



Greentec

For projects and environmental services
S.A.E.



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1- Business, Administrative & Contact Information

- a. **Business name:** Greentec for projects and environmental services
- b. **Business type:** Waste management consultation, Waste management services, Waste management equipment supply, Operation of Material facility.
- c. **Commercial registration number:** 16267
- d. **Commercial registration date:** 16-1-2014
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GREENTEC for projects & environmental services is an Egyptian shareholding company specialized in waste management. GREENTEC was established in 2014, as a sister company for Allunile Middle East, So Allunile's waste management projects were all transferred to GREENTEC. The company works in accordance to international standards and uses the latest innovative methods in dealing with waste. The company's scope of work extends from environmental consulting, and planning related to waste, supplying waste equipment, tailoring zero waste programs, collection services, operating recycling facilities, supplying compost, and RDF.

GREENTEC is the representative, and agent of important European specialized waste equipment companies.



GREENTEC is the first company in Egypt to use modern technology in solid waste collection, and segregation.

GREENTEC was the first to introduce the underground garbage containers, and the lateral compactor truck in Egypt.

GREENTEC was the first to introduce Automatic machines for collecting empty plastic bottles and metal containers.

GREENTEC was the first to introduce Composting machines for converting organic waste into compost, feed or alternative fuel.

All GREENTEC products are smart, and can be integrated into any BIM system.



Greentec for projects and environmental services Activities

Greentec works in the following fields:

- 1- ENVIRONMENTAL WASTE MANAGEMENT CONSULTATIONS and providing waste solutions, especially for industrial facilities.**
 - Studying, and planning of waste management systems for residential compounds, collection plans, sweeping and transportation of waste.**
 - Planning and establishing transfer stations for municipal waste, and industrial platforms for industrial waste, to make optimal use of waste with respect to environmental regulations.**

- 2- Adapt waste management programs towards the ZERO-WASTE goal with companies, institutions, factories, commercial centers, universities and new residential communities, while taking advantage of all materials in accordance with health and environmental regulations.**

- 3- Providing SMART SYSTEMS to follow up the entire waste management process starting from the operations management, fleet management, asset management, labor management, customer management, and dealing with complaints in minutes.**

- 4- Waste collection, and sweeping services, for compounds, residential communities, touristic, commercial, and industrial institutions.**



- 5- Supplying and installing underground waste bins, operating by electricity, solar energy, or hydraulic, and supplying the latest smart containers over the ground.**
- 6- Supplying, and assembling of, Side loading compactor trucks, Rear loading trucks, with compactor or without, and Side Washing bins truck.**
- 7- Supplying waste CONTAINER COMPACTORS, and open and covered containers with different capacities.**
- 8- Supplying, and assembling, SMART MOBILE TRANSFER STATIONS.**
- 9- Supplying and installing of PNEUMATIC AUTOMATIC WASTE COLLECTION SYSTEM.**
- 10- Supplying automatic machines, and REVERSE VENDING MACHINES for collecting and compressing recyclable plastic and metal containers.**
- 11- Supplying COMPOSTING MACHINES for converting organic waste into feed or organic fertilizer in 24 hours.**
- 12- Safe disposal, and execution services of non- hazardous materials, packaging, and documents, to factories, companies and offices, and providing the tracking documents.**



13- Operating WASTE RECYCLING FACILITIES, municipal waste, and industrial waste.

14- Production of alternative fuel products (RDF - TDF - BDF) and supplying them to cement plants.

15- Production of compost from municipal waste, and plant-based compost from agricultural waste.

16- Safe disposal of hazardous waste with high calorific value in the ovens of cement companies.



Our Partners

- Greentec is the sole agent for the Italian company CONTRA.

It is specialized in Waste collection equipment.

- Greentec is the sole agent for the Italian company O.S.T. Srl.



It is specialized in Waste collection equipment.

www.ostitalia.it

- Greentec is the sole agent for the Finnish company MARIMATIC.

It is specialized in Automatic Waste collection system.

www.marimatic.com

- Greentec is the agent of the Italian company COSECO.

It is specialized in Waste collection trucks, and mobile transfer stations.

www.coseco.it

- Greentec is the sole agent of TRANSLIFT from Netherlands. It is specialized in lateral garbage collection trucks, and underground.

www.vdltranslift.nl

- Greentec is the agent of the Spanish company FORMATOVERDE.

It is specialized in Waste collection bins.

www.formatoverde.com



- Greentec is the sole agent of the Italian hydraulic system company B.O.B. SPA.

www.bobspa.com



- Greentec is the agent of the Estonian company COMPOMAN. It is specialized in Waste containers, compactors, and waste transfer stations.

www.compoman.ee



- Greentec is the agent of the Chinese company GREENGOOD OKLIN. It is specialized in food waste management solutions.

www.greengood.eu



- Greentec is the sole agent of the Italian company CARBONITALIA. It is specialized in activated carbon and filtering, and bleaching earths.

www.carbonitalia.com



- Greentec is the agent of the turkish company EVREKA. It is specialized in Smart waste solutions.

www.evreka.co



- Greentec is the agent of the Chinese company MINGOU. It is specialized in Electric waste vehicles.

www.minuo.org



- Greentec is the agent of the turkish company ECOARBA. It is specialized in Waste collection TRUCKS. www.arbaindustry.com





1-Environmental and technical consultations in the field of waste management:

One of the major problems facing waste management systems is that they are not taken into consideration during the planning process of the project. Waste planning from the very beginning not only simplifies the operation, saves operation cost, and helps choose the optimum waste collection system.

GREENTEC offers environmental and technical consultations, in all aspects concerning waste management, and waste equipment.

- 1- Studying, and planning of waste management systems for residential compounds, collection plans, sweeping and transportation of waste.
- 2- Planning and establishing waste and transfer stations for all types of waste, whether industrial or household, and making optimal use of waste with respect to environmental regulations.
- 3- Adapt waste management programs to reach the zero waste goal with companies, institutions, factories, commercial centers, universities and new residential communities, while taking advantage of all materials in accordance with health and environmental regulations.
- 4- Development, and upgrade of existing waste management systems.

GREENTEC tailors waste management programs to reach the zero waste goal with companies, bodies, factories, commercial centers, universities and new housing compounds, and to ensure that all materials are used in accordance with health and environmental requirements.

Waste management programs insures:

- 1- Waste reduction solutions.
- 2- Minimal waste paths.
- 3- All recyclable waste is recycled in facilities that follow environmental regulations.
- 4- Directing any non-recyclable waste to the alternative fuel path.
- 5- Safe disposal of any dangerous waste.
- 6- Setting regulations for waste systems.
- 7- Keeping track of all generated waste, and ensures it is recycled or disposed of in accordance to environmental regulations.



2- Providing SMART WASTE SOLUTIONS SYSTEMS to manage waste management projects:

Smart Waste Management Systems is a smart and innovative tool for keeping track of operations, fleet, employees, and customers in real time.

Advantages of smart systems:

- Correct any errors or any quickly.
- Rapid response to any emergency.
- Speed of decision-making.
- Immediate response to customer needs.



THE SMART WASTE MANAGEMENT SYSTEM consists of the following:

1-OPERATIONS MANAGEMENT SYSTEM: Provides practical management capabilities and smart vision for operational excellence. It allows complete control of the waste collection operation and city clean-up operations, and managers are provided with the most accurate, up-to-date data from the field. The control room is specially designed to ensure the follow-up of work, and to correct the path quickly in the event of any error, and it enables the collection of data that helps in making administrative and executive decisions and developing future plans.

2 -FLEET MANAGEMENT: The fleet is tracked at work time, and data is collected, which facilitates the future planning process and increases cost efficiency.

3 -ASSET MANAGEMENT: Provides on-site asset management capabilities, increases the life span of assets, and provides avoidance of additional cost.

4- LABOUR MANAGEMENT: Provides tracking and management of labor, follow-up and analysis of work at the moment, increasing planning, and cost efficiency. It also provides seamless coordination with real-time employee activities, eliminating paperwork and paper cost.





3- Supplying and installation of the PNEUMATIC AUTOMATIC WASTE COLLECTION SYSTEM:



MetroTaifun Automatic waste collection systems work like giant vacuum cleaner. It collects the waste from waste inlets, through an underground pipeline network to the waste transfer station.





4-Waste Collection & Sweeping services

GreenTec offers waste collection, and sweeping services for compounds, touristic, commercial and industrial facilities. All collection services are performed in accordance to the environmental regulations. All collected waste is transported and either recycled or disposed in authorized facilities.





5- Waste Collection Equipment

5-1) Lateral compactor truck

One of the biggest problems in the collection systems in Egypt is the garbage bin. The bin is moved by the workers to be emptied by the back loading truck, moving the bins consumes the wheels, and decreases the life expectancy of the bin, not mentioning its shape after several discharging operations.



The lateral compactor truck is the latest efficient collection solution in the world, it is suitable for serving garbage bins up till 4500 liters.

The Lateral compactor truck empties both overground and underground garbage bins. They not only reduce time in the collection process, but they eliminate human intervention.

**All our equipment is smart and can be connected with any BIM system.
All our tailgates can be assembled locally on any chosen truck.**



Our lateral compactor trucks are working in MADINATY “Talaat Mostafa group” for more than ten years.



5-2) Rear loading trucks

O.S.T. RL-250



O.S.T. RL-180



O.S.T. RL-100



O.S.T. RV5/7



O.S.T. CPP Type 5/7



O.S.T. RV 2.5/3.5





5-2) Washing bin truck



Lateral bin washing truck



Rear loading washing bins truck



Coseco trucks models



1- Tipper trucks:



K1 small

Piaggio Porter Flip

Capacity from 1.2m³ to 4m³

Payload from 1.5 tons to 2.5 tons

K1 large

Piaggio Porter Flip

Capacity from 5m³ to 8m³

Payload 3.5 tons to 7.5 tons





2- Waste packing tipper

K1P

Capacity from 4 m³ to 8 m³,

Payload from 3.5 tons to 8 tons.



K1R capacity from 4m³ to 8m³ and payload from 3.5t to 8t.

3- Two tipper tub truck





4- Small compactor trucks



5- Big compactor trucks





Electric trucks from MINGUO



Electric lateral waste collection truck



Electric sweeper



Piaggio porter side loading



Electrical Trycycle

ECOARBA trucks:



Eco mono



Eco midi



Eco mode



Eco mini



Eco max



6- Waste mobile transfer stations



Consists of a mobile compactor of capacity 50 m³. When the garbage collection trucks are full, they go to the transfer station, where they unload the waste directly into the mobile transfer station, and when the compactor is full, it will be attached to the truck head and transported directly to the dump or landfill. The mobile transfer station is made in Italy by Coséco



It is possible to equip the mobile compactor with GPS, cameras and an application to make a remote monitoring system, and by that we can record the numbers of the cars that have been unloaded, the time of unloading and the load that was unloaded.





6-Under ground waste containers:

Underground waste containers are one of the latest innovative waste collection solutions in the world. Hiding a 3200 liters, or a 4000 litres garbage container under the ground and showing only a small attractive box above the ground that is about 80 liters is a big advantage.



The advantages of the underground bins are many:

- **Provides a lot of space, that is not possible overground.**
- **Big bins of 3500 liters can be installed underground.**
- **The waste can't be reached by garbage pickers.**
- **No odors, or bad sights.**
- **No cats, or dogs, or any insects**
- **Incomparable in terms of aesthetics, health and environment.**

The underground system can operate either by:

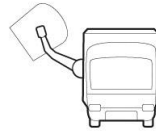
- Hydraulic.**
- Solar energy.**
- Electricity.**





Types of underground systems:

Side loading underground containers:



Back loading underground containers:



Crane loading underground containers:





Mega containers with internal compactor:

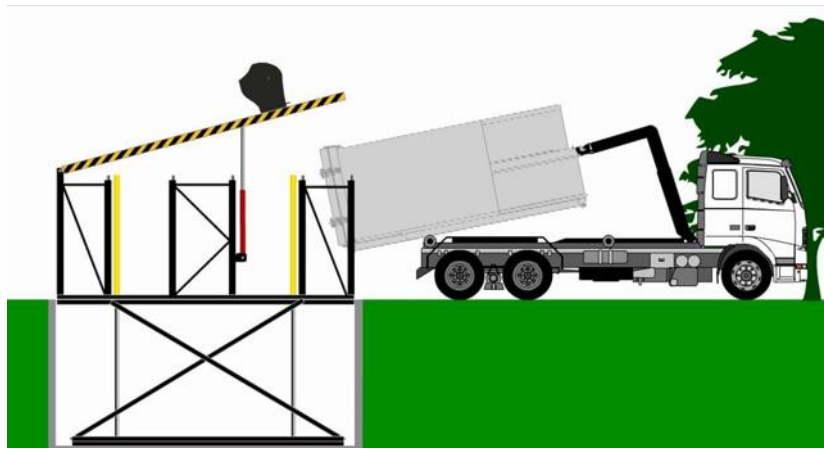
Used in markets and in high gathering areas, and can be used as an intermediate station.



The underground Mega Box from above



Equivalent to 60 bins of 1000 liters





Waste underground containers in Madinaty “Talaat Mostafa Group”



First underground containers in Egypt



[//www.youtube.com/watch?v=-2t3i-EahH8](https://www.youtube.com/watch?v=-2t3i-EahH8)

You can also watch video on facebook **Greentec Egypt**





7-Modern smart garbage containers above the ground

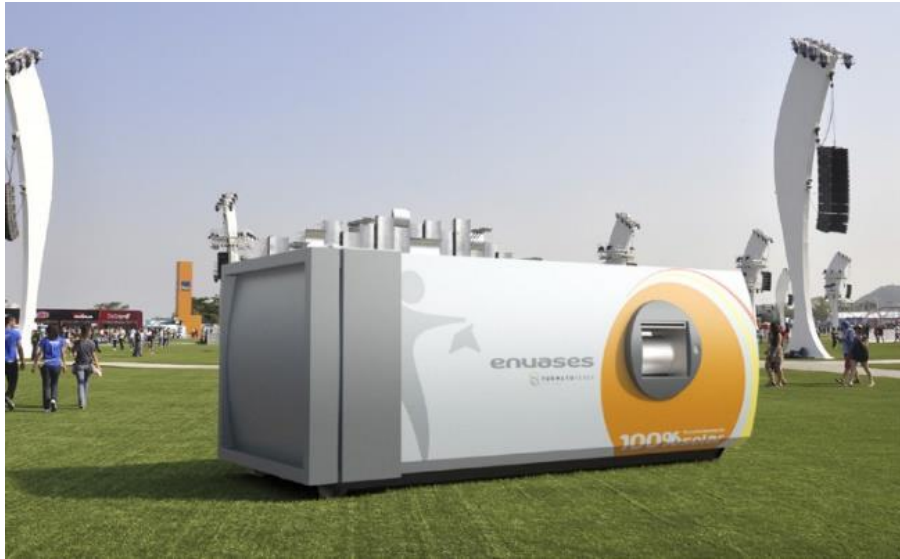
One the biggest problems facing garbage collection systems is the relationship between the garbage bin, and the collection truck. The garbage bin moves to the truck or the truck moves to the garbage bin. There cant be an optimum solution for all cases, but surely in big cities, and wide streets, the side loading system is a perfect solution, minimising the time of discharge of the bins, as a 3500 liters bin can be emptied in less than 60 seconds, the alternative will be 3 or 4 back loading bins 1100 liters and it will take not less five to six minutes to empty them. It also minimizes working labour, and rises the efficiency of the collection system.

Overground garbage bins 3200L, 2900L, 1800L and 1100L containers

The big bin consists of double polyethylene wall with high pressure foam filling inside it. They are the sturdiest, most durable containers in the market.



The Big bin is the product of FORMATO VERDE.



Solar powered ground compactor with capacity of 20 metric meters of compressed waste, i.e 60 cubic meters of non-compressed waste.

The Solar compactor is the product of FORMATO VERDE.

GRECO bins, are made in Italy, metal, and plastic bins ranging from 120 liters to 3200 litres.





8-Automatic machines and Reverse Vending machines for collecting empty beverage containers



- Greentec was the first in Egypt to introduce Automatic, and Reverse vending machines for collecting recyclable empty beverage bottles and containers in an unconventional way, The machines are designed according to international standards, safe, entertaining and at the same time gives incentives to citizens.

The machines are characterized by the following:

- Reducing the volume of waste by 90%, thus minimizing storage space.
- Minimizing transportation costs.
- A civilized, and interesting way for encouraging citizens segregate their waste.
- Availability of advertising space on the body of machines.



Automatic machines at city center Alexandria mall



**Automated collection center for empty plastic bottles and metal cans
In city center mall, Alexandria. The collection center can be designed in
different dimensions and for a variety of purposes.**



- Reverse vending machines, with shape and barcode recognition.
- Touch screen for interaction, engagement, and advertising.
- Customized branding wrapping on the machines.
- Supports multiple reward system.
- Accepts up to 30 containers per minute.
- The software includes: Barcode database management, Advertising, and media management, Alarm management, Reports management, Customer management, and maintenance management.



9-Organic materials processing units in 24 hours

Composters

1- Food waste Composter:

The latest innovation in the field of organic waste treatment, reduces the organic waste weight by app. 80 to 90 % in 24 hours. It is a perfect sustainable solution for malls, restaurants, and factories, and plants that produce organic waste.

Organic waste is considered one of the main challenges when dealing with waste. The odor, the leachate, insects, pests, etc. are all secondary problems. Producing compost from organic waste, takes a lot of time which is generally from 45 to 90 days according to the quantity, temperature, and other variables.



The composter is the solution for food waste, and any organic waste. It transforms organic waste into "compost" (organic fertilizer and soil conditioner) through an automatic process, which consumes little energy, 24 hours, and thus minimum space. The organic matter quantity is reduced to 20%-10% due to the evaporation of water, and decomposition of the organic matter by the micro organisms present in the machine.

This process is done without any additions during operation, i.e the micro organisms are only added once. and the organic waste decomposes without any odor.



Composter models with capacities ranging from 5 kg to 1400 kg (under the photos)



Used in homes, restaurants, hotels, schools, apartment complexes, offices and cafes.

-Machines available of different capacities ranging from 5kg / day to 1.5 tons / day. It is possible to implement machines with greater capacities as needed.

2- Food waste dryer:

Some sorts of organic waste is better dried than composted, as they can be used as animal feed.

- It dries the organic waste in 12- 24 hours.
 - The volume of waste is reduced by 75%. i.e after drying the left quantity is 25% of the original organic waste quantity.
 - Output can be used as organic fertilizers or animal feed.
 - All machines perform four functions: drying / deodorizing / crushing waste / sterilization.
- The machines are available in different capacities ranging from 20 kg / day to 5500 kg / day. It is possible to manufacture any capacities according to need.



20 kg / day drying machine



5500 kg / day food waste drying unit

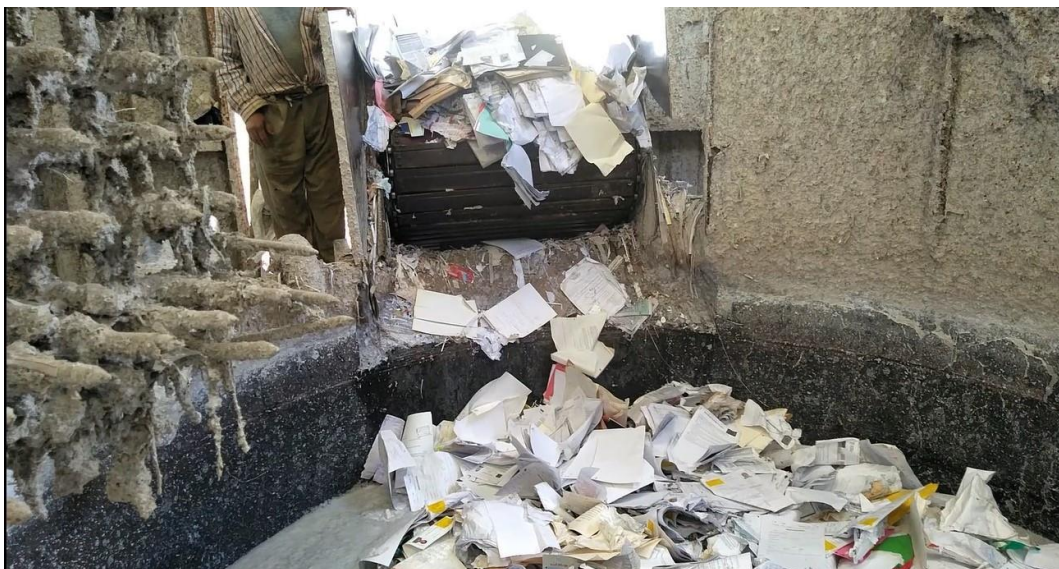


10- Safe disposal and execution services of hazardous, and non-hazardous waste:

Safe disposal and execution services for factories, companies, offices, and providing the tracking documents. Depending on the type of waste, A solution can be proposed:



Old bank cards are disposed in the cement company's kiln.



Confidential documents are disposed in the mills of paper recycling companies.



Old packaging is disposed in cement companies kiln as alternative fuel.

Concerning the hazardous waste:

Hazardous waste with high calorific value is sent to cement companies to be disposed in the cement kiln, and this is considered the best solution to assure proper end of life treatment and disposal of hazardous waste.

Examples of hazardous waste that can be disposed in the cement companies kiln are waste oil, waste solvents, carpet, and textile factories waste, wood preservatives, tar, spent activated carbon, certain filter cakes, solvents containing paint, and many others.



11- Material Facilities, and Waste to energy projects

GREENTEC plans, supplies, installs, and operates waste recycling plants. We design the facility according to the type of the input waste, and according to the requested output of the market demand study.

The products of the waste recycling plants (Material facilities):

- **Recyclable materials.**
- **Compost.**
- **Refuse Derived Fuel (RDF).**
- **Biogas, electricity, or any energy products.**

GREENTEC works in accordance to the latest technologies, and participated in the studies of several waste to energy projects.

Preparing REFUSE DERIVED FUEL from municipal, and industrial waste and supplying it to cement factories as alternative fuel.





Preparation of Compost



Compost rows during maturation



Compost after sieving

GRENTEC has an integrated team with long experience in the field of compost, alternative fuel and a very strong technical team.



Awareness activities, seminars, programs and competitions



Alexandria International School



Elmaadi Amal School



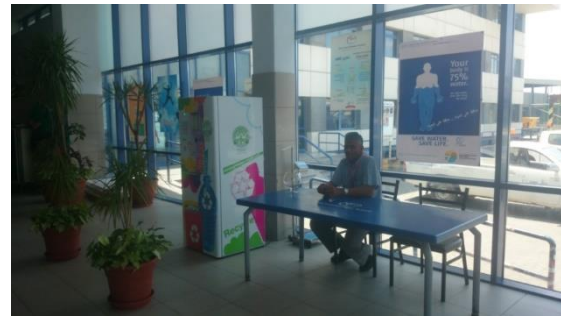
Molier and English school in Alexandria



Cairo English school



Recycling competition in City center Alexandria



Environment Day at the Suez Container Terminal



Training course for workers and employees at LafargeHolcim as part of the "Lafarge Zero-Waste" program



Kom El Shoqafa cleaning campaign in Alexandria