

1 AUTOMATIC CONTROL(SCADA) ROOM

Waste sorting facility possesses a fully automatic control room equipped with latest technology automation and electronic systems. The control room provides a detailed view of the entire plant and offers pin point solutions for failures, emergency situations, maintenance and maintenance recommendations. Supports the system with the troubleshooting recommendations and provides maximum efficiency.

2 TIPPING FLOOR

This is the waste reception area of the waste sorting and rehabilitation plant. Packaging waste is collected from all over the city and transferred daily for sorting and recycling purposes.

3 BAG OPENER / DOSAGING

After the tipping floor, wastes start a journey towards sorting and recycling. In the 2nd stage of the operation, the bags are torn in the bag opener machine and the contents are carried to the trommel screen via slat conveyor.

4 TROMMEL SCREEN

Packaging waste fed to trommel screen is classified according to its sizes and directed to related machinery/Equipment.

5 6 OVER BAND MAGNET

In this section, ferrous metals are sorted from waste stream with the help of powerful magnets.

7 BALLISTIC SEPARATOR

Ballistic separator is one of the main elements of the sorting plants. Main function of the ballistic separator is to separate 2D/light, 3D/ heavy and fine fractions to guarantee high sorting efficiency at advance processes. Benli Recycling Group produces its own ballistic separators in Turkey with the know-how rights transferred from Europe.

8 OPTICAL SORTER - 2D FRACTION (PE FILMS)

Optical sorters are programmed to detect 2D objects with the help of near infrared technology. Pe films are sorted automatically with excellent precision and directed to related bunker.

9 OPTICAL SORTER - 3D FRACTION (PE-PP PLASTICS)

3D materials separated by the ballistic separator are directed to an optical sorter which separates PE-PP plastics automatically. Optical sorters can detect materials with a speed of 3.5 meters per second which is 20 times faster than the separation can be made by a manual sorting personnel.

10 OPTICAL SORTER - 3D FRACTION (PET PLASTICS)

3D materials separated by the ballistic separator are directed to an optical sorter which separates PET plastics automatically. Optical sorters can detect materials with a speed of 3.5 meters per second which is 20 times faster than the separation can be made by a manual sorting personnel.

11 EDDY CURRENT SEPARATOR

Non-ferrous metals that cannot be magnetized by band magnets are separated from the stream with the help of eddy current separator and directed to related bunker.

12 VACUUM UNIT

LDPE films that are in movement outside the conveyor are hand-picked and fed to vacuum pipes. LDPE films are sucked and moved through the vacuum line before collected inside the related bunker.

13 AUTOMATIC BUNKER SYSTEM

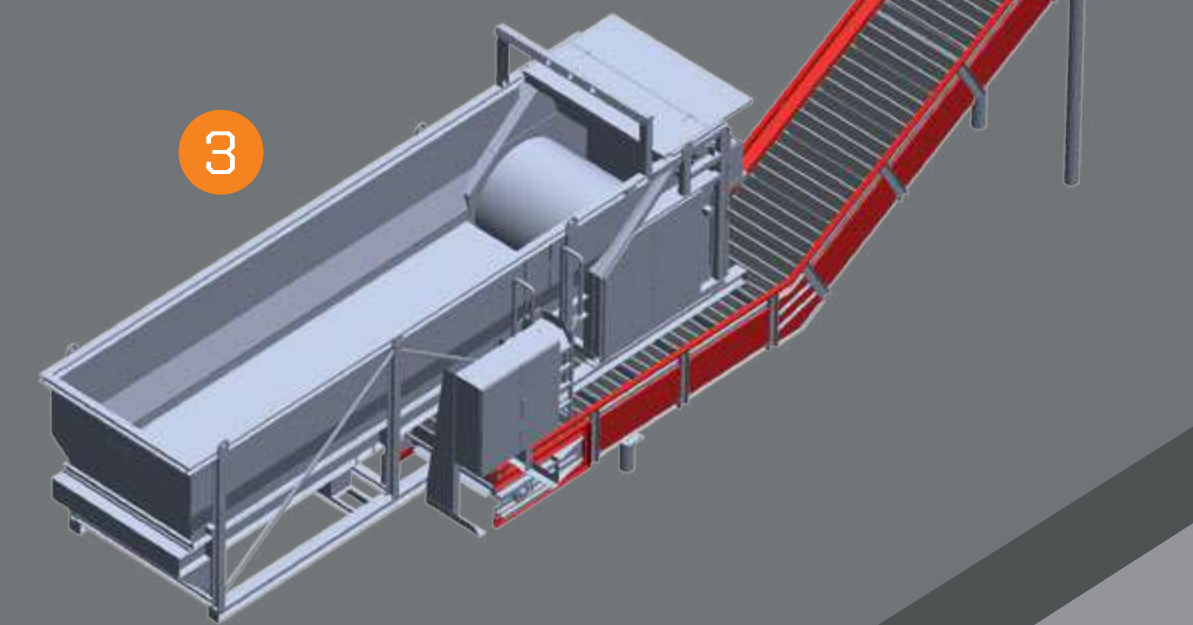
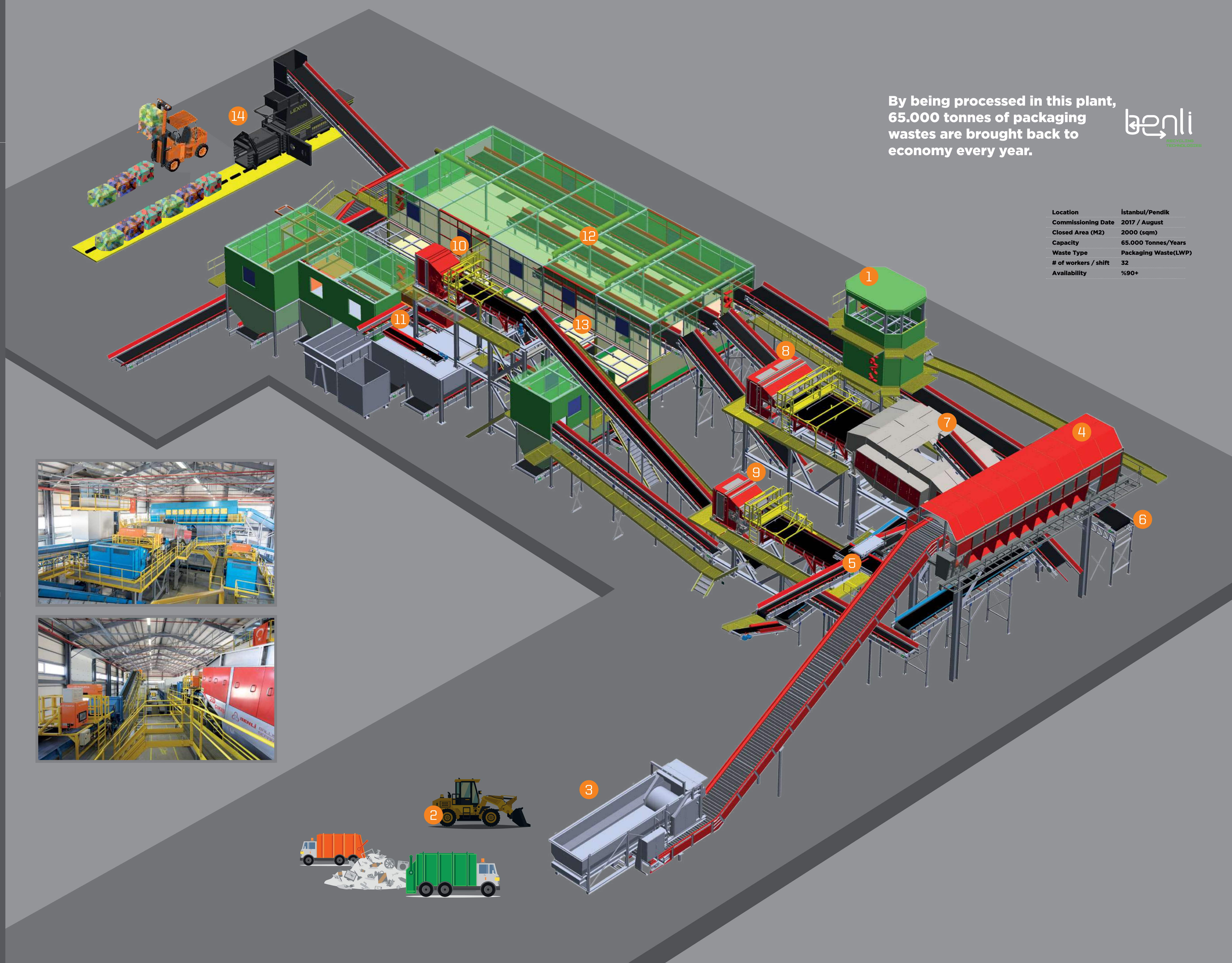
Recyclables sorted within the process are collected inside automatic bunkers and these bunkers can be fed to bale press automatically.

14 HORIZONTAL BALE PRESS

Recyclables classified within the process are compressed with great amount of force and baled. Bales are automatically wired by the machine in order to keep their firmness. Baled recyclables are directed to stock area before they are shipped to Recycling Centers as secondary raw materials.

By being processed in this plant, 65.000 tonnes of packaging wastes are brought back to economy every year.

Location	Istanbul/Pendik
Commissioning Date	2017 / August
Closed Area (M2)	2000 (sqm)
Capacity	65.000 Tonnes/Years
Waste Type	Packaging Waste(LWP)
# of workers / shift	32
Availability	%90+





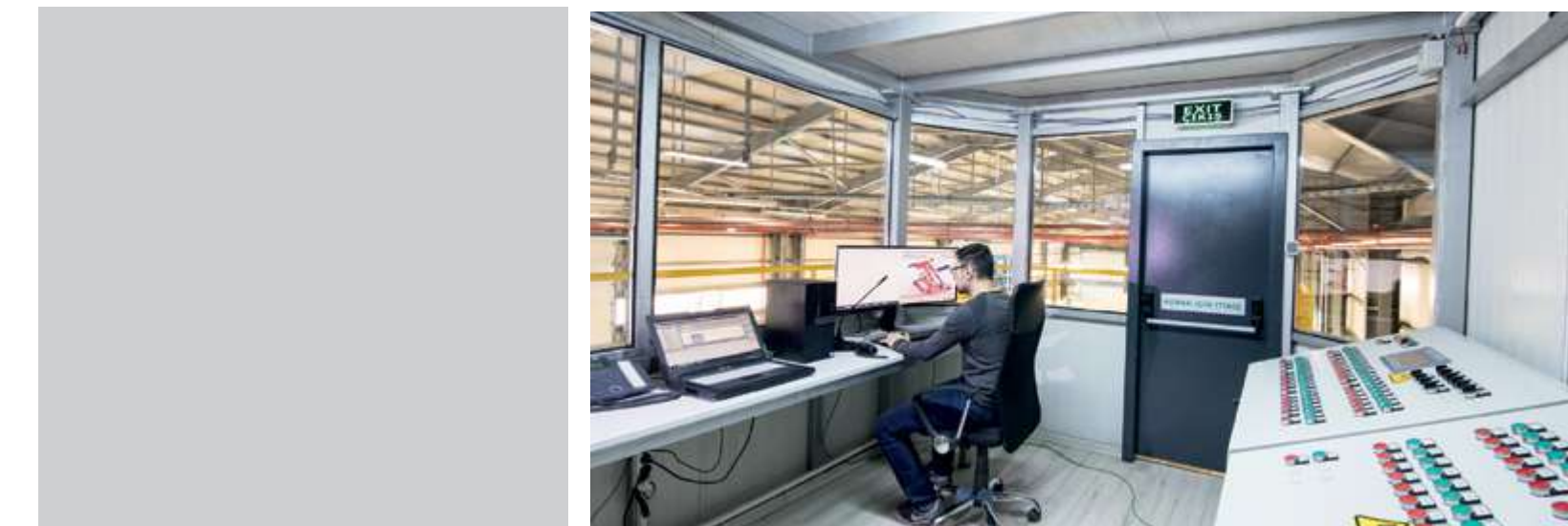
The Waste Sorting Facilities established in Eskişehir, Afyon, Bilecik, İstanbul, Manisa and Israel provide an example for the local administrations.



Having an experience of over half a century in recycling and waste management sector, solid waste sorting plants erected by Benli Recycling Group in Eskişehir, Afyon, Bilecik and İstanbul (Pendik district) cities, pioneer and set the best examples for the development of recycling concept in Turkey.

These, feasibly operating automatic solid waste sorting plants can sort mixed municipal solid wastes collected from houses into; recyclables, organics and RDF with the help full automatic systems. Moreover, these systems can also sort packaging wastes that are separated at source from organic, inert, etc. wastes.

Benli serves, supports and offers comprehensive solutions for municipalities and local authorities with its waste collection, tracing systems, field reports, software and other operational experiences.



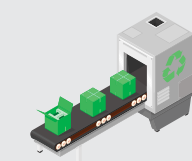
ADVANTAGES



With its yearly sorting capacity of 65.000 tonnes, Pendik Packaging Waste Sorting Plant can process the packaging waste produced in a city with 300.000 - 1.000.000 population.



Plastics, paper, glass, metal, aluminum can be sorted in a swift fashion.



Economic and environmental gains are achieved by regaining valuable packaging waste for production.

Thanks to its solid waste pre-treatment facilities, Turkey opens the door to a new era by separating packaging wastes with economic value, RDF raw material with calorific value, organic wastes with energy potential in mixed waste according to their types.

Managing landfills or building new sanitary landfills bring considerably high costs to municipalities. In order to avoid environmental hazards that will emerge from the mixing of leachate with the soil, laborious and high-cost installations and reclamation operations are applied during both the building and closure phases of sanitary landfills. Besides, unsorted packaging wastes notably hasten the filling of landfills to full capacity due to their voluminous nature and therefore increase the costs immeasurably.

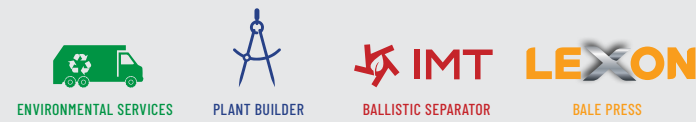
The confusion emerging from the terms packaging, household waste and solid waste; and the lack of information and trainings regarding recycling activities are the main obstacles hindering people from taking part within the process. As a result, valuable recyclables are unfortunately transferred to landfills and buried. This process, with the help of technological and industrial developments, is advanced to a new level. Thanks to solid waste sorting plants, Turkey will rehabilitate its wastes by sorting packaging wastes, organic wastes and RDF material at collection and sorting plants and open a new era in regard to waste management.

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The feasibly operating plants in Eskişehir (2013), Afyon (2015), Bilecik (2017), İstanbul (2018), and Manisa (2021), erection of which have been undertaken by Benli Recycling Group on behalf of the customers, stand out as a model in wastemangement industry.

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We are combining our waste management and engineering experience of over half a century with the top-ranking brands of the Recycling Industry worldwide.



IF YOU NEED A REASON FOR RECYCLE

#ReasonForRecycle



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Benli Recycling Group located in Eskişehir is one of the leading waste management companies in Turkey. Benli Group has been in operation since 1968 and offers integrated and sustainable solutions in the fields of waste management, collection, sorting, processing and recycling.

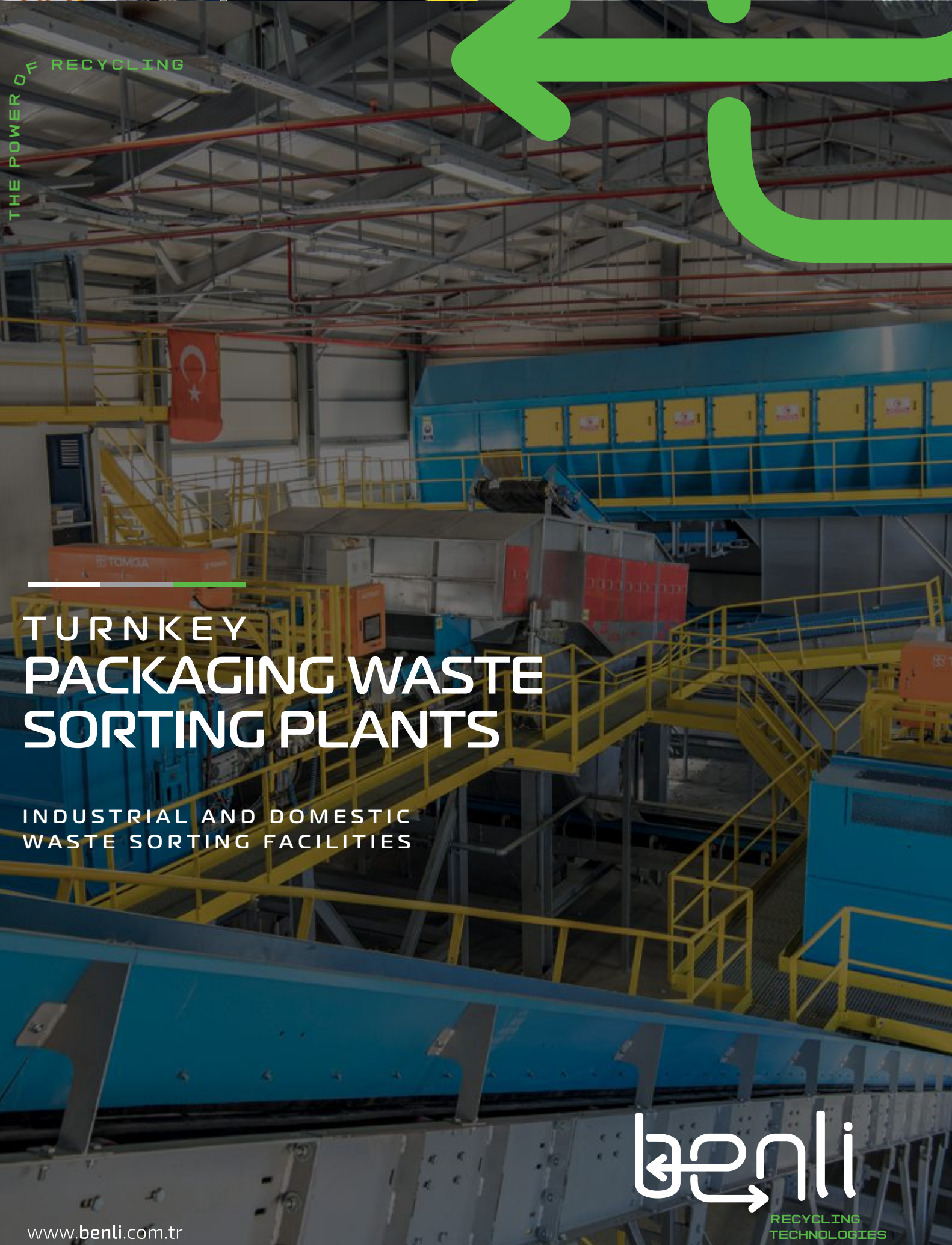
Benli Group has blended its experience in the waste sector since 1968 with the scientific works carried out in its R&D department established in 2007 in the same pot and redirected the future of the waste sector by developing various machines, processes and systems, acquiring intellectual property rights and transferring "know-how" from Europe on certain technologies, whereby has been successful in various scientific competitions.

Thanks to its experience over half a century, Benli provides service in the fields of collection and processing of household and industrial waste, recycling of EPDM rubber, recycling of end-of-life tyres, turn-key waste plant building and individual recycling machine production and leads its sector by following latest technological developments globally.

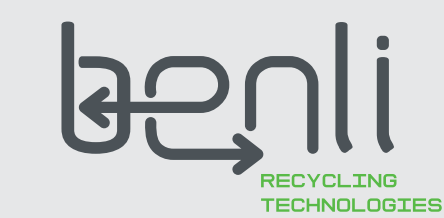


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Availability



Thanks to over half a century of experience; we design, engineer, plan, manufacture, guarantee, commission and provide long-term supervision, integrated systems for such rising investment areas as;

- Solid Waste Sorting
- PET / Mixed Plastic Waste Sorting
- Packaging Waste Sorting
- RDF / SRF Preparation
- Waste to Energy

