SUSTAINABILITY MEASURES

1. Employees and society

- Investment in the next generation: over 7 percent apprenticeship quota worldwide, in Germany even over 10 percent.
- Investment in development: staff development, professional and personal, through various programmes.
- Prevention and provision: building blocks of health management and company pension schemes.
- Global "Climate Protection" ideas campaign has generated over 2,000 employee ideas for more climate protection at Dachser, which are now gradually being implemented.
- Social commitment: long-term projects with the international children's charity terre des hommes in South Asia, Latin America, southern Africa, and Ukraine.

2. Greenhouse gas calculations in Business Unit Road

- Internal calculation models based on the DACHSER transport network (Road) and automatic analysis of CO2 emissions (on customer- or shipment level).
- Basis for calculations: DIN EN 16258:2011 "calculation and declaration of energy consumption and greenhouse gas emissions for transport services (transport of goods and persons)."
- Key figures (electricity, water, natural gas) for resource consumption and emissions of real estate (for Germany).

3. Environmental network management

- Optimal route utilization and directing the flow of goods through Eurohubs, platforms and direct route combinations, as well as IT-assisted planning of itineraries.
- A reduction of CO2 emissions, fine particles and noise pollution is avoided through a high degree of utilization.
- Adjustment to peak and low-season situations through flexible network management.

4. Executive Unit Air & sea freight

- Particularly due to various legal requirements, shipping companies and airlines with which DACHSER works are actively engaged in reducing greenhouse gas emissions and air pollutants and implementing a wide range of measures to protect the environment. For example, the shipping companies and airlines rely on modern fleets that meet specific environmental requirements.
- Air freight customers can benefit from an additional “Sustainable Fuel” booking option. By blending Sustainable Aviation Fuel (SAF), air freight shipments can thus be transported with 30 percent fewer greenhouse gas emissions.
- Digitization of freight documents: already more than half of all air waybills (AWBs) are e-AWBs
- If there is an advantage in terms of routing, DACHSER uses rail and inland waterway transport for the environmentally friendly design of pre-carriage and onward carriage.
- Particularly in the LCL sector, the handling of pre-carriage and onward carriage via the company's own European overland transport network is preferred wherever possible.
- In addition to the classic variants of air and sea transport via aircraft/ship, the DACHSER Air & Sea Logistics business segment offers its customers an alternative in the form of DACHSER Rail Services on certain transport routes (Europe-Asia).
- Since 2018, DACHSER Air & Sea Logistics has been using a new emissions calculator to calculate transport related GHG emissions.

5. Transport fleet

- Conscious monitoring and control of the emission class quotas will lead to a successive modernization of the commercial vehicle fleet.
- Inclusion of zero-emission drive technologies in the fleet.
- By the end of 2023, Dachser will have installed at least 50 battery-electric trucks in Europe, deployed the first trucks with hydrogen fuel cell technology, and added 1,000 electric cars to its company car and corporate fleet (subject to availability of vehicles on the market).
- In 2023, the first two hydrogen fuel cell trucks will be in real operation at DACHSER.
- Complete replacement of all standard semi-trailers with megatrailers/lowliners in 25 European countries, in Germany by 2027.
- Tests of long trucks in five European countries (2021) lead to GHG savings of up to 20%.
- Integration of four refrigerated trailers with e-refrigeration units / "Zero Emission Trailer" in the Food Logistics BU.
- Technical features and aerodynamic measures, such as a smooth-walled vehicle body, Roll-optimized tires or side panels ensure, among other things, a lower cw value of the vehicles and fuel savings.
- Driver training courses on economical driving are another part of optimizing fuel costs and reducing CO_2 emissions.

6. Sustainable industrial vehicles

- Use of electrically driven units to reduce emissions and noise.
- Use of exchangeable batteries and reduction of the absolute number of pieces by pooling system.
- Use of intelligent charging systems with dynamic charging curves (consideration of the age structure and state of charge of the battery).
- Placing development requirements with equipment manufacturers and supporting development work regarding compact and efficient vehicle concepts.
- By 2024, DACHSER will convert all its approximately 6,500 industrial trucks in Europe to lithium-ion battery technology. This technology is significantly more energy-efficient than conventional lead-acid batteries, which in turn means CO_2 savings of around 1,600 kilograms per industrial truck per year. For 6,500 industrial trucks, this means 10.4 million kilograms of CO_2 per year.

7. Real estate - environmentally conscious and energy-saving construction

- Mostly uniform construction standards - Europe-wide.
- Since 1.1.2022, Dachser has exclusively purchased green electricity worldwide. Dachser is investing in the construction and expansion of photovoltaic systems on the roofs of its European logistics facilities and office buildings. By 2025, the current capacity will be more than quadrupled to over 20,000 kWp of installed capacity.
- Use of LED technology in new construction projects. Existing assets under ownership have been largely converted to energy-efficient lighting technology.
- Lighting control in the interior and exterior areas of the logistics facilities as well as in the office buildings.
- Truck washing facilities with water reclamation system and use of rainwater.
- Heat recovery of ventilation and refrigeration systems as well as the use of geothermal and environmental heat to heat the office space.
- Supervision of the structural, technical and legal (e.g. environmental protection) condition of the real estate through own facility management audits.
- Implementation of energy audits for a systematically inspection and analyze of energy consumptions and identification of measures to increase energy efficiency.
- Use of climate-friendly, natural refrigerants.

8. Information technology

- Combination of environmentally friendly and sustainable measures that won the GreenIT Best Practice Award in 2010,
    - 90% energy and CO2 savings and 95% reduction in electronic waste by using of energy-efficient thin clients (network computers) instead of PCs and laptops.
    - Optimal use of resources through highly energy-efficient data centers (water cooling, double floors, face-to-face arrangement, argon fire protection system).
    - Reduction in the use of fossil fuels and reduction of CO_2 emissions by heating the main building at the head office with the waste heat from the data center.
- Continuously reduce paper consumption through paper-saving or paperless communication and use of digital workflows and storage.
- Digitization of about 90% of all receipt receipts via paperless handheld use in local transport vehicles using SAM (Short Distance Assistant Mobile) and intelligent scanner and communication technologies.
- Continuous expansion of digital processes and automated, paperless workflows.
- Disposal of IT equipment that is no longer usable at local and certified specialist disposal companies, as well as environmentally friendly disposal of ink ribbons, toner and ink cartridges.
- Reducing e-waste by:
    - Extending the useful life of smartphones and tablets to at least 36 months.
    - Digitization of desk phones by using the communication service "Jabber Softphone", instead of the desk phone.

9. Climate-friendly print and paper management

- Widest possible use of FSC-certified paper.
- The worldwide customer and employee magazine supports a certified climate protection project with every issue.

10. Research and Development

- DACHSER Climate Protection is focusing on efficiency, innovation and integrative responsibility to achieve the global community's long-term goal of net zero emissions.
- Project "City Distribution" for the development of sustainable and innovative business models for the supply of city centers.
- DACHSER Emission-Free Delivery: Use of alternative drive technologies in the city center (electric trucks, electrically assisted cargo bikes, etc.) has already been established in 12 metropolitan regions in Europe. Ten more cities (mainly with one million inhabitants and more) are to follow by 2025.
- Optimization of traffic management through intelligent traffic control and digitalization.
- R&D Technology Research investigates current and future technologies together with internal and external experts. The focus is on the evaluation of alternative drive systems and fuels as well as associated new logistics concepts, especially for truck traffic.
- Dachser has been a member of the German Hydrogen and Fuel Cell Association (DWV) since 2021 and is actively involved in the HyLogistics cluster.
- Membership in the scenario group RENEWBILITY III, a research project commissioned by the Federal Ministry for the Environment.
- Development of innovative logistics solutions in cooperation with renowned institutes.
- Cooperation Kempten University of Applied Sciences: "H² Infrastructure and Logistics" study.