VANITEC
TRANSFORMING POSSIBILITIES

GREEN STEEL WITH VANADIUM

GLOBAL DECARBONIZATION

The 21st century coincided with the **explosive growth of steelmaking** capacity due to the economic development of several emergent nations.

Global steel production increased **50% in the first six months of the 21st century, exceeding 1.3 billion tonnes annually**, resulting in continued demand for steel.

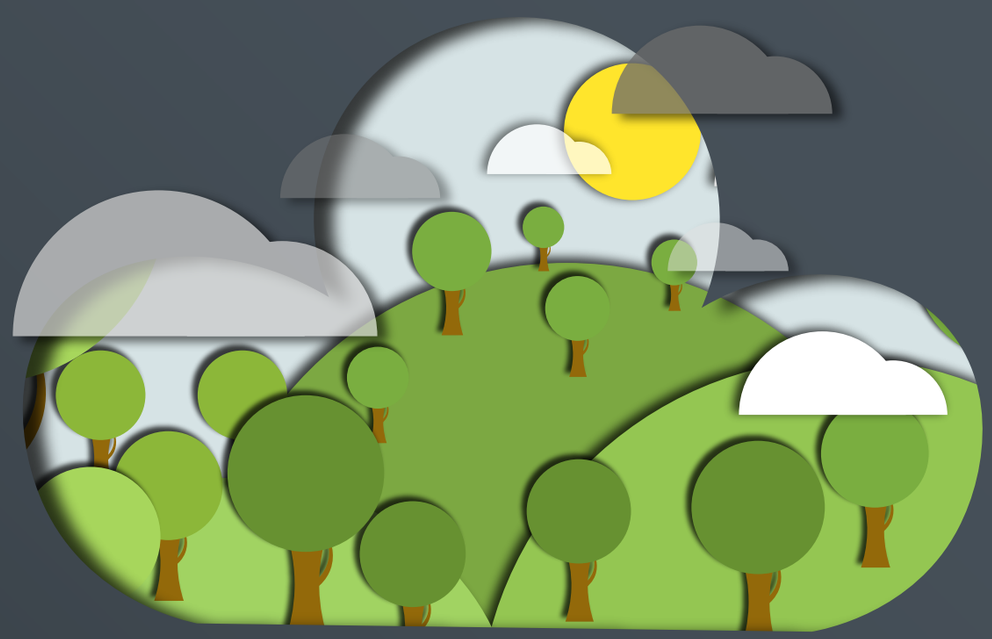
The **United Nations** estimates that the worldwide energy consumption of buildings accounts for **30–40% of global energy production**, underlining the need to use more sustainable construction materials.

Historically, vanadium consumption has been proportional to steel tonnage produced. The average worldwide usage of vanadium ranges from **40-45 tonnes of vanadium per 1 million tonnes of steel**.

However, in recent times, the demand for vanadium has **increased more rapidly than the rate of steelmaking** capacity growth, proving its value as a steel additive.

According to a report by Texas A&M University, **global analysis** shows that vanadium-microalloyed steel sections contributed to an overall **CO^2 savings of 1.18 million tonnes** in 2018.

This is equivalent to the carbon sequestered by **growing nearly 20 million trees** over ten years.



90%

OF THE WORLD'S VANADIUM OUTPUT IS USED IN THE STEEL INDUSTRY.

As a sustainable metal of the future, **vanadium is critical to steelmaking and construction** with the potential to improve people's lives with minimal environmental impact.

The production and use of green steel with vanadium is in line with **United Nations' Sustainable Development Goals 9 and 11** of building more sustainable cities and infrastructure.