At Toyota Material Handling Europe (TMHE), we work closely with all our suppliers to make sure they adhere to our quality, social and environmental criteria. With some suppliers, such as ZF, we take this collaboration to another level, by sending in our experts to support them in implementing lean processes based on the Toyota Production System.

Responsible purchasing from efficient suppliers

We want our suppliers to be as efficient as possible, keeping minimum stock levels and delivering materials just-in-time. Our Toyota Production System (TPS) aims to continuously improve processes by eliminating unnecessary waste in natural, human and corporate resources – and this extends to our suppliers. All our main suppliers have accepted our Code of Conduct for suppliers by signing the Responsible Procurement declaration.

We have identified 40 top suppliers with whom we work intensely, supporting them with relevant Supplier Kaizen activities and educating them in Toyota principles to improve their performance in safety, quality and responsibility.

ZF contributing to our product’s energy efficiency

Our Toyota Material Handling Europe factory in Bologna will change the existing drive and steering systems for 1- to 2-tonne electric trucks at ZF systems in early 2016.

Our new truck will save about 20% of electric energy in the working cycle of the three-wheel trucks. ZF technology will contribute significantly to the improved efficiency as it will supply the drives and the ‘power-on-demand’ steering which replaces the current hydraulic steering unit for three-wheel truck.

“ZF’s collaboration with TMHE has improved our processes and the progress made in three years at the Stankov plant has been impressive. We are currently creating the first Stankov sustainability plan and we also want to encourage our suppliers to develop their own, efficient production systems.”

Stefan Wasner
Plant Manager ZF
Stankov, Czech Republic

Quality Improvements Over Time

ppm: defective parts per million
Continuous improvement since 2012

ZF Friedrichshafen AG provides the material handling industry with driveline solutions for electric and big trucks. ZF’s Stankov plant in the Czech Republic has been delivering systems for electric trucks to Toyota Material Handling Europe since February 2012. ZF Stankov approached us to improve their plant’s operational efficiency.

Management of the Stankov plant and our quality experts first conducted a joint analysis of the main improvement opportunities. In January 2013, as a first step, the plant adopted daily Asaichi meetings to review quality issues. Discussions led to decisions including the introduction of more suitable packaging instructions for employees, investment in new equipment, hiring of more employees in the quality department and increasing training for all employees.

In 2014, Stankov’s production area was reorganised and its supervision increased. Regular shopfloor meetings with workers were established and certain training courses became mandatory for all employees. Weak-Point Management adopted from TPS was undertaken and a systemic process for new products was put in place.

In 2015, ZF continues to use TPS concepts to improve its processes and has recently adopted Toyota’s 5S methodology. ZF has also begun to ask and implement its internal and external suppliers to take up Asaichi, Weak-Point Management and Change Point Management concepts, extending the principles further down the value chain.

The 5S methodology stands for:

Sort: Sort out and separate that which is needed and not needed in the area.

Straighten: Arrange items that are needed so that they are ready and easy to use. Clearly identify locations for all items so that anyone can find them and return them once the task is completed.

Shine: Clean the workplace and equipment on a regular basis in order to maintain standards and identify defects.

Standardise: Revisit the first three of the 5S on a frequent basis and create standard procedures.

Sustain: Keep to the rules to maintain the standard and continue to improve every day.

Find out more at www.toyota-forklifts.eu

“Congratulations to the ZF team for their numerous achievements in the past few years. It’s been a pleasure to work with them and help implement TPS concepts to optimise processes. We look forward to continuing our cooperation with one of our most efficient suppliers.”

Giorgio Polonio
Purchasing Director
Toyota Material Handling Europe