

The current situation in waste management - Slovak Republic

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Fundamental waste management legislation in the Slovak Republic

- Act of the National Council of SR No 223/2001 Coll. on waste and on amendments of certain acts as amended by subsequent regulations
- Act of the National Council of SR No 17/2004 Coll. on charges for waste landfilling in the wording of the Act No 587/2004 Coll. and Act No 515/2008 Coll.
- Act of the National Council of SR No. 119/2010 Coll. on packages
- Decree of MoE SR No 283/2001 Coll. on implementation of certain provisions of the Act on wastes as amended by subsequent regulations
- Decree of MoE SR No 284/2001 Coll. on establishing the Waste Catalogue as amended by subsequent regulations

- Decree of the MoE No 315/2010 Coll. on electrical and electronic equipments (EEE) and waste electrical and electronic equipment management (WEEE)
- Decree of the MoE No 125/2004 Coll. setting the details of end of life vehicles (ELV) processing and some requirements for vehicle production in the wording of Decree of the MoE No 227/2007 Coll. and Decree of the MoE No 203/2010 Coll.
- Decree of MoE SR No 126/2004 Coll. on authorization, on issuing of expert opinions in issues of wastes, on authorization of persons authorized to issue expert opinions and on verifying of professional competence of such persons in the wording of the Decree of MoE SR No 209/2005 Coll.
- Decree of the MoE SR No 127/2004 Coll. on charges calculation for contributions to the Recycling Fund, on the list of products, materials and equipments for which contribution to the Recycling Fund must be paid, and on the details concerning application for provision of the means from the Recycling Fund in the wording of the Decree of the MoE SR No 359/2005 Coll.

Waste management hierarchy

- prevention of waste generation and waste reduction
- waste recovery by recycling, reuse or an application of other processes allowing raw materials
- waste utilization as an energy source
- waste disposal methods that not endangering human health and are environmentally friendly

Data for the evaluation of waste management in Slovakia

- data on waste generation and waste handling - Regional Waste Information System (RWIS), administered by the SEA
- data on municipal waste - Statistical Office of the Slovak Republic
- data on selected products and wastes put on the market, collected and recovered - IS Electro and IS Packaging, SEA is an administrator
- data on end of life vehicles - IS EZAP, operated by the Automobile Industry Association of Slovak Republic

Balance of waste generation in the Slovak Republic

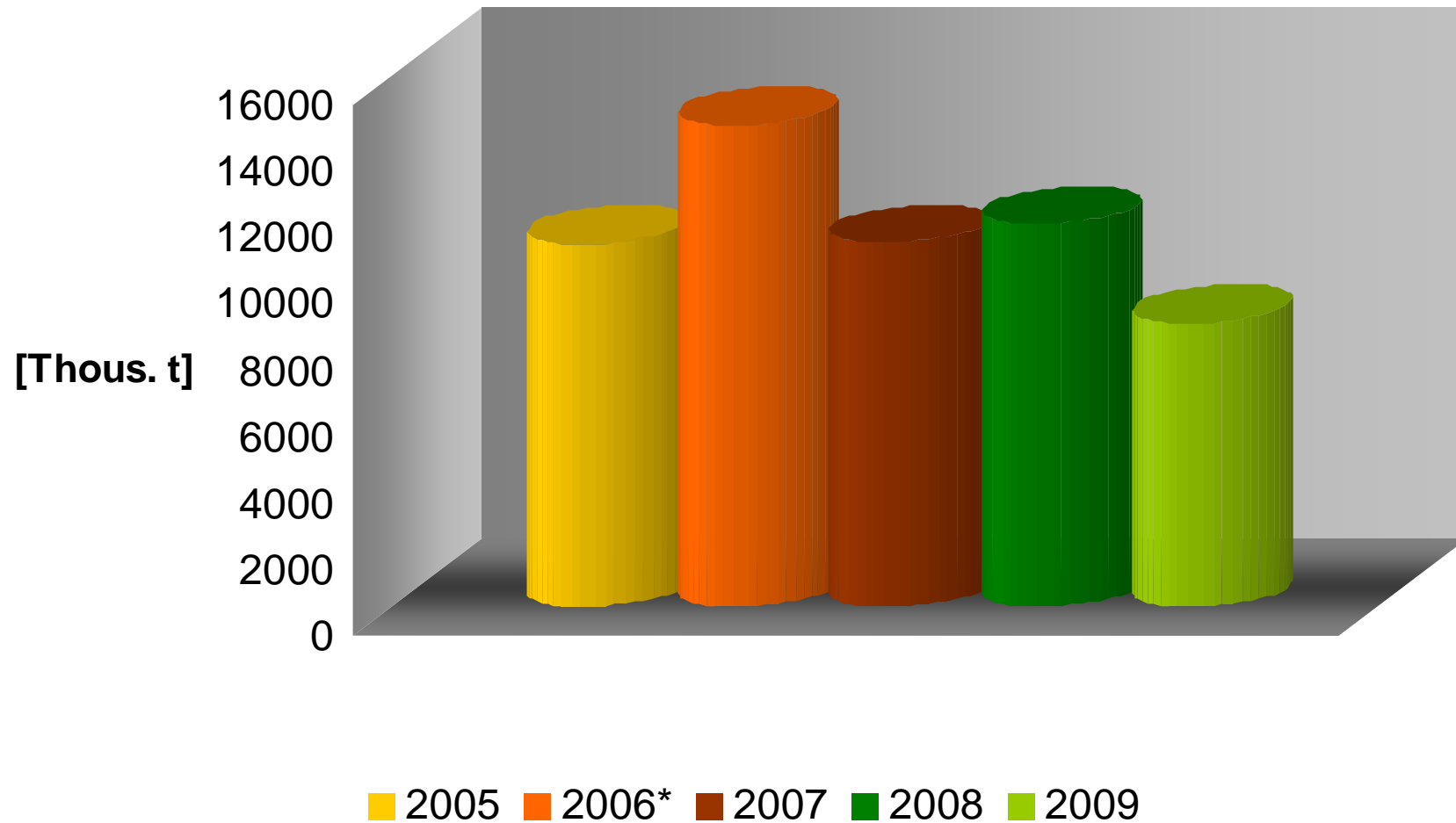
Generation of waste put on the market in the years 2005 – 2009 (tonnes)

Year	2005	2006*	2007	2008	2 009
Municipal waste	1 558 263	1 623 306	1 668 648	1 790 691	1 745 494
Non-hazardous waste (except municipal waste)	8 809 927	12 349 065	8 740 682	9 177 459	6 293 035
Hazardous waste (except municipal waste)	561 247	535 068	525 166	523 928	484 678
Total	10 929 437	14 507 439	10 934 496	11 492 078	8 523 207

Source: RWIS, SEA

*Note: In 2006 the increase of non-hazardous waste was about 40% compared to 2005 and 2007. It was mainly due to the increase of construction waste.

Generation of waste put on the market in the years 2005 – 2009 (tonnes)



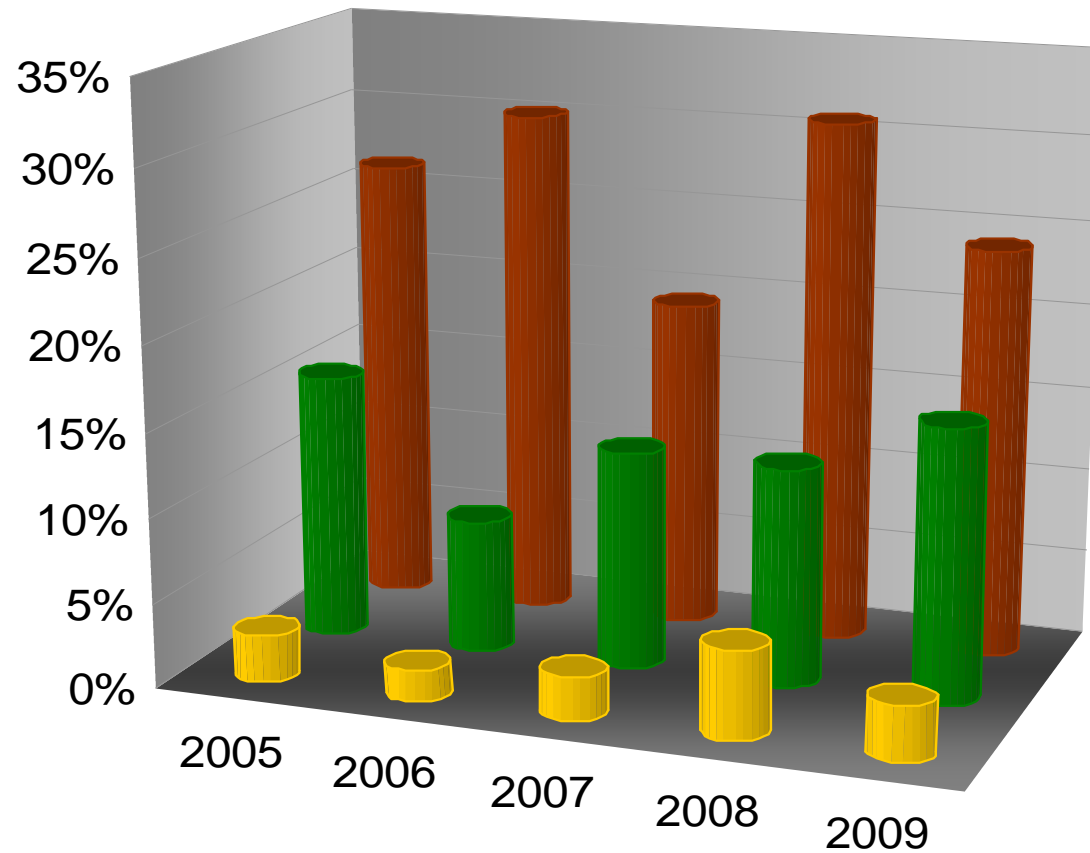
2005	2006*	2007	2008	2 009
10 929 437	14 507 439	10 934 496	11 492 078	8 523 207

Waste Management Operations

Recovery /disposal operations	Codes of operations
Material Recovery	R02, R03, R04, R05, R06, R07, R08, R09, R11, R12
Energy Recovery	R01
Recovery of other way	R10, R13
Landfill disposal	D01, D03, D05, D12
Incineration without energy recovery	D10
Disposal of other way	D02, D04, D08, D09, D13, D14, D15
Another way of handling	DO, O*, Z

O* - transfer to another subject (abolished from 1.1.2009)

Waste recovery in the SR 2005 – 2009

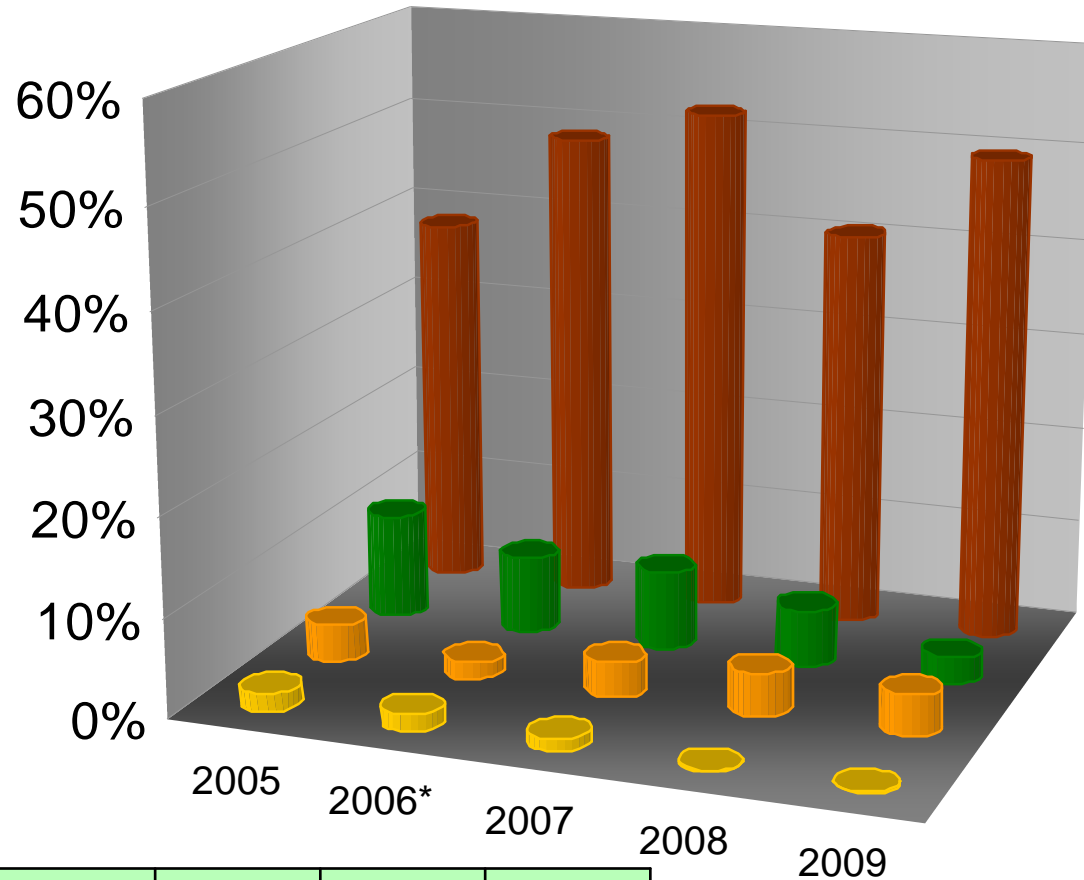


■ Energy Recovery ■ Recovery of other ■ Material Recovery

Treatment method	2005	2006	2007	2008	2009
Energy Recovery	2.81%	1.84%	2.60%	5.24%	3.21%
Recovery of other way	15.67%	7.86%	12.87%	12.87%	16.13%
Material Recovery	26.54%	30.17%	19.41%	30.86%	24.10%

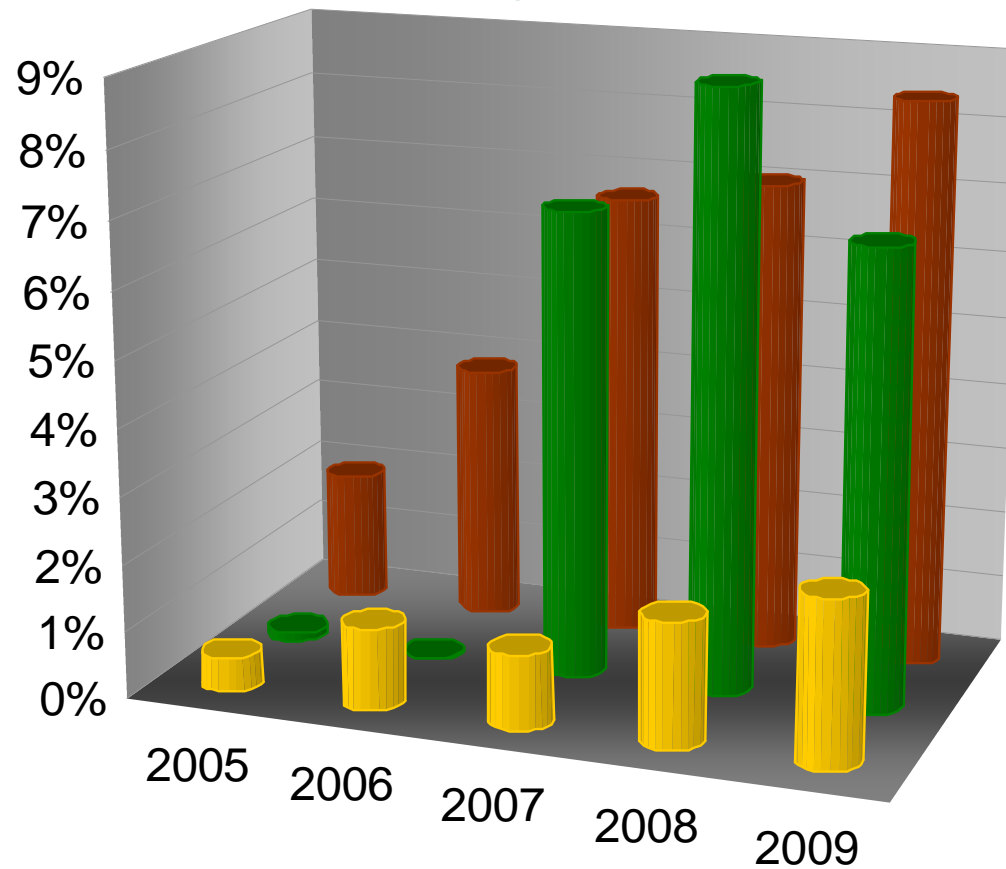
Waste disposal in the SR 2005 – 2009

- Disposal by incineration without energy recovery
- Disposal of other
- Another way of handling
- Landfill disposal



Disposal method	2005	2006*	2007	2008	2009
Incineration without energy recovery	1.91%	1.72%	1.17%	0.17%	0.15%
Disposal of other way	3.84%	1.81%	3.68%	4.38%	4.11%
Another way of handling	10.77%	7.96%	8.08%	5.80%	2.73%
Landfill disposal	38.46%	48.66%	52.20%	40.68%	49.56%

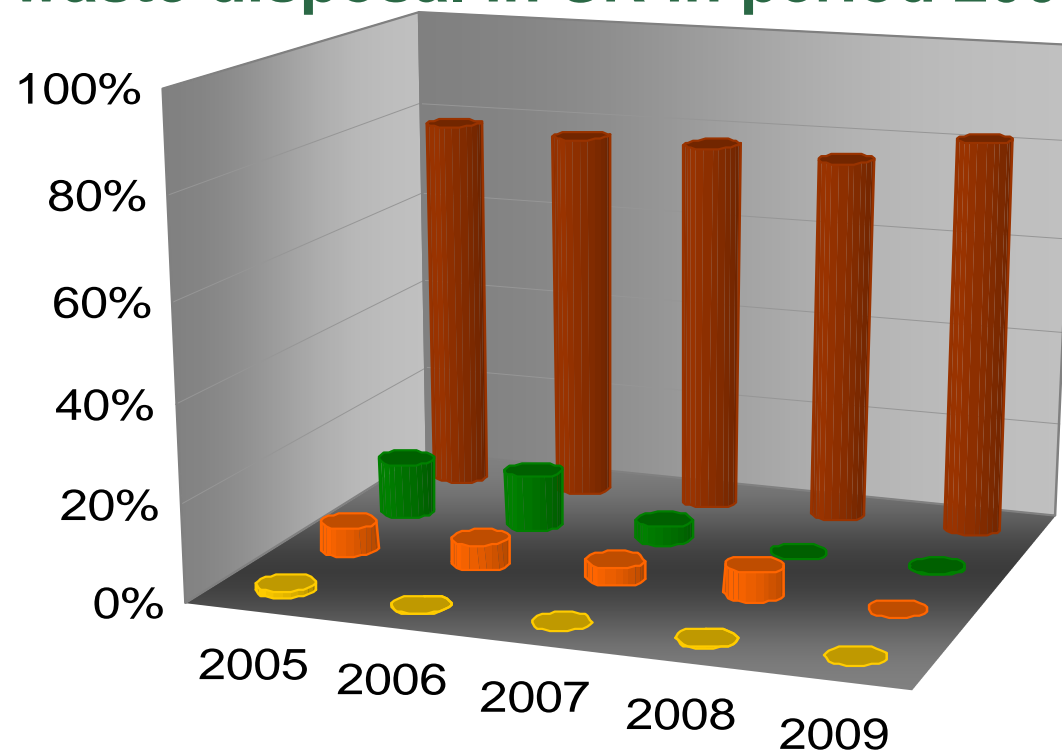
Municipal waste recovery in SR in period 2005-2009



■ Recovery of other way
 ■ Energy Recovery
 ■ Material Recovery

Recovery method	2005	2006	2007	2008	2009
Recovery of other way	0.50%	1.22%	1.12%	1.88%	2.48%
Energy Recovery	0.14%	0.01%	6.95%	8.87%	6.80%
Material Recovery	1.94%	3.85%	6.66%	7.05%	8.41%

Municipal waste disposal in SR in period 2005-2009



- Disposal of other way
 Another way of handling
- Incineration without energy recovery
 Landfill disposal

Disposal method	2005	2006	2007	2008	2009
Disposal of other way	1.28%	0.13%	0.07%	0.11%	0.03%
Another way of handling	5.79%	5.34%	3.76%	5.86%	0.12%
Incineration without energy recovery	11.60%	11.70%	3.85%	0.00%	0.15%
Landfill disposal	78.75%	77.74%	77.60%	76.23%	82.01%

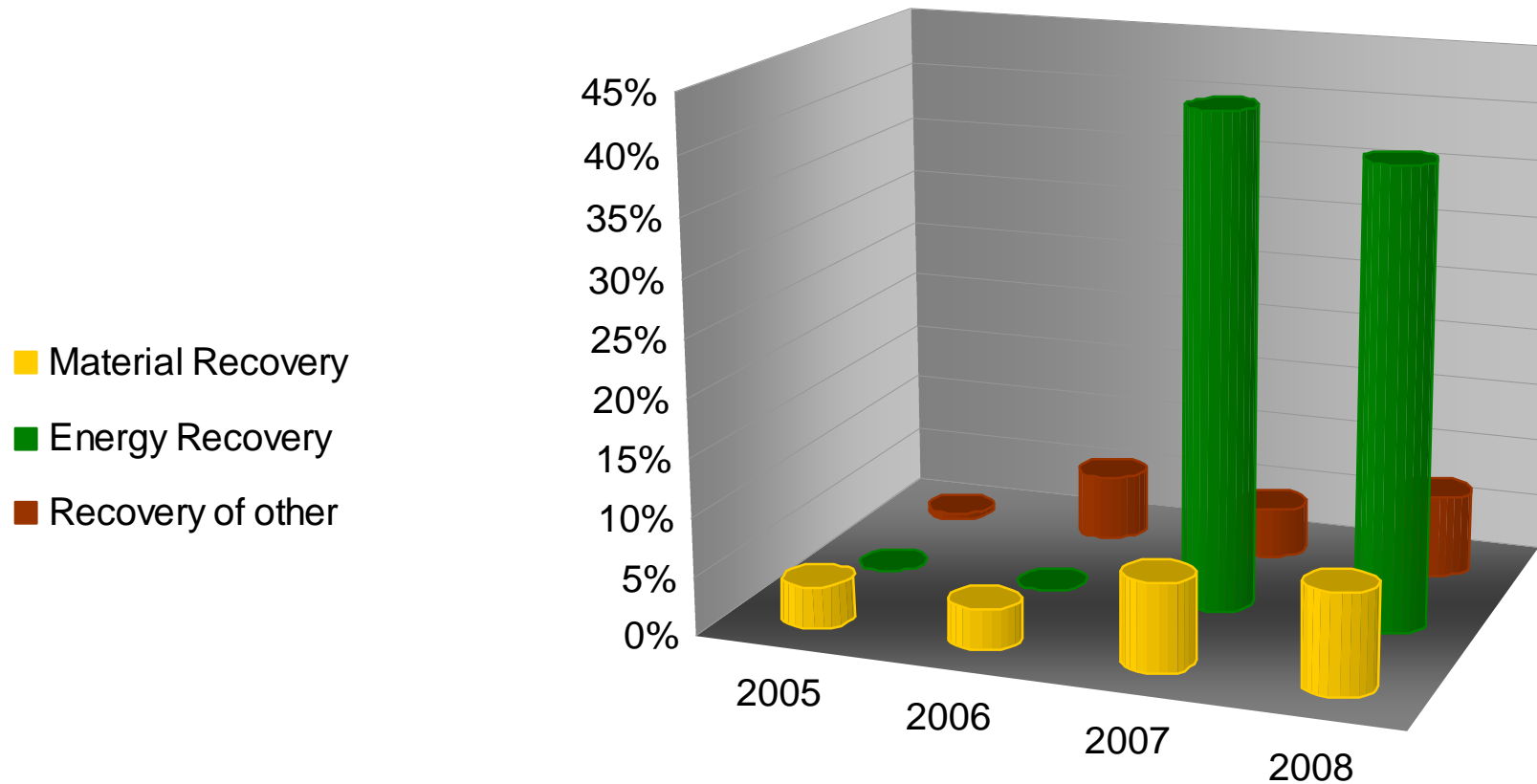
Municipal waste handling in the Region of Bratislava

Municipal waste recovery in the Region of Bratislava

Municipal waste recovery in the Region of Bratislava in period 2005-2008 (tonnes)

Recovery method	2005		2006		2007		2008	
Material Recovery	9 338	3.58%	8 680	3.48%	20 504	7.56%	24 555	8.61%
Energy Recovery	13	0.00%	13	0.01%	115 380	42.53%	111 684	39.18%
Recovery of other way	1 471	0.6%	14 041	5,63%	11 607	4.28%	20 133	7.06%

Municipal waste recovery in the Region of Bratislava in period 2005-2008



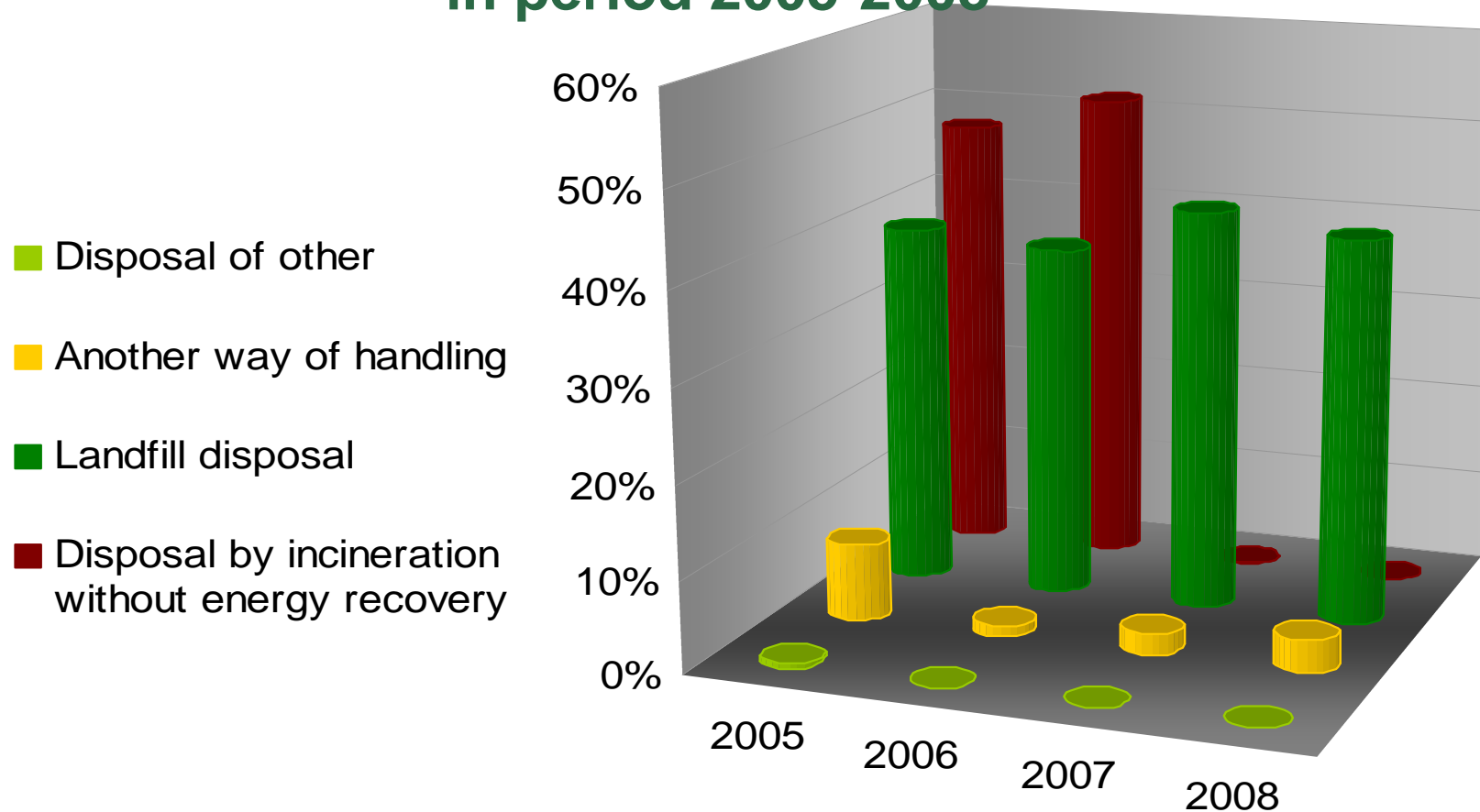
Recovery method	2005	2006	2007	2008
Material Recovery	3.58%	3.48%	7.56%	8.61%
Energy Recovery	0.00%	0.01%	42.53%	39.18%
Recovery of other way	0.56%	5.63%	4.28%	7.06%

Municipal waste disposal in the Region of Bratislava

Tab.3: Municipal waste disposal in the Region of Bratislava in period 2005-2008 (tonnes)

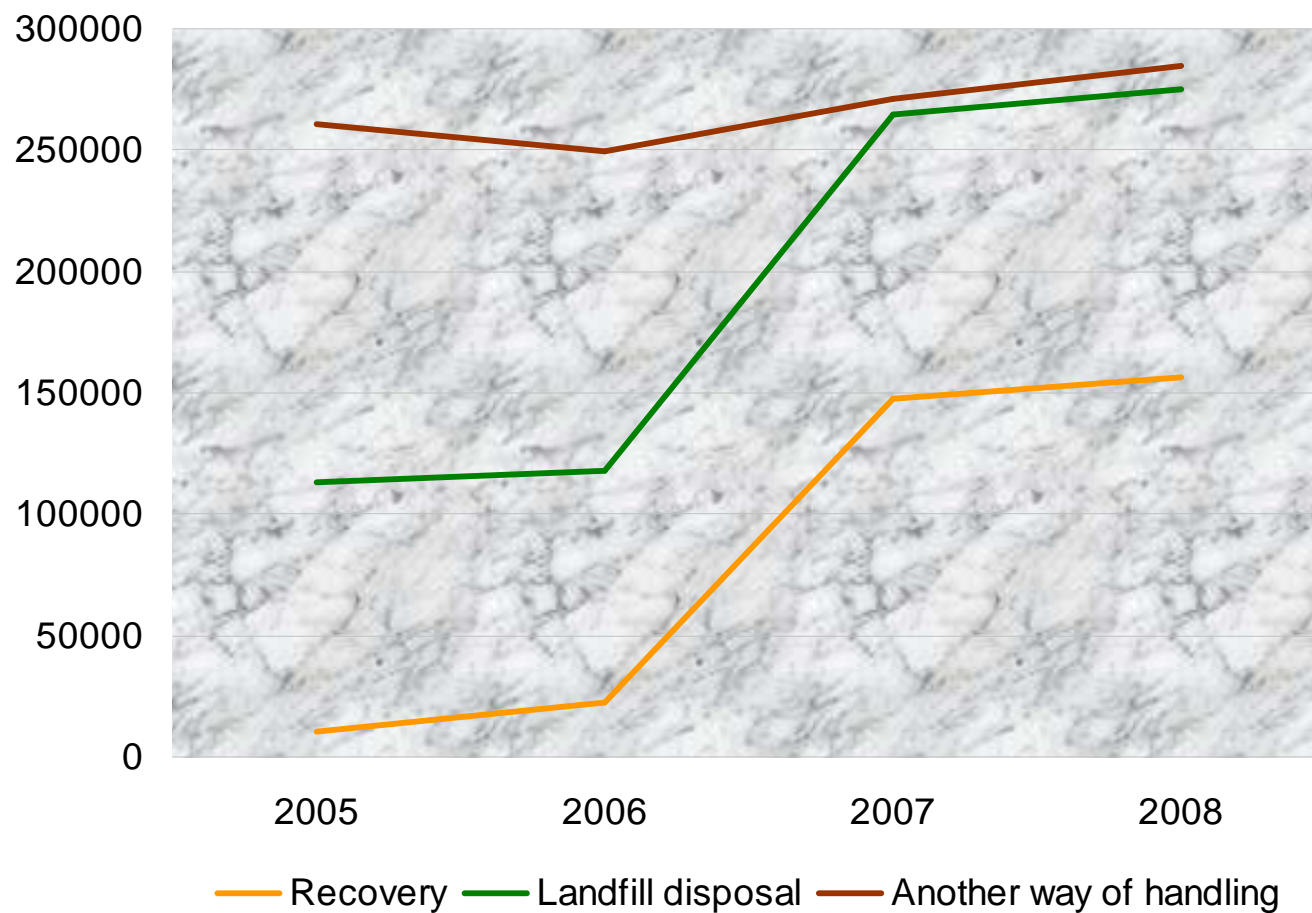
Disposal method	2005		2006		2007		2008	
	tonnes	%	tonnes	%	tonnes	%	tonnes	%
Landfill disposal	102 478	39.26%	95 084	38.12%	117 524	43.32%	118 607	41.61%
Incineration without energy recovery	124 522	47.70%	128 674	51.58%	78	0.03%	17	0.01%
Disposal of other way	1 474	0.56%	0	0.00%	0	0.00%	6	0.00%
Another way of handling	21 742	8.33%	2 965	1.19%	6 180	2.28%	10 032	3.52%

Municipal waste disposal in the Region of Bratislava in period 2005-2008



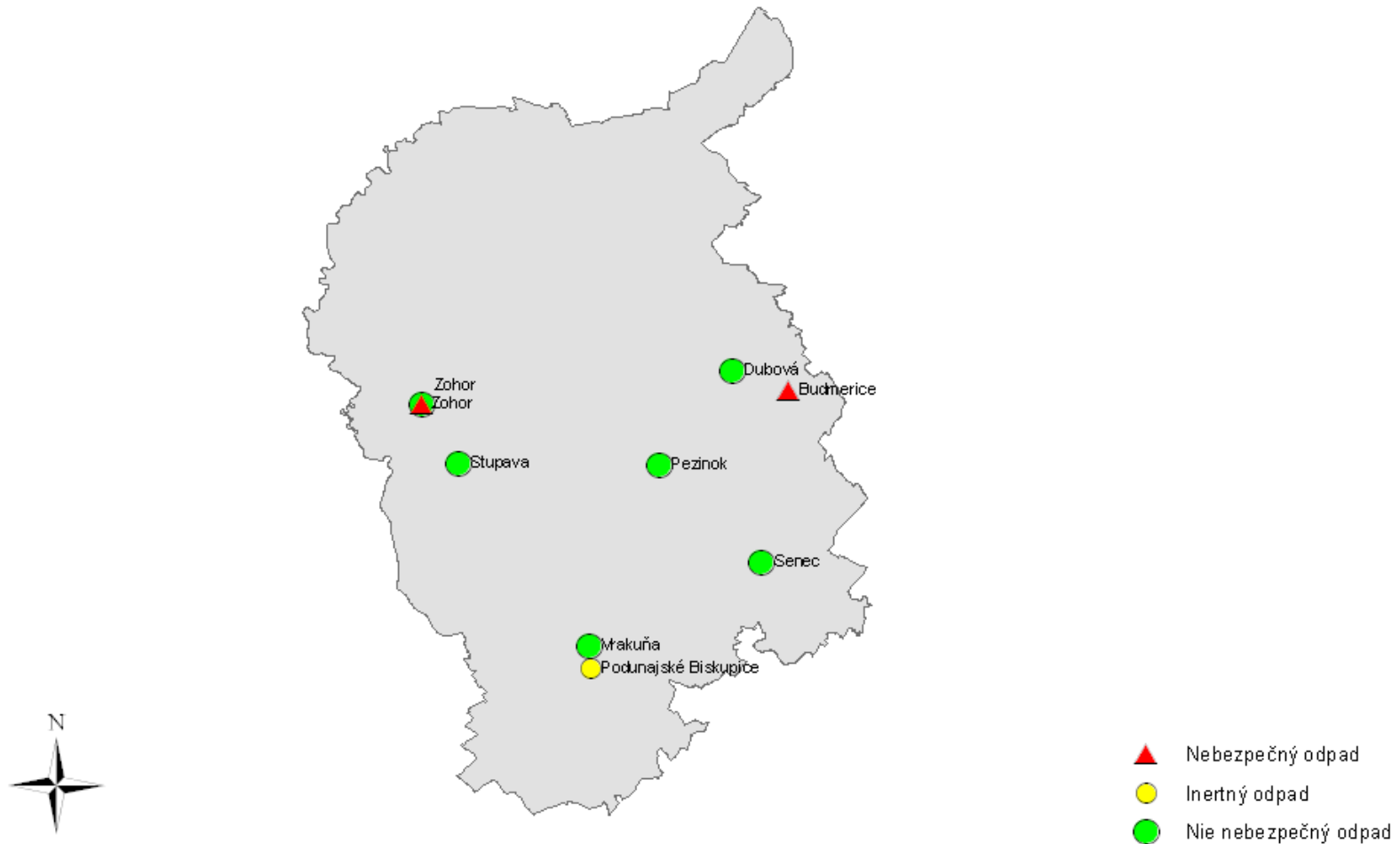
Disposal method	2005	2006	2007	2008
Disposal of other way	0.56%	0.00%	0.00%	0.00%
Another way of handling	8.33%	1.19%	2.28%	3.52%
Landfill disposal	39.26%	38.12%	43.32%	41.61%
Incineration without energy recovery	47.70%	51.58%	0.03%	0.01%

Municipal waste handling in the Region of Bratislava (t)

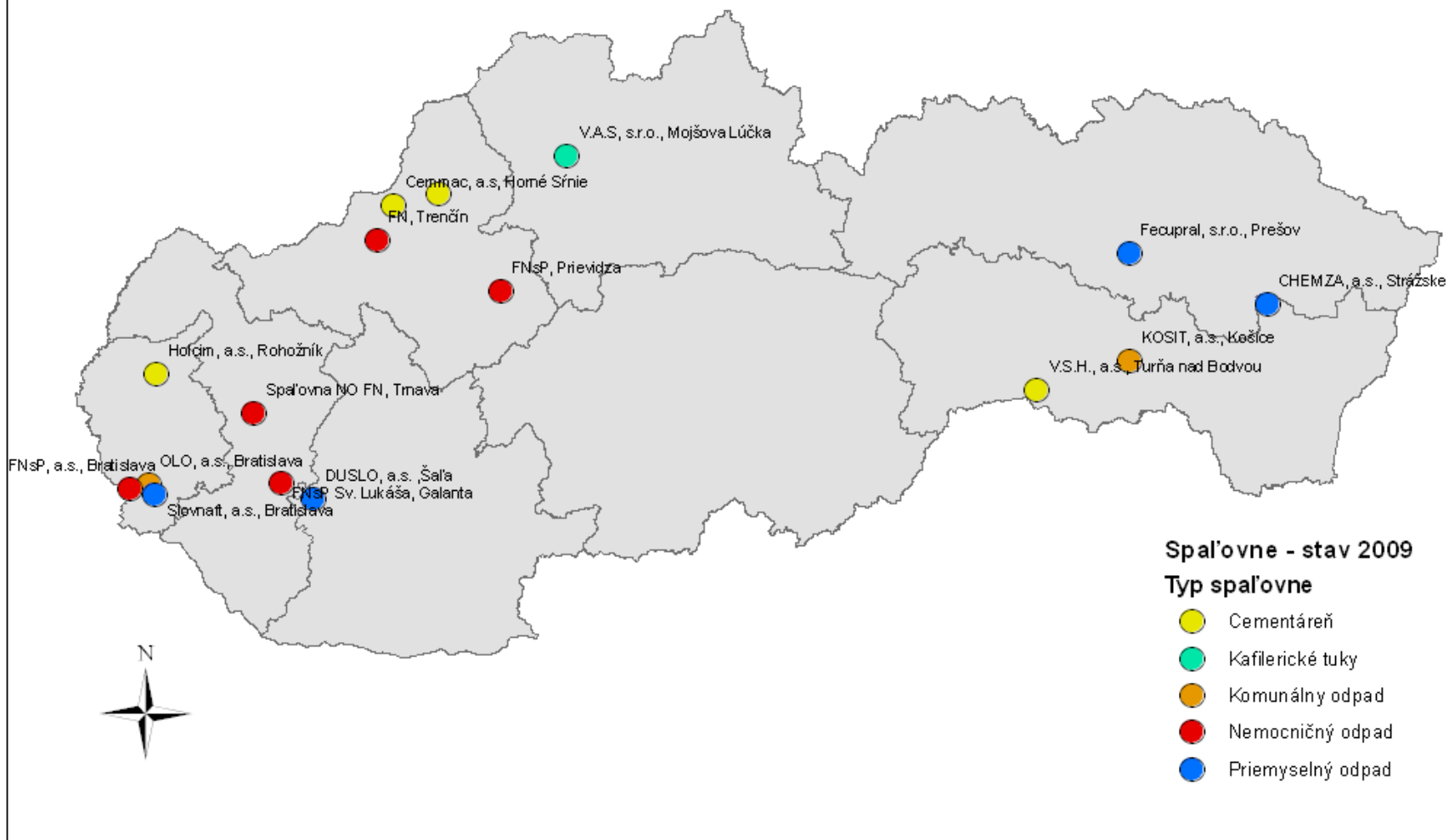


Year	2005	2006	2007	2008
Recovery	10822	22734	147491	156372
Landfill disposal	102478	95084	117524	118607
Another way of handling	147738	131639	6258	10055

Location of landfill sites – Region of Bratislava



Location of incineration facilities - SR





Thank you for your attention !

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