

# Mitigating carbon footprint

Multinationals should lead in addressing global environmental risks

As unsurprising as it is shocking, environmental risks account for the world's top five most critical 'long-term' threats, according to the World Economic Forum's 2022 Global Risks Report. Climate action failure, extreme weather, bio-diversity loss, natural resource crises and human environmental damage sit squarely ahead of societal, technical and geopolitical risks, such as involuntary migration and geo-economic confrontations, over the next 5-10-year period. At COP 26, world governments had promised \$130 trillion to pursue global climate goals.

**Role of corporations:** Corporations are in a unique position when it comes to the climate crisis. On the one hand, they are some of the world's largest emitters (a 2020 study by UCL and Tianjin University reveals that a fifth of CO<sub>2</sub> emissions come from multinational companies' global supply chains). On the other hand, corporations have unprecedented global reach – operating across borders, demographics, and time zones -- with the scope to make meaningful changes beyond their in-house operations; what the US-based Center for Climate and Energy Solutions refers to as corporations' 'carbon footprint (the emissions from producing their products) and their handprint (emissions from the sales and use of their products)'.

According to a 2021 Energy & Climate Intelligence Unit (ECIU) report, one-fifth of the world's largest public companies have made net-zero commitments, although these pledges vary in time frame, depth and detail. One of the most impactful actions is transitioning to clean energy internally, be it for factories, industrial processes, vehicle fleets, warehouses or offices.

If these corporates commit to providing sustainable options as well as reducing the carbon footprint of their own operations, they can make an outsized contribution to a greener, fairer, and more resilient economy.

**Energy sector in transition:** Energy sector is in transition towards more flexible and sustainable power systems. This transition is being witnessed across all continents. Wärtsilä has a key role to play in the energy transition to help its customers decarbonise by developing market-leading technologies, such as future-fuel enabled balancing power plants, energy storage and optimisation systems, and life-cycle services.

There are multiple drivers that are critical to the energy transition. The most prominent ones are the falling price of renewables, increasing demand for green energy by consumers, and the need to tackle



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climate change.

**Carbon neutrality by 2030:** In late 2021, Wärtsilä announced its 'Set for 30' commitment. The goal is to become carbon-neutral in its own operations, by 2030 and provide a product portfolio, which will be ready for zero carbon fuels, by the same time. These carbon neutrality targets cover direct greenhouse gas emissions from the company's own operations, including the Research & Development and factory engine testing areas, as well as purchased energy.

Towards having a product portfolio, which is ready for zero carbon fuels by 2030, Wärtsilä is investigating several future fuels, including green hydrogen, synthetic methane, methanol and ammonia, with a view to provide complete flexibility across engines and the fuel chain. Its engines can run on natural gas, biogas, synthetic methane or hydrogen blends of up to 25 per cent hydrogen. We expect to have an engine and plant concept for pure hydrogen operation ready by 2025.

Wärtsilä has invested a lot in Research & Development and has made a long-term effort in product development focusing on fuel flexibility, energy efficiency and emissions reduction. This is a natural step in our aim to shape the decarbonisation of marine and energy.

**Reducing carbon footprint:** Wärtsilä's factory at Khopoli in Maharashtra makes auxiliaries/ pipe modules and re-conditions and upgrades engines, ship propellers and components. Multiple initiatives have been undertaken at Wärtsilä factory to enhance sustainability and reduce carbon footprint. These include for example, setting up a solar unit, which will help in generating electricity from solar energy, initiatives towards electrical energy savings, and rainwater harvesting reducing ground water extraction. In addition, there are other initiatives such as reduction in waste generation, recycling of containers, and plantation coverage to make contribution to mitigate carbon footprint. Active initiation and contribution in Corporate Social Responsibility (CSR) projects like the Green Village Upliftment Programme in Mahagaon, Pune District of Maharashtra are initiatives towards this endeavour.

Corporations can promote climate action at various points along the value chain. While the speed and timing of changes will depend on each corporation's structures and operations, now is the time for multinational companies to lead the change in addressing global environmental risks. It's a strategy that will pay dividends in more ways than one. ♦

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