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Malvern
Panalytical
a spectris company

Delivering Value Beyond Measure

Our roadmap to Net Zero and a sustainable
world for future generations

September 2021

We are committed to Net Zero



We have set a clear ambition

Our operations:
Net Zero by 2030
(Scope 1 and 2 emissions)

Our value chain:
Net Zero by 2040
(Scope 3 emissions)

Our science-based targets support this ambition

The 85% absolute reduction in Scope 1 and 2 emissions by 2030

The 42% absolute reduction in Scope 3 emissions by 2030

Both targets are aligned to a 1.5 degree warming scenario and have been validated by the Science Based Targets initiative.



“We recognize that the greatest difference we can make to a Net Zero world is through our products and solutions which support our customers to make the world cleaner, healthier and more productive and this remains the purpose at the heart of our strategy”.

Mark Fleiner
President

Climate change is one of society’s greatest challenges. Solving it requires all of us to act with urgency. As a leader in providing analytical systems and services, we are committed to reduce our Greenhouse Gas (GHG) Emissions – and by doing so, we will mobilize the entire value chain, work with our customers and suppliers and inspire our employees to take collective action.

We are committed to achieving Net Zero in our own operations by 2030 and across our value chain by 2040. But what does Net Zero mean? Put simply, Net Zero refers to the balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. We reach net zero when the amount we add is no more than the amount taken away.

So that our progress in reducing our footprint is transparent, we have set interim science-based targets which are aligned to a 1.5°C warming scenario. Together with the 220+ employees of Malvern Panalytical, we will take action towards our Net Zero goals, a challenging job but rewarding as our company makes progress toward Net Zero. The areas of internal opportunity to realize the benefits toward our Net Zero ambitions include our operations, processes, products, and transportation.

To achieve our Net Zero ambitions, we will work with our suppliers to help them improve their input materials, production processes, and logistics. At the other end of the value chain, we will also work with our customers to help them achieve their own sustainability goals. We also need action from governments and regulatory organizations to create clear guidance for companies to make progress.

But Malvern Panalytical must first lead by example. It’s only by taking actions that can be measured that we can convince others to do the same. And it’s only together, taking small steps, that we will make a big difference for future generations.

Our Net Zero roadmap

Our baseline

2020 is the baseline year for our ambition. This is challenging due to lower emission-generating activity taking place in 2020 and demonstrates our commitment to delivering genuine progress.

Measuring our progress

We will report on our progress annually and this progress will be independently assessed.

Scope 1 and 2

To support our ambition, we are:

- Aligning with RE100 – committing to 100% renewable electricity across our operations by 2030

- Aligning with EV100 – committing to a fully electric global fleet by 2030

- Undertaking global energy efficiency audits to reduce emissions at our manufacturing sites by 20% by 2030

- Building on our current solar generation capability

- Engaging our workforce – we will actively promote information and activities to keep our employees aware of our environmental footprint and give them tools so they can be part of the solution

- Sourcing natural refrigerant solutions by 2030

Scope 3

To support our ambition, we are:

- Undertaking a global supplier engagement process with EcoVadis

- Committing to zero waste to landfill before 2030

- Exploring a material shift away from air-logistics routing by 2030 and working with our air freight carriers to deliver suitable abatement and offsetting where this is not possible

- Developing both the circularity and efficiency of our products, building off a pilot program undertaken by Servomex in 2021

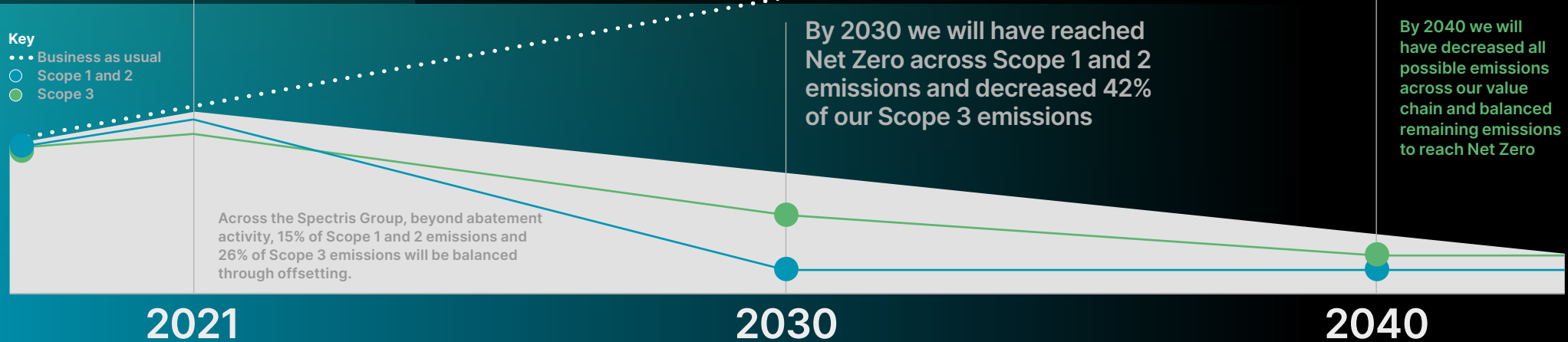
- Using technology to limit the return of frequent business travel

This work will be supported by the “greening of the grid” which means that, over time, more of our products will be powered by renewable energy

Living our values

Beyond these targets, we will continue to prioritize our strategy of developing products and services that support our customers on their own decarbonization journey. This is part of our broader ambition to make the world cleaner, healthier and more productive.

Key
 ... Business as usual
 ○ Scope 1 and 2
 ● Scope 3



By 2040 we will have decreased all possible emissions across our value chain and balanced remaining emissions to reach Net Zero

Our total emissions by scope

Emissions from our direct operations, known as Scope 1 and Scope 2, accounted for just 8% of our GHG (Greenhouse Gas) emissions. The vast majority of our GHG emissions (92%) come from activities in our supply chain and so we will focus most of our efforts here.

Total GHG emissions by Scope (Tonnes of CO_{2e}, in 2020)

● Scope 1 **2%**
(3,149)
Emitted directly

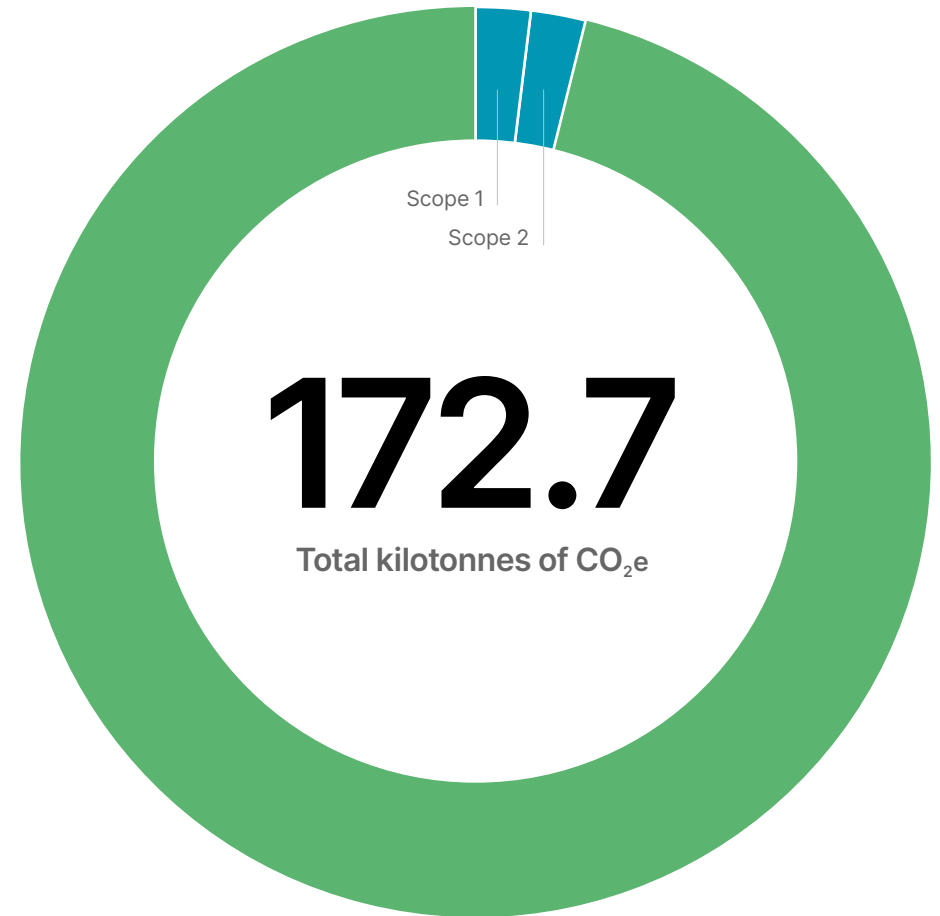
from sources we own or control such as on-site combustion (natural gas, fuel for company's vehicle fleet).

● Scope 2 (market emissions) **2%**
(4,264)
Emitted indirectly

from the generation of purchased energy like electricity and heating/cooling network.

● Scope 3 **96%**
(165,302)
All other indirect emissions

in our value chain, both upstream and downstream, such as sourcing and use of sold products.



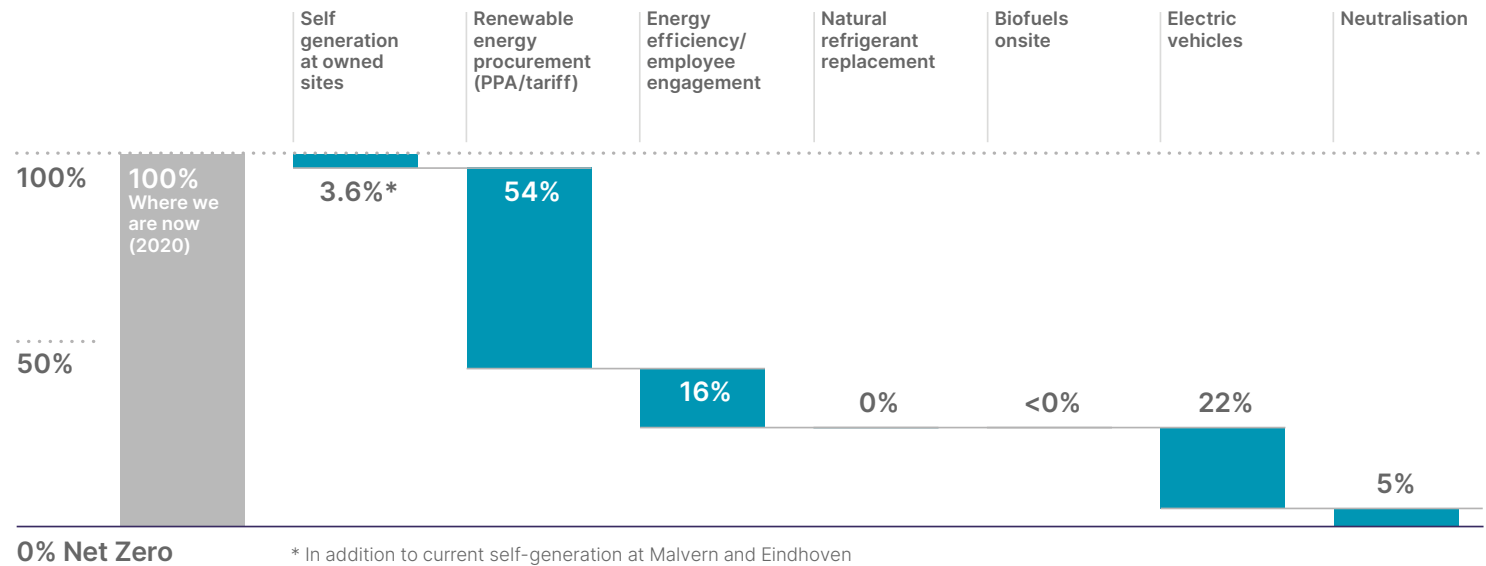
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● Scope 1 and 2 emissions

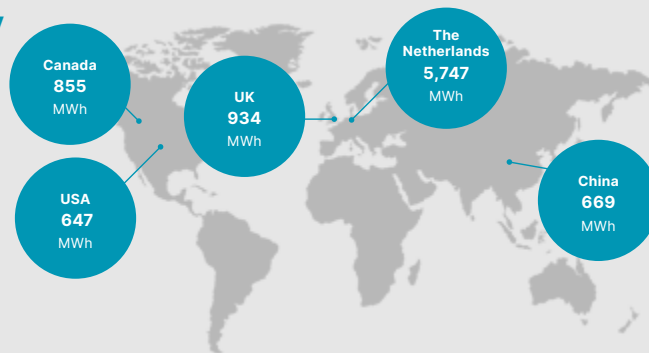
We have committed to reach Net Zero in our Scope 1 and 2 emissions by 2030 with a science-based target of 85% abatement, set against a 1.5°C warming scenario. The chart to the right explains how we will do this, with a core focus on renewable energy, employee engagement and electric vehicles.

Our onsite solar generation capability at our offices in the UK and the Netherlands produced 457.76 MWh of electricity in 2020. We will build on this solar capability, and we have established the potential to generate 13,323 MWh onsite at seven key manufacturing sites. This capability will be sufficient to generate c.28% of our current total electricity consumption. Our EV100 commitment will see us move to a fully electric fleet by 2030. As part of our commitment to building employee engagement, we are gifting our employees the Giki Zero app to emphasize the role they can play individually and as a team in lowering our footprint.

Scope 1 and 2 – reaching Net Zero



Scope 2 electricity



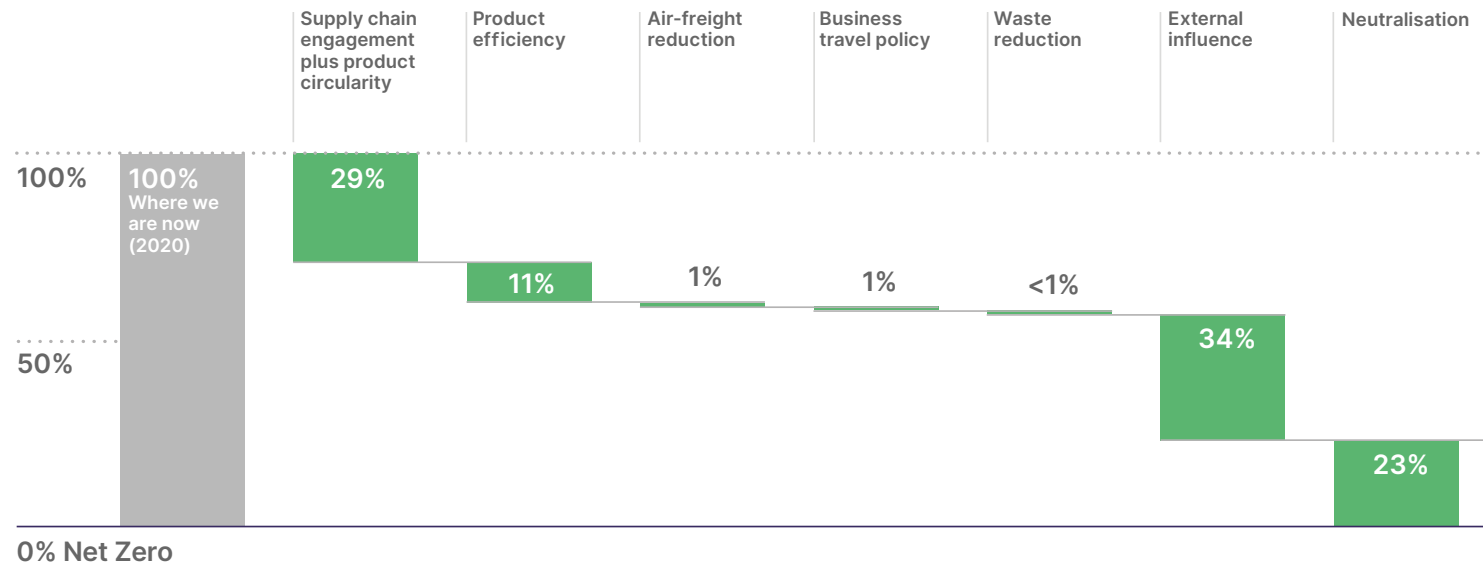
- We have committed to RE100 and will consume 100% of electricity produced from renewable sources by 2030.
- Non-renewable electricity consumption accounts for 45% of our total Scope 1 & 2 emissions.
- The five countries identified on the map are the source of 99% of all our emissions from purchased electricity.

● Scope 3 emissions

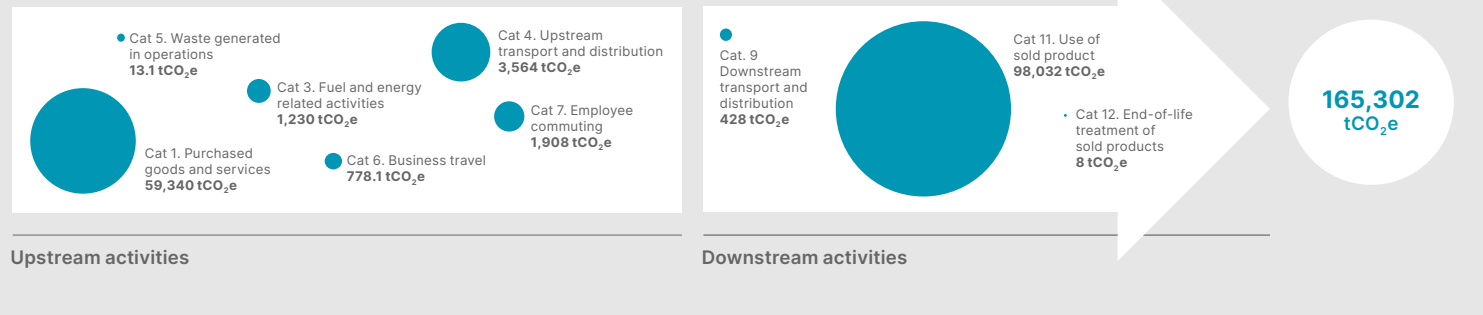
We have committed to reach Net Zero across our Scope 3 emissions by 2040 with an interim science-based target of 42% abatement by 2030 against a 1.5°C warming scenario.

To achieve this, our key focus will be on supplier engagement, partnering with our suppliers to strengthen the environmental performance of our supply chain. Our ambition will be supported by the progressive “greening of the grid” which means that, over time, more of our products will be powered by renewable energy during their use.

Scope 3 – reaching Net Zero



Scope 3 emissions summary



Glossary

What is Net Zero?

Net Zero is a state where we add no incremental greenhouse gases to the atmosphere. This means achieving a balance between carbon emissions and carbon sinks through a combination of emissions reduction within our business activities and carbon sequestration.

Attaining Net Zero requires the abatement of our emissions output to as close to zero as possible, consistent with a 1.5°C warming scenario and then balancing any remaining emissions via removal/sequestration of an equivalent quantity of carbon from the atmosphere.

What are carbon emissions?

Carbon emissions are the release of carbon into the atmosphere. Otherwise known as greenhouse gas emissions; these are the main contributors to climate change.

What is a carbon sink?

Carbon sinks are reservoirs (natural or artificial) that absorb carbon circulating in the biosphere. By helping to reduce the amount of atmospheric CO₂, carbon sinks influence the climate by slowing global warming. Natural carbon sinks include oceans, soil and flora (forests, peat bogs, grasslands) while artificial carbon sinks refer to technologies that actively extract carbon from the atmosphere.

Carbon dioxide equivalent (CO₂e)

The universal unit of measurement to indicate the Global Warming Potential (GWP) of each Greenhouse Gas Emission (GHG), expressed in terms of the GWP of one unit of carbon dioxide. It is used to evaluate the climate impact of releasing (or avoiding releasing) different greenhouse gases on a common basis.

Most typically, the CO₂ – equivalent is obtained by multiplying the emission of a GHG by its GWP for a 100-year time horizon. For a mix of GHGs, it is obtained by summing the CO₂ – equivalent of each gas.

What is carbon neutralization?

Neutralization offsets are activities that 'remove' carbon emissions from the atmosphere. By investing in, or developing neutralization projects we will be taking measures to counterbalance/remove and permanently store the impact of unabated emissions.

What is a 1.5°C warming scenario?

A scenario of emissions of greenhouse gases and other climate forcers that provides an approximately one-in-two to two-in-three chance, given current knowledge of the climate response, of global warming either remaining below 1.5°C or returning to 1.5°C by around 2100 following an overshoot. This is the long-term temperature goal included in the Paris Agreement which establishes 1.5°C as the

warming limit in the long term. The purpose of the goal is to 'reduce the risks and impacts of climate change' as assessed in the science of the time, not to achieve a mere objective in terms of a temperature number.

What does our Net Zero Ambition cover?

Our ambition covers our Scope 1, 2 and 3 emissions.

Scope 1 emissions

Our direct greenhouse gas emissions resulting from our fuel combustion, vehicles and fugitive emissions.

Scope 2 emissions

Our indirect greenhouse gas emissions which result from the procurement of electricity, steam, heating, or cooling from a third party.

Scope 3 emissions

The indirect greenhouse gas emissions which occur in our value chain, not included in Scope 2 emissions, related to the emissions from our supply chain ('upstream') and our customers ('downstream').

Which initiatives are we aligning with to support our ambition?



RE100 is a global initiative bringing together the world's most influential businesses committed to 100% renewable electricity. Led by the Climate Group and in partnership with CDP, their mission is to accelerate change towards zero carbon grids at scale. RE100 member companies are already driving enough renewable electricity demand to power a medium sized country.



EV100 is a global initiative led by the Climate Group and in partnership with CDP to bring together forward-looking companies committed to accelerating the transition to electric vehicles, who commit to transition their fleets to EV and install EV charging for staff and customers by 2030.



The Science-Based Target initiative (SBTi) is a partnership between CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI) and the World Wide Fund for Nature (WWF). SBTi facilitates a third-party validation process which assesses whether corporate climate targets are in line with the emissions reductions required by climate science.



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