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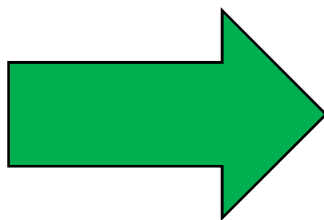
Stöd till Albanien i förhandlingar av miljökapitel 27

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Planning and Development of Integrated Waste Management Systems

The case of Romania

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Location:

Romania is situated in the South-East of Central Europe, in the lower Danube basin, bordering in East with the Black Sea

Area:

237,500 sq. km (biggest country in South-East of Europe)

Population:

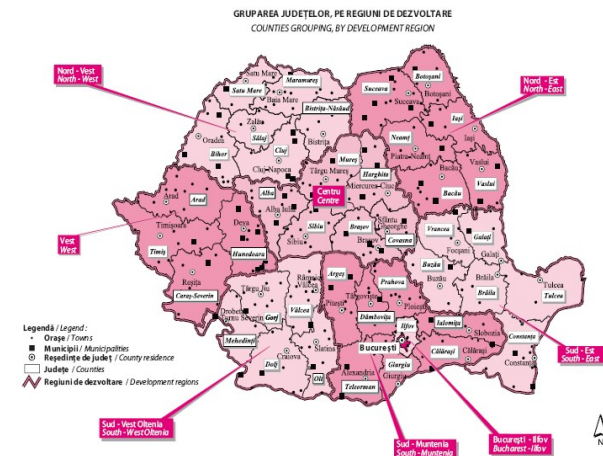
19,530,000 inhabitants, seventh most populous state in EU

Capital:

Bucharest – 1,920,000 inhabitants, sixth-largest city in EU

Romania is divided into **8 regions**, **41 counties**, including 423 towns and municipalities, 2,859 communes and **12,951 villages**

GDP per capita in 2019 – 11,430 Euro



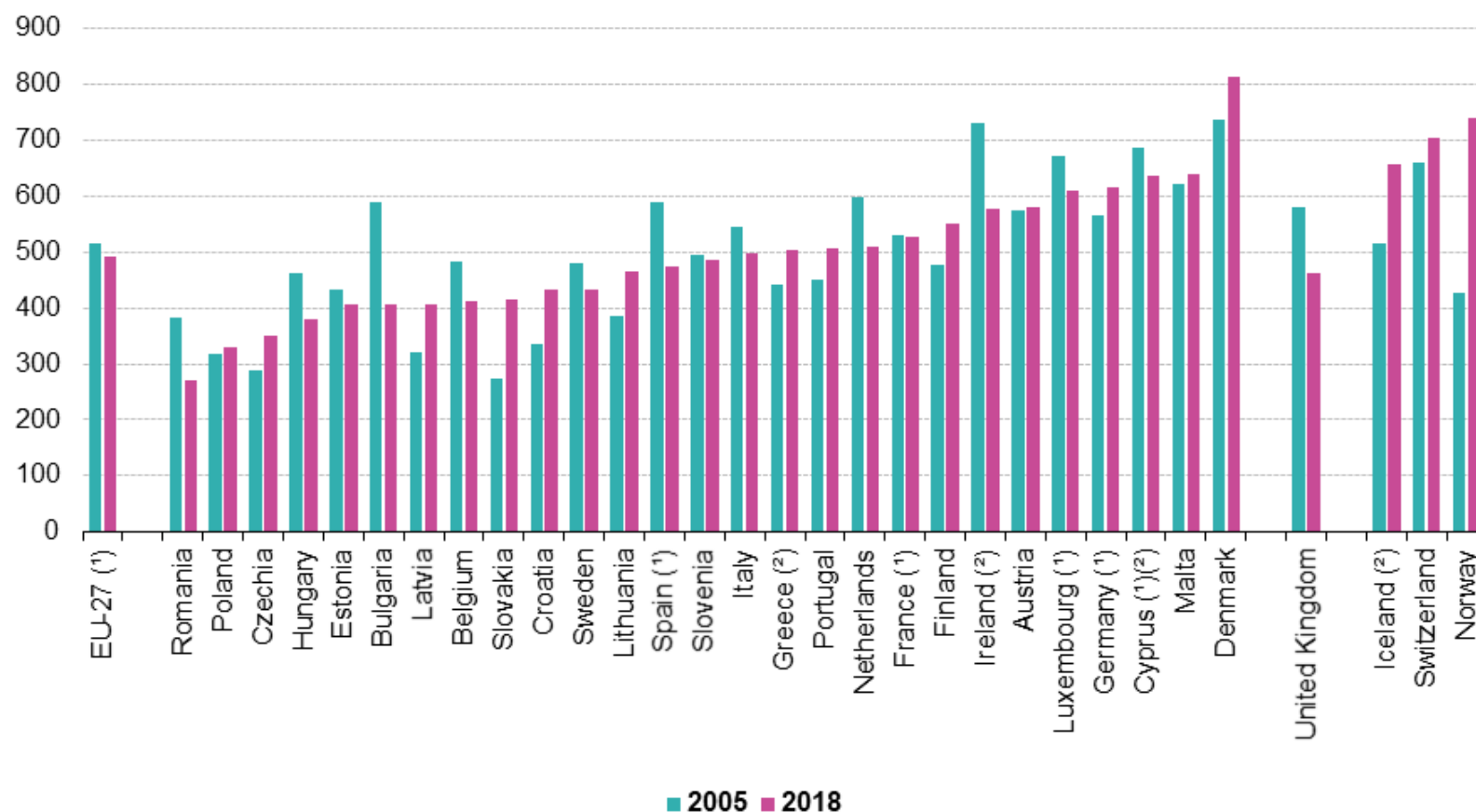
Since 2007 Romania is a member of UE.

Waste Management Systems for MSW are implemented through four financial programs: PHARE, ISPA, SOP Environment

- **PHARE** – small projects (50,000 inhabitants), 300,000 – 1,000,000 Euro (separate collection, composting, sorting)
- **ISPA** - Instrument for Structural Policies for pre-Accession (2000-2006)
 - four cities and three regions (100,000 inhabitants)
- **SOP, Axis 2** – 30 regions, 683 millions Euro (2007-2013)
- **Sustainable Development Operational Program (2021-2027)**
 - Development of water and wastewater infrastructure and the transition to a circular economy - 3.491 billion euros (2.967 billion euros European funds + 523 million euros State budget);

Municipal waste generated, 2005 and 2018

(kg per capita)



Note: Countries are ranked in increasing order by municipal waste generation in 2018.

(¹) Estimated.

(²) 2017 data instead of 2018.

Source: Eurostat (online data code: env_wasmun)

eurostat 

STATISTICS

- Poland and Hungary – started with PHARE projects in 1985 (Romania and Bulgaria in 2000)
- Slovenia – 2,06 million inhabitants, area 20.273 sq. km, GDP per capita 23,204 Euro (12 regions)
- Poland – 38,383 mil. inhabitants, area 312,679 sq. km, GDP per capita 13,934 Euro
- Romania – 19,2 mill. Inhabitants, area 237.500 sq. km, GDP per capita 11,430 Euro (41 regions)
- different affordability for population to pay for the services
- Belgium, GDP per capita 41,289 Euro (recycling rate – 54.6%);

Separate collection rate of household – first regulation in 1985 in Belgium and in Romania in 2002)

- Austria - recycling rate – 57.7% of which 32% is composting;
- GDP per capita – 44,545 Euro (affordability limit for total costs of solid waste management – over 250 Euro/to)

Is a problem of time and funds!

Population participation and affordability to pay for the services!

Exaggerated optimism can lead to failures!!!

PRESENT SITUATION

- **Municipal waste management remains a key challenge for Romania.**
- **Collection rate of MSW is 82.3% of the generated amount of waste.**
- **Waste composition (average): biodegradable 56%, paper 9.9%, plastic 9.9%, glass 4.1%, metals 2.3%, others 17.8%.**
- **The country's performance continues to be characterized by very low recycling of municipal waste (14 %, including 7 % material recycling and 7 % composting) and very high landfilling rates.**
- **The landfill rate reported by Romania to the European Commission was 70 %. However, the figure does not include the temporary storage prior to disposal, which, if added, would increase this rate further.**

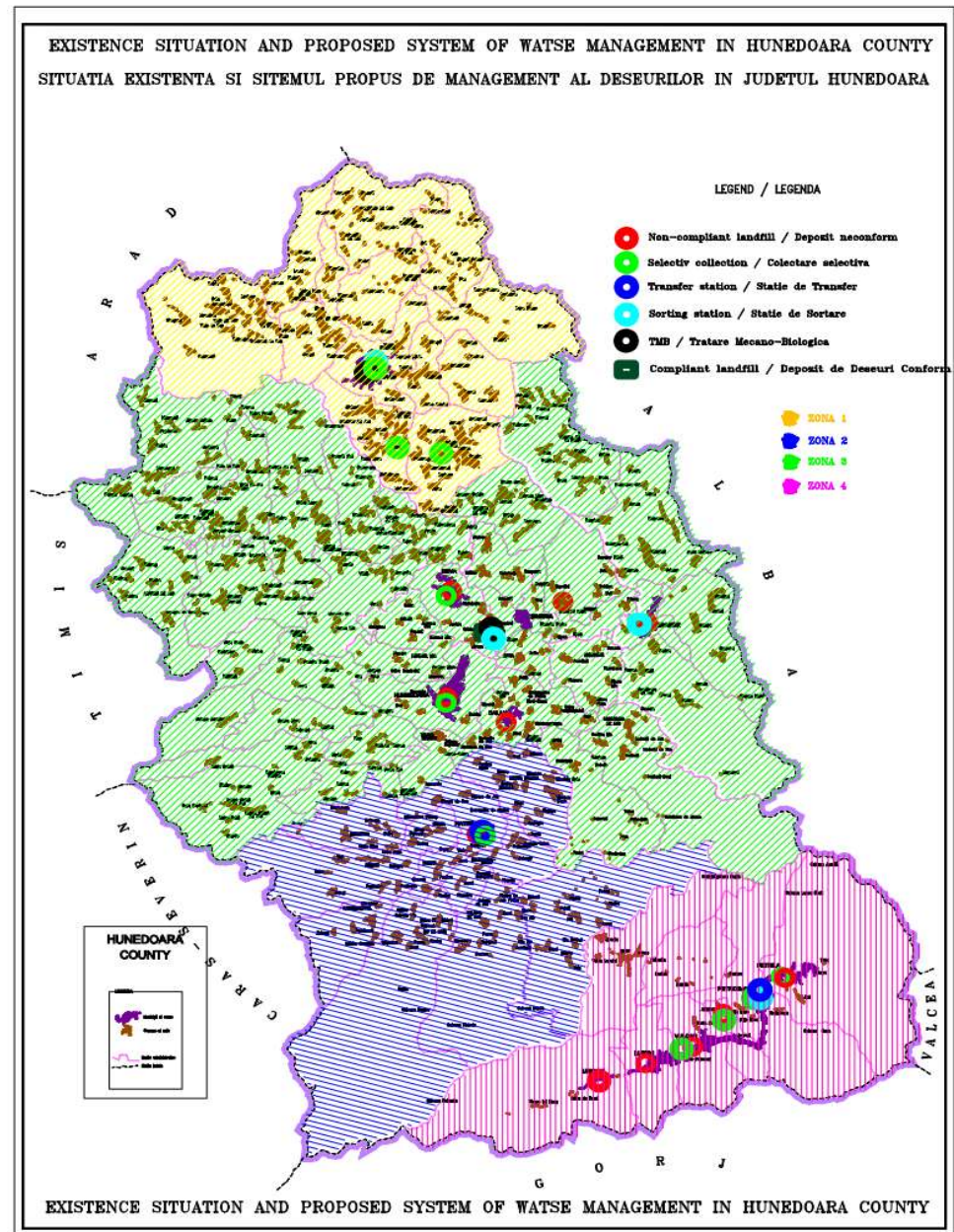


LEGENDA:

- Proiecte SMID realizate prin ISPA
- Proiecte SMID finalizate sau in curs de finalizare prin POS Mediu
- Proiecte SMID fazate (POS Mediu/POIM)
- Proiecte SMID a caror pregatirea fost derulata in perioada 2007-2013 dar nu a fost finalizata in timp pentru demararea implementarii
- Judete in care nu au fost implementate proiecte SMID

Basic design for IWM systems (municipal waste) – at regional level

- Separate collection of household on five fractions (paper, plastic, metals, glass, biodegradable, others)
- Transportation - direct and through transfer stations (over 40 km)
- One regional center for waste management (sorting, composting, landfilling)
- EPR schemes for packaging waste, WEEE, batteries, used oils, aso.



REGIONAL CENTER FOR MSW MANAGEMENT ORADEA - Sorting, composting, MBT, landfill



**Composting – 20,000 to/y; Sorting – 35,000 to/y;
MBT – 65,000 to/y; Landfill – 3.5 mill to**





The current situation in Romania is characterized by:

- a still not stabilized legal framework (e. g. a number of implementing documents still missing such as county waste management plans which are in the elaboration process);**
- uncompleted or non-functional projects to establish integrated waste management systems supporting activity at the top of the waste hierarchy;**
- a big number of substandard landfills not meeting the legal requirements of waste legislation (leachate treatment and landfill gas collection and recovery);**
- minimal infrastructure for separate collection of recycling from domestic sources, with all current infrastructure based around the ‘bring to site’ approach;**
- the absence of a clearinghouse overseeing EPR schemes for packaging, checking that recycling and recovery requirements are met and checking producer compliance (identifying free riders)**

WHY...and not only?

- **Lack of technical norms**, “translated technical norms” or incomplete technical norms for specific activities (collection and transportation, transfer stations, sorting, composting); lack of standards for compost;
- **Low awareness and participation** of citizens at separate collection of household (sorting plants efficiencies – 10-20%); legal requirements – minimum 75%;
- **Lack of solutions** that should provide proper waste tariffs for collection, treatment and disposal of waste, as well as the proper fee collection system, in order to ensure the financial sustainability of companies involved in SWM (lowest price);
- **Lack of solutions** to permanently provide a system which is resistant to political changes, within institutions in charge, and to assure permanent sustainability of the systems.

The key priority actions for Romania (2021-2027)

- **To ensure the closure and rehabilitation of substandard landfills;**
- **To improve and extend separate collection of waste, including for bio-waste.**
 - **Establish minimum service standards for separate collection (e.g. frequency of collections, types of containers etc.) in order to ensure high capture rates of recyclable waste;**
 - **Use the economic instruments, e.g. pay-as-you-throw, and set mandatory recycling targets for municipalities, accompanied by penalties for noncompliance (e.g. fines).**
- **To develop and run implementation programs for municipalities to help support efforts to organize separate collection and improve recycling performance.**
- **To improve the functioning of Extended Producer Responsibility (EPR) systems, in line with the general minimum requirements on EPR .**

According to the National Waste Management Plan, approved in 2017 (Turning waste into a resource)

National targets for the period 2020-2025 are:

- (i) fully implementing EU waste legislation, which includes the waste hierarchy, the need to ensure separate collection of waste, the landfill diversion targets etc.;**
- (ii) reducing waste generation and waste generation per capita in absolute terms; and**
- (iii) limiting energy recovery to non-recyclable materials and phasing out landfilling of recyclable or recoverable waste.**

- **The Plan is focuses on the roll-out of separate collection, including for biodegradable waste, and plans for infrastructure to treat it via composting or anaerobic digestion.**
- **It also proposes to significantly extend the network of mechanical-biological treatment plants so that there will be one per county (which sounds excessive).**
- **The plants should be convertible so that they can also treat separately collected waste once the production of residual waste decreases.**
- **In addition, there is a plan to build the first dedicated municipal Waste-to-Energy plant with energy recovery in Bucharest as a core part of an integrated waste management project for the capital and possibly for Ilfov county.**

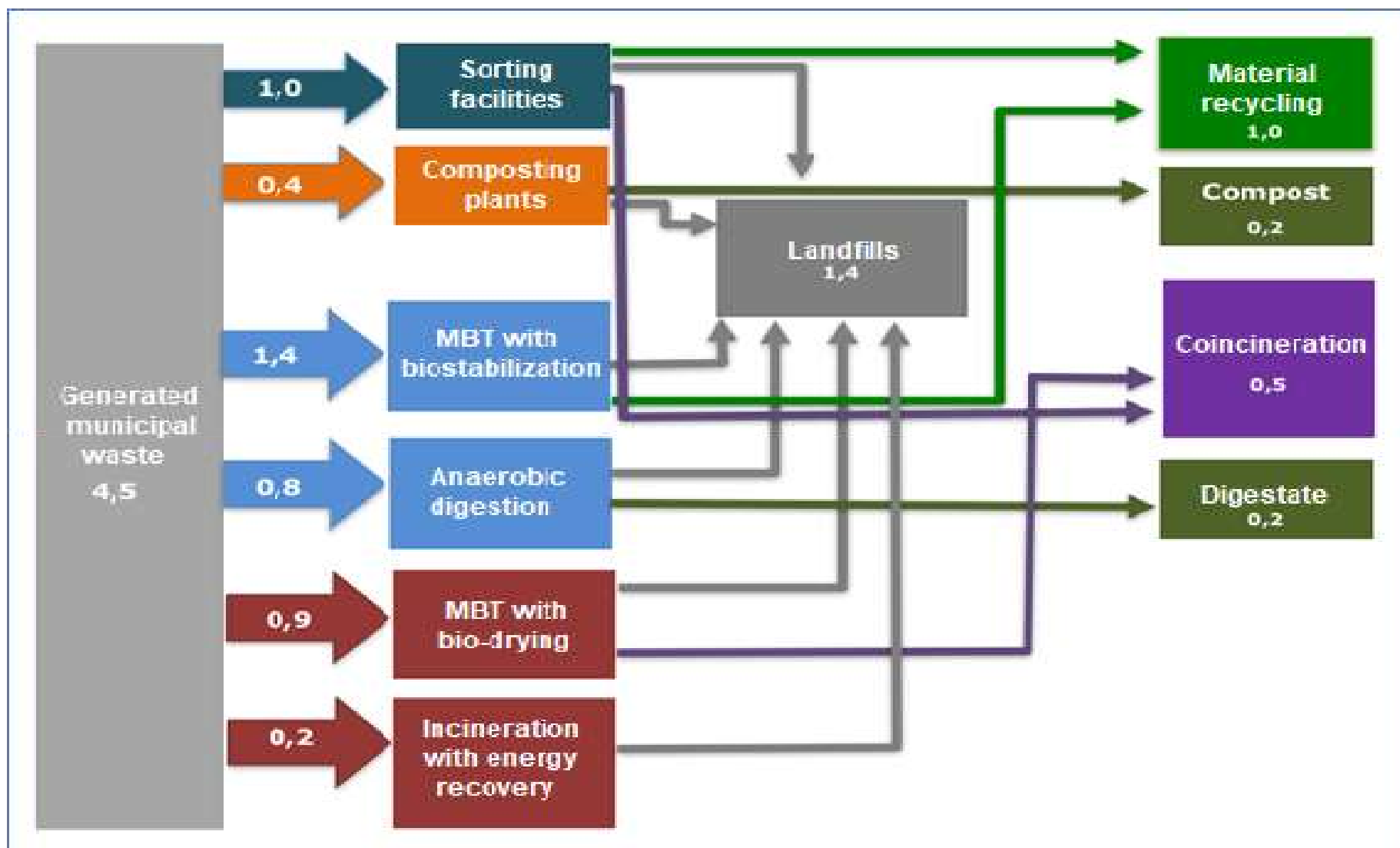
The plan also proposes a set of policy instruments to help deliver on its main objectives.

These instruments include:

- EPR Scheme on Packaging Waste;**
- Landfill tax (now is 17 euro/t) and penalties;**
- Waste fee scheme and Pay-as-you-throw (PAYT);**
- Eco-tax for shopping bags;**
- Deposit-refund scheme for certain packaging waste;**
- Restrictions/bans on disposal of certain types of waste in landfills.**

While the objectives are clear and the list of measures is set out, it is all down to effective and urgent implementation and enforcement of these instruments.

Municipal Solid Waste Management in 2025



INVESTMENTS COSTS FOR 2020-2025 (million Euro)

TOTAL	1,156,129
COMPOSTING PLANTS	3,940
SORTING PLANTS	4,930
ANAEROBIC DIGESTION PLANTS	278,250
MBT PLANTS (BIO-DRYING)	226,636
W-T-E	126,324
OTHERS	315,442
TOTAL	1,156,129

At national level, the maximum tariff per ton, excluding VAT, in real terms in **2025, determined on average, will be 519.35 lei/to, the equivalent of **117.50 Euro/to** (2007 – 70 Euro/to)**

RECOMANDATIONS (BASED ON ROMANIAN EXPERIENCE)

- **Positioning waste management** as an area requiring urgent action, and call for policy and decision makers to take such action;
- Expand the concept of “**sanitation**” to become “**integrated waste management**”, including **waste prevention and minimization** and also, aspects of resource efficiency and sustainable consumption and production;
 - **Appropriate Legislative framework** (laws, strategies, plans, guidelines, standards, a.s.o.)
 - **Capacity building to raise expertise** (to central and local level)
 - **Waste management planning (statistics!)**
 - **Efficient measures for financing**, e.g. EPR, fees
 - **Awareness rising to motivate consumers** is the only solution to increase population participation
- **Identified policies and governance strategies** for sound waste management, considering the varying levels of economic and human development between countries, their needs and the practices in use;
- **Providing a critical overview** of what instruments have been deployed towards which goals have worked and under which circumstances.

ISWA - Guidelines for successful planning



“Technologies may be donor/funded but they will be operated, maintained, paid and supported by local resources, markets and citizens.”

ROMANIAN EXPERIENCE - GOVERNANCE IN FIVE TASKS

- **Improve the waste legislation**
- **Develop and promote guidelines and technical norms for waste management**
- **Improving the quality regarding of waste generation and management data**
- **Monitoring the implementation of the National Waste Management Plan (NWMP) and National Waste Prevention Programme (NWPP)**
- **Strengthen the capacity of the environmental and local authorities**

List of risks:

- 1. Political stability and willingness;**
- 2. Legislation;**
- 3. Institutional;**
- 4. Infrastructure;**
- 5. Financial risk;**
- 5. Population affordability to pay for the services.**

**THANK YOU FOR
YOUR ATTENTION!**

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PER VEMENDJEN!**

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