



TREASURY WINE ESTATES

4 October 2023

ASX ANNOUNCEMENT

2023 SUSTAINABILITY REPORT

Treasury Wine Estates Ltd (ASX:TWE) is pleased to present its Sustainability Report for the year ended 30 June 2023.

For the purposes of ASX Listing Rule 15.5, TWE confirms that this document has been authorised for release to the market by the Board.

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TREASURY
WINE ESTATES

Cultivating a brighter future

Sustainability Report 2023

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Information in the report is current as at 30 June 2023 unless otherwise stated. References to 'TWE', 'Company', 'we', 'us' and 'our' are to Treasury Wine Estates Limited and/or, except where the context otherwise requires, its subsidiaries. All currency referred to in the Report is in Australian dollars, unless otherwise stated.



About Treasury Wine Estates

70+

Countries

Consumers in more than 70 countries enjoy our iconic wines, available in major retailers, premium wine outlets, restaurants, bars, and online channels.



3

 Brand portfolio divisions

Penfolds, Treasury Premium Brands, and Treasury Americas are supported by centralised business services, supply, and corporate functions.



2,500

Employees

Our world-class team has a presence across Australia, New Zealand, Asia, the Americas, the United Kingdom, Europe, the Middle East, and Africa.



10,100

Hectares

Our global multi-regional sourcing model is at the heart of our business. It includes vineyards and production assets in some of the world's best wine regions.



Message from Chairman and CEO



Embedding sustainability in our business

We are pleased to present our 2023 Sustainability Report, outlining progress on our strategy, targets and commitments.

In the two years since we launched our enhanced sustainability strategy, we've taken significant steps forward in a number of key areas. At the same time, we acknowledge that much remains to be done: by our business and our partners, by the wine and agriculture industries, and more broadly across the private and public sectors globally.

With sustainability continuing to influence the decisions people make about organisations they buy from, invest in, and work at, our sustainability aspiration is deliberately ambitious: to cultivate a brighter future for everyone who touches our business and our products. Our stakeholders rightly remain focused on our progress in sustainability, and this year we updated our materiality assessment to reflect emerging issues, megatrends and the changes that have occurred in our operating environment since our last assessment in 2021.

As our sustainability agenda evolves and we build stronger partnerships with our industry and beyond, we're particularly proud of the progress demonstrated in this year's report. Sustainability is embedded at the core of our decision-making and integrated into our financial framework, with Sustainability Linked Loan arrangements continuing to reward performance against agreed milestones.

An agricultural business at our heart and reliant on the health of our planet and the communities where we operate, we're keenly aware of our obligation to minimise our contribution to the rapidly changing climate. Underpinned by a goal to reach net zero (scope 1 and 2) by 2030, we're on the road to being powered 100% by renewable electricity by the end of 2024. Backed by a \$27 million investment in on-site solar generation and metering, 21 solar installations are now complete across our global production network – including Australia's largest winery solar installation which was unveiled this year. We have also developed site-specific climate risk assessments across all our viticultural assets in Australia and the US.

Across recent years we've led a massive effort to achieve sustainability certification across the industry. Sustainable agricultural practices improve biodiversity and soil health while supporting the ecosystem's natural rhythm. We believe that certification is a good way to give consumers confidence that their wine has been produced sustainably and we're pleased to have obtained relevant local sustainability-related certification across 99.3% of our owned and leased vineyards and wineries. We also continue to focus on sustainability certification across our growers and bulk wine sources.

With our main growing regions generally becoming warmer and drier, water continues to be one of our most critical assets. Our global water strategy, *Treasuring Water*, was released this year and demonstrates our commitment to stewardship of this important resource in the communities where we operate. Water will continue to be a key focus for our sustainability strategy, as we aim to be responsible, mindful and sustainable leaders across our global communities.

We also made progress in the social components of our sustainability agenda. This year we released our Alcohol and Health Policy, which outlines our position on consumer health and responsible drinking, including our support for the World Health Organisation's global alcohol action plan and the United Nations Sustainable Development Goals, which aim to reduce harmful use of alcohol by 20% by 2030. We're creating genuine choice for consumers who love wine but are looking to reduce the amount of alcohol they drink and have committed around \$10 million for research and development to continue growing our range of award-winning no and low alcohol wines. The range already includes Squealing Pig and Pepperjack mid-strength, Wolf Blass, Matua, and Lindeman's.

The safety of our global teams is our priority, and this year we featured a global leader-led campaign for our people: Build safe together. Together with a combination of safety initiatives throughout the year, this led to a significant reduction in serious safety injuries and lost time injuries.

Our sustainability ambition is deeply embedded in all aspects of our business, and we invite further collaboration across our value chain, with our industry, and with the broader community. While we're pleased to report our strong progress this year, we recognise there's more work ahead for us all. The rapid progress that is needed by our planet and the communities where we all live, work, and do business in, will require bold thinking and swift action in this critical decade for action.

We thank all our people, as well as our external partners, for their contribution to our progress in sustainability this year. We look forward to continuing to deliver against our ambitious targets, and together with our broader industry and the communities we operate in, cultivating a brighter future for everyone.

Paul Rayner
Chairman

Tim Ford
Chief Executive Officer



F23 sustainability highlights

EBITS margin strengthened 2.9ppts to

24.1%

ROCE up 0.6ppt to

11.3%

Overall gender diversity improved to

42.7%

Serious safety incident frequency rate of

0.2

(-1.2ppts)

Completed **21 solar installations**, including Australia's largest winery solar installation



We developed **site-specific climate risk assessments** for our viticultural assets in Australia and the US



Maintained sustainability-related certification across **99.3%** of our owned and leased sites globally

Engagement score of **71%** in our engagement survey

Investing around **\$10 million** in our low and no alcohol product range





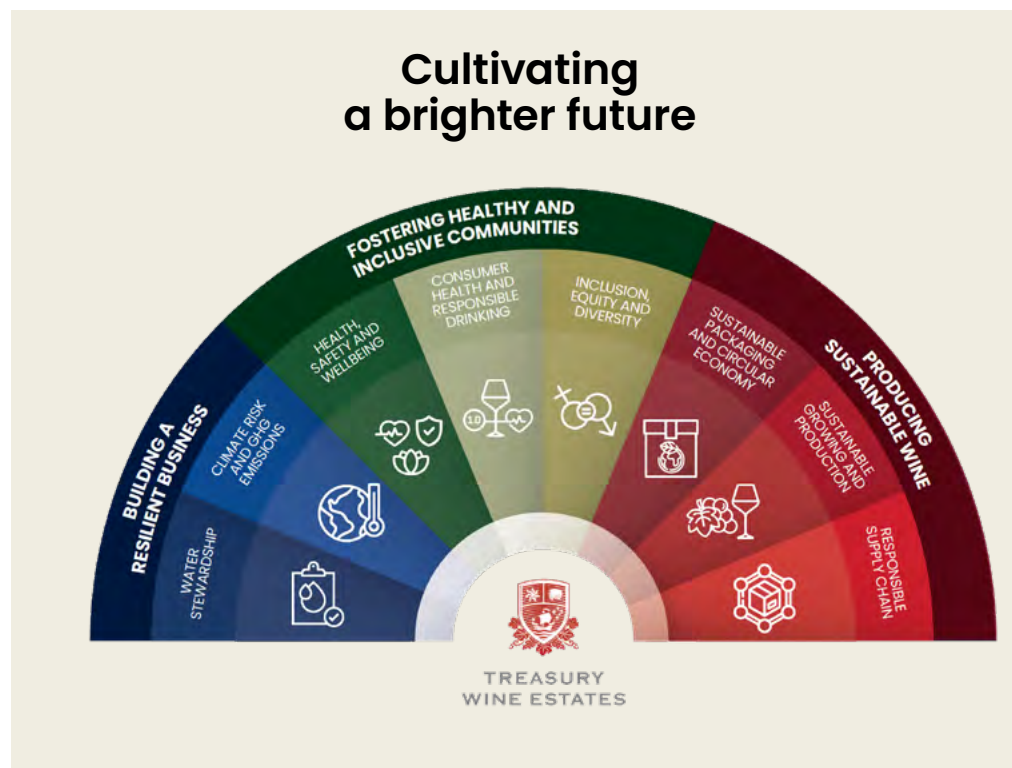
Our approach to sustainability

In the face of a changing world and challenging market conditions we have continued to make good progress on our sustainability agenda. We continue to build a more resilient business, produce sustainable wine, and prioritise the wellbeing of our people, communities, and consumers.

Over the course of F23 we have advanced the implementation of a range of internal initiatives and made progress against our public commitments, both ultimately in support of our ambition to cultivate a brighter future. This reflects the collective effort across our global team, partners, and the broader industry – all of which recognise the necessity of embedding sustainability across business operations to ensure future resilience, prosperity, and growth.

Our overall approach remains consistent with previous years – sustainability is embedded in our [Ambition and Game Plan](#) and is driven by [TWE's DNA](#). We have a clear commitment to drive innovation, meaningful partnerships, positive change, and ultimately take a leadership role in the delivery of sustainability across the beverages sector.

Our sustainability strategy reflects the areas where we can make the greatest impact. We have aligned our efforts with those identified by the United Nations Sustainable Development Goals (UN SDGs) and continue to work towards responding to pressing global issues across different environmental, social and governance (ESG) themes.



Our agenda responds to eight material topics which are captured in three focus areas:

Building a resilient business:

We want to ensure our business is resilient in the face of increasing uncertainty, complexity, and change. For more detail refer to [this section](#) of the report.

Fostering healthy and inclusive communities:

We want to foster safe, sociable, and connected communities where our brands are promoted, and our wine consumed safely and responsibly. For more detail refer to [this section](#) of the report.

Producing sustainable wine:

We want every consumer to experience wine that is sustainably grown, made, and packaged. For more detail refer to [this section](#) of the report.

There remains a lot to be done, and we recognise that we need to focus on long-term value creation and innovation to build a resilient business. We acknowledge the need to effectively manage risks and seize the emerging opportunities which make sense for us, particularly in a changing climate and broader operating environment.

We must play a part in shaping a positive future for everyone who is connected to our business – from grape to glass – and continue to drive positive outcomes across the natural environment and society. This includes a commitment to improving our data and transparency and delivering strong leadership, which is evident in our continued investment and ongoing evolution of our sustainability strategy.

Sustainability governance

A range of governance measures are in place to support the delivery of our sustainability strategy. Progress against strategic roadmaps for each of our public commitments, alongside key enablers such as communications, reporting and data is reported monthly to executive sponsors, with regular reporting to the Executive Leadership Team (ELT).

The Wine Operations and Sustainability Committee (WOSC), a sub-committee to the Board, provides expert consideration of, and advice on, a range of issues including supply chain, sustainability, and oversight of the Company's sustainability report. For further detail of our corporate governance practices, refer to [page 13](#) of this report.



Our material topics and commitments

Materiality is a stakeholder-led process that identifies the ESG issues and associated risk, opportunity, and impact for an organisation. In F23 we updated our materiality assessment to reflect emerging issues, megatrends and the changes that have occurred within TWE's operating environment since our previous assessment, which was conducted in F21. The refreshed assessment included a range of areas such as the global action to protect nature, the elevated need for transparency, the deteriorating global economic conditions (notably inflation and cost of living pressures), an attitudinal shift towards alcohol, and changing labour markets and global supply chain disruption.

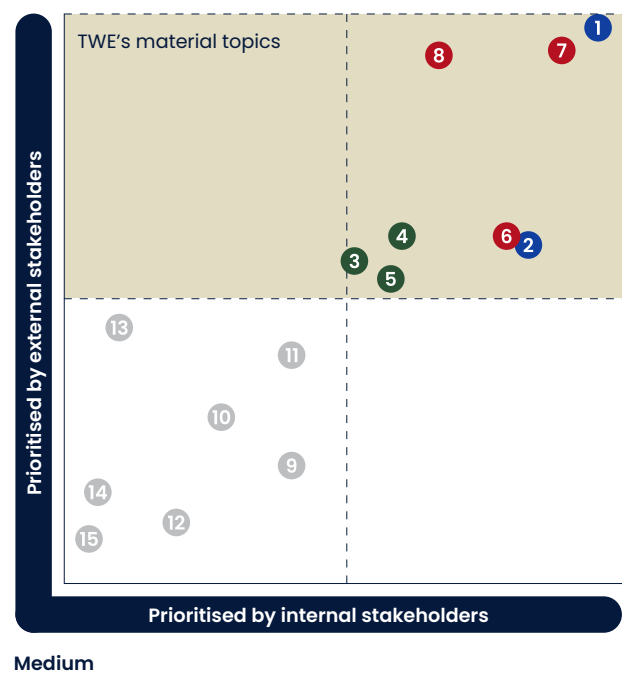
We have used desktop information, reporting guidelines and stakeholder feedback to define the material sustainability topics within this report. Our approach was guided by the Global Reporting Initiative (GRI) Standard and the AA1000 Accountability Principles, with reference to the Taskforce on Climate-related Financial Disclosure (TCFD), Sustainability Accounting and Standards Board (SASB) and recently released International Sustainability Standards Board (ISSB) Standards. The assessment process involved a desktop review of key documents such as consumer research, investor insights, global megatrends, industry analysis and sustainability reporting practices. Stakeholder engagement was also conducted with internal stakeholders, including our ELT and external stakeholders (such as investors, industry representatives and customers). A combination of primary (interviews, surveys) and secondary sources were utilised.

The issues and topics were then prioritised by considering the actual or potential positive or negative impact on TWE's business performance and external stakeholders, including society and the environment, and represented on a materiality matrix. The material topics and their priority were validated with cross-functional representatives and our ELT.

There are eight high-priority and seven medium-priority topics identified in our F23 assessment, with three of the medium-priority topics being new. Five of these topics have been reframed from our previous assessment, reflecting the expansion and evolution of global ESG issues and our operating environment. Importantly, the material areas of our sustainability strategy remain as high-priority topics.

These topics and associated changes are detailed in the matrix below. Further information on these topics, their relevance and our performance can be found throughout this report.

High F23 materiality matrix



Building a resilient business

- 1 Climate risk and GHG emissions
- 2 Water stewardship

Fostering healthy and inclusive communities

- 3 Inclusion, equity and diversity
- 4 Consumer health and responsible drinking
- 5 Health, safety and wellbeing

Producing sustainable wine






- 6 Sustainable packaging and circular economy
- 7 Sustainable growing and production
- 8 Responsible supply chain
- 9 Talent attraction, development and retention
- 10 Community engagement and consultation
- 11 Governance
- 12 Quality and traceability
- 13 Markets and regulatory change
- 14 Technology and automation
- 15 Cyber security



Our material topics and commitments (continued)




F23 commitments

To hold ourselves accountable and ensure we focus our efforts on where we can make the most impact, we have set a range of commitments aligned to each of our material topics. These are also aligned with the UN SDGs and support our ambitious path in delivering deeper value-creation across the value chain.

Topic	Commitment	Status	Progress	SDG	Reference in this report
Building a resilient business					
 WATER STEWARDSHIP	Establish a global TWE water strategy that adopts key recommendations from the water review conducted in F22, including establishing material targets	●	Based on the water management review conducted in F22, a global water strategy was developed over F23 based on the recommendations of the review. The refreshed strategy is underpinned by a vision of: <i>'Treasuring water, by being responsible, mindful, and sustainable leaders across our global communities'</i> .	6	See pages 22-25
 CLIMATE RISK AND GHG EMISSIONS	100% renewable electricity by 2024	●	We executed our renewable electricity plan across our operations globally, with installations complete at TWE Barossa in South Australia, Coldstream Hills, Great Western and Karadoc wineries in Victoria, Castello di Gabbiano in Italy, and Cambon Winery in France. In total we completed 21 solar installations at nine sites, generating 6,000 MWh per year – enough to power 1,000 homes. At the end of F23, we were operating at 19.9% renewable electricity.	7,13	See pages 26-32
	Net zero by 2030 (scope 1 and 2)	●	We completed 30 detailed site inspections, covering over 80% of our Scope 1 and 2 emissions globally. A net zero roadmap was developed to support the continued delivery and implementation of low-carbon initiatives, with an initial focus on lighting upgrades and small-scale efficiency projects.	13	See pages 26-32
Fostering healthy and inclusive communities					
 HEALTH, SAFETY AND WELLBEING	10% reduction in Serious Safety Incident Frequency Rate (SSIFR)	●	We have met our F23 target, achieving SSIFR of 0.2 (our F23 target was SSIFR of 1.26). This reflects the significant focus on safety culture campaigns in F23, including our leader-led change campaign, Build Safe Together, and a range of mental health initiatives such as Mental Health First Aid and Mental Health Awareness information sessions.	3	See pages 34-35
 INCLUSION, EQUITY AND DIVERSITY	50% women in senior leadership by 2025	●	As at 30 June 2023, females comprise: • 44.5% of senior leadership roles (-0.4pp) • 42.7% of all employees (+0.8pp) • 37.5% of Board members (0pp).	5	See pages 36-38
	42% female representation overall by 2025	●			
	30% female representation on Board	●			
 CONSUMER HEALTH AND RESPONSIBLE DRINKING	100% of TWE brand product labelled from 2025 will include energy information (excluding products below 375ml)	●	Our first Board-endorsed Alcohol and Health Policy was launched in F23. Developed in consultation with more than 100 internal and external stakeholders, the Policy sets out our minimum position on areas such as product transparency, reducing harmful consumption and responsible marketing. As part of our Policy commitments, we have been preparing to deliver on our health and energy labelling commitments. Given the emerging regulatory requirements across our global centres of production and distribution network, they are proving more complex to execute than first thought. We remain focused on delivering greater product transparency while navigating these challenges.	12,17	See pages 39-41
	100% of TWE brand product labelled from 2025 will include a general health warning	●			



Our material topics and commitments (continued)

Topic	Commitment	Status	Progress	SDG	Reference in this report
Producing sustainable wine					
 SUSTAINABLE GROWING AND PRODUCTION	Implement our plan to increase the sustainability certification of our brands	●	Over F23 we have maintained certification across 99.3% of our owned and leased operations globally. We have also worked with our growers and bulk wine providers to pursue certification, with around 86% of fruit sourced from Australian growers now certified by Sustainable Winegrowing Australia.	12,17	See pages 46-48
 RESPONSIBLE SUPPLY CHAIN	Complete supplier risk assessments for 100% of contracted spend by F24	●	We continue to refresh our Supplier Governance Framework, which focuses on effective supplier risk management and governance and is used to assess suppliers against seven risk categories. The focus in F23 has been on improving data and developing a primary risk assessment tool.	17	See pages 52-53
 SUSTAINABLE PACKAGING AND CIRCULAR ECONOMY	100% of packaging to be recyclable, reusable, or compostable by CY2022	●	Despite not meeting our commitment, we have made good overall progress in improving the recyclability of our packaging but remain challenged by data availability and several materials that represent industry-wide problems (for example cork in Australia). We are committed minimising packaging, and where packaging is used, it must be designed to be recovered and incorporate increasing levels of recycled content wherever possible. We have set a new commitment to 'develop solutions to known challenges to further progress our ambition of 100% recyclable, reusable or compostable packaging by the end of CY2025' to reflect this. We will continue focusing on collaborative solutions with industry and supplier partners to ensure alignment with our principles and commitments.	12,13	See pages 54-55
	100% of product packaging to comprise 50% average recycled content by CY2025	●	We have worked with suppliers to obtain and improve packaging data and influence their overall use of recycled materials. We have made good progress in developing a baseline understanding of the recycled content of current packaging materials. For example, the target will be materially impacted by the amount of cullet in glass bottles which currently varies across our operations from around 25-75% depending on colour and location.	12,13	See pages 54-55
	Collaborate with glass and carton partners on a closed loop packaging solution by CY2025	*	In F23 we implemented a closed loop carton program at the TWE Barossa packaging facility. The program began in May 2023 and complements the existing glass closed loop program at the site, with the site returning around 447.8 tonnes of glass to Orora and 75.9 tonnes of carton materials returned to Visy. The site achieved an overall recycling rate of around 97.1% in F23. Since this commitment was made there have been changes in our operational structure that present challenges that negate any environmental benefit (for example, the distance between packaging sites and suppliers). We will no longer report against this target but will continue to seek to find local solutions at our sites.	12,13	See pages 54-55

*Given changing operational footprint we have decided to remove this commitment and focus on site-specific initiatives that make commercial and environmental sense.

● Achieved ● On track ● Behind schedule ● Did not achieve



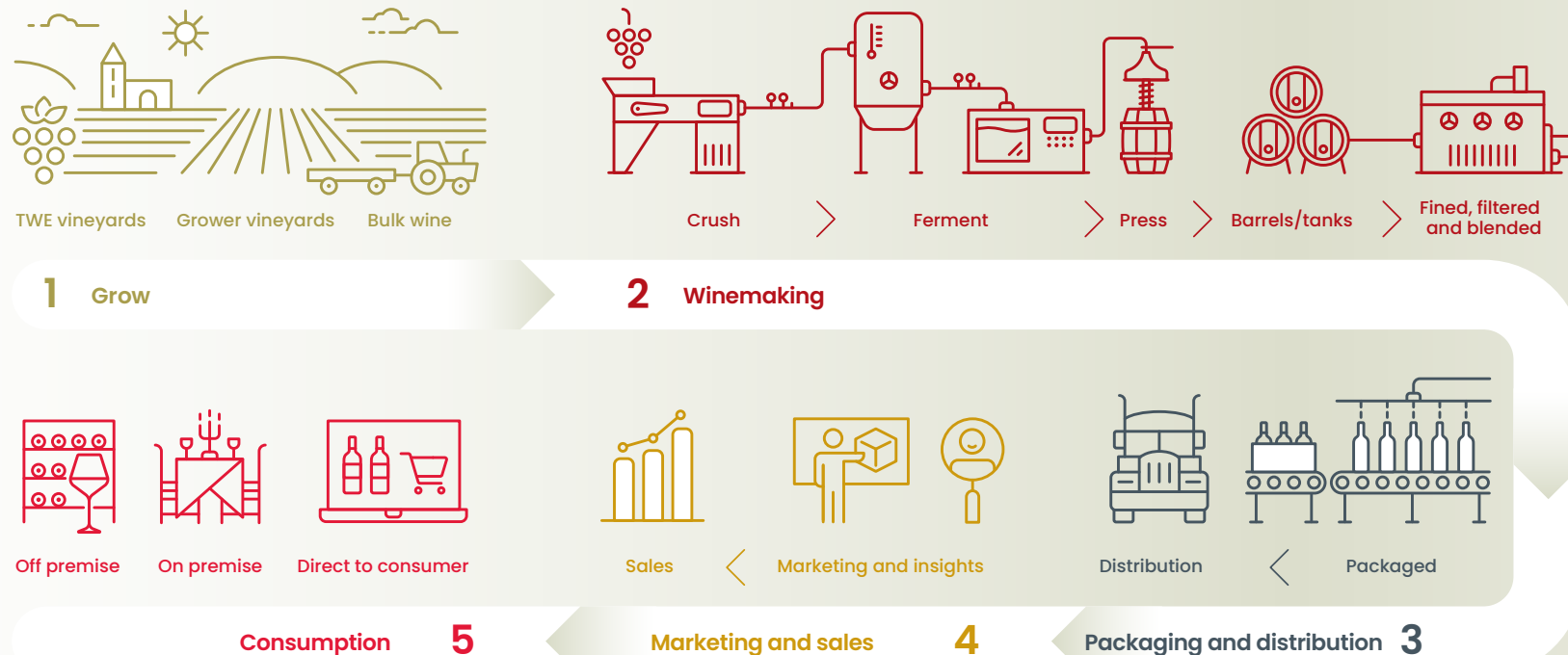
Our value chain

Our business connects with people, communities, ecosystems, and businesses from around the world. This means that our economic, social, and environmental impacts extend beyond our own operations and our direct control.

As a business we believe in meaningful, long-term partnerships and networks that use the size and scale of our business to make positive change across our material areas of the business, and broader stakeholder groups. This means making connections across our value chain, from the producers and manufacturers which supply us with raw

materials, all the way to our customers and consumers. The importance of collaborative action becomes all too apparent when looking at the issue of scope 3 emissions. Our [latest analysis](#) shows that over 95% of emissions occur in our value chain.

The graphic below outlines at a high-level the five key stages of our value chain. To learn more about the material topics and relevant UN SDGs for each stage please refer to our [website](#).





Stakeholder engagement

Approach

We consider our stakeholders to be any group or individual who influences or is impacted by our business. We aim to build stakeholder trust by being transparent, responsive, and accountable. We engage with our stakeholders in a variety of ways: face-to-face, through surveys and market research, or by participating in industry groups, forums and interacting with the broader business community.

Progress

The following table includes a list of our key stakeholder groups and the key issues we engaged in during F23.

Stakeholder	Key topics over F23
Consumers We have millions of consumers around the globe and want them to enjoy our brands responsibly.	<ul style="list-style-type: none"> Responsible drinking, including shifting consumer preferences towards moderation (including low or no alcohol) Sustainability performance and credentials Demand for sustainably produced wine.
Customers We market, sell, and distribute our branded wine to a range of customers in more than 70 countries.	<ul style="list-style-type: none"> Sustainability performance and credentials – especially packaging and greenhouse gas emissions Responsible drinking, including shifting consumer preferences towards low or no alcohol.
Employees As a global business we have a diverse and talented workforce with 2,500 employees.	<ul style="list-style-type: none"> Health, safety, and wellbeing Inclusion, equity, and diversity Employee value proposition, including development, capability, and benefits Sustainability performance and ESG material topics (as part of our refreshed materiality assessment we conducted).
Communities We actively engage with communities including non-profit organisations, community groups and individuals in all operating locations.	<ul style="list-style-type: none"> Community health and wellbeing, with a focus on responsible drinking Tackling local industry, community, and regional development issues collaboratively Our sustainability performance and issues as well as opportunities to support organisations through partnerships, donations, volunteering, and in-kind support.
Governments We routinely engage with Ministers and staff from all levels of government.	<ul style="list-style-type: none"> Engagement with relevant Ministers, advisers, local members of parliament and their departments on regulatory reviews, the development and passing of legislation and application for regional grants.
Regulators We work with regulators across our markets towards safe and legal consumption of our products.	<ul style="list-style-type: none"> Supporting comprehensive community education initiatives on safe and responsible alcohol consumption Ongoing engagement with alcohol advertising bodies such as the Wine Institute's Code of Advertising Standards (US), Alcohol Beverages Advertising (AUS), the Alcohol Beverages Advertising Code (AUS), the Liquor Advertising and Promotion Pre-Vetting Scheme (NZ) and Portman Group (UK) to ensure the marketing and promotion of our products are compliant with the relevant codes and guidelines Ongoing engagement to ensure our products are produced, marketed and sold in compliance with relevant legislation Supporting regulatory investigations as they arise.



Stakeholder engagement (continued)



V22 harvest at Stags' Leap

Stakeholder

Key topics over F23

Investment community

Our investor community comprises institutional investors, analysts, proxy advisors and around 82,000 domestic shareholders in Australia.

- Supply chain, cost inflation and key consumer trends
- Review of TWE's operating models to align with our premiumisation strategy
- ESG material topics.

Industry bodies

We are members of many industry associations and play a leadership role through regular engagement in our key operating regions. We review our industry association memberships annually to ensure alignment with strategy.

- Leadership and support to provide government and industry participants with informed and data led positions
- Developing new trade opportunities, removing barriers for Australian wine exports, and advocating for favourable outcomes through trade negotiations
- Tax and excise duty reform
- ESG material topics (as part of our refreshed materiality assessment)
- Continued engagement with industry bodies to advocate on behalf of the Australian and American wine industries.

Industry bodies

Over F23 we engaged with more than 5,000 suppliers from 50 countries.

- Supply chain and logistics disruptions, costs, and delays
- Ongoing integration of sustainability practices and improvement targets into sourcing process and new contractual arrangements including co-investment on shared priorities.



Voluntary sustainability initiatives

Treasury Wine Estates is a signatory to, a participant in, or supportive of the following voluntary sustainability initiatives:

- Australian Packaging Covenant
- CDP
- Global Reporting Initiative (GRI)
- Porto Protocol
- Swedish Beverage Industry's Climate Initiative
- DrinkWise
- RE100
- United Nations Global Compact (UNGC)
- United Nations Sustainable Development Goals (UN SDGs)
- TaskForce on Climate-related Financial Disclosures (TCFD)
- Sustainability Accounting Standards Board (SASB).

Our sustainability certifications for our vineyards, growers and bulk wine are covered in detail in the sustainable growing and production section of this report.



Corporate governance

Approach

TWE believes that transparent and robust governance practices are critical to delivering value to shareholders, promoting investor confidence, and meeting our ambition of being the world's most admired premium wine company.

Progress

F23 has seen continued progress and development in TWE's governance and compliance framework. Established in 2021, WOSC is a sub-committee to the Board and continues to operate in F23. The purpose of the WOSC is to assist the Board by providing expert consideration of, and advice on, the Company's wine making operations in the various regions in which the Company operates, expansion opportunities in winemaking areas, supply chain and sustainability and oversight of the Company's sustainability reporting. The WOSC was established to allow more time for in depth consideration of winemaking, sustainability, supply chain, and strategic longer-term planning and operational issues, both in relation to the Company's own operations and our relationships with the sector in different winemaking regions.

TWE's Compliance Management Framework (CMF) was fully operationalised in F23, following the completion of an 18-month implementation roadmap. Centrally driven processes are now in place to oversee and support TWE's global capabilities to understand and meet obligations applicable to our business and to execute regular compliance reporting to Management and the Board. These centrally driven processes include the annual assessment of TWE's key compliance risks, and the assessment and attestation by responsible business owners that compliance control areas are managed in conformance with the CMF. The assessment in F23 showed that compliance control areas conformed on average with 89% of the key requirements in the CMF. The outcomes of the F23 assessment will inform the priorities and work of compliance area owners in the coming financial year aimed at further strengthening compliance with the CMF.

An independent review into TWE's Whistleblower Program was conducted by the Australian Securities & Investments Commission (ASIC) among a cohort of seven randomly selected firms.

Upon completion of the review, ASIC provided recommendations through individual feedback to TWE and publicly released Report 758 on *Good practices for handling whistleblower disclosures*. The Report provides insights for companies designing a whistleblowing program and is based on the whistleblowing arrangements identified through ASIC's review. Best practices highlighted in the Report will be used to inform the program's improvement work in F24, starting with a global employee awareness campaign rolled out on World Whistleblower Day in F23 (23 June).

Board oversight of ESG

In F23, Management continued to focus on the execution of our sustainability agenda. Progress against strategic roadmaps for each of our public commitments, alongside key enablers such as communications, reporting and data was reported monthly to executive sponsors, with regular reporting to the ELT.

The Board oversees TWE's approach to, and management of sustainability (or ESG) matters and receives updates on sustainability and the status of key priorities and initiatives.

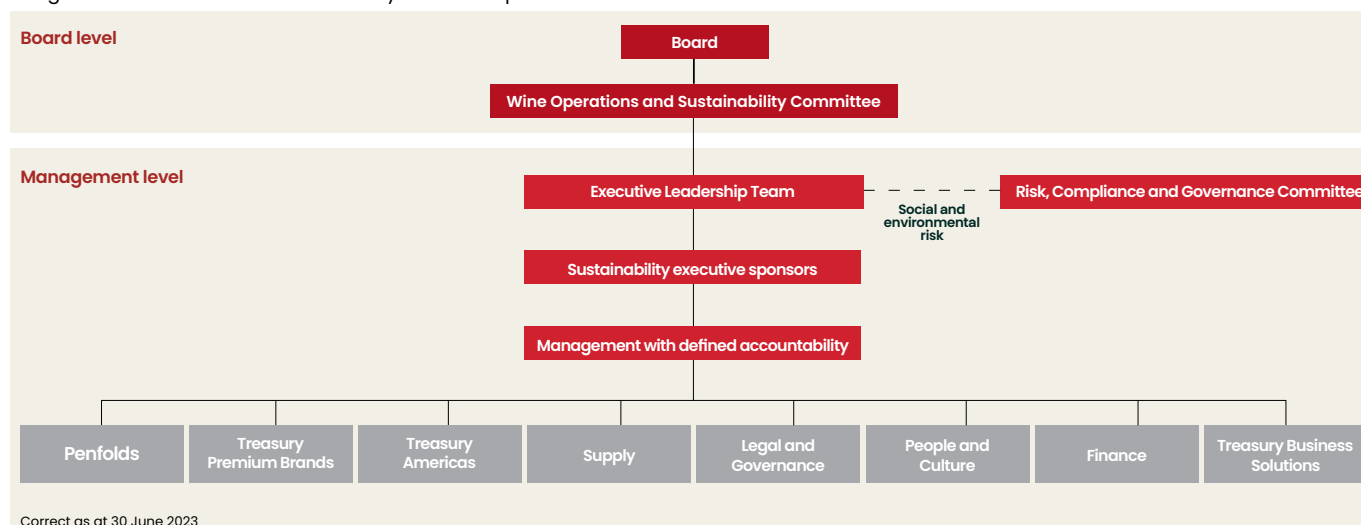
In F23 specialist training for Directors was conducted on key ESG trends, with particular insights in relation to climate risk, nature, and water stewardship.

The WOSC enables for greater focus on strategic, long-term planning and operational issues in winemaking, sustainability, and supply chain in our own operations and relationships with the sector in different winemaking regions. The WOSC continued to meet regularly over F23, engaging on a broad range of topics related to our performance including climate risk and adaptation, net zero emissions, and water stewardship in addition to several initiatives and actions related to Supply investment and asset management, health and safety and strategic partnerships and regional industry and regulatory insights.

The Board and the WOSC also have oversight of the Company's key ESG disclosures, including this Sustainability Report and the Statement on Human Rights and Modern Slavery. In F23, the Board approved the full suite of TWE's sustainability targets outlined in [the material topics and commitments section of this report](#).

Sustainability governance

The governance structure of sustainability at TWE is represented as follows:





Corporate governance (continued)

TWE's governance practices provide for continuous monitoring and reporting of non-financial risks across the organisation. Regular reporting is conducted on a range of topics including inclusion, equity and diversity, Code of Conduct breaches, Whistleblower reports, litigation and compliance, anti-bribery and corruption matters, health safety and wellness and environmental performance and compliance, internal audit outcomes, and private sessions with internal and external audit. These reports extend beyond management level and are submitted to the Board bi-annually.

TWE DNA

TWE DNA is our 'culture code' which underpins how we think and act, and what we value. The three strands of the TWE DNA are:

- We bring our whole self
- We are courageous
- We deliver together.

People-related compliance

During F23, a total of 71 compliance incidents were reported, representing 2.8% of our workforce. 5 of these were received anonymously via our external [Whistleblower service](#). Of the reported people-related matters, 54 (76%) were fully or partially substantiated. Actions taken in response to substantiated matters include:

- 24% coaching, counselling or training intervention
- 33% formal written warnings (including final written warnings)
- 31% end of employment.

For further information, refer to the Code of Conduct reporting section in our F23 Annual Report.



F23 Corporate Governance Statement

A comprehensive summary of TWE's corporate governance practices for the year ended 30 June 2023 can be found in our Corporate Governance Statement available at www.tweglobal.com/investors



Risk management

Approach

Our continued growth and success depends on our ability to understand and respond to the challenges of the environments we operate in.

By understanding and managing risk, we provide greater certainty and confidence for all our stakeholders that we will achieve our growth strategy in a sustainable way.

Progress

TWE has implemented a strategic and consistent enterprise-wide approach to risk management, which is underpinned by a risk-aware culture. TWE's Risk Management Framework (the Framework) was reviewed in F23 with no significant change. The Framework defines the approach and standards for risk assessment including periodic identification, analysis, and evaluation of financial and non-financial risks at group level and in each major function or region. It includes both financial and non-financial risks, such as environmental and social risks. TWE's material business risks and how they are managed are set out in the F23 Operating and Financial Review (OFR) of the [Annual Report](#).

Over the last 12 months, TWE's environmental and social risk assessments have been reviewed. This includes climate change, which is considered a material risk to the business. Consequently, we continue to build our understanding and disclosure of the risks and opportunities presented by climate change, and monitor emerging trends and changes across the regulatory environment. Further detail is outlined in the [climate risk and GHG section of this report](#).



Wynns vineyard rows in Coonawarra



Tax transparency

Approach

We place significant importance on transparency and maintaining high standards of tax governance and compliance. Our Tax Governance Policy includes the following core guiding principles:

- Comply with all tax laws in the countries in which TWE operates
- Maintain effective relationships with revenue authorities in countries in which TWE operates
- Adhere to the Board approved Tax Risk Management Framework.

Progress

TWE paid approximately \$115.9¹ million tax within Australia in respect of our operations in the 2023 income tax year which is made up of a number of different costs relating to employee wages and benefits, Wine Equalisation Tax (WET), excise tax and producer rebates, research and development and company income tax.



Tax Transparency Report

TWE produces an annual Tax Transparency Report which meets the voluntary tax transparency code principles and outlines:

- Tax governance and strategy
- Income tax reconciliation
- Australian federal tax contribution
- International related party dealings.

View TWE's most recent Tax Transparency Report at www.tweglobal.com/investors



Penfolds Sinong vineyard in China

1. This amount includes an estimate of the final income tax payment due in relation to the 2023 income year and is based on the current income tax liability disclosed in TWE's 2023 Annual Report. This number will be finalised after the completion of the Australian income tax return in December 2023.



Managing human rights

Approach

At TWE, we believe our business and people can only thrive when human rights are safeguarded. That is why we are committed to respecting human rights and seek to support and uphold the principles within the United Nations (UN) Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, the ILO 1998 Declaration on Fundamental Principles and Rights at Work as well as specific legislation in the markets in which we operate.

Progress

TWE's Human Rights Charter (the Charter) sets out our commitment to upholding human rights and preventing modern slavery. The Charter establishes the expectations across our business from our Board of Directors to our brands – and the role they each need to play. The Charter is underpinned by global policies and programs. During F23, we have also incorporated the use of risk assessments to support the implementation of new legislative requirements. For example, a risk assessment was conducted on the requirements of the Anti-Discrimination and Human Rights Legislation Amendment (Respect at Work) Act to identify risks, potential consequences and evaluate the effectiveness of controls.

The Charter sets out three core commitments:

- We protect human rights – we believe in acting fairly and making decisions based on merit
- We respect human rights – we believe respect for human rights is the cornerstone of a culture where everyone can make a contribution and feel included, so we strive to conduct business in a way that respects the rights and dignity of people and avoids complicity in human rights abuses
- We remedy human rights – we encourage all stakeholders to report and express concerns relating to suspected violations of our policies, including the Charter.

This Sustainability Report provides an overview of our progress and performance in relation to human rights in its broadest sense. Further detail on key policies, metrics and specific focus areas that relate to people – in our business and value chain – can be found throughout this report.

In April 2023, the United Workers Union (UWU) accused TWE of breaching the Disability Discrimination Act by refusing a number of their members permanent employment, despite previously being engaged at a TWE facility through a labour hire agency. TWE has maintained that health and safety is our top priority, and that the organisation has a duty of care to make sure our employees and labour hire personnel are able to safely perform the duties of their role. The matter is yet to be finalised.

Training

We ensure that all permanent, desk-based employees undertake human rights and modern slavery training and repeat this training every 2 years. The training is designed to raise awareness of human rights, the alignment between human rights and our values, culture, and policies, as well as to give specific insight into the issue of modern slavery. In F23, 98% of eligible desk-based employees completed the required training modules covering:

Human rights:

- The connection to other policies to ensure a fair, inclusive, safe, and respectful workplace and responsible decision making
- Each employee's role in living and breathing TWE's human rights commitments
- How human rights apply to hiring practices; inclusion, equity and diversity; and flexible work arrangements
- How human rights apply to treating colleagues with dignity
- Health and safety including safety at home
- Fair wages and employment rights.

Modern slavery

- What modern slavery is and TWE's commitment to preventing modern slavery in any area of our business
- TWE's specific modern slavery risk areas
- 'Red flags' that may indicate modern slavery
- What employees can do to prevent and report modern slavery.

During F23 we also conducted compliance training for all non-desk-based employees in the Supply function within Australia. These employees attend face-to-face training which covers a range of our governance documents and topics: Human Rights, Modern Slavery, TWE DNA, Code of Conduct, Social Media Policy, Conflict of Interest Policy, Inclusion, Equity and Diversity Policy, Anti-Bullying, Harassment and Discrimination Policy and Raising a Concern. Training of all current employees is planned for completion by the end of Q1 F24. In the US, all non-desk-based supply employees receive in person training at the time of hire covering Harassment Prevention, Respectful Workplace Conduct, Retaliation, Bullying, Bystander Intervention and Reporting Harassment and Discrimination. Retraining is conducted annually.

Temporary or contracted labour in our vineyards

Due to the seasonal nature of work, we use a combination of labour hire and subcontracted labour to support peak periods such as pruning and harvest. While not employed directly, TWE takes our obligations and responsibilities in workplace entitlements for, and working rights requirements of, all workers very seriously. We use our legal and commercial (i.e. contracts, purchase order conditions and expectations set out in our Responsible Procurement Code (RPC)) as well as operational controls (such as ongoing engagement) to ensure that suppliers understand and meet the expectations outlined in TWE's Human Rights Policy and have appropriate policies and practices in place to minimise the risk of modern slavery in the supply chain. More detail will be available in our 2023 Modern Slavery Statement which will be released later this year.



TWE's statement on Human Rights and Modern Slavery sets out the actions taken by TWE Limited and our reporting entities to understand, mitigate, and address human rights and modern slavery risks. It is available at: www.tweglobal.com/sustainability#Modern#Slavery-Statement



About this report

Our reporting

TWE's 2023 corporate reporting suite comprises the Sustainability Report (this report), the Annual Report, and our Corporate Governance Statement. Each report should be read in conjunction with one other, and where possible we have drawn links between the documents. Each of these reports, in addition to several policies and documents referenced throughout this report, are available on our website at [tweglobal.com](https://www.tweglobal.com).

This report

This report, our annual Sustainability Report, provides an overview of our approach, progress, and performance in relation to TWEs most material topics and is structured according to our Sustainability Strategy. We have identified our material topics through a materiality assessment, which was refreshed this year. These topics reflect the ESG-related areas that are most important to our company and our stakeholders. This report discloses performance information for the financial year 1 July 2022 to 30 June 2023 (F23) unless otherwise stated.

Alignment with reporting standards

This report has been prepared with consideration to a range of relevant ESG reporting standards including the Taskforce on Climate-related Financial Disclosures (TCFD), the Global Reporting Initiative Standard (GRI), the Sustainability Accounting Standards Board (SASB), and the United Nations Global Compact (UNGC) and the Sustainable Development Goals (UN SDGs). We intend to enhance and improve our alignment with relevant reporting standards over time and continue to monitor the changing ESG reporting landscape.



The F23 UNGC Communication on Progress is completed online via the UNGCs portal in conjunction with this report and is available at the UNGC's website once released (expected later this year).

Sustainable Development Goals

The UN SDGs provide a blueprint to achieve a better and more sustainable future by 2030. TWE has reviewed and aligned our Sustainability Strategy to seven priority SDG's relevant to our company and associated operations which are highlighted below. Our work to drive action towards these goals is highlighted throughout this report.

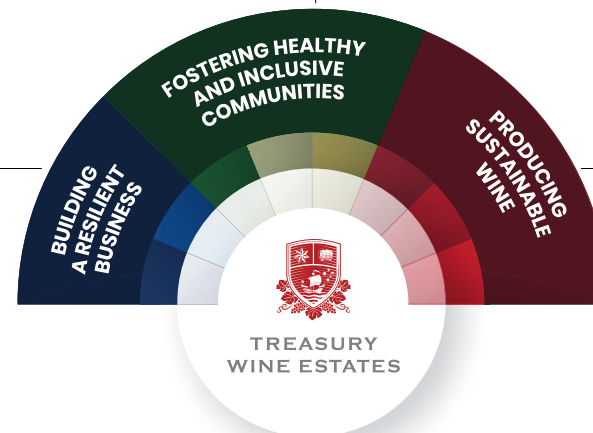
Verification and assurance

We utilise a range of internal verification processes and controls to help ensure the completeness and accuracy of information within this report. These internal processes and controls relate to data collection, collation, analysis, and presentation for reporting purposes.

KPMG completed limited assurance over selected data and disclosures in this report. The limited assurance included renewable electricity consumed of 19.9%, water stewardship progress including the development of an annual water target outlined on page 22, female leaders in senior leadership roles of 44.5%, overall female representation in TWE employees of 42.7% and scope 3 GHG emissions of 540.4 ktCO₂-e, being prepared in accordance with the GRI Universal Standards 2021, RE100 Reporting Guidance 2021 as published by RE100 Climate Group and CDP, the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard as published by the WBCSD and the WRI, and TWE's own basis of preparation. KPMG's limited assurance report is available [here](#).

Priority SDGs

- 3. Good health and well-being
- 5. Gender equality
- 6. Clean water and sanitation
- 7. Affordable and clean energy
- 12. Responsible consumption and production
- 13. Climate action
- 17. Partnerships for the goals





Key non-financial performance indicators

Metric	Measure	F21	F22	F23	F23 trend
Building a resilient business					
Total water consumed ¹	Gigalitre (GL)	25.3	23.3	19.1	↙
Total water consumed in % of regions with high or extremely high baseline water stress ²	%	-	-	37.5	-
Water efficiency ³	L/9LE	23.8	30.8	33.0	↗
Total energy consumed ¹	GJ x 10 ³	465.6	418.6	400.0	↙
Total electricity consumed ¹	GJ	241.6	215.8	207.0	↙
Renewable electricity ⁴	GJ x 10 ³	0.2	11.8	41.3	↗
Renewable electricity ⁴	% of total electricity consumed	0.1	5.5	19.9 ⁵	↗
% energy from grid electricity ⁶	%	50.3	49.4	49.6	↗
Total fleet fuel consumption ⁷	GJ x 10 ³	35.5	26.3	27.7	↗
Energy efficiency ³	MJ/9LE	8.4	9.4	11.5	↗
Scope 1 greenhouse gas (GHG) emissions ⁸	Kilotonnes CO ₂ e	14.0	13.1	11.9	↙
Scope 2 GHG emissions ⁸	Kilotonnes CO ₂ e	33.3	27.7	18.1	↙
Scope 3 GHG emissions ⁹	Kilotonnes CO ₂ e	644.6 ¹⁰	540.4	-	↙
Total Scope 1 and 2 CO ₂ e emissions ¹¹	Kilotonnes CO ₂ e	47.3	40.7	30.0	↙
Carbon emission intensity ratio ¹²	Kg CO ₂ e/9LE	0.9	1.0	0.9	↙
Environmental incidents ¹³	# incidents reportable to environmental authorities	0	1 ¹⁴	2	↗

Notes:

1. Absolute figures (total water consumed, total energy consumed, total electricity consumed, solid waste diverted from landfill) include all wineries, warehouse and packaging centres, company-owned or leased vineyards, cellar doors as well as offices with more than 20 employees. Cellar doors and offices excluded prior to F21.

2. SASB defines locations with High or Extremely High Baseline Water Stress as classified by the World Resources Institute's (WRI) Water Risk Atlas tool, Aqueduct. In line with the SASB guidance, this metric discloses the water consumed in locations with High or Extremely High Baseline Water Stress as a percentage of the total water consumed.

3. Water and energy efficiency for TWE's wineries and packaging centres include non-TWE volumes packaged at our facilities under contract. TWE uses a unit of nine litre equivalent (9LE) to represent volume. Efficiency is based on production and what is bottled. It does not include water or energy used at Company-owned or leased vineyards, offices, cellar doors or 3rd party packaging facilities. Production of wine is a multi-year process (i.e. grapes crushed may not be bottled in the same year) meaning efficiency may not be reflective of what is bottled that year. Water and energy consumed on vineyards, offices and cellar doors is captured in absolute figures.

4. Renewable electricity generated on our owned/leased sites or bought via offsite renewable electricity options that meet RE100 technical criteria (see: <https://www.there100.org>). The F23 figure subject to RE100 F23 verification.

5. Our 2023 CDP and RE100 Annual Report, submitted on 23 July 2023, reflects a 5.5% renewable electricity percentage for the F22 reporting period. This report covers F23 and reports a 19.9% renewable electricity percentage, highlighting the variance due to differing reporting periods.

6. The percentage of energy supplied from grid electricity is calculated as purchased grid electricity consumption divided by total energy consumption.

7. Our current fleet reporting systems accurately track absolute fuel consumption, and we are unable to track miles traveled (as per SASB).

8. Includes all wineries, cellar doors, packaging centres and Company-owned or leased vineyards and offices.

9. We report our Scope 3 data with a lag of one FY due to the time, sourcing, and verification of the data. Refer to the climate risk and GHG emission section of the report for further detail about our scope 3 reporting.

10. In F23 we adjusted our previous scope 3 assessment methodology, resulting in rebaselined F21 data. Refer to the climate risk and GHG emission section of the report for further detail about the scope 3 methodology changes.

11. Includes all wineries, cellar doors, packaging centres and Company-owned or leased vineyards and offices. Does not include scope 3 emissions.

12. Carbon emission intensity ratio for TWE's wineries and packaging centres include non-TWE volumes packaged at our facilities under contract. TWE uses a unit of nine litre equivalent (9LE) to represent volume.

13. The sustainable growing and production section of this report for further detail about our environmental management practices, including and detail about the two incidents which occurred in F23.

14. One reportable incident occurred in F22, which was excluded from the F22 Sustainability Report KPI table due to a reporting error.



Key non-financial performance indicators (continued)

Metric	Measure	F21	F22	F23	F23 trend
Fostering healthy and inclusive communities					
Employee engagement ¹⁵	Score in annual survey	68	70	71	↗
Inclusion ¹⁶	Score in annual survey	-	73	75	↗
Lost time injury frequency rate ¹⁷	Lost time injuries per million hours worked	5.3	6.4	4.8	↘
Serious safety incident frequency rate ¹⁷	Serious safety incidents per million hours worked	1.2	1.4	0.2	↘
Safety conversation frequency rate ¹⁷	Safety conversations per million hours worked	697	996	1,302	↗
Female representation in senior leadership roles ¹⁸	%	45.1	44.9	44.5	↘
Overall female representation	%	40.2	41.9	42.7	↗
Female representation on TWE's Board	%	44.4	37.5	37.5	=
Alcohol Policy training ¹⁹	% compliant eligible employees	95.9	97.0	96.0	↘
Non-compliance findings with marketing regulation or voluntary codes ²⁰	# of findings	1	0	1	↗
Non-compliance findings with labelling codes or regulations ²¹	# of findings	0	0	0	=
Producing sustainable wine					
Total solid waste generated	Kilotonnes	52.4	46.9	41.4	↘
Solid waste diverted from landfill ¹	%	96.7	95.2	95.4	↗
% of owned/leased sites certified to relevant standard ²²	%	-	-	99.3	-
Number of production facilities ^{22\3}	# of facilities	23	21	21	=

Notes:

15. Employee engagement measures the extent to which our people feel connected to, motivated by and committed to TWE. We use Culture Amp's 5-item engagement scale. The score represents the average of the percentage of survey respondents who agreed or strongly agreed with each item.

16. New metric included for F23, however this has been tracked since F21. During F21 inclusion was assessed in the annual engagement survey as an independent factor (impacts engagement) and is not comparable to F22 or F23 results. From F22 inclusion was included in the annual engagement survey as a dependent factor (outcome). The F22 unadjusted score was 70%. The F22 adjusted score (in consideration of a question which was removed) is 73% to enable a like-for-like comparison with F23.

17. Global frequency rate calculations incorporate all TWE regions, all employees and casual workers. Contract workers not under the direct supervision of TWE are not included in the calculations.

18. TWE define senior leadership roles as senior leaders, professionals and specialists, including general, department and functional management.

19. Training applies to desk-based employees.

20. Refer to the consumer health and responsible drinking section of this report¹ for further detail of the F23 non-compliance.

21. TWE defines a non-compliance as 'a proven contravention of a compliance obligation applicable to TWE.'

22. The scope of this metric includes applicable certifications for owned/leased vineyards and wineries for Australia, New Zealand, Americas, France, and Italy only. The sustainability certification scheme varies between regions. One newly leased joint-venture vineyard was unable to be certified in time for Vintage 2023, which was Rotherwood Vineyard in Australia. This is planned for certification in F24. Refer to the sustainable growing and production section of this report for further detail about our sustainability certifications.

23. Scope includes our globally operated packaging facilities and wineries.



Building a resilient business

6 CLEAN WATER
AND SANITATION7 AFFORDABLE AND
CLEAN ENERGY13 CLIMATE
ACTION17 PARTNERSHIPS
FOR THE GOALS

Our ability to deliver long-term value is reliant on the state of our planet and the communities around us. To reduce our operational impact and adapt to increasing global uncertainty, complexity, and change, we must embed resilience across our business and operations. This depends on adopting a range of adaptation and mitigation measures, fostering new partnerships, and developing new ways of thinking to deliver innovative, long-lasting solutions.

F23 highlights

- We completed **21 solar installations** at nine sites with 4.5MW capacity active in Australia, including Australia's largest winery solar installation
- We achieved **19.9% renewable electricity** across our global operations
- We undertook **site-specific climate risk assessments** across our Australian and US footprints, utilising scenario analysis
- We conducted a deep dive on a **projected future of winegrowing** Shiraz in the Barossa



Water stewardship

Approach

Water is one of TWE's most critical assets, and we acknowledge the growing urgency for ensuring the availability and security of reliable, high-quality water.

Our climate research shows us that TWE's main growing regions are generally getting warmer and drier. Water is a critical part of the equation in responding to a warmer climate, meaning our water demand is likely to be increasing over time. Water scarcity is a risk to our operations, and we have defined regional strategies for how we meet our water requirements, ensuring that the business continues to balance and protect this precious resource.

In the face of increasing competitive demands from urban uses, other horticultural crops, and minimum environmental flows, water is emerging as a critical part of our social license to operate. We acknowledge we have a significant role to play in being a responsible steward of water in the regions that we operate.

Progress

Following a strategic review, we developed a global water strategy in F23 called Treasuring Water to help guide our actions as a responsible steward. It is underpinned by our vision of being responsible, mindful, and sustainable leaders across our global communities. This vision speaks to the need for TWE to responsibly use water whilst demonstrating leadership in water stewardship across the global communities where we operate.

We have three strategic objectives to signify how we treat water and the value water has as a critical resource and asset. These are:

- Secure and sustainable water supply:**
Ensuring that supplies of quality water are secure across our operations and will be resilient in a changing climate. In achieving this we consider the water needs of others who share the resource, including the environment and support partners in our supply chain to manage their water sustainably.
- Efficient water use:**
Valuing our water resources by using it productively and effectively. We seek out and implement cost-effective opportunities to prevent losses and optimise use in our vineyards, wineries, and packaging operations.
- Promoting circular solutions:**
Wastewater recycling, water reuse and resource recovery will feature across our operations to drive better outcomes for our business, local communities, and the environment. We will pursue opportunities to sustainably and productively manage the nexus between water and energy.

A core component of our refreshed strategy is investing in core business competencies such as water governance, risk management, data and analytics, capability enhancement, resourcing capacity, and strategic partnerships. Our initial focus has been improving our understanding of water use and efficiency in our vineyards, wineries, and packaging facilities.

Around 97% of our usage each year occurs in vineyards, so we believe there are greater opportunities to safeguard water security than purely focusing on manufacturing efficiency. As a result, we have committed to installing smart water meters at 100% of sites in high- and medium-risk catchments by F25, beginning with high-risk catchments in F24. The installation of smart meters is considered material to delivering our refreshed strategy and aligns with TWE's long-term objective to safeguard water security in the regions where we operate. Water risk is also considered part of our climate change risk management approach, with further information about this found in the [climate risk and GHG emissions section of this report](#).

Our global water strategy: treasuring water





Water stewardship (continued)

Our water management practices

We manage water at each of our operational sites, and our approach at each site varies, depending on the available water sources, quality of those sources and conforms to any associated regulatory requirements. The majority of our global water use occurs in vineyards, many of which are located in high-risk catchments¹. Addressing the risks and opportunities in these high-risk catchments is our immediate focus as these areas have the highest impact on our business, the environment, and the community.

Key water management observations from the 2022 assessment of our global operational footprint include:

- Around 97% of TWE's water usage occurs in our vineyards. 75% of the global water use occurs in Australia, with the majority of the remaining consumption in California
- Water is mainly sourced from surface water systems in Australia, and in the US is mainly from groundwater
- Efficiency is broadly similar across our major vineyard and wine making facilities.

A range of management practices are in place including smart irrigation, onsite water recycling, alongside a regular program of maintaining and upgrading irrigation infrastructure. We plan to further understand and analyse how water is used seasonally across our sites to make informed water decisions and consequently develop performance targets. To capture our water usage in real-time, we are investing in smart meters at our sites to provide real-time data to a water monitoring solution which will help monitor and manage our water resources and provide insights through enhanced data accuracy and timeliness which will help with leak detection and water conservation measures and will further support regulatory compliance. Additionally, trials of different irrigation control systems that integrate with our existing irrigation systems are also underway. These control systems are designed to help determine the vines' water requirement and ensure that the right amount of water is used at the right time by integrating information from moisture probes and weather stations. This ultimately helps deliver desired yield and quality outcomes while optimising water use.



Irrigation at Penfolds Wrattenbully vineyard

1. Our F22 strategic global water management review provided a consistent framework for measuring risk in catchment systems. Since the review there has been a small change to TWE's geographical presence and the risk for these sites was assessed using the 'Baseline water stress' in the Water Risk Atlas.



Water stewardship (continued)

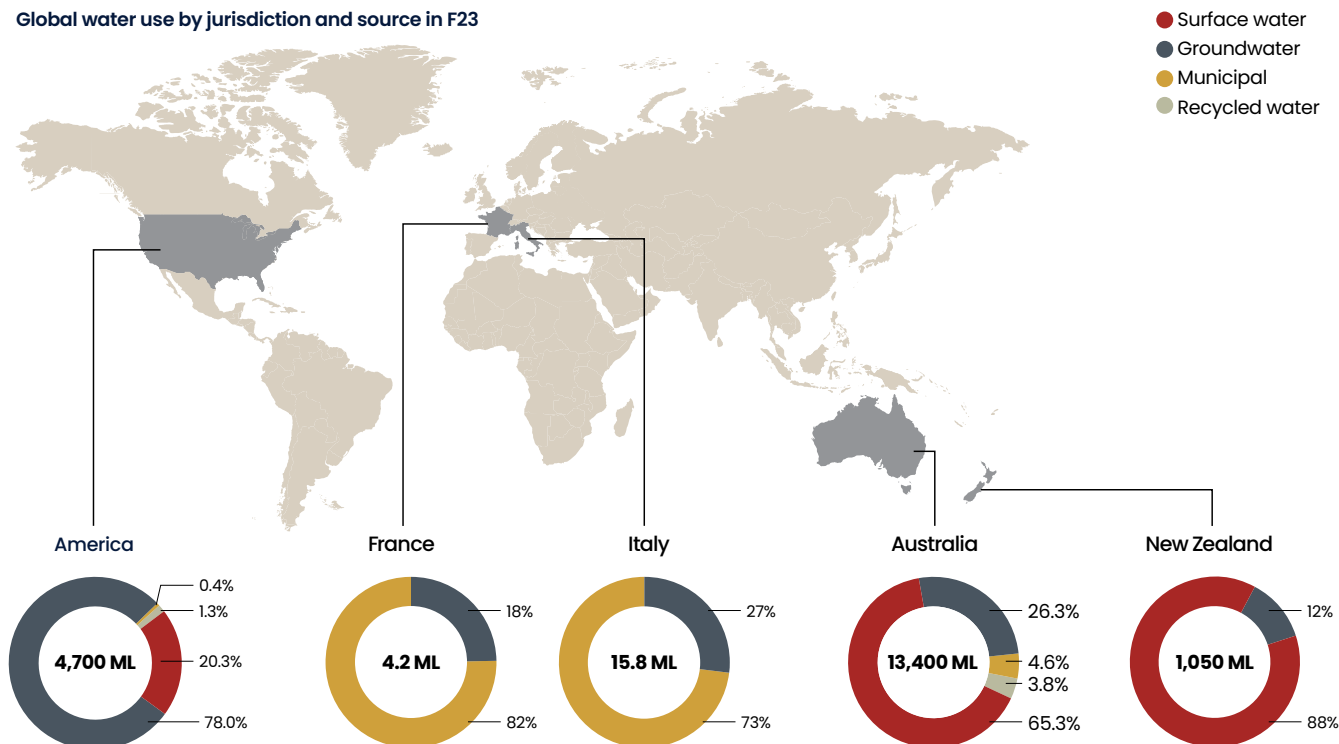
Performance

Over F23 TWE consumed 19.1 gigalitres of water in our operations, a reduction of 21.7% from the prior year. This reduction is largely influenced by water usage in Australia where 70% of TWE's global water usage occurs. F23 was the seventh-wettest financial year on record, with close to average temperatures² combined with lower production volumes over the year being the main drivers of this reduced water consumption. New Zealand also had a reduction in water usage due to a wetter than usual season. Water usage in America increased by 2.7% with a small increase in water use across the vineyards.

Total water consumed (GL) (3-year)



Global water use by jurisdiction and source in F23



Recycled water use at TWE Barossa

We capture up to 200ML of water each year after it is used in our winemaking processes at TWE Barossa, and the water is then treated at our onsite anaerobic wastewater recycling plant to reuse for irrigation and other value-adding purposes. In addition, we also harvest water onsite – up to 200ML of rainwater annually – from the winery and packaging centre roof catchments, which is stored onsite in stormwater dams.

Stormwater can be used directly onsite or is mixed with recycled water. Water testing to confirm its quality for reuse is carried out using our in-house laboratory analytics capability. The new 254ML lined Kalimna dam greatly enhances our recycling capacity, which serves as an offsite hub to collect recycled water and stormwater runoff that can be reused as a vital water source for our vineyards during the summer growing season. It also allows us to support the local community needs, with the nearby Barossa Golf Course using recycled water for irrigation.

2. Source: BOM 2023 Financial year climate and water report 2023. Accessed 18/8/2023.

3. During the analysis of the F23 data it was identified that water use in America was under-reported by 1.1GL. This means that actual water consumption in F23 was 24.4GL, which represents a 22% decrease in water consumption in F23. This revised number has been reflected in the table.



Water stewardship (continued)

We continue to invest in a range of environmental projects that are related to water. Since 2011, Treasury Americas has restored and developed riparian corridors to allow the Napa River to rise and widen naturally in order to prevent build-up of sediment and preserve fish habitats. This work helps to reduce the impacts of flooding, reduce invasive plant species and supports the recovery of sensitive wildlife species. This project, funded by the Environmental Protection Agency, Napa County, CA Coastal Conservancy, CA state Integrated Regional Water Management Grants and CA Wildlife Commission has served as a case study and model for river restoration in the US.

In Australia we continue to support Markaranka Wetland, which is located within our Markaranka vineyard. This Wetland contains a network of ecologically significant wetlands filled with aquatic plants and rare and vulnerable species such as the Musk Duck and the Regent Parrot.



Napa River winding through Gamble Family Vineyards

Monitoring our water footprint in real-time

As part of our global review we assessed our current water use monitoring approach. It looked at the mosaic of approaches to water metering and data capture across our operations and our ability to report compliance and monitor our water footprint over time. We see investing in smart meters as a fundamental and foundational building block to our stewardship of water, using the best available technology to ensure timely, accurate data. It unlocks best practice management techniques and will identify the right actions to take to manage risk and deliver value, including:

- Reducing overall use through leak detection and better irrigation techniques, and the interface with other technology (for example, moisture point probes)
- Insights into water application versus yield outcomes, supporting the development of business cases for preservation and efficiency initiatives
- Streamlined compliance risk management (such as managing extraction allocations) as well as unlocking more effective water trading.

A plan was developed to upgrade the system and automate data collection through smart water metering and telemetry to monitor water pumping from different sources and usage (including irrigation or frost control) in real-time for vineyard sites. Over F23, we conducted a 2-month telemetry trial at the Grace Benoist and Gamble ranches in California to help inform our future direction. Learnings from this project will be implemented in the smart meter project rollout commencing in F24.



Installing a new flowmeter and data logger telemetry unit with a solar panel used for power at our Beaulieu Vineyard 2 in the US



Climate risk and GHG emissions

Approach

There is an urgent need for action on climate change, and as a global viticultural business, TWE is exposed to both the associated physical and transition risks. The latest science – the 6th Assessment Report from the Intergovernmental Panel on Climate Change (IPCC) – revealed the increasingly severe impact the climate crisis has, and will continue to have, on both people and the planet. At TWE, we are responsible for minimising and mitigating the negative impacts of our operations and ultimately building resilience to a changing climate and broader operating environment.

Climate change is considered a material business risk to TWE. We continue to implement and monitor our operational management strategies to adapt to the short-term challenges of variable weather cycles and build resilience to the projected longer-term impacts of climate change. This includes enhancing our understanding and ability to manage acute impacts, such as flooding and wildfires, and the longer-term chronic impacts such as increased heatwaves, drought, and salinity changes, to ultimately mitigate their effect on grapevine physiology, and grape and wine quality and yield.

TWE supports the aim of the Paris Agreement to limit the global temperature rise to 1.5°C above pre-industrial levels. We have committed to reaching net zero emissions (scope 1 and 2) by 2030 to do our part to ensure we can avoid the worsening impacts of climate change and support an orderly and effective transition. We are also undertaking work to engage with our supply chain to encourage decarbonisation and further understand our associated emissions profile (scope 3). This is a longer-term program of work given the complexities involved. We have a role to play in supporting the transition to net zero, and our key stakeholders, including our employees, customers, and investors, increasingly value these commitments.

Progress

Over F23, we continued to experience the physical impacts of a changing climate through a number of weather events, including our third consecutive La Nina in Australia which led to a cooler, wetter season with increased disease pressure. In our American operations, the first half of F23 ended the three driest years in the California record, followed by drought-ending precipitation and record snowpack in the second half. This variability highlights the importance for our business to not only mitigate but adapt to the impacts of a changing climate. We acknowledge the urgency required to combat climate change and have consequently identified several areas for continued action.

Playing our part

We have a responsibility to decarbonise our business, and we are playing our part by decarbonising our operational footprint. We are currently prioritising the delivery of the following commitments:

- 100% renewable electricity by 2024
- Net zero emissions (scope 1 and 2) by 2030
- Scope 3 emissions measurement and engagement with our supply chain to understand their approach and encourage decarbonisation.

In F23 TWE's operations emitted 30 kilotonnes of greenhouse gases (scope 1 and 2). This is comparatively low in the context of other larger businesses; however, we take the position that businesses and broader society need to take an active role in reducing emissions to ultimately achieve the global transition.

Switching to renewables

Where we can make the biggest impact in a relatively short timeframe is switching to 100% renewable electricity. When we started our decarbonisation efforts in 2021, electricity accounted for 70% of our scope 1 and 2 emissions. Our roadmap has been in place for one year, and in that time, we have made significant progress.

We have invested around \$27M AUD in onsite solar capacity to support our renewable electricity ambitions. We have also committed to a range of additional projects and sub-metering, which will improve the effectiveness of our operations and provide valuable data insights.

In F23, we completed constructing Australia's largest winery solar installation with around 7,800 solar panels spanning the Barossa Winery and Production Centre in South Australia and our Karadoc Winery in Victoria. These installations began generating electricity in May 2023 and are expected to generate more than 5,500 megawatt-hours of electricity per year once fully operational. This is equivalent to powering 900 homes. We also completed solar installations at other operational sites, including Great Western and Coldstream Hills in Australia, as well as Cambon La Pelouse in France and Castello di Gabbiano in Italy.

In America, we anticipate that over 60% of Treasury America's electricity demand will be met by onsite solar upon completion. The project involves the installation of around 13,000 solar panels across our American operational footprint, and when complete, the total annual onsite solar generation will be approximately 14.3 million kilowatt-hours. As part of this new investment, solar panels are being installed across iconic properties, including Beaulieu Vineyard, Beringer Vineyards, Etude Winery, and Frank Family Vineyards in Napa Valley, as well as TWE's properties in Paso Robles and the Central Coast. Global electricity markets are continuously evolving; therefore, we continue to review our electricity footprint and associated opportunities across our operating regions.

Together with these onsite installations, we have purchased certified renewable electricity for our operations in Italy, head offices in Australia, America, and Europe, and Energy Attribute Certificates (EACs) for our New Zealand operations, Shanghai Office, and a portion of our American operations. This has resulted in TWE using 19.9%¹ renewable electricity in F23. We plan to use a combination of behind-the-meter solar generation, certified renewable electricity, power purchase agreements, and EACs to achieve our 100% renewable electricity goal.

1. Our 2023 CDP and RE100 Annual Report, submitted on 23 July 2023, reflects a 5.5% renewable electricity percentage for the F22 reporting period. This report covers F23 and reports a 19.9% renewable electricity percentage, highlighting the variance due to differing reporting periods.



Climate risk and GHG emissions (continued)

Keeping our stakeholders informed

We continue to evaluate and enhance our climate-related disclosures to reflect our maturing approach to climate change. We have begun to align our reporting with the recommendations of the TCFD. We are working to respond in further detail in the coming years, focusing on further understanding the financial implications associated with climate change.

The following table summarises how we align with TCFD's eleven recommendations. For more detail, refer to [page 57 of this report](#) which provides further information and context about how we align to the TCFD recommendations.

TCFD Recommendations	Location
Governance: Disclose the organisation's governance around climate-related risks and opportunities.	<ul style="list-style-type: none"> • Corporate Governance Statement: Section 2: Role and responsibilities of the Board • Sustainability Report: Corporate Governance; Risk management; Climate risk and GHG emissions
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.	<ul style="list-style-type: none"> • Sustainability Report: Material topics and commitments; Water stewardship; Climate risk and GHG emissions
Risk management: Disclose how the organisation identifies, assesses, and manages climate-related risks.	<ul style="list-style-type: none"> • Corporate Governance Statement: Section 2: Role and responsibilities of the Board; Section 3: Risk management and internal controls • Annual Report: Material business risks • Sustainability Report: Risk management; Water stewardship; Climate risk and GHG emissions
Metrics and targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	<ul style="list-style-type: none"> • Sustainability Report: Material topics and commitments; Key non-financial performance indicators; Water stewardship; Climate risk and GHG emissions

Emission reduction and efficiency

Alongside switching to 100% renewable electricity we are also increasing the efficiency of our operations as we aim for net zero carbon emissions by 2030 (scopes 1 and 2). The source of our scope 1 emissions varies considerably, and shifting these will take time given the lifecycle of the plant and equipment and, in some cases, the need for further advancement in technology or supporting ecosystems. Our overall approach is to reduce the consumption of energy sources by focusing on efficiency, switching technologies, and adopting alternate fuel types where possible. Ultimately, we expect to sequester any remaining emissions that are difficult or uneconomical to decarbonise and anticipate this to be approximately 10% of our baseline footprint (our F21 baseline is 47,348 tonnes CO₂e).

This year we completed a high-level opportunity assessment to reduce our scope 1 and 2 emissions across our global footprint. This resulting net zero roadmap was presented to our ELT and identified around 100 efficiency opportunities in areas such as LED lighting, compressed air, biogas, heating, ventilation and air-conditioning (HVAC), refrigeration, hot water, process heating/cooling and motor efficiency. In F23 we began delivering small-scale efficiency projects including LED lighting and compressed air optimisation. These are relatively simple in terms of implementation and will provide a quick return in emissions reduction. For example, in Australia we have replaced over 5,000 light fittings across 11 sites with an estimated saving of more than 1,000 tonnes CO₂e per annum.



Solar installation at TWE Barossa

In the US our progress has been recognised externally with Treasury Americas receiving the RISE Leadership Award for energy efficiency and savings. Implementation of the identified opportunities will continue in F24 and beyond, and the roadmap will undergo regular reviews to incorporate new emission-reducing opportunities as technology availability changes or current emerging technologies become more mainstream. We also continue to invest in sub-metering to detect unusual usage patterns. This sets us up for smart building control and feedback that can ultimately lead to further consumption savings.



Climate risk and GHG emissions (continued)

Emission reduction and efficiency (continued)

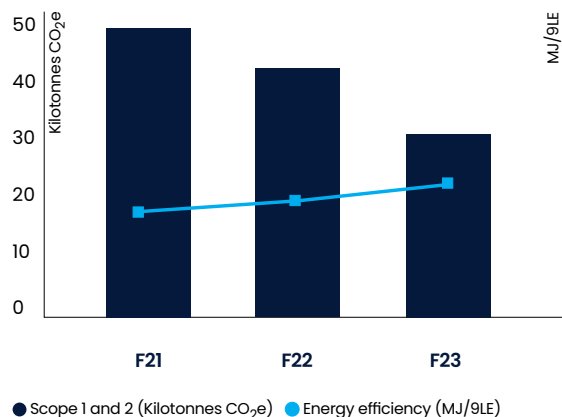
As part of understanding the effectiveness and feasibility of low-carbon opportunities, we continue to explore and trial emerging technologies including electric and autonomous agritech such as tractors and sprayers. These have many benefits outside of carbon emission reduction such as improved safety management. We are also transitioning to hybrid and electric fleet (or on road vehicles). In America, the adoption of electric vehicles continued to transition on-and off-road vehicles as they become available. In Australia, we have transitioned around 18% of fleet vehicles to date. More detail in new on-farm technologies is provided in the sustainable growing and production section.

Energy and emission performance

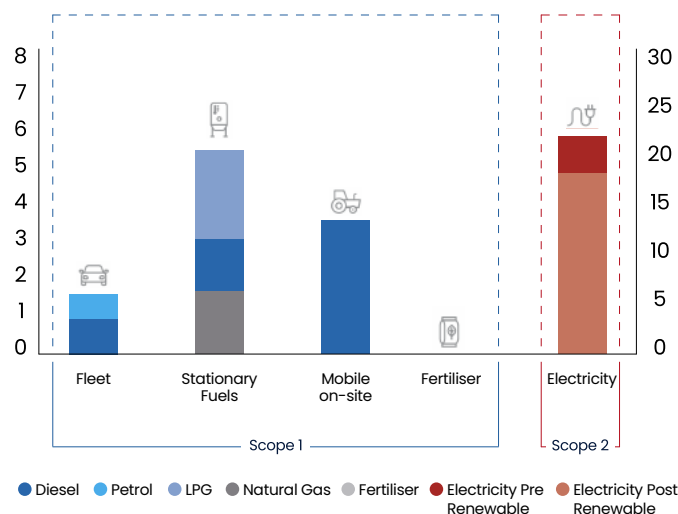
We rely on a range of energy sources and types to power our global operations. On a global scale, our total emissions for the reporting period were 30 kilotonnes (scope 1 and 2 emissions). This reflects a reduction of 17.3 kilotonnes (36.6%) when compared to our established baseline (F21). This reduction was driven by a range of factors, notably the significant increase in renewable electricity (from 11.8 x 10³ GJ in F22 to 41.3 GJ x 10³ in F23). Additionally, our production volumes decreased by approximately 18.5%. Over the year absolute energy use reduced 4.4% but given lower production volumes our energy efficiency decreased to 11.5 MJ per 9 litres-equivalent.

As highlighted throughout this report, we continue to seek efficiency opportunities and invest in infrastructure and process upgrades across our operations. A series of enhancement and efficiency projects were implemented in F23 which will have contributed to our reduction in our overall scope 1 and 2 greenhouse gas emissions.

Our global GHG emissions and energy efficiency footprint



F23 GHG emission by source (Kilotonnes CO₂e)



Treasury Americas first electric fleet vehicle



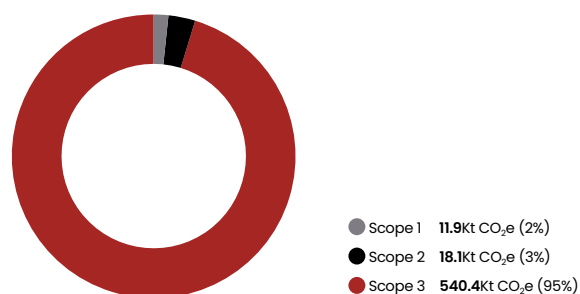
Transition to renewable electricity

We are a member of RE100, a global business group with over 400 members committed to leading the way to 100% renewable electricity. We have adopted an active approach to the transition to renewables. Our claims are based on specific actions to procure or produce additional renewable electricity instead of relying on proportions provided by default in each market. This helps to encourage further investment in renewable electricity. It also means we're taking a market-based approach to ensure our activity drives renewable capacity in our business regions. At the end of F23, we were operating at 19.9% renewable energy.

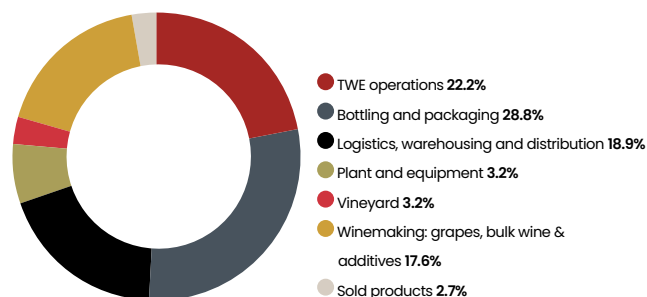


Climate risk and GHG emissions (continued)

Scope 1 and 2 emissions (F23) and scope 3 emissions (F22) overall kilotonnes CO₂e/year



Breakdown of scope 3 emissions by activity (F22) contribution %



Scope 3 emissions

Scope 3 emissions are the indirect emissions from activities we rely on to operate our business and provide products to our customers. This includes emissions upstream (i.e. made by our suppliers when manufacturing packaging) or downstream (i.e. by the transportation of goods to customers and consumers) to our operations. They are difficult to accurately measure because, in many ways, they are out of our direct control. Scope 3 emissions account for a significant portion of our overall footprint – around 540,400 tonnes CO₂e – which is approximately 13 times our footprint.

We continue to build a better understanding of the various sources and associated emission profiles that make up our scope 3 footprint. In accordance with the GHG Protocol, our greenhouse gas emission disclosures include all relevant scope 3 emission categories¹. Within these categories, purchased goods and services (category 1) and upstream transportation and distribution (category 4) contribute to most of our scope 3 emissions, at 71% and 18% respectively. We follow a detailed scope 3 assessment methodology, which is available on our [website](#).

A significant portion of our scope 3 data relies on informed assumptions and estimates. This year we took further steps to improve the accuracy of our data by adjusting our scope 3 assessment methodology. We have re-baselined our F21 scope 3 assessment (which was completed in F22) and altered our methodology to ultimately obtain more granular data and region-specific emissions factors, particularly in capital goods (category 2), fuel and energy-related activities (category 3), upstream transportation and distribution (category 4), and waste generated in operations (category 5).

The importance of improving the supplier data in our scope 3 assessment was highlighted when we used actual logistics data for transportation this year, which replaced the extrapolation method we used previously.

This data resulted in a 63% decrease in our emissions profile for the upstream transportation and distribution (category 4) and as a result we have re-baselined our original assessment conducted in F22 to enable more meaningful comparison.

Our supplier engagement was expanded this year to cover our top 100 suppliers globally based on spend. However, only 17 suppliers were able to participate in the survey. This is because many of our suppliers are in the early stages of emissions data collection or have not fully accounted for their scope 1 and 2 emission footprints.

These methodological refinements and re-baselining have resulted in a 21% adjustment in the size of our overall scope 3 emission baseline (F21), from 812,541 tonnes CO₂e to 644,631 tonnes CO₂e. Despite the changes in methodology, purchased goods and services and upstream transportation and distribution remain the two leading contributors to our scope 3 footprint.

Most of our data is based on the amount spent across the supply chain, which results in a lag in reporting due to the time, sourcing, and verification of the data. Therefore, this F23 report captures our scope 3 emissions based on F22 spend data. As we continue to measure our footprint into the future, we will use the most relevant and accessible methodologies and boundaries at the time of review. This may mean our carbon footprint baseline numbers vary slightly over the years. We continue to be focused on improving the data quality and engagement with our supply chain to encourage decarbonisation.

1. Our relevant Scope 3 categories are as follows, and the numbers are rounded: 1 – Purchased goods and services (383,000 tonnes CO₂e/year); 2 – Capital goods (25,000 tonnes CO₂e/year); 3 – Fuel and energy related activities (6,000 tonnes CO₂e/year); 4 – Upstream transportation and distribution (99,000 tonnes CO₂e/year); 5 – Waste generated in operations (2,000 tonnes CO₂e/year); 6 – Business travel (1,000 tonnes CO₂e/year); 7 – Employee commuting (9,000 tonnes CO₂e/year); 9 – Downstream transportation and distribution (15,000 tonnes CO₂e/year); 12 – End of life treatment of sold products (0 tonnes CO₂e/year); 13 – Downstream leased assets (1,000 tonnes CO₂e/year). See our website for further information on our methodology and calculation approach.



Climate risk and GHG emissions (continued)

Adapting our business

In July 2023 the world experienced the hottest month on record. Ongoing climatic extremes are causing serious disruption to nature and ecosystem services and there is growing socio-economic impacts across the world. Building resilience is critical to the ongoing success of our business.

We are an agricultural company and must work with nature and weather conditions to be successful. Our F23 vintages were particularly complex due to varying weather conditions and trends. Our Australian and New Zealand operations were largely influenced by La Nina, experiencing cooler conditions, major storm events, above-average summer rainfall, and flooding in some cases. This led to challenges with flowering and fruit set in some regions, in addition to an increase in pest and disease pressure. California faced drought and mid-harvest record high temperatures in 2022 (the northern hemisphere vintage), followed by drought-ending precipitation and record-setting snowpacks over winter. France and Italy have both experienced ongoing drought conditions, and there were extreme wildfires in parts of France (Les Landes). Collectively, these highlight the range of physical impacts that must be successfully managed to ensure high-quality, premium wine is produced.

Our strategic approach to climate change

Our strategic response and action on climate change considers the projected physical and transitional impacts, as well as a range of opportunities. We assess climate risk in line with our Enterprise Risk Management Framework (ERM Framework) and use a range of approaches to anticipate more short-term weather conditions through to longer term climate impacts.

Building our capability on climate risk – from both a data and management perspective – will be increasingly critical to ensure we make informed, strategic decisions considering longer-term possible future conditions. A critical starting point is a climate adaptive business strategy. We have a strategic multi-regional sourcing program in place that features an agile and efficient production and processing footprint. These strategic approaches are designed to increase our resilience to a changing climate and provide greater flexibility.

A range of operational measures also supports the delivery of our strategy, including detailed weather data and forecasting abilities, optimised irrigation and soil moisture, our ability to detect and measure the impacts of smoke taint, and agronomic practices such as delayed pruning and improved canopy architecture, and row orientation.

Collaboration with universities and industry experts helps ensure continued research and development in new and emerging technologies to support the transition to a low carbon future. For example, in Australia we have partnered with CSIRO to implement traditional breeding practices that select for disease resistance. In America, our soil project is funded by the United States Department of Agriculture (USDA) in collaboration with the Napa Resource Conservation District (RCD). In addition, several projects have partnered with UC Davis to increase energy efficiency in wineries. We actively participate in industry forums to help inform our thinking on the emerging policy and regulatory landscape and share our approach, challenges, and progress with peers and interested stakeholders.



Stabilising Marlborough's Wairau riverbank to avoid future floods

Since 2021 New Zealand has experienced two 1-in-100-year flood events. In July 2021, Marlborough experienced one of the worst floods of the Wairau River on record. These flood events significantly damaged the riverbank and the edge of the Northbank and River Terrace vineyards. Without repair, it was expected that future high flow events through the river would result in further erosion of the riverbank, putting the vineyards at significant risk. In F23 the team in collaboration with the local Council undertook \$2M NZD repairs of the riverbank to stabilise the riverbank at River Terrace by diverting the river braid, and by moving thousands of tonnes of rocks to put rock armour back in place. The rock armour will help prevent future erosion of the riverbank and will help protect the vineyard from damage resulting in future flood events. Additional riverbank works are scheduled for F24 to stabilise the remaining damaged riverbank at Northbank Vineyard.



Riverbank damage adjacent to the edge of our vineyard



Climate risk and GHG emissions (continued)

Potential impacts of climate change to TWE

Our ability to grow, make, and market quality wines will be affected by various climate risk factors in the future if we do not take reasonable steps to strengthen our overall business adaptability and resilience. Our analysis indicates we are exposed to a changing climate, with high and low emission scenarios likely to present challenges to our business, strategy, and operations. The level of global emissions will drive the significance, timing and impact of climate-related risks and opportunities. Our climate modelling suggests that climate risks are materially more severe under the high emissions scenario. In most cases, the projections do not widely diverge from one another until after 2030.

Climate Scenario Analysis (CSA) shows that there will be a range of physical impacts experienced from the mid-century (2050) on our viticulture assets, including:

- Variations in yield, quality and fruit expression as flavour and colour development decouple from sugar ripening at elevated temperatures
- Changes in growing season temperatures which could lead to compressed vintages and varietal suitability across the different regions where we operate
- Increasing aridity will change the availability and supply of water, likely driving increased demand. This could lead to water security, yield and quality being at risk and escalation of purchasing prices
- Increased frequency and severity of extreme events such as frost, high winds, hail, heavy rain and flooding, heatwaves, extreme heat factors
- Increased pest and disease pressure, bushfire risk (wildfires), and smoke taint.

Equally, there are a range of transition risks which we are exposed to. They include those arising from policy, legal, technology, market and reputational changes associated with the transition (or lack thereof) to a low-carbon economy. We continue to monitor and understand emerging trends, policy developments, and changing customer and consumer preferences. We believe there is significant opportunity and value in responding to climate change and its impacts, and businesses combined with industry that take the lead will be well placed to demonstrate resilience and succeed in the future.

In F23 we completed site-specific climate risk assessments across our viticultural sites in Australia and America. This approach was designed to help us further understand emerging trends, opportunities, and risks present in our global viticultural operations arising from climate change and to help inform our strategy and adaptive response at a local level. We used one scenario – the worst-case or business-as-usual scenario (RCP8.5)¹ – because it is most reflective of the current trajectory of emissions and the most appropriate scenario to ensure we are prepared and consider the worst-case projected impacts of climate change.

A range of metrics were assessed as part of the site-specific CSAs, including those broadly related to temperature (including the likelihood of extreme heat events, heatwaves, and bushfires), water (including total availability and winter rainfall, the likelihood of extreme rain and flood) and the suitability of grape varieties to growing season temperatures more specifically. The outcomes of this empirical assessment were ‘ground-truthed’ with localised knowledge. Overarchingly, the results show that a range of climate risks are present across our operations and that adaptation will be required in many instances.

Climate adaptation

Even if there is concerted action to reduce global emissions in the near-term, humanity will need to adapt to a changing climate. Our first response is improving our understanding of near-term weather conditions, combined with data. Vintage 2023 in Australia was a prime example of the importance of these investments in helping us to deliver premium and luxury fruit despite challenging conditions. We used localised data generated by a product that an Australian start-up developed to help accurately predict long-range weather forecasts, surpassing the generally available forecasts. This allowed us more time to plan and prepare for our operations between weather events. We employed artificial intelligence to determine yields and harvest dates to prevent excessive cropping in specific areas and manage network capacity. In F23, we also piloted a range of adaptation measures to support our strategy and enhance our overall resilience to the practical challenges faced by the physical climatic impacts.

1. RCP refers to ‘Representative Concentration Pathway’, and representative of a possible future high concentration scenario.



Climate risk and GHG emissions (continued)

Climate risk in the Barossa

This year we advanced our understanding of projected climate-related impacts across our operational footprint by conducting a deep dive on growing Shiraz grapes in the Barossa. Given the location of our operations and the concentration of unique luxury fruit in this area, a comprehensive assessment of potential physical climate risks within this region is fundamental to support our current and future commercial success and reputation. As part of this exercise, we also reviewed a range of adaptation measures that we have already introduced or are in the process of introducing into that region.

The Barossa Valley was founded in 1836 and is home to some of the oldest continuously producing vineyards in the world. Testament to this heritage is the variety Shiraz, reportedly planted in the Barossa early in the 1840s and has since become the predominant variety in the area given its cool, reliable wet winters, and warm, dry summers, which is ideal for grape growing. Shiraz from the Barossa is known for its big, bold flavours and features heavily in some of our key luxury offerings each year (such as Penfolds Grange, Bin 389 and Wolf Blass Black Label).

As a region, the Barossa is not homogenous and has a range of micro-climates due to factors such as soil, aspect, and elevation. These and other location-specific factors can significantly impact future resilience to climate change. Therefore, our climate risk analysis assessed a range of physical climate-related variables including temperature, and also took into consideration the regional nuances to ensure that adaptation is tailored to each specific site location.

Using RCP 8.5 (the worst-case scenario), the analysis found that consistently growing luxury fruit in the Barossa will be challenged without adaptation. By mid-century, the projected temperature is expected to increase, leading to greater risk of heat stress if action is not taken. Prolonged heat stress can impact grape flavour, yield, and quality. An associated physical risk is water availability, which is already limited in the area this, coupled with projected increases to grapevine water stress due to declining precipitation and the constraints of the current Barossa Infrastructure Limited (BIL) pipeline (of which TWE is a participant) will also impact yield and quality. These physical impacts, alongside other specific risks identified in the analysis inform how we build further resilience and adaptability across our viticultural operations in the area.

Across the region it is evident that the climate risk profile varies, and subsequently there is no 'one size fits all' in terms of adaptation. Our adaptation roadmap therefore captures site-specific initiatives which differ across our various operational sites. We anticipate that a range of adaptations will be required due to viticulture being a process of continual adjustment.

We have already implemented a range of measures such as long-range weather forecasting technology, smart irrigation and use of autonomous vehicles and other technical developments. Our recent investment in the 254 megalitre dam in the Barossa will also help to increase water security across our vineyard network by capturing stormwater and treated water from our onsite wastewater treatment plants while reducing water losses through evaporation.

Future implementation will consider a range of other mitigation strategies, some of which will be relatively simple to implement – such as using a different canopy architecture to protect from sunburn – and others requiring much larger-scale investment. Our site-specific adaptation roadmaps capture these various strategies, all of which will provide significant benefits and de-risking for future operations.



Shiraz at Kalimna Barossa Valley vineyard



2023 Green Medal Leader Award

Our efforts have been recognised externally with Treasury Americas, a division of TWE, receiving the 2023 Green Medal Leader Award from the California Sustainable Winegrowing Alliance. The award honours the winery that excels in the three "E's" of sustainability – environmentally sound, socially equitable and economically viable practices.

See more detail about our award in this [video](#).



Fostering healthy and inclusive communities



A healthy and safe workplace is our priority, and behind every bottle of wine is a team that is also passionate about building an inclusive and equitable culture that delivers better outcomes for all of our stakeholders. At TWE, we want to foster safe, sociable, and connected communities where our brands are promoted, and our wine consumed safely and responsibly.

F23 highlights

- **Engagement score of 71%** in our engagement survey
- We have committed to investing around **\$10 million in research and development** in the no and low alcohol category
- A significant **reduction in the serious safety incident frequency** rate of 1.2 percentage points to 0.2 as a result of the concerted focus on safety during the year, including our leader-led campaign 'Build safe together'
- Overall **gender diversity improved to 42.7%**, but the proportion of females in senior management roles decreased to 44.5%



Health, safety and wellbeing

Approach

The health, safety, and wellness of the TWE team and everyone who touches our business remains our highest priority. TWE recognises the importance of ensuring our people stay physically and mentally safe by closely managing existing and emerging risks. Our TWE team members recognise that health, safety and wellness is a shared responsibility, and our people leaders are accountable for managing the physical and psychological safety of their people.

Progress

Throughout F23 we continued focussing on our ambition of Destination Zero Harm, and in November launched our leader-led change campaign - Build Safe Together. Our vision is to unite everyone by building safe thinking, safe action, and easy conversations into our daily work life across all regions, divisions, roles and people. This campaign was developed following a review of our F22 data which found that whilst employee survey results indicate our people feel safe and cared for, actions and decisions taken in the moment contributed to inconsistent safety behaviours and incidents. The program harnesses TWE's team spirit and culture, bringing safety front of mind by developing safe decision-making routines and techniques such as simple language that enables team mates to intervene in the moment were conducted globally, including introducing the Double Check, the Mental Health Double Check, and Every Day Double Checks. Survey results have been positive with 92% of respondents finding all messages clear and easy to understand. There have also been an additional 2,482 safety conversations in F23. We plan to continue implementation of the campaign in F24, with the first deep dive being Safe Driving.

Recognising the growing importance of data in our safety journey, we continued to build safety visibility with added functionality in our health and safety reporting and management platform, myHSE (refer to the graphics to the right for insight into the platform).

Inspections and audits can now be conducted in the field with mobile capability and real-time data for incidents, injuries, hazards, action management and safety conversations now visible through dashboards. This provides users with relevant information for their role, location, or department. Pleasingly, more than 1,100 safety conversations and 1,200 personal risk assessments were captured during F23 using the platform's mobile application, which allowed real-time reporting and further safety engagement with non-computer-based workers.

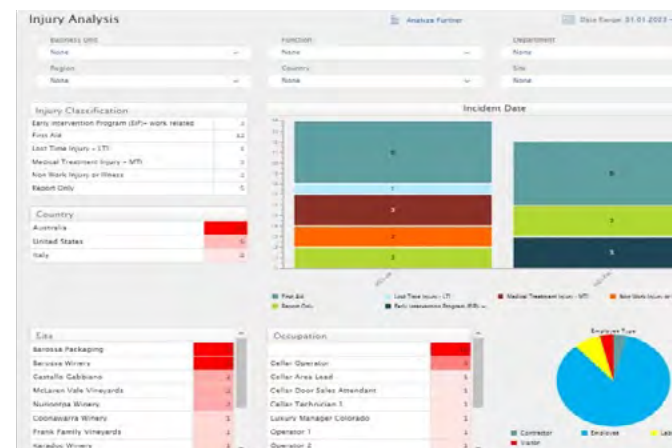
Mental health and wellbeing

Our mental health program has continued to deliver initiatives across the year in support of each of our pillars:

- Reducing and supporting mental health illness
- Creating a healthy and safe workplace
- Promoting thriving with our team members.

Initiatives included a range of facilitated sessions across our operating regions with a combination of Mental Health First Aid, Mental Health Awareness sessions for team members, Supporting Mental Health sessions for People Managers and recognition of Mental Health Awareness month in the US and Men's Health Month in Australia, where guest speakers provided powerful insight into the challenges that experiencing and supporting mental ill health can bring. We refined our mental health and wellbeing action plan to reflect best practice following a review of frameworks and guidelines, including the ISO45003 Standard on managing psychosocial risks.

MyHSE dashboards

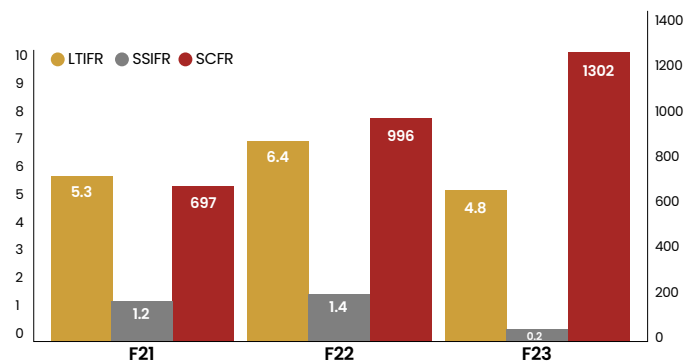




Health, safety and wellbeing (continued)

Safety metrics

A combination of ongoing and new safety initiatives are driving a pleasing reduction in serious safety incidents and lost time injuries. During F23, we saw an 86% reduction in the Serious Safety Incident frequency rate (SSIFR) to 0.2 and a 25% reduction in the Lost Time Injury Frequency Rate (LTIFR) to 4.8. After a single serious safety incident in July, the remaining 11 months were SSI free. In addition, our Safety Conversation Frequency Rate, used as a lead indicator of active safety leadership, has seen a 25% uplift in conversations being conducted.



Safety highlights

Globally, we celebrated a number of wins in safety across the year. Key highlights include:

- Launching the TWE Health, Safety & Wellbeing Award to acknowledge the outstanding contribution by an individual employee in establishing and maintaining high standards of health, safety and wellbeing activities and achievements within TWE. Our inaugural winner was Jon Irwin, Barossa Winery Contract Services Coordinator
- Our Barossa Packaging site team member, Cameron Loprete, was awarded the Safety Champion Award by the South Australian Wine Industry Association. This award is given to someone who actively role models workplace health and safety
- Our Sonoma Bottling Center achieved 12 consecutive months without a lost time injury (LTI) in the United States. Since most of the site employees are Spanish speaking, the team completed 344 Un Momento (take a moment) safety conversations in F23.



Jon Irwin, recipient of TWE's F23 Health, Safety & Wellbeing Award



Introducing the Double Check

As part of our Build Safe Together campaign, we introduced the concept of a "double-check". This symbolises action that everyone can take to help build safe through:

- Building the habit of stopping to take a moment, thinking, and checking through every task
- Calling on others to help us double check we are safe, or us offering to check with them
- Making it easier to have those stop and check conversations with people around us

This puts safety front of mind with our team members using uniquely designed logos, posters, stickers, and our Workplace communications platform, sharing videos and images of double checks in practice. In addition, during March, members from our Global Leadership Group were matched with TWE team members around the globe to take part in a double check conversation to share their stories on why safety is important to them.





Inclusion, equity and diversity

Approach

At TWE, it's in our DNA to bring our whole selves to work. It's the diversity of our people that makes us unique, and we strive to create a professional and safe working environment where respect for human rights is the cornerstone of our culture and where everyone can contribute and feel included.

The diversity of our people and their contribution to the business broadens our collective knowledge and capabilities. It also gives us a competitive advantage in the marketplace by helping us understand and connect more effectively with our customers, consumers, communities, and each other. It is fundamental to being the world's most admired premium wine company.

Progress

As at 30 June 2023, TWE has achieved:

- 44.5% female representation in leadership roles towards our target of 50% by 2025. This is a decrease of 0.4% from F22. This reflects the impact of organisational changes to a relatively small cohort of employees
- 42.7% female representation overall. This is an increase of 0.8% from F22 and achieves our target of 42% by 2025
- 37.5% female representation on the Board.

We continue to strive towards delivering our vision of 'one globally inclusive team where we all belong, contribute and thrive', through three strategic pillars:

- **Leaders who model our DNA:** leaders who steadfastly role-model and lead inclusion and have a true understanding of employee experience and culture, enabled by world class leadership and development programs
- **Engaged employees, consumers, and communities:** employees who bring their whole selves to work, consumers who recognise our commitment to inclusion, equity and diversity through our brands and partnerships with purpose-aligned communities, suppliers and initiatives which produce meaningful outcomes
- **Employer of choice:** Industry leading policies and work processes that maximise inclusion and minimise bias, innovation optimised through team contribution and data informed plans and allocation of resources.

TWE's commitment to inclusion, equity and diversity (IE&D) is governed through an IE&D policy and strategy, which is overseen by the Human Resources Committee, the Global IE&D Council, and supported by Regional IE&D Committees and Employee Resource Groups. IE&D commitments are included in the Key Performance Objectives of ELT members and selected senior leaders. The TWE Board is also committed to ensuring that it maintains a membership of individuals with diverse experience and backgrounds, including cultural, geographic and gender aspects to ensure that TWE maintain a broad representation and support the Company's strategic objectives. Further information on diversity can be found in our Corporate Governance Statement.



TWE team member supporting the WorldPride 2023 event



Squealing Pig product range supporting WorldPride 2023



Inclusion, equity and diversity (continued)

Progress (continued)

This year the IE&D plan built on the foundations established in recent years, and repositioned IE&D as leader-led and integrated into the way that we work and inclusive of all employees. Key achievements against each of the three strategic pillars are outlined in further detail below.

Leaders who model our DNA

As an evolution of our IE&D journey, the focus for F23 was to support leaders to integrate IE&D into everyday interactions. To enable our leaders to experience the power of empathy and perspective through storytelling, we led 'Belonging Conversations' with members of the Global Leadership Group (GLG) who are senior leaders within TWE. This experience helped to reinforce and embed our leadership attributes. It was also an opportunity for leaders to practice creating a greater sense of belonging and develop a deeper appreciation of the role of connection in building an inclusive culture.

To extend our leadership capability throughout the business, TWE's development program called Empower Me, which was originally established for females and non-binary employees to build future leaders, was expanded to include new and emerging leaders from underrepresented groups across the business. This rescoped version of Empower Me is currently being piloted with 30 employees from across TWE. As part of the program's objectives, including supporting personal development and growth, these employees have been supported to take leadership roles within TWE Employee Resource Groups (ERGs) and represent TWE publicly.

Engaged employees, consumers and communities

TWE recognises the importance of taking steps towards Reconciliation with Australia's First Nations peoples, who are the traditional custodians of the land on which we grow, make and sell our wine. To promote reconciliation with Aboriginal and Torres Strait Islander Peoples, a Reconciliation Action Plan Working Group has been established. Under the guidance of the Chief Supply and Sustainability Officer, the Chief People Officer and Chief of Staff, and with the support of an external consultant, the working group has commenced the development of the foundational actions of a Reconciliation Action Plan (RAP). Activities have been planned against each RAP element with a specific focus on increasing understanding, value and recognition of Aboriginal

and Torres Strait Islander cultures, histories, knowledge, and rights through cultural learning, and establishing and strengthening mutually beneficial relationships with Aboriginal and Torres Strait Islander stakeholders and organisations.

As part of our ongoing commitment to raise awareness of a diverse range of causes and communities, we hosted or participated in events including 16 days of Activism against Gender Based Violence, International Women's Day, A Taste of Harmony, Pride Month, Indigenous Walks of Melbourne and Culture Day. We also participated in industry events including The Black Food and Wine Experience in the US, as well as Black Business Week and Diversity and Inclusion in Grocery LIVE! in the UK. We leveraged our brands to celebrate and raise awareness of the diversity of LGBTQIA+ communities; TWE and Squealing Pig sponsored the Summer of Love at the Australian Open in Melbourne, and Sydney's WorldPride 2023 which was one of the biggest events in the city since the 2000 Olympics.

As we evolve our approach with greater investment in automation and technology, we are also increasing emphasis on IE&D. Our Chief Supply and Sustainability Officer and members of the Supply Leadership Team review and support plans to build engagement and over the year have hosted roadshows to host education sessions that demonstrate how IE&D is relevant to all employees and how our ERGs can support employees to feel a greater sense of belonging. In America, IE&D and the ERG topics have been included in Front Line Supervisory training for new and developing front line leaders. This approach will be applied to Front Line Training in Australia from F24.

Employer of choice

Our practice until 2023 has been to collect demographic data – limited to gender and date of birth – at the point of hire. This limited data hinders our ability to understand how our ways of working impact different groups of employees over time. To be data-led in our future IE&D planning, we have piloted the collection of personal demographic data (non-anonymised) in the UK. This process was designed following significant employee consultation and engagement, and an in-depth Data Protection Impact Assessment to ensure all necessary controls were implemented to protect individual privacy.

Employees were encouraged to voluntarily disclose demographic data including racial or cultural background, disability, caring status, gender (including a non-binary option) and veteran status. Data collection will be extended to employees in Australia, New Zealand, America, and Singapore during F24.

To sustain our culture and business performance, we continue to evolve our approach to hybrid work. For example, in our corporate offices we encourage employees to come together face to face more often than not, and in doing so provide employees with the autonomy to determine which days to work from the office, prioritising the opportunity to connect with each other, build capability, and develop a sense of purpose, belonging and contribution to something bigger.

To ensure remuneration equity globally, we reviewed our gender pay gap to determine the difference between male and female earnings, irrespective of role or seniority. Five adjustments to remuneration were made as a result of this analysis in F23.

We were recognised as an employer of choice by AFR as one of the Best Places to Work, Great Place to Work in the UK and Treasury Americas was recognised as the Healthiest Employers of the Bay Area for mid-sized company category and a top 100 Healthiest Employer nationally.

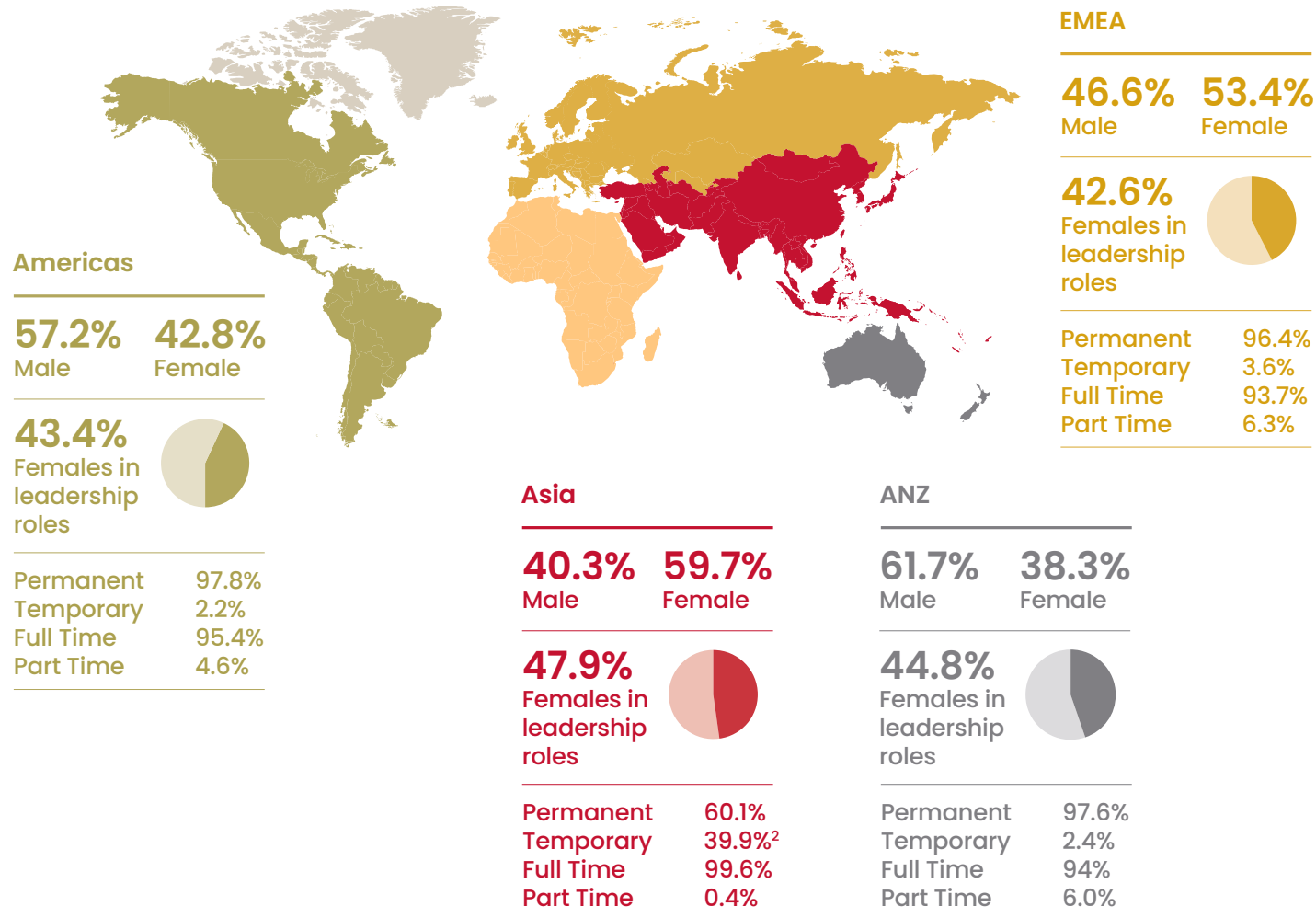


TWE team at the WorldPride 2023 event in Sydney



Inclusion, equity and diversity (continued)

A snapshot of TWE employees across the world¹



1. The information in this table is current as of 30 June 2023 includes casual, on call and seasonal employees and excludes contractors, which make up 5.3% of TWE's total workforce.

2. The Asia region has a higher proportion of employees identified as 'Temporary' due to common legal practice in China to place employees on three-year fixed term contracts. After ten years, an employee is considered permanent.



Consumer health and responsible drinking

Approach

Millions of adults around the world enjoy drinking our wines and as one of the world's leading producers of premium and luxury wines, we recognise the role we play in promoting and celebrating moderation so that together we can foster safe, sociable, and connected communities. Our understanding is that excessive alcohol consumption is harmful to your health and to those around you and that's why we take responsible drinking seriously. We support the World Health Organisation's (WHO) Global alcohol action plan, and the United Nations Sustainable Development Goals (UN SDGs) which both state a goal to reduce harmful use of alcohol by 20% by 2030 (in comparison to 2010).

Progress

After substantial research and policy analysis in F22, TWE launched our first Board-endorsed Alcohol and Health Policy (the Policy) in F23. The Policy publicly steps out what we stand for and how our stakeholders should expect us to act in relation to consumer health and responsible drinking. Developed in consultation with more than 100 internal and external stakeholders, the Policy sets out our minimum position on areas such as product transparency, reducing harmful consumption and responsible marketing. Following the launch of the Policy we undertook an extensive program of engagement with our own employees in all regions around the world, to strengthen their understanding of and commitment to our objectives. The launch reached more than 1,400 employees in the period immediately prior to the 2022/23 festive season.

In 2022 we also met with a broad range of external stakeholders and provided briefings on the Policy to government and industry stakeholders in our key operating regions including Australia, EMEA, the United States and China. During these meetings we also discussed ways TWE could align with the responsible consumption programmes of relevant stakeholders such as industry groups and peak bodies.

This new Policy complements our existing Alcohol Policy which sets out TWE's expectations regarding responsible consumption of alcohol by our employees, contractors, consultants and visitors to our sites. Mandatory compliance training relating to our Alcohol Policy was completed by 96% of eligible employees in F23.

Over time, we plan to further develop the information available on our Company website, with the ultimate goal to support our consumers in being able to make better choices that help them enjoy alcohol consumption in moderation as part of a balanced lifestyle.

Product transparency

We believe that consumers should have easy access to information about alcoholic products so that they can make informed and responsible choices. As a leading wine company, we believe that product transparency is one way we can help improve alcohol health literacy. Our Policy details a series of TWE commitments related to minimum global labelling requirements across our product range, including that from 2025 all products will provide energy information (where permitted by regulation and excluding products below 375ml) and all products will include a general health warning.

This is a complex task to execute, presenting significant challenges as we navigate emerging regulatory requirements alongside delivery of our commitments across country of origin, country of sale/distribution, choice of responsible drinking symbols, links to relevant websites, balance of space available on labels, energy labelling options and potentially also the inclusion of recycling and sustainability symbols.

In addition to our own commitments, many countries around the world are introducing their own mandatory labelling requirements for wine. In the past year we have seen regulated labelling changes either proposed or introduced across Australia, New Zealand, the European Union, Canada, the UK, Ireland, and the US – each requiring their own consideration and management given the lack of globally harmonised approach. We remain focused on delivering our product transparency commitments while also navigating the challenges of addressing the complexities posed by newly introduced regulatory requirements across the broad range of jurisdictions in which we operate.



Consumer health and responsible drinking (continued)

Leading in moderation

TWE aims to be the wine market leader in moderation and sustainability. With a strong focus on innovation in winemaking and wine marketing, we continue to invest in the development of our product range in the no and low alcohol category. We believe it is important to offer consumers real choice in responsible consumption of our products.

Global wine consumption is in decline, deteriorating by 3 percent in volume during 2022 according to market research firm IWSR. Consumers are choosing to drink less, but drink better, with the trend toward 'premiumisation' continuing. Consumers are looking to reduce their alcohol intake for a wide variety of reasons from wanting to improve their health through to life-stage changes such as pregnancy. The conscious consumer segment continues to grow with almost half (45%) of consumers looking for more health-conscious options and as a result it is changing the way consumers approach the wine category leading to the emergence of low or no alcohol alternatives.

TWE has committed to investing around \$10 million in research and development in the no and low alcohol category, including an in-house state-of-the-art low alcohol production facility in the Barossa Valley, recognising the potential of the category to offer wine lovers more choice while still enjoying great flavour and mouthfeel. As an industry leader, we have been working with organisations like the Australian Wine Research Institute in South Australia to develop a trial facility that allows smaller producers to experiment and build their capability in this growing area. Australian wine has 5% market share of the global no and low alcohol category, valued at \$1.6 billion in 2020 and growing rapidly.

In F23 we followed the successful F22 launch of Matua Lighter and Wolf Blass Zero with the launch of two further significant additions to our no and low alcohol portfolio:

- Squealing Pig – We launched Squealing Pig Zero alongside our existing lower-alcohol sparkling and rosé products (which are equivalent to 3 standard drinks per bottle instead of 7-8 standard drinks per bottle)
- Pepperjack – In June 2023 we introduced our mid strength category with the launch of Pepperjack mid strength Shiraz (see case study to the right). It is around 7% alcohol by volume, which is half the alcohol content of the original full strength Shiraz.

We see a significant opportunity to be the global leader in this emerging segment of the wine category and we will continue to invest in our research and development, capacity, and capability to deliver the leading brand and wine quality combination in this space, particularly in mature wine markets.

Combining the art & science of winemaking

Pepperjack has launched a mid strength Shiraz – expanding beyond full strength wines to meet our consumers' interest in moderating their alcohol intake and addressing the demand for alternatives that offer full flavour without the full impact of alcohol.

With a deep heritage stamped in the Barossa, Pepperjack wines have always been rich and honest, showing the region's outstanding qualities. However, at around half the alcohol content of the original – Pepperjack's Winemaker, Richard Mattner, says it stays true to the Pepperjack character that's made it Australia's #1 Shiraz for value and the country's favourite steak accompaniment.

"It strikes a balance between the art of traditional winemaking that Pepperjack is renowned for, and the science of cutting-edge de-alcoholisation and flavour retention technology. All the best bits of Pepperjack but it's 50% lighter in alcohol compared to the original Pepperjack Shiraz. We're leveraging our premium winemaking credentials, global reach, and diverse portfolio of brands – we're in a unique position to lead in this growing segment," says Mattner.



Pepperjack's mid strength Shiraz



Consumer health and responsible drinking (continued)

Collective impact

TWE believe that industry, government, and other stakeholders need to work together if we are to reduce harmful consumption of alcohol. We work with several industry groups and organisations around the world to promote responsible consumption programs and activities within the community including DrinkWise (AU/NZ), Drinkaware (UK), Portman Group (UK), The Australian Alcohol Beverages Advertising Code Scheme (ABAC), and Community Alcohol Partnerships (UK).

Initiatives we have supported and/or participated in during the year include:

- Drinkwise's Parliamentary campaign for no and low alcohol products at Australia's Parliament House
- ABAC review of marketing and advertising guidelines (AU)
- Australian Grape and Wine Federal Budget submission for advancement of no and low alcohol products
- Australian Wine Research Institute's successful application for government research funding support to address key no and low alcohol winemaking challenges – this includes microbial stability and shelf-life, flavour capture and re-use, mouthfeel and textural deficiencies, and the perception and understanding of no and low wine.

Responsible marketing

Our commitment to the responsible marketing and sale of alcohol is covered by TWE's Alcohol and Health Policy, Alcohol Policy Guidelines, Alcohol Policy Guidelines for Winemakers, as well as our Responsible Marketing Guidelines and Responsible Sales and Marketing Handbook.

TWE's global Marketing teams complete training on the Alcohol Policy, Social Media Policy, as well as the Responsible Marketing Guidelines and Responsible Sales and Marketing Handbook led by TWE's Legal and Governance team. Our Marketing team ensures that all marketing communications comply with the Responsible Marketing Guidelines. This is undertaken through reference to a comprehensive marketing checklist, seeking legal guidance, and escalating approvals as required. This process applies to digital and social media, as well as traditional marketing platforms.

In F23 TWE had one complaint about our advertising and trade promotions that was upheld by the Ad Standards Community Panel as a failure to comply with the Australian Association of National Advertiser (AANA) Code of Ethics. The complaint related to an Instagram post generated by a guest at a Penfolds launch event which was not clearly distinguishable as advertising. TWE's social influencer guidelines and requirements have since been refreshed and reinforced to minimise the risk of reoccurrence.



Wine barrels at Castello di Gabbiano



Product quality and food safety

Approach

At TWE, we're committed to making products that are consistently high quality, safe for consumption and compliant with market access requirements in each region of sale. This commitment is underpinned and delivered by adherence to our robust and mature Food Safety and Quality Management systems.



TWE Supply team member at Bilyara Winery

Progress

During F23 our technical teams took steps to enhance the efficiency and effectiveness of our Quality Management systems. With continuous improvement at the core of our approach, our teams have a strong focus on training to strengthen our Food Safety and Quality culture and upskilling employees in using our corrective and preventative actions system.

We successfully maintained our third-party Quality and Food Safety accreditations across all regions. We continued to utilise our specification management and bottling approval systems to ensure that our wines consistently meet high-quality standards across our portfolio. By effectively implementing these standards with our wine supply partners, we achieve consistency in wine blend style and compliance with regulations in both source and sales regions.

Our Quality Management systems are seamlessly integrated into our production processes, guaranteeing the reliable delivery of high-quality wine products. As our Quality and Assurance system develops, we actively review our internal verification performance to identify opportunities to improve. We are currently standardising our change management processes across the business and formalising our completion review to ensure that changes are implemented to standard and learnings shared across the business.



Traceability

TWE's quality management and production systems span our grape growing, winemaking, and packaging process from raw materials to distribution. These systems are engineered to ensure traceability of all aspects of grape growing and winemaking inputs wines from grape to bottle and ultimately the consumer. The track and trace system identifies the specific location of fruit origin by variety (i.e. the location of a vineyard block), and allows us to follow this through the winemaking process to the final bottled product composition. In F23 we have utilised this system to verify the Sustainable Winegrowing Australia (SWA) status for some of our Wynns branded wines (refer [page 48](#) for an image of the SWA label on one of our Wynns wines). This improvement has enhanced our SWA platform by allowing us to communicate our sustainability credentials on package in the marketplace. We challenge our traceability systems on an annual basis to verify our ability to trace products in an effective and timely manner.

TWE's product quality and food safety systems are verified via third party audits and certifications. These vary by region and include: Hazard Analysis Critical Control Points (HACCP), British Retail Consortium Global Standard, and Food Safety System Certification 22000 (FSSC).



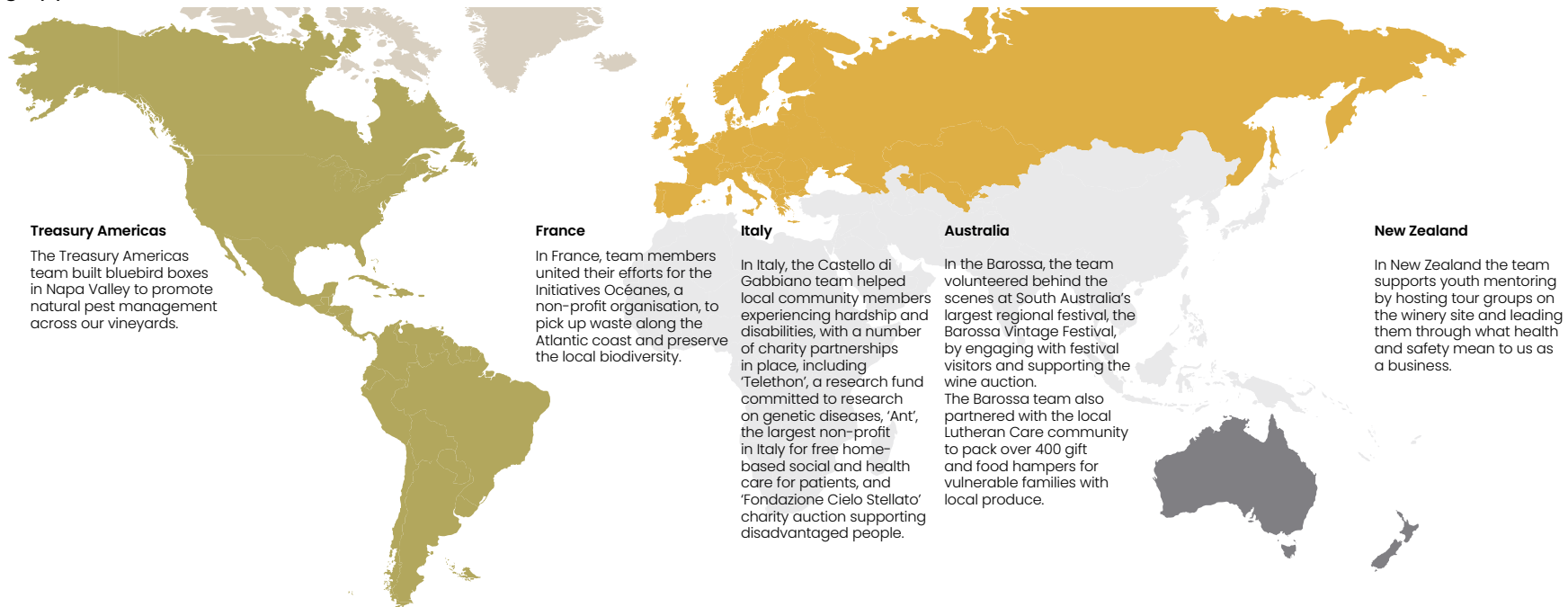
Community

Approach

Given the nature of our business and our operational footprint largely being in regional wine growing areas, we contribute to regional communities as an employer, a purchaser and through our community relations and engagement. We have focused our community engagement activities to make a positive impact, with the aim of building strong relationships. Our engagement includes two-way conversations, partnerships, volunteering opportunities, and other value-adding opportunities.

Progress

Our community partnerships often involve activities to engage and volunteer in the local communities in which we operate. In F23 our teams were involved with numerous volunteering activities across the globe. Our charitable partners have received financial and volunteering support as well as product donations to support their fundraising activities further.





Community



TWE team members in Napa Valley with bluebird boxes



TWE team members in Napa Valley building bluebird boxes



TWE team members in France supporting the Initiatives Océanes



Barossa Vintage Festival

We have also supported local schools and universities by offering work experience opportunities and providing in-kind support in STEM and agricultural studies. We have collaborated with the University of Adelaide to foster talented students and support research into grapevine productivity, which will help deliver sustainable viticulture practices. In collaboration with the University of Adelaide's School of Chemical Engineering, TWE has been involved in the South Australian Government's Industrial Doctorate Training Centre (IDTC) scheme. In F23, TWE cofounded a PhD scholarship to support research in the field of biochar-based nutrient recycling technology in vineyard soils, which will aim to investigate enhanced nutrient retention and grapevine productivity. In addition, Penfolds, in collaboration with the China Agricultural University, has launched the One by Penfolds Fund, which will award College of Horticulture students with scholarships and grants.

To encourage our people to be connected to their local communities and become actively involved in fundraising and volunteering activities they are passionate about, we provided two days paid volunteer leave in F23 and the opportunity to boost their fundraising activities with matching donations.



GroceryAid Gold Award

GroceryAid is a charity which provides emotional, practical, and financial support for people working in the grocery industry in the UK. TWE's EMEA team was awarded a GroceryAid Gold Award, which is an award that highlights companies' participation in activities across awareness, fundraising and volunteering.





Producing sustainable wine



As one of the world's largest wine companies, we're well positioned to lead substantive change with our supply chain and business partners. We want every consumer to experience wine that is sustainably grown, made, and packaged. Our efforts here will span from ensuring our asset base and grower network meets sustainability criteria through to joint innovation on some of our shared challenges.

F23 highlights

- Maintained **sustainability-related certification** across 99.3% of our owned and leased sites globally
- Around 86% of fruit sourced from Australian growers is now **certified by Sustainable Winegrowing Australia**
- St Hubert's The Stag has **partnered with AirSeed** to support biodiversity regeneration
- We **implemented a closed loop carton program** at TWE Barossa packaging facility and achieved an overall recycling rate of around 97.1%

6

CLEAN WATER
AND SANITATION

7

AFFORDABLE AND
CLEAN ENERGY

12

RESPONSIBLE
CONSUMPTION
AND PRODUCTION

13

CLIMATE
ACTION

17

PARTNERSHIPS
FOR THE GOALS



Sustainable growing and production

Approach

We are committed to promoting and participating in sustainable winegrowing wherever we operate. Sustainable agricultural practices minimise the use of resources whilst seeking to maintain and improve soil health, biodiversity, access to clean water and habitat protection. These practices also enhance natural ecosystem services, which can buffer us from the impact of invasive species, catastrophic wildfires, excessive flooding, and extended drought.

Wine production can also be energy and water intensive. Understanding our impact allows us to adjust processes to increase efficiencies and reduce our footprint. Careful measurement of the resources we use, innovation and adoption of new technologies is a major factor in reducing our impact.



Certifications

In F23, TWE retained the following certifications for both owned and leased vineyards and wineries, and grower and bulk wine:

- Australia: Sustainable Winegrowing Australia (SWA)
- New Zealand: Sustainable Winegrowing New Zealand (SWNZ)
- Italy: VIVA Sustainable Wine and ISO 14001 – Environmental Management
- Americas: Certified California Sustainable Winegrowing (CCSW), Fish Friendly Farming and Napa Green Winery, Napa Green, Lodi Rules, Sustainability in Practice (SIP), Landsmart, Oregon LIVE, Leading Harvest
- France: Haute Valeur Environnementale (HVA) and ISO 14001 – Environmental Management.

Progress

TWE accesses grapes and bulk wine from a range of sources, including Company-owned and leased vineyards, grower vineyards and the bulk wine market varying by region. A fundamental component of our sustainable growing and production is the attainment and retention of third-party independently verified sustainability certifications across TWE's owned and leased vineyards and wineries. Where we can, we align these certification schemes around local sustainability standards, which require us to report annually on our practices and progress. This year we have focused our collective global efforts on increasing the certification of our owned and leased vineyards and wineries, in addition to our growers and bulk wine.

We have continued implementing our environmental management system and associated practices to safeguard our environmental footprint and implement continuous improvement. TWE is subject to various environmental laws and regulatory frameworks governing energy, water, waste, and greenhouse gas emission reporting across its global operations. [TWE's Environment Policy](#) sets out the company's commitment to environmental management, compliance, and continuous improvement. It reflects our enhanced commitment to sustainability and recognises the direct link between effective management of our environmental impacts and our overall business success. It is supported by a range of other policies, procedures, and management practices to ensure that we focus on resource efficiency and continuous improvement and that environmental laws and permit conditions are complied with across our global footprint.

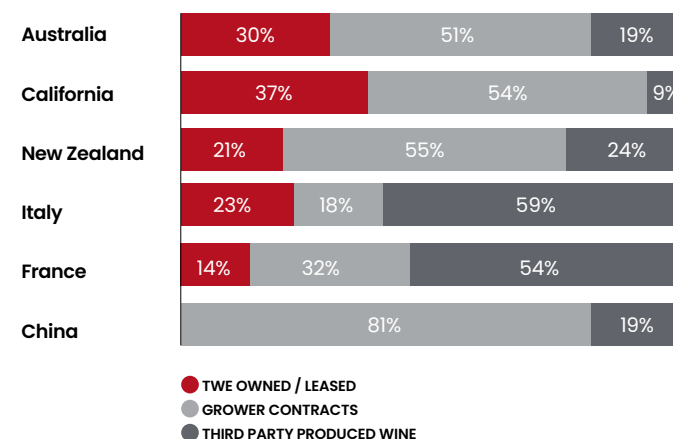
Our environmental management practices and protocols about how we respond, manage, and learn from environmental incidents. Two reportable environmental incidents occurred in F23 – one in Australia and the other in New Zealand. Each of the incidents were minor in nature and led to localised impact with no significant environmental harm¹. The responsible sites conducted thorough investigations and implemented corrective actions to prevent similar incidents from occurring in the future.

1. a: A diesel spillage occurred in Australia which led to localised soil contamination. b: Ponding occurred on an irrigation field in New Zealand as a result of a combination of factors including the harvesting of pine trees, topsoil loss from flooding and compaction from subsequent earthworks

Grape growing and sourcing

TWE has a variety of sources of fruit including owned and leased vineyards, contracted growers, and the bulk wine market – see below. This approach provides flexibility through the economic cycle and assists with managing the risks arising from agricultural factors beyond our operational control such as pests, disease, and extreme weather conditions. TWE's owned vineyards ensure access to super premium fruit from key viticultural regions including the Barossa Valley and Coonawarra in Australia, Marlborough in New Zealand, Napa Valley in California, and the Bordeaux region of France. These vineyards contribute to some of our most prestigious wines.

TWE's regional sourcing model*



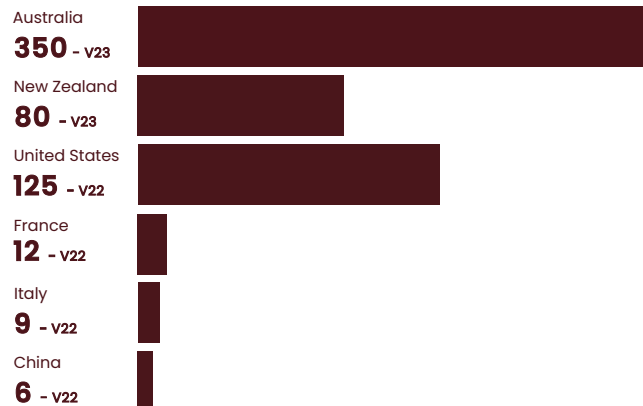
*Regional sourcing is historical data for the northern hemisphere 2022 vintage and the southern hemisphere 2023 vintage.



Sustainable growing and production (continued)

Our grape growing partners are an important pillar of unlocking growth and resilience across our business and mitigating risks such as the variable weather cycles and climate change. Our wines rely on grapes sourced from our directly managed vineyards and grower vineyards. Our global grape growing partners are highlighted below. Collaboration with our growers is key to supporting sustainable growing outcomes, and achieving region-relevant sustainability certification.

Grape growing partners



Winton Wetlands AirSeed partnership

TWE's brand, St Hubert's The Stag, is supporting the largest biodiversity restoration project in the Southern Hemisphere through its partnership with AirSeed and their combined goal to plant 100,000 seed pods containing a mix of wetland plants, native grass species and River Red Gums. Winton Wetlands Restoration Ecologist Dr Lisa Farnsworth said the changing climate was making the cycle of wet and dry seasons more unpredictable for the wetlands:

"Long-term change in biodiversity depends on conservation outcomes like seeding and planting, and using drone technology means we can reach more areas than we'd be able to on foot or in buggies. Winton Wetlands is an ecologically important area that's home to hundreds of bird species, mammals including squirrel gliders and native fish. River Red Gums are a keystone species for restoration, and the seeds being planted in this pilot will eventually create a vegetation canopy for low-lying swamp areas."



AirSeed seed pods



Semi-autonomous over-row tractor at Chateau Tanessan

Autonomous vehicles TWE's vineyards of the future

This year, TWE made a series of investments in Australia, Europe, and the US into robotic and electrified vineyard machinery from a range of manufacturers including Agtonomy, GUSS, Monarch Tractor, Robotics Plus, SwarmFarm, VitiBot and Yamaha. These rapidly emerging platforms provide the promise of increased sustainability through electrification and carbon reduction, the ability to apply softer chemistry to growing vines, and the removal of workers from higher risk situations such as steep slopes. Additionally, they will provide greater efficiency, the opportunity to upskill workers and attract new talent, and the ability to collect passive data to drive better farming decisions. In the US more than 325 hectares were farmed autonomously in F23, with further expansions in the near future.



Sustainable growing and production (continued)

Certifying our wines

Over F23 we maintained sustainability certification across 99.3% of our owned and leased sites globally. The one exception was a newly acquired property in Australia, Rotherwood Vineyard, which is planned for certification in F24. 100% of New Zealand operations were certified and 100% of owned and leased vineyard blocks in the US were certified by one or more sustainability certification programs². In Australia we maintained Sustainable Winegrowing Australia (SWA) certification at approximately 98.7% of our owned and leased operations.

In 2021, TWE sought to enhance the sustainability of our supply base, focusing on increasing the sustainability certification of our grower fruit and bulk wine purchases. Collaboration with growers and bulk wine providers accelerated the adoption of region-relevant certification, with 86% of fruit sourced from Australian growers now certified by SWA. This significant progress means we can soon use trust marks on many

of our brands to give consumers greater confidence that our wines have been produced sustainably. The South Australian Wine Industry Association recognised the leadership role TWE played through our activities to raise awareness of the certification scheme and the support provided to ensure its adoption.

To date, we have incorporated trust marks on labels for two key Australian brands – Wynns and St Huberts. In the US, the Certified California Sustainable Winegrowing (CCSW) trust mark addition is being planned for a further 40 products at the next vintage release. In Italy, the entire Castello di Gabbiano Estate is certified with the VIVA Sustainability standard. There are four wines that are made with 100% estate grown fruit that have the VIVA logo on their labels³, with these wines being exported globally. In France, all of the company-owned vineyards (Cambon, Belle-Vue, and Lanessan) have been

certified with High Environmental Value Certification (HVE) and ISO 14001 Environmental Standard. There is a focus on transitioning to organic farming, with Cambon already certified organic from vintage 24 and Belle-Vue from vintage 25. The HVE logo is currently being used on all wine labels of these brands. Refer to the imagery of these certified labels from across these different geographies below.

TWE remains an active Founding Member of the Sustainable Wine Roundtable and is contributing to its mission to develop a comprehensive, all-of-supply-chain, Global Reference Framework. We are committed to ensuring that our certifications are internationally recognized as best-practice by retailers, and readily understandable to our consumers, regardless of where they are purchased.

Etude has now included CCSW on the Deer Camp Vineyard Pinot Noir 2021 wine label



Castello di Gabbiano has now included VIVA Sustainable Wine certification on the Bellezza Chianti Classico 2018 wine label



Chateau Cambon La Pelouse has now included the HVE logo on the Cru Bourgeois Exceptionnel Haut Medoc 2018 wine label



St Huberts has included the SWA label on The Stag Victorian Rose 2022 wine label



Wynns has included the SWA label on Wynns Cabernet Shiraz Malbec Merlot 2021 wine label



2. US certification programs include Certified California Sustainable Winegrowing, Napa Green, Lodi Rules, Sustainability in Practice, Fish Friendly Farming, Landsmart, Oregon LIVE, and Leading Harvest.
3. These labels are Castello di Gabbiano Chianti Classico, Castello di Gabbiano Classico Riserva, Castello di Gabbiano Bellezza, and Castello di Gabbiano Alleanza.



Research and development

Approach

TWE continues to focus on research and develop opportunities to develop new and innovative product offerings, improve our product quality and supply efficiencies and reduce risk. We maintain key partnerships with globally recognised research institutes and industry experts to ensure that research priorities align with TWE and industry requirements and inform our business of the latest scientific and technological developments.

Progress

In F23 we increased our focus on researching opportunities to mitigate the impact of the changing environment on our viticultural footprint, with an objective to improve water availability and utilisation, manage vineyards to be more heat and drought tolerant, and improve our modelling of long-term climate predictions. Across this period, we also improved our production methods and winemaking techniques to advance our offering of no and low alcohol wines.

We continued to focus on using technology to progress digital platforms and management of big data to deliver improved forecasting of vineyard production and changing weather patterns to protect our crops and improve overall operational efficiencies. Our research focus on automation has been extended to evaluating smart irrigation solutions, use of autonomous vehicles and technical developments in implements to minimise weed spread and chemical use on vineyard floors. Further detail is found in the [pesticide use and management section of this report](#) on the following page.



Eden Valley vineyard where drone technology has been adopted



Pesticide use and management

Approach

Pesticides are used to help protect and enhance crops against insects, weeds, microorganisms, and other pests and disease pressures. Some pesticides have negative effects upon humans, non-target species, soil, and aquatic life, adversely affecting the environment. Pesticide use is balanced with water demand, carbon footprint, crop health, team member wellbeing and production efficiency to provide the lowest lifecycle impact of growing grapes and making wine.

Progress

TWE's approach to pesticide use and management seeks to balance the protection of human health, environmental impact, and the quality of our fruit. In many cases, prioritising these three areas and minimising our agricultural inputs can lead to better outcomes for both people and the environment. The ongoing transition and uptake of electric and autonomous farm equipment (such as autonomous tractors and drones) reduces the carbon footprint and cost of applying organic materials and mechanical weed control, and improving our overall efficiency. We also use traditional techniques such as grazing to reduce the need for additional pest control. TWE is committed to continually perfecting this balance by leveraging the ongoing and evolving innovation, research, and development projects underway (both internally at TWE and at an industry level) to find new techniques and approaches to ensure quality whilst being active in, and mindful of, industry trends and the latest scientific and regulatory advice.

Where chemical inputs are necessary, their use is regulated globally across our operational sites. At a minimum, we abide by the relevant legislation in the jurisdictions in which we operate. Still as a business that exports its products, we must also abide by the legislation of where our goods might be exported. This results in an approach that follows the most stringent requirements and the latest health advice in relevant jurisdictions.

We use an integrated pest management approach combining the use of biological, cultural, and chemical practices to control pests in our vineyards. Our viticultural standards are aligned with best practice and incorporate mechanical and chemical interventions to ensure the most effective and balanced outcome – that is, one that minimises the impact of our chemical footprint on the environment whilst maintaining crop protection.

This approach involves:

- The use of mulch and cultural control methods such as pruning techniques, irrigation, and canopy management as a first line of defence against pests and diseases
- Minimising the use of any chemical input where chemical sprays are necessary and rotating these to avoid resistance. This approach is more effective in balancing costs and outcomes and can also help reduce our use of fossil fuels by limiting tractor utilisation
- Ensuring that every chemical application on our vineyards is recorded in our operational traceability systems, which helps to ensure compliance with the various end market requirements
- Actively participating in a variety of industry forums – such as the Agrochemical Reference Group in Australia and The Wine Institute Technical Advisory Committee in the US – to build our understanding and collectively agree on approaches. This also allows us to monitor emerging issues and trends and the latest scientific advice
- Support research through groups such as the American Viticulture Foundation and Pierce's Disease and Glassy Winged Sharpshooter board to discover novel techniques for reducing the impact of invasive pests and grapevine disease
- Continued investment in innovation, for example, focusing on developing disease-resistant varieties requiring less chemical management while also delivering high yielding and quality fruit. In F23 we expanded the pilot of our herbicide-free farming throughout our Rutherford ranches in Napa, joining the standard practice that occurs in our Italian vineyards

- In Australia we continued to collaborate with CSIRO to progress our evaluation of disease resistant varieties which showed promising results in a high disease risk season
- Weather forecasting, real-time autonomous disease monitoring and modelling can also help to manage risk and frequency of chemical applications, ensuring that the minimum quantity and frequency are applied to maintain effective control.



Drone being used for spraying at our Eden Valley vineyard



Pesticide use and management (continued)

Managing health and safety

Ensuring health and safety around pesticides and other chemicals is a priority. Our general approach to health and safety is outlined in the [health, safety and wellbeing \(HSW\) section of this report](#), however specific to the management and use of pesticides across our operations we ensure our employees have the required health and safety practices in place, in accordance with the applicable processes and HSE guidelines, whilst handling pesticides and other chemicals. This includes employees having the required training and correct accreditation (such as ChemCert in Australia), wearing the correct personal protective equipment (PPE) and know how to use it (Standard Operating Procedures), having the relevant information (Material Safety Data Sheets) available, and abiding by regular risk assessments.

Ensuring consumer health

In addition to the range of methods we use to ensure product quality and safety, we proactively monitor and test our products to ensure that they meet requirements. This testing is completed on a random basis and this testing involves residue testing random fruit selections as it enters our wineries. The risk is elevated during high pressure seasons, such as where rain is close to picking, so we increase our sampling and testing regime to confirm compliance to the respective market-based residue standards. The finished product is also tested against residue limits to confirm the effectiveness of spray controls and the degradation of agricultural residues.



Wyorns vineyard in Coonawarra



Responsible supply chain

Approach

In F23 we purchased goods and services worth approximately \$1.7 billion, sourced from around 50 countries. Given this large global supply footprint, many of our social, ethical, and environmental impacts reside as much in our supplier relationships as in our own activities. We believe that by working closely with our suppliers we can reduce our impacts, manage risk and position for growth. We take care in selecting to ensure constructive, long-term relationships with suppliers and partners that share our commitment to socially responsible and sustainable business practices.

Our approach includes:

- Clearly defined acceptable standards for suppliers via the Responsible Procurement Code (RPC)
- Working with key or high-risk suppliers to improve performance and to ensure key risks and opportunities are identified and managed
- Ensuring a fit for purpose risk assessment platform to address key risks in our supply chain.

Performance

In F23, over 90% of our procurement spend was in 4 countries; Australia, US, UK, and New Zealand. This spend was across more than 5,000 suppliers, although 67% of our spend was with our top 140 suppliers.

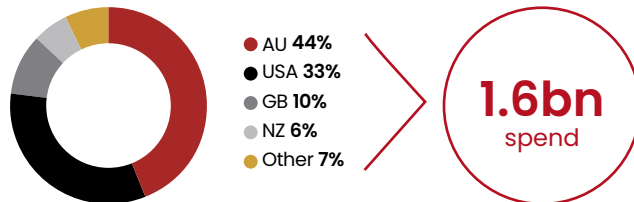
Supplier Governance Framework

Over F23 we continued to improve our Supplier Governance Framework, which assesses suppliers against seven categories of risk (on the following page). This involved implementing a new operating model for procurement that gave additional focus to effective risk management, sustainability, and governance, of our suppliers. We continue to improve our strategic approach to key supplier relationships to enable joint business planning, and a focus on achieving sustainable packaging and circular economy outcomes. As part of this process review and/or update relevant policies, such as our Procure to Pay Policy and our RPC.

In F23 an internal working group was established to refine the supplier governance framework with an objective to simplify supplier onboarding while strengthening the controls across the seven risk categories. The group has designed a future operating state which is planned to go live in F24. This framework will meet our governance objectives as well as increase our ability to more closely manage high risk suppliers.

Responsible Procurement Code

TWE's RPC sets out its expectations for suppliers across the areas of human rights, employee benefits (covering wages, conditions and working hours), health and safety, discrimination as well as environmental impacts. The RPC is provided to all suppliers during supplier selection, embedded into TWE contract templates, TWE Purchase Order terms and conditions, as well as being a compliance requirement for all new suppliers. Failure to meet these requirements will result in remediation actions which may include termination of the relationship between TWE and that supplier.





Responsible supply chain (continued)

Risk category	We have expectations that suppliers:
Conduct	Comply with all applicable laws and regulations as a non-negotiable minimum and we prefer to work with partners that demonstrate leadership in how they act in an ethical, fair and responsible manner.
Business continuity	Have resources and plans in place to understand, prepare, and respond to disruptions to minimise the impacts on continuity and quality of supply.
Bribery and corruption	Do not tolerate any form of bribery and corruption and promote a culture of compliance.
Modern slavery and labour practices	Respect the human rights and labour rights of the workers in their operations and supply chain.
Health and safety	Provide a safe and healthy workplace for their workers.
Environmental management	Minimise the environmental impacts of their operations, products, and services and have environmental practices and policies in place.
Privacy and information security	Maintain standards to safeguard the security, confidentiality and integrity of information assets and resources.

Supplier risk assessment

In F23 TWE continued to utilise our supplier onboarding platform for all new suppliers. This platform enables us to leverage an intelligence database to determine the level of risk posed by a supplier across several factors including labour issues, human rights, anti-bribery and corruption. Following the first year of operation we further calibrated this risk assessment tool to incorporate identified insights and opportunities to streamline the process. Should risks be identified, the system flags the appropriate people within the business to take action prior to onboarding a supplier. These actions include supplier adoption of the RPC, education of risk mitigations and corrective steps, and contract terms adjusted to respond to the identified risk.

During F23 we assessed an additional 675 new suppliers¹ for their ethical, social, and environmental performance, with 499 of these approved and activated². Out of these activated suppliers, 326 higher risk suppliers have been endorsed with the risk(s) identified and actioned accordingly. The remaining suppliers are currently pending remediation and approval.

The most common areas of risk identified through this assessment related to smaller organisations not having clearly documented policies (e.g. in relation to issues like anti-bribery and corruption); in known higher-risk categories such as cleaning services, security and temporary labour hire for human rights risks the range of controls at supplier's end did not always meet our expectations. Examples of required remediation include suppliers adopting relevant policies such as the TWE RPC, as well as being required to provide greater evidence of controls and activity to meet our incremental due diligence questioning. As we look to implement our refreshed governance model we have committed to complete supplier risk assessments for our contracted spend. We will establish and run this risk assessment process and discontinue the current approach from F24.



Human rights

Refer to the [managing human rights section of this report](#) for further information on how we manage human rights and modern slavery across our business.

1. The total number of suppliers assessed to date is 2,012.

2. In total we have approved and activated 1,479 suppliers (74%).



Sustainable packaging and circular economy

Approach

We continue to tailor recyclable packaging options to meet consumer needs and work with suppliers to build awareness of our ambitions, improve data and promote circular economy outcomes and sustainable packaging design. Sustainable Global Packaging Guidelines help to inform choices amongst the business, and we continue to refine and improve governance.

Progress

Despite not achieving our commitment to implement 100% recyclable, reusable, or compostable by the end of CY2022, we have continued to make good progress over the year in reducing the environmental impact of our packaging. The year has seen significant shifts and shocks to the post-consumer recycling industry in many of our markets – such as the effective cessation of soft plastic recycling in Australia. We remain committed to the fact that packaging should be minimised, and where packaging is used, it must be designed to be recovered and incorporate increasing levels of recycled content wherever possible.

We have delivered a number of responses that address the use of problematic materials (i.e. those that cannot be easily recycled) over the past year. To help achieve greater alignment, our internal Sustainable Packaging Steering Committee, formed in 2022, continue to drive action and focus across our organisation. It is a multi-functional steering committee helping to deliver TWE's sustainable packaging strategy with not only a focus on recyclability, reusability, and composability of our packaging materials but also a focus on reducing our material usage and overall carbon footprint. A key challenge is the availability and currency of data.

Improving recyclability

There are a variety of problematic materials used in wine packaging; however, the extent of these varies by location, given the range of post-consumer recycling schemes that operate across our markets of manufacture. This year, we have worked to address several problematic materials used in our products, including:

- Transitioned from single pack polystyrene shippers to a 100% cardboard packaging material that has been designed to have the same thermal properties
- Developed exit plans and began to phase out PET sleeves on bottles for our brands who use them
- Completed an end-to-end review on Penfolds Bin Series giftboxes to increase recyclability by removing magnets, laminates, plastic fitments, and tertiary plastic transport sleeves
- Conducted several sensory trials on alternate closures (screwcaps), capsules and bagnums (1.5L pouch) to continue to improve their recyclability without compromising on quality.

We continue to innovate and find ways to reduce the total use of materials where we can. For example, the introduction of an integrated handle-less design across some of the bag-in-box range represents a saving in plastics used, increased recyclability and a more versatile handle for consumers. We continue to trial new materials across our global operations to ensure they meet a range of sensory and quality parameters.

There are several materials we continue to find challenging to shift, such as the liners in our screwcaps and crown seals and specific issues in some markets (for example, cork in Australia). These problematic materials typically represent an industry-wide problem and an area where further research and development is needed. Our objective is to find alternatives that meet our packaging sustainability criteria but ensure the quality of our wines is protected today and into the future. To succeed, we must work closely with industry and supplier partners to ensure they are aligned with TWE's principles and working together to deliver against commitments.



Squealing Pig 1.5L bagnum pouch

We have set a new commitment to 'develop solutions to known challenges to further progress our ambition of 100% recyclable, reusable or compostable packaging by the end of CY2025' to reflect this.

We believe that working on those key challenges as an industry will significantly increase our chance of success. In Australia over the past year, we have worked with the Wine Industry Sustainable Packaging Alliance (WISPA) to help identify and develop a post-consumer cork recycling service. More work is required, but we are optimistic that a commercial solution (i.e. a product) can be found to this environmental challenge.



Sustainable packaging and circular economy (continued)

Recycled content

The most significant driver of progress is glass bottles; we have continued striving to increase recycled glass (cullet) content bottles. Increasing recycled glass content can change the colour profile of the resulting bottle. As a result, we have supported adjusted bottle colour specifications so that suppliers can increase the amount of recycled content more easily. The amount of cullet in glass bottles varies across our operations from around 25–75% depending on colour and location.

There are continuing challenges for the industry in securing high-quality volumes of recycled content for inclusion in the manufacturing process, given variations in local recycling rates. For example, we have not consistently found a suitable, sustainable supply of recycled materials across our operating locations. In Australia, we have successfully trialled increasing recycled content for our labels up to 99%. However, the supply chain is not yet mature enough to implement this at scale. We expect to see growing momentum in this space as systems mature and circular economy initiatives become more widespread. Global container deposit schemes are also evolving, and TWE is participating in policy debate around their development.

Closed loop solutions

Over the past number of years we have worked with our key suppliers to implement closed-loop packaging solutions. At the same time, the shape of our business has changed, and there is a growing emphasis on in-market-bottling for some regions and entering new geographies – such as China. This has added extra complexity and challenge to achieving our commitment. Our experience has been that successful execution of this target requires several factors to come together, including a suitable volume of waste material, close physical proximity to supplier locations that have on-site production, and an aligned intent with our suppliers to collectively achieve sustainable outcomes.

In our owned operations, commitments like these are proportionally easier to implement. For example, at the Barossa Packaging Centre (BPC), we have implemented closed-loop programs as per our commitment (glass in 2021 and carton in 2023) and have achieved an overall recycling rate of 97.1% at the site.

However, the range of regional arrangements, such as contractual co-packing or the distance involved between our production and supplier sites, means cost and fuel use (and subsequent carbon emissions) would far outweigh any environmental benefit achieved in implementing such programs. In other locations, the volume of cullet we produce is too small to be considered by our suppliers. Looking ahead, we will continue to influence specific initiatives relevant to our packaging operations.



Best in glass

The reality is that glass is the ultimate vessel for wine, and reducing its weight is one of the quickest steps to reducing its carbon impact (alongside increasing recycled content). A number of glass lightweighting initiatives have been implemented over the year. These include:

- Transitioning about one-third of our Australian sparkling range to a bottle that is 100g lighter. This has reduced the greenhouse gas emissions associated with each bottle by 10% compared to the previous bottle, saving around 168.5 tonnes of CO₂e emissions in F23
- St Huberts The Stag is leading with its focus on protecting nature by having made a number of sustainable brand packaging choices. Over the year, it has transitioned to a lighter bottle that we anticipate saving around 200 tonnes of glass. They have also removed the hood on the sparkling range to reduce litter and selected a more lightweight board grade for cartons
- We also reduced the bottle weight across much of the Penfolds range produced in South Australia, with many of the super luxury tier (St Henri, RWT, Magill Estate, Bins 707 and 169) reducing 94g per unit for screw-cap and 62g per unit for cork. The iconic port bottle has been reduced in weight by 50g which leads to around 9% greenhouse gas emission reduction compared to previous bottle
- In the US we have incorporated glass weight into our annual product strategy review. This creates another opportunity to address glass weight and lighten bottles. In F23, we have identified savings for multiple products that will be rolled out across the coming years.

Waste management

In F23, TWE managed to divert 95.4% of our waste from going to landfill. This achievement highlights our dedication to waste management practices that prioritise waste avoidance, reduction, reuse, and recycling.

A substantial amount of waste produced during winemaking comprises organic materials such as stalks, stems and marc. Some of this waste is given to local livestock owners as supplementary feed or taken for local composting.

The grape skins and seeds are primarily sent for further processing to extract more value, such as producing grape-derived alcohol and tartaric acid. The wineries, packaging centres, cellar doors and office sites actively separate cardboard, glass, plastic and organic materials to dispose of them appropriately, including reuse, recycling and composting.

Visy cardboard recycling in Australia

TWE has partnered with Visy to deliver a more sustainable approach to carton packaging for our TWE Barossa packaging and winery sites. Our supplier Visy is a leader in the recycling industry, focusing on integrating closed loop manufacturing and resource recovery. Visy achieves greater material recoverability through investments, the innovation of new techniques, recycling infrastructure, and manufacturing. Since the implementation of this initiative, we have improved the recycled content of some of our products. Cartons can be further recycled and re-made back into new packaging to help divert waste from landfill. This innovation is better for TWE products, our customers, and the environment.



Appendix



Disclosure against the TCFD recommendations, our associated approach and F23 progress

TCFD recommendations	Summary of our approach and F23 progress	Location
Governance: Disclose the organisation's governance around climate-related risks and opportunities.	Our approach: <ul style="list-style-type: none"> Climate-related risks and opportunities are overseen by the Board, the Audit and Risk Committee (ARC) and a sub-committee to the Board, the Wine Operations and Sustainability Committee (WOSC). The Board is updated at least twice each year on specific climate-related risks, emerging themes, and areas of progress Responsibility for climate-related risks and opportunities applies to all business areas, and the Global Sustainability team manages the strategic response and overall direction Progress this FY: <ul style="list-style-type: none"> In F23, we delivered specialist training for Directors on key ESG trends, with particular insights on climate-related risk, nature, and water stewardship. 	Corporate Governance Statement: Section 2: Role and responsibilities of the Board Sustainability Report: Corporate governance ; Risk management ; Climate risk and GHG emissions
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.	Our approach: <ul style="list-style-type: none"> Climate adaptive multi-regional sourcing is embedded into our business strategy We have identified climate-related risks and opportunities through global and site-based CSA modelling conducted across our viticultural operations. There is ongoing collaboration with universities and industry experts to research, trial and ultimately implement new and emerging technologies Further work is required to begin quantifying the financial implications of climate change (and associated material climate-related risks and opportunities) Progress this FY: <ul style="list-style-type: none"> In F23 we developed a net zero roadmap, which included a high-level opportunity assessment to reduce our scope 1 and 2 emissions across our global footprint and associated investment. As part of this, we began delivering small-scale efficiency projects. 	Sustainability Report: Material topics and commitments ; Water stewardship ; Climate risk and GHG emissions
Risk management: Disclose how the organisation identifies, assesses, and manages climate-related risks.	Our approach: <ul style="list-style-type: none"> TWE has identified climate change as a material risk to the business. Therefore, ongoing assessment and management is in place and is governed by the WOSC, Board and ARC TWE's Enterprise Risk Management (ERM) Framework outlines the process to identify and monitor climate-related risks. We have assessed various climate-related risks and opportunities across our global operations using CSA modelling We are also seizing climate-related transitional opportunities – for example, our \$1.4 billion refinancing under a Sustainability Linked Loan Progress this FY: <ul style="list-style-type: none"> We conducted site specific assessments across our viticultural operations in Australia and the US, and assessed a range of metrics such as temperature, water, and the suitability of grape varieties to growing season temperatures more specifically Focusing on the Barossa, we undertook a deep dive on a project future of winegrowing Shiraz in this region. 	Corporate Governance Statement: Section 2: Role and responsibilities of the Board ; Section 3: Risk management and internal controls Annual Report: Material business risks Sustainability Report: Risk management ; Water stewardship ; Climate risk and GHG emissions
Metrics and targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	Our approach: <ul style="list-style-type: none"> We have a series of targets in place to decarbonise our operations; we are aiming for 100% renewable electricity by 2024, and net zero for our remaining scope 1 emissions by 2030. These voluntary targets are expected to exceed any future policy or regulatory requirement in Australia We continue to track progress against our Sustainability Linked Loan and associated performance milestones Our KPIs disclosed within this report outline the key metrics, targets and associated performance for F23 Progress this FY: <ul style="list-style-type: none"> We have disclosed greater detail on the progress and associated capital investment against associated with our renewable electricity and net zero roadmaps, and the CSA viticultural assessments conducted at a global and site level In F23, we completed our first CDP climate change disclosure (based on the F22 reporting timeframe), which includes a range of climate-related metrics and performance. 	Sustainability Report: Material topics and commitments ; Key non-financial performance indicators ; Water stewardship ; Climate risk and GHG emissions

Our F24 commitments



**TREASURY
WINE ESTATES**

Building a resilient business		
	Water stewardship	Install smart water meters at 100% of high & medium risk sites by end F25
	Climate change and GHG emissions	100% renewable electricity by 2024 Net zero by 2030 (scope 1 and 2)
Fostering healthy and inclusive communities		
	Health, safety and wellbeing	Reduce our SSIFR 3 year rolling average by 20% (to 0.72) with a focus on active participation in our safety culture programs
	Consumer health and responsible drinking	100% of TWE brand product labelled from 2025 will include energy information (excluding products below 375ml) 100% of TWE brand product labelled from 2025 will include a general health warning
	Inclusion, equity and diversity	50% women in senior leadership by 2025 42% female representation overall by 2025 30% female representation on Board
Producing sustainable wine		
	Sustainable growing and production	Continue to implement our plan to increase sustainability certification of our brands
	Responsible supply chain	Complete supplier risk assessments for 100% of contracted spend by F24
	Sustainable packaging and circular economy	Develop solutions to known challenges to further progress our ambition of 100% recyclable, reusable or compostable packaging by end of CY2025 100% of product packaging to comprise 50% average recycled content by end of CY2025