

MATERIAL TOPIC

Sustainable Products

Our devotion to creating equipment that prioritizes safety, efficiency, productivity, and environmental sustainability positions us at the forefront of the shift towards cordless battery-powered products.



Value Chain



GOALS

- Promote circular business models by increasing service, repair, maintenance, refurbishment, and recycling services
- Increase investment in clean technologies
- Develop innovative products that improve living and working environments

PROGRESS

- Developing an internal Life Cycle Assessment (LCA) process
- Increasing recycling efforts

RISK	OPPORTUNITIES	RESPONSE
<ul style="list-style-type: none"> • Risk of not making true progress in managing environmental impacts of products and not identifying best areas for application of sustainable design 	<ul style="list-style-type: none"> • Conduct product carbon footprint assessments • Building models/case studies to identify best levers to deliver optimum positive impact • Strengthening existing circular economy initiatives and exploring opportunities for additional circular value chains 	<ul style="list-style-type: none"> • Providing training and guidance on the principles of sustainability for internal associates • Service centers and recycling partnerships
<ul style="list-style-type: none"> • Risk of not meeting market demand for sustainable products and packaging 	<ul style="list-style-type: none"> • Conduct research to better understand and prepare for market demand of sustainable products and packaging • Research and development of new technologies, recyclable and ecofriendly materials and sustainably designed products • Sharing relevant information with partners and retailers to align strategy 	<ul style="list-style-type: none"> • Investment in clean technology products • Development of products that utilize less energy and resources, produce less waste, emissions and noise while in use
<ul style="list-style-type: none"> • Risk of unsafe products impacting users and potential consequences, such as litigation, fines from product claims or recalls, reputational damage, and commercial risk • Risk of non-compliance with environmental regulations 	<ul style="list-style-type: none"> • Enhance responsible sourcing for the whole supply chain 	<ul style="list-style-type: none"> • Product safety policies and committees • Partnerships for responsible sourcing

Sustainable Focus

Cordless capability is a key area in which we continue to innovate, particularly in the conversion of our products from gas-powered equivalents. As a leader in cordless technology, we are constantly improving the performance of our products while prioritizing safety and minimizing environmental impact.

Noise Reduction

Our RYOBI WHISPER SERIES is designed to reduce noise pollution, making it an innovative and more environmentally friendly option for users.

HOOVER HUSHTONE technology is a revolutionary feature in our vacuum cleaners that significantly reduces noise levels while maintaining powerful suction, making it an ideal choice for users.



Jobsite Safety

Our tools are renowned for their safety features, including anti-vibration technology, electronic brakes, and ergonomic designs that reduce the risk of accidents and injuries. For example, our MILWAUKEE MX FUEL 14" Cut-Off Saw delivers instant starts with zero emissions (while in use) while a full 14" capacity gives users the ability to cut up to 5" depths in a large variety of materials.

Reduced Emissions

To manage our product emissions, our strategy is to further expand our efforts in reducing the GHG emissions and carbon footprint of our products and, in particular, the emissions generated from products while in use. TTI has continued to transform outdoor power equipment from gas to battery powered. Our strategy is to improve the performance of outdoor products while reducing carbon emissions and reducing noise. Our outdoor power equipment products emit fewer types of GHG emissions while in use and provide a better usage experience for our customers. In 2022, usage of consumer electric string trimmers, blowers, walk-behind and riding mowers sold in the USA resulted in total savings of 79,347 metric tonnes of CO₂e*, which is equivalent to driving a gasoline-powered passenger vehicle 196,955,565 km. This is equivalent to driving the iconic US Highway Route 66 one-way 49,993 times.



* Assumptions:
 • Average CO₂e gram per year is from US EPA Database of certification data
 • Usage is based on an internal estimate/consensus
 • Average current during use is based on an internal estimate
 • Nominal voltage for 10S lithium/6*4S lead acid
 • Charger efficiency from CEC 24 hour charge test
 • Industry average for CO₂ generated per kWh

Research and Innovation

TTI has always prioritized innovation, with a particular focus on developing cordless product solutions that seek to minimize our environmental impact and improve social conditions throughout both the product lifecycle and our value chain.

Our design and engineering process takes into consideration aspects such as reliability, durability, repairability, refurbishing, and recycling.

With the help of the Sustainable Design Guide, our designers and engineers are able to develop products that not only meet environmental, health, and safety objectives, but also align with circularity principles. This guide utilizes information from our lifecycle assessment and GHG footprint analysis results that were conducted on our key product categories since 2018.

Product Development Framework (4Ds)



Product Design Principles (3Ps)



Checklists that provide guidance on the principles of sustainability have also been developed and are currently under various user acceptance tests. Once implemented, the checklists will assist our associates in making sound decisions regarding the selection of raw materials, as well as the use of resources and substances of concern during the concept and manufacturing phases.

Our R&D project aims to improve user experience, ensure the safety of the manufacturing process, reduce emissions, improve resource efficiency and, where possible, circularity of our product solutions.

Some of the prime examples of innovative R&D efforts are our cordless lithium-ion battery technology and state-of-the-art acoustic engineering. Our battery platforms are backward and forward compatible, allowing users to operate any of our products or batteries within the same platform, regardless of when they were created. With consistent upgrades, our battery packs improve in performance and efficiency throughout generations. Many of our batteries also have additional features, such as a status bar displaying how much charge is left and the ability to withstand below freezing temperatures.

With the focus on our end users, we continue to provide significant benefits such as jobsite efficiency and safety, as well as reduced noise pollution and emissions while in use.

The following sustainable product solutions showcase our continuous investment in clean technology:

Sustainable Product Solutions

Brushless Motors

Brushless motors are typically more efficient than brushed motors due to brushed motors having reduced mechanical energy loss from friction. This results in longer product lifespans for tools equipped with brushless motors. Moreover, these motors boost advanced features that allow them to produce more power in compact sizes, resulting in lighter tools and longer run times with more efficient energy production.



Smart Digital

ONE-KEY, MILWAUKEE'S connectivity platform, puts jobsite management into users' hands. The fully customizable ONE-KEY app and IoT-connected MILWAUKEE smart tools are backed by the industry's largest BLUETOOTH tracking community, to help connect sites, people, and equipment.



LED

Our LED lights are a cutting-edge innovation in the lighting industry that provide superior illumination in a range of settings. These lights are built with advanced LED technology that generate brighter and more efficient lighting than traditional incandescent bulbs. With a range of features that cater to the needs of both professionals and DIY enthusiasts, these LED lights are the ideal solution for anyone looking for reliable, durable, and powerful lighting.



Considerations in Product Lifecycle

At TTI, we recognize the significance of incorporating durability into our product designs and how it affects our value chain. We strive to integrate circularity models in our business to convert waste into valuable inputs through our product life cycle.

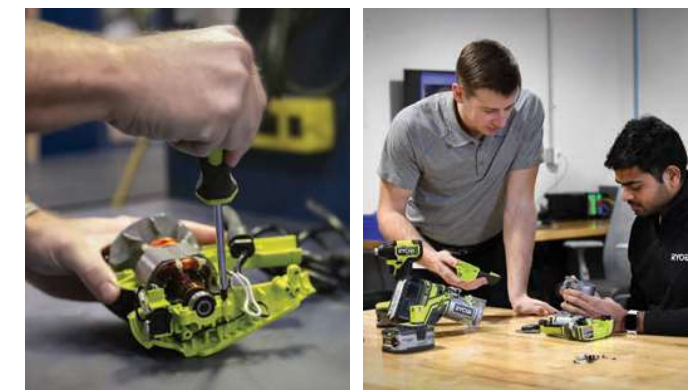
Repairing

As we develop products focusing on repairability, we also promote the repair of tools for our end-users. As of 2022, a total of 2,448 repair and servicing centers have been established across all markets in our value chain, extending the usage of our products without compromising on quality. In the process, we harvest parts from previously owned tools and use those components for repairing and servicing products when possible.

Refurbishing

Our reconditioning program extends the life of our products to reduce waste and environmental impact. Some of our refurbished products were sold with a one-year warranty through our 38 Direct Tool Factory

Outlets in the United States. To ensure quality of the refurbished products for consumers, all components, including batteries and chargers, are thoroughly inspected for mechanical flaws. Our technicians then complete the repairs using factory-supplied components and refurbished replacement parts. Testing is also conducted to verify that all standards are met.



Battery Recycling

Since 1994, TTI has implemented recycling initiatives to retain the embodied value of the material in our lithium batteries when they reach their end of life with the primary objective to reduce the extraction and consumption of raw material in our supply chain. All legal requirements and environmental, health, and safety standards are met when recycling our batteries. We also have robust partnerships with battery recycling organizations and stewards, such as, Call2Recycle in North America, Envirostream in Australia & New Zealand, and GRS Batterien in Europe.

During the recycling process, the battery packs are broken down into components and chemistries. As a result, the metal cylindrical components are reused in steel and stainless-steel products and lithium, cobalt and other materials are reused in new battery chemistries.

TTI has partnered with Call2Recycle for over 20 years to ensure that our batteries and battery-powered products are responsibly recycled when they reach their end of life.

Call2Recycle's North American network has over 16,000 collection sites, including local household hazardous waste sites and national retailers where consumers can drop-off their batteries for recycling at designated collection points. TTI has also implemented a number of recycling incentive schemes in partnership with Call2Recycle. These have included issuing battery safety and recycling guides and a safe battery disposal video to customers, developing infographics showing end-users the impact of battery recycling over the years and creating a pilot 'at home' recycling kit for online battery purchases through retailers. TTI pays stewardship fees to Call2Recycle based on North American battery and battery product sales.

In 2022, we collaborated with partners to collect and recycle more than 528 tonnes of batteries.

We have also supported onshore processing, enabling the retained value to stay within the local manufacturing sector and indirectly contributing to the industry by creating jobs.

We remained a steward in good standing with Call2Recycle for our RYOBI, MILWAUKEE, RIDGID, HART, DIRT DEVIL, HOOVER, HOMELITE, and ORECK brands.



Milwaukee Tool was once again designated as a Top 100 Leader in Sustainability for diverting more than 115 tonnes of batteries through the Call2Recycle battery collection and recycling program. In addition, they provided an at-home battery recycling solution with Call2Recycle sending 1,313 recycling kits directly to customers. Our battery recycling efforts are a key part of our circularity program.

In Australia, our MILWAUKEE business continues their partnership with local recycling partner, Envirostream, to further enhance FUTURE FORWARD. Going beyond simply making battery recycling available to users, the initiative involves a targeted campaign that seeks to leverage our MILWAUKEE brand and embed sustainability into our identity.

Envirostream has established an environmentally safe lithium-ion battery recycling facility locally in Australia. By processing onshore, Envirostream is adding value back into the Australian manufacturing sector and growing the local sustainability industry by creating jobs — a factor that was identified as important to our users.

Last year, MILWAUKEE Australia launched nationwide retail collection units. We also identified key clients and executed several pick-ups at job sites. Looking forward, the FUTURE FORWARD team aims to tailor the next phase of marketing and communications about the project to be more targeted towards different facets of the market. The ultimate goal of the campaign is to fully integrate FUTURE FORWARD into our MILWAUKEE brand and cement battery recycling as part of our central value proposition to users.



Product Safety Management

Ensuring safety is a top priority for our products, our Product Safety Directors, committees, and teams at each of our business units are accountable for advancing safety standards, quality, and compliance. We strive to incorporate ongoing improvements into our procedures for every product that TTI designs, produces, distributes, or licenses, in order to offer our customers an exceptional experience. Safety serves as a significant motivator for numerous projects we undertake, such as:

- Replacing gas engine products with MILWAUKEE MX FUEL line tools so they can be used safely in confined spaces without the risk of harmful carbon monoxide emissions
- Launching a line of tool lanyards to prevent tools from falling on co-workers or others when used at height
- Expanding lithium-ion battery technology in our tools to reduce the usage of cord-connected, gas-powered products, thereby preventing potential hazards such as tripping and electrocution
- Using our technology to reduce noise pollution and prevent customers from breathing in harmful emissions from products
- Extending our line of safety equipment products such as hard hats, masks, glasses, gloves, and helmets

TTI has established Product Safety and Consumer Product Regulatory Compliance Policies that lay out our safety measures. Our Product Safety Committees and Committee of Product Safety Directors from our various business units enforce strict compliance monitoring and audit investigations based on these policies. These committees convene on a monthly basis to identify and evaluate:

- Customer complaints and online reviews that could lead to potential compliance or safety issues
- Potential compliance or safety-related findings from analyzing returned products
- Warranty data that could be associated with potential safety risks

Our quality control mechanisms cover the inspection, testing, and reliability assessment of incoming materials, in-process products, and outgoing products. Before and after launching a product, we conduct thorough safety hazard reviews, and have established product recall policies and procedures to enable swift corrective action, if needed. In pursuit of these goals, we maintain partnerships with government regulators, product safety standard developers, trade associations, and consumer groups. Any product recalls are overseen by our legal teams and safety and regulatory departments, ensuring compliance with all relevant laws until their safe disposal.



During this reporting period, we reported zero product recalls. Our safety reviews span our entire design and development process, and encompass the following:

- Initial safety review based on the results of our Design Failure Mode and Effect Analysis (DFMEA) and a review of tool construction will be conducted before the product release.
- Formal safety review based on the requirements of ISO 12100:2010 for the hazard review and risk assessment. This is a systematic review of all potential hazards during the life cycle of a product, identifying how risk can be minimized
- Final safety review that verifies the necessary implementation of corrective and preventive actions before products are released for mass production

TTI complies with all relevant industry standards and regulatory requirements for our products worldwide, often surpassing them. [Appendix A](#) of our HKEX ESG Reporting Guide Content Index on our website provides a list of regulatory requirements concerning health and safety, advertising, labeling, and privacy matters for products that may significantly impact our operations and performance. We actively monitor social media and online sales channels for customer feedback, recording and analyzing all comments and complaints. We address these requests, whether they relate to design improvements or more in-depth technical training for end-users. In 2022, there were no substantive product or service-related complaints received. Our product warranty policy further ensures customer satisfaction with a positive post-purchase experience. Our product safety measures have been expanded to include pollution management and reducing exposure to harmful emissions and noise for end-users.



Product Safety Updates

In 2022, we initiated zero recalls of our products.

- There was no violation of labeling or advertising regulations reported in 2022. As part of our product safety and quality initiatives in this period, we strived to:
 - » Ensure phone, web and retail level inquiries from customers were well managed and customer service lines for all tool brands were staffed accordingly
 - » Provide technical training at product information centers for customers, including dealers and OEM partners
 - » Offer customers product safety training conducted by sales and Jobsite Solution teams
 - » Train Field Service and Customer Service Representatives on building customer relationships
 - » Provide repair and warranty services to customers at product service centers
 - » Expand our line of PPE to keep people safe on job sites
 - » Ensure global alignment and collaboration of our safety teams

