GCxN

The Shell GameChanger Accelerator™
Powered by the National Laboratory of the Rockies

Year in Review **2025**

From the Program Managers

Reflecting on the past year for the Shell GameChanger Accelerator™ Powered by the National Laboratory of the Rockies (GCxN), it became clear that 2024 was a year for planning and 2025 was a year for doing. What were ideas 12 months ago are now realities—and we're excited to share those in this Year in Review.

We are now fully in a new phase of GCxN, one that entails an expansion of the core accelerator program plus two new features: strategic awards for Channel Partners and a global network of entrepreneurial support organizations (ESOs).

We onboarded our largest cohort of startups, which includes seven companies working on future feedstocks and electrochemical pathways to fuels. This brings our program portfolio to 30 companies and proves that the approaches, systems, and processes we've successfully employed over the last seven years can scale to higher volumes. GCxN is poised to advance more promising startup technologies for greater impact toward our mission.

You'll read about the many accolades and achievements of all our portfolio companies in the pages that follow, but we want to congratulate both Alumina Energy and BattGenie on their graduations from the program this year. Also worth celebrating is eXoZymes (formerly Invizyne), who became the very first GCxN portfolio company to launch an initial public offering. And we're already planning the next cohort, for which the selection is currently underway—our team of technical experts is reviewing a very promising pool of referred startups working on advanced gasoline and lignin valorization.

Our broader ecosystem of support continues to grow and strengthen its impact as well. For the first time, we directly invested in the Channel Partner network with two strategic awards that have already yielded impressive results (including follow-on funding). We also launched the Worldwide Innovation Network and convened the founding ESO members to build the relationships, practices, and structure that will solidify the network and guide its growth.

We're feeling inspired and motivated by the momentum gained this year on all program fronts. We're confident that with partners, collaborators, and stakeholders—like you—we'll continue on this trajectory of achievement and growth in 2026 and beyond. We sincerely thank you for your interest in this critical work to identify and advance the next generation of transformative energy technologies.

Yesim Jonsson
Shell GCxN Program Manager

Johanna Jamison
National Laboratory of the Rockies
GCxN Program Manager

Rachelle Ihly, Ph.D.
National Laboratory of the Rockies
GCxN Technical Project Manager

From Shell's Chief Technology Officer

What is your role at Shell and how does it interface with the GCxN program?

As Shell's Chief Technology Officer, I lead our global technology strategy and the teams developing innovative technologies and products for the energy industry. Because GCxN is built around advancing early-stage energy technologies, it connects directly to Shell's mission. The program lets us pair Shell's industry expertise with National Laboratory of the Rockies' (NLR's) research environment to help startups with breakthroughs in energy accelerate toward commercial use.

The GCxN program has seen a renewed multiyear funding commitment from Shell. How has the vision and goals of the program expanded and how does this align with any new focus areas for Shell?

With our renewed commitment, GCxN has grown its scope to support more startups, expand ecosystem partnerships, and widen its focus to new impactful theme areas. In 2025, GCxN welcomed its largest cohort to date with seven startups transforming solid and molecular waste into fuels and valuable materials. This aligns with Shell's broader strategy to advance energy solutions.

Another aspect of the program expansion was the inaugural Channel Partner Strategic Awards that helped foster collaborations to further develop the innovation ecosystem in the Gulf Coast. Additionally, the Worldwide Innovation Network, sponsored by GCxN, was established to convene entrepreneurial support organizations that support tech startups globally. This initiative is aligned with Shell's global footprint and Powering Progress strategy.

What interests you most about the work that NLR and Shell have been doing together?

What I love most is how complementary our strengths are: NLR brings deep technical capability, and Shell brings real-world energy system experience. Together, we've created a model that genuinely speeds up the commercialization journey from idea to deployment.

Partnerships like GCxN help Shell realize our ambitions and deliver measurable impact. It's a partnership that continues to grow, and I'm energized by what it means for scaling the next wave of energy solutions.

Selda Gunsel
Shell Chief Technology Officer, Shell USA

> "We're excited to work through GCxN with the talented scientists and engineers at Shell and NLR who have thought very hard about related problems, so we can learn a lot from their expertise."
>
> - Sora Fuel

About GCxN

GCxN is a multimillion-dollar, multiyear program focused on discovering and advancing emerging and innovative technologies with the potential to power the future energy landscape. Developed in collaboration between Shell and NLR, GCxN identifies promising startups through its Channel Partners, an extensive ecosystem of business incubators, accelerators, and universities. Selected companies receive up to $250,000 in nondilutive funding in the form of access to NLR's technical experts and facilities to develop and demonstrate new energy technologies.

GCxN seeks companies innovating in the energy space, with rotating technology focus areas that span the energy continuum from generation to transmission and distribution. GCxN's goal is to help early-stage companies meet critical milestones to advance to the next stage of development, accelerating their time to market while minimizing the risks associated with commercializing technology. Over the course of 18–24 months, GCxN portfolio companies gain access to NLR's facilities and researchers from both the laboratory and Shell, who help develop, validate, and incubate their technologies.

Working Together

Partnering on GCxN since 2018, Shell and NLR work together to power progress by supporting advanced energy solutions. Shell's technological capacity, customer mindset, operational experience, and market knowledge means it is at the forefront of collaborative approaches to help build our energy future. As a leader in energy systems research and development, NLR provides the capabilities to de-risk a wide range of technologies. GCxN offers companies the benefit of tailored assistance from researchers, access to the laboratory's facilities, and an unbiased third-party validation to advance their early-stage solutions toward commercialization. GCxN harnesses the power of Shell's collaboration with NLR technical assistance for greater and faster innovations.

> "If we were to do all these things in isolation, it would require working with three to four different groups and then piecing that together. NLR also adds a source of validation for our investors and strategic partners."
>
> – DTE Materials

$1.048B

RAISED BY COHORT COMPANIES TO DATE

954

NEW STARTUP HIRES SINCE JOINING GCXN

(374% growth since 2022)

$140:$1

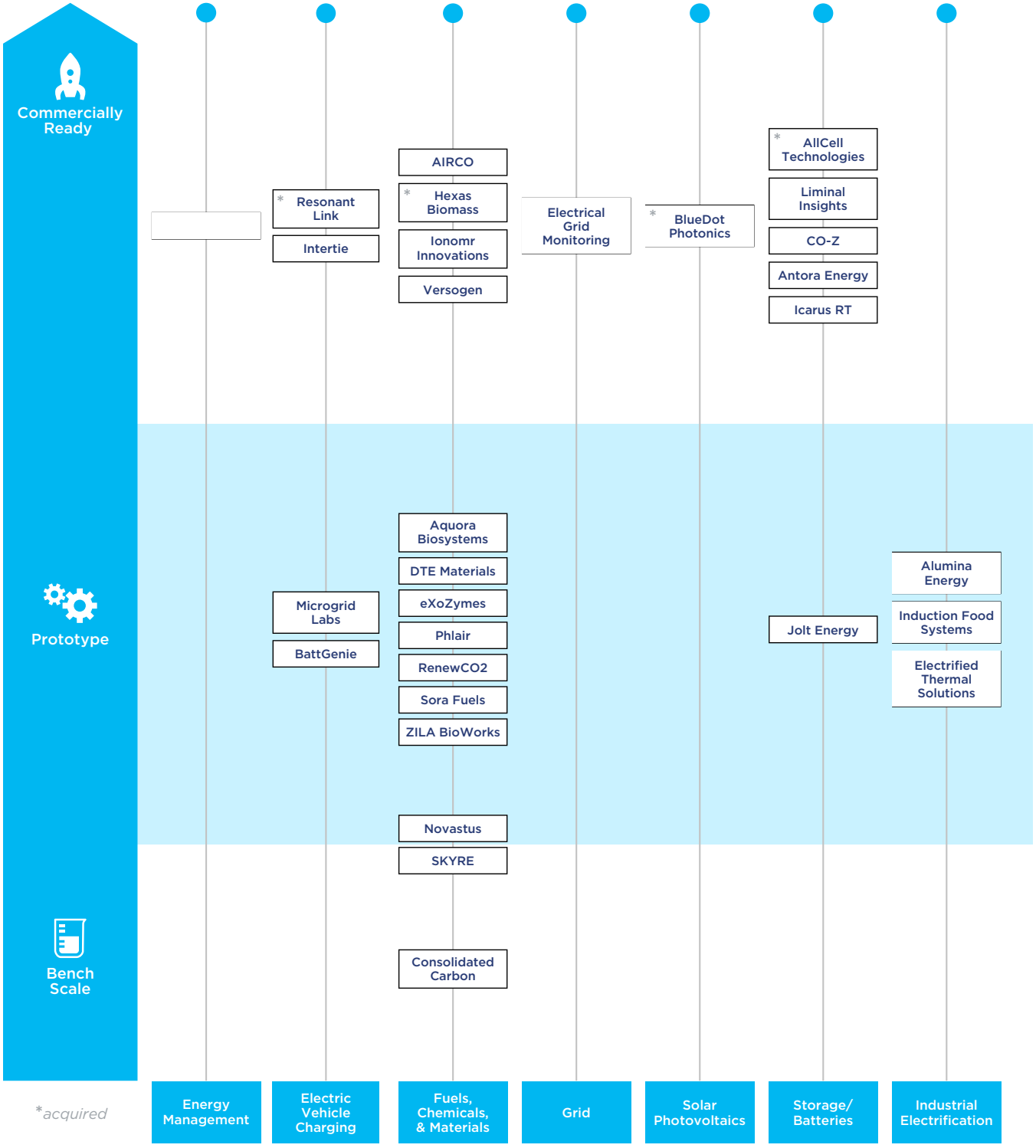
LEVERAGE RATIO FOR SHELL PROJECT FUNDING

5.9

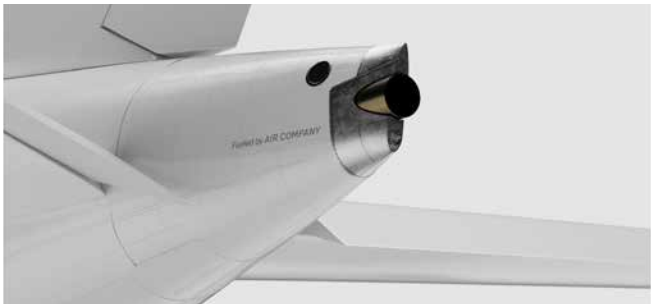
AVERAGE TECHNOLOGY READINESS LEVEL (TRL) AS OF DECEMBER 2025

4.1 AVERAGE TRL UPON JOINING GCxN

30 GCxN Companies Across Technology Sector and Stage



GCxN Portfolio Companies



AIRCO (formerly AIR COMPANY)

AIRCO patented a process that mimics photosynthesis in a way that is more efficient and faster at purifying air. This technology transforms carbon dioxide captured from the air into impurity-free alcohols that can be used in spirits, fragrances, sanitizers, and a variety of consumer industries. In 2025, the company rebranded to AIRCO, was featured as a TIME America's Top Greentech Company of the year, and appointed new executive leadership. They also secured funds from and successfully completed demonstrations with several federal agencies.

AllCell Technologies

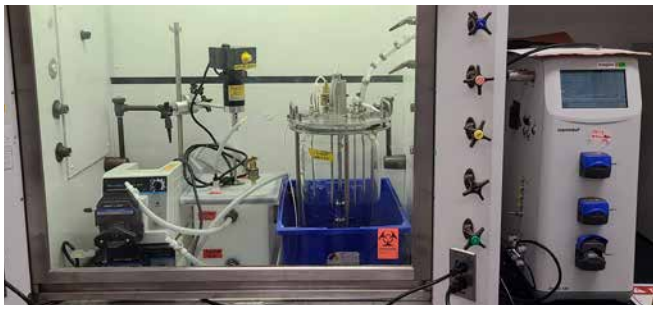
AllCell Technologies introduced revolutionary lithium-ion battery packs that incorporate its patented phase-change composite (PCC) passive thermal management technology. PCC keeps the cells at optimal temperatures during operation, enabling a cost-effective energy storage solution with an improved cycle life, advanced performance, and enhanced safety. Autonomous shuttles, electric planes, robotics, lightweight electric vehicles, and commercial drones can use AllCell Technologies' batteries. AllCell was acquired by Beam Global, a provider of products enabling safe and reliable transportation.

Alumina Energy

Alumina Energy develops HEATER (heat exchanger and thermal energy reservoir), a cogeneration solution for industrial customers that is economical, flexible, and reliable. In 2025, Alumina graduated from the GCxN program after successfully pivoting their project toward modeling.

Antora Energy

Antora Energy created groundbreaking, low-cost thermal batteries for grid-scale, long-duration energy storage. Current technology, such as lithium-ion batteries, can store a few hours of power while Antora Energy's technology can store multiple days' worth of energy. In 2025, the company was recognized by Fast Company as a Most Innovative Company for Energy and Best Workplace for Innovators. Antora's technology was prominently featured in various press pieces by Utility Dive; BlackRock; Energy, Oil & Gas Magazine; and the National Association of Manufacturers



Aquora Biosystems

Aquora Biosystems has developed a next-generation organic waste biorefinery that produces in-demand biofuels that overcome current feedstock and cost limitations. GCxN welcomed Aquora into the program in 2025. Throughout the year the company continued technical de-risking, identified key stakeholders across the value chain, and explored partnerships with strategically aligned companies.

BlueDot Photonics

BlueDot Photonics works to develop the next generation of solar panels made of perovskite materials, with the goal of increasing output by at least 10%. In 2025, the company was acquired by quantum dot leader UbiQD to continue growing its momentum in solar. UbiQD is a portfolio company of GCxN's sister program IN2, the Wells Fargo Innovation Incubator, and successfully raised a $20 million Series B round to scale their technology across industries

BattGenie

BattGenie provides software solutions for battery management systems to enable faster charging and longer battery cycle life for electric vehicles (EVs) and grid storage battery applications. In 2025, BattGenie successfully graduated from the GCxN program after a successful project. They also announced a strategic partnership with RRC Companies, an engineering firm in energy, to serve the utility-scale energy market with advanced battery energy storage systems.

Consolidated Carbon

Consolidated Carbon develops industrial hemp-based materials for sectors including oil and gas, mining, transportation, and packaging by advancing the regenerative cultivation, processing, and application of this versatile agricultural feedstock while preserving food production. The company was announced as a GCxN portfolio company in 2025. They also celebrated the opening of a new state-of-the-art hemp processing facility and are advancing their technology and testing their materials in preparation for scale-up to meet significant demand.

> "Access to NLR's equipment and expertise allowed us to validate our technology at scale, which was critical for proving our impact in real-world use cases."
>
> - BattGenie

CO-Z

CO-Z by Hygge Power offers reliable energy through its in-home network of small storage devices. CO-Z enables users to manage their power through outage, price, and carbon alerts on a smartphone application. CO-Z provides custom information using real-time inputs to create unique outage risk profiles for homes, apartments, and businesses. In 2025, the company developed and prototyped their energy storage unit, a product whose need was underscored by extreme weather events over the course of the year. CO-Z continues to work toward getting the right-sized unit developed, produced for a competitive price, and into customers' homes.

DTE Materials

DTE Materials developed a technology that converts agricultural and forest waste into sustainable, carbon-negative construction materials. GCxN will assist DTE Materials with a thorough life cycle analysis considering procurement, conversion of biomass, manufacturing, implementation, and disposal. NLR's steam explosion reactor will be used to produce bio-aggregates using DTE's feedstock materials. In 2025, DTE was accepted by the Rocky Mountain Institute into their prestigious Third Derivative accelerator. The company also marked an important milestone, installing their first pilot of Stonefiber blocks at the University of California, Davis' Demo Hut.

Electrical Grid Monitoring (EGM)

EGM aims to digitize the grid and integrate distributed energy resources. EGM mitigates major grid challenges by delivering effective integration of distributed energy to the grid, enhancing grid reliability, improving security levels, and reducing the cost of ownership. Exciting top leadership announcements were made in 2025, and the company also published industry analysis on the state of the U.S. utility sector and a case study on how EGM technology helped an electric cooperative accelerate restoration.

Electrified Thermal Solutions

ETS focuses on developing the Joule Hive: a new energy storage technology that converts surplus zero-carbon electricity into heat. In 2025, ETS secured a $500,000 award from MassVentures START to accelerate the commercialization of their technology. They also struck a partnership with HWI, a member of Calderys, to develop and produce electrically conductive firebricks for their Joule Hive. Their technology was featured in the publications Electrek, Global Corporate Venturing, and Energi Mix and by the American Society of Mechanical Engineers.

eXoZymes (formerly Invizyne)

eXoZymes is a cell-free enzyme platform that enhances biomass conversions, vastly improving the economics of bio-based chemical production. GCxN will enable researchers to evaluate various separations approaches to enhance product throughput as well as conduct techno-economic and life cycle analysis modeling of eXoZyme's production process. In 2025, the company rebranded to eXoZymes and announced new executive leadership. They were selected as a core industry partner in a $9 million National Science Foundation-funded initiative, and they joined the leadership of the BioMADE Consortium.

Hexas Biomass

Hexas Biomass created a nature-based alternative for wood, food crop, and fossil fuel-based feedstocks for biofuel production. GCxN will support Hexas Biomass with feedstock treatment and conversion to sugars and lipids leveraging NLR's Integrated Biorefinery Facility and fermentation systems. In 2025, Hexas executed an agreement with Comstock Fuels that enables the companies to combine their fuel refining platform and high-yield energy crops, respectively. The company was also acquired by Bioleum Corporation, a strategic investee of Comstock Fuels whose high-yield refining platform will enable production of biofuel from Hexas' biomass at large volumes.

Icarus RT

Icarus' product, Quartet, extracts, collects, and stores waste heat from solar panels to increase power output and lower system cost per kilowatt. Quartet converts the stored heat to hot water and/or power on demand. In 2025 Icarus established a presence in India, positioning themselves to better serve the booming market there. They also advanced their pilot funded by the California Energy Commission and secured their first paying commercial customer, which is also one of California's first net-zero buildings.

Induction Food Systems (IFS)

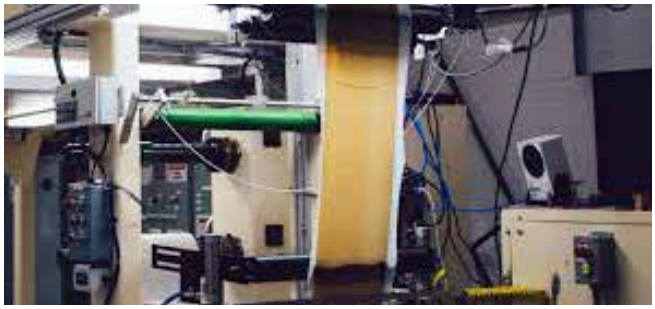
IFS heats flowing fluids from the middle-out instead of the outside-in. This breaks fluid heating bottlenecks across industry processes which improves productivity and generates operational efficiency.

Intertie

Intertie developed a battery-boosted charging station known as the EV ChargePod. The EV ChargePod uses a DC microgrid and battery buried underground with a charging station aboveground that promotes a low-cost, user-friendly experience. Intertie's technology combines fast-charging capabilities, intelligent storage, and integrated solar power. In 2025, Intertie continued their research and development work, including work on battery-boosted fast charging with the California Energy Commission. Their scaling remains strategic and deliberate, but they're shifting focus to customers like transit agencies and schools as well as microgrids and utilities for virtual power plant applications.

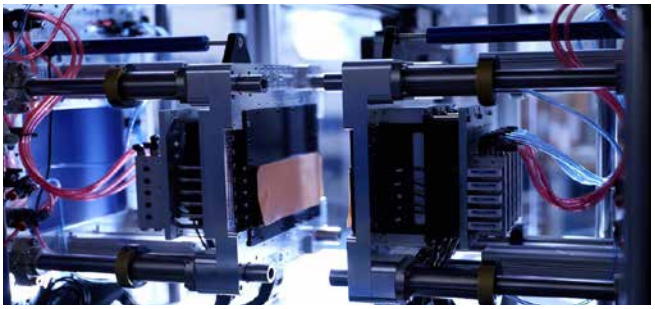
Jolt Energy

Using organic compounds, Jolt Energy makes organic redox flow batteries with the same large-scale storage capabilities as lithium-ion batteries but that are safer, more efficient, and less expensive. Jolt's multi-electron, higher-voltage capabilities enable utilities to capture energy from intermittent energy sources, such as solar panels or wind farms, and reliably deliver energy on demand. In 2025, Jolt made significant strides in advancing its technology, including improvements in performance and stability dimensions, with an emphasis on affordability. Company leadership also authored an article titled "Renewable Fuel for a Generation of Green Batteries" that was published in *Scientia*.



Ionomr Innovations

Ionomr Innovations develops ion-exchange membranes for fuel cell systems, green hydrogen production and carbon capture, and utilization for CO_2-neutral fuels. Its membranes and polymers come from a hydrocarbon base, making them fully recyclable, recoverable, and bioaccumulative. In 2025, Ionomr Innovations maintained its place on the Cleantech 100 list for the fourth year running and was also recognized as a Top 9 Sustainability Startup in Canada. The company and Jolt Solutions, an electrode manufacturer, signed a memorandum of understanding to integrate their respective technologies for faster market adoption.



Liminal Insights

Liminal Insights pioneered a battery intelligence platform that combines ultrasound and data analytics to deliver unique insights across the value chain. Liminal Insights' technology, known as EchoStat, uses ultrasounds to probe the physical condition of batteries in ways not currently possible at commercial scale. This patented technology enables customers to build dependable, safe batteries and deliver premier performance at a lower cost. In 2025, Liminal Insights struck a partnership with Schneider Electric to produce high-quality EV batteries at scale with minimal waste. They were also named a Top AI Innovator on the CB Insights AI 100 List.

Microgrid Labs (MGL)

MGL is a consulting and software company dedicated to supporting the electrification of fleet vehicles. The technology determines optimal sizing of batteries and chargers through its modeling, simulation, and optimization tools. MGL also offers fleet electrification and microgrid planning services. In 2025 the company showcased their digital twin technology at the Aegis Graham Bell Awards and at DISTRIBUTECH 2025 in Dallas, Texas, alongside their partner Landis+Gyr. To date the company has more than 60 projects across India and globally, and in 2025 they released multiple publications, including a case study, a three-part blog series, and an article in Coach *Builders India*.

Phlair

Phlair's load-flexible, electrochemical process extracts targeted molecules directly from ambient air with scalable, cost-efficient performance. In 2025, Phlair was onboarded into the GCxN program, secured millions in grant funding, and signed carbon dioxide removal offtake agreements and struck partnerships with several notable companies. They also built and deployed 92 hydrolyzer stacks across pilot units and testing infrastructure and two operational direct air capture units, one of which was the first commercial unit.

Novastus

Novastus converts waste into valuable fuel and raw materials using nonthermal drying and recovery technology. Novastus joined the GCxN program in 2025 and was featured by Cemex Ventures as a Circular Resources leader on their Cleantech Construction Map 2025. They also hosted representatives of the White House's Environmental Task Force, who praised the company's "cutting edge solutions."

RenewCO2

RenewCO2's electrocatalytic conversion technology uses water and electricity to convert carbon dioxide into essential fuels and chemicals for industrial customers. 2025 marked the beginning of RenewCO2's journey in the GCxN program as well as the culmination of a three-year demonstration with Volkswagen Group, a pilot in partnership with Argonne National Laboratory, and a federally-funded feasibility study. Also during the year the company raised a $4 million seed round, and both their CEO and CTO were named among The Bioeconomy 500 for 2025.

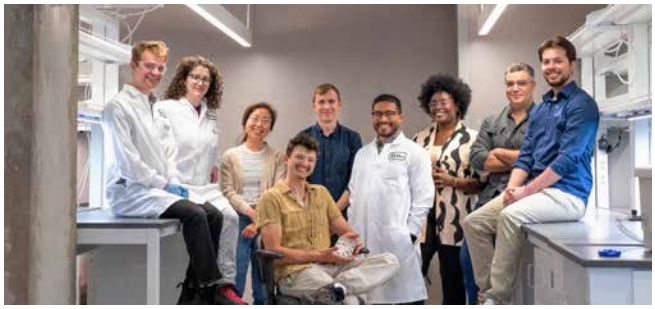
> "We can leverage [GCxN] to accelerate our own development and get to market a lot faster."
>
> - RenewCO2

Resonant Link

Resonant Link provides high-speed wireless power for a range of industries and products, from electric forklifts to medical devices. In 2025, Resonant Link's core wireless charging technology was acquired by Advanced Charging Technologies (ACT). Through this acquisition, ACT expanded its charging portfolio, which it used to launch Resonant Link Medical to charge medical devices.

SKYRE

SKYRE develops electrochemical systems for the industrial sector that convert targeted air molecules into fuels and chemicals. SKYRE was announced as part of GCxN's seventh cohort in 2025. The company also secured multiple commercial contracts, opening the door to full-scale production, and launched their Gemini-1 Series advanced gas separation and compression system. Finally, they shipped a system for application in natural gas pipelines in collaboration with a research institution in Texas.



Sora Fuel

Sora Fuel produces jet fuel by converting air into low-cost, scalable synthetic fuel without feedstock constraints or impacts on agriculture. Sora joined the GCxN program in 2025. It was also selected for Year 5 of the highly competitive Carbon to Value Initiative accelerator program and the 2025 International Airlines Group Accelerator and was recognized as a One to Watch: Climate Tech by Decarb Connect and top 12 spinout securing funding by Global University Venturing. In addition, the company signed a letter of intent with Future Energy Global to negotiate electronic sustainable aviation fuel offtake.

SPAN

SPAN aims to dramatically accelerate advanced energy adoption with its smart electric panel that provides data insights to allow homeowners to control their home energy via a smartphone application. SPAN also automatically adjusts power levels to ensure the energy in a home is properly balanced based on specific preferences. In 2025, SPAN partnered with Landis + Gyr to release Edge Intelligent Service Point, a device that integrates directly with utility meters. They also achieved UL 3141 certification for safety.

Versogen

Versogen develops a breakthrough electrolyzer technology that uses water and advanced energy to produce green hydrogen at scale in a reliable and affordable way. Versogen's systems are built around its patented anion exchange membranes and earth-abundant materials. In 2025 the company showcased their technology at conferences worldwide, including in Hangzhou, China; Cologne, Germany; Madrid, Spain; and NLR's Industry Growth Forum. They made some of their in-demand products directly available in the European Union, and research demonstrating the promise of their technology was published in *Science Magazine* and *Joule*.

ZILA BioWorks

ZILA BioWorks developed a bio-epoxy resin from hemp seed oil that has a 60% smaller carbon footprint than petroleum-based epoxies. GCxN will help ZILA BioWorks determine the suitability of formulations for thicker and larger sections of wind turbine blades and perform mechanical load-frame testing to characterize the strength of ZILA BioWorks' bio-resin relative to existing industry resins. In 2025, the company won $250,000 in an international food and agriculture business competition and was selected for University of Washington's CoMotion Labs climate tech incubator program.

Portfolio Company Highlight: SPAN

Smart Electrical Panel Startup SPANs NLR's Accelerator Programs

Imagine a severe storm knocking out a neighborhood powerline. While most homes go dark, one homeowner seamlessly manages their backup energy, prioritizing critical appliances. This is not the future—it is happening now with SPAN's smart electrical panel.

SPAN is the only startup company to go through two of NLR's startup assistance programs: GCxN and the Wells Fargo Innovation Incubator (IN2). SPAN created a smart electrical panel that goes beyond traditional capabilities, allowing users to control individual circuits through an app that provides a dashboard to track connected appliances and electric loads. The panel provides real-time visibility into a homeowner's energy consumption, while utilities can gain insight into grid flexibility strategies.

Alex Pratt, SPAN vice president of business development, said the company reimagined a power panel from the ground up. "Each of the circuits in our panels [is] granularly metered and controllable through a relay," he said. "This, combined with significant onboard processing and multichannel communications, creates a powerful platform to provide novel home energy management capabilities."

SPAN's technology was part of GCxN's second cohort in 2019, where NLR scientists focused on simulations to test the impacts of high adoption at the neighborhood scale under a utility's distribution feeder. The simulations demonstrated how grid operations could improve when individual consumptions are managed by SPAN smart panels.

"If a smart panel like SPAN's can communicate and track when the electricity price goes down," NLR Senior Research Engineer Shibani Ghosh said, "you can schedule the operation of your devices and save money within your time preferences."

The results of the simulations showed that SPAN's panel could deliver grid benefits as expected, so as the GCxN project wrapped up, SPAN joined IN2 in 2020.

"SPAN was unique in that they had already gone through GCxN, but that had been an entirely simulation-based project," said NLR Senior Engineer Bethany Sparn. "For IN2, we wanted to get their hardware in the lab. We wanted to look at a number of features that could help people add electrical equipment or provide resilience. For instance, if you install their panel with a backup battery, you can change what circuits are powered during a grid outage and even prioritize them."

Laboratory testing confirmed these features were working as expected. SPAN's panels are now widely deployed in all 50 states, supported by a network of hundreds of electrical installers. While SPAN's target audience has traditionally been homeowners and contractors, it is also exploring applications for utility grid services.

"As we're trying to introduce a new category and new approach to home energy management technology, having the credibility from a partnership with an entity like NLR is invaluable," Pratt said. "We've proven the viability and value of our product. We are now focused on accelerating adoption, and electric utilities represent a step-function change in the scale we can achieve and impact we can have."

Portfolio Company Highlight: ZILA BioWorks

New Material Sprouts From Fast-Growing Crop

It all started with the farmers. "We wanted to build something that could enhance crop value," said Jason Puracal, CEO of the materials startup ZILA BioWorks.

They built a new kind of material using hemp seed oil, a byproduct of the soil-friendly crop hemp. Now, farmers can sell hemp seed oil to ZILA BioWorks to make a new type of bioplastic for use in a range of products, including snowboards, concrete floor coatings, and energy infrastructure.

Not all bioplastics look, feel, flex, or break down in the same way. Those used to make compostable utensils, for example, disintegrate easily but are not the best option for outdoor or energy industries that need their materials to endure heavy rains and high winds. ZILA's new material, an epoxy resin, could combine two coveted features: durability and recyclability.

While the material is already used in high-performance skis and bicycles, its potential for larger industries remains to be fully explored. Thanks to support from GCxN, ZILA is partnering with NLR experts who are analyzing the new material's properties, strengths, and weaknesses.

"It's really exciting to help a company make that step between the beaker and the tangible product," said Robynne Murray, a mechanical engineer at NLR. Laboratory experts will evaluate how the epoxy resin performs in larger structures and assess if it is durable and scalable enough to be used in modern energy systems.

"NLR is a talent resource we wouldn't have otherwise had access to if not for GCxN," Puracal said.

Plant-based epoxy resins can be manufactured using repurposed waste and less energy, potentially lowering costs. In lab tests, ZILA's epoxy has outperformed traditional epoxies in flexibility, adhesion, and resistance to compression. Now, NLR experts are building larger composite structures fortified with ZILA's epoxy to understand how well it holds up.

"Through GCxN, we gain access to experts in formulation testing and manufacturing who can play with our technology to better understand how it performs," Puracal said.

The partnership offers a faster route to understanding where the material excels or fails, how to improve it, and which industries might benefit. "Validating ZILA's technology lets us benefit a small business while figuring out what their key next steps are," Nicholas Rorrer, an NLR polymer science research manager, said. "It shows the strength of our capabilities and could support new manufacturing."

ZILA's technology could also enable new domestic supply chains for epoxy resins.

"Of the 4 million tons of epoxy resin we use globally every year, 60% are produced in Asia," Puracal said. Without a strong domestic supply, manufacturers must navigate volatile prices, supply chain disruptions, and expensive shipping.

Puracal hopes that ZILA's homegrown material can help U.S. aerospace, automotive, battery, construction materials, and other industries reduce dependence on foreign goods, cut costs and waste, and build durable technologies.

"In the long run, it's a more secure and less economically volatile epoxy supply chain produced right here at home," Puracel said.

Ecosystem

To help portfolio companies accelerate their technology to market, GCxN cultivates a robust ecosystem of key stakeholders through various avenues.

Steering Committee

The Steering Committee guides the high-level direction of the broad NLR-Shell partnership, including the GCxN program. It comprises executive sponsors and members from each organization who convene regularly for strategic dialogues to ensure joint efforts are aligned to drive mutual goals.

Executive Sponsors

Sonya Vial
Shell Vice President, Downstream and Low Carbon Process Technology

Andrea Watson
NLR Associate Laboratory Director for Innovation, Partnering, and Outreach

Members

Akilah LeBlanc
Shell General Manager, Open Innovation

Brian Panoff
Shell Head of Ventures, Americas

David Kordonowy
Shell Head of Commercial Partnerships

Trish Cozart
NLR Center Director, Innovation and Entrepreneurship

Ron Schoon
NLR Executive Manager, Partnership Development

Worldwide Innovation Network

Launched in 2025, the Worldwide Innovation Network (WIN) convenes global organizations that assist entrepreneurs located around the world. WIN strengthens connections between ESOs that are essential to the global entrepreneurial ecosystem so they can learn from one another and exchange resources to help accelerate the development of startup technologies, no matter where they originate. It is a coordinated platform designed to boost startups by strengthening global entrepreneurial support opportunities through knowledge sharing, relationship building, and collaboration. WIN is designed to be more than a network; it offers a win-win-win for ESO members, the startups they serve, and the world.

In its inaugural year, WIN made great strides in activating a global network of organizations specializing in technology commercialization, funding, customer discovery, marketing, and more. The network welcomed its founding members and convened them quarterly to establish WIN's foundation and identify the structures and practices to scale its scope and impact in years to come.

Founding WIN Members

Together, these ESOs serve the following regions: Central and South Asia; Europe; Latin and South America; Middle East and North Africa; Sub-Saharan Africa; and United States and Canada.

- Berytech
- Cleantech Open
- Climate-KIC
- Energy Tech Nexus
- Indian Institute of Technology Madras
- NLR's Innovation and Entrepreneurship Center
- Shell GameChanger
- Village Capital

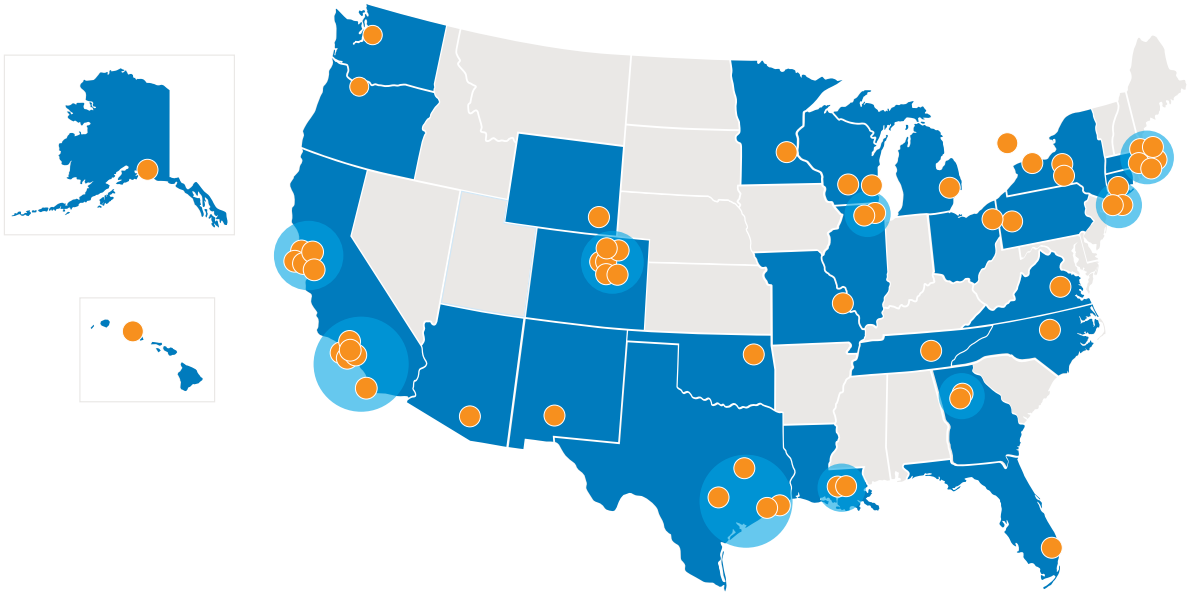
Channel Partner Strategic Awards

The Channel Partner network, comprising more than 60 incubators, accelerators, and universities, is a cornerstone of GCxN, helping to refer startups to the program and serving their ecosystems with entrepreneurial resources. Beginning in 2025, GCxN supports this network through strategic financial awards meant to bolster Channel Partner efforts that address real-world commercialization challenges and facilitate cross-sector collaboration. This year's inaugural awards focused on scaling impact at the regional level by fostering partnerships between Channel Partners and community organizations and incubators in new markets.

Read more about the 2025 Strategic Award winners, BRITE and Cleantech Open, on pages 17 18.

Channel Partners

Channel Partners represent the leading edge in academia, research, and industry, providing unique insights into advanced energy technologies. They serve as a vetted pipeline into the program, identifying and referring high-potential startups during each application call. The Channel Partner network spans the country and represents multiple sectors, from hardware to finance to software.



Alaska
Launch Alaska

Arizona
University of Arizona Center for Innovation

California
Activate
California Institute of Technology - Rocket Fund
Cleantech Group
Cleantech Open
Cleantech San Diego
Imagine H_2O
Larta Institute
Los Angeles Cleantech Incubator
New Energy Nexus
RevHub OC
Stanford University - TomKat Center for Sustainable Energy

Canada
MaRS Discovery District

Colorado
Colorado Cleantech
Colorado School of Mines Beck Venture Center
Colorado State University
Innosphere Ventures
Third Derivative
University of Colorado Boulder - Venture Partners

Connecticut
ClimateHaven

Florida
HBCU Clean Energy Initiative

Georgia
COX Cleantech Accelerator
Georgia Institute of Technology - ScaleUp Lab

Hawaii
Elemental Impact

Illinois
Evergreen Climate Innovations
mHUB

Louisiana
Louisiana State University
Nexus Louisiana

Massachusetts
Alliance for Climate Transition
Browning the Green Space
FORGE
Greentown Labs
MassChallenge

Michigan
Lawrence Technological University - Centreoplis Accelerator

Minnesota
Grid Catalyst

Missouri
Yield Lab Institute

New Mexico
New Mexico State University - Arrowhead Center

New York
Koffman Southern Tier Incubator
New York University - Urban Future Lab
NextCorps
SecondMuse
Syracuse University - Syracuse Center of Excellence

North Carolina
University of North Carolina - Institute for the Environment

Ohio
BRITE Energy Innovators

Oklahoma
Rose Rock Bridge

Oregon
VertueLab

Pennsylvania
Carnegie Mellon University - Wilton E. Scott Institute for Energy Innovation

Tennessee
Spark Innovation Center

Texas
Energy Tech Nexus
Rice University - Rice Alliance for Technology and Entrepreneurship
Texas A&M University - Engineering Experiment Station, Clean Energy Incubator
University of Texas Austin

Virginia
Dominion Energy Innovation Center

Washington
University of Washington - Buerk Center for Entrepreneurship

Wisconsin
The Water Council
Wisconsin Energy Institute

Wyoming
CO-WY Engine

Channel Partner Strategic Award Highlights

In January 2025, GCxN chose two winners for its first Channel Partner Strategic Awards cycle. The funding provided from this award addresses commercialization gaps for energy startups through regional collaboration and tailored entrepreneurial support. Read more to learn how the awarded teams made an impact with action-oriented initiatives and partnership creation.

BRITE and Nexus Louisiana

Nexus Louisiana[1] (Nexus) supports entrepreneurs—specifically those homegrown in Gulf Coast states, like Louisiana—to launch their technologies out of obscurity and into the market. With funding from a GCxN Channel Partner Strategic Award, Nexus Louisiana partnered with BRITE[2] and expanded their support local entrepreneurs, thinkers, and tinkerers.

"We're helping companies get out of the lab and build a business beyond just a great product," said Manoj Jhaveri, BRITE's innovation services director.

Nexus staff know the Gulf Coast region—its hidden masterminds, the different paths a young company can take, and the waste and energy challenges their communities are facing right now.

"We've created a pipeline that lets us foster talent right here in Louisiana," said Tony Zanders, the president and CEO of Nexus Louisiana. "Founders who were born and raised here can help solve some of our region's—and, honestly, the world's—biggest challenges."

Thanks to the GCxN Strategic Award, BRITE's nationally focused team gained a stronger presence in the Gulf. Nexus' team recruits the hidden masterminds and helps them get started with a business plan, customer discovery, and investor pitching. Once the company gains momentum, BRITE's executives step in—literally.

"We embed ourselves in companies and help them take that next journey," Jhaveri said. "It could be marketing, finance, fundraising strategy, operations, manufacturing, supply chain—a host of different ways."

Although BRITE and Nexus Louisiana planned to support a minimum of 10 founders over their year-long award, they brought on 12 in just six months. Six companies have completed initial qualification, meaning they're ready to explore customers and investors, and four have gained enough traction to progress to the next phase: BRITE.

"Every startup has gaps," Jhaveri said. BRITE—and its network of more than 30 fractional executives—helps fill those gaps. The startups receive support from executives who function as full-time employees, helping them identify operational bottlenecks and strategize how to move forward. Several startups are already exploring pilot projects and early customer opportunities that could lead to purchase agreements within the next 6–12 months.

Louisiana already has a big energy industry footprint. The state hosts many oil and gas companies and petrochemical plants. But it also has room to grow. Artificial intelligence could streamline energy operations, abundant waste chemicals could transform supply chains, and more versatile energy options could power up military-related activities. Between 2024 and 2025, Louisiana brought in close to $44 billion in energy-related investments, according to Louisiana Economic Development.[3]

The state could continue to grow that number, especially if it can boost early-stage funding for startup founders and help prevent talent from being swept away by out-of-state competition, according to Zanders.

"We're losing talent every year to out-export and brain drain," Zanders said. "Bright engineers either leave Louisiana for bigger markets or take the safe route because they do not see a clear path to build here."

[1] https://nexusla.org

[2] https://brite.org

[3] https://www.opportunitylouisiana.gov/news/louisiana-closes-record-year-with-new-investment-and-strong-momentum

Cleantech Open and Deep Blue Institute

American actors tend to congregate in Hollywood, bankers in Wall Street, and entrepreneurs in Silicon Valley. But Ken Hayes wants to make geography irrelevant to success—at least for energy entrepreneurs.

"We want entrepreneurs to stay in their local communities and build prosperity but have access to the rest of the world," said Hayes, the executive director of Cleantech Open[4] (CTO), a national business accelerator that has worked with more than 4,000 startup founders since it launched in 2005.

Now, thanks to a 2025 GCxN Channel Partner Strategic Award, CTO has expanded into a new region, the Gulf Coast by partnering with Deep Blue Institute[5], a New Orleans-based group that supports startups working on technologies that could tackle specific Gulf Coast challenges, like dwindling clean water supplies, thrashing storms, and coastal erosion.

"Louisiana is losing a football field of land every 90 minutes [due to erosion]," said Greg Delaune, the cofounder and managing director of Deep Blue Institute.

Some local startups have come up with workarounds—like floating homes, recycled chemicals, water-saving irrigation, and storm-resistant roofs—that could help Gulf Coast communities persist through future catastrophes. And Hayes and Delaune aim to help these startups advance their ideas without having to transplant their businesses—and their workforce and economic benefits—outside their community. The GCxN Strategic Award is enabling them to do just that: support young companies to chase success right at home in the Gulf Coast.

In the Gulf Coast region, Delaune said, "It's harder to get investors, it's harder to get momentum. And we're filling that gap."

In March 2025, CTO and Deep Blue Institute co-hosted a New Orleans recruiting event for startup founders and took on five of the companies that applied to join their accelerator program.

"These technologies are critically needed for the coming decades and could be a way to diversify Louisiana towards long-term growing sectors that are high value," Delaune said.

In the final months of CTO's five-month accelerator program, the entrepreneurs submitted a final business plan and pitched it to a panel of mock judges. They also participated in a regional pitch competition and flew to San Jose, California, to attend CTO's Global Forum event where they pitched live to the public and met one-on-one with hand-picked investors.

On November 6, CTO and Deep Blue Institute co-hosted a New Orleans Showcase—the final event of their GCxN award. There, the five startups gathered with Gulf Coast-based executives and entrepreneurial leaders to deliver curated pitches and receive informal feedback, celebrate their accomplishments, and plan for 2026.

Next, CTO and Deep Blue Institute hope to support more Gulf Coast-based founders and potentially expand up the Mississippi River, too.

"We want to build the narrative that if the rest of the world is looking for the best coastal solutions, New Orleans is the place to come," Delaune said.

[4] https://www.cleantechopen.org

[5] https://www.deepblue.institute

Year in Review
2025

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March 2026

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