

Race to Zero Plan & Pledge - Miguel Torres SA

2030 target: 60% reduction vs 2008 – 2040 target: NET ZERO

Target Setting Baseline Year & Carbon Footprint: 2008 – 104,779 TnCO_{2e}

Transition Plan Baseline Year & Carbon Footprint: 2021 – 60,095 TnCO_{2e}

According to our commitment to Science Based Target Initiative (SBTi) and the SBTi's FLAG Protocol, Net Zero means: 72% reduction on all three Greenhouse Gas emissions Scopes (including all direct & indirect emissions)

- This Transition Plan will be reviewed on a 5-year cycle, in line with the Paris Agreement -

Miguel Torres SA Transition Plan - High-Level Summary Towards 2030

	Initiative Description <small>(Also include actions to phase out non-CO₂ gases other than methane)</small>	Planned Emissions Reductions vs 2021 (TnCO _{2e}) <small>(Specify whether within value chain/territory or additional contributions to Global mitigation)</small>		Up Front Capital Investment <small>(In local currency)</small>	Detail on How Activity will be Financed	How Activity Differs from Business as Usual <small>(With sustained increases in non-fossil CAPEX and/or investment in non-CO₂ GHG reduction)</small>
		Internal (Scope 1, 2)	External (Scope 3)			
1	Avoiding land use change	1,209		N/A	N/A	N/A
2	Electric Tractors & Minimize km	408	95	1M€ - 3M€	Potentially partially subsidized. Tested several and already booked the first unit	Regenerative Viticulture implies less kilometres made with the tractor given that less treatment is necessary. Electrical tractors are more suitable for a regenerative viticulture approach, lowering the total GHG emissions involved
3	Replacement of cooling F-gas systems by cooling water	257		Pending full study	N/A	F-Gas systems are simpler and easier to operate but potentially induce fluorinated gas leakages. Working with cold water avoids such leakages although its operation and maintenance is more difficult
4	Electric fleet (corporate & sales agents' cars)	89	23	N/A (leasing plan)	N/A	Increased complexity to ensure appropriate charging points at the households. Familia Torres already counts with 50 charging points
5	Carbon Capture from fermentation and Reuse (CCR) as inert gas	33		140,000€ - 200,000€	N/A	Applying a circular economy at the main winery, which reduces the amount of CO ₂ bought to a third party which comes from fossil sources
6	Back-up Natural Gas Boiler Optimization	264	45	400,000€ - 800,000€	N/A	N/A
7	Increased solar energy self-consumption → target 55% electricity self-consumption by 2030 at main winery, in Pacs del Penedès	652		4.5M€ - 6M€	Potentially partially subsidized, but very limited	Solar power is not anymore installed in flat rooftops but in more complex spaces, increasing project costs. Also, batteries will be needed to avoid excess electricity flowing into the public grid. Some projects will be installed in places that help reduce the solar radiation in the winery, thus helping reduce energy consumption
8	Glass bottles weight reduction + reuse opportunities + reduced carbon footprint of our suppliers		5,374	N/A	N/A	Strengthening the link with our glass suppliers to apply very light weight wine bottles in our portfolio. Currently, the average is already below 420gr/bottle. Some of our 75cl weight as low as 370gr. Currently testing reutilization schemes (REBO2VINO project). Electric glass melting ovens are already under construction
9	Distribution & supply: increasing loading capacity, bulk wine operations, railway prioritization & suppliers' own improvement		2,425	N/A	N/A	Our clients choose the distribution modality; therefore, we have to convince them to choose the train. Bulk wine also saves emissions since it avoids sending glass bottles
10	Grape suppliers: regenerative viticulture, fuel reduction, etc.		1,033	N/A	N/A	N/A
11	Regenerative Organic Viticulture: CO ₂ reduction of fertilizers	106	256	N/A	N/A	Regenerative Viticulture will, little by little, improve soil fertility, thus reducing by 30% the need of organic fertilizers in the mid-term
12	Planting in <i>gobelet</i> system instead of trellising system		159	N/A	N/A	We avoid investing in trellising and we reduce the tractor use because this training system requires manual management. More man-labour is needed
13	Reforestation effort on own land in Chile and Spain [Natural-based solutions]		8,196	2.75M€ - 3.75M€	N/A	Investing in our own piece of land but not for production purposes. Instead, reforestation seeks to capture CO ₂ from the air, since trees are the perfect engine to do so
14	Regenerative Viticulture CO ₂ sequestration in our own vineyards [Natural-based solutions]	600		N/A	N/A	It implies a holistic approach of organic viticulture which not only considers the organic principles but the soil health and regeneration. Considered 0,5Tn/ha absorbed every year
Total		3,018	9,410			
Total considering Natural-based solutions		3,618	17,606			

Metrics & Targets Timeline

	Initiative Detail (include Metrics & Targets)	Implementation Teams/Departmental Leads	Year 1 (Plans for measuring & monitoring progress)	Year 2-3	By 2030	By 2040
1	Avoiding land use change (TnCO _{2e} ; timeline: 2023-2030)	Viticulture Department	Expecting 15% reduction → just need to maintain avoiding land use change	Expecting 33-46% reduction → just need to maintain avoiding land use change	Expecting 100% reduction → just need to maintain avoiding land use change	N/A
2	Electric tractors & Minimize km (TnCO _{2e} ; timeline: 2023-2030)	Viticulture Dept / Engineering Dept / Climate Change Dept	Expecting 8% reduction due to acquiring 1-2 electric tractors + reducing the km done by all the rest thanks to the regenerative viticulture approach	17% reduction while applying first set of electric tractors and regenerative viticulture approach	75% reduction expected	100% reduction expected given that all electric tractors will be powered by renewable energy only
3	Replacement of cooling F-gas systems by cooling water (TnCO _{2e} ; timeline: 2023-2030)	Engineering Department	Expecting 6% reduction	11% to 17% reduction in emissions derived from F-gas leaks	50% reduction expected	We expect to get rid of 100% cooling F- gases causing global warming thanks to technical improvements and upgrading current chillers
4	Electric fleet (corporate & sales agents' cars) (TnCO _{2e} ; timeline: 2023-2027)	Purchasing Department	Expecting 14% reduction	26% to 39% reduction on emissions if kilometrage is maintained stable	90% reduction expected. Some all-wheel drive heavy agri-vehicles might be maintained diesel	100% reduction
5	Carbon Capture from fermentation and Reuse as inert gas (TnCO _{2e} ; timeline: 2023-2030)	Engineering Department / Climate Change Department / Winemaking Department	Expecting 33% reduction	Expecting 66% reduction	Expecting 100% reduction	We expect to develop ways to transform CO ₂ into other products like sodium carbonate and reduce the carbon footprint of our glass providers thanks to our own fermentation CO ₂
6	Back-up Natural Gas Boiler Optimization (TnCO _{2e} ; timeline: 2023-2030)	Engineering Department	Expected reduction of 0,5% of the Natural Gas emissions	N/A	Substitution of the Natural Gas Boiler by an additional biomass boiler or biogas boiler. Expected 95% reduction	Expected 100% reduction of the emissions related to the heating demand of the winery by using biogas and/or increasing the biomass capacity
7	Increased solar energy self-consumption → target 55% electricity self-consumption by 2030 at main winery, in Pacs del Penedès (TnCO _{2e} ; timeline: 2023-2030)	Engineering Department	Expecting 7% reduction on scope 2 (although all electricity purchased by MTSA comes from renewable certified sources already, but we don't consider them 0 emissions)	Expecting 21% Reduction	Expecting 51% Reduction	100% reduction expected, relying on efficient storage solutions, or using the grid as backup
8	Glass bottles weight reduction + reuse opportunities + reduced carbon footprint of our suppliers (TnCO _{2e} ; timeline: 2023-2030)	Purchasing Department / Product Engineering / Marketing / Quality Departments	Expecting 4% reduction on greenhouse gas emissions	Expecting 9-13% reduction on greenhouse gas emissions	Expecting 40% reduction on greenhouse gas emissions	Expecting 75% reductions of the emissions related to packaging material thanks to electric furnaces installed at the glass factories
9	Distribution & supply: increasing loading capacity, bulk wine operations, railway prioritization & suppliers' own improvement. (TnCO _{2e} ; timeline: 2023-2030)	Logistics Department / Supply Chain Dept / Sales Dept / Winemaking Dept / Quality Dept	Expecting 1% Reduction	Expecting 1-5% Reduction	Expecting 25% Reduction	Expected 50-70% reduction of the emissions related to distribution thanks to electrification, synthetic fuels etc. This an estimate that will be updated according to global commitments in the logistic sector
10	Grape suppliers: regenerative viticulture, fuel reduction, etc. (TnCO _{2e} ; timeline: 2023 - 2030)	Viticulture Department	Expecting 2% Reduction	Expecting 4-6% Reduction	Expecting 10-15% Reduction	Expected 30-60% reduction of the emissions related to grape suppliers thanks to regenerative viticulture and its potential to sequester CO ₂
11	Regenerative Viticulture: CO ₂ reduction of fertilizers (TnCO _{2e} ; timeline: 2023-2030)	Viticulture Department	Expecting 3% Reduction	Expecting 7-10% Reduction	Expecting 30% Reduction	Expected 80% reduction of the emissions related to fertilizers due to soil regeneration
12	Planting in <i>gobelet</i> system instead of trellising system (TnCO _{2e} ; timeline: 2023-2030)	Viticulture Department	Expecting 3% Reduction	Expecting 7-10% Reduction	Expecting 30% Reduction	Expected 50% reduction in emissions related to the manufacture of trellises
13	Reforestation effort on own land in Chile and Spain [Natural-based solutions] (TnCO _{2e} ; timeline: 2023-2030)	Miguel Torres Chile Viticulture Department	Expecting 1,032 Tn absorbed by the growing trees	Expecting 1,572 – 2,400 Tn CO ₂ absorbed by the growing trees	Expecting 8,196 Tn CO ₂ absorbed by the growing trees	Offsetting remaining emissions with reforestation to reach net zero
14	Regenerative Viticulture CO ₂ sequestration in our own vineyards [Natural based solutions] (TnCO _{2e} ; timeline: 2023-2030)	Viticulture Department	Expected low-to-neglectable sequestration	Expecting 100 Tn CO ₂ sequestered	Expecting 600 Tn CO ₂ sequestered	Offsetting remaining emissions with sequestration to reach net zero

Transition Plan Detail

Initiative	Foundations (ambition & strategy including feasibility)	Processes (what actions are taken & how decisions are made to reduce emissions)	Policies (sectoral policy, plans for lobbying & engagement)	Accountability (clear governance structures, disclosure, performance incentives etc.)	Stakeholder Engagement (clients, counterparties, industry peers, regulators, industry associations, consumers, etc)
Avoiding land use change	Planting a new vineyard has a significant impact if there is some land use change involved. Knowing that deforestation is one of the biggest causes of global warming, our plan is to avoid any kind of land use change. Instead, regenerative viticulture is applied to regenerate existing vineyards reducing the impact of potential previous land use changes	Potential land use changes are restricted under our biodiversity policy	Land use changes affecting negatively environment are considered. We expect to be able to take into account positive land use changes as well (regeneration of green areas)	The GIS tools allows us to demonstrate any land use change to auditors	We strongly recommend this same practice to our grape suppliers
Electric Tractors & Minimize km	Our aim is to switch to electric tractors as soon as possible. Unfortunately, the test we ran with European models were not 100% satisfactory. We expect to be able to purchase cutting edge models by the end of the year onwards	Electric tractors imply a different approach to viticultural practices. This is totally aligned with the regenerative viticulture approach we follow, where only superficial operations are needed and this results in less power necessary on the tractor and therefore less battery need, less cost etc.	We've made lobby to include electric tractors inside the plans for electrifying vehicles (MOVES3 in Spain)	Following our electric vehicles policy, tractors will follow the same approach	We've done several tests and booked our first electric tractor. We'll share the experience with other wineries from the Spanish Wine Federation (FEV) and International Wineries for Climate Action (IWCA)
Replacement of cooling F-gas systems by cooling water	Full F-Gas replacement is a tricky goal, since small equipment are rarely proposed in non-fluorinated options. But this is expected to change in the years to come given that European laws will ban their use soon. Our strategy is to replace the remaining F-gas equipment we have by water-based systems that run with our absorption machine or ammonia coolers, expecting to phase out F-gases by no later than 2040	We're replacing old F-gas based compressors by new ones with lower GWP (Global Warming Potential) so that in case there is a leakage the impact is much lower. The biggest cooling demand in the wineries are covered with either an absorption machine or by ammonia chillers, both with no GWP	On April 2022, the European Commission presented a proposal for a regulation on fluorinated greenhouse gases (F-gases) that would repeal the current F-gas Regulation. The proposal aims to reduce F-gas emissions further. It would change the existing quota system, gradually reducing the supply of hydrofluorocarbons (HFC) to the EU market to 2.4 % of 2015 levels by 2048. It would also ban F-gases in specific applications	F-gas leakages are audited annually on the different ISO verifications (ISO14064, ISO50001, ISO14001) in our main winery in Pacs del Penedès	We cannot lobby on such EU laws, but we must remain attentive to the new cooling solutions in order to install the right equipment for it to last as long as possible while ensuring the minimal GWP as possible
Electric fleet (corporate & sales agents' cars)	We've been pioneers in hybrid and plug-in hybrid vehicles with a strong internal policy to make it possible. This reality served as a training while waiting for the electrical cars boom. Right now, we count with 50 charging stations in all Familia Torres facilities	The renting policy has been modified in order to ensure electric cars are being deployed. Some exceptions are still accepted since not always is possible to install a charging point at the driver's house. However, we also have a carsharing service for employees based only on electric cars	We've taken advantage of the MOVES3 subsidies and continue to make lobby so that more charging stations are installed in Spain. We've set up together with other wineries the so-called wine road "Carretera del vi" where visitors can rent an electric car and charge in any of the wineries of the circuit	The renting internal policy already includes the allocation of electric cars to our employees	We've been testing all new electric models in order to offer the best-in-class vehicles for our drivers. Visitors can charge their electric cars in our visitors' centre (4 charging stations)
Carbon Capture from fermentation and Reuse (CCR) as inert gas	Fermentation CO ₂ is pure, neat, biogenic, and is part of the atmospheric carbon cycle. We are not adding more carbon to the atmosphere by making wine. Instead, it is a big opportunity for us to capture this CO ₂ and reutilize it. We've been testing for many years and finally we brought into reality an effective carbon capture and reutilization solution that we expect to scale up. Another opportunity under study is to transform CO ₂ into sodium carbonate which is an ingredient for glass	Substituting CO ₂ sourced from gas companies (from fossil sources) by our own CO ₂ . We apply this technique to our fermentation tanks in collaboration with the winemaking team	CCR is necessary to reach the Paris Agreement below 1.5 degrees. Wineries can help reach this target by capturing it in a fairly easy way (much easier than capturing it from the air where the concentration is minimal)	We must capture the CO ₂ making sure that the entire process will be carbon negative, the goal is to reduce emissions, not to capture CO ₂ and release it again	Universities, technical institutions and suppliers have been working with us to develop different methods to capture and reutilize CO ₂ . We have shared our findings with other wineries from the Spanish Wine Federation (FEV) and International Wineries for Climate Action (IWCA)
Back-up Natural Gas Boiler Optimization	To reduce fossil fuel use. Natural gas is our back-up energy, and we target ways to reduce its consumption after having already installed a biomass boiler	Optimization systems such as economizers to reduce natural gas consumption	N/A	The ISO50001 (energy efficiency) covers every year all the energy consumption of our main winery in Pacs del Penedès, continuously seeking the right use of energy consumption	N/A
Increased solar energy self-consumption → target 55% electricity self-consumption by 2030 at main winery in Pacs del Penedes	Familia Torres has implemented solar power self-consumption in all its wineries. Our first solar array was installed in 2008. Today our strategy is to build up the % of self-consumption in Pacs del Penedes winery up to 55% by 2030 (70% including biomass energy)	Installing solar energy while increasing radiation avoidance effect (implementing solar panels above the fermentation tanks)	Policies have changed and are nowadays quite favourable to solar power projects. Solar power doesn't need subsidies to become profitable. We lobby to reduce the time spent to get the project approvals	Our figures are audited. IWCA is monitoring the % of self-generated energy at the winery	We've been promoting solar power inside and outside the wine sector, organizing conferences and events next to the Spanish Photovoltaic Union (UNEF)
Glass bottles weight reduction + reuse opportunities + reduced carbon footprint of our suppliers	We've reduced the weight of our glass bottles, but this has a limit. Therefore, while we keep working with our providers to reduce their emissions and the weight of our bottles, we test reutilization schemes as a partial solution for our packaging emissions	Working with the glass supplier makes us able to work with the lightest bottles available while ensuring mechanical resistance and food safety	We've raised awareness about the need to accept light weight bottles and fight the old-fashioned thinking that links heavy bottles with wine quality	Every bottle restyling or new model must take into account the weight of the bottle	We know some markets are keener to embrace reusing schemes such as those where the wine is only sold in state owned shops and where the consumers are more conscious about climate change. We participate in sectorial projects involving federations, suppliers and clients (retailers and restaurants) and other wineries, to build successful and profitable returnable schemes

Distribution & supply: increasing loading capacity, bulk wine operations, railway prioritization & suppliers' own improvement	Distribution is one of the most difficult areas for us to reduce emissions given that it is the client the responsible to select their preferred logistics solution. Hence, our strategy is to engage our clients into group conversations with IWCA (International Wineries for Climate Action) and find ways to choose the lowest emitting solutions. Logistic operators themselves have also strong GHG reduction targets	We work with retailers to switch from truck convoy to railway. We're selling in bulk in some markets, lowering the distribution carbon footprint by avoiding the weight of the glass bottles	Limits for trucks and other heavy-duty vehicles were adopted in June 2019 by the European Commission. New rules will require manufacturers to cut CO ₂ emissions from new trucks (compared with 2019 levels) on average by 30% from 2030	Distribution made by truck accounts for 52% of our good's distribution GHG emissions	Given that most logistic operators are big companies, the role of IWCA (International Wineries for Climate Action) is expected to be key in order to rise our voice to ask for greener distribution, targeting both logistic operators and clients, so that the latter can ask for the greenest solution available
Grape suppliers: regenerative viticulture, fuel reduction, etc.	Hundreds of grape suppliers bring grapes to Familia Torres wineries every harvest season, some of them have a long-lasting relationship spanning several generations. We ask our grape suppliers' key data to calculate their carbon footprint, and we give them recommendations on how to reduce it	Tips and recommendations are being shared every year with all our grape suppliers. We act as the example to be followed, applying organic regenerative viticulture techniques in our vineyards and sharing the lessons learnt with our suppliers. The regenerative approach lowers the carbon footprint of viticultural tasks	We expect to see regenerative viticulture being taken into account in regional campaigns including subsidies and, in the PAC, (common agriculture policy) in the near future to promote its implementation	The data from our suppliers is obtained via a survey document that is sent every year including question about regenerative viticulture approach	The Association of Regenerative Viticulture we cofounded in 2021, is pushing forward the exchange of knowledge among grape producers and just released a regenerative viticulture certificate (RVA)
Regenerative Organic Viticulture CO ₂ reduction of fertilizers	The regenerative approach is expected to lower the amount of organic fertilizer needed in the vineyard (which is already quite low compared to other crops) that produce nitrogen oxides when applied	Increasing the organic matter of the soil makes it more fertile, which must be managed appropriately to ensure high quality grapes. Some specific cover crops between the rows can act as nitrogen fixators	We expect to see regenerative viticulture being taken into account in regional campaigns including subsidies and, in the PAC, (common agriculture policy) in the near future to promote its implementation	We are certifying our regenerative vineyards (around 200ha this year) following the new Regenerative Viticulture certificate (RVA), which has been created in collaboration with a group of well-known experts and scientist	The Association of Regenerative Viticulture we cofounded in 2021, is pushing forward the exchange of knowledge among grape producers and just released a regenerative viticulture certificate (RVA)
Planting in <i>gobelet</i> system instead of trellising system	Planting vines in " <i>Gobelet</i> " prevents grapes from receiving too much sunlight and heat. We are planting more and more <i>Gobelet</i> to adapt to climate change, but this has also a positive impact on emissions given that the vines must be harvested manually, hence less emissions from tractors are involved. Also, no trellising is needed, reducing further the carbon footprint	Most new plantations or replanting include vines in <i>Gobelet</i> training system. Especially those with higher added value	N/A	N/A	N/A
Reforestation effort on own land in Chile and Spain [Natural-based solutions]	This is a greenhouse gas emissions in-setting approach. Knowing that the simplest way to fight climate change is sequestering CO ₂ from the air, there is no better engine to do so than trees and plants. We plant in our own land, and we conduct and monitor the project ourselves, supported by experts and national institutions	We own land in Chile whose main use is to capture CO ₂ from the air. We've planted trees and replanted those that didn't survive (common survival ratio around 60%). The project, the plantations and its continuous growth are verified by a third party	We've participated as pilot companies in the GHG Protocol's Land Sector and Removal Guidelines to ensure that such projects are aligned with the international standards	Our reforestation projects are verified by an external forestry expert and verified by ISO14064 accredited auditors	The stakeholders of these projects are society in general but also local people. We develop these projects as a way to increase the carbon sink capacity of our planet to mitigate climate change
Regenerative Viticulture CO ₂ sequestration in our own vineyards [Natural-based solutions]	Regenerative viticulture consists of increasing the amount of organic matter in the soil while improving soil health (micro-biodiversity, nutrients...) and structure. This has many benefits but also the capacity to sequester and store atmospheric CO ₂ into the soil. According to literature, we can expect at least 0,5TnCO ₂ /ha/year	Since 2020 we've embraced this approach turning our vineyards, already organic, into regenerative by applying a holistic way of working. Currently, we manage more than 500ha of organic regenerative vineyards in Catalunya in which we reduce the tillage, we apply cover crops between the vine rows (or leave them grow spontaneously), reintroduce pruning shoots in the soil and apply animal fertilization	We expect to see regenerative viticulture being taken into account in regional campaigns including subsidies and, in the PAC, (common agriculture policy) in the near future to promote its implementation. But also, we expect GHG Protocol and the European Commission to set up a standard by which we can justify the amount of carbon sequestered by means of the regenerative approach	We are certifying our regenerative vineyards (around 200ha this year) following the regenerative viticulture certificate, which has been created in collaboration with a group of well-known experts and scientist. We don't account yet the CO ₂ sequestration given that there is not a clear standardized way to do so. But we conduct our own measures and tests to demonstrate the improvements on our soils carbon absorption capacity	The Association of Regenerative Viticulture we cofounded in 2021, just released a regenerative viticulture certificate. This is very useful for those clients that consider regenerative viticulture as a way to fight climate change, increase vines resiliency to climate and foster biodiversity in the vineyards and their surroundings. We share our findings with our grape suppliers, other winery members of the Association of Regenerative Viticulture and International Wineries for Climate Action (IWCA)