



Elmos ESG Policies

Section:	Environment
Chapter:	Energy efficiency
Policy:	Energy efficiency of Elmos products
Coverage:	Elmos Group
Supported UN SDGs:	
Addressed GRI standards:	302

Energy efficiency and environmental protection are the focal point of the development of Elmos semiconductors. Elmos ICs contribute in different ways to environmental protection and energy savings, within the products themselves and within the applications in which they are embedded.

Energy efficiency of Elmos ICs: As Elmos products are designed for the use in automobiles, the best possible reduction of the current consumption of the ICs has always been a fundamental requirement. Elmos draws on more than 40 years of experience to reduce the current consumption during operation and especially the quiescent current to a minimum. Innovative circuit topologies and, to an increasing extent, energy-efficient algorithms and sequence control are used. Further direct savings of the microelectronic products can be achieved through intelligent system partitioning, reducing data traffic with embedded data pre-processing and an optimal coordination between embedded firmware and system software.

Energy efficiency through Elmos ICs: The majority of our products is designed to make the applications of our customers more efficient. Elmos’ applications for optimizing the configuration of radiator grille shutters and cooling fans, or for battery monitoring, are compelling solutions for intelligent and efficient energy and battery management, particularly in electric vehicles. Intelligent and high efficient motor control can, for example, reduce power consumption of electric powered actuators, depending on the application, by up to 15%. Innovations in environmental mapping will speed up the implementation of autonomous driving in different industries like automotive, logistics or mobile working machines. Besides raising safety and comfort, autonomous functions will enable energy efficient driving by

- avoiding traffic jams through effective traffic management,
- reducing park search movements which amount to up to one third of total traffic and
- advanced energy efficient driving modes like “sailing” before red traffic lights.

Thanks to the development of intelligent electronic fuses, replacing the classic fuses, entire segments in the vehicle can be switched off when they are not needed.

Therefore, the automotive semiconductors from Elmos make a substantial contribution to reducing the greenhouse gas emissions of vehicles. Semiconductor solutions in electronics have made a significant contribution to reducing greenhouse gas emissions of the global fleet. Elmos is making a contribution to this development through a wide range of automotive components, such as power management solutions for powertrains, efficient LED lighting, high-efficiency motor control systems for HVAC and cooling, aerodynamics optimization, sensors for automatic lights, and efficient DC/DC converters.

In addition, our research and the use of artificial intelligence (AI) in production control, quality assessment and process optimization are already contributing to a reduction in rejects and therefore a reduction in energy requirements and waste.

Company profile	Product matrix and product contribution
Certificates	Energy Efficiency and Climate Protection Network Certificate (German only)
