

Implementation of separate collection across the EU

drivers, situations, economics

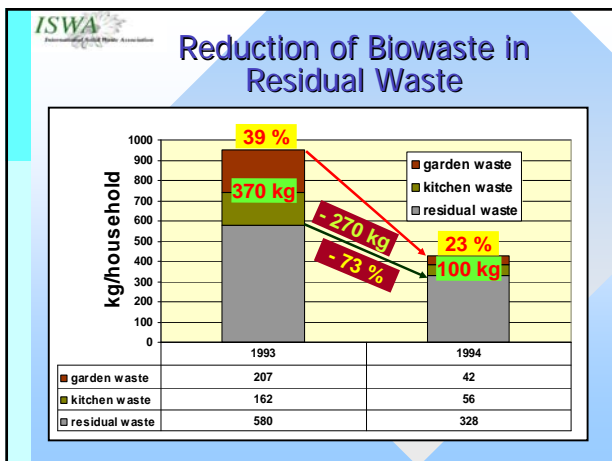
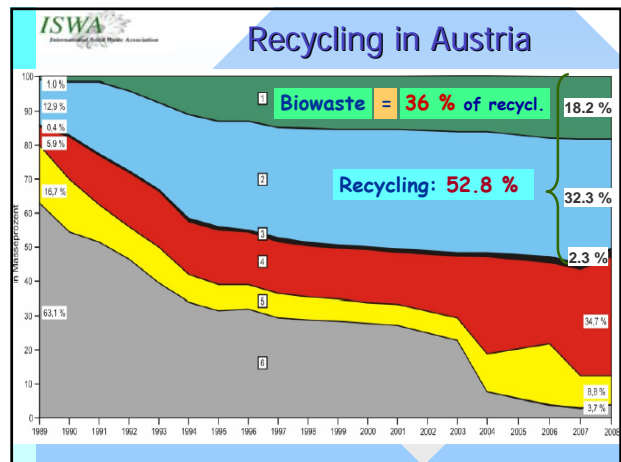
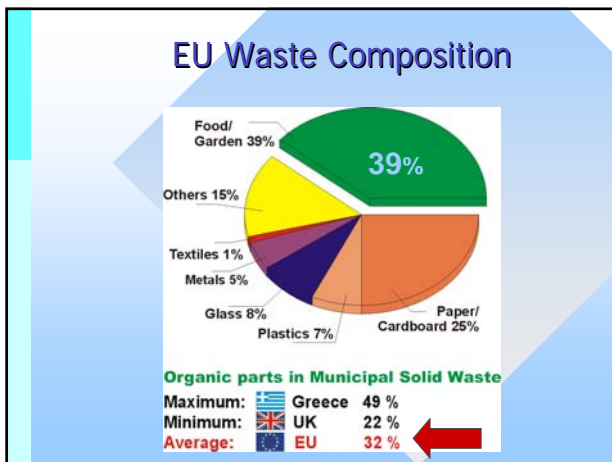
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Overview

- The pivotal role of biowaste
- What's going on in the EU
- Sep collection, optimisation and results
- Tools and approaches

2



That's not all

• Market waste:	0,2 Mt
• Catering waste:	0,15 Mt
• Dairy waste	0,12 Mt
• Former foodstuff	0,84 Mt
• Agro-Industry waste	0,30 Mt
• Plant and animal grease and fat waste	0,27 Mt
• Hides, skins from leather industry	0,12 Mt
• Wood waste	
- Bark	2,0 Mt
- Saw dust	1,60 Mt
- Others	0,62 Mt
Org. household waste / green waste	1,60 Mt
TOTAL	940 kg / INH 7,82 Mt

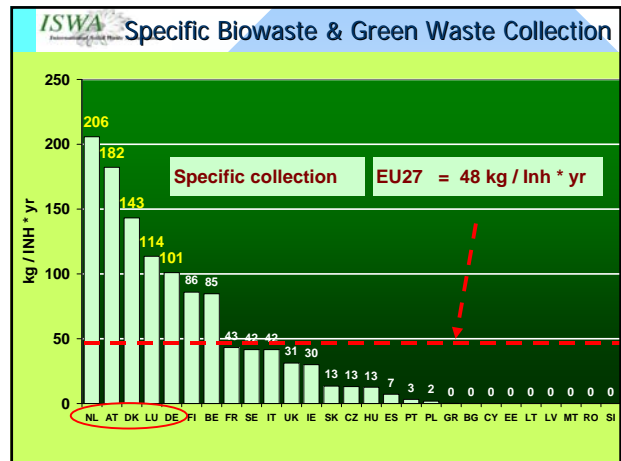
**The new CHALLENGE
The FOOD we waste**



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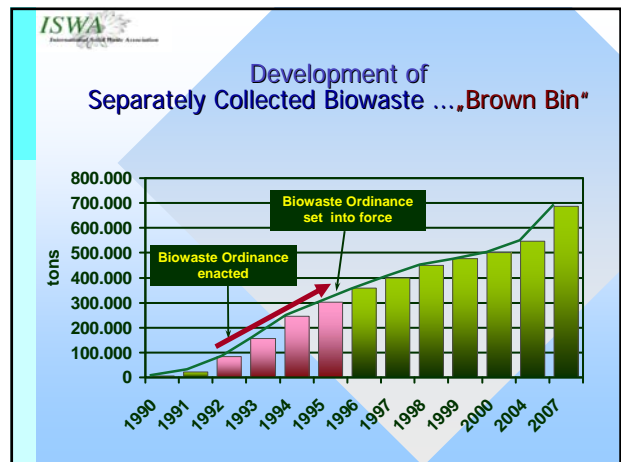
- In residual waste:** 10 to 20 kg/INH *yr original & partly consumed food per year
 → in AUSTRIA: **83.000 bis 166.000 t**
- From the RETAILER:** 14 – 50 kg/INH * yr Former Foodstuff
 → in AUSTRIA: **100.000 bis 400.000 t**

Luxury consumption ... Education ... The value of our food ... Solidarity: social markets




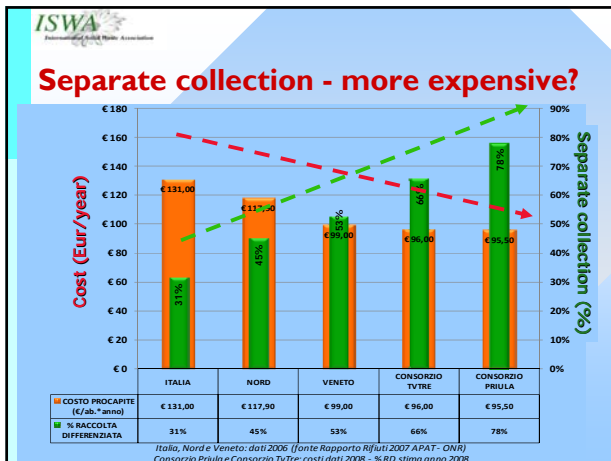
Development of source separation of biowaste in the EU

- OBLIGATIONS** for biowaste management
 - NL:** compulsory schemes for separate collection
 - Catalunya (Spain):** ley 6/95 → compulsory for all Municipalities with a pop. > 5000 (recently extended to cover all Municipalities)
 - SK (Act 24/04):** Garden Waste to be separately collected by 2006; biowaste by 2010
- TARGETS**
 - SWE: 35% composting target
 - ITA, UK: recycling targets acting as drivers



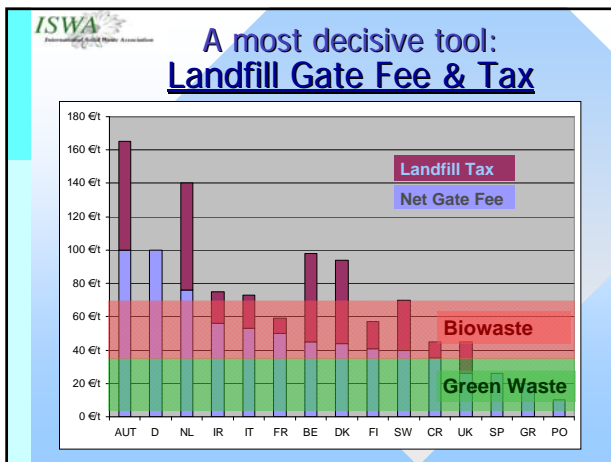
Does the Source Matter ???



Be wise - save your money !!!

Example from Austria	District I	District II	District III
S A V I N G S through HOUSEHOLD BIO-WASTE recycling [€]			
TOTAL	0,49 M€	0,12 M€	0,13 M€
Per TON	€116,-	€119,-	€53,-
PER HH with BIO-BIN	€41,80	€27,20	€15,70
S A V I N G S through BIO - & GREEN-WASTE recycling [€]			
TOTAL	1,35 M€	1,29 M€	1,34 M€
PER TON	€172,-	€203,-	€131,-
PER HOUSEHOLD	€38,-	€76,-	€56,-





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Biowaste – Paradigm for optimisation

Buckets

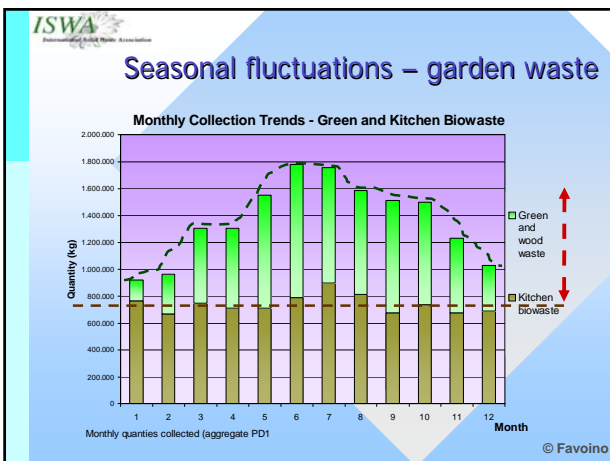
- 6.5 - 30 litres
- hand-picked – saves time
- collection time per pick-up point: 20" - 60"
- Cheaper transport
- Lower amount of waste to be managed (avoids *excess* deliveries of garden waste)
- Home composting is enhanced
- Reduction of costs !!

5

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TOOLS AND STRATEGIES TO CUT COSTS

Tool	Details
Reducing pick-up time	Hand pick-up of small receptacles much faster than mechanical loading
Reduced frequency for collection of "Residuals"	Effective systems to collect biowaste make its percentage in Residuals less than 15 %
Use of bulk lorries instead of packer trucks	Bulk density of food waste is much higher (0.7kg/dm ³) than garden waste



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Collection of garden waste

- ❑ at Civic Amenity sites / recycling Centres
- ❑ at the doorstep
 - less frequent than food waste
 - 80 - 110 l Paper bags for fine garden waste (grass clippings / leaves)
 - 2 – 4 collection campaigns at the kerbside for bulky garden waste [bush and tree cuttings]
 - On DEMAND with/without Shredder service
- ➔ higher participation in home composting programmes



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Summary remarks

- Separate collection of biowaste a PROVEN strategy
- Similar schemes deliver similar results everywhere – MAKE IT HAPPEN !
- intensive collection of food waste may deliver
 - High separate collection rates
 - high diversion of BMW
 - savings on cost of managing waste

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Thanks for your attention!

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