



WUXI STA: DRIVING SUSTAINABLE MANUFACTURING FORWARD: HOW WE TURN COMMITMENT INTO ACTION

In today's world, where the threat of climate change looms large, the pursuit of sustainable practices in the pharmaceutical industry isn't just a trend—it's a necessity. Here at WuXi STA, we're more than just participants; we're pioneers. As a global leader in Contract Research, Development, and Manufacturing (CRDMO), we produce thousands of investigational and marketed innovative drugs for all synthetic modalities at all scales every year. We're passionately investing in carbon footprint reduction, driving innovative breakthroughs, and leading the change toward a sustainable future in our industry. Our mission embodies more than business goals; it's about contributing positively to the world, aligning our scientific advancements with a vision of health and sustainability for everyone.

Our target by 2030 compared to the 2020 baseline

We concentrate our sustainability efforts in four key operational areas where we make a significant difference:

- Carbon Emissions: 25% intensity reduction
- Energy Consumption: 25% intensity reduction
- Water Resource Management: 30% intensity reduction
- Waste Management: Be landfill-free for all productive hazardous waste by 2030.

Carbon Emissions and Energy Efficiency

In 2022, we achieved a remarkable 36% reduction in carbon emissions year-on-year and reduced our

Highlights of Our ESG Awards

MSCI
 Received AA rating for a second consecutive year
 2021, 2022

MSCI
 ESG RATINGS
 AA

Sustainalytics
 Evaluated as "Low Risk" in 2022
 2022 ESG Industry Top Rated Company

ESG
 INDUSTRY
 TOP RATED

DJSI
 Included in the 2022 Dow Jones Sustainability World Index
 Included in the 2022 Dow Jones Sustainability Emerging Markets Index

Member of
Dow Jones
 Sustainability Indices
 Powered by the S&P Global CSA

CDP
 "A-" in the CDP Climate Change rating
 2022 CDP "Environmental Leadership Award"

CDP
 DISCLOSURE
 2022

EcoVadis
 Our four sites received Silver Awards for Business Sustainability Rating
 Changzhou, Couvet, Shanghai Waigaoqiao, Wuxi City

SILVER 2022
 ecovadis
 Sustainability

SILVER 2023
 ecovadis
 Sustainability

Showcase of WuXi AppTec's ESG Award Achievements

overall energy consumption by 37% through strategic initiatives and sustainable practices across all sites globally. Here are some innovation highlights:

Our Couvet site in Switzerland operates entirely on renewable energy that leverages local weather conditions with solar panels and LED lights to enhance energy efficiency. Geothermal energy is harvested from the earth's subsurface using a system of 266 heat exchange piles drilled deep underground. This innovation results in an impressive 70% lower CO₂ emissions compared to similar-sized facilities in the pharmaceutical industry.

At our Wuxi City drug-product site in China, we have installed energy-saving heat pipes in the Heating Ventilation and Air Conditioning (HVAC) fresh air treatment section. This ensures waste heat recycling, saving an estimated 42,000 kWh of electric energy annually. Similarly, our Changzhou API site utilizes heat recycling devices for air compressors, saving an estimated 2,600 tons of steam annually. This is coupled with our VAR38 incinerator's flue gas heat-exchange system, which reduces 98,000 tons of purchased steam.

Water Resource Management

Through innovative technologies and responsible practices, we achieved a 41% reduction in water consumption in 2022 vs. 2021.

In 2018, our Wuxi City site initiated a new water reclamation and reuse project. By employing an innovative treatment process, we successfully repurposed production wastewater for non-production purposes. This initiative not only achieved zero discharge of production wastewater but also significantly contributed to the overall reduction of water consumption, lessening the environmental impact of the site. In 2022, the total amount of reclaimed water reached 51,861 tons.

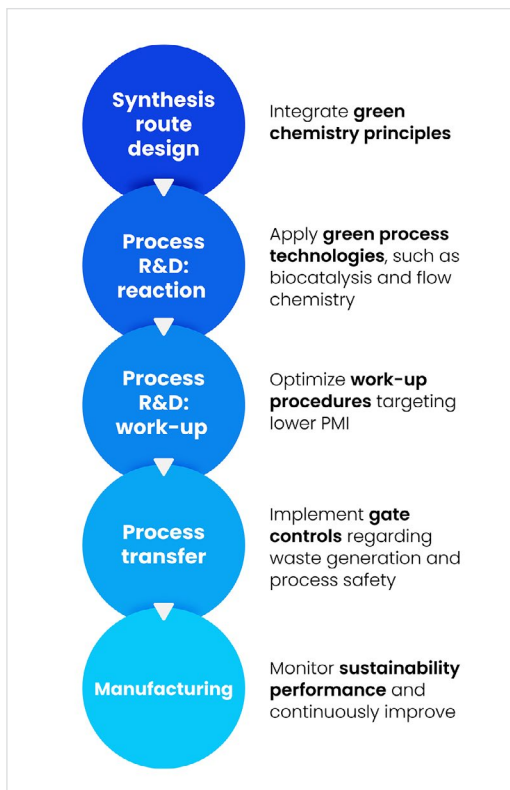
These measures, including our investment in water recycling technologies and continuous monitoring of water usage, enable us to maintain efficiency while ensuring that our operations align with the highest standards of environmental stewardship. Our commitment to sustainable water management was recognized globally, reflecting our mission to contribute positively to a world where water resources are conserved and used responsibly.

Solid Waste Management

In July 2020, our parent company, WuXi AppTec, launched precious metal recovery, and we have significantly improved the recovery process in recent years. We have engaged all suppliers for heterogeneous catalyst recovery, tracking the process of catalyst collection and use, ensuring that precious metals can be recovered to the maximum level. In 2022, we successfully recovered approximately 385.5 kg of precious metals, contributing to our overall waste reduction efforts.

Process Mass Intensity (PMI) Management

As a recognized leader in synthetic chemistry, we have embedded process mass intensity management into every stage of our research, development, and manufacturing processes. PMI is a metric that measures the ratio of kilograms of raw materials used per kilograms of product manufactured. In 2022, we achieved an impressively low combined PMI of 41 across our API manufacturing sites, reflecting our commitment to eco-friendly practices.



Workflow of API process development and manufacturing for greener processes

Our approach to API process development and manufacturing incorporates advanced and environmental-friendly technologies, such as biocatalysis and flow chemistry. From the design of new synthetic routes to work-up development and process transfer, we prioritize green process technologies and waste control. By adhering to the 12 Principles of Green Chemistry and focusing on continuous improvement through a PMI scorecard, we transcend regulatory compliance and exemplify our unwavering commitment to sustainable manufacturing.

As a pioneering leader in the healthcare industry, we recognize the profound connection between climate change, public health, and sustainable manufacturing. Faced with these global challenges, we are committed to the best sustainable practices, creating a path toward a healthy future for our planet.

About WuXi STA

WuXi STA, a subsidiary of WuXi AppTec, is a leading pharmaceutical development and manufacturing capability and technology platform company serving the life sciences industry, with global operations. As a premier contract development and manufacturing organization (CRDMO), WuXi STA offers its world-

wide partners efficient, flexible, and high-quality solutions for integrated chemical, manufacturing and controls (CMC) from preclinical to commercial uses, including the development and manufacturing of small molecules, oligonucleotides, peptides and various complex chemical conjugates. For more information, please visit [our website](#).