## Mining critical to humanity's progress

Greener future means more mined minerals - NZ's role.

In this opinion piece, Josie Vidal, chief executive of Straterra, the industry association representing NZ's minerals and mining sector, looks at how mining will play a responsible role in our future.

ave you ever thought about what mining means for our quality of life today and for our vision of a greener future?

It is important we talk about it because a more technologically advanced, sustainable world needs more mining and we need to plan where that will happen. Will it be in a safe, highlyregulated environment, such as New Zealand? Or do we not care. as long as it's not New Zealand?

Pretty much everything you use every day has some mined minerals in it. The things you use in your house, workplace, school, medical centre, hospital, transportation, as well as the infrastructure all around you. More than 40 mined minerals are used to produce a single smartphone.

To keep making all the things we need today and for a greener tomorrow, the world needs more mining. That's what the experts tell us. The International Energy Agency predicts that by 2030, to meet the global demand for electricity storage, the world will need 50 new lithium mines, 60 new nickel mines and 17 new cobalt mines.

According to the European Commission, the demand for rare earth elements for electric cars and wind turbines, among others, is expected to increase more than fivefold by 2030.

While there is a big push to recycle what we already have, to build what we need, there are nowhere near enough metals being discarded to do that, although recycling should be part of the mix.

New Zealand wants a greener future with a lot more reliance on renewable energy. But there will be no renewable energy transition without mined minerals. Electric vehicles contain six times the minerals of a conventional car. The more electric vehicles that are made, the more minerals are required.

Much of the technology relies on batteries for storing energy and batteries are rich in mined minerals.

It is important the transition to renewable energy is fair.

equitable and inclusive, which means not taking steps that see energy prices soar and people being forced to use less for critical things such as heating, hygiene, and cooking.

To build this better future, we should look now at resources in New Zealand, not only for ourselves but to contribute to the global effort.

To build electricity generation you need mined minerals. Solar panels, wind turbines, hydro dams - mining makes them all possible.

New Zealand has a small but significant role to play in mining and we have some advantages that make our mining companies among the most responsible in the world.

We can be proud of the fact that we have some of the most stringent environmental standards in the world and strict employment and health and safety laws.

All human activity has an impact on the environment. Your morning bathroom routine leaves a footprint

both in the use of water and the wastewater that is flushed out from your house into the system that treats it.

Mining companies spend millions of dollars each year on planting native species, ensuring the health of waterways, and controlling pests and predators - both while they are mining and after the mines are closed. The rules require them to return mine sites to standards equivalent to before mining began, to manage environmental impacts.

I've been to beautiful parts of the West Coast of the South Island and I've seen some of the work undertaken. It is substantial and, in many cases, world-leading. We have case studies about some of this work on our Mining means progress web page.

Over the next 30 years,

trillions of dollars of investment will go into mining and minerals processing globally to meet the green energy demand. Many countries have their best minds planning for supply of

all these minerals the world needs - because being unable to source the right materials and technologies is a hurdle that will cost money and hold back progress.

New Zealand should be looking for opportunities to contribute. Mining already employs and trains thousands of skilled workers. We don't want to see opportunities for creating wealth, jobs and healthy regional economies lost overseas.

If we sit back and watch and say "not in my backyard", we will be paying a high price for progress, rather than benefitting from it.

Let's step forward, not backward.

Find out more about how mining in New Zealand plays a role in our sustainable future MiningMeansProgress.co.nz

