Economic Aspects of Municipal Waste Management in Latvia

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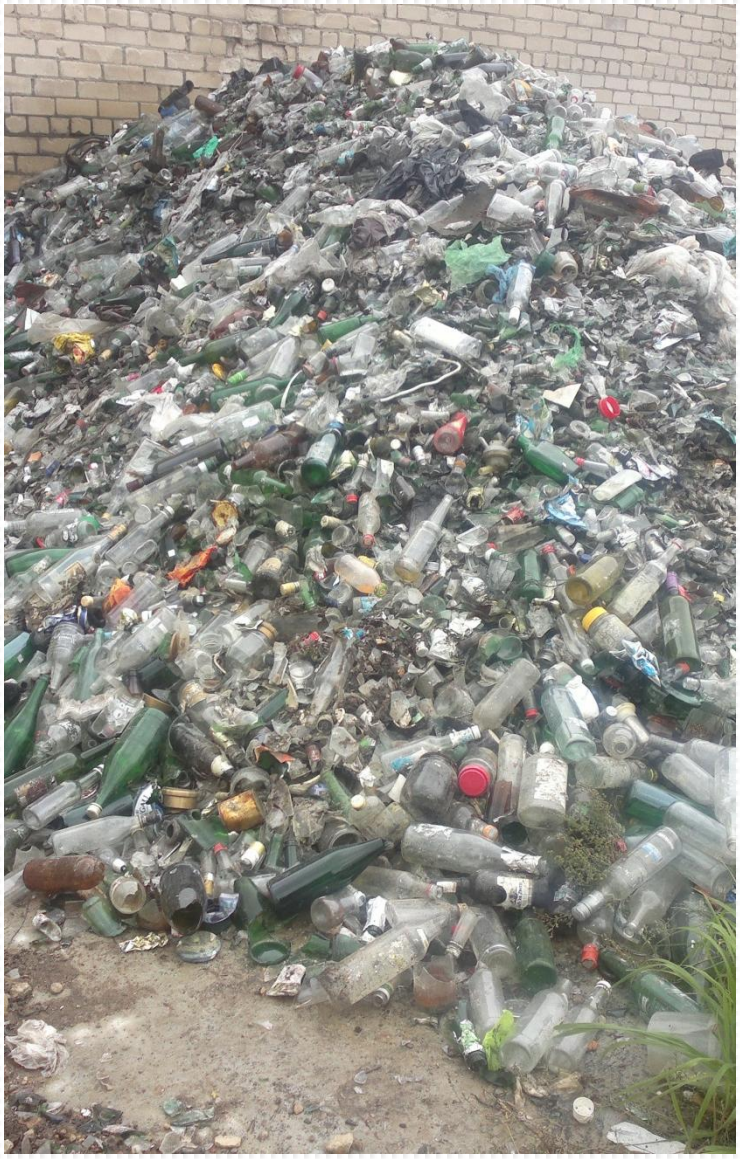
1. AUDIT SCOPE (1)

- **Audit title:** Municipal Waste Management Compliance with Planned Objectives and Legal Requirements
- **Objective :**
  - Are only reasonable and economically justified expenses included in the payment for waste management?
  - Has separate waste collection been ensured by authorities?
- **Audited period:** 01 January 2012 to 30 June 2014
- **Audited bodies:**
  - Ministry of Environmental Protection and Regional Development
  - eight local governments (included in the audit sample)
  - three municipal waste disposal companies/managers of landfill sites (included in the audit sample)



1. AUDIT SCOPE (2)

- All local governments of Latvia (119) were surveyed and data collected regarding waste management prices in their administrative territories. Answers to survey questions were provided by 97% of surveyed local governments
- 12 audit reports were prepared as a result of the audit, as well as informative report (February 2015)
- The following areas were not audited:
  - actions taken by the ministry in implementation of the State Plan for the Waste Management as it was approved in 2013 and the first report on the course of performance of the plan was planned to be prepared only by 01.07.2016.;
  - management of packaging as a separate type of waste, since mandatory deposit system for recyclable and single use packaging of drinks was planned to be implemented only as of 01.01.2015. (*still not implemented*);
  - actions of the regulator of public services in approval of tariff rates for disposal of municipal waste in landfill sites.

2. WASTE MANAGEMENT IN LATVIA – WHO IS WHO? (1)

Ministry of Environmental Protection and Regional Development -

- drafts waste management policies and legal acts, supervises the sector

Local government -

- organises municipal waste management in its administrative territory
- selects, signs and monitors implementation of the contract with the *Waste Manager*
- approves the price (tariff) for municipal waste management, on the basis of estimates submitted by the *Waste Manager*

Waste Manager -

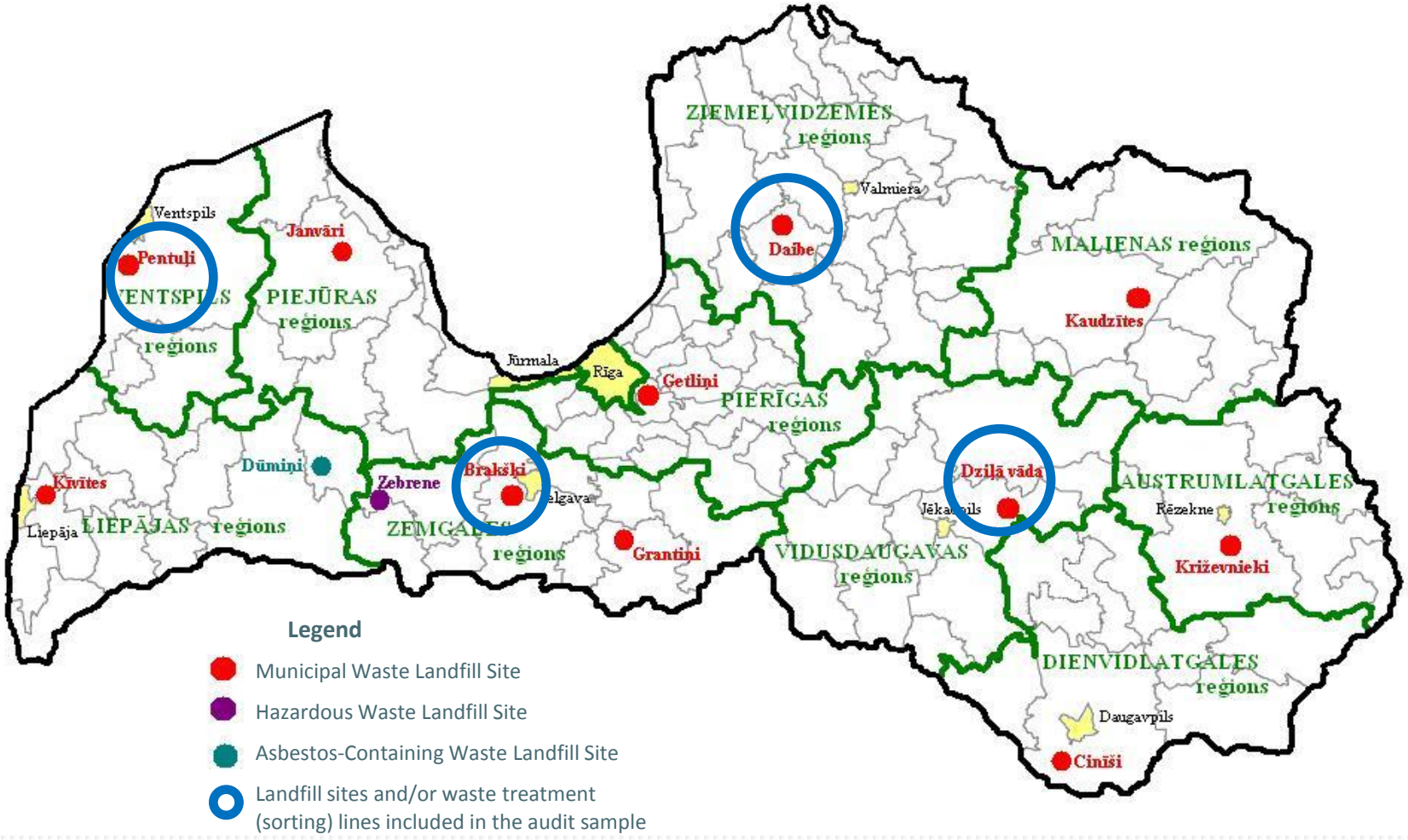
- signs contracts with waste producers (including households), collects and transports waste and charges waste producers

Landfill Site Manager -

- receives waste from Waste Managers, prepares waste for disposal and disposes waste in landfill sites

2. WASTE MANAGEMENT IN LATVIA – WHO IS WHO? (2)

WASTE MANAGEMENT REGIONS AND LANDFILL SITES IN LATVIA


ZIEMEĻVIDZEMES reģions
Valmiera
Daibe
MALIENAS reģions
Kaudzītes
Ventspils
Pentuļi
Janvāri
PIEJŪRAS reģions
Jūrmala
Rīga
Getliņi
PIERĪGAS reģions
Dūmiņi
Zebrene
Brakšļi
Jelgava
Dziļā vāda
Jēkabpils
AUSTRUMLATGALES reģions
Rēzekne
Krāslava
Kīvītes
Liepāja
LIEPĀJAS reģions
ZEMGAĻU reģions
Grantiņi
VIDUSDAUGAVAS reģions
Krāslava
Krāslava
Krāslava

3. WASTE MANAGEMENT FEE IN LATVIA

Payment set to the waste producers

• for waste management (m^3)

Payment set by the waste manager

• for waste collection and transportation (m^3)

Economical factor

Tariff rate of the landfill site

• for disposal of waste (in tons)

Economical factor

Natural resource tax

• for disposal of waste (in tons)

Environmental factor

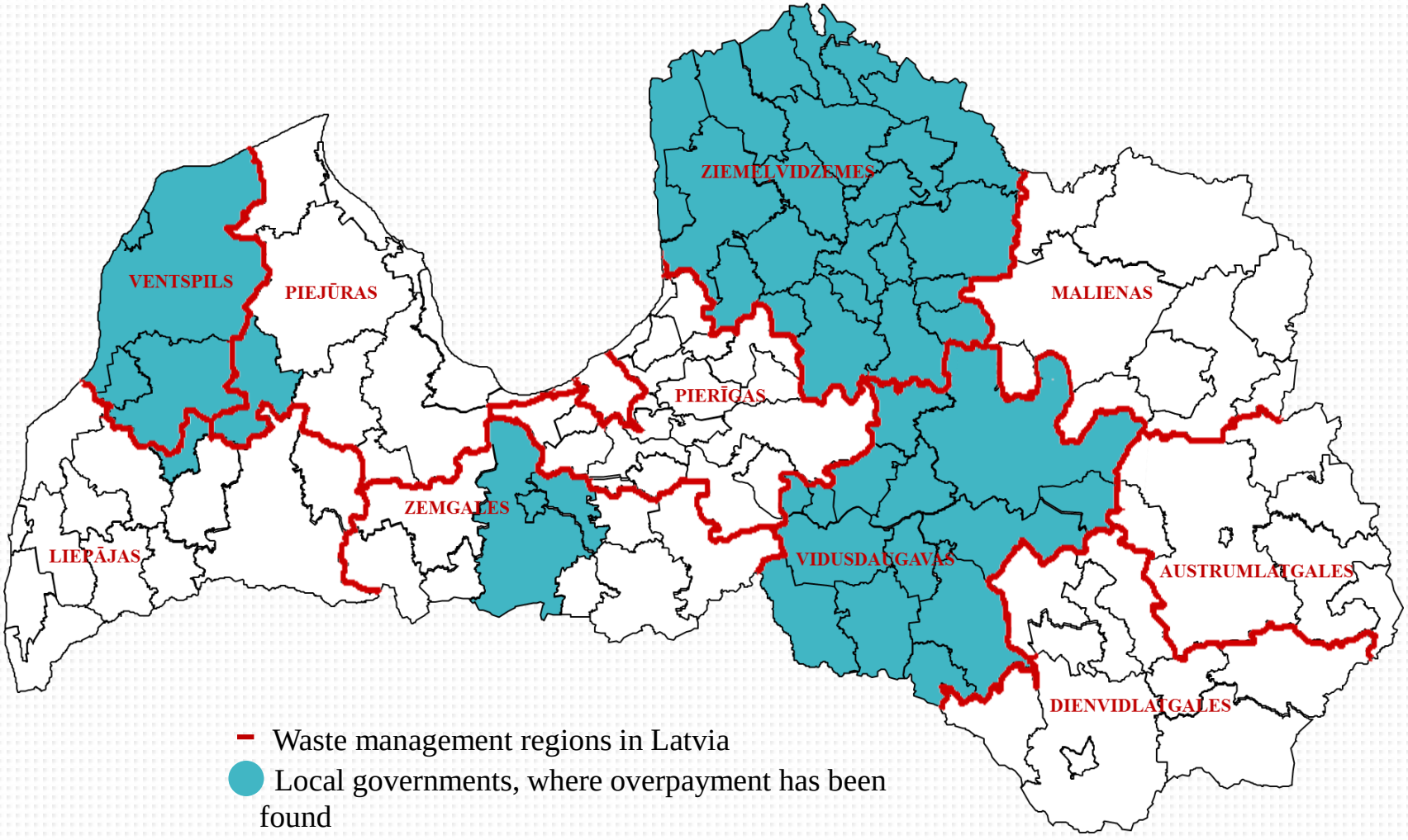
BASIC WASTE MANAGEMENT PRINCIPLES

Polluter pays principle - those who produce pollution should bear the costs of managing it to prevent damage to human health or the environment

Pay as you throw (PAYT) principle - usage-pricing model for disposing of municipal solid waste. Users are charged a rate based on how much waste they present for collection to the municipality or local authority

4. Main results of the Audit and methodology

Total of 3,6 million euro were overpaid in 44 local governments



4.1. «ARTIFICIAL INCREASE» OF WEIGHT OF THE WASTE COLLECTED FROM THE WASTE PRODUCERS (1)

2 076 380 EURO WERE OVERPAID IN 25 LOCAL GOVERNMENTS

- *Waste Manager* issues an invoice to waste producers (including households) IN CUBIC METERS
- while *Landfill Sites* receive, weigh and accept waste TONS and their tariffs and Natural resource tax are calculated as euro per accepted tons

therefore

In order to issue a final invoice to waste producer, **the *Waste Manager* converts the amount of waste from tons to cubic meters**

4.1. «ARTIFICIAL INCREASE» OF WEIGHT OF THE WASTE COLLECTED FROM THE WASTE PRODUCERS (2)

2 076 380 EURO WERE OVERPAID IN 25 LOCAL GOVERNMENTS

The final price to be paid by waste producers (incl. households) depends on the calculation (conversion) methodology and MANIPULATION with the conversion methodology is possible

There are two approaches to convert tons into cubic meters:

- to apply a «conversion factor» determined by *Waste Manager* as a result of continuous measurements, which reflects the actual weight of 1 m^3 of waste in a particular territory
- to assume that 1 m^3 of waste corresponds to 200 kg («conversion factor» equals to 0,2); in ALL sampled cases, said assumption turned out to be «unfavourable» to waste producers (incl. households), since the actual «conversion factor» varied from 0,11 to 0,15 –

thus the actual collected waste was lighter

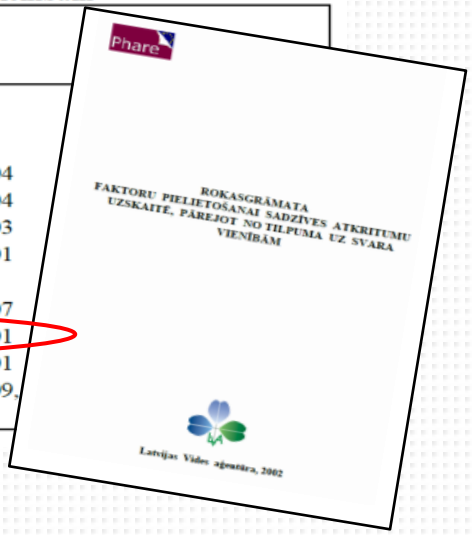
4.1. «ARTIFICIAL INCREASE» OF WEIGHT OF THE WASTE COLLECTED FROM THE WASTE PRODUCERS (3)

Waste volume – mass **conversion factors** are summarised in *the Manual for Application of Factors in Accounting of Municipal Waste by Conversion from Volume to Weight Units* developed in 2002, where a factor of 0,2 is set for mixed non-pressed municipal waste, thus assuming that one cubic meter of waste corresponds to 200 kilograms of waste

6.tabula

Atkritumu pārrēķina faktori no tilpuma uz svara mērvienībām

N.p.k.	Atkritumu veids	Atbilstošie atkritumu klasifikācijas kodi				
		gabali	tonnas	m^3	tonnas	
1.	**Sadzīves atkritumi**					
1.1.	Aerosolu iepakojums	-	-	1	**0,1**	150104
1.2.	Alumīnija iepakojums (follija)	-	-	1	**0,2**	150104
1.3.	Ielu tīrīšanas atkritumi	-	-	1	**0,2**	200303
1.4.	Jaukti atkritumi, kas satur rūpnieciskos atkritumus (presēti)	-	-	1	**0,35**	200301
1.5.	Lielgabarīta atkritumi (jaukti)	-	-	1	**0,7**	200307
1.6.	Sadzīves atkritumi (jaukti, nepresēti)	-	-	1	**0,20**	200301
1.7.	Sadzīves atkritumi (jaukti, presēti)	-	-	1	**0,35**	200301
1.8.	Tekstila atkritumi	-	-	1	**0,3**	040209



4.1. «ARTIFICIAL INCREASE» OF WEIGHT OF THE WASTE COLLECTED FROM THE WASTE PRODUCERS (4)

No.	Local government	Factor applied by the waste manager		The actual factor calculated by the auditors and based on the data of landfill sites		Difference between the factor applied by the waste manager and calculated by the auditors (kilograms per cubic meter)
		tons per cubic meter	kilograms per cubic meter	tons per cubic meter	kilograms per cubic meter	
1	2	3	4 = 3 x 1000	5	6= 5 x 1000	7 = 4 - 6
1.	Jelgavas city, Jelgavas and Ozolnieku municipality	0,20	200	0,13	130	70
2.	Kuldīgas municipality	0,18; 0,13; 0,12; 0,15	from 120 to 180	0,15	150	from -30 to 30
3.	Aizkraukles municipality	0,14	140	0,11	110	30
4.	Neretas municipality	0,14	140	0,11	110	30
5.	Lubānas municipality	0,14; 0,16	from 140 to 160	0,14	140	from 0 to 20
6.	Preiļu municipality	0,133	133	0,11	110	23
7.	Vārkavas municipality	0,133	133	0,11	110	23
8.	Ventspils city, Ventspils and Alsungas municipality	0,18	180	0,13	130	50
9.	Local governments of the Ziemeļvidzeme Waste Management Region	0,20	200	0,12	120	80
Average actual factor			-	0,12	-	-

4.2. WASTE PRODUCERS PAY NATURAL RESOURCE TAX FOR THE WASTE ACTUALLY NOT DISPOSED IN THE LANDFILL

About 1.6 million euro were overpaid due to illegal collection of the natural resource tax for the waste, which was not actually disposed in landfill sites; instead – it was recycled as a result of installation of waste treatment (sorting) lines (according to the national law, the natural resource tax should be imposed ONLY on the waste disposed).

As a result of installation of waste sorting lines the amount of waste disposed in the landfill sites decreased, but the tariff rate of the landfill site* and natural resources tax was charged for the previous amounts of waste disposed thus waste producers of 44 local governments, incl. inhabitants, have overpaid total of 1 570 961 euro for the two and a half years period

Waste producers are payng to the waste manager:

- for waste collection and transportation;
- for disposal of waste at the landfill site;
- natural resources tax on waste disposal.

Amounts of waste to be disposed decrease by introduction of waste sorting line.

Expenses of waste manager for disposal of waste also decrease, as the sorted waste is not taken to the landfill site, but sold for recycling.

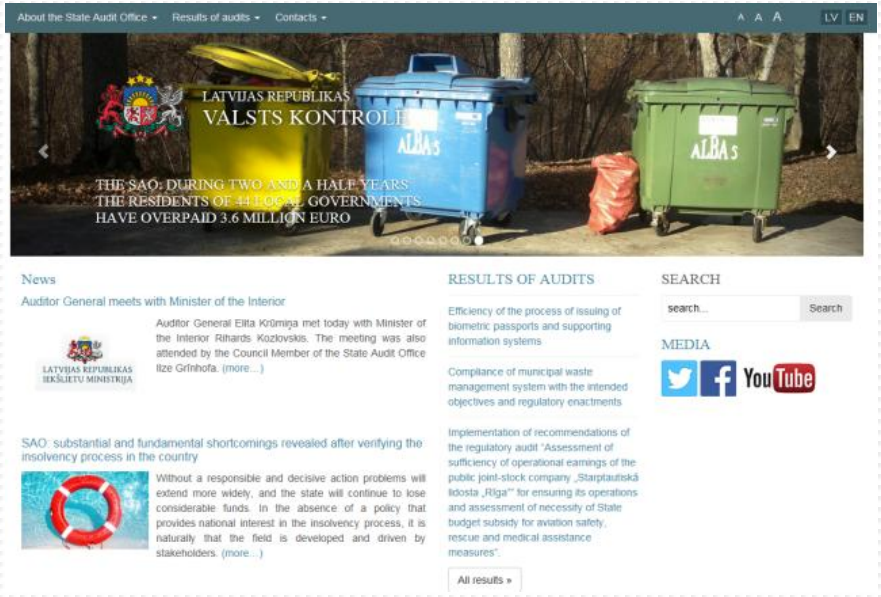
The payment charged from the waste producers, including inhabitants, for disposal of waste in the landfill site* and natural resources tax for disposal of waste creates an additional revenue of the waste manager, which might have been used for covering cost of installation of sorting line and its operational costs.

4.3. UNJUSTIFIED AMOUNT OF SUBSIDY FROM THE LOCAL GOVERNMENT FOR MAINTENANCE OF SEPARATE WASTE COLLECTION SITES

The company, which is owned by the local governments, has requested and received larger amount of subsidies from the local governments for maintenance of separate waste collection sites than necessary, as the estimates used for requesting of subsidies did not take into account revenues gained by the company from selling of waste collected at the sites.

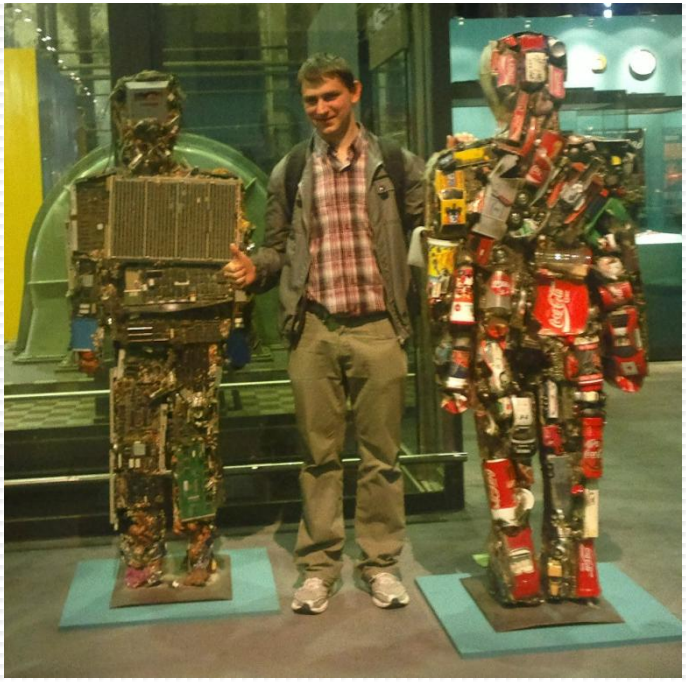
5. IMPACT OF AUDIT

- Amendments of Waste Management Law have been drafted (clarification of the calculation process for waste management fee);
- Waste management fee has been revised;
- Investigation process for overpayment of waste management fee.



6. LESSONS LEARNED

- Limited mandate to audit municipalities (in several countries)
- Limited assessment can be made when there are newly approved waste management plans (no objectives met yet)
- No channels for usage of RDF (fuel produced from solid waste) as a result of waste treatment (sorting) – sustainability issue
- Comparison of waste management fees in different municipalities – carefully, because varied package of services are covered under waste management fees
- Considering to examine all components of waste management fee during the audit to give the overall opinion of the approved fee
- Separate waste collection – really free of charge or included in the waste management fee?



Thank you for your attention!

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