



WHERE TECHNOLOGY MEETS NET ZERO

Megatrend: Technological Change

Sustainability Challenge(s): Industry, Innovation and Infrastructure (SDG 9) &
Climate Action (SDG 13)

Technology has always been an important factor to support transitions and change in the world and also bring prosperity. But in recent years it has become clear that technology advancements are required on a very large and global scale to make an even further impact. As the world started to realize that a treaty like the Paris Agreement¹ was required to limit global warming to 1.5 degrees, also the emphasis on technology and the breakthroughs that technology could bring started to shift.

Most countries have communicated (ambitious) goals to achieve net zero emissions. Many corporations as well have embraced a net zero emissions goal by a certain date. Technology in its broadest sense can and will be used to enable and facilitate the energy transition, to make the world less carbon intense and achieve net zero emissions. Technological innovation continues at breathtaking speed. A host of new technologies – across areas as diverse as artificial intelligence (AI), robotics, energy storage, DNA sequencing, blockchain technology, and materials sciences – are approaching tipping points over the next five to ten years, when dropping costs unleash demand across sectors and geographies, which will encourage even more innovation².

For true technological breakthroughs, the conventional approach to technology development and implementation may no longer work. Traditionally, companies would invest large sums of money to get the competitive advantage and stay ahead of competition, but in the current and future context, more and more people realize that one company or organization alone cannot deliver the most transformational solutions by themselves³. New and different forms of partnerships arise which will enable the acceleration of technological breakthroughs, leading to new, impactful solutions.

The energy transition will be key to achieving net zero emissions. However, it will take many decades to achieve a global transition to renewable energy⁴, see for example the time it takes to develop and implement energy sources like Green Hydrogen coming from wind and solar. Having high aspirations and ambitions is key to success though, both for companies and governments.

Companies and governments need to keep up the pace if we want to achieve the ambitious targets. While some steps may need more time to complete, what are shorter term solutions? Reducing or even eliminating greenhouse gas emissions and waste are two of the most impactful actions companies can take in the shorter term.

¹ European Commission Paris 2050 Treaty - https://climate.ec.europa.eu/eu-action/international-action-climate-change/climate-negotiations/paris-agreement_en

² PwC Megatrends Report 2022 - <https://www.pwc.com/gx/en/issues/assets/pdf/pwc-megatrends-october-2022.pdf>

³ United nations UN Climate Change Partnerships - <https://unfccc.int/about-us/un-climate-change-partnerships>

⁴ <https://www.scientificamerican.com/article/a-global-transition-to-renewable-energy-will-take-many-decades/>



What can your company do to make use of technological breakthroughs to accelerate the global goal of net zero emissions? What action is required and what forms of cooperation need to be established to enable faster accomplishment of the climate goals through technology? You are encouraged to really think outside the box and take some of the abovementioned observations into account. Work on a solution (product, service or other) that your company could deliver *through a partnership with (an)other organization(s) or company/companies*, build the business case and prove that it will work, with impact!