Sustainable Portfolio

Innovative solutions for a sustainable future

TKH has a strong reputation as an innovator of Smart Technologies, with which we have been distinctive in growth markets for years. Our technologies go beyond the latest market trends, and an essential element in developing our innovative portfolio is sustainability.

Being aware of the environment starts in the design phase, where the first cornerstones are defined by selecting the suitable raw materials. TKH provides Smart Technologies composed to distinguish ourselves on sustainability criteria. The technologies of TKH are focused on three important megatrends – automation, digitalization, and electrification. We believe that innovation powers progress and drives success. By integrating our proprietary technologies with in-house developed software and customer-focused insights, we develop Smart Technologies that create unique answers to our customers' challenges, helping them to work smarter, more successfully, and more sustainable. In doing so, we work to make the world better by creating more efficient and more sustainable systems.

The Sustainable Development Goals (SDGs), developed by the United Nations, are a blueprint for achieving a better and more sustainable future. TKH recognizes their importance and aims to contribute to the SDGs through its innovative product portfolio in line with its long-term value creation process. About 70% of our total turnover is linked to one of the selected SDGs. It is not only about supporting our own purposes, but TKH also supports its key stakeholders in achieving their sustainability criteria. We immerse ourselves in what customers, partners, and society expect from us and offer sustainable solutions with which we want to exceed these expectations. Doing so, we give a clear direction to the importance of our sustainable portfolio in the future.

Focus on innovative product portfolio

3 Good health and well-being
Ensure healthy lives and promote well-being for all at all ages

7 Affordable and clean energy
Ensure access to affordable, reliable, sustainable and modern energy

9 Industry, innovation and infrastructure
Build resilient infrastructure, promote sustainable industrialization and foster innovation

11 Sustainable cities and communities
Make cities inclusive, safe, resilient and sustainable

Smart Technologies

Smart Vision systems

Smart Manufacturing systems

Smart Connectivity systems

±70% of our turnover is linked to one or more of these SDGs

LMI's Next-Generation 3D Measurement and inspection platform

Technology segment	Smart Vision systems
Megatrend	Automation
SDG	9

In May of 2023, LMI Technologies officially released its much-anticipated GoPxL® IIoT Vision Inspection Software. GoPxL is LMI's next-generation embedded software application that helps customers simplify, centralize, and enhance their quality control systems and ultimately improve inspection results.

GoPxL represents the culmination of 30-plus years of experience and expertise in embedded machine vision software development informed directly by feedback from customers who use LMI products. Every detail was considered in its design, from the reimagined modern web-based user interface and new features like searchable tools, embedded tool help, multi-layer profiling support, and the ability to build custom Human Machine Interfaces (HMIs) for displaying and reporting Gocator sensor data.

GoPxL software allows customers to:
- Develop end-to-end, web-based, inline measurement and inspection solutions deployed on Gocator® 3D Smart Sensors.
- Leverage a combination of on-sensor measurement filters and tools running on Gocator's industry-leading laser, snapshot, and line confocal sensors.
- Solve a wide range of industrial inspection tasks with greater productivity and efficiency.
- Using GoHMI, create a custom end-user interface connected to Gocator sensor outputs that is easily deployed on the production floor and accessed using a web browser on PC, touchscreen, or mobile device.

UNIXX Belt Maker

The UNIXX Belt Maker produces high quality endless steel belts by means of an innovative and accurately controlled extrusion process that can handle a wide range of compounds.

The unique flexibility of the system exactly fits the global trend towards shorter production runs and a greater diversity of tire specifications to be produced.

The system is optimally suited for hands-off, eyes-off production. Scrap and waste from angle- and compound changes are reduced because of the limited width of the extruded strip. Next to this, the automated and accurately controlled process produces a consistent high quality belt.

The highly efficient extrusion and cutting process, reduced waste and scrap, lower energy consumption and minimum operator involvement, result in a lower overall cost per produced square meter steel belt compared to the conventional belt making process.

The VMI UNIXX Belt Maker allows for the production of thinner belts to reduce tire weight and rolling resistance without compromising tire performance, contributing to a lower fuel consumption and CO_2e emission levels.

The VMI UNIXX Belt Maker gives our customers the following advantages:
- Ultimate flexibility.
- High quality steel belt.
- Low environmental impact.
- Reduced operating costs.

Technology segment	Smart Manufacturing systems
Megatrend	Automation
SDG	9

Commend Symphony Giving cities a voice

In the challenging landscape of urban development, Commend Symphony is at the forefront of promoting smart and safe cities with its Advanced Intercom Solutions – flagship of innovation in the field of security and communication technology. In 2023, Commend has once again raised the bar in urban security, combining cutting-edge technology with the principles of sustainability and efficiency, such as those embodied in the United Nations Sustainable Development Goals (SDGs).

As cities worldwide strive towards becoming smarter and more sustainable, Commend's Symphony portfolio has emerged as a critical component in this transformative journey. The Advanced Intercom Solutions not only enhance urban security but also contribute significantly to making cities more inclusive, resilient, and sustainable. By integrating public transport networks, emergency services, urban infrastructure, and audio data analysis, Commend's systems ensure a safer, better connected and brighter urban environment.

An important key proposition in this context is the Evergreen philosophy. This demonstrates Commend's commitment to sustainability in every aspect of the product lifecycle. Key factors in this regard include sustainable production practices, exceptional long life of solutions and products, upgradeability, data privacy and cyber resilience. In light of its use in critical infrastructures, this last aspect is becoming increasingly important. In addition, the combined functionality of Symphony's multi-purpose devices eliminates the need to install multiple devices, resulting in significant savings and operational and maintenance efficiencies for these solutions.

As we look to the future, Commend's Symphony Advanced Intercom Solutions are not just about creating safer cities but shaping the sustainable urban landscapes of tomorrow. Through innovation and a relentless commitment to safety, Commend is focusing its efforts to help pave the way for a smarter, safer, and more sustainable world.

Technology segment	Smart Vision systems
Megatrend	Digitalization
SDG	3 and 11

CEDD® AGL technology

TKH Airport Solutions continues to demonstrate its consistent commitment to sustainability by making improvements in enhancing airport operations by utilizing TKH's CEDD AGL technology.

Technology segment	Smart Connectivity systems
Megatrend	Digitalization
SDG	9

Energy consumption

A crucial step for lowering the energy consumption in the airport facilities is incorporation of TKH's CEDD AGL technology. When comparing to the standard LED AGL systems, sustainable CEDD AGL has a remarkable reduction of up to 70% in energy consumption, which represents our goal of minimizing environmental impact and maximizing resource utilization.

Faster installation

Our commitment to sustainability continues through to the installation stage, where TKH's CEDD AGL systems provide rapid deployment with far less civil work required. Since there are no secondary circuits, transformer, transformer pits or deep cans are not required. This reduces the amount of resources and materials used, which in turn lowers the amount of CO_2 emissions during construction. In addition, civil installation works can be lowered to 20% in comparison with traditional LED AGL installation costs.

Optimizing traffic at the airfield

CEDD AGL technology is highly suitable for implementing traffic guidance systems such as 'Follow-the-Greens', a method that guides pilots to the correct runway and approach path by using synchronized lighting signals. This will lead to a significant reduction of NOx and CO_2 at the airfield because of improved traffic fluency.

The integrated system installed at Memphis Airport, which builds on successful collaboration with JCAII, is a prime example of TKH's dedication to sustainability and performance. By reducing waiting time for aircrafts, limiting overhead expenses, and decreasing reliance on radio communication, TKH Airport Solutions generates generating significant improvements in operational efficiency at the same time as lowering carbon emissions.

Offshore wind farm cable technology

Technology segment	Smart Connectivity systems
Megatrend	Electrification
SDG	7

The demand for (green) energy is growing in connection with the ongoing electrification, which means wind parks are getting larger and the demand for connectivity solutions is rising. As part of TKH's strategic program Accelerate 2025 TKH has built a new (second) Subsea factory, in Eemshaven, the Netherlands. The new building is gas-free and 500 solar panels have been installed, which will later be expanded with even more solar panels.

With this production expansion, TKF focuses specifically on the production of inter-array Subsea cables, which connect the wind turbines and offshore wind farms with the substations. The innovative cable concept is easy to install compared to commonly used yarn-bitumen cables, and provides the customer with installation efficiency, cost savings, and a reduction in risks during cable installation. Our innovative cable specifications are composed of durable materials. A high carbon footprint reduction is achieved based on increased recyclability (in and out) and fossil free powered production. With the construction of this new factory, TKF is also getting ready for developments towards 132 kV and floating wind farms including new innovations such as optical strain monitoring. From the moment the factory is in operation, 1,200 kilometers of Subsea cable can be produced per year.

In 2023, TKH and Vattenfall established multi-year framework agreement for the supply of inter-array cables for offshore wind farms in Europe. This agreement covers the supply of 66 kV inter-array cables and will apply to all bottom-fixed European wind farms developed by Vattenfall in the coming years. The first projects to be called off will be for the German Nordlicht cluster. The contract is initially signed for three years and can be extended by five more years.