

Breakthrough Energy Fellows Welcomes 21 Companies to Its Sixth and Most Global Cohort Yet

Every cohort of Breakthrough Energy's (BE) Fellows program offers a view into where climate and energy innovation is heading next. This year, our sixth cohort brings together 21 companies, consisting of 40 Fellows who are innovating across electricity, manufacturing, agriculture, transportation, and the built environment. The teams hail from nine different countries, making it the program's most geographically diverse cohort to date.

Six cohorts in, the BE Fellows community now includes more than 100 companies and more than 200 Fellows across 20+ countries. These companies have collectively secured more than \$750 million in follow-on funding while advancing hundreds of patents, pilots, and partnerships.

The Most Geographically Diverse Class to Date

The growing global reach of Breakthrough Energy Discovery's flagship BE Fellows program is especially visible in the newest cohort, which includes the first company from Latin America, based in Argentina; the first from Thailand, a result of work done through Discovery's Southeast Asia regional hub; and the first two Fellows selected through the new [Weston Breakthrough Fellows partnership](#) in Canada.

Those "firsts" are the outcome of regional pathways the Breakthrough Energy Discovery platform has established to expand where and how it finds promising innovators around the world. Through [Geographic Hubs and regional partnerships](#), Discovery works with local organizations in key regions to build local pipelines of early-stage innovation and connect promising teams to the global BE Fellows program.

A Broad Mix of Technologies

Cohort 6's geographic diversity is matched by the breadth of technologies represented, with teams tackling some of today's biggest energy, industrial, and infrastructure challenges.

Advanced manufacturing is the largest sector represented in the cohort, with teams focused on materials, fuels, and industrial processes critical to stronger, more resilient supply chains. That includes new ways to recover and extract critical minerals, produce and store hydrogen and ammonia, make lower-emission iron, and capture energy otherwise lost as industrial waste heat.

As demand for power grows, it's also no surprise that nearly a quarter of the cohort is focused on electricity, with teams working on challenges ranging from new approaches to fusion energy to semiconductors designed to improve performance in power-hungry applications like data centers. Other Fellows are tackling power for transportation, to increase efficiency for electric vehicles, and advances in sustainable fuels.

Across agriculture and infrastructure, sensing and early detection are helping spot risks sooner, from crop and aquaculture disease and nutrient conditions to landslide monitoring and infrastructure



resilience. Together, BE Fellows Cohort 6 points to new possibilities for how we power, build, and strengthen the systems people rely on every day.

Building for the Real World

Cohort 6 also reflects the Fellows program's focus on technologies with the potential to move beyond the lab and compete in the real world. That means looking not only at whether the science works, but whether the technology can meet a real market need and ultimately be commercially viable.

"At the earliest stages, proving the science behind an idea is only one part of the equation," said Eric Toone, CTO of Breakthrough Energy. "You also have to understand the technoeconomics: what a technology will need to cost and how it will need to perform to compete, whether it can scale, and whether it is solving a meaningful market need. The BE Fellows program brings those technical and commercial questions together early, helping innovators turn their promising ideas into breakthrough solutions that address real-world problems and can grow into successful businesses."

That focus carries throughout the one-year program, where BE Fellows receive catalytic R&D funding, active technology management, business and commercialization support, mentorship, and access to Breakthrough Energy's global network to help derisk their technologies and build the foundations for commercial success.

As Cohort 6 begins its work this fall, the search for the next generation of BE Fellows is already underway. ***Applications for Cohort 7 are now open*** to innovators developing breakthrough climate technologies with the potential for impact at scale. Concept papers are due Nov. 2, 2026. Learn more and apply here: <https://apply.breakthroughenergy.org/>

Meet the [Cohort 6 BE Fellows](#)

- [Alchemy](#) (College Park, MD) | Transportation | Fuels & Chemicals: Converting waste gas into sustainable liquid fuels.
- [Ammovolt Energy](#) (Singapore) | Manufacturing | Hydrogen: Developing more efficient, on-demand clean hydrogen production from ammonia.
- [AmHyTech](#) (Detroit, MI) | Manufacturing | Ammonia: Developing safer, lower-cost ammonia storage for agriculture, hydrogen, maritime and industrial uses.
- [Bedrock Semiconductor](#) (Pittsburgh, PA) | Electricity | Power Electronics: Developing high-voltage semiconductor technology for data centers and electric vehicles.
- [Borealis](#) (New York, NY) | Electricity | Nuclear: Developing proton-boron fusion technology for firm, low-cost power.
- [EndoBio AI](#) (Toronto, Canada) | Agriculture | Sensing: Using molecular sensing to detect crop disease and health issues earlier.
- [Giraffe Bio](#) (Buenos Aires, Argentina) | Manufacturing | Mining & Minerals: Using programmable biomolecules to recover critical minerals with a lower environmental footprint.



- [Ironic Metals](#) (London, United Kingdom) | Manufacturing | Steel: Developing lower-cost, lower-emissions iron production from ores and waste streams.
- [K1 Semiconductor](#) (Chicago, IL) | Electricity | Power Electronics: Developing a wafer-splitting process to produce more high-performance semiconductor devices from each wafer.
- [Magnetless](#) (Coventry, United Kingdom) | Transportation | Efficiency: Developing high-performance electric motors that do not rely on rare-earth magnets.
- [Mithril Minerals](#) (Oakland, CA) | Manufacturing | Mining & Minerals: Building robotic systems for lower-impact collection of ocean critical minerals.
- [Nano Coating Tech](#) (Bangkok, Thailand) | Electricity | Renewables: Developing drone-applied coatings that reduce dust buildup and improve solar panel performance.
- [PAGE Technologies](#) (Boulder, CO) | Agriculture | Sensing: Providing real-time nutrient insights to help growers optimize fertilizer use and improve yields.
- [Pyramid](#) (Dublin, Ireland) | Manufacturing | Industrial Decarb: Converting high-temperature industrial waste heat into clean electricity.
- [Resollant](#) (Houston, TX) | Manufacturing | Hydrogen: Converting natural gas into battery-grade graphite and ultra-pure hydrogen.
- [Skouria](#) (Philadelphia, PA) | Manufacturing | Mining & Minerals: Developing a new approach to extracting copper from oxide and sulfide minerals.
- [StarWarden](#) (Eindhoven, Netherlands) | Electricity | Nuclear: Developing heat management technology for future fusion reactors.
- [Sulys](#) (Quebec City, Canada) | Agriculture | Sensing: Helping aquaculture producers detect disease before it becomes visible.
- [TerraSense](#) (Kuala Lumpur, Malaysia) | Buildings | Adaptation & Resilience: Using optical fiber technology to improve landslide monitoring and infrastructure resilience.
- [Vari Flux](#) (Singapore) | Buildings | Heating & Cooling: Developing coolant technology to improve cooling efficiency in data centers, industrial plants and buildings.
- [Volt 14](#) (Singapore) | Transportation | Storage: Developing battery technology to increase energy density and improve the performance of silicon-rich anodes.

