

Today for tomorrow.



Zero Waste Study Tour – URBASER

Integral Waste Solutions for Environmental Services

August 2018



01 Urbaser

- History
- General overview

02 Waste Collection and related activities

- Waste collection
- Street cleaning
- Gardening
- Water cycle

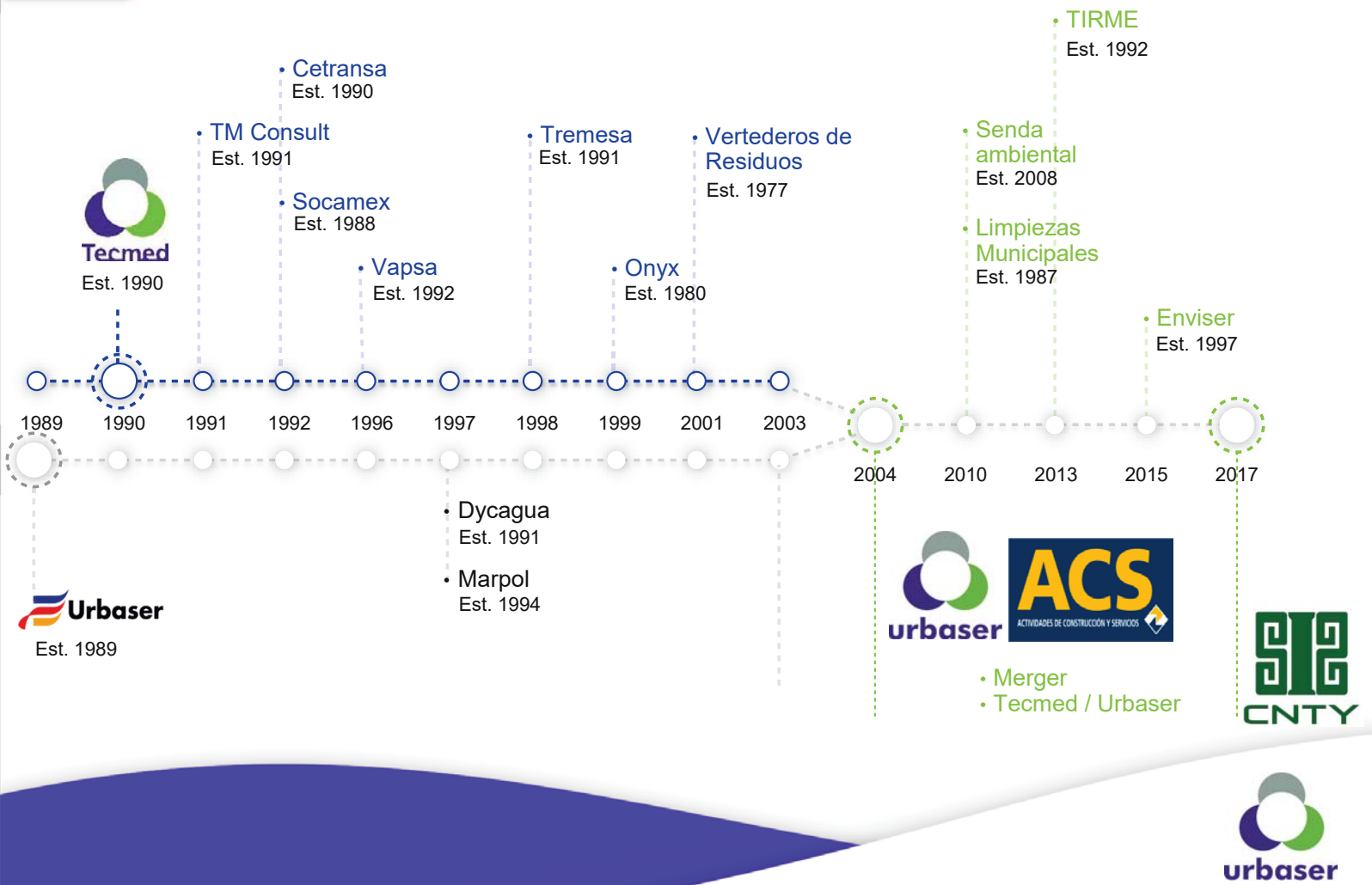
03 Waste Treatment

04 Geographic footprint

01

Where we come from

History



01

Urbaser Activities

General Overview

Invested Companies / Subsidiaries



01

Urbaser provides urban services to the city

General Overview: Integral Waste management services



Waste Collection

- 1 Municipal Solid Waste (MSW)
- 2 Industrial Waste (HW & NHW)
- 3 Construction & Debris (CDW)
- 4 Clinical (CW)
- 5 Used Oils (UO)
- 6 MSW Transfer

Waste Treatment and Disposal

- 1 Municipal Solid Waste (MSW)
- 2 Industrial Waste (HW & NHW)
- 3 Construction & Debris (CDW)
- 4 Clinical (CW)
- 5 Used Oils (UO)
- 6 Waste-to-Energy

Street Cleaning and Gardens

- 1 Street cleaning
- 2 Beach cleaning
- 3 Recycling center
- 4 Parks & garden maintenance
- 5 Ornamental fountains maintenance

Water Management

- 1 Adduction
- 2 Drinking water treatment
- 3 Drinking water supply
- 4 Sewage system cleaning
- 5 Wastewater treatment



01

Company snapshot

General Overview: Financial Highlights

Urban Services



Waste collection & related activities



Water Management

* Revenues 2016



€1.004m



€55m

* Revenues before Adjustments

Presence 22 countries

Key Facts 562 contracts

Activities

Waste collection
Street cleaning
Green zone management
Other: Construction and demolition services, cleaning and hospital services

3 countries

11 concessions

Concessions
Construction
O&M
Laboratories
Industrial cleaning

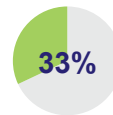
Waste Treatment



Municipal solid waste treatment



Industrials



€533m



€85m

13 countries

115 plants⁵

Sorting
Anaerobic digestions
Composting
Waste to energy
Landfills
Transfer
Packaging

5 countries

9 plants

Oil regeneration & transfer stations
Fuel recovery
Landfills
Clinical waste incinerator plant

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Urban services

General Overview



Cleaning & Collection

- Street cleaning
- MSW collection
- Collection and treatment of other fractions like clinical waste and construction and demolition waste
- Pneumatic collection



Gardening and maintenance of Outdoor and indoor facilities

- Garden maintenance
- Forestry management
- Cleaning and sanitation of coasts and beach areas
- Facilities management



Water Management

- Integral Water Cycle Management
- Potable Water Supply and treatment
- Urban and industrial Wastewater Treatment Plants

2.1 Urban services

..... We offer a service to the citizen



urbaser

02

Urban services

Waste collection

Waste Collection



Rear



Lateral



Bilateral



Underground



Pneumatic



Door to door

02

Urban services

Street cleaning

Street Cleaning



Manual Sweeping



Mechanical Sweeping



Mechanical Scrubbing



Manual Scrubbing



Furniture / Facade
cleanig and repair



Task force and
Emergency cleansing
services

02

Urban services

Gardening and maintenance of outdoor facilities

Gardening / Maintenance, repair and operations of outdoor facilities



Irrigation and lighting



Hardscape instalation



Landscaping



Tree Maintenance:
Pruning



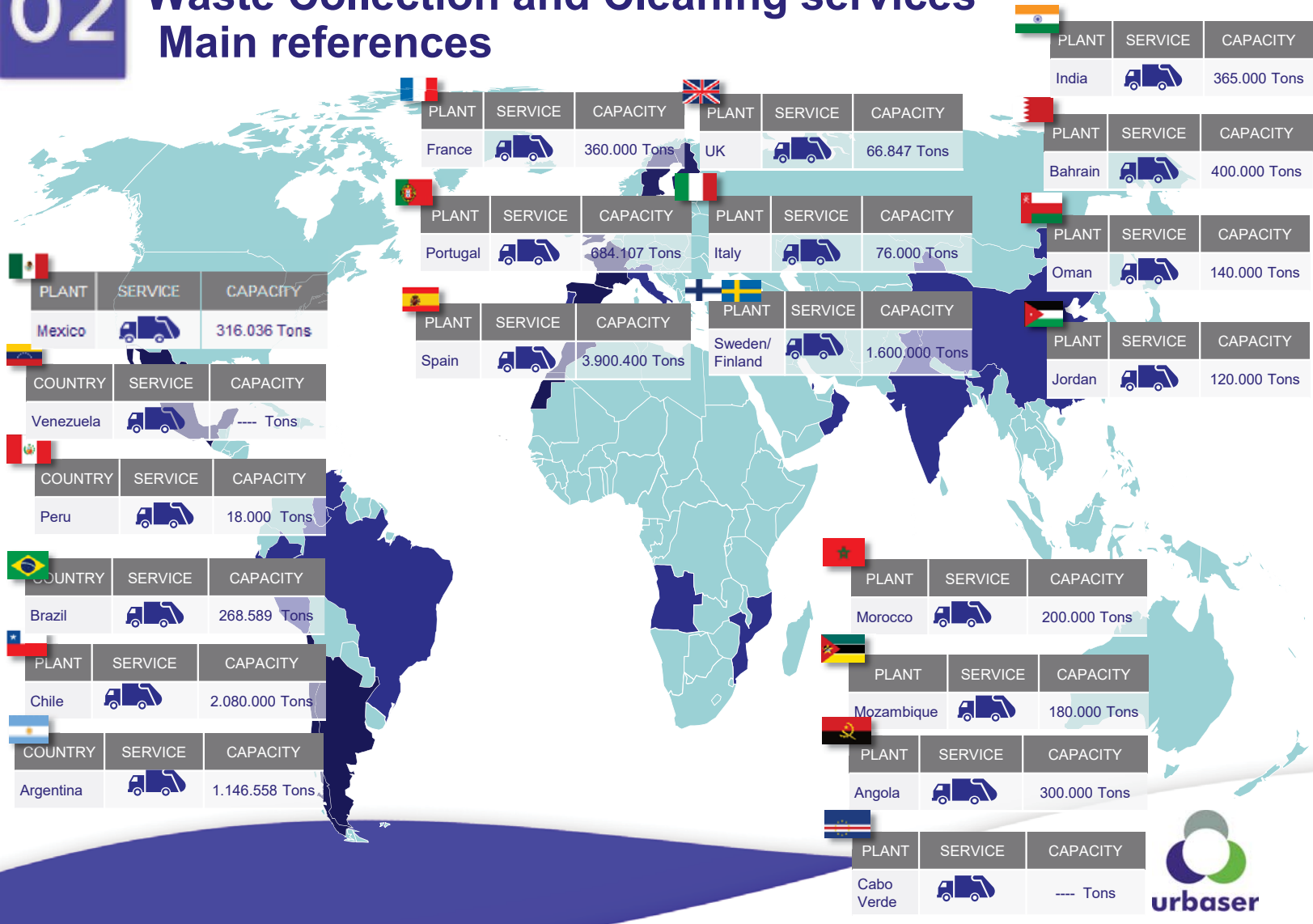
Plague Control



Playgrounds

02

Waste Collection and Cleaning services Main references



02

Strategic Contracts: Waste collection and cleaning services

	Main Service	Turnover	Turnover	Photo
	Buenos Aires	Higiene urbana C.Buenos Aires	70,755,834 €	
	Barcelona	Barcelona Collection (east Area)	49,502,249 €	
	Madrid	UTE recogida periferia	56,296,264 €	
	Santiago Chile	Servicios CTS	11,423,112 €	
	Paris	Paris Nettoyement Urbaproperte IDF	7,618,539 €	
	London	Waltham Forest	8,536,487 €	
	Bahrain	Collection Northern and Southern municipalities	11,313,538 €	
	Oman	Al-Batinah South Governorate in the Sultanate of Oman	6,065,701€	
	Luanda	Vista Waste Collection	36,037,536 €	

02

Main figures: Waste collection and cleaning services



- One of the strongest operator in the market with presence
- Presence in 4 continents and 20 countries
- More than 10 million tons collected

- Top 10 Worldwide Waste management companies
- More than 50 Million Inhabitants served in more than 500 contracts
- Machinery: More than 12.000 Vehicles used for service development

- High resources employed for R&D projects (Alfonso Maillo's facility the most important in Europe)
- More than 30 years of Experience

02

Urban services

Water management



PWTP Benavente



WWTP Valdebebas

Water Cycle

- Integral Water Cycle Management
- Potable Water Supply Services
- Potable Water Treatment Plants
- Urban Wastewater Treatment Plants
- Industrial wastewater treatment plants
- Sewage System Cleaning and Maintenance
- Clients Management
- Water Quality Control

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Waste treatment

General Overview



MSW Treatment

- Sanitary Landfills
- Transfer Stations
- Recycling Plants
- Mechanical-Biological Treatment Plants

Energy

- Waste-to-Energy
- Anaerobic Digestion
- Landfill Degasification

Industrial Waste

- Inert Waste
- Hazardous Waste
- Oily Waste

03

MSWT Technological Capabilities

MSWT

+28 years



1

Mechanical-Biological Treatment (MBT)

- Able to design the complete process
- 1st worldwide operator of MSWT Anaerobic Digestion (AD) facilities
- Worldwide presence in AD
- Valorga Technology

2

Waste to energy (WtE)

- Operates all existing technologies
- Unique know-how key to build tailor-made plants
- Leading player in Iberia
- CNTY Technology

3

Landfill

- Largest sanitary landfill in LatAm
- Vast track record in building landfills, with more than 65 landfills in 4 continents

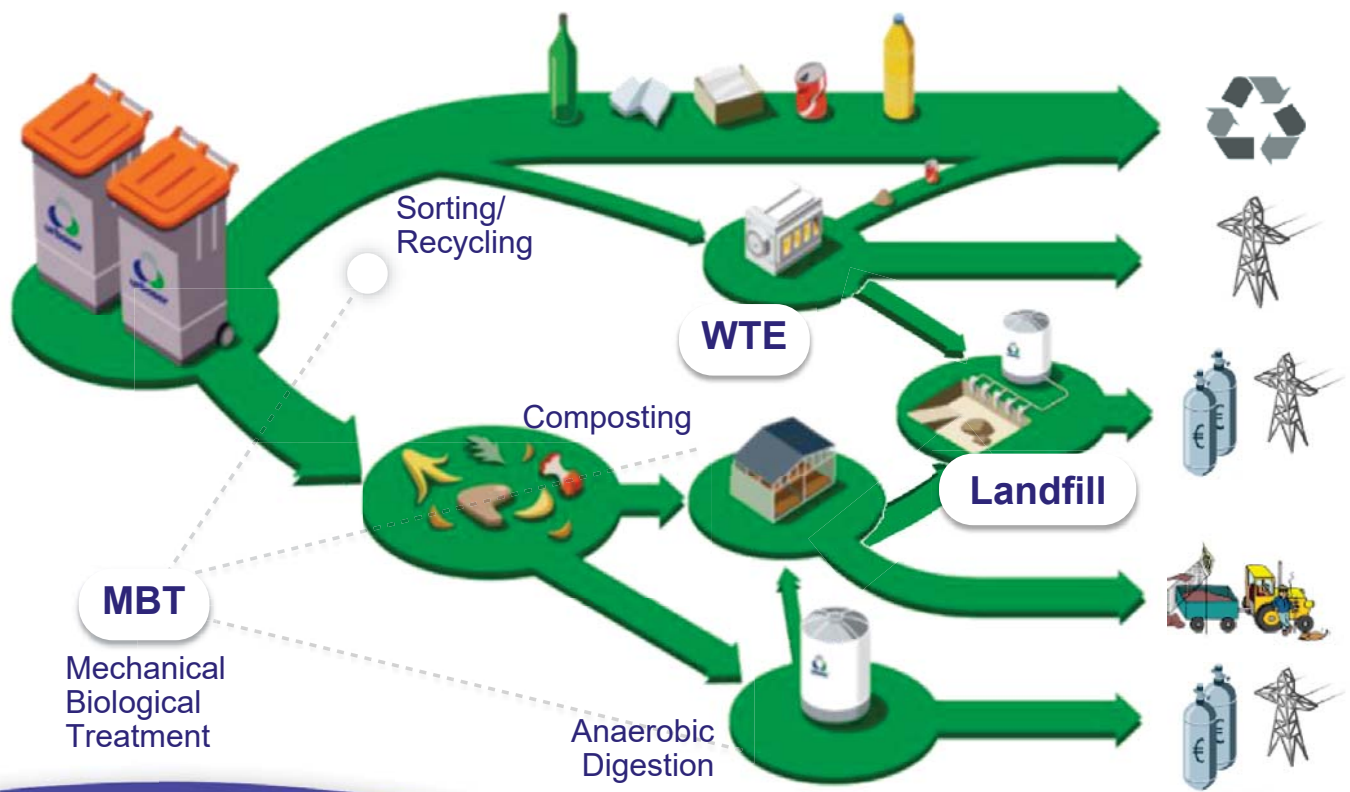
First company worldwide to design of a fully integrated MBT facility
Capabilities to offer DFBOM⁽¹⁾ services



03

Different technologies in an integrated facility

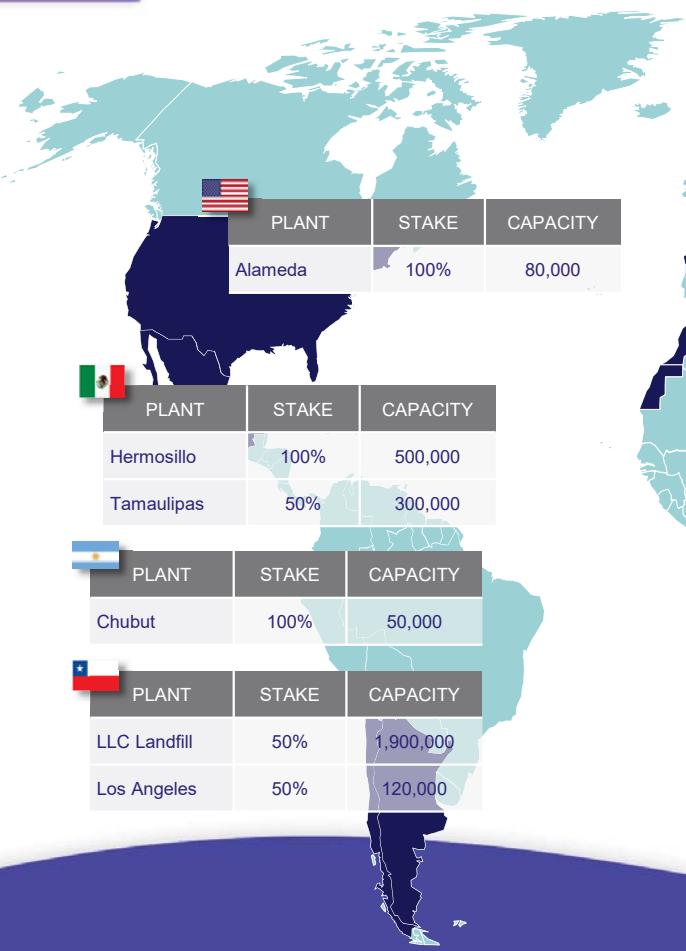
MSWT



03

MSWT Reference Worldwide

MSWT

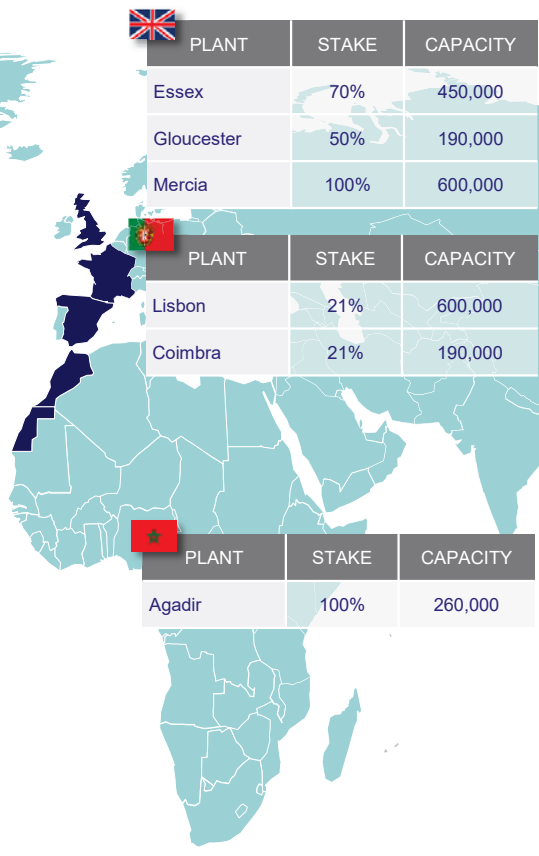


PLANT	STAKE	CAPACITY
Alameda	100%	80,000

PLANT	STAKE	CAPACITY
Hermosillo	100%	500,000
Tamaulipas	50%	300,000

PLANT	STAKE	CAPACITY
Chubut	100%	50,000

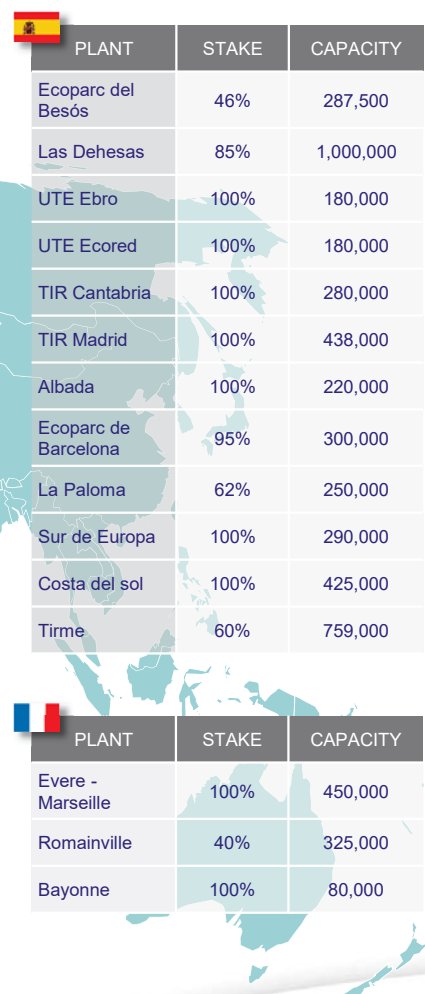
PLANT	STAKE	CAPACITY
LLC Landfill	50%	1,900,000
Los Angeles	50%	120,000



PLANT	STAKE	CAPACITY
Essex	70%	450,000
Gloucester	50%	190,000
Mercia	100%	600,000

PLANT	STAKE	CAPACITY
Lisbon	21%	600,000
Coimbra	21%	190,000

PLANT	STAKE	CAPACITY
Agadir	100%	260,000



PLANT	STAKE	CAPACITY
Ecoparc del Besós	46%	287,500
Las Dehesas	85%	1,000,000
UTE Ebro	100%	180,000
UTE Ecored	100%	180,000
TIR Cantabria	100%	280,000
TIR Madrid	100%	438,000
Albada	100%	220,000
Ecoparc de Barcelona	95%	300,000
La Paloma	62%	250,000
Sur de Europa	100%	290,000
Costa del sol	100%	425,000
Tirme	60%	759,000

PLANT	STAKE	CAPACITY
Evere - Marseille	100%	450,000
Romainville	40%	325,000
Bayonne	100%	80,000



03

MSWT Activities/Technologies

MSWT



Transfer Stations

Reception of the waste from the waste collection trucks in order to transfer them to the treatment facilities with bigger trucks or by train

151 plants

7,217 kt/year



Sorting/Packaging Plants

Sorting plants separate the waste in order to recycle materials that can be used again and classify the rest (compost or rejection)

Purpose of packaging and sorting plants is to recover the recyclable fractions that form part of the packaging that has been selectively collected

52 sorting plants | 9,694 kt/year

55 packaging | 639 kt/year



Anaerobic Digestion Plants

Sorting and treatment of the organic matter to be decomposed in the absence of oxygen to obtain 2 products:

- Biogas
- Compost

28 plants

1,743 kt/year

63.8 MW

03

MSWT Activities/Technologies

MSWT



Composting Plants

Sorting and treatment of the organic fraction to be fermented and matured in order to get compost or bio-stabilized end-product.

58 plants

25 years contracts

3,747 kt/year



Waste-Energy Plants

Combustion of the waste obtaining different solid, gaseous and steam products at a high temperature, producing energy in the form of steam and electricity.

9 plants

25 years contracts

2,698 kt/year

205,2 MW



Landfills

Final disposal facilities used for the controlled burial of the rejects coming from different waste treatment processes.

69 plants

25 years contracts







13,080 kt/year

03

MSWT Technological Capabilities: MBT (Anaerobic Digestion)

MSWT

Anaerobic Digestion (AD)

28 Facilities	53 Digesters Built	1,357,973 t/y of capacity
    	<p>Technologies:</p> <ul style="list-style-type: none"> • 5 Wet systems • 2 Dry system (VALORGA) <p>LINDE (2) HAASE (1) ENVITAL- ROS-OCA (5) URBASER (1) VALORGA (12) KOMPOGAS (1) EGGERSMAN (1)</p>	 <p>12 Facilities 969,789 t/y</p>

AD Key Projects

Project	Technology (1)	Capacity (t/y)
 Coimbra	W- Ros Roca	190,000
 Aveiro	W- Ros Roca	190,000
 Albada	D - Valorga	180,000
 Seixal	W - Kompogas	124,000
 La Paloma (Madrid)	D - Valorga	110,000
 Marseille	D - Valorga	110,000
 UTE Ebro	D - Valorga	100,000
 Varennes-Jarcy	D - Valorga	100,000
 Bayonne	D - Valorga	100,000
 Ecoparc	W – linde	95,000
 Calais	D - Valorga	30,000

Urbaser is the world leading company in Anaerobic Digestion








Valorga, owned by Urbaser, is the #1 ranked anaerobic digestion technology worldwide
 World leader in large scale anaerobic digestion facilities



03

MSWT Technological Capabilities: WtE / Integrated Facilities

MSWT

Facility	Capacity (Mg/year)	El. Power (Mwe)	Furnace	FGT	Start	Share
 Mallorca 1	300,000	33.6	RLG - D. Babcock	Semi Dry + SCR	1996	60%
 Madrid	307,000	29.0	FB - Ebara	Semi Dry + SCR	1997	100%
 Valorsul	600,000	49.0	RPG - Foster Wheeler	Semi Dry + SNCR	1999	21.42%
 Cantabria	124,000	10.5	RLG - Lurgi	Dry + SNCR	2006	100%
 Marseille	360,000	32.0	RPG - Martin (CNIM)	Semi Dry + SCR	2010	100%
 Mallorca 2	432,000	41.2	RPG - Von Roll	Dry + SCR	2010	60%
 Hereford	200,000	18.0	RPG - HZI	Semi Dry + SNCR	2017	50%
 Gloucestershire	185,000	17.4	RPG – Babcock W. Volund	Dry + SNCR	2018	50.5%
 San Sebastian	200,000	24.5	RPG – Steinmüller Babcock	2 stages Semi Dry + SCR	2019	46%

BFB: Bubbling Bed
 RLG: Roller Grate

FB: Fluidized Bed
 RPG: Reciprocating Grate



Comprehensive plant, Cantabria, España



MSW Plant EveRé, Marseille



Biomechanical Treatment Plant La Paloma, Madrid, Spain



Biomechanical Treatment Plant, Valencia, Spain

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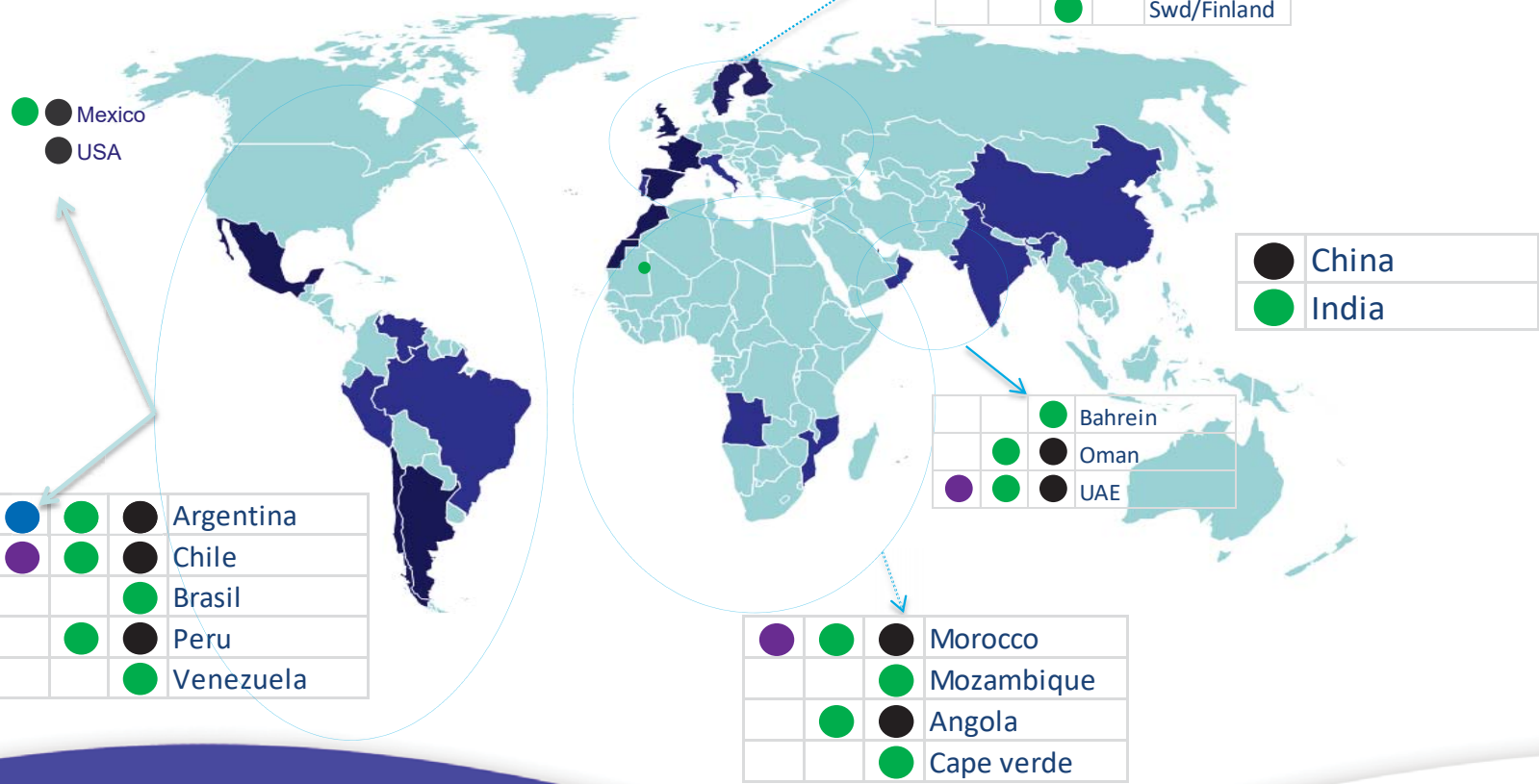
04 Geographic footprint

04

Geographic Footprint

General Overview

● MSWT
 ● Industrials
 ● Water
 ● Waste Collection



Analyzing trade technologies, for sharing with our clients the best technology, economy and financial solutions



Thank You!

Today for tomorrow.

