, etc.)	1 000,00
	<b>Total</b>	<b>393 005,27</b>

**Table 2** - Investment costs if the site would be used only for reusable waste

№	Activity	Price if the site would be used only for reusable waste
		[€] Total without VAT
1	Truck weighbridge - existing near the site	
2	<b>Construction activities</b>	<b>168 834,10</b>
3	Excavation activities	5 335,22
4	Crushed stone pavement	17 072,70
5	Concrete (retention) walls and curbs	11 381,80
6	Asphalting	64 022,64
7	Shed for waste storage	58 500,00
8	Power supply, electrical wiring, electrical panel for office container, lighting	4 173,91
9	Traffic signalization and road marking	347,83
10	Information center and shop for selling second hand (repaired) goods - office container (from Sandwich-structured composite panels)	4 000,00
11	Repair shop for minor repairs of - office container (from Sandwich-structured composite panels)	4 000,00
	<b>Multilift containers delivery</b>	<b>55 000,00</b>
1	Multi lift container for "other" bulky waste	3 500,00
2	Multi lift container for car tires	3 500,00
3	Multi lift container for refrigeration equipment (refrigerators, freezers, ice machines, etc.)	3 500,00
4	Multi lift container for household appliances / small - irons, hair dryers, mixer, etc.	3 500,00
5	Multi lift container for household appliances / large - stoves, water heaters, washing machines, dishwashers, etc.	3 500,00
6	Multi lift container for construction waste - concrete, gravel, stone	
7	Multi lift container for waste - plaster and sand	
8	Multi lift container for waste - ceramics / tiles, bricks, etc./	
9	Multi lift container for waste - porcelain - sinks, bathtubs, terracotta, etc.	
10	Multi lift container for furniture other than wood	3 500,00
11	Multi lift container for wooden furniture	3 500,00
12	Multi lift container for sofas - sofas, mattresses, armchairs	3 500,00
13	Multi lift container for flat glass - window-frames, windows	3 000,00
14	Multi lift container for plastic - tubes, cans, tables, chairs	3 500,00
15	Multi lift container for waste paper from transport packaging	
16	Multi lift container for information and telecommunication equipment - computers, telephones, printers	3 500,00
17	Multi lift container for textiles - clothes	3 500,00
18	Multi lift container for textiles containing leather - bags, shoes, jackets	3 500,00
19	Multi lift container for textiles not containing metal - carpets, rugs, blankets, mattresses	3 500,00
20	Metal containers for fluorescent lamps	
21	Metal barrel for used oil - hydraulic and motor	
22	Reversible Multilift container	3 000,00
23	Reversible Multilift container	3 500,00
	<b>Multi lift truck delivery</b>	<b>105 000,00</b>

№	Activity	Price if the site would be used only for reusable waste
		[€]
		Total without VAT
1	Three-axle truck including a chassis with a cab and an installed multi-lift device for lifting containers	105 000,00
	<b>Equipment</b>	
1	Hand tools for repairing (drills, screwdrivers, electric welding machines, sewing machines, painting tools, etc.)	1 000,00
	<b>Total</b>	<b>329 834,10</b>

The capacity of the exemplary site is for 1000 t / year, half of which is for construction waste (home repairs only) and the other half is for reusable waste. The site serves a municipality with a population of 25,000 inhabitants.