




Project **WaTra** „**W**aste management in **T**ransition economies“

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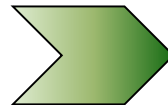
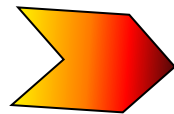
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Project **WaTra**: Waste management in **T**ransition economies



- Transition of WM system from the planned to market economy – experience of the last 25 years
- Reforming of WM in transition economies: challenges and possible solutions
- Case Study regions in Ukraine and Belarus





- Study: “Reforming of the waste management in post-socialistic economies: case studies Ukraine and Belarus”:
 - Comparison of WM in “western” economies (Austria, Italy, Denmark) and “transition” economies (Belarus, Ukraine, Russia, Kazakhstan, Georgia, Moldova)
 - Development and assessment of WM scenarios for Case Study regions of Ukraine and Belarus (Mogilev city and Derhatschi district)
- Roadmap for Case Study regions
- Stakeholder workshops in Ukraine and Belarus

Project consortium

Project Leader



- University of Natural Resources and Life Sciences, Vienna / Institute of Waste Management, Austria (BOKU)

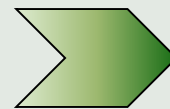
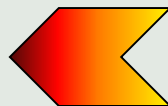


Project Partners

- TU Dresden / Institute of Waste Management and Circular Economy, Germany (TUD)
- National University of Urban Economy in Kharkiv, Ukraine (NUUE)
- Belarusian-Russian University, Belarus (BRU)



THANK YOU!



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Future WM-scenarios Derhachi

Scenario	Separate Collection (%)	Separate collected recyclables	Separate collected fractions	Treatment Technology	
Sc.0 - Sanitary LF+ MBT	0			MBT, landfill	
Sc 1a - Recycling _{low}	14		Glass Plastic	3 sorting points, MBT, landfill	
Sc 1b - Recycling _{dry/wet-bin}	28		Glass Plastic	MBT (incl. sorting dry/wet bin), landfill	
Sc 2a - Recycling _{high}	26		Glass Plastic	Paper Metal	3 sorting points, MBT, landfill
Sc 2b - Recycling _{high}	<u>36</u>		Glass Plastic Organics	Paper Metal	3 sorting points, composting , MBT, landfill
Sc 3a- RDF - Recycling _{low}	12		Glass Metal		3 sorting points, MBT, landfill
Sc 3b- RDF - Recycling _{low}	16		Glass Organics Metall		3 sorting points, composting , MBT, landfill

Future WM-scenarios Mogilev

Scenario	Scenario description	Separate collection efficiency	MSW infrastructure
00 No recycling, LF & MBT No san.	No illegal dumping. New sanitary landfill. Collection of WEEE & hazardous waste. After-sorting of recyclables, residual waste is treated in the aerobic MBT plant.	as in baseline	<ul style="list-style-type: none"> • Sorting plant • Aerobic MBT for residual waste • Sanitary landfill
Sc 1 Partly recycling (dry/wet bin)	Separate collection of recyclables in wet and dry bins, after-sorting at the existing sorting plant. Residual waste treated in the aerobic MBT.	plastic 70%; glass 71%; metal 81%; paper 85%	<ul style="list-style-type: none"> • Sorting plant • Aerobic MBT for wet bin • Landfill
Sc 2 Full recycling (separate collection + composting)	Maximizing recycling. All recyclables are collected separately. Composting of organic waste. Residual waste is treated in the MBT plant.	plastic - 65%; paper - 74%; glass - 69%; organics - 51%	<ul style="list-style-type: none"> • Sorting Plant • Aerobic MBT • Composting • Landfill
Sc 3 Full recycling + energy recovery	Maximizing: 1. recycling and 2. energy recovery. All recyclables are collected separately. Combustion of residual waste.	collection rates same as in scenario 2.	<ul style="list-style-type: none"> • Sorting plant • Incineration • Composting • Landfill
Sc 4 Full energy recovery	Maximizing energy recovery. Inert fractions & wet biowaste are collected separately. Biogas from biowaste in the anaerobic digestion plant.	glass - 69%; metal packaging - 60%; organics - 51%.	<ul style="list-style-type: none"> • Incineration • Anaerobic digestion • Landfill