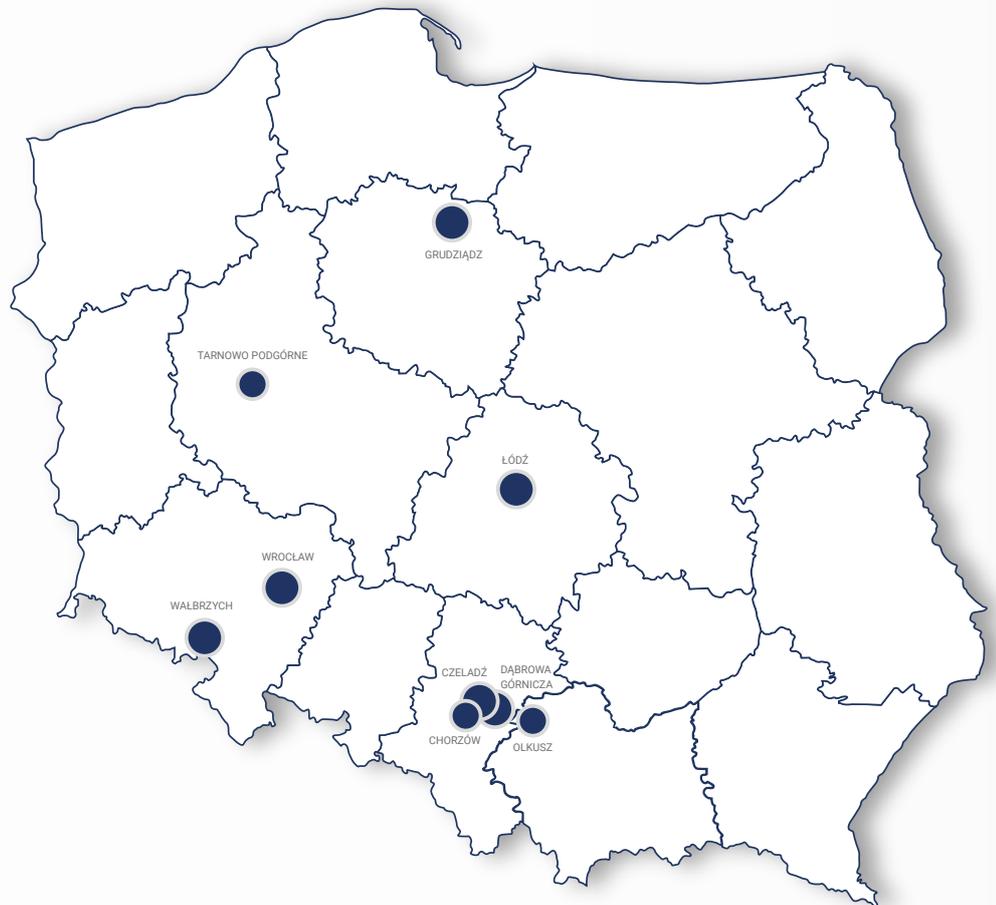


ALBA POLSKA GROUP



The **ALBA Group**, one of the leading recycling and environmental services companies as well as raw material providers worldwide.

ALBA Polska Group (ALBA Poland Group) is the third biggest private waste collection service provider in Poland. Currently it's functioning is based on 9 subsidiaries and affiliates located all over the country.^[1]



^[1] Source: www.alba.com.pl

ET GPS

Positioning system



The **ET GPS** system is designed to monitor the position of moving objects. A GPS tracker saves the object location, speed, direction of movement, and information from sensors and interfaces. The data saved in the internal memory of the GPS tracker are transferred to the monitoring system. This information allows for making reports on routes, stops, and reports based on additional sensors and interfaces, e.g. sensors of waste loading and unloading.

Automatic identification system with RFID technology

ET AUTO RFID



The **ET Auto RFID** system has been developed in close cooperation with our customers from waste management industry so as to meet their needs, expectations and requirements of the market. Automatic RFID identification system can be used in various types of waste collection vehicles. Wastebins are identified thanks to a set of RFID readers and antennas mounted on vehicles, and RFID transponders mounted in bins.

ET MANUAL RFID

Manual identification system with RFID technology



A manual RFID identification is supported by the **ET Manual RFID** system. Identification of wastebins and/or containers can be carried out manually with a wireless RFID reader, which reads information from an RFID transponder mounted on any type of wastebin/container.

Wastebin stocktaking system

ET MARK



The **ET Mark** system supports the wastebin stocktaking process by assigning unique RFID transponders or bar code labels to wastebins, and specifying the wastebin location, type and intended use.

ET DYNAMIC

Dynamic waste weighing system



ET Dynamic is a fully automated dynamic waste weighing system. The weight is determined without stopping the waste container lifter - the waste is weighed when wastebins are being emptied. It may work in various types of waste collection vehicles, both new and used ones. The system is equipped with a set of professional equipment, including a weighing computer, accelerometer and a set of strain gauges.

Static waste weighing system

ET STATIC



The **ET Static** has been designed as a solution for static weighing of municipal waste. Static weighing can be automated, but it is necessary to temporarily stop the emptying of wastebins and/or waste containers. It may work in various types of waste collection vehicles, both new and used ones. It is equipped with a set of professional devices, including a weighing computer and a set of strain gauges.

ET CONNECT



Driver communication system

The **ET Connect** system supports and facilitates the execution of tasks. Among other things, it offers communication with the driver, GPS navigation, and diagnostics of GPS/RFID system components installed in the vehicle. You can also view a route plan as a list of task points. Any irregularities can be reported by the vehicle crew with predefined notes or personal notes, to which photos may be attached.

Image recording system

ET PICS



The **ET Pics** system allows for using photos or videos to document any irregularities or the completion of tasks. The advantage of the system is the capability of geotagging photos and videos. This function adds the geographical location to a registered image, which allows you to search quickly for images captured while providing the service at the location shown on the map, e.g. a street or a specific address. This system proves useful in verifying the completion of tasks and investigating any complaints.

ET CONTROL



System for implementation and control of routes and schedules

The **ET Control** system is the perfect tool to assess the quality of waste collection services. Not only does it enable you to check the work of vehicle crews, but it also offers the feature of reporting and searching for information about completed and unfinished tasks for any address (point), area, vehicle or date.

Integration system

ET INTEGRATOR



The **ET Integrator** system enables the integration our ICT solutions with other systems, including the systems for clearing the provided services, monitoring of working time, invoicing, scheduling, etc. The data can be exchanged via files or Webservice.

/ RUOM / Various interfaces operating for municipalities

ET ROADS



Summer and winter road maintenance system

ET Roads is a system that monitors municipal specialized vehicles such as salt spreaders with snow plows or sweepers. Salt spreaders with snow plows are equipped with sensors of plow position and sensors of salt spreading, which allows for monitoring their operation. Information about the operation of these sensors is transmitted to the system software with other basic data such as simultaneously registered location and time. In the case of sweepers, the activation signal for brushes and the sprinkler may be monitored. Modern sweepers and salt spreaders also make it possible to read these and other data (such as the amount and width of salt spreading) via the CAN-BUS.

Fuel management system

ET FUEL



The **ET Fuel** system has been designed to facilitate fuel management. It enables fast and efficient compilation of data about fuel tanking and fuel consumption with regard to a particular vehicle or a group of vehicles. Fuel consumption may be monitored thanks to a range of gauges and signalling devices such as the CAN interface, digital microprocessor fuel probe and fuel filler cap sensor with an anti-theft strainer.

ET CAN

System for monitoring vehicle operating parameters



The **ET CAN** system allows for monitoring and saving various parameters associated with the current operation of the vehicle without the need to install many additional sensors. The CAN Bus provides access to various operational data that may be read out and recorded in the **ET CAN** system includes: fuel level, odometer, pressure in the brake circuit, fuel consumption, current engine speed (rpm), coolant temperature, parameters of superstructure installation.

Mobile application

SMOK MOBILE



SMOK Mobile is a mobile device application which displays the location of vehicles, their parameters and statuses of sensors installed on objects equipped with Elte GPS devices. **SMOK Mobile** runs on the following operating systems: iOS, Android.

SMOK TERMINAL

Mobile application



SMOK Terminal application is a functional extension of the software installed on on-board computer (part of the **ET Connect** system). Installed on the mobile device enables to report any irregularities during the waste collection process by predefined notes (or own ones) with attached photos. Communication with on-board computer is carried out via Wi-Fi technology and registered data is available on-line (directly sent to the database). **SMOK Terminal** data is automatically synchronized with on-board computer software and data.

Mobile application

SMOK KOMUNAL



Mobile devices with installed **SMOK Komunal** application can be used to support the process of order implementation. The application allows for reporting any irregularities with predefined notes or own notes, to which photos from a digital camera may be attached. **SMOK Komunal** app also permits viewing the planned route as a list of waste collection points and a list of wastebins (with details of their type, volume and purpose) which are to be emptied on the planned route.

SMOK IPGO

Mobile application



The mobile device app **SMOK iPGO** is a tool which supports stocktaking of containers. It also enables audit checks to find out if waste is collected properly and whether residents sort and discard waste in accordance with their declarations.



Elte GPS is an experienced manufacturer and provider of telematics systems implementations for various companies from different industrial sectors, security services and municipalities.



MUNICIPAL WASTE COLLECTION COMPANIES ARE EQUIPPED WITH OUR SYSTEMS



WASTE COLLECTION VEHICLES ARE EQUIPPED WITH OUR DEVICES



WASTE BINS ARE EQUIPPED WITH OUR RFID TRANSPONDERS

We offer complex systems which combine state-of-the-art technology and computer science, support and monitor the processes of service provision, optimize the use of resources, and enhance the logistics of transport and communication. All this leads to lower costs, higher quality and increase in satisfaction of your customers.

The top level of our services, high quality components and professional warranty and post-warranty service have been appreciated by our numerous customers.

As the manufacturer of both software and hardware system components, we can guarantee flexible and customized solutions that meet your individual needs, and allow for further expansion and continuous upgrade.

www.eltegps.com

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