

MATERIAL TOPIC

Resources, Materials and Waste

The long-term sustainability of our business is dependent on the responsible consumption of resources and materials and proper management of waste. We need a robust approach to maintaining healthy ecosystems, our natural capital and the safety of colleagues, business partners and communities.



How We Are Managing It

TTI remains committed to reducing our consumption of natural resources, utilizing materials responsibly and ensuring the safe management of unavoidable waste. We prioritize R&D projects that employ cutting-edge technology, equipment and systems to conserve, recover and reuse wherever possible.

Natural Capital – Water and Biodiversity

Natural ecosystems provide a variety of renewable and non-renewable resources that our business depends on. One such resource is water. All of TTI's water needs are met locally by municipal sources, and we remain compliant with all local regulations on water withdrawal and wastewater discharge as per our SOP on Water Pollution Management, without any issue in sourcing water that is fit for purpose. Our water management strategy is focused on the efficient usage of this shared resource and the proper oversight of wastewater discharge. We aim to reduce our absolute water withdrawal every year. Particularly in places where water is scarce, we closely monitor usage and implement conservation initiatives throughout our operations.

Our water reduction methods vary by BU. Some common practices include using recycled water for flushing, collecting rainwater for gardening and cleaning outdoor areas, carrying out regular inspections to check for hidden water leakage along buried water pipe networks and installing motion sensors and timer-controlled taps on washbasins.

We also endeavor to promote water conservation projects with partners and NGOs. Together with our NGO partners, we provide access to safe water and sanitation training in the communities where we operate. As the COVID-19 pandemic continues, clean water and hygiene remain essential. More details on these programs can be found in the Community Investment and Engagement section of this Report [📄](#).

Apart from water, our wider ecosystems that support air and soil quality, as well as species and habitat diversity, must be safeguarded. To this end, we are working to restore and protect biodiversity both within our business and through our suppliers, customers and consumers. This means going beyond resource conservation to implement careful

material selection and sourcing and to adopt renewable energy as well as design products and processes for circularity. By prioritizing sustainable materials and clean technology, we strive to manage our footprint and reduce our impact on habitats and species throughout our value chain.

Chemicals

As with all other materials, our aim remains to reduce the use of chemicals and hazardous substances in our value chain. Chemicals that are unavoidable are managed through internal policies shaped by the strictest industry regulations. Our SOP on Chemical Management outlines the various responsibilities of individual departments in ensuring the safe handling of chemicals. This includes the purchasing, transport, storage and usage of hazardous and non-hazardous substances. It also covers emergency response in the event of leakage, contamination or fire and provides relevant data sheets, regulations and procedure documents.

TTI is diligent about meeting all industry requirements including REACH (Registration, Evaluation and Authorization of Chemicals),

a regulation of the European Union (EU) that addresses the production and use of chemical substances as well as their potential impacts on both human and environmental health. This regulation requires that all companies manufacturing or importing chemical substances into the EU in quantities of one tonne or more per year, register these substances to the European Chemicals Agency (ECHA). We also adhere to the Restriction of Hazardous Substances (RoHS) requirements in Europe and parts of Asia, as well as the Toxic Substances Control Act (TSCA), US EPA Clean Air Act and Internal Revenue Code in the USA. Our production processes avoid the use of REACH's substances of very high concern wherever possible, and verification testing for RoHS substances is conducted by our in-house laboratories. At the start of all our projects, any potentially hazardous components are identified as part of our risk analysis and suppliers must provide test reports through TTI-approved, third-party certified laboratories to verify the safety of these components and finished products. Test reports are maintained in a database.

Waste

For waste that cannot be avoided, we are working to set global reduction targets. Across our markets, building management facilities provide recycling and disposal options for hazardous and non-hazardous waste. In addition, we always ensure that licensed professionals collect hazardous waste for safe disposal. We have comprehensive waste management guidelines with training provided to our employees on the correct handling of waste. Guidelines are outlined in our SOPs on Waste Collection and Disposal. Our EHS teams are responsible for ensuring offices have the appropriate resources to comply with all policies and regulations. To improve our management, we continue to monitor waste types and quantities. We also conduct internal audits of our management processes and periodically work with third-party auditors to review these.

We are expanding our partnerships with a number of organizations and recyclers. This not only diverts waste from disposal, but also establishes circular economy practices for the capture and reuse of valuable resources. More information on

our initiatives can be found in the Circular Economy section on p.72 [📄](#) and in our Spotlight on FUTURE FORWARD on p.65 [📄](#).

Material Management

Choosing materials that are reusable, recyclable and less harmful for the planet continues to be a priority. Our R&D teams are focused on utilizing sustainable materials whenever possible and at all stages of our product life cycle. To come up with innovative ways to approach materials, in the PRC we also dismantle surplus products and items used for reliability testing to assess the components for suitability of reuse or recycling. In line with our circularity strategy, we maintain our partnerships with recyclers that have patented a technology to recover valuable materials from products.

Packaging and Paper

Packaging materials remain a key challenge as our global production volumes increase. The bulk of our packaging includes paper for boxes, cartons and die cut sheets, and plastic for polybags, bubble bags, clamshells and tool bags. We are constantly looking to reduce the amount of materials to conserve

GOALS

- Ensure the responsible consumption of resources across our business
- Improve waste treatment and efficient waste management
- Implement programs for biodiversity protection and restoration

TARGETS

- Achieve a water consumption reduction target of 6% per year at our PRC factory site
- Set a Group waste and water reduction target by 2023
- Increase the number of material management programs and facility development plans that consider biodiversity impacts

resources and make transportation more efficient. We do this by opting for reduced-impact materials and biodegradable options, including corrugated cardboard, 70% of which is made of recycled paper pulp, honeycomb board, chipboard, paperboard and/or molded pulp. We continue our programs to remove Expanded Polystyrene (EPS) foam from our packaging, implement soya ink printing and reduce packaging material weight. We also reduce the use of polybags by replacing polybag packaging for batteries with biodegradable bags and substituting paper bags for polybags that hold manuals, leaflets and accessories.

Management of paper is important; we continue to use 100% recycled paper and reduce the page count of instruction and safety manuals. We also reduce volume by applying new templates featuring condensed, simplified content, more graphics as well as decreased paper weight.

Batteries

Battery materials have long been a key focus of our environmental efforts. By designing our rechargeable battery packs to be interchangeable within each product network, we have been able to stem excess consumption, production and wastage. More detail on our interchangeable battery network can be found in the section on Clean Technology on p.68 [🔗](#).

▶ KEY INITIATIVES AND PROGRESS IN 2021

Our approach to natural resources, materials and waste management in 2021 was centered on assessing our consumption practices and setting reduction targets.

Water

Our Dongguan site in the PRC (TTI AIP) is our biggest water consumer, mainly due to the use of water at workers' dormitories. In 2021, we conducted a water audit at this site and proceeded to set reduction measures and a water withdrawal reduction target of 6% per year compared to our 2021 baseline.

In the reporting period, there were no incidents of non-compliance with water management regulations across our operations. TTI's total water consumption amounted to 433,413 m³, a 28% increase from the previous year due to growth in the business and the expansion of our footprint to support this. Total water discharge produced amounted to 1,283,204 m³, an increase of 21%, when compared to 2020. Consumption of recycled water was 253,316 m³, an increase of around 16% from the previous year. TTI Group's water consumption intensity decreased by 5% based on the sales value US\$ million compared to 2020.

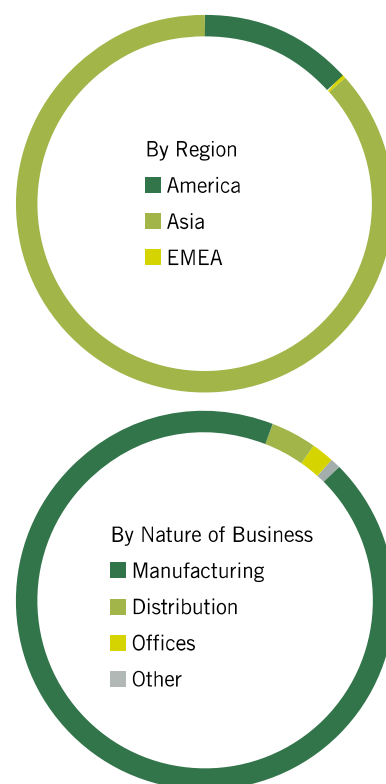
TTI AIP Water

TTI AIP's water consumption amounted to 378,638 m³, this was a 27% increase from the previous year due to growth in the business. Total discharge produced amounted to 853,924 m³, an increase of 14%. Consumption of recycled water was 252,066 m³, an increase of 15% from the previous year. In 2021, we committed to enhancing the insulation of hot water pipes, installing water saver shower heads and faucet water savers in our workers' dormitories to conserve resources.

The estimated annual water savings from these measures will be 76,050 m³, representing a 6% reduction in consumption compared to the baseline year of 2021.

433,413 m³
TOTAL WATER CONSUMPTION IN 2021

Water Consumption in 2021



Biodiversity

In 2021, we strived to manage our biodiversity impacts through various programs and partnerships. We partnered with organizations such as Responsible Minerals Initiative (RMI) and Responsible Business Alliance (RBA), that are working across different industries to promote sustainable procurement of minerals and metals, including from an environmental and biodiversity protection standpoint. We also worked with NGOs such as African Parks to conserve critical ecosystems; detail on this project can be found in the Spotlight on African Parks on p.99 [🔗](#). Through engagement with multi-stakeholder entities like these, we hope to effect positive change and expand environmental accountability globally.

Looking forward, our individual BUs are also striving to invest in projects that safeguard our natural ecosystems. Milwaukee Tool plans to distribute saplings in 2022 as part of a tree-planting initiative in the state of Wisconsin, USA. Milwaukee Tool Middle East has committed to planting 100 trees in 2022 at a certified forest in Madagascar every time an end-user purchases a product from its MX FUEL range across the Middle East, Africa and South Asia regions. With a target of 20,000 trees during the five month campaign, the equivalent offset will amount to more than 1,000 tonnes of CO₂.

Chemicals and Waste

In this reporting year, we implemented a program for relevant suppliers to complete a survey on ozone-depleting substances (ODSs) and ozone-depleting chemicals (ODCs) to understand the type and amount of these materials used in supply chain.

To better manage waste, in 2021 we initiated a global assessment and implemented the following initiatives:

- Providing recycling training for employees and working with trade associations to develop content on proper recycling of our products
- Implementing programs for recycling, including for paper, cardboard, scrap metal, bottles and cans, plastic, oil, wood pallets, lightbulbs, printer cartridges and toners and food waste
- Utilizing electronic filing systems to save paper where possible
- Recycling batteries and power tool skins to recover materials such as steel, copper and aluminum, which are then returned to the manufacturing sector to produce mixed metal dust
- Participating in government initiatives for the safe disposal of WEEE electrical equipment

There were no incidents of non-compliance with waste management regulations. TTI produced 56,689 tonnes of non-hazardous waste and 1,181 tonnes of hazardous waste in 2021. Our overall hazardous waste increased by 45%, this was due to growth in the business and the expansion of our footprint to support this. Total recyclable waste increased by 45% compared to 2020.

TTI AIP

At TTI AIP, non-hazardous waste generation increased by 64% and hazardous waste increased by 146%. Total waste intensity increased by 23% based on sales value US\$ million in 2021 compared to 2020. Total recyclable waste increased by 70% compared to 2020.

Material

In 2021, we continued ongoing efforts to reduce material consumption, adopt reduced impact alternatives and further reuse and recycling, with substantive progress made on circular economy initiatives.

Packaging and Paper

In 2021, TTI saw an increase of 21% in packaging used compared to 2020. Total packaging used was 72,913 tonnes, out of which 64,518 tonnes were recycled materials. Packaging measures that resulted in significant environmental benefits as well as cost savings for our business in 2021 included:

- Replacing our EPS foam trays across 65 models with degradable paper trays, avoiding 72 tonnes of plastic and 428 tonnes of CO₂e per year
- Further implementing half-sleeve packaging designs for 114 models that resulted in savings of 89 tonnes of paper, equivalent to 2,148 trees*. This avoided 95 tonnes CO₂e and the consumption of 2,595 tonnes of water
- Redesigning our clamshell packaging for dual battery packs by placing the batteries on the top and bottom instead of side-by-side, thereby eliminating 15 tonnes of plastic and avoiding 68 tonnes of CO₂e each year
- Reducing over 300 tonnes of outer corrugate packaging and over nine million polybags
- Reducing product packaging size, replacing materials with environmentally-responsible alternatives and increasing the shipping capacity of products
- Implementing a recycling initiative for brown paper towels

* Ecoinvent Swiss life cycle data set for 2022 <https://www.forestresearch.gov.uk/tools-and-resources/statistics/forestry-statistics/forestry-statistics-2016-introduction/sources/timber/conversion-factors/>

Batteries

We have robust partnerships in place with organizations that help us increase the rate of capture and recycling of our batteries. As part of the recycling process, batteries are broken down into components and chemistries. For our lithium batteries, the metal cylindrical can components are reused in steel and stainless steel products and lithium, cobalt and other materials are reused in new battery chemistries. 95% of all materials in a lithium-ion rechargeable battery are recyclable.

We have made significant strides with our partners, Call2Recycle® in North America, Envirostream in Australia and New Zealand and Stiftung GRS Batterien in EMEA and other partners globally.

TTI and Call2Recycle® Partnership

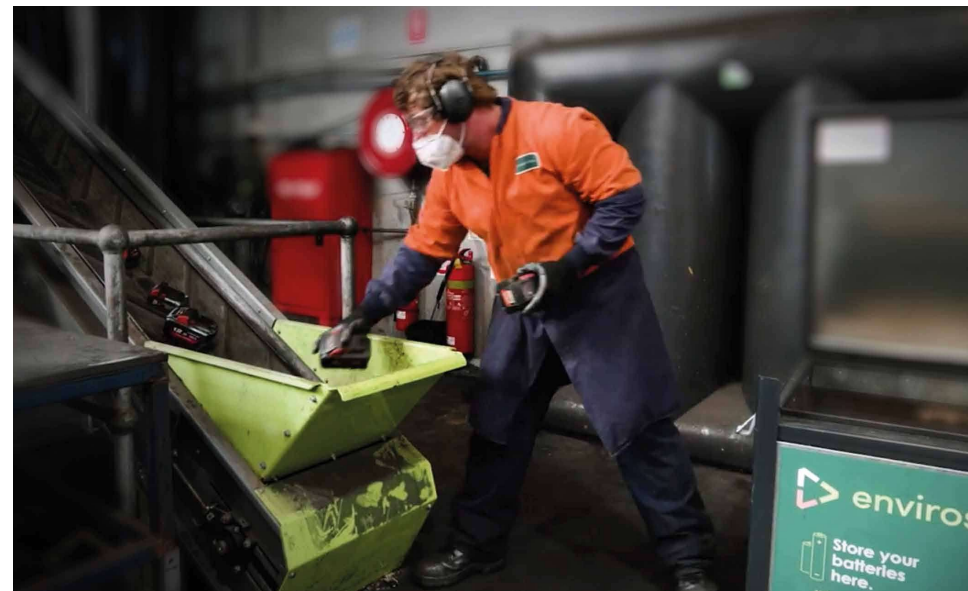
TTI has partnered with Call2Recycle® for over 20 years to ensure that our batteries and products containing batteries are responsibly recycled when they reach their end of life.

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. 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.

95%
RECYCLABLE MATERIALS
IN LITHIUM-ION
RECHARGEABLE
BATTERY

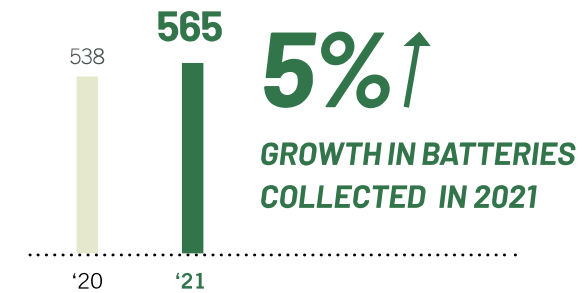
call2recycle
Leading the charge for recycling.

Recycled by
envirostream



In 2021, we collaborated with partners to collect and recycle more than 565 tonnes of batteries. Compared to the previous year, this represents an increase of 27 tonnes or 5%.

Batteries Collected and Recycled (tonnes)



Milwaukee Tool was once again designated as a Top 100 Leader in Sustainability for diverting more than 89 tonnes of batteries through the Call2Recycle® battery collection and recycling program. In addition they provided an at-home battery recycling solution with Call2Recycle® sending 1,892 recycling kits directly to customers.

Our battery recycling efforts are a key part of our circularity program. For more details on our approach to product end-of-life impacts, please see the Circular Economy section on p.72.



SPOTLIGHT

FUTURE FORWARD™

Leveraging Brand Power to Drive Sustainability

In 2021, our Milwaukee Australia BU partnered with local recycling partner Envirostream to launch FUTURE FORWARD™. Going beyond simply making battery recycling available to users, the new initiative involves a targeted campaign that seeks to leverage our Milwaukee Australia brand and embed sustainability into our identity.

We chose to work with Envirostream as it had established a first-of-a-kind in Australia, environmentally safe lithium-ion battery recycling facility. 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.

Following state-level pilot programs tested in the previous year, Milwaukee launched nationwide retail collection units in June 2021. We also identified key clients and executed several pick-ups at job sites. At the nationwide launch in June, the campaign collected 20 kg of batteries. The volume continued to increase month on month and by November, monthly collections reached 76 kgs of lithium-ion. Currently, the team is using collection data to gauge market reception of the program. 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 the Milwaukee brand and cement battery recycling as part of our central value proposition to users.

