

Sustainability



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**TOP
10**

**Sustainable
consultants**

**Diversity &
Inclusion:**
Smoke-free
vision and
employees'
wellbeing

THERE'S NO
SUSTAINABLE
SUPPLY CHAIN
WITHOUT
BENCHMARKING

FEATURING:

T-Mobile

| eStruxture

| Shell

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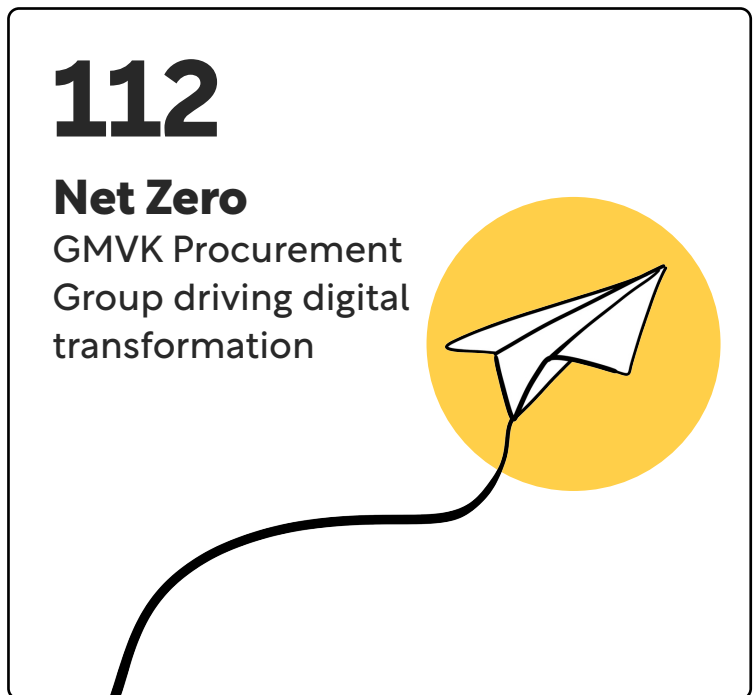
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TONY ATTI

CO-FOUNDER AND CEO OF PHONONIC

A former research scientist at NASA's jet propulsion laboratory, *Tony Atti* helps cool down the planet in a much safer way with Phononic's solid-state technology.

Tony Atti is a co-founder and CEO of Phononic, a cooling solutions company whose solid-state technology is claimed to be safer and more economically viable compared to traditional cooling and heating. Holding a PhD in Organic Chemistry from the University of Southern California, Atti founded Phononic back in November 2008.

Prior to founding Phononic, Atti was a research scientist at NASA's jet propulsion technology from 1998 to 2001, after which he joined MHI Energy Partners as a Director of Technology in 2002. He then became an entrepreneur-in-residence and a Vice President for business development at INI Power Systems from 2006 to 2008.

Last December, Atti was named Entrepreneur of the Year by the Research Triangle Cleantech Cluster (RTCC) at the 2021 Cleantech Innovation Awards. The Cleantech Innovation Awards is an annual event, held to honour people, organisations, and initiatives "driving cleantech innovation, creative deployment solutions, and workforce development".



“I’m honoured to be recognised as an innovator in cleantech,” said Atti. “Cooling and refrigeration play a critical role in our quality of life, and Phononic’s solid-state innovation is an exciting way to reduce greenhouse gas emissions and support global climate goals, while also meeting the demanding performance needs of the market.”

“It’s a great honour to be recognised amongst this group of people and organisations who are all coming together for one common goal: to help our state and our world become a more sustainable place to live.”

How Phononic’s cooling and heating systems are better

Phononic offers semiconductor cooling solutions, claimed to be a sustainable technology that can transform refrigeration and cooling. Among the sectors that use Phononic’s thermoelectric chips and fully-integrated products are fibre optic communications, 5G, LiDAR, grocery retail, healthcare, food & beverage, and climate control.

“We manufacture chips that support faster and more reliable 5G communications, which is highly critical for the rapidly-expanding remote workforce,” Atti wrote in a release.






Photo credit:
Forbes

"Our medical-grade refrigerators safeguard life-saving drugs and vaccines through partners like Thermo Fisher Scientific.

Our merchandising solutions provide retailers fresh and frozen product options for grab-n-go customers proficiently using their time in the grocery store."

Unlike traditional cooling and refrigeration systems equipped with high Global Warming Potential (GWP) that reach the thousands due to their use of toxic hydrofluorocarbons (HFCs), Phononic's solid-state solution has a GWP rating of only 1 – the lowest in the industry. Global use of traditional air conditioning units is projected to release 2.3 billion tons worth of CO₂ into the atmosphere by 2050.

Phononic's solid-state technology does not use refrigerants such as toxic hydrofluorocarbons.

Instead, it uses water and CO₂. The technology also uses 30-40% less power compared to its traditional counterparts and reduces the need for a compressor, making refrigeration and cooling silent to reduce overall noise pollution, with the loudest sound produced being only 35 dB.

"The historical refrigerants that had been used for vapour compression systems are both toxic and global warming contributors," said Atti. ●

