



OPERATIONAL PROGRAMME
ENVIRONMENT 2007-2013

Association „KE&B - UV&P”

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EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND
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Project No TA-2011-KPOS-PP-78 „Technical assistance on waste management”
“Development of legal framework on bio-waste management and establishment of Quality Assurance System for Compost and National Organization of Quality Assurance for the Compost”

Implementing a Biowaste Strategy in Bulgaria Biowaste Study Tour Austria II

Biowaste & Sewage Sludge Composting Plant „Seiringer Umweltservice G.m.b.H.“ District of Scheibbs & Melk

➤ Demographic description of catchment areas /districts	<ul style="list-style-type: none"> ➤ 3 Districts Scheibbs (100%), Melk (100%) and Amstetten (50%) ➤ Scheibbs : 41.382 INH/ 13,848 Households ➤ Melk : 75,808 INH / 26,670 Households
➤ How has the separate collection system started ? ○ What pre-requisites must have been established (legal, man power, economics etc.)	<ul style="list-style-type: none"> ➤ First composting trials started in 1989 on my own initiative , ➤ Then the following measures where taken in the district: ➤ 1990 foundation of the municipal environment association Scheibbs, who organised the entire biowaste collection in the district ➤ 1991 construction of the first biowaste composting plant in Kaninghof
➤ Is there more than one composting plant that is served by the waste management association of the district(s)? ○ Number and size (treatment) of the single composting plants	YES; Scheibbs (1); Melk (0); Amstetten (3) 1) Scheibbs/Melk/Amstetten: Seiringer/Wieselburg: 20.000 t/yr 2) Melk: Pöchlarn: 0 t/yr 3) Amstetten: 3 further Composting Plants (300 t; 3000 t; 18,000 t [sewage sludge]; 1 Biogas Plant: 9,000 t [not in operation])
➤ Discription of the collection system	
○ Who is doing the biowaste collection (professional company contracted by the municipality or AWV; Farmer; AWV itself)?	<u>Melk:</u> a professional company contracted by the AWV <u>Amstetten:</u> a professional company contracted by the AWV
○ Kind of collection trucks?	Compacting trucks
○ Type and Size of collection bins	<u>Scheibbs:</u> 120 l, 240 l, 1.100 l <u>Melk:</u> 240 l, <u>Amstetten:</u> 120 l, 240 l, 1.100 l
○ Location of bio bins	Door to Door collection
○ Do you use liners?	
▪ For kitchen buckets	<u>Scheibbs:</u> <u>KItchen Buckets - 8 litre; + 52 compostable Bio-Plastic bags; sold for € 10,00</u>
▪ For biobins (120/240 l)	<u>Scheibbs:</u> <u>120 litre bins: 3.164 / 240 litre bins: 727</u>
○ Frequency of collection (number of collectionrours per year / week; different for Summer – Winter?),	<u>Scheibbs:</u> 38 <u>Melk:</u> 26 <u>Amstetten:</u> 26

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○ How is the park and garden waste collected from households?	<u>Shredder Service; Bio-Bin collection; Delivery to Recycling Centre & composting plant</u>
▪ bring system recycling centres?	<u>Scheibbs: 10 % of garden and biowaste of the total amount is delivered to the Recycling Centre</u> Melk: To a minor extent (6% of total garden waste) Amstetten: bring System to 35 ASZ
▪ together with bio bin?	<u>Scheibbs: partly</u> Melk: YES (240 l bins) Amstetten: partly
▪ special kerb side campaigns?	<u>Scheibbs: Shredder service</u> Melk: no special campaigns Amstetten: no special campaigns
○ Percentage of households with bio bin	Scheibbs: <u>30%</u> ; Melk: 30%; Amstetten: 46%
➤ Quantities of collected bio and green waste	
○ Total kg/INH-total * year	Scheibbs: 74 kg/INH; Melk: 135 kg/INH; Amstetten: 131 kg/INH
○ Biobin: kg/INH-total * year	Scheibbs: 74 kg/INH; Melk: 122 kg/INH; Amstetten: 44 kg/INH
○ Biobin: kg/INH-connected * year	Scheibbs: 255 kg/INH; Melk: 433 kg/INH; Amstetten: 95 kg/INH
○ Green waste: kg/INH-total * year	Scheibbs: 18 kg/INH; Melk: 13 kg/INH; Amstetten: 87 kg/INH
○ Daily /weekly throughput during the year	
➤ Organic waste in residual waste bin	Scheibbs: 21 kg/INH (17%); Melk: 10 kg/INH (9%) Amstetten: 22 kg/INH (15%)
➤ Costs of Biowaste management - GVU	
○ Collection (costs per emptying a bin)	Melk: 240 l bins = € 1,94 ... per emptying Scheibbs: 120 bins = € 1,79; 240 l bins = € 2,75; 1.100 l bins : € 8,66 <u>incl. VAT</u> ... per emptying
○ Costs per household	Emptying 120 l bin: € 1,36 x 38 tours = <u>61,94</u> + 10 % VAT. Per year Yearly charge = € <u>68,13</u> ; ; 240 l bin: € 87,12 per year
○ Cleaning of bins:	Since 2003 the cleaning of the bins is offered. Costs/cleaning: 1,40; 14 x per year = €, <u>21,56</u> incl. VAT. Cleaning: 120/240 l: - <u>1,556</u> bins and. <u>4</u> x 1.100 l bins
○ Total costs (collection and treatment)	
▪ Per ton collected biowaste	
▪ Per inhabitant	
○ Costs of shredding (per ton)	
○ Costs of composting (entire treatment at the composting plant (per ton)	€ 49,- / ton
➤ The Gate Fee for composting.	
○ Biowaste	in average : € 49,- / ton
○ Green waste	€ 25,- to € 49,- / ton
➤ Describe the waste charge system for the population	
○ Yearly biobin Charge per household	
▪ 120 l bin	Scheibbs: € 68,- Amstetten:
▪ 240 l bin	Scheibbs: € 105,-; Melk: € 50,- Amstetten:
○ Yearly residual waste / dust bin Charge per household	
▪ 120 l bin <u>incl. packaging waste, paper, bulky waste and allocate costs for BIO waste collection incl. shredderservice</u>	<u>Scheibbs: € 98,67 incl VAT:</u>

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<ul style="list-style-type: none"> ▪ 240l bin wo 	<p>Scheibbs: € 137,28 inkl. Melk: Amstetten:</p>
<ul style="list-style-type: none"> ○ or a general waste charge without differentiation between bio and dust bin ?? 	
Cooperation and contracts between communities, Waste association and compost producer	
➤ Who is the investor?	
<ul style="list-style-type: none"> ○ Bio-bins? 	GvU
<ul style="list-style-type: none"> ○ Collection trucks 	The contracted company
<ul style="list-style-type: none"> ○ Construction of the composting plant 	Seiringer Umweltservice
<ul style="list-style-type: none"> ○ Composting mashinery 	Seiringer Umweltservice
<ul style="list-style-type: none"> ○ Any subsidies common investments by the public institutions ???. 	
➤ PR and information campaigns	
<ul style="list-style-type: none"> ○ when the bio waste collection was introduced 	Waste Management Association
<ul style="list-style-type: none"> ○ home composting promotion 	Waste Management Association
<ul style="list-style-type: none"> ○ continuous information campaigning 	Waste Management Association
<ul style="list-style-type: none"> ○ Target groups 	Households
<ul style="list-style-type: none"> ○ Waste counselling 	Waste Management Association
<ul style="list-style-type: none"> ○ Kind of media used 	leaflets, brochures, internet, newsletter; http://www.noe-awv.at/
➤ Your experience about the quality of source materials – what are the conditions for high quality?)	A well designed Information campaign at the implementation phase of the biowaste collection system = most important
➤ Composting process	➔ see demonstration at visit !!!
<ul style="list-style-type: none"> ○ Description from delivery / tipping of materials to final compost 	
<ul style="list-style-type: none"> ○ Machinery --- demonstration 	
➤ Quality management tools	Software COMPOreport; COMPOTemp ...
➤ External Quality Assurance	YES (ARGE Compost & Biogas Austria); external inspection 1 to 2 times / year
➤ Compost quality	A+ since years (highest quality class in Austria for organic farming)
➤ Leachate Water management	Is aerated in a basin and nearly 100% recycled by irrigation of compost heaps
➤ Odour management	COMPOreport; COMPOAir
➤ Marketing and compost use	50%:agriculture: 50% landscaping and private gardening / substrates oversize fraction: is treated by a wind sifter and recycled to the composting process
➤ Employees at composting plant	
<ul style="list-style-type: none"> ○ Pre-treatment & Composting 	2 - 3
<ul style="list-style-type: none"> ○ marketing 	Included above!
➤ Problems and solutions	
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