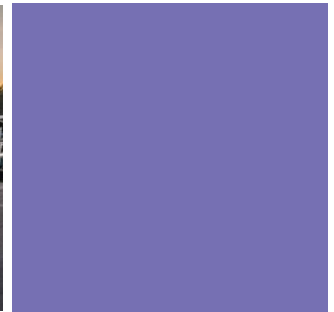


Novago (Poland 2013-2016)

Family Transition by Abris



June, 2017

Company Summary

- **A Polish business which specializes in innovative management** of municipal household waste,
- **Own six plants with a combined processing capacity of over 900,000 tons** of waste per year
- **The largest producer** of alternative fuel from municipal waste in Poland



Value Creation

- **Business expansion:** Three new waste processing plants
- **New strategy:** building fully integrated Waste-to-Energy group
- **Acquisition:** executed acquisition of municipal waste management company

Investment thesis

- **Favourable situation:** Strong strategic position in a changing regulatory environment
- **Well-regarded entrepreneur:** Strong founder with hands-on approach and good industry knowledge to drive business growth
- **M&A opportunity:** Identified a number of targets to build a country-wide presence and benefit from economies of scale



Exit

- **China Everbright International** acquired NOVAGO from Abris
- **The investment generated home run return for Abris**

Understanding the industry

- Abris was evaluating waste management industry as one of potential investment opportunity driven by EU regulatory changes
- Before we were introduced to Novago's owner, we already knew the industry well, its key drivers, opportunities and challenges
- This allowed us to build dialogue with vendor as equal partners starting from the first meeting



Competitive pressure at entry

- Four PE houses in auction process incl. Abris
 - Abris won exclusivity by:
 - Understanding of the industry drivers
 - Moving quickly in the process
 - We knew vendor's earlier business
- allowing us to pre-empt an auction

Industry drivers

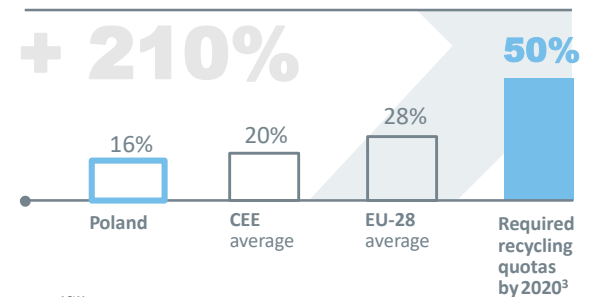
- Novago’s prospects supported by stricter regulatory requirements imposed by the EU on the waste management sector
- Waste processing infrastructure in Poland inadequate to meet the imposed EU targets
- Expected increase of municipal waste generation in Poland driven predominantly by GDP and consumption growth converging towards EU levels
- Diversion from landfills towards waste management techniques positioned higher in the EU hierarchy

Supportive EU Legislation Driving Changes in the Waste Management Industry

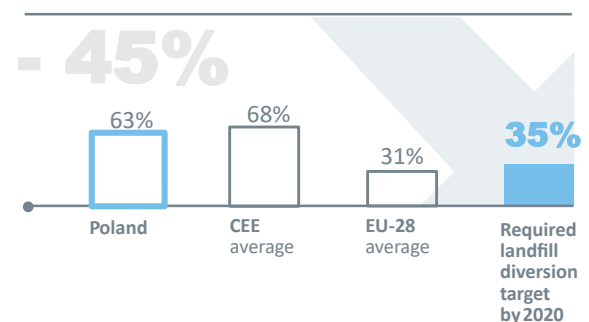
- Reduction by half the biodegradable municipal waste sent to landfill sites to 35% by 2020 vs. 63% in 2013
- More than doubling the recycling levels for selected municipal waste fractions (50% by 2020 vs. 16% in 2013)
- Ban on landfilling of waste with calorific value above 6MJ/kg starting from January 2016 resulting in increased amount of waste required to be treated coupled with inadequate processing capacities in Poland

Municipal waste treated (%)

Recycle



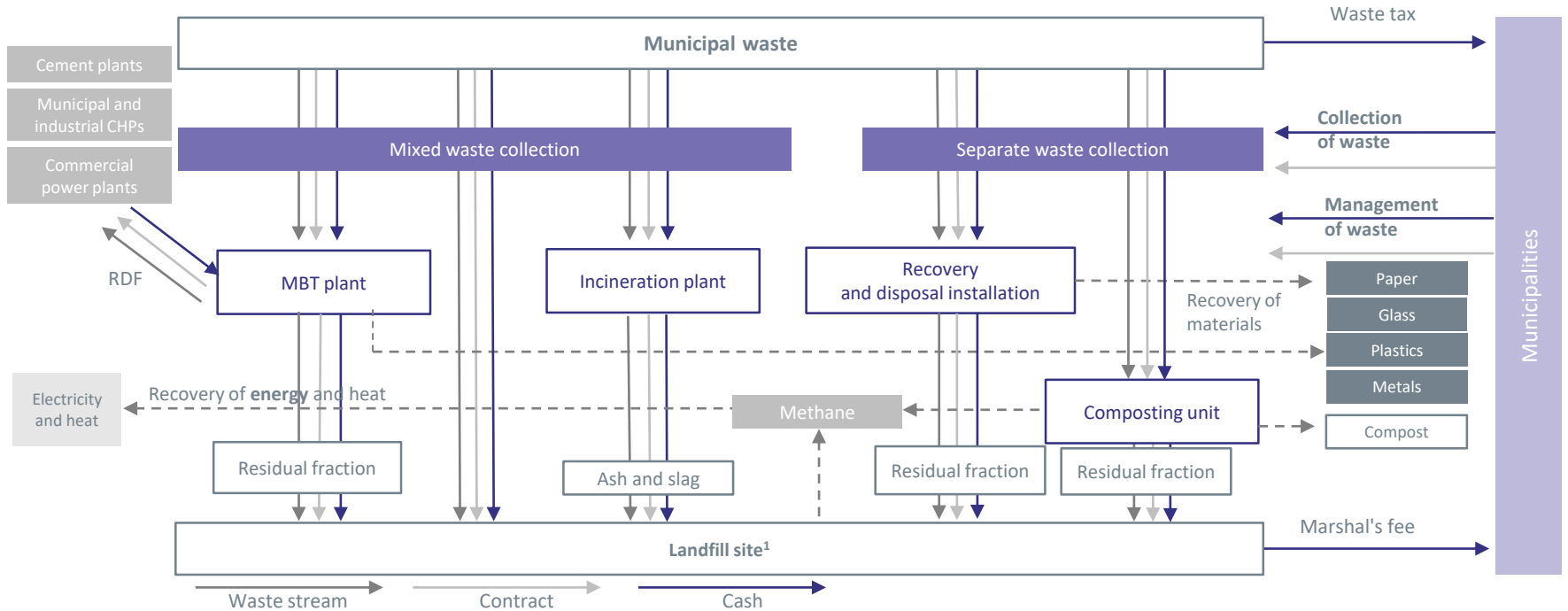
Landfill



EU legal framework for waste management policy supporting Novago’s business model

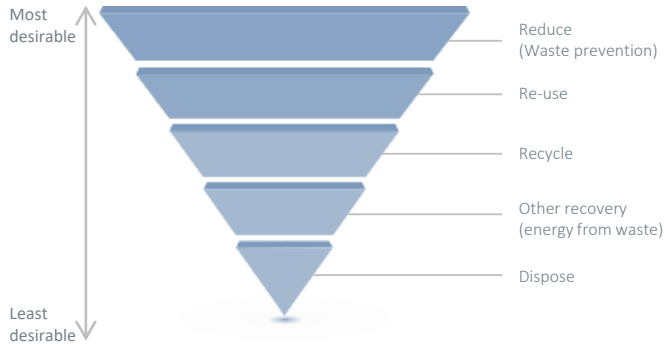


How the municipal waste collection and management market works?



Complexity; regulations on 4 different levels from EU to local municipalities

The waste management hierarchy



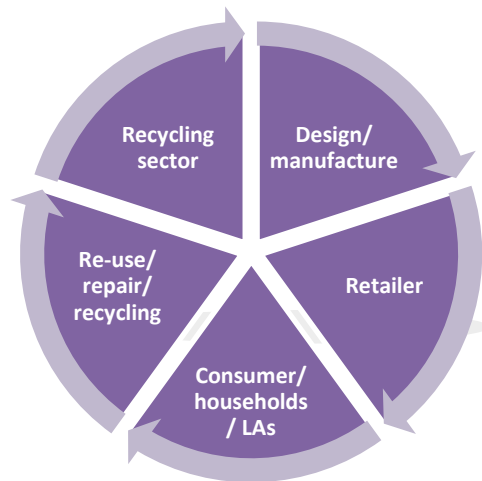
- Hierarchy of waste management methods to deliver the best overall environmental outcome



- “A circular economy” reduces waste quantities to landfills and increased materials recycling processes



EU trends towards 'circular economy



- “Closing of the loop” of product lifecycles through the greater recycling and re-use, and deliver benefits for both the environment and the economy



1992



2005



2011



2014



2015



2016 >



Business model based on:

- **Mass reduction** of the received waste
- Innovative mechanical processing and **proprietary biological treatment solutions** combined with methane-fired CHPs
- Production of **high calorific alternative fuel RDF**
- **Own landfills**
- **Diversified revenue mix**, highly favorable cost structures and industry leading operating margins

Novago's focus area



Novago's leading market position



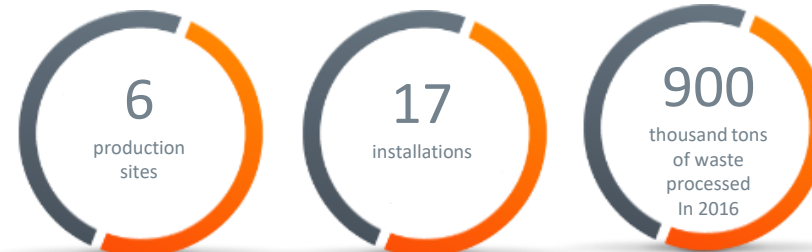
No.1 waste management platform in Poland

Business model

- **Leading and most innovative, fully integrated waste management** and energy recovery group in CEE
- **Present in the entire value chain of the municipal waste market**, including waste treatment, waste recycling, production of alternative fuel (RDF), production of electricity and heat in CHPs, landfill sites as well as waste collection
- **No.1 waste management platform in Poland, processing 900,000 tons of waste (2016)**
- **Quantity and quality leader in production of RDF** (refuse-derived fuel); the only company in Poland with 10-year off-take contracts for sale of RDF to cement companies on a take-or-pay formula
- **Unparalleled waste-to-energy player**, managing processes from initial waste treatment to the production of energy from waste
- **Established partnership with local authorities**, as well as co-owners of the Company and its subsidiaries

Unique and well-invested platform

- **6 locations, 7 RIPOKs, 4 provinces with ca. 900,000 tons of waste treated in 2016**
- **142ha total area, including 50ha of newly built landfill area, compliant with the highest technical standards and respective Polish and EU regulations, no legacy waste and only 20% filling level**
- **17 newly built state of the art installations, with PLN 130mn/ EUR 31mn capital invested in the last 3 years**
- **5 RDF production lines and RDF drying facilities powered by energy recovery system**
- **Advanced sorting facilities** (mechanical, ballistic, magnetic, optical) allowing for **recovery of 80%+ of waste received**
- **Well-invested assets and fully integrated waste-to-energy processes in energy passive facilities**
- **Authorized infrastructure fully compliant with the latest EU waste management directives, national regulations and the highest technical standards**
- **Significant expansion potential in the additional ~45ha 'landbank' owned by the Company with all necessary approvals for waste treatment operations**



Różanki

Miączyn

Żnin

Kosiny

Złotów

Uniszki



1

Różanki

RIPOKS: MBT facility, landfill

Sorting
RDF

Biodrying

Landfilling

ABR

CHP

R&D

4

Uniszki

RIPOKS: MBT facility, landfill

Sorting

Biodrying

Landfilling

Collection

CHP

2

Złotów

RIPOKS: MBT facility (in processing)

Landfilling

Collection

Sorting

5

Kosiny

RIPOKS: MBT facility, landfill (in processing)

Sorting

Biodrying

Landfilling

ABR

RDF

Laboratory

CHP

3

Żnin

RIPOKS: MBT facility, landfill

Sorting

Biodrying

Landfilling

ABR

RDF

CHP

6

Miączyn

Supportive installation to Kosiny

Sorting

Landfilling
(asbestos)

RDF

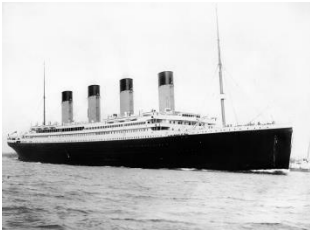
ABR

- In operations
- In development

Legend:
 MBT – Mechanical and Biological Treatment, ABR – Anaerobic Batch Reactor,
 RDF – Refuse Derived Fuel, R&D – Novago’s technology park

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Landfills could fill **34 Titanics**



Annual mileage made by Novago trucks equals

100 times the circumference of the earth at the equator



Annual volume of RDF produced by Novago replaces ca. 85.000 Mg of energy coal, equal to the cargo of

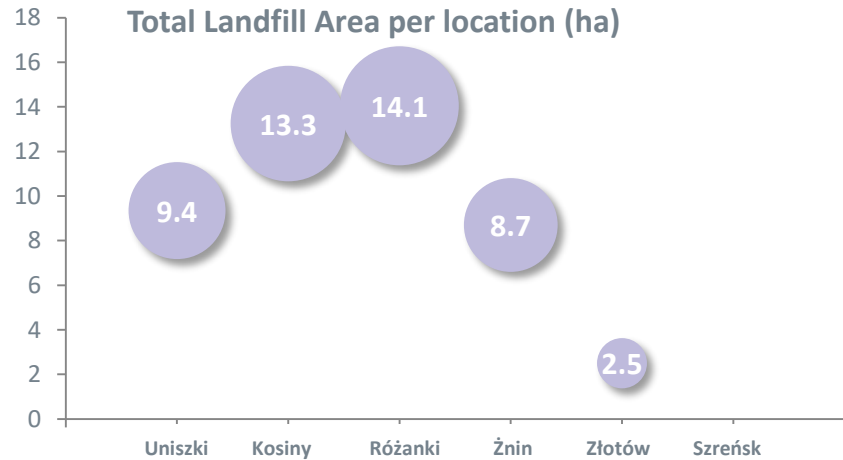
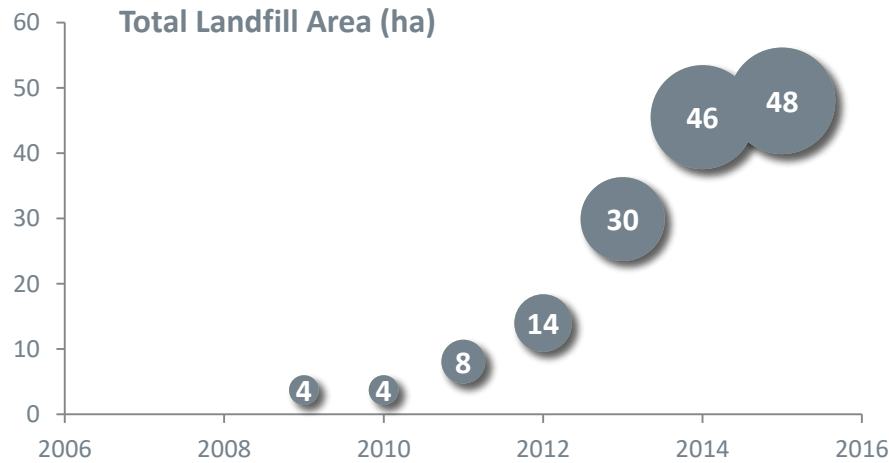
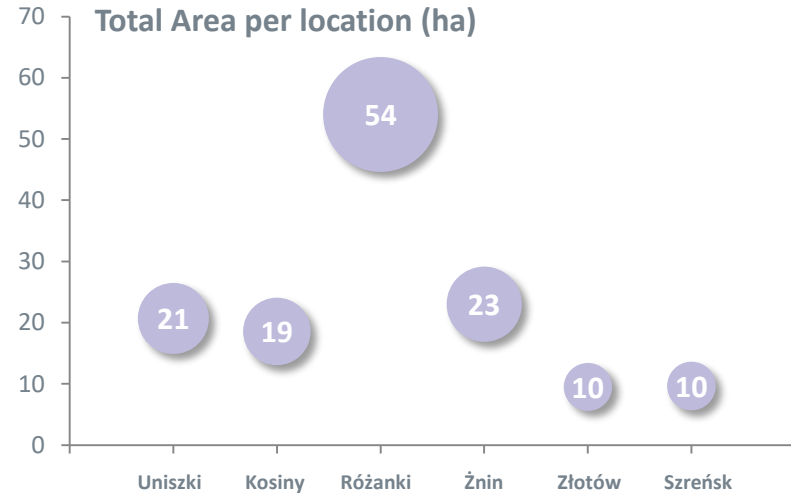
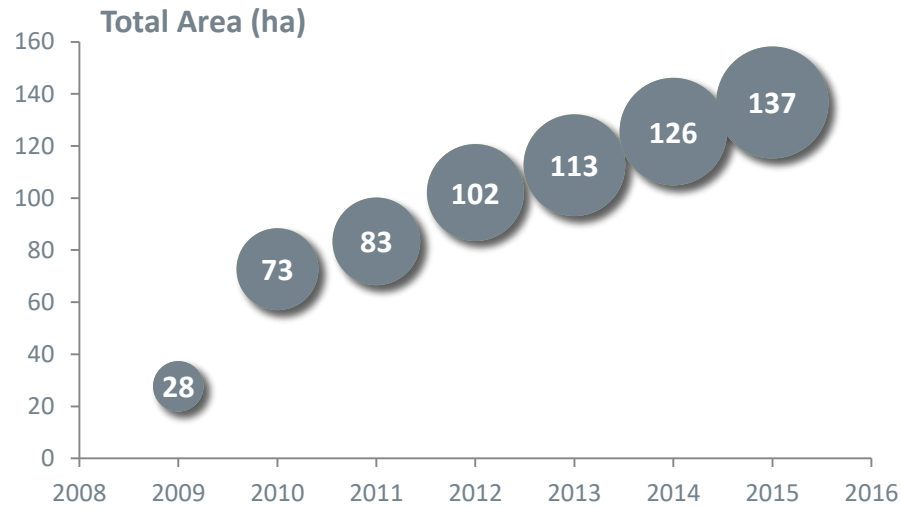
1,500 rail wagons



Heat generated by RDF produced in Novago plants

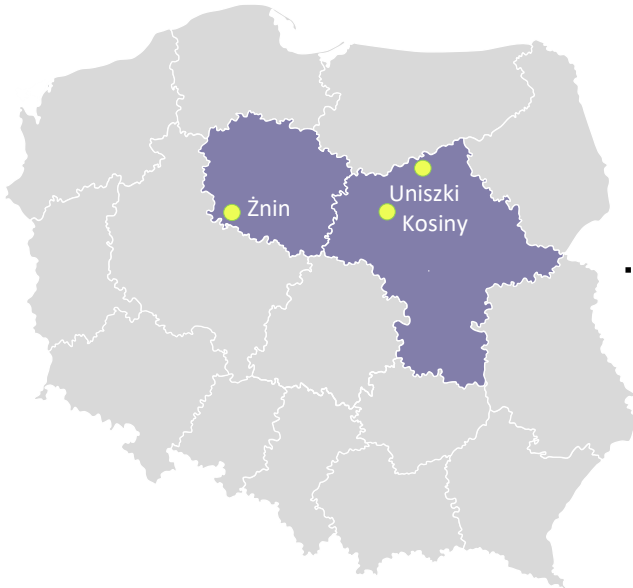
could heat **21,000 households**

Infrastructure



Geographical expansion

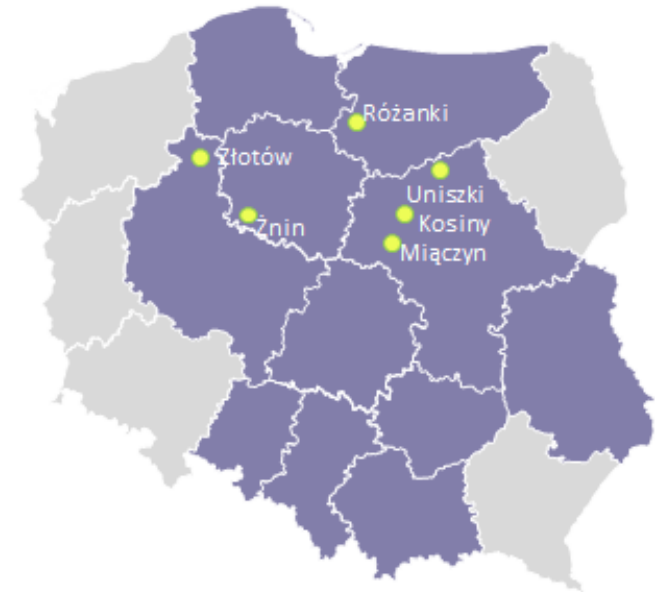
2013 (Entry)



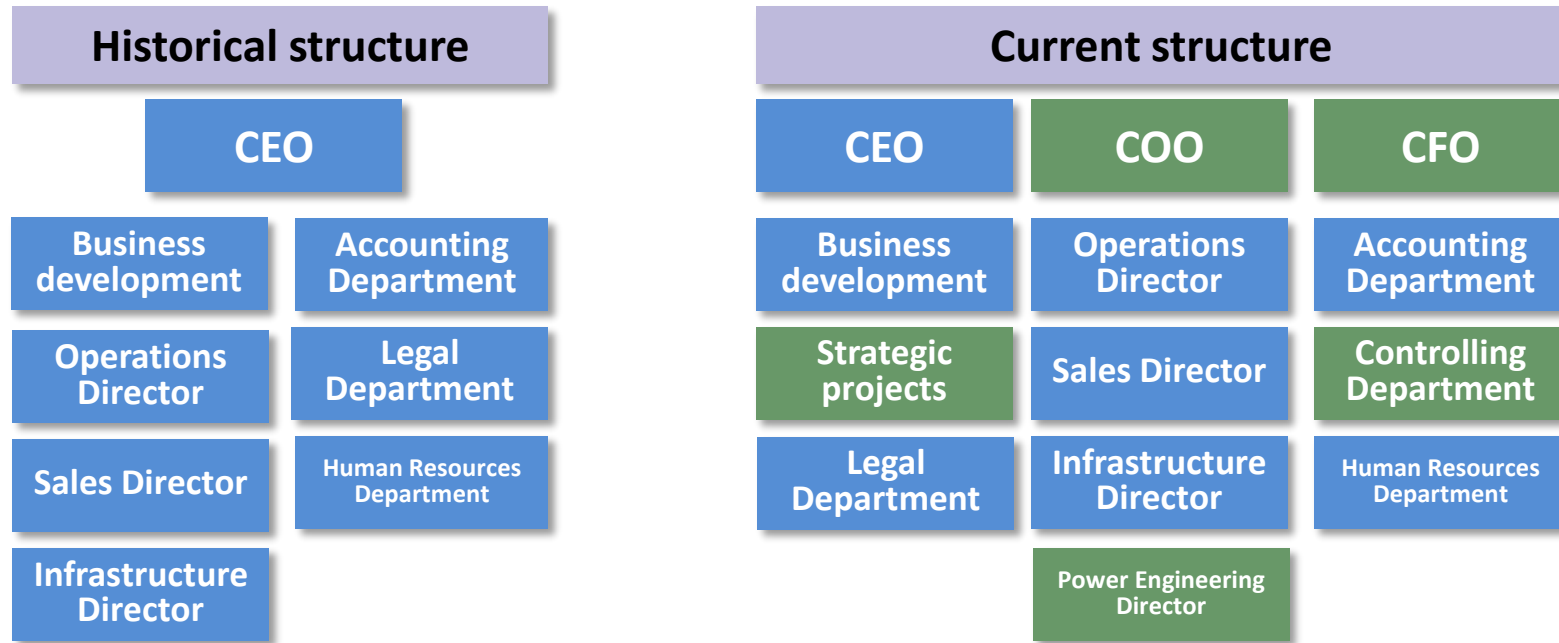
2016 (Exit)



Going forward



Organization expansion



Before Abris investment
 Added functions

Management Team

- **2 new members of Management Board** introduced (COO and CFO)
- **Financial and controlling team** built from scratch
- **New IT software** introduced (accounting, admin)
- Rebranding and new PR strategy
- Strengthening of corporate governance



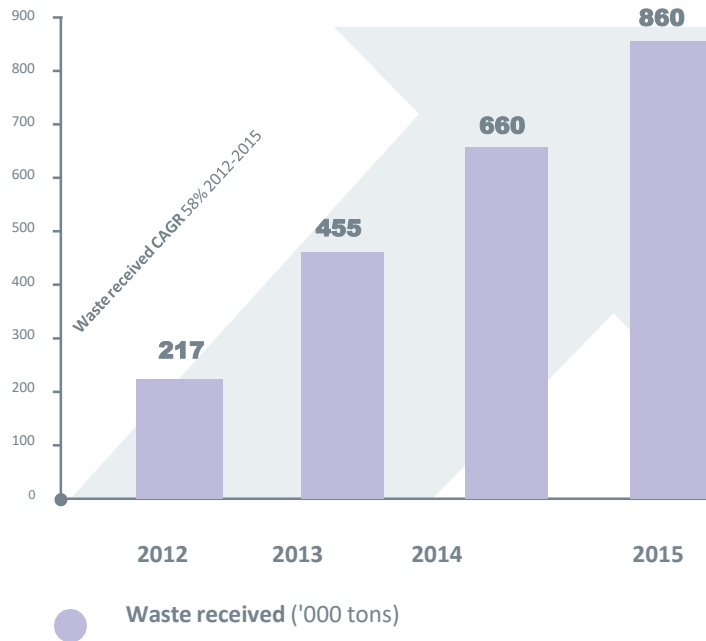
Waste to Energy

- **Innovative, proprietary technology** developed by the Company
- **Production of energy from biogas** extracted from landfills
- **Possibility of receiving higher volumes of waste**
- **Margin improvement resulting from:**
 - Lower landfill tax
 - Lower costs of energy consumption
 - Additional revenues from energy



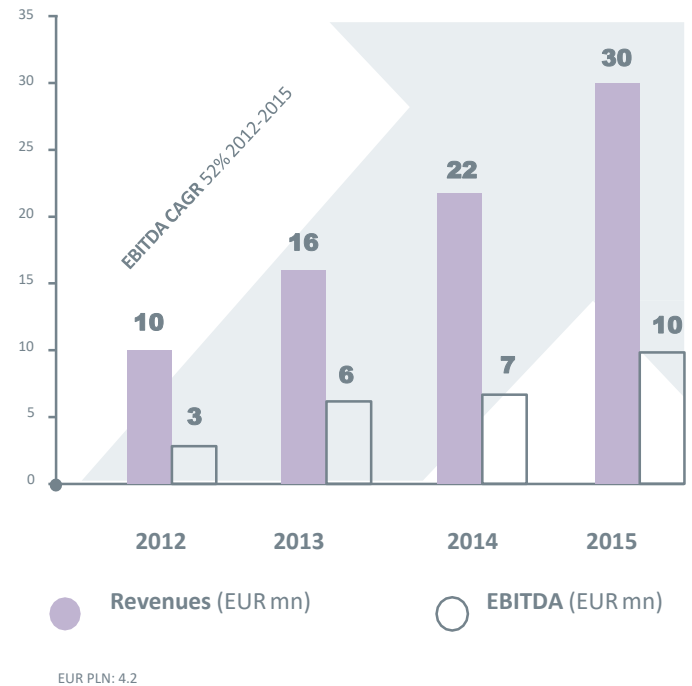
Volumes

Novago's dynamically growing waste intake volumes



Financial performance

Novago's strong financial performance



Rebranding



At Entry

At Exit

slide // 20

Proprietary technology

- **Novago's technology has been developed in cooperation with Polish Universities and Polytechnics:**
 - **Bio drying** – mass reduction of the received waste by drying of waste with hot air produced by CHP and distributed by HRC system
 - **CHP** – combined heat and power plants coupled with heat recovery systems (**HRS**) optimizing costs structure and energetic self-sufficiency of installations
 - **CHP** create an additional source of revenue (from sales of electricity and green certificates for electricity generated in renewable Energy sources
 - **ABR** – methane is produced from organic waste, as a result and is later used to generate heat and power, making **Novago's installations energetically passive**

Bio drying



Combined heat and power plant (CHP)



Heat recovery system (HRS)



Anaerobic batch reactor (ABR) scheme

