



SMALL CITY INITIATIVES IN CIRCULAR ECONOMY: BUILDING ECOSYSTEM AROUND WASTE MANAGEMENT

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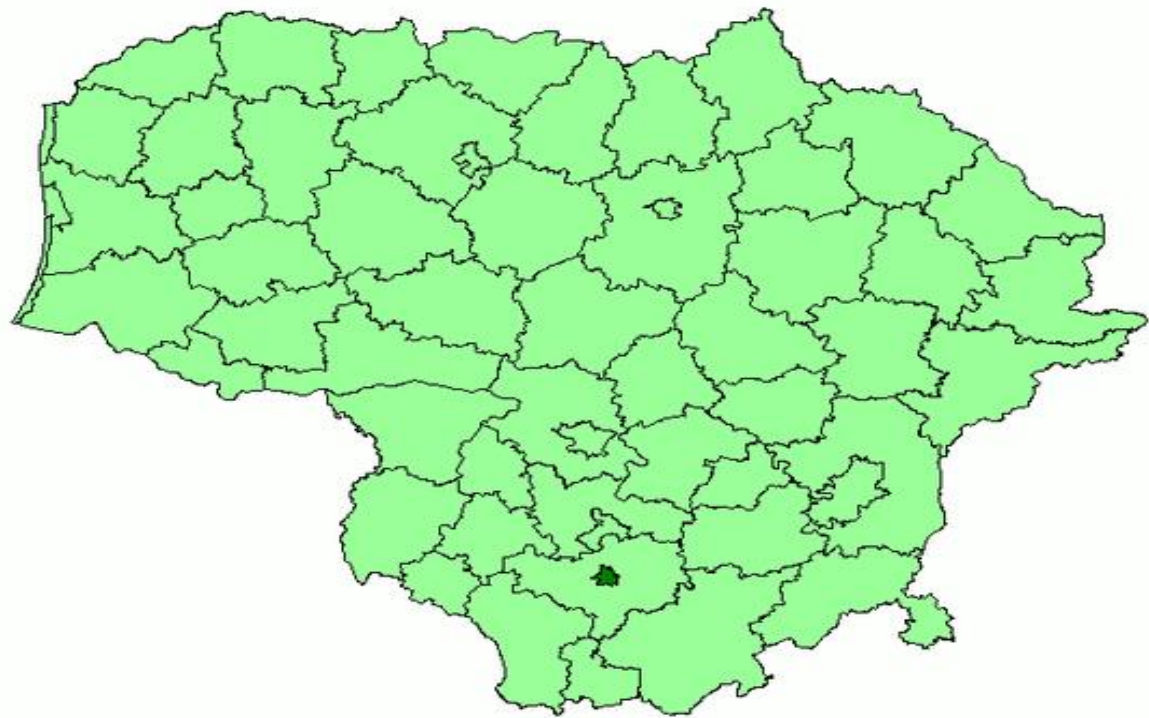
An aerial photograph of a snowy landscape. The top portion of the image shows a grid pattern, possibly a frozen body of water or a field, with a person walking across it. The background features large, colorful fabric panels in yellow, green, and red. The text 'HOW SMALL?' is overlaid in large white letters.

HOW SMALL?

- Sixth largest city
- South of the country
- Set up XIV century
- Mostly <10k population
- Influenced by army use, but resort during first republic

- And then all of a sudden turned big and industrial
- All industry in one part, and the rest – a city in a park
- Population raised from 20k to 70k in few decades

Living with our industrial heritage in a city which was build a bit too big (sustainability issue), but with a happy population



An aerial photograph of a snowy landscape. The top portion of the image shows a grid pattern, likely a frozen body of water or a paved area covered in snow. A person is walking across this grid. The bottom portion of the image shows a more natural, snow-covered area with some small trees and a path. The text 'HOW SMALL?' is overlaid in large white letters across the center of the image.

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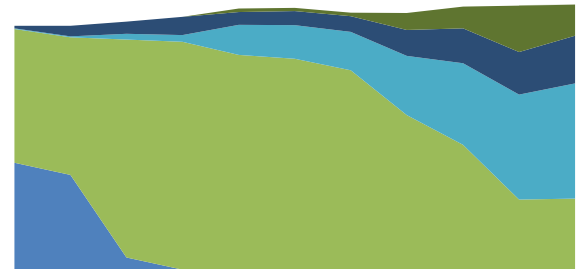
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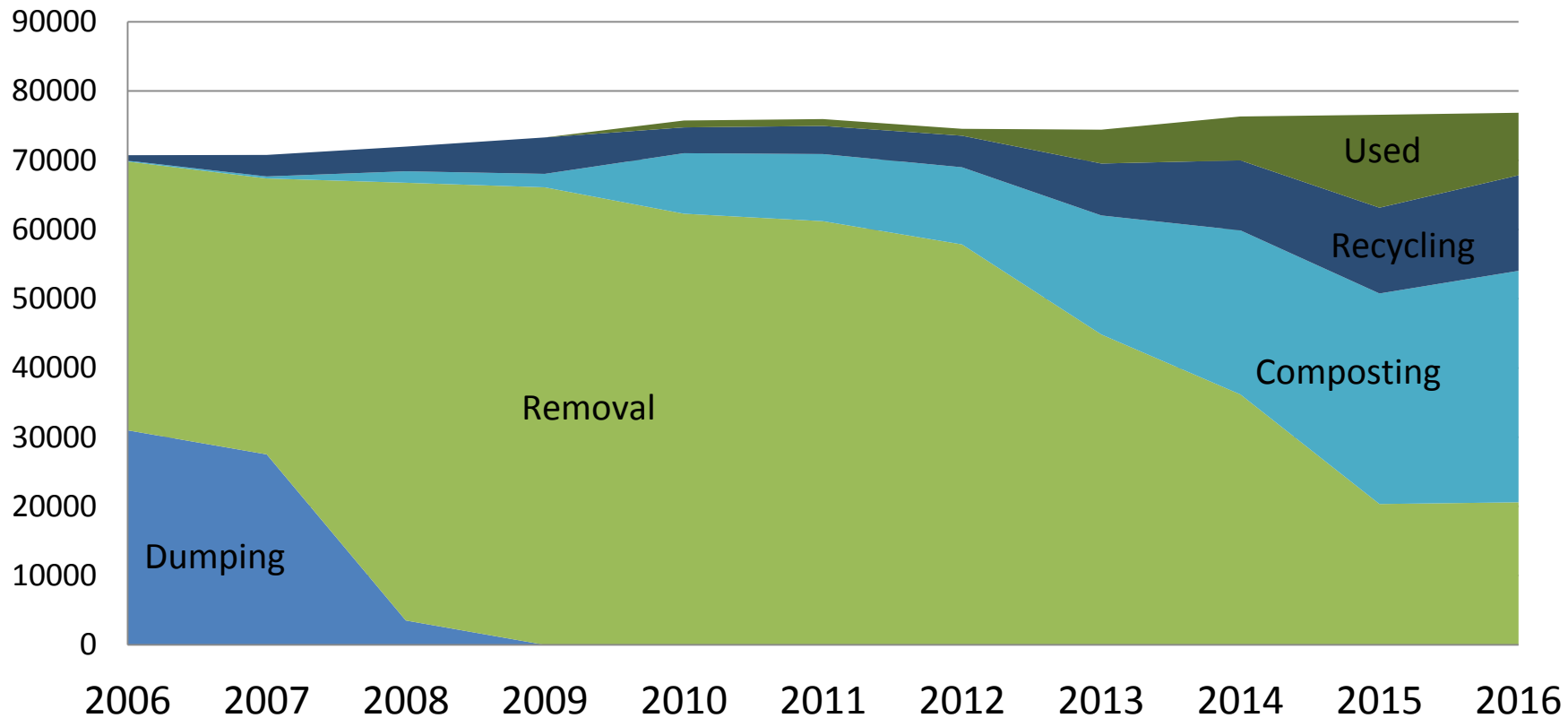
OUR WASTE MANAGEMENT

..is not such a small deal

Low start:

- No recycling
- 70% landfill
- No convenience



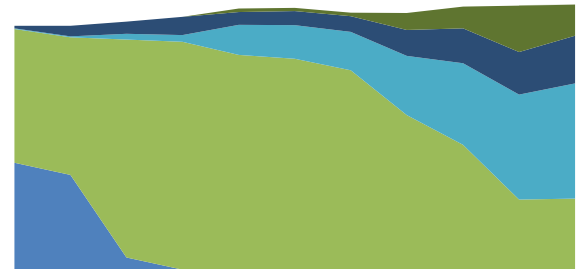


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MAIN DRIVERS OF CHANGE

Regulatory change:

- EU membership
- National strategies

Local priorities:

- Illegal dumping
- Green environment

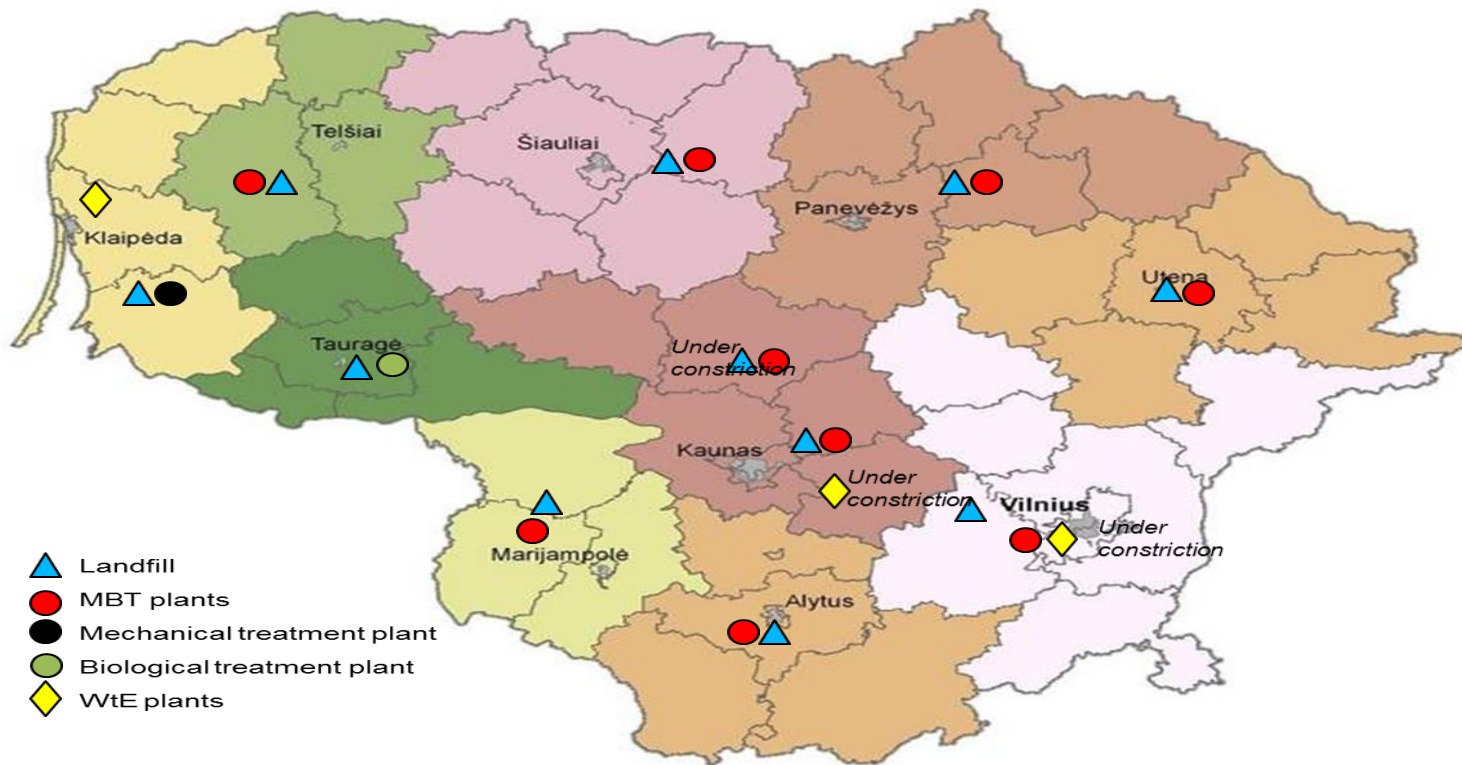
Public opinion:

- Recycling and environmental awareness becoming cool
- Demand for more transparency



WHAT HAS BEEN DONE

1. Waste regions in Lithuania and our regional center
2. Bulky waste and green waste sites
3. Home composting equipment, education about recycling, better containers
4. MBT facilities and ability to produce gas/electricity from food waste



- ▲ Landfill
- MBT plants
- Mechanical treatment plant
- Biological treatment plant
- ◆ WtE plants

Municipal	Population	%
Alytus city	56357	31
Alytus district	27347	14
Birštonas	4369	2
Druskininkai	20943	12
Lazdijai district	21254	12
Prienai district	28251	15
Varėna district	23950	14
Total	182471	100



5 green waste composting sites



17 bulky waste sites

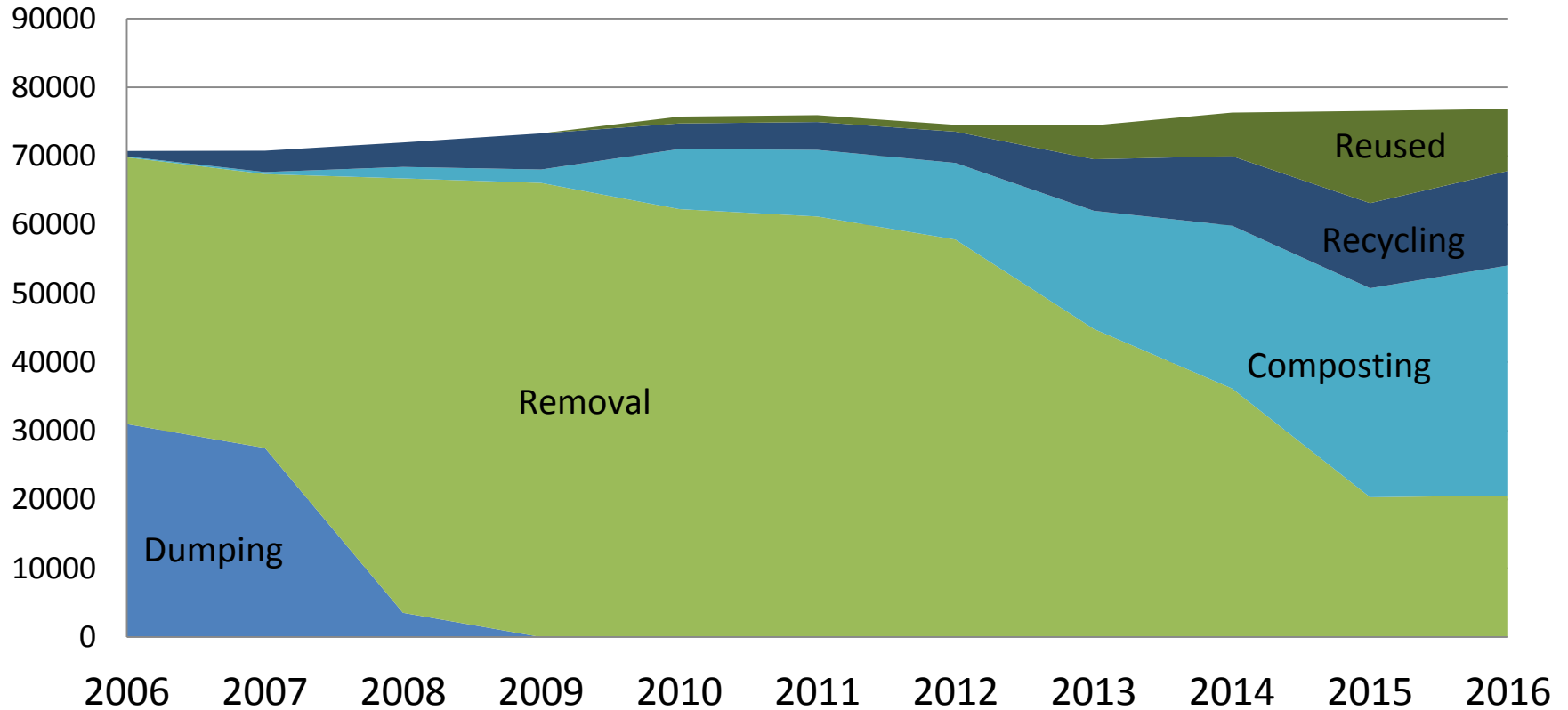


EDUCATION

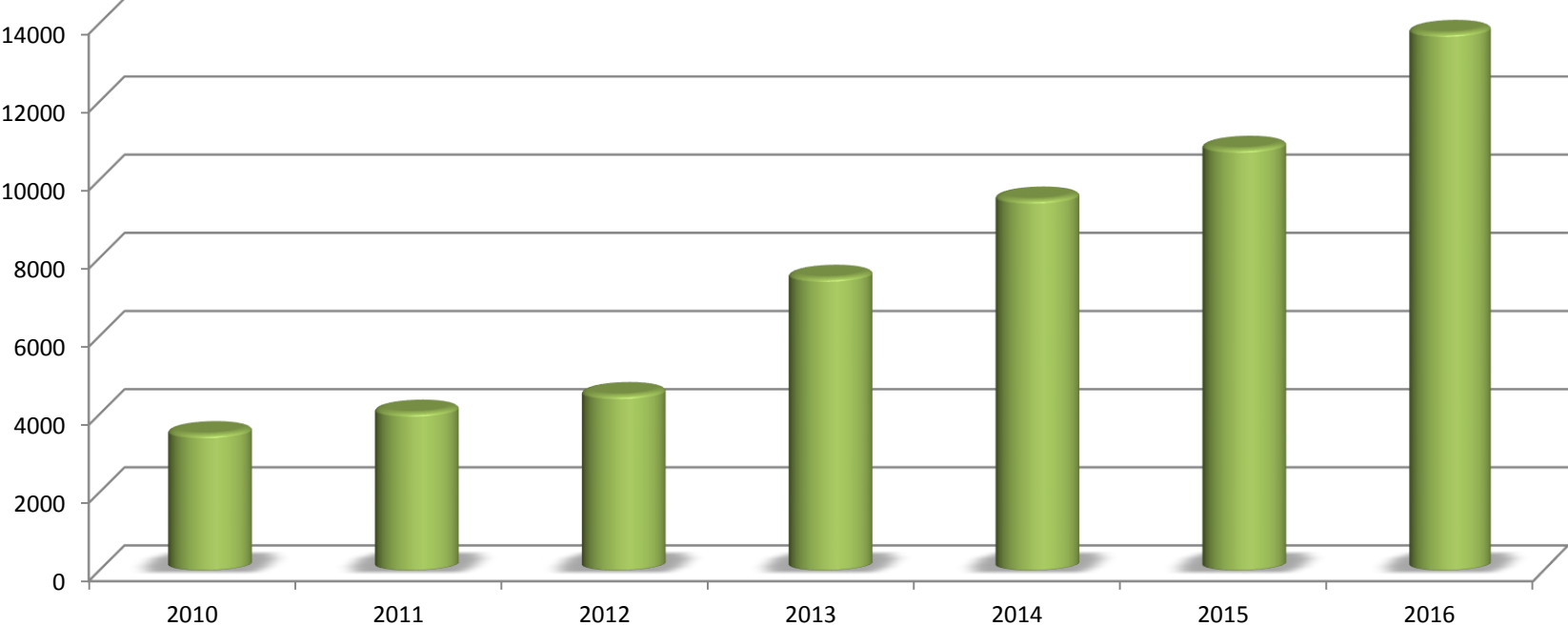
- Ecological education in 8 regional newspapers;
- „Eko guide“ was broadcast on FM99 radio;
- The company's specialists carry out training on waste management for children;
- Published tale book for children about waste management
- Home composting/green waste collection kits



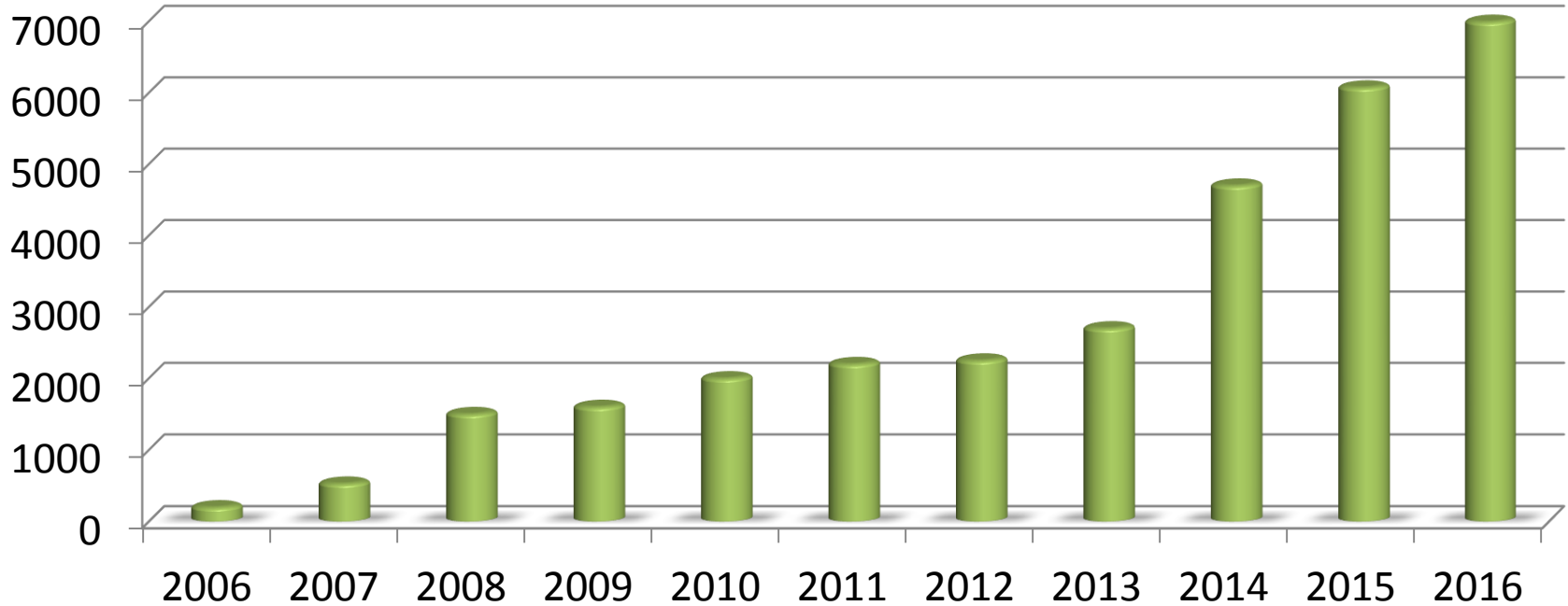
RESULTS



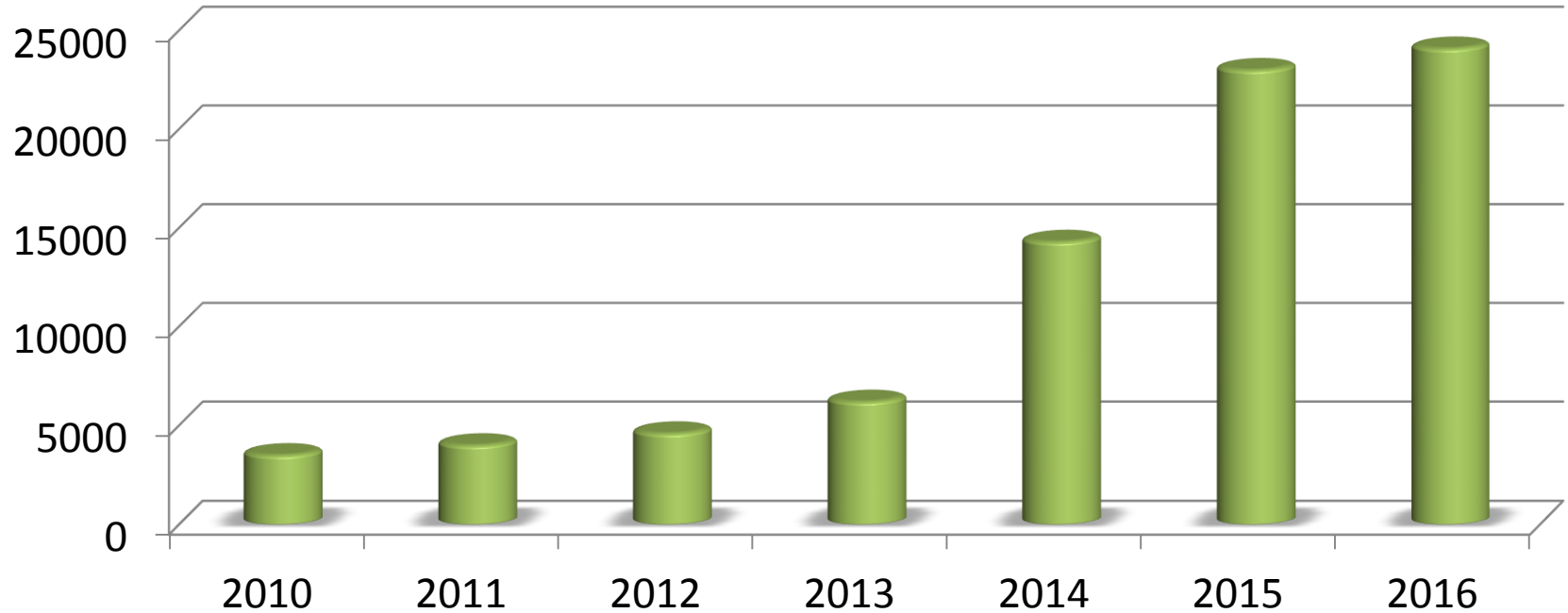
Collection of packaging and secondary raw materials in the region



Collected municipal waste in bulky waste collection sites (tonnes/year)



Collected and composted in composting sites (tonnes/year)



		Alytus region waste kg/person/per year				Lithuania	ES
		2013	2014	2015	2016	2014	2014
1	Collected and recycled secondary raw materials	38	56	70	78	91	131
2	Composted	90	131	171	189	41	75
3	Used for energy production and other uses	27	35	75	51	38	138
4	Removed in landfill	243	200	115	116	255	131
5	Total municipal waste	397	423	433	434	433	475



POSSIBLE SOLUTIONS

1. Involving/funding SME's? Targeted funding to gather recycled raw materials
 - Some success with construction waste, tires, soil, fertilizer
2. Sharing economy? Reusing as much of the still-good waste as possible



BIGGEST CHALLENGES

1. Main issues – increasing prices drive demand for transparency and scrutiny, lack of trust in the system
2. Lack of best practices about community involvement
3. Lack of long term sustainability and SME involvement



THANK YOU



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