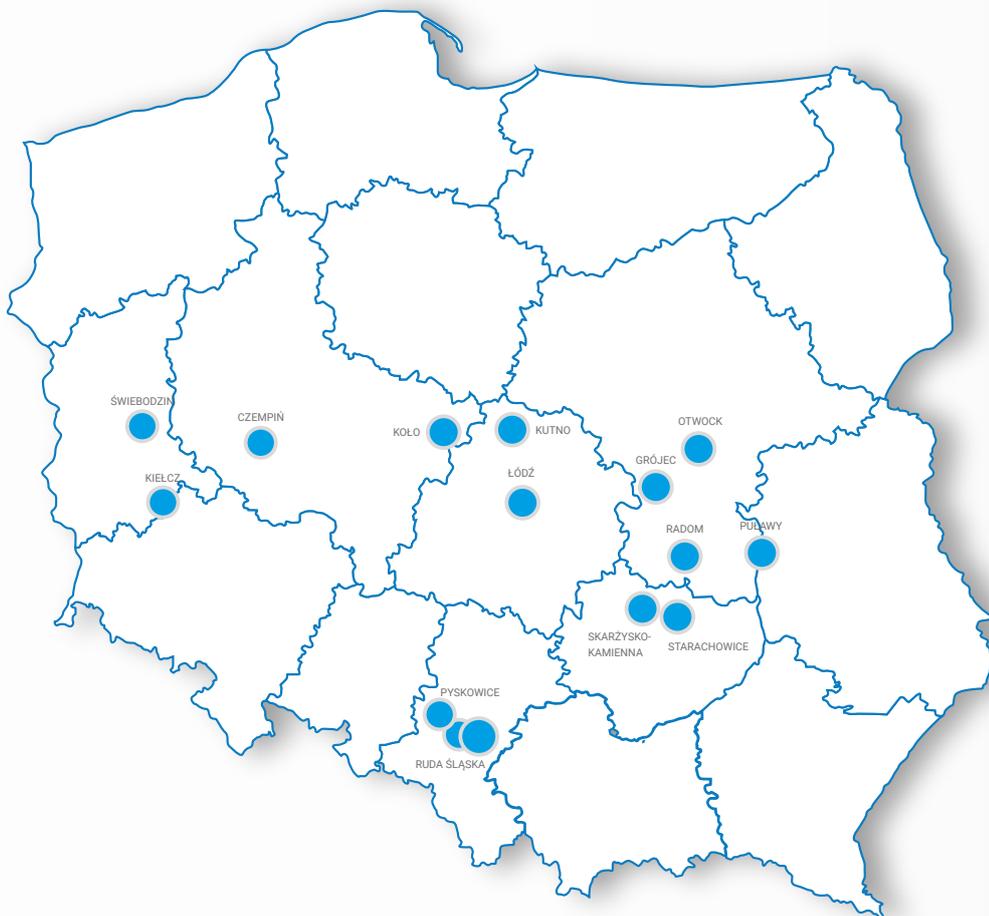


TÖNSMEIER GROUP POLSKA



Tönsmeier Group is an international enterprise involved in municipal, industrial (post-production), hazard waste management and oil, grease separator services.

Tönsmeier Group Polska (Tönsmeier Group Poland) hire more than 1000 employees in over 35 branches.^[1]



^[1] Source: www.toensmeier.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.

Driver communication system

ET CONNECT



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.

ET PICS

Image recording system



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.

Route planning and scheduling system

ET PLAN



The **ET Plan** system permits planning of waste collection based on the declared frequency, type of waste and number of wastebins. In this way schedules can be created for a number of days without having to plan every day individually.

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.

Summer and winter road maintenance system

ET ROADS



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.

ET FUEL



Fuel management system

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.

System for monitoring vehicle operating parameters

ET CAN



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.

ET ID



Employee identification system

The **ET ID** system is a solution for employee identification which allows for keeping track of each employee's working time on individual vehicles and/or machines. It offers information about mileage and speed, fuel consumption, activation of pumps, power take-off, etc. in company vehicles. The employee/driver can be identified with a personal RFID card and reader, RFID keychain, or Dallas chip.

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.



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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