INNOVATION INCUBATOR

Funded by Wells Fargo & Company and coadministered by the National Laboratory of the Rockies

Built for Scale

Annual Report 2025

IN2ecosystem.com

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Sarah Derdowski, IN2 Program Manager, National Laboratory of the Rockies

Jeffrey Schub, Head of Sustainability, Wells Fargo

From the Directors

As we look back on 2025, one thing is clear: the Wells Fargo Innovation Incubator (IN2) has established a strong foundation—and we're really starting to build on it.

Over the past year, the program continued to grow in ways that matter. We focused on strengthening the core of what IN2 does best: connecting strong technologies with the people and organizations ready to put them to work. Our framework of trusted partners, real-world validation, and a growing network of adopters is what launches innovation that lasts.

The built environment remained our central focus in 2025. In this space, both energy challenges and energy opportunities show up every day. The startups in IN2's portfolio continue to deliver technologies that improve efficiency, resilience, and performance. From automation controls to new materials, the Emerging Tech track made real progress toward advancing building technologies at scale.

We also took constructive steps with IN2's scalable programming, designed to directly address adoption barriers. By pairing startups with organizations ready to deploy technology, IN2's Scalable Tech track helps move solutions out of the lab and into real buildings, campuses, and municipalities, all while creating models that others can follow.

This year also marked an important extension for IN2's agricultural technology (AgTech) portfolio. After putting the right infrastructure and relationships in place over several years, we worked carefully to transition our AgTech focus to a trusted Channel Partner, who will take this work to the next level, while keeping the community and mission intact. This effort reflects a strength of the IN2 model: knowing when the groundwork is solid and the platform is ready for others to take it further.

Our Channel Partner Strategic Awards are another example of the scaffolding we built for the entire technology innovation ecosystem. The 2025 cycle of funding supported partners to coordinate across state borders and build stronger regional resources by leveraging existing expertise and technology in those areas. These efforts extend IN2's reach well beyond any single cohort and reinforce our belief that strong local and regional collaboration is essential to lasting impact.

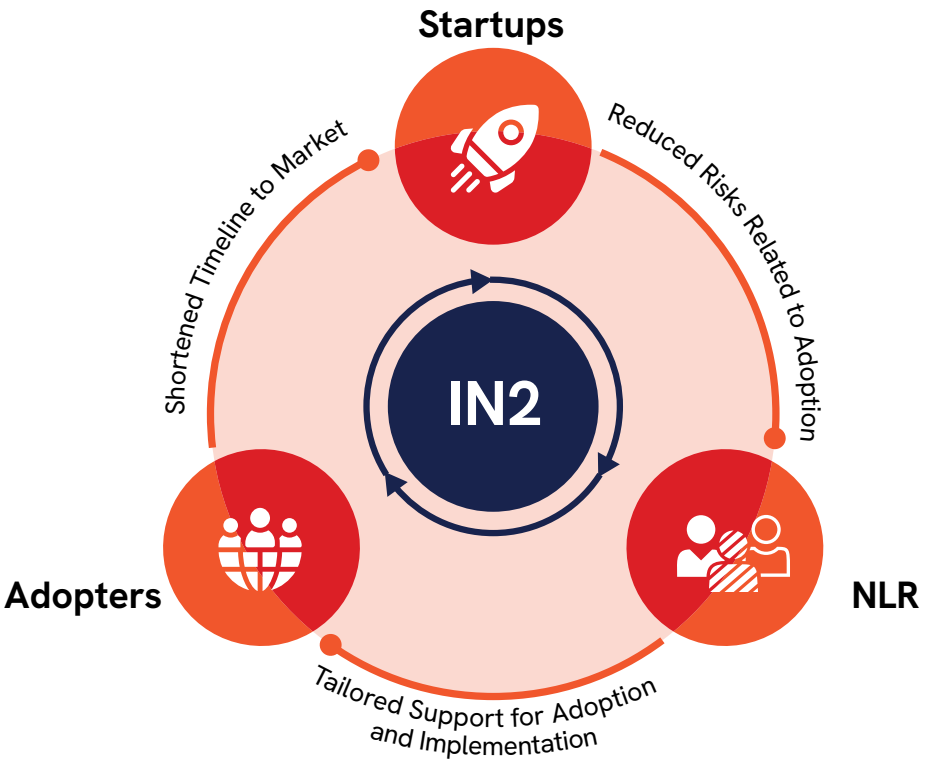
IN2 has always been about more than individual success stories. It's about creating something durable—a program, a network, and a way of working that helps innovation succeed in the real world. In 2025, that framework proved its value. Looking ahead, we're excited to continue building IN2, connecting technologies up and down the value chain, and addressing challenges in more integrated, scalable ways. The foundation is in place, the momentum is real, and the timing is right.

Program Overview

The Wells Fargo Innovation Incubator (IN2) is a $56 million program funded by Wells Fargo & Company and coadministered by the U.S. Department of Energy's National Laboratory of the Rockies (NLR). IN2 advances energy technologies from concept to commercialization—validating and de-risking startups in the built environment and infrastructure sectors while facilitating connections with adopters who receive guidance on implementation practicalities and strategies.

Founded in 2014 and administered by NLR's Innovation and Entrepreneurship Center, IN2 initially focused on solutions that reduce energy used in the built environment and later expanded its efforts to address agricultural technology (AgTech). IN2 has supported 77 startups, providing each with up to $250,000 in nondilutive funding for research and development support from scientists at NLR or the Donald Danforth Plant Science Center in St. Louis, Missouri.

After 10 years of impact, IN2 grew to include programming for corporate and municipality adopters, address demand-side market barriers, and increase widespread adoption of scalable energy solutions. Adopters use IN2's funds to develop tailored technology pilot programs, access best practices and financing for implementation, and install startup technology.



Key Partnerships

IN2 is a comprehensive initiative to unite stakeholders by streamlining a traditionally fragmented approach to energy technology innovation and implementation.

As a global leader in energy systems research and development, NLR provides the capabilities to integrate and optimize a wide range of technology solutions. IN2 companies benefit from the tailored guidance of NLR researchers and access to the laboratory's facilities.

AgTech startups collaborated with the Danforth Center, the world's largest independent plant science research institute. Founded in 1998, the nonprofit offers facilities including a 44,220-square-foot greenhouse complex, 38 growth chambers, and 51 custom growth rooms.

Supporting IN2's focus on adoption and implementation, key industry partnerships provide expertise in playbook development, startup downselection, and organizational change management.

IN2's holistic approach links startups and adopters with Channel Partners, industry leaders, and investors in an integrated ecosystem to ensure maximum success. By bringing together these groups, IN2 accelerates the development and adoption of energy solutions.

Shared Power, Shared Progress

IN2 drives energy solutions to ensure all communities benefit from an advanced energy future. By combining emerging technologies with ground-up approaches, IN2 integrates resiliency into all programming, addressing energy challenges while building stronger, more adaptable systems through:

- **Collaborative innovation:** Partnering with communities to cocreate practical, lasting solutions that meet local energy needs and build more scalable and reliable energy systems.
- **Energy empowerment:** Supporting sharing of advanced energy benefits and responsibilities, as well as tools, resources, and funding, through stakeholder engagement and strategic planning.
- **Real-world testing:** Validating community-prioritized solutions via simulations and regular measurement to assess and report on initiatives' impact, reliability, and effectiveness.

IN2 By the Numbers

77
portfolio companies

19
pilot-ready adopters

$2.97B
in follow-on funding raised by portfolio companies

$136
raised by portfolio companies for every $1 invested by IN2

18
mergers and acquisitions of portfolio companies

80%
of portfolio companies advanced their technology-readiness level through IN2

Scalable Tech Track

Through its Scalable Tech track, IN2 helps corporations and municipalities adopt validated technologies that deliver operational efficiency and measurable business impact. IN2 utilizes a collaborative framework that connects startups, technical experts at NLR, and technology adopters to streamline pilot deployment, reduce adoption risks, and accelerate time to market.

In 2025, nine new adopters joined the second Scalable Tech cohort, each sharing the common goal of adopting technologies that strengthen reliability while improving performance:

- The Colorado Energy Office develops programs and promotes energy policies to create a prosperous energy future for Coloradans.
- EdgeCore Digital Infrastructure explores solutions in cooling systems and construction materials to enhance data center efficiency.
- Habitat for Humanity of Greater Los Angeles focuses on integrating resilient building solutions into affordable housing for wildfire-impacted communities.
- Haskell investigates modular construction techniques and alternative energy integration to support data centers and heavy manufacturing facilities.
- National Grid explores approaches to accelerate large-scale electrification projects, enhancing how new energy demands connect to constrained distribution infrastructure.
- SLB concentrates on de-risking and scaling advanced industrial technologies and energy-efficient solutions.
- Stoneweg prioritizes energy efficiency and resilience in multifamily real estate by leveraging data to improve decision-making and performance.
- Tucson Electric Power studies grid-edge technologies to enable solutions like virtual power plants and digital twin applications.
- WinnCompanies aims to enable buildings to dynamically manage energy and expenses by utilizing data streams and automated controls.

IN2 also celebrated the conclusion of its inaugural Scalable Tech cohort in early 2025. A panel of expert judges awarded a pool of $750,000 from Wells Fargo to five adopters for pilot projects spanning both the country and industries. Armed with the startup technology identified through IN2 and hands-on advice from NLR researchers, demonstrations launched in early 2025 and teams are collecting data for case studies to present clear, replicable pathways to success.

> “This is the first time I’ve been able to get committed and consistent engagement across departments on a subject like this. The direction and tools you’ve given us facilitated that.”
>
> — Stoneweg

Active Projects

CBRE is a global leader in commercial real estate services and investment, with solutions that simplify complexity and improve the efficiency of real estate portfolios at scale. For its IN2 scalable pilot project, CBRE is installing a Blue Frontier unit at a client facility in Florida.

Blue Frontier's air-conditioning technology works with low-cost thermochemical energy storage to improve energy efficiency and reduce electrical demand.

Coconino County is a community in Arizona offering alternative high school education in Flagstaff, Arizona, and Page, Arizona, emphasizing college and career readiness, student empowerment, and community improvement. For its IN2 scalable pilot project, Coconino County has installed two emerging technologies at its Ponderosa High School: Rensair and Komfort IQ.

Rensair's portable, connected technology ties ventilation rates to measured air quality. This solution reduces the cost of running existing heating, ventilating, and air-conditioning (HVAC) systems, cleans the air, and makes indoor environments healthier places to be.

Komfort IQ's technology for HVAC controls utilizes artificial intelligence and machine learning algorithms to optimize heating and cooling systems while meeting the specific temperature requirements of each zone.

Digital Realty (DLR) is one of the largest global data center providers and is committed to using technology to effectively reduce its power consumption and expand its reach. For its IN2 scalable pilot project, DLR has installed a Hayzel turbine on a chiller in a data center in California.

Hayzel's liquid-vapor expander technology is a two-phase turbine that extracts heat and boosts chiller efficiency by generating electricity from refrigerant expansion.

Galvanize Real Estate is a real estate platform aiming to invest in well-located, high-quality real estate to reduce the property's operational expenses, improve cash flow, and increase asset values. For its IN2 scalable pilot project, Galvanize has installed two emerging technologies, an EnKoat roof coating and Alpen windows, on a warehouse facility in New Jersey.

EnKoat re-engineers architectural coatings using phase change materials to save energy costs and regulate internal temperatures in new and retrofitted buildings.

Alpen's high-performance windows and doors provide custom solutions engineered for durability, energy cost savings, and design freedom.

The University of Colorado Boulder (CU Boulder) is a public research institution with more than 38,000 students. For its IN2 scalable pilot project, CU Boulder has installed INOVUES secondary windows on two of its campus buildings.

INOVUES' patented insulating glass retrofit technology transforms the windows and glass curtain walls in buildings into high-performing systems that incorporate the latest glass innovations without removing, replacing, drilling, or altering any existing components.

Our Alumni

After graduation, Scalable Tech alumni join an "adoption-ready" network of Energy Champions to gain curated access to NLR and a community of peers equally committed to collaborative innovation.

- Avangrid
- CBRE
- Coconino County
- Digital Realty
- Galvanize Climate Solutions
- Intermountain Health
- Prime Data Centers
- Schneider Electric
- Southern Company
- The University of Colorado Boulder

Scalable Tech Spotlight: Galvanize and EnKoat

In January 2025, IN2 awarded Galvanize $200,000 through its inaugural Scalable Tech track to, in part, help EnKoat's IntelliKoat coating go beyond theoretical adoption and get real.

That means applying the product on a real-world structure (as opposed to buildings recreated in NLR's virtual models), collecting data (with help from the lab's researchers), and gaining a deeper understanding of how well the technology does what it's expected to do (through in-the-field pilot studies).

"Essentially, we're putting sunscreen on roofs," said Matthew Aguayo, a material scientist and structural engineer who is also the co-founder and CEO of EnKoat, the startup that makes IntelliKoat, the roof sunscreen.

Aguayo and his EnKoat team have applied a fresh coat of sunscreen to a 60,000-square-foot warehouse in Pedricktown, New Jersey thanks to support from IN2 and in collaboration with adopter Galvanize, a global investment firm.

"What stood out about EnKoat is that this isn't an off-the-shelf roof coating," said Alex Munoz, the managing director and head of asset management at Galvanize Real Estate. "The formulation is purpose built to address both energy performance and material degradation, making it meaningfully different from the products that are widely available today."

"We ultimately make sure that research is not just ideas but implementable products," said Sajith Wijesuriya, a researcher at NLR who is helping collect and analyze data for the IN2 project. "We help get products to the communities that require them and yield energy benefits as well as cost benefits."

EnKoat's IntelliKoat coating—which is actually two coats, one for thermal control, one for weather protection—has already yielded benefits for a few customers. After applying their sunscreen to the roof of a 110,000-square-foot data center in Texas, Aguayo said that inside temperatures dropped from 140 to 86 degrees Fahrenheit, a more than 50-degree difference.

"By significantly reducing heat transfer, we prevented the overheating that had been causing repeated equipment failures," Aguayo said. "After installation, the facility experienced zero heat-related failures and achieved 100% equipment uptime, critical for a bitcoin mining operation where every minute offline translates directly to lost revenue."

The coating doesn't just regulate temperature; it can also restore and strengthen aging roofs so owners can avoid costly repairs—at least for a while—or install more equipment up top.

"If someone were to ask us what keeps us up at night, it is educating the industry as a whole," Aguayo said. "Getting owners to understand there's things you can do to put more money in your pocket and protect your most expensive asset, which is your building."

IN2 is designed to help companies close these exact kinds of knowledge gaps. EnKoat's founders know that: The Scalable Tech Track isn't their first exposure to the program.

In 2019, Aguayo and Arora applied for Cohort 6 of the IN2 Emerging Tech track for startups—and got in. NLR's experts first performed their own tests to double-check EnKoat's stats. Then, using the lab's supercomputers, they explored how widespread application on hundreds or even thousands of buildings across the United States could affect energy demand and prices.

"At scale, you can see the magnitude of the energy-saving impacts," said NLR's Wijesuriya, who supported this initial EnKoat project, too.

Now, through IN2's Scalable Tech track, Galvanize selected EnKoat as their startup for real-world implementation. Together, the team chose the New Jersey building as their Goldilocks site—a structure that had a portion of roof that is just right to host onsite energy technologies but was beyond the prime age to support such a heavy load.

"We are eager to identify energy solutions that are practical and financially sound," said Nicolette Jaze, head of sustainability for Galvanize Real Estate. "We're willing to test new solutions that can meaningfully improve building performance but not at the expense of our fiduciary duty. IN2 helps bridge that gap, allowing us to support promising innovators in an industry that wants change but is cautious about going first."

In the fall of 2025, they went first: EnKoat's technicians applied IntelliKoat to the New Jersey warehouse roof to help strengthen it so it could host the new energy infrastructure. NLR researchers also installed sensors to collect data on temperatures inside and outside the building both before and after the coating went on. With that data, they can compare internal building temperatures on similar weather days pre- and post-coating to get a sense of how well the product regulates heat transfer in and out.

"We can clearly see if there are benefits in the quantitative assessment. Rather than just a model, we now have actual field data," said Wijesuriya.

Models are helpful, but they can't always replicate the messiness of the real world. If the data from a field study, like this rooftop pilot, matches a model's predications, that's extra validation a product is likely to work as promised. And that validation is essential for startups, like EnKoat, to earn the trust of its customers.

"This program allows us to go to the people within this market and tell them, 'You don't have to believe us. Here's what we did with NLR in the lab. Here's what we did with Galvanize on their roof,'" Aguayo said. ■

Emerging Tech Track

Through its Emerging Tech track, IN2 supports startups developing innovations across the built environment and infrastructure sectors, helping to validate, de-risk, and advance their solutions.

In 2025, three new startups joined IN2's ranks: MicroEra Power, SkyCool Systems, and Verv Energy. The cohort call focused on resiliency and reliability in the built environment with the selected companies bringing solutions for how commercial buildings are heated and cooled.

IN2 celebrated the graduation of seven startups from its program this year. In the built environment portfolio, CorePower Magnetics and Kit Switch are poised to make an impact on grid reliability and modular construction.

In the AgTech portfolio, Atlas Technologies, CarbonBook, Cytophage, InnerPlant, and Robigo all completed their IN2 projects. This group showcases diverse solutions such as real-time monitoring of feedwater chemistry; seed technology enabling crops to emit signals of stress; and precision microbial treatments to improve plant health and recover lost yields.

IN2 also took a strategic step to elevate its AgTech impact, bringing on a Channel Partner to carry the program into its next chapter. The Yield Lab Institute will continue IN2's legacy by continuing the shared mission of empowering the agriculture startup community through research collaborations, field testing, and direct funding opportunities to accelerate innovation in the global AgTech ecosystem.

> "IN2 validation strengthens our case for broader adoption. In a crowded market, an independent seal of approval is a game changer."
>
> — Verv Energy

> "IN2 held our hands in the early days and made us feel like we could do this...I don't know if any of this would have been possible without IN2 giving us that foundation."
>
> — AeroShield

Emerging Tech Spotlight: Cohort 15

In September 2025, IN2 welcomed three startups to its newest Emerging Tech cohort: MicroEra Power, SkyCool Systems, and Verv Energy.

"This cohort reflects a focused effort to strengthen America's grid by supporting building-level independence and operational continuity, directly addressing rising demand from sectors like data centers," said Sarah Derdowski, IN2 program manager at NLR. "Each company is delivering practical solutions that cut long-term costs while improving reliability against new load growth and extreme weather."

After a rigorous application process, including evaluations by NLR researchers, Wells Fargo leadership, and IN2's External Advisory Board, the following startups were selected.

MicroEra Power

Heating, ventilating, and air conditioning are peak loads—everyone needs heat on the coldest nights in February and cooling on the hottest days in August. With growing need for power from data centers, reindustrialization, and general economic growth, energy storage helps to manage the peaks and valleys of electricity supply and demand.

MicroEra Power offers their tunable thermal energy storage system as a solution—one that is safer, more efficient, and more durable than lithium-ion batteries and requires one-tenth of the energy output of hot or chilled water storage. This makes it highly attractive for urban applications.

Their system shifts building HVAC loads to less expensive off-peak periods and is 20% more efficient, CEO and cofounder Ellie Rusling said. That efficiency comes with minimal water requirements compared to evaporative cooling.

"We have efficiency gains and capital expenses that are much lower because we downsized the heat pump or chiller. And the system is relevant to both new builds and retrofits," she said. "Our materials can be domestically sourced. They have no performance degradation over decades of use. Add in the tunability of the system, which stores heat in winter and cooling in summer, there is high annual utilization."

Through the IN2 program, MicroEra Power will vet its system performance to showcase its efficiency, its deep storage capacity, and the reliability of the system's controls and performance.

"We want to alleviate the perceived risk in the marketplace," Rusling said. "We're attacking a big problem in an economical and creative way."

SkyCool Systems

Traditionally, buildings are cooled by running chillers or by evaporating water. SkyCool Systems wants to do things differently: using the cold of outer space to passively cool buildings.

SkyCool has created a material that acts as a supercool surface. Conventional cool roofs and walls are always hotter than the air temperature during the day because they absorb heat from the sun.

"What SkyCool has created is a way for roofs to maintain their nighttime temperatures but during the day," cofounder and chief technology officer Eli Goldstein said.

Through a complex cooling effect, the material prevents heat from entering the roofs of buildings and reduces cooling needs indoors. The material is cost-effective, with 90% lower operating costs than an HVAC system, CEO Arjun Saroya said. Their focus is on large buildings—like warehouses—that are becoming too hot to work in and require effective methods for rejecting heat absorbed by their large roofs. But the concept has potential residential applications as well.

In addition to the roofing material, SkyCool produces cooling panels that passively cool fluids in cooling systems for cold chain, industrial, and data center applications. They achieve 15%–40% energy savings, provide additional cooling capacity, and allow for large reductions in power load.

SkyCool will use the IN2 opportunity to model the impact of the materials on buildings, with the ability to model effects for specific buildings. The company wants to develop open-source computational models that can estimate the value of installing their materials in the built environment.

Verv Energy

Verv Energy developed a machine learning technology to detect coolant leaks in air-conditioning systems before they become a problem. The technology gathers high-resolution electrical energy data at the component level to detect faults and energy insights.

"What sets us apart is that we sample data tens of thousands of times per second, allowing us to see another level of resolution," CEO and founder Peter Davies said. "The energy signatures we capture correlate with air-conditioning component changes, letting us track degradation over time and quantify refrigerant leaks."

The machine learning runs continuously in the background, flagging anomalies in power usage or equipment. As its dataset grows, Verv Energy's system gets smarter, guiding a shift to prioritized predictive maintenance and communicating cost implications.

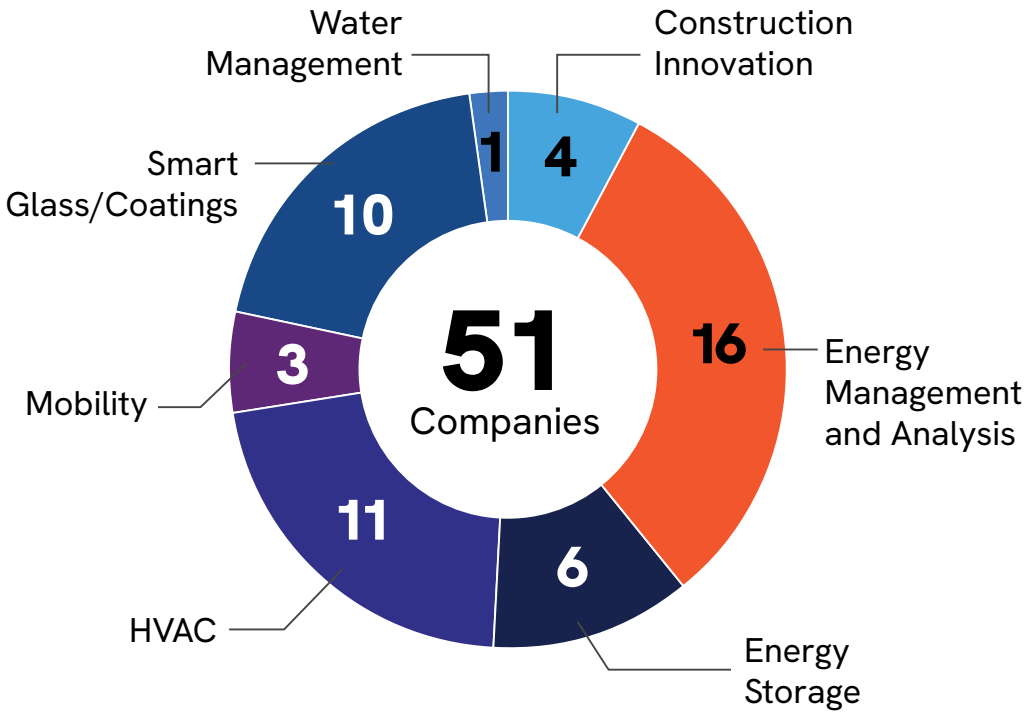
Verv Energy will receive test validation of their technology through the IN2 program. They will also utilize test results to refine their processes.

Currently, they have two active pilots: with the Los Angeles Department of Water and Power and with the City Greens Community Farm in Los Angeles. They hope to build off the momentum from these projects to expand deployments.

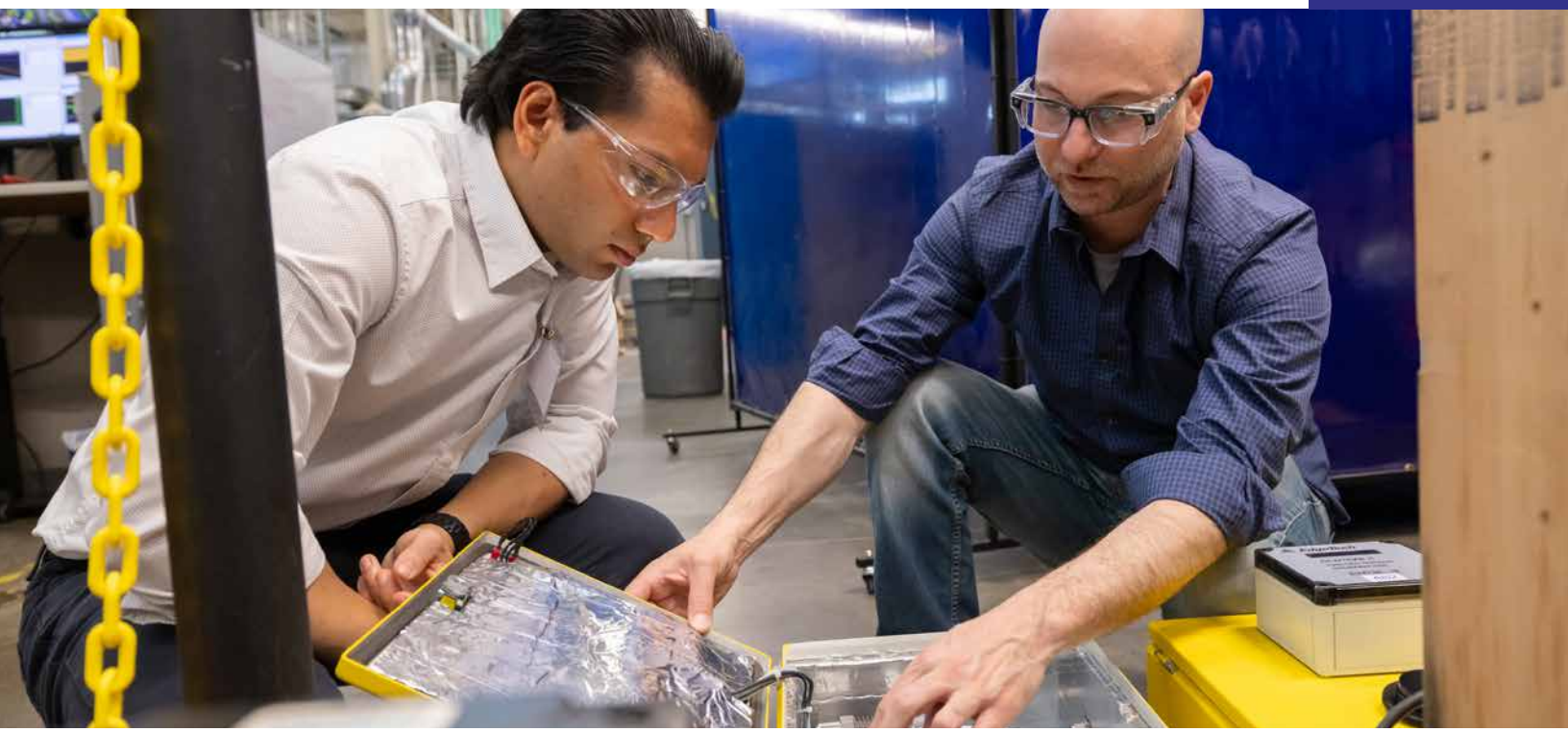
"IN2 validation strengthens Verv Energy's case for broader adoption," commercial director Derek Stoops said. "In a crowded market, an independent seal of approval is a game changer." ■

Portfolio: Built Environment

The buildings and construction sector accounts for 34% of global energy demand,[1] underscoring an urgent need for technologies that can drive energy advancement. IN2 portfolio companies are rising to this challenge, advancing innovations in areas such as energy management, efficient systems, and new materials.



1 Global Alliance for Buildings and Construction and United Nations Environment Programme. 2022. *2022 Global Status Report for Buildings and Construction*. https://wedocs.unep.org/items/c22095a1-fbcc-4378-8a42-b87ef3ec724c.



Active Projects

blip	**Blip Energy**'s smart battery platform controls when high-load appliances use electricity, helping households control energy use and support the grid. For Blip's IN2 project, NLR is simulating the effect of Blip's technology on multifamily and hotel building types in different climates and with different utility rate structures.
EVERCLOAK	**Evercloak** developed a refrigerant-free dehumidification system that reduces building cooling energy use, cutting costs and improving HVAC efficiency. For the IN2 project, NLR is setting up, commissioning, and running experiments on an Evercloak prototype in its Thermal Test Facility.
microEra Power	**MicroEra Power**'s THERMAplus tunable thermal energy storage delivers flexible, reliable heating and cooling, lowering HVAC equipment and operating costs. In its IN2 project, NLR is supporting the design, measurement and verification, and analysis of a MicroEra Power pilot demonstration at an off-site partner facility. Additionally, NLR will conduct a techno-economic analysis on the THERMAplus technology and produce a case study.
NeoCharge™	**NeoCharge**'s Smart Splitter technology coordinates fast, affordable, and simple home charging for homeowners and tenants. For the IN2 project, NLR used its Systems Performance Lab to characterize power consumption and interruption classifications of a variety of 240V household appliances that could be used with Smart Splitters. NLR will also conduct further testing to inform the operation of the Smart Splitter.
SkyCool Systems	**SkyCool Systems**' passive cooling technology for commercial buildings can replace or reduce the loading on condensers, cooling towers, and cool roofs by deflecting heat into space. For the IN2 project, NLR is developing physics-based energy simulations that represent the performance of SkyCool's passive daytime radiative cooling roof against that of a typical roof. NLR will then scale the model to represent the U.S. commercial building stock to predict the potential savings available.

transaera	**Transaera** builds air conditioners that use advanced materials and waste heat to improve efficiency and reduce cooling system loads in hot, humid climates. For its IN2 project, NLR has done lab characterization of an early desiccant wheel prototype in the Thermal Test Facility and then performed component modeling and optimization to inform design enhancements for a subsequent prototype.
UbiQD	**UbiQD** produces nanomaterials that turn windows into energy-generating surfaces. NLR is conducting varied materials characterization studies related to fundamental properties of UbiQD quantum dots and Luminescent Solar Concentrator devices. The project includes a demonstration of five windows installed at the NLR café, as well as seven windows that power motorized blinds in a guard building on the NLR campus.
verv	**Verv Energy** uses artificial intelligence to optimize HVAC and refrigeration performance in buildings with monitoring, control, and predictive maintenance. For the IN2 project, NLR is testing the efficacy of Verv's refrigerant leak detection, as well as other HVAC-related equipment faults, on available HVAC units.
YOTTA ENERGY	**Yotta Energy** develops modular energy storage designed to reduce cost and expand development of energy storage and grid resiliency on commercial buildings. NLR characterized the technology performance of two Yotta Energy prototype units as compared to a baseline unit in a laboratory environmental chamber, subjected to a range of ambient conditions. The final phase of Yotta's IN2 work includes the integration of a modeling capability for the Yotta system type into NLR's REopt® tool, plus a demonstration of several Yotta SolarLEAF units installed in the NLR café.

Our Alumni

75F
7AC Technologies
Adept Materials
AeroShield
APANA—inactive
BlocPower—inactive
Blokable—inactive
Blue Frontier
Community Energy Labs
CorePower Magnetics
Cypris Materials
Darcy Solutions
EdgePower
EnKoat
ESS
Geli
Glass Dyenamics
Go Electric
Heliotrope—inactive
J2 Innovations
Kelvin
Kit Switch
Ladybug Tools
LiquidCool Solutions
Maalka
NETenergy
NEXT Energy Technologies
NineDot Energy
PowerFlex
Pre Framing Corp—inactive
Shifted Energy
simuwatt (buildee)
SPAN
Stash Energy
STRATIS IoT
Tallarna
Thermolift
Transformative Wave
Turntide Technologies
VG SmartGlass—inactive
WattIQ
Whisker Labs

Portfolio Spotlights

Since its inception, IN2 has prioritized supporting startups that drive advanced energy technologies and practices in the built environment. Here are three examples of alumni portfolio companies that made an impact in 2025.

AeroShield Coating Makes Windows More Efficient

Before AeroShield was turning transparent nanomaterials into energy savings, it was looking for the right partners to prove its potential. That search led them to IN2.

"When you're a startup, especially one with a new technology, there's a top tier of incubator programs, and IN2 is on that list," said AeroShield cofounder and vice president of operations Aaron Baskerville-Bridges. "If you're trying to validate performance, IN2 has to be one of your first applications."

AeroShield developed transparent, super-insulating materials—including a silica aerogel—to enable more energy-efficient windows. The startup creates sheets of aerogel that are bonded to glass, forming a coated product that can improve a window's energy efficiency.

"The aerogel's nanostructure reduces a traditional window's heat loss by two to three times," said AeroShield Chief Executive Officer Elise Strobach. "Its tiny pores trap hot or cold air, preventing it from moving around or losing energy through the window. By making the windows more insulating, it takes less energy to keep the temperature in a room comfortable."

AeroShield worked closely with experts at NLR when it joined IN2's sixth cohort in 2020, using the program to independently validate the performance of its technology.

"[NLR] was able to tell us: This is the performance of your windows. This is what it means in terms of energy savings, and this is what it means in terms of dollar savings," Baskerville-Bridges said. "That quantifiable data is now central to our pitch presentation."

Since its time in IN2, AeroShield has grown to 25 full-time employees and opened a pilot facility in Waltham, Massachusetts, to manufacture sliding glass doors and other predominantly glass entryway products featuring aerogel fenestration.

"It is normally harder to make energy-efficient glass for doors than it is for windows, since the thickness can't be changed and weight is a major issue," Baskerville-Bridges said. "AeroShield is the perfect solution to provide improved performance without thickness or weight increases, and it's a great beachhead market since sizes are more standardized."

AeroShield is now expanding their manufacturing capacity with the support of a $14 million ARPA-E SCALEUP award to bring these products to market.

"Our new facility will enable product launch for entry and patio doors, and we will also be using that facility to produce windows and even retrofits that go on top of existing windows," Strobach said. "With this resource and backing, we're ready to deploy it and make it work."

Strobach echoes the importance of NLR's early support through IN2, acknowledging AeroShield would not be where it is now without the assistance. "IN2 held our hands in the early days and made us feel like we could do this," Strobach said. "It trained us to think with the customer and end user in mind from the beginning. I don't know if any of this would have been possible without IN2 giving us that foundation."

NLR and Blip Energy Collaborate on Smart Home Battery System

A smart home battery and energy management platform by Chicago startup Blip Energy is advancing through IN2's 14th cohort, launched in November 2024. Blip was chosen alongside Evercloak and Transaera for their focus on developing scalable, drop-in solutions that maximize energy efficiency for the built environment.

With NLR's technical assistance, Blip is analyzing the performance and market potential of its first product offering, blipOne, through rigorous techno-economic assessments grounded in NLR's building energy and grid systems research.

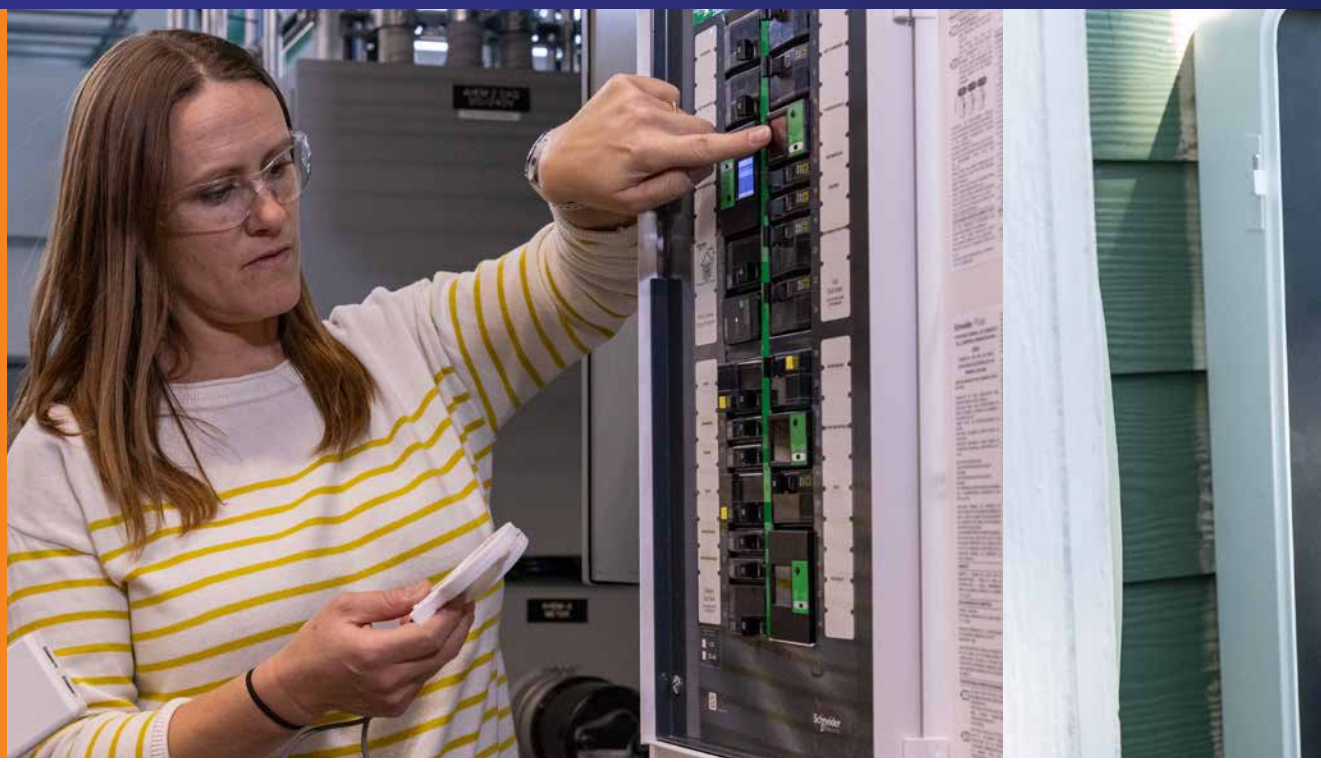
More compact than a carry-on suitcase, blipOne is a smart battery designed to mitigate peak energy demand, optimize energy costs for users, and reduce operating costs for utilities. As a self-installed, behind-the-meter product, it plugs into a standard wall outlet to shift electricity use during peak hours.

"Blip units charge when electricity is cheapest and automatically discharge during peak hours—typically in the early evening—helping users save money while easing strain on the grid," said Chance Cobb, cofounder and CEO of Blip.

Blip estimates its battery could save homeowners and renters up to $300 annually on electric bills. With NLR's support, the company is examining how those savings scale when devices are deployed across multifamily buildings and commercial properties.

"The value proposition would be less pronounced if Blip was focused only on single-family residential homes," Ravi Kishore, NLR mechanical engineer, said. "Instead, they want to include the commercial buildings market, where the pattern is more predictable."

Distributed fleets of Blip units could reduce peak demand for building owners, in lowering utility costs and boosting



property value. Especially in older buildings and dense urban areas, which are hardest to engage and retrofit, dynamic control of consumer-side demand is helpful for an overworked grid.

"The challenge is that energy demand is rising faster than grid expansion," Cobb said. "Instead of building costly new generation, utilities are now turning to demand-side solutions: flexible tools, like blipOne, that help lower and shift energy use to balance the grid more efficiently."

Working alongside utilities, grid operators, demand aggregators, and building owners, Blip positions its product as a virtual power plant of connected devices, capable of relieving stress from the grid.

"Our goal through the IN2 project is to quantify the benefits of the technology both in numbers and dollars," Kishore said. "We want to understand those benefits across different settings: a hotel; a multifamily apartment building; or even a hospital. The impact can vary depending on the building type, number of rooms, devices being powered, and the climate."

This techno-economic analysis shows where Blip's technology could deliver the greatest impact.

NLR, Cobb said, "is a highly respected thought leader in the energy space," an unbiased third party that "brings tremendous credibility to our work."

Smart Electrical Panel Startup SPANs NLR's Accelerator Programs

Imagine a severe storm knocking out a neighborhood power line. 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: IN2 and the Shell GameChanger Accelerator Powered by NLR (GCxN). SPAN created a smart electrical panel that goes beyond traditional capabilities, allowing users to control individual circuits through an app. This app provides a dashboard to track connected appliances and electric loads. The panel provides real-time visibility into a homeowner's energy consumption and utilities can gain insight into grid flexibility strategies.

Alex Pratt, SPAN vice president of business development, explained that the company reimagined the 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 joined GCxN in 2019, where NLR scientists focused on simulations to test the impacts of high adoption at the neighborhood scale. 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,” said NLR senior research engineer Shibani Ghosh, “you can schedule the operation of your devices and save money within your time preferences.”

Following a successful GCxN project, SPAN joined IN2 in 2020 to move from simulations to hardware testing.

“For IN2, we wanted to get their hardware in the lab,” said NLR senior engineer Bethany Sparn. “We wanted to look at features that could help people add electrical equipment. 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.”

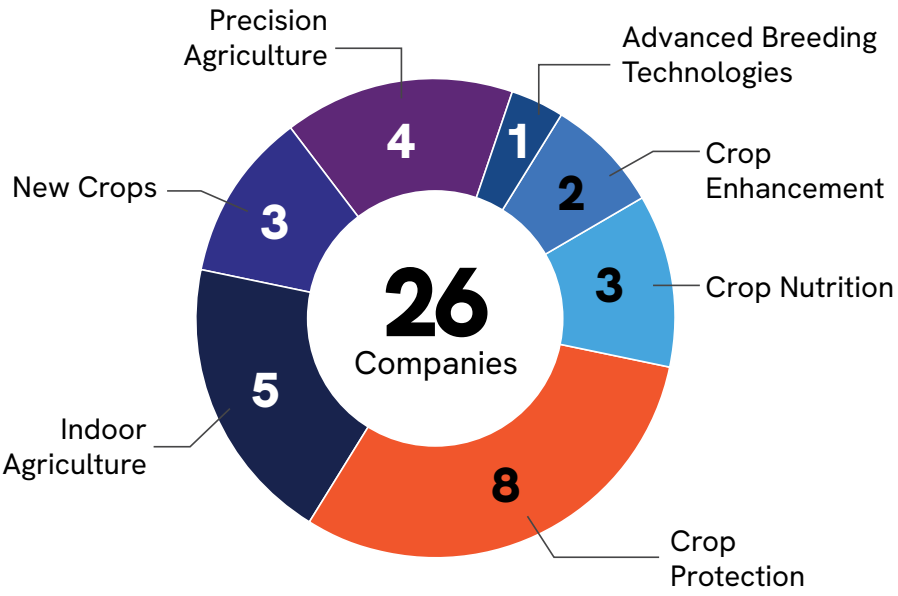
Pratt points to how the panel provides value when a homeowner installs a new electrical load. These additions could exceed the electricity the home was originally designed to draw. “The panel eliminates the need for the consumer to upgrade their service level with a utility and instead will intelligently balance the loads in their home automatically,” Pratt said.

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 electrical installers. Although homeowners and contractors have been SPAN’s target audience, SPAN is also exploring applications for utility grid services.

“Having the credibility from a partnership with an entity like [NLR] is invaluable,” Pratt said. “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: AgTech

The agriculture sector uses half of the planet's habitable land and accounts for 70% of freshwater withdrawals.[2] Bold innovation is required to address these negative impacts, boosting productivity while safeguarding reliability.



Our Alumni

AgroSpheres
Aker Technologies
Atlas Sensor Technologies
CarbonBook—inactive
CoverCress
Cytophage Technologies
EarthSense
Edison Agrosciences
Growflux
HabiTerre
Impetus Ag
Impossible Sensing (TerraBlaster)
InnerPlant
Intrinsyx Bio
Mirai Solar
Mobius—inactive
New West Genetics
Peptyde Bio
Plastomics
Pluton Biosciences
RNAissance AG
Robigo
Running Tide—inactive
Sentinel Ag
SolGro—inactive
TerViva

2 Schrempf, Bridget et. al. "Hungry for Change: Are companies driving a sustainable food system?" 2020.

IN2 Passes AgTech Program to Partner, Keeping Community Together

IN2 is known for its "secret sauce": equal parts technical assistance, ecosystem support, and nondilutive funding. Since 2019, IN2 has supported 26 AgTech companies that raised nearly $290 million in follow-on funding, with 5 seeing successful exits.

In September 2025, IN2 shared its secret recipe with The Yield Lab Institute (YLI), a St. Louis-based nonprofit, to launch Harnessing Agricultural Research and Venture Ecosystems for Sustainable Technology (H.A.R.V.E.S.T.) AgTech.

"We are building on an incredible foundation," said Stephanie Regagnon, YLI's executive director. "We want to preserve the feeling of inspiration and the desire to serve. Most importantly, we won't fix what wasn't broken."

Startups, partners, and advisors gathered in Denver at the Colorado State University Spur campus to celebrate IN2's AgTech cohorts and inaugurate the new program's future. In featured panel discussions, portfolio companies highlighted how IN2 uniquely elevated their technologies via the Danforth Center.

"Their insights proved invaluable," noted Wendy Mosher, president and CEO of New West Genetics. "Market access is crucial, and IN2 and [NLR] connected us with fuel industry experts we couldn't have reached otherwise."

Pablo Sobron, founder of Impossible Sensing, agreed: "IN2 gave us the visibility to attract a core group of people. Because Danforth proved the science, it creates that trust with partners."

H.A.R.V.E.S.T. will improve the startup experience by expanding the existing Channel Partner network. "The ecosystem partners are our connective tissue," Regagnon remarked. "We want to create bespoke opportunities for investor engagement and make sure startups get critical exposure to industry."

Appreciating the technical, financial, and business experts who make the program a success, Sarah Derdowski, IN2 program manager at NLR, noted: "When we brought AgTech into the IN2 model, we wanted to see if we could make an impact in an area that Wells Fargo has a large portfolio. We delivered that impact, and it's due to trusting our partners' and advisors' knowledge of their market, the technical talent at the Danforth Center, and Wells Fargo's nondilutive funding that fast-tracked these technologies." ■

> "Market access is crucial, and IN2 connected us with industry experts we couldn't have reached otherwise. Their insights proved invaluable."
>
> — New West Genetics

Ecosystem

To innovate at scale and help portfolio companies amplify their impact, IN2 cultivates a robust ecosystem of customers, investors, and collaborators through various networks and boards. The Channel Partner network, comprising a select group of incubators, accelerators, and universities, extends IN2's geographic and market reach while connecting startups to local mentorship and resources. In 2025, IN2 prioritized strengthening the Channel Partner network to deepen collaboration across regional ecosystems with a focus on addressing commercialization gaps.

Growing The Channel Partner Network

The Channel Partner network is a cornerstone of IN2, helping both refer startups to the program and serve their communities with entrepreneurial resources. The following organizations joined the network in 2025 to further IN2's mission of accelerating advanced energy technologies to market:

- ClimateHaven (New Haven, Connecticut) is an accelerator offering specialized workspace, mentorship, and investor connections required for startups to move from lab to market.
- COX Cleantech Accelerator (Atlanta, Georgia) accelerates early-stage commercialization by leveraging regional corporate resources, nondilutive funding, and domain expertise.
- RevHub OC (Irvine, California) provides mentorship, resources, and community partnerships to drive entrepreneurial innovation in Southern California.
- Third Derivative (Boulder, Colorado) accelerates high-potential startups by providing tailored support, sharing investor-ready insights, and deploying catalytic capital.

Channel Partner Strategic Awards

In January 2025, IN2 chose seven winners for its ninth Channel Partner Strategic Awards cycle. The funding provided from this award addresses commercialization gaps for energy startups through action-oriented initiatives, regional collaboration, and knowledge sharing.

Many awardees focused on creating partnerships and pilot opportunities by connecting startups with new markets and resources. Here we highlight two award winners who are working to strengthen the energy-tech ecosystem in their region.

> "This collaboration supports the kind of innovation that tackles really hard problems. Working together, we can make a stronger impact."
>
> — Spark Innovation Center

Building a Regional Hub for Energy Innovation in Virginia and Tennessee

Energy innovation doesn't stop at state lines. That's the idea behind the project partnership between the Spark Innovation Center (Spark) in Tennessee and the Dominion Energy Innovation Center (DEIC) in Virginia. With their award, these two organizations have joined forces to strengthen the energy startup pipeline across the Appalachian region.

"By taking an interstate approach, we know that we can collaboratively lift up our region and share resources to make an epicenter for energy innovation," said Lilly Tench, executive director of Spark.

Spark, housed at the University of Tennessee Research Park, runs a startup incubator that provides lab space, mentorship, and a 12-week accelerator program. Spark works closely with the Tennessee Valley Authority, giving entrepreneurs access to the nation's largest public utility. In Virginia, DEIC partners with utility Dominion Energy and other stakeholders to guide startups from the lab to pilot projects and utility-scale deployment.

"By bringing together our regional networks, including two of the nation's leading utilities, we're able to help startups fill gaps for pilots and early-stage deployment," said Braden Croy, program director at DEIC.

With funding from the Strategic Award, these two organizations have begun integrating their pipelines. Applicants to each program are now reviewed collaboratively, and entrepreneurs who complete Spark's accelerator will be well positioned for the opportunity to advance into DEIC's deployment-focused programs.

The IN2 award is also fueling two joint events. In November 2025, Spark hosted its annual "Demo Day," followed by a joint workshop on working with utilities. In March 2026, DEIC will expand its annual Energy Tech conference in Richmond by adding a second day devoted to startups featuring hands-on sessions with utilities and regulators to deepen industry connections and to accelerate regional commercialization.

Representatives from both DEIC and Spark see these joint events as the beginning of a lasting interstate coalition to help entrepreneurs to access customers, test technologies, and learn from real-world utility environments.

"This collaboration supports the kind of innovation that tackles really hard problems," Tench said. "Entrepreneurs see problems as opportunities, and they're willing to take big risks to create jobs and uplift communities."

Spark and DEIC are proving that collaboration can accelerate innovation beyond what a single organization—or a single state—can achieve alone. As Tench put it: "Working together, we can make a stronger impact."

Cleantech San Diego Bridges Gap Between Entrepreneurs and Industry

Cleantech San Diego (CSD) focuses on making connections for energy technology entrepreneurs, linking them with investors and manufacturing contractors to push promising energy technologies to proof of concept—and beyond.

"In the energy space, we saw companies needed someone with technical ability in this highly regulated industry," said Jason Anderson, president and CEO of CSD. "There wasn't the level of support entrepreneurs needed to get their technology to market, meaning they didn't have access to resources or people who were energy domain experts."

Founded in 2007, CSD functions as a policy and economic development organization with more than 135 private-public-academic stakeholders across Southern California. In 2016, CSD launched the Southern California Energy Innovation Network to bridge the gap between entrepreneurs and the resources needed to commercialize energy technologies.

Through the network, CSD helps innovators identify capital, provide grant support, establish industry connections, and spotlight pilot opportunities. CSD's services are geared to a startup's individual needs, Anderson said, noting they customize their service plans to each unique situation. "It's a more hands-on approach to the company, the founders, and the technology."

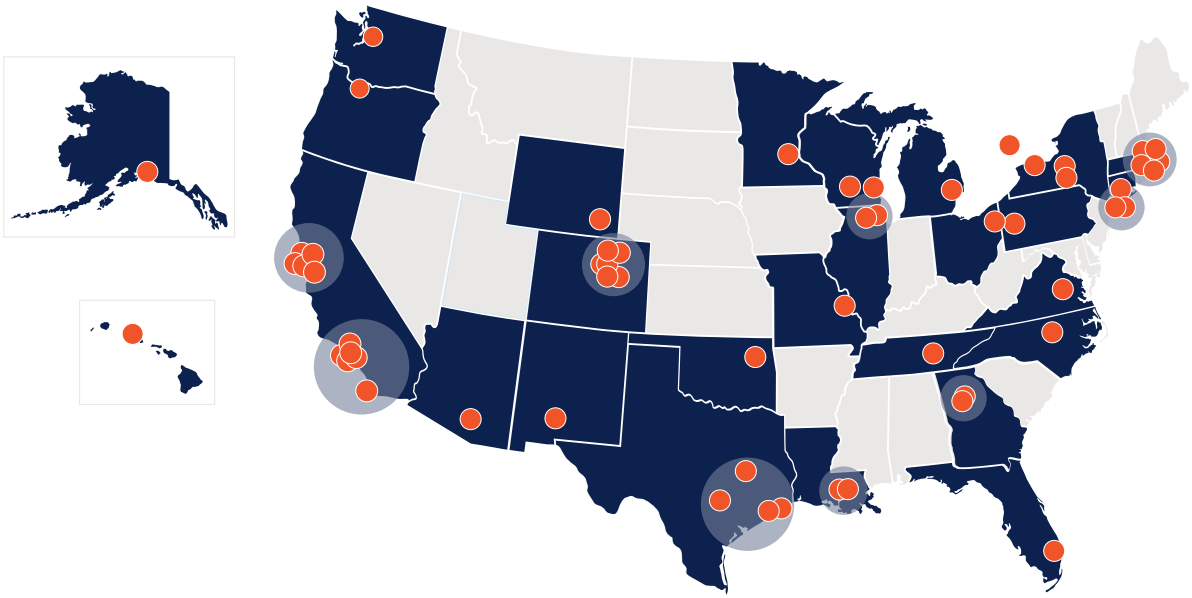
Recently, CSD identified a key barrier for its startups: lack of support for prototype development. Anderson described it as a "chicken-and-egg problem," in which innovators need help building a prototype and figuring out their pathway to market. This often leaves energy startups in a vulnerable position—unable to build a prototype without capital, and unable to access capital without a functioning prototype.

With its Strategic Award, CSD is developing a voucher program to support innovators in this predicament. Funding from IN2 will launch the effort and support innovators as they develop prototypes. CSD worked closely with development engineers and prototyping experts in the region to ensure the program and voucher participants are set up for success.

"We're not designing the ship as we fly it," Anderson said. "We've created a program that makes sense for the entrepreneur and for the contract manufacturer we'll connect them with."

The hope is that this program could serve as a model for connecting startups with prototype resources when they need them most. It is another way to strengthen the San Diego region's innovation ecosystem, ensuring promising technologies have a clear path to market and the potential to attract additional funding that sustains the effort beyond the IN2 award. ■

Channel Partner Network



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
Venture Partners at University of Colorado Boulder

Connecticut
ClimateHaven

Florida
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Georgia
COX Cleantech Accelerator
Georgia Institute of Technology - ScaleUp Lab

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Michigan
Centrepolis Accelerator at Lawrence Technological University

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Grid Catalyst

Missouri
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New Mexico State University - Arrowhead Center

New York
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New York University - Urban Future Lab
NextCorps
SecondMuse
Syracuse University - Syracuse Center of Excellence

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University of North Carolina - Institute for the Environment

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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
Austin Technology Incubator, University of Texas at Austin

Virginia
Dominion Energy Innovation Center

Washington
University of Washington - Buerk Center for Entrepreneurship

Wisconsin
The Water Council
Wisconsin Energy Institute, University of Wisconsin Madison

Wyoming
Colorado-Wyoming Climate Resilience Engine

Advisory Boards

IN2 does more than just incubate—it connects commercial strategists, technical experts, and market leaders. IN2's advisory boards steer program strategy and cohort selection to spearhead promising innovations into real-world markets.

External Advisory Board

The IN2 External Advisory Board provides deep technical and market insight and ultimately determines which startups are accepted into the Emerging Tech track. Members offer expertise in sector trends, technical viability, and commercialization potential to ensure each IN2 cohort is well positioned for both impact and scalability.

Cara Carmichael
Associate Vice Chancellor for Sustainability, University of Colorado Boulder

Jeff Dunbar
Senior Sustainability Director, CBRE

Laura Dwyer
Business Development Leader, DuPont Ventures

Jennifer Fortenberry
Sustainability Innovation Leader, Schneider Electric

Ramsay Huntley
Senior Advisor of Innovation and Strategy, The Yield Lab Institute

Lisa Laughner
Former Founder, President and CEO, Go Electric

Luke Leung
Director of Sustainable Engineering, Skidmore Owings & Merrill

Jillian Bunting
Public Affairs Group

Chris Johnson
Public Affairs Group

Greg Lopez
Public Affairs Group

Jeff Schub
Public Affairs Group

Mark Hillhouse
Commercial Banking Group

Wells Fargo Advisory Board

The Wells Fargo IN2 Advisory Board is a core part of the program, providing strategic market insight and helping guide the selection of each cohort. Comprising executives and senior managers from more than a dozen lines of business, this board evaluates applicants on their go-to-market strategy, value proposition, and commercial potential, ensuring the IN2 portfolio aligns with real-world demand and emerging trends.

Thank you to these key members, and many more across the bank!

Team

The program management team at NLR works together with the boards, Channel Partners, startups, adopters, and industry partners to grow the IN2 ecosystem and help our portfolio companies realize success.

Sarah Derdowski,
Program Manager

Catherine Dolezal,
Channel Partner and Portfolio Manager

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Technical Project Manager

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Project Controller

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Hanna Sotiropoulos,
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March 2026

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