SERB Pharmaceuticals

# Sustainability Report 2024

Winners of our 2024 'Olympic Challenge' employee wellness programme attend the opening of the Paralympic Games in Paris

# Reaching more patients sustainably

## SERB Pharmaceuticals contributes to sustainable development mainly through our ongoing efforts to equip healthcare providers with life-saving medicines for patients facing rare conditions and emergencies. Our core business is focused on the health and well-being of patients through our actions to acquire, develop, and manufacture medicines to the highest standards, and make them available worldwide through our secure supply chain.

As we grow and expand the reach of our business through selective acquisitions and by entering new markets, we're mindful that our growth must be sustainable, implemented ethically, and respectful of diversity. We're not just supplying medicine; we're improving the standard of care for more patients around the world.

### Embedding sustainability throughout the business

This year our sustainability initiatives have been further embedded in the day-to-day operations of our business. Each ESG (Environment, Social, Governance) area has a dedicated sponsor within executive leadership, who works with a small team of individuals to set the strategic ambition and define a roadmap for improvement. We believe that devolving responsibility for these areas will keep ESG considerations top of mind when business decisions are made on topics as varied as capital expenditures, setting performance metrics, selecting vendors, or creating new policies.

| Environment | Social | Governance |
|---|---|---|
| **We consider and minimize the environmental impact of everything we do** | **We foster a safe, supportive working environment and have a positive impact on the communities in which we operate** | **Our leadership practices and group policies ensure that we operate ethically and comply with legal and regulatory requirements** |
| Environmental initiatives are led by our Chief Operating Officer for Biopharma, who oversees in-house manufacturing - the area where we have the most direct control and greatest opportunity to improve greenhouse gas emissions, water use, and waste. | Social initiatives are led by our Chief HR Officer, enabling us to improve policies and launch programmes that ensure healthy and engaged employees and encourage diversity and inclusion, as well as supporting the communities we work in through volunteerism and corporate philanthropy. | Governance improvements are led by our CFO, not only ensuring robust policies and compliance, but also that ESG appears alongside financial performance and is included among other business risks in reporting to our Board and other external stakeholders. |

We have also expanded the role of our Director of Corporate Communications to include responsibility for coordinating our ESG efforts, providing a central point of contact for these E, S, and G workstreams, and ensuring ESG systematically becomes part of our ongoing dialogue with both our employees and external stakeholders.

## Our areas of focus

As a signatory to the UN Global Compact, we continue to align our ESG strategy with the UN's Sustainable Development Goals (SDGs) and have prioritised the 6 SDGs that we believe are most relevant and material to our business and to our stakeholders, including our employees. These are the areas where we feel we can make a meaningful difference.


While we have chosen to focus on 6 SDGs, we have also identified "Secondary" SDGs where we are aware that our business has an impact and a responsibility.

### Health (*SDG 3: Good Health and Wellbeing*)

### Quality Products

In line with our corporate value of 'making patients our priority', the safety, quality and efficacy of our products is of paramount importance. Each employee has a fundamental responsibility to ensure the safety and quality of the products our customers and their patients rely on.

Our quality systems, policies, processes and procedures satisfy all applicable compliance, legal and regulatory requirements. We aim to ensure that the products we sell meet statutory requirements and industrial standards, and that they usually exceed them.

This year our Quality team put all SERB entities on the same electronic Quality Management System (eQMS), ensuring all entities and all sites use the same system, with the same workflows for key quality processes. In addition to using a common eQMS, all entities now use the same standard operating procedures (SOPs) for management of documentation, training, deviations, CAPA (corrective and preventive actions), and change control. Harmonizing these procedures was important and allows teams across our acquired entities to work together more closely than ever.

In 2024 we hosted governmental authority inspections across all our sites, notably a week-long FDA inspection of our Wales facility, an audit of our pharmacovigilance processes, and pre-approval inspections for an externally manufactured product in late-stage development. These inspections generated no critical observations and minimal observations classified as major.

Our Quality department works closely with our Operations and Regulatory teams to ensure that technical and compliance challenges within our manufacturing network are managed efficiently and in cooperation with regulatory authorities, to serve the best interests of patients.

## Health (*SDG 3: Good Health and Wellbeing*)

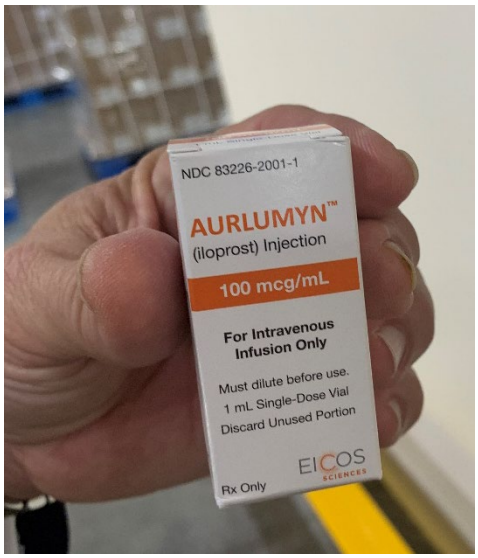
## Making patients our priority

Our purpose is to be a dedicated ally to healthcare providers treating patients facing rare conditions and emergencies. We are expanding our reach through selective acquisitions and entering new markets, allowing us to help more patients.

This year SERB acquired new products, expanded the reach of existing products, and expanded into new geographies:

- In March SERB announced a license and commercialisation agreement with M8 Pharmaceuticals, an Acino company, to bring Voraxaze® (glucarpidase) to cancer patients in Latin America.
- Following MHRA approval, in June our UK team launched Epistatus® Adult Dose (10mg) for use in adults 18 years and above for prolonged, acute, convulsive seizures (PACS), allowing this product to help a broader patient population.
- In July SERB acquired RSDL® (Reactive Skin Decontamination Lotion), a medical device provided as a kit, with a lotion impregnated sponge in a packet, intended to remove or neutralize chemical warfare agents from the skin.
- In October SERB acquired Aurlumyn™ (iloprost IV), the first and only FDA approved treatment option for severe frostbite in the US. Studies show that thousands of people are hospitalized with severe frostbite in the US each year. It is a high morbidity, high-cost injury that can lead to digit or limb necrosis requiring amputation. Aurlumyn™ is indicated for the treatment of severe frostbite in adults to reduce the risk of digit amputations.


Over 15 million packets of RSDL® have been sold in over 30 countries.




Aurlumyn™ (iloprost IV) is the first and only FDA approved treatment option for severe frostbite in the US.

### SERB Joins Critical Care Alliance

In March SERB was selected by the European Health Emergency preparedness and Response Authority (HERA) to be part of the newly created Critical Medicines Alliance. HERA plays a pivotal role in strengthening the European Union's ability to prevent, detect and respond to serious cross-border health threats by ensuring the development, manufacturing, procurement, and equitable distribution of key medical countermeasures. The Alliance is a consultative mechanism to ensure collaboration between Member States, industry, and all relevant stakeholders.

## Environment (*SDG 13: Climate Action*)

## Measuring Our Environmental impact

In 2024 we continued to improve methods to assess our carbon footprint, collaborating with an external partner to calculate our Scope 1, 2 and 3 emissions for our full portfolio. The availability of additional financial data made it possible to challenge and refine the emissions factors used for API production and to revise up API factors applied in 2023 that were found to be underestimated. Despite these changes, and increased product sales in 2024, we saw a 13% reduction in total $CO_2e$ equivalent emissions per employee as compared to 2023.

| | 2023 | 2024 |
|---|---|---|
| **Energy**<br>**Renewable energy as % of total energy consumption[1]** | 36% | 29% |
| **Greenhouse gas emissions[2]**<br>**Total $CO_2$ equivalent generated (tonnes)** | **41,400** | **40,500** |
| $CO_2$ equivalent generated (tonnes) Scope 1 | 3,966 | 2,470 |
| $CO_2$ equivalent generated (tonnes) Scope 2 | 55 | 245 |
| $CO_2$ equivalent generated (tonnes) Scope 3 | 37,365 | 37,737 |
| **$CO_2$ equivalent (tonnes) per employee** | **95.6** | **83.3** |
| **Waste**<br>**Total waste from our production sites[3] (tonnes)** | 91.0 | 137.0 |
| Waste recycled | 57.3 | 56.5 |
| Waste to landfill | 33.7 | 80.5 |
| *Of which, hazardous waste* | *33.0* | *74.0* |
| **Water[4]**<br>**Total water consumed at production/research sites (megalitres)** | 12.3 | 13.3 |

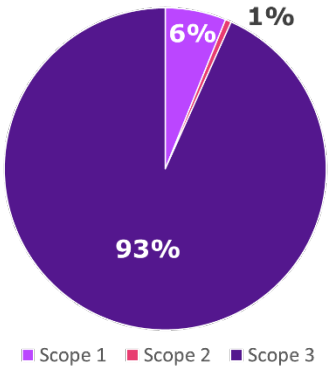
**Scope 1** includes fuel burnt directly at a premises controlled by SERB, such as gas or oil used to supply heat or hot water.

**Scope 2** are emissions associated with electricity supplied to the premises used by the company.

**Scope 3** applies to all emissions associated with all goods and services purchased by the company.

[1.] 2023 renewable energy figure updated from 2023 report using additional data not previously available.
[2,] Calculated with the Carbometrix platform and GHG Protocol. *See back page for notes on methodology*.
[3, 4] Waste and water data is from our manufacturing sites in Australia and UK.

Renewable energy use in 2024 remained consistent but was a smaller percentage of greater total energy consumption. This year 55% of greenhouse gas emissions were attributable to purchased products and active pharmaceutical ingredients (APIs), down from 65% in 2023. Purchased equipment was a more significant contributor, accounting for 18% of emissions, up from 6% in 2023. We also noted an increase in travel as a percentage of emissions, suggesting an area of focus in the years ahead. Total waste, and notably waste classed as hazardous, was exceptionally higher in 2024 due to disposal of expired product and related chemicals from our Wales facility.




## Improving our emissions calculations

The assessment of our carbon footprint relies on physical data, and any gaps are filled with estimates based on monetary data and other benchmarks. The resulting footprint was calculated using the GHG Protocol Corporate Accounting and Reporting Standard.

For approximately half of the finished drug purchases, suppliers provided carbon intensity based on their overall activity. This reflects a significant improvement over previous years when no such data was available and demonstrates greater supplier engagement with climate-related issues. We have included a pro-rated estimate of emissions for our new Hattiesburg facility since acquiring the site in August based on annual financial data. We intend to conduct a more thorough assessment of the Hattiesburg carbon footprint and product lifecycle in 2025.

## Environment (*SDG 13: Climate Action*)
## Improving emissions of our in-house manufacturing

In addition to annually calculating our overall Scope 1, 2, and 3 emissions, we have also created a model to determine the emissions of the two biologic products we produce in-house: CroFab® and DigiFab® (*see back page for methodology*). The manufacturing of these products generates a significant proportion of our carbon footprint and represent areas of activity that are most within our control.

Due to its unique manufacturing process, the polyclonal antibody product CroFab® is the single largest contributor to our greenhouse gas emissions. We were pleased that our 2024 data showed an 8% decrease in emissions related to CroFab® since 2022, falling to 237kg $CO_2e$ per vial. We were also proud to see the benefits delivered by some of our efforts to reduce emissions.

The most notable drivers of this reduction have been a change to how we fuel the boilers and heaters on our manufacturing site in Wales, and a reduction in the use of urea fertilizer.

- Changing from burning diesel oil, a fossil fuel, to Hydrotreated Vegetable Oil (HVO) in our boilers and heating system in Wales has delivered a significant decrease in $CO_2e$ emissions. HVO is a renewable diesel alternative derived from waste oils and fats. This change saves over 15kg of $CO_2e$ per vial of CroFab®. In addition to the $CO_2e$ reduction, HVO is also known to produce less particulate matter (PM) which reduces air quality, though this benefit has not yet been formally assessed on our site.


*Switching to Hydrotreated Vegetable Oil (HVO) for steam generation in our Wales facility reduces CO2e emissions by up to 70% compared to fossil-derived diesel oil.*

- Our Australian land is treated with fertilizer to grow feedstock crops for the sheep used in the production of polyclonal antibodies. Reducing fertilizer use (urea) in Australia has significantly reduced associated emissions of Nitrogen Oxide (NO), a potent contributor to global warming. A *62%* reduction in the use of urea in 2024 translates to a reduction of almost 12 kg of $CO_2e$ equivalent per vial of CroFab® produced.

*Our Australian team use urea to fertilise land used to grow over 2,000 tons of hay. The hay feeds our sheep which play a crucial role in our biomanufacturing process. Growing our own feed gives us independence and avoids fluctuating feedstock prices when demand is high.*

These and other gains were partly offset by lower antibody yields in batches produced in this period, and activity linked to increased investments in R&D. The product footprint model continues to be a useful way to focus our efforts to become more efficient and to reduce our environmental impact. Building on the improvements above, the team sees improving yield and reducing scrapped product as the prime opportunity to reduce $CO_2e$ per vial of product and waste.

## Environment (*SDG 12: Responsible Consumption and Production*)

### Investing in More Sustainable Infrastructure

Over the past two years, our Wales engineering team has upgraded the systems used to generate and distribute purified water – a critical element in the manufacturing of pharmaceuticals – on our Wales manufacturing site. The previous system had served the site for 16 years but was no longer able to meet the needs of production, offering an opportunity to change to a more environmentally friendly system. The new purified water system (pictured below) features a water re-use cycle and more energy-efficient pumps that reduce overall water and energy consumption.

Figures collected in 2024 show that the new purified water generation system has delivered a 30% reduction in water intake from 345,000 litres/week prior to the upgrade to 243,000 litres/week. The system also generates 83% less wastewater as part of the purification process.

Energy consumption is still being assessed, but expected to be an order of magnitude less, and could be as much as a 50% reduction according to the manufacturer specifications. As an added benefit, 99% of the materials used are recyclable.

The site has also upgraded its system for distributing purified water around the site. The previous system relied on plastic tubing that required regular sanitization with peroxyacetic acid, an antimicrobial agent that can be harmful to the environment and toxic to fish and animals. In addition to environmental concerns, use of this volatile and corrosive chemical poses a potential health risk to our engineers if, despite precautions, they were exposed. In 2023 we used over 600kg of this antimicrobial agent.

The new system consists entirely of stainless steel and relies on ozone sanitization, a more environmentally friendly method relying on ozone gas ($O_3$) as a powerful oxidizing agent. Although we will still periodically use a limited amount of peroxyacetic acid, for example following certain maintenance procedures, we expect the new distribution system to reduce our use of the chemical by 83%. The change in how we sanitize our purified water distribution system will be more efficient, significantly reduce harmful effluent, and reduce potential risk to our employees.

## Social
## Health and Safety

We understand our responsibility to protect the health and safety of our employees. We conduct regular risk assessments, audits and training. We aim to record all accidents and incidents resulting from work-related activities for anyone engaged by SERB either in full-time employment or as a contractor. This includes activities such as driving on company business and incidents that occur on supplier or customer sites.

In 2024 we recorded 0.055 injuries per 100,000 hours worked (compared to 0.11 injuries per 100,000 hours in 2023).

## Social
## Engaged Employees

Every SERB employee plays an important role in delivering meaningful benefit to patients. It is important that all our employees are informed and engaged, and we look to them for ideas and feedback.

We conduct 6-monthly anonymous employee surveys to assess job satisfaction, line manager interactions, and strategic alignment, and to give all employees an opportunity to anonymously provide input on what is going well and what could be improved.

In 2024 our surveys averaged a 70% participation rate and continued to show steady improvement in almost every category, with notable improvements in responses to questions measuring job satisfaction and confidence in leadership.

In our most recent survey, 68% of employees said they would recommend SERB to a friend as a great place to work, 80% believe their line manager is a role model for employees, and 80% see a clear link between their work and the company's goals.

December 2024
Employee 'Pulse' Survey

**80%**

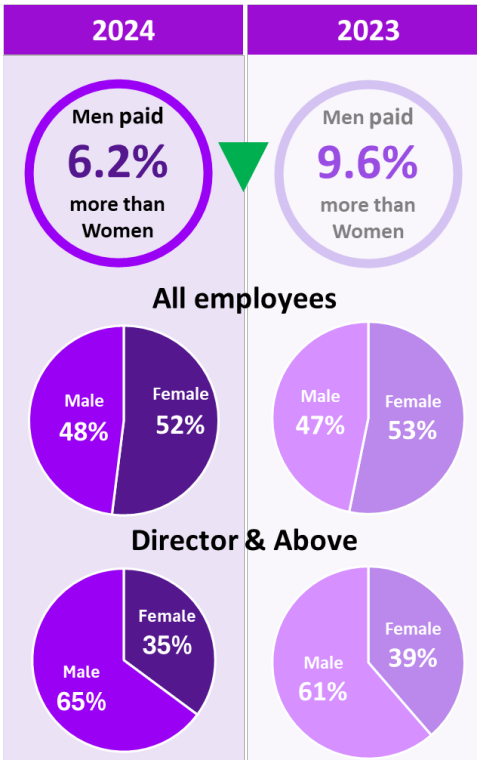
Agree or Strongly Agree with the statement:

"I can see a clear link between my work and the company's goals and objectives"

## Social (*SDG 5: Gender Equality*)
## Gender Pay Gap

Women made up 52% of our employees in 2024, and 35% of senior leadership positions. While men and women are always paid the same amount for doing work of equal value, the pay gap arises because there is not an equal distribution of men and women at all levels of the organisation.

This year's group-wide gender pay gap calculation showed that on average men earned 6.2% more than women in 2024, a narrowing of the 9.6% gap shown in our first gender pay gap analysis published in our 2023 Sustainability report.



## Social

### Employee Wellbeing

The SERB Global Olympic Challenge was an employee wellbeing initiative designed to encourage physical fitness, environmentally responsible behaviours, and better teamwork and cohesion across geographies and departments – all in an engaging format. Launched for the first time in 2024 and themed around the 2024 Paris Olympics, this program aligned corporate wellness goals with the excitement of a global sporting competition.

Over 200 employees chose to participate and were divided into six-member teams composed of colleagues from various geographies and functions, helping to break down silos and foster international collaboration.

The competition was facilitated by a third-party app that tracked physical activities such as walking, running, and cycling — all of which earned points for each participant's team.

The six-week competition also incorporated elements such as weekly quizzes, photo challenges, and a "social wall" for updates and to show camaraderie. The social wall was particularly active throughout the competition, with over 3,000 posts receiving over 47,000 likes and 1,300 comments. This feature not only added a layer of fun but also offered windows into each other's lives outside work, helping to build relationships and create a more connected, global workforce. The integration of trivia questions and photo challenges created an opportunity to deliver information about exercise, healthy lifestyle choices, good nutrition, and the environmental benefits of biking to work or taking public transportation.

Enthusiasm was fuelled by the grand prize: a trip for the winning team to attend the 2024 Paralympic Games opening ceremony and events in Paris. This reward not only motivated participants, but reinforced SERB's commitment to diversity and the celebration of achievement.

In total participants in the challenge walked, ran, and biked over 82,000 km and by replacing driving with cycling and public transport they avoided an estimated 2,600 kg of $CO_2e$. In a post-competition survey respondents reported greater participation in sport (59%), being in a better mood (83%), and improvement of cohesion within the company (78%). Based on the success of the programme, plans are underway to run a similar programme in 2025.



Over 200 employees from around the globe participated in the Global Olympic challenge, covering potent over 82,000 km of running, walking and cycling.

## Social (*SDG 10: Reduced inequalities*)
## Diversity and Inclusion Month

This year we extended our Diversity and Inclusion week to a full month of talks and activities. This annual series of events is an opportunity for our employees to celebrate diversity in all its forms and foster an open, inclusive culture where employees understand and learn from each other.

This year's online and in-person events included panel discussions, guest speakers, quizzes and live performances covering topics such as: belonging in the workplace, psychological safety, how to hold more inclusive meetings, women in leadership, and understanding national cultural differences.

Guest speaker Megan Reitz, Associate Fellow of the Saïd Business School at Oxford University, shared her research on 'Speaking truth to Power' and discussed the concept of psychological safety and how we can improve the way we interact with one another in the workplace.

**Cultural appreciation in Australia**

Our Australian employees celebrated SERB Diversity and Inclusion Month by welcoming a member of the Kaurna people to speak about the significance of the land where our Australian teams operate. They also invited indigenous artists to speak about aboriginal medicines and help employees to paint a mural that now hangs at the site.

The circular design with leaves represents the various trees (eucalyptus, peppermint box) that cover the land and the two flowing designs running parallel to the travelling lines represent the waterways that are found throughout the area. The circular meeting places represent our two Australian sites linked together by travelling lines. The orange symbols around the meeting places represent our employees coming together, sharing knowledge in their pursuit to heal the world through life saving medicines.

## Social (*SDG 10: Reduced inequalities*)
## Volunteering in our local communities

2024 marked the second year of our Volunteer Day policy, inviting employees to take one day of paid time off each calendar year to participate in a charity program or activity of a local community organisation. This year 82 employees participated in site-organised volunteering or independently organised charity work.

Volunteering often took the form of group activities and site-wide events, for example:

- Our Philadelphia office volunteering with MANNA, a local charity that organises volunteers to help prepare food, pack containers, and deliver meals directly to the doorsteps of Philadelphians living with serious illnesses.

- Paris office volunteers worked with the Pharma Solidaires association during their busy Christmas season. Pharma Solidaires promotes the socially responsible reuse and re-allocation of para-pharmacy products and devices such as hygiene, first aid, cosmetic, and disinfection.

- Our Quality Assurance team in Wales used their Volunteer Day to pick up litter on Tresaith and Aberporth beaches in support of the 'Keep Wales Tidy' scheme.

Packing food containers for people with serious illnesses.

Picking up litter on Tresaith and Aberporth beaches in Wales.

## Social (*SDG 10: Reduced inequalities*)
## Charitable Giving

SERB has long supported charitable organisations and charities, primarily in healthcare and education, through corporate donations and matched giving programmes. Notable charitable corporate donations in 2024 included:

Twenty-six of our Wales employees participated in a half marathon hike in the stunning Gower Peninsula in aid of Macmillan Cancer Support. The team raised £6,700, which SERB matched.

- Alberici Foundation
- Clare Valley Food Charity
- EcoTree
- Estuary Care Foundation
- The Herren Project
- Landcare Australia
- Macmillan Cancer Support
- The Mayo Clinic
- Mind
- Motor Neurone Disease
- National Breast Cancer Foundation
- Rural Aid
- Indigenous Literacy Foundation
- Riding for Disabled
- Toyota Manufacture UK Charitable Fund
- Trees For Life
- Variety Children's Charity
- Animal Poison Helpline
- Vinnies - Gawler Food Charity

| SDG | SDG Goal | Ambitions | Achievements 2024 |
|---|---|---|---|
|  | Ensure healthy lives and promote well-being for all at all ages | • Focus on medicines for rare conditions and emergencies where there is large unmet need<br>• Be a global leader in the provision of medical countermeasures<br>• Expand availability of our treatments to new geographies<br>• Provide medical education that improves awareness of diseases and conditions | • Acquisition and launch of Aurlumyn™ (iloprost) Injection, the first FDA-approved treatment for severe frostbite in adults to reduce the risk of digit amputations in the US. Frostbite disproportionately affects the unhoused population<br>• Acquisition of RSDL®, an FDA-approved medical device intended to remove or neutralize harmful chemical agents from the skin, sold in over 30 countries |
|  | Achieve gender equality and empower all women and girls | • Advocate for equal treatment and opportunities irrespective of gender.<br>• Ensure women's representation and effective participation at all levels of management<br>• Support the education and early career development of women and girls, especially in relevant science and technology fields. | • Group-wide gender pay gap narrowed from 9.6% in 2023 to 6.2% in 2024<br>• The composition of our Board of Directors in 2024 is 40% female, up from 20% in 2023. This increase includes the appointment of Vanessa Wolfeler to Group CEO in May of 2024 |
|  | Reduce inequality within and among countries | • Foster a diverse and inclusive workplace.<br>• Support programmes and charities providing healthcare and developing capabilities in developing countries | • Our Diversity and Inclusion event was extended from a week to a full month of awareness-raising activities |

| SDG | SDG Goal | Ambitions | Achievements 2024 |
|---|---|---|---|
|  | Ensure sustainable consumption and production patterns | • Reduce waste through process and supply chain efficiency.<br>• Consider environmental impact of our operations and suppliers to identify opportunities for improvement. | • Reduced fertiliser (urea) use on production farm by 40%<br>• 83% reduction of water used in our new purified water system |
|  | Take urgent action to combat climate change and its impacts | • Measure and report Scope 1, 2, and 3 emissions.<br>• Make a quantifiable reduction of greenhouse gas emissions while maintaining portfolio of life-saving medicines. | • Improved methods to more accurately capture Scope 1, 2, and 3 emissions<br>• Updated carbon footprint assessment of internally manufactured products<br>• 62% reduction in the annual use of urea fertiliser in Australia |
|  | Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels | • Ensure compliance systems, policies, and training to prevent bribery or corruption | • Completed annual update of our Code of Conduct, notably revising the list of sanctioned and sensitive countries<br>• No ABAC incidents reported<br>• Published UN Global Compact 2023 Communication on Progress |

**Notes on methodology for greenhouse gas calculations**

Emissions are calculated per calendar year for the full SERB Pharmaceuticals group using the GHG Protocol Corporate Accounting and Reporting Standard.

All $CO_2e$ emissions related to the production of our CroFab® and DigiFab® products were estimated based on a product-specific Life Cycle Assessment (LCA) conducted internally by SERB. To ensure comprehensive Scope 3 coverage within the carbon footprint, downstream emissions were estimated, including air shipment of products from Wales to the US and end-of-life treatment of the products, primarily packaging disposal.

The $CO_2e$ emissions associated with purchased products were calculated using two main approaches: 1) Supplier-Specific Carbon Intensity (covering 50% of purchased drugs by weight) where suppliers provided their carbon intensity based on their overall activity (expressed in $tCO_2e$/M€ turnover). These intensity factors were applied to the financial amounts spent. 2) Material Decomposition Approach (covering 41% of purchased drugs by weight) where emissions were calculated using a material breakdown method, relying on physical primary data obtained from purchase files and technical documentation. 3) Extrapolated Estimation (Remaining 9% of products by weight) where emissions were estimated through extrapolation, using the average results from the two previous methods.

For the recently acquired Hattiesburg branch, no detailed information was available, and estimates were based on high-level financial data and a general classification of purchases (e.g., chemicals, consumables, APIs).

**Notes on Carbon Footprint of in-house products**

This assessment considers all items consumed on our Wales and Australia sites in 2024 including overheads, transportation, and an estimate of $CO_2e$ emissions of a significant third-party contract manufacturer involved in the fill and finish of these products. At this time, our assessment does not include production of the antigen used in our CroFab® product, nor does it include staff transportation or distribution or use of the product.

Learn more at:
serb.com/**responsibility**