U.S. Department of ENERGY

Office of Technology Transitions

FROM VISION TO REALITY

Advancing Clean Energy Through Commercialization

OTT
Office of Technology Transitions







Driving Commercialization: A Legacy of Impact

It has been the honor of a lifetime to serve as the Chief Commercialization Officer for the U.S. Department of Energy and the Director of the Office of Technology Transitions (OTT), and I never imagined I would be here from Day 1 to Day 1,461 of the Biden-Harris administration.

The historic Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) created an unprecedented opportunity for the nation to advance the clean technology transition. With a half-trillion dollars to invest, DOE expanded beyond its traditional R&D focus and, for the first time, fully embraced the entire commercialization continuum: research, development, demonstration and deployment (RDD&D). One of Secretary Granholm's favorite sayings is "Deploy! Deploy! Deploy!" and, as the department's commercialization steward, OTT dove headfirst into this broadened mission. To accelerate commercialization momentum within DOE and in the private sector, we needed a new language, new tools, new programs and a culture supportive of commercialization.

OTT may be small but we are mighty, and our mantra as a leverage office meant finding ways to have outsized impact across DOE. This included innovating how DOE partners with the private sector, quarterbacking the industrial roadmaps for our nation (Pathways to Commercial Liftoff), creating a new language for commercialization (Adoption Readiness Level), standing up the first-ever DOE foundation (FESI) and transforming the ways in which DOE gets money out the door. We also have partnered with all 17 of DOE's National Labs to improve commercialization outcomes, creating new programs to support even the smallest of labs so that their research and development makes it into the real world.

Four years ago, OTT was only 17 people on a Zoom Screen and everyone was a direct report to the Front Office. Now we are 70 people strong with four unique business lines: operations, commercialization programs, policy & practice and market analysis. We formalized our strategy through the publication of the Technology Transfer Execution Plan, submitted to Congress in July 2024, where we codified the strategic roadmap and implementation plan to transform commercialization at DOE.

At OTT, we partner with **every single office** in DOE to influence the commercialization outcomes across this great institution. We channeled our spirit animal, the OTTer, and, despite our budget being less than $20 million a year, we drew a 14,000% increase in funding that we facilitated getting out the door. With DOE using the Pathways to Commercial Liftoff series to guide how the department's BIL and IRA money went out the door, the amount OTT influenced is even larger. The vision of an energy transition that was "private sector-led but government-enabled" is working since every dollar from DOE has led to the private sector matching with 6 dollars.

As we expanded our remit, our OTTers were honored with two Secretary Awards (the highest form of internal recognition that DOE's Federal and contractor employees can receive) for our Pathways to Commercial Liftoff report series and standing up DOE's Partnership Intermediary Agreement mechanism and team. While our mission and staff grew at unprecedented levels, we also won two of the eight Federal Annual Employee Viewpoint Survey (FEVS) awards – an indication that OTT is one of the best places to work at DOE.

I couldn't be prouder of the OTTer team and all that they have accomplished these past four years. The foundation that we have established to drive technology commercialization is critical for our nation, as it increases American competitiveness while creating jobs. I know that, under the next administration, OTT will continue to thrive as the team continues to support the U.S. in commercialization, one of our nation's most critical endeavors.

With gratitude,

Vanessa Z. Chan

Chief Commercialization Officer &
Director, Office of Technology Transitions
U.S. Department of Energy

OTT visiting all 17 DOE National Labs during Director Chan's tenure as Chief Commercialization Officer, promoting the importance of collaboration with lab teams to advance commercialization.

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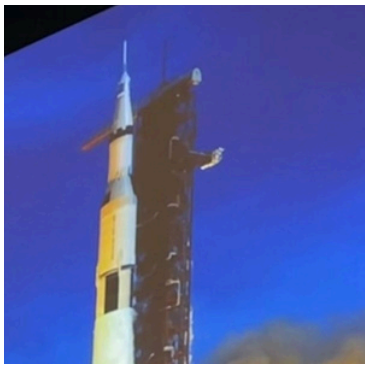
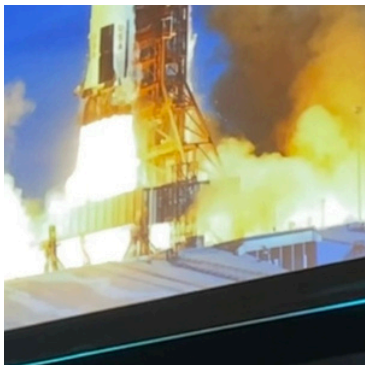
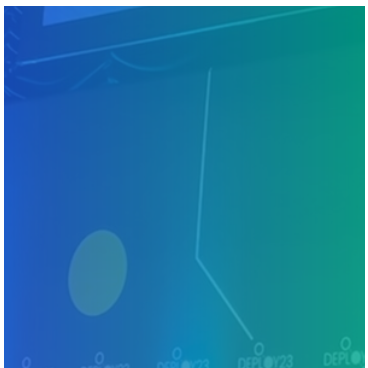
Establishing a Common Roadmap & Language for Commercialization

Commercialization success starts with understanding market needs, conditions and risks. Setting a common knowledge base and language that accurately characterize and quantify those elements, which the public and private sectors can use and share, also is critical. To provide stakeholders that clarity and consistency, OTT led two of DOE's most impactful efforts over the last decade: the **Pathways to Commercial Liftoff** report series and the **Adoption Readiness Level** framework.



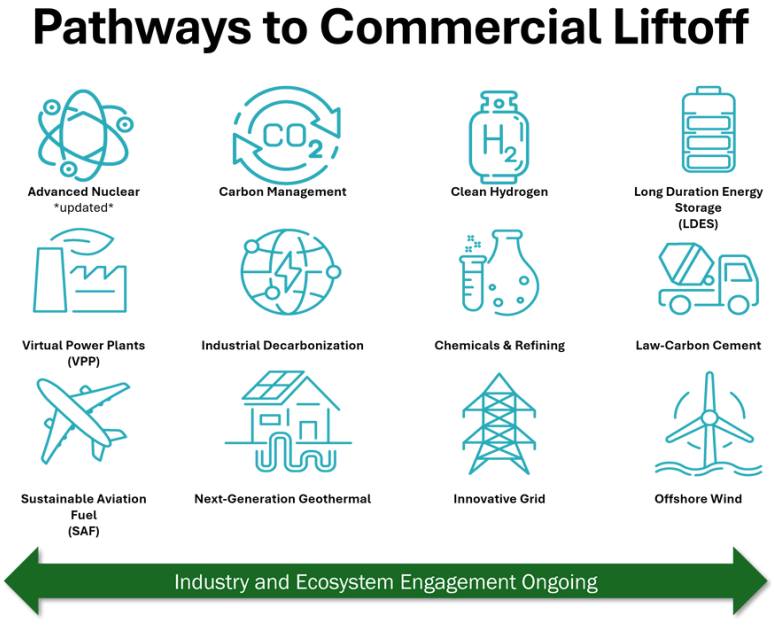




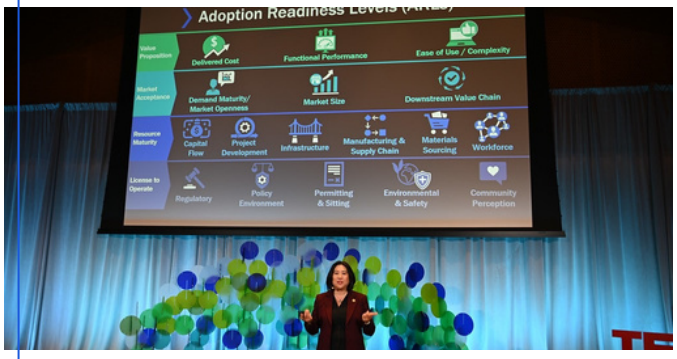
Pathways to Commercial Liftoff: Roadmaps for Commercialization

The **Liftoff** report series is an immense, data-driven effort to get everyone – academia, industry, investors, government at all levels, insurers – on the same page. In a nutshell, these reports are roadmaps for the private sector to deploy at scale the clean technologies the country needs, and for the government to target its catalyzation efforts.

"Liftoff" is the point when technology solutions and their markets become largely self-sustaining and no longer depend on significant levels of public capital. The Liftoff reports lay out what it will take to get to that point – with the private sector leading the way. They assess the current emissions and tech status of key sectors of the economy. Then, they break down various potential solutions' value chains, showing what costs have to be hit; what technological and market-driven barriers have to be overcome; and the amount of investment needed where and by when, in order to reach full-scale commercialization.



The Liftoff reports represent one of the most significant public-private collaborations in DOE's history, involving more than 270 industry and government stakeholders and 90 DOE colleagues. Since their release, the reports have been viewed more than 50,000 times and are helping to guide more than $3 trillion in anticipated clean energy investments, according to Goldman Sachs.



Vanessa Chan spoke at TEDxBoston in November 2024 about 'Breaking the Commercialization Wall' and the impact of the Adoption Readiness Level framework on clean energy innovation.

Driving Real-World Action

Liftoff reports have already influenced major decisions and investments across sectors.

- The **Innovative Grid Deployment Liftoff Report** was cited by the National Association of Regulatory Utility Commissioners (NARUC) in a resolution endorsing Grid Enhancing Technologies (GETs) and High-Performance Conductors (HPCs) as solutions to lower costs and improve reliability. It also was referenced by the D.C. Public Utilities Commission in a regulatory filing on grid modernization.

- The **Clean Hydrogen Liftoff Report** from March 2023 and the update from December 2024 have guided the seven hydrogen hubs funded by the Office of Clean Energy Demonstrations.

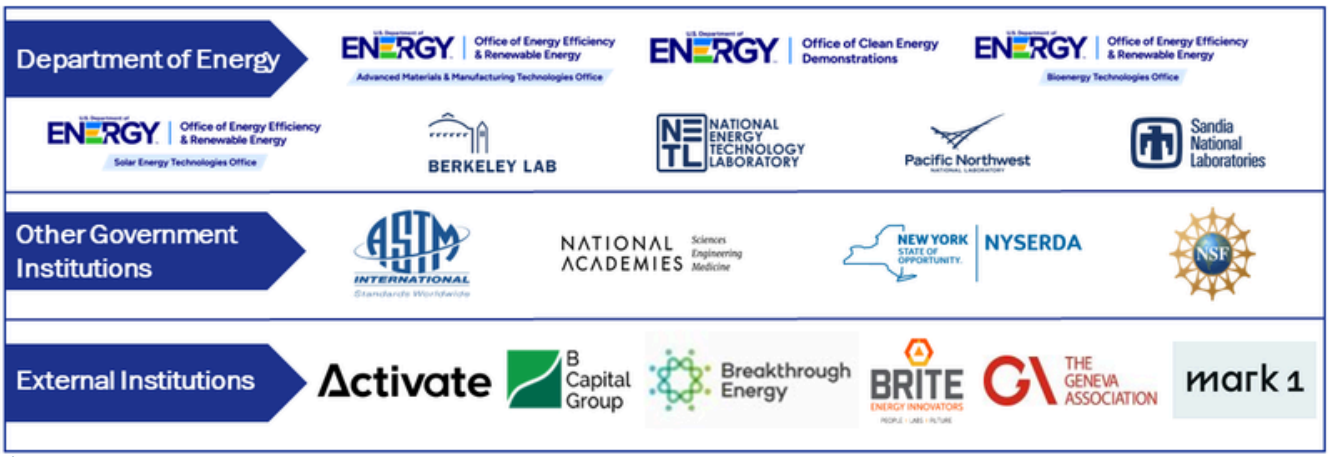
- The **Offshore Wind Report** helped shape the largest offshore wind selection in New England's history—nearly 3 GW of capacity that will fulfill nearly 20% of Massachusetts' electricity demand. Massachusetts cited DOE's findings on the critical role of early deployments in establishing infrastructure and supply chains for long-term growth.

Liftoff reports are designed to evolve alongside technology development. As we learn more about commercialization pathways, we will continuously revise these reports to reflect new data, insights and lessons learned. Three reports already have been updated.

Adoption Readiness Level: Developing the Full Commercialization Picture

For decades NASA's Technology Readiness Levels (TRLs) have been a proxy for how close a technology is to deployment. Although it is a great way to assess a solution's technical maturity, it does not capture other important dimensions of commercialization maturity – that is, the market ecosystem's readiness to adopt the technology. To address this critical gap, OTT created the **Adoption Readiness Level (ARL)** framework. ARL digs into the aspects of commercialization that TRLs -- and many people -- miss, such as product-market fit, demand pull, supply chain conditions, workforce availability, and regulatory requirements. It examines 17 dimensions of adoption risk across four core risk areas encompassing value proposition, market acceptance, resource maturity and license to operate. ARL then translates that risk assessment into a readiness score, which measures how prepared the ecosystem is to adopt a given technology.

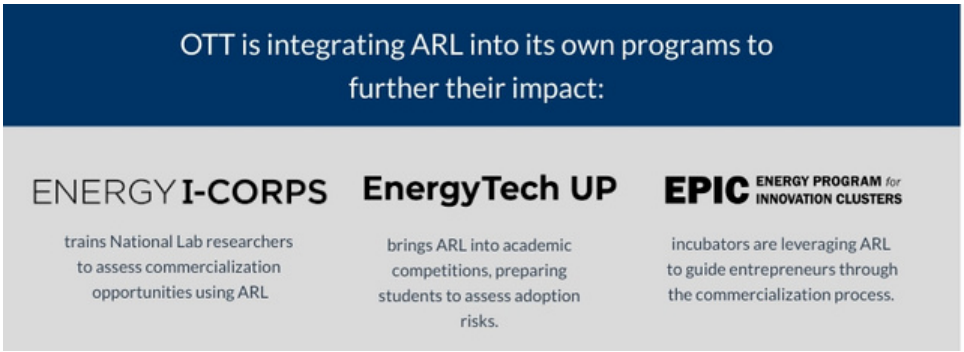
Applying ARL, especially in the earliest stages of concept development, lays a fantastic guide-path to innovating wholistically, with a commercialization mindset. The framework also is helping government agencies, investors, insurers and other key stakeholders identify and address the real-world challenges of scaling up clean energy and manufacturing technologies. OTT started by integrating ARL into our own programs; it's since been rolled out across ODE and beyond.



*Plus many more!

- The Office of Clean Energy Demonstrations uses ARL as a way to manage the risk around its entire portfolio, and ARL is showcased in OCED's Multi Year Performance Plan.
- The National Science Foundation and DOE National Labs, including Sandia National Laboratories and Pacific Northwest National Laboratory, are already using ARL to guide commercialization strategies.
- Breakthrough Energy, a major clean energy investor, integrates ARL alongside TRLs to assess risks and opportunities for scaling technologies.
- In December 2024, the New York State Energy Research and Development Authority (NYSERDA) confirmed that in 2025 it will use ARL in its commercialization programs, reaching hundreds of start-ups and entrepreneurs each year.
- The Geneva Association, a global insurance think tank, developed the Insurability Readiness Framework (IRF) based on ARL to help insurers support early-stage clean energy projects.

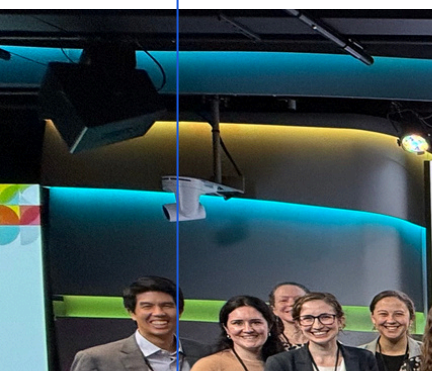
OTT created an ARL training workshop, which it will continue to run both inside and outside DOE. The framework has also been highlighted in major forums, including TEDx, industry and policy conferences across the nation and overseas, and media outlets like **Volts**.

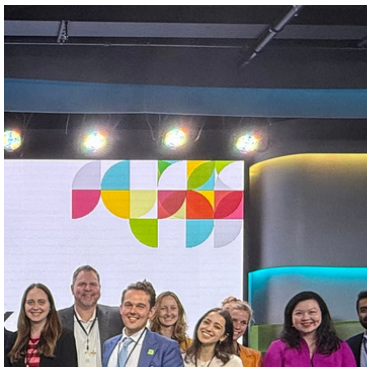


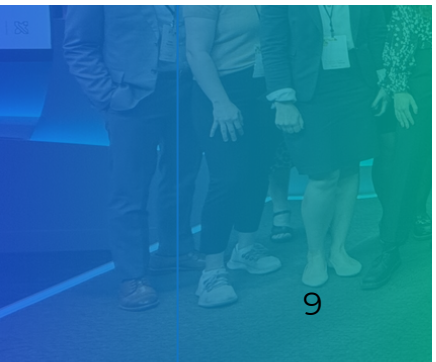
Seizing the Opportunity: Activating DOE's Commercialization Portfolio through BIL & IRA TCF

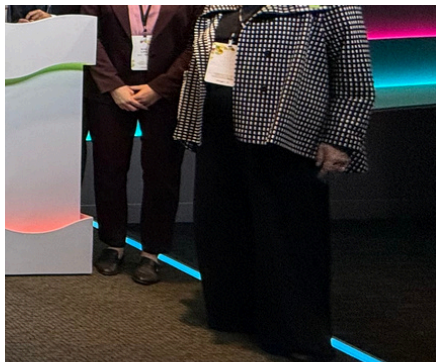
The **Bipartisan Infrastructure Law (BIL)** and **Inflation Reduction Act (IRA)** provided an opportunity to accelerate the commercialization of clean energy technologies. With billions in new funding dedicated to infrastructure and reducing emissions, in addition to expanding support of projects in the demonstration phase, DOE started building whole ecosystems capable of advancing novel technology to market scale.

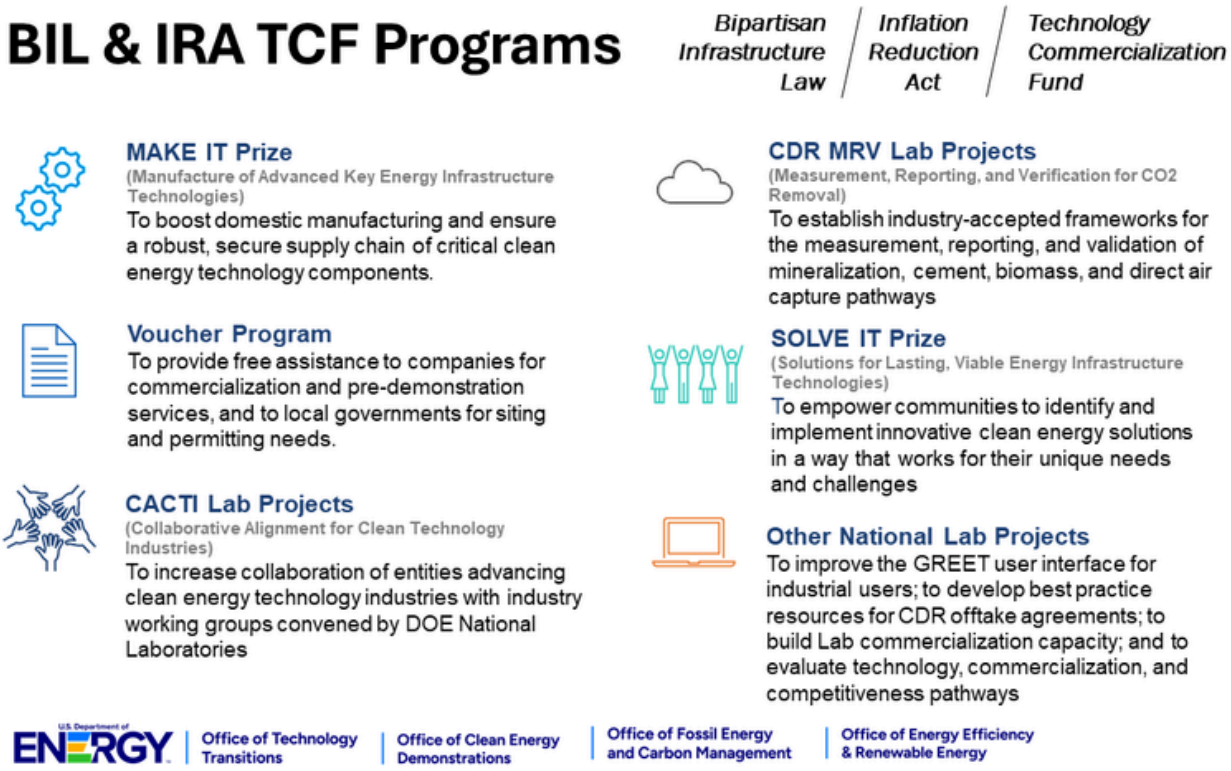
OTT is responsible for implementing the Technology Commercialization Fund - a flexible, long-proven tool created by Congress to support commercialization. Working with other DOE organizations, including the offices of Clean Energy Demonstrations (OCED), Fossil Energy and Carbon Management (FECM), Energy Efficiency and Renewable Energy (EERE) and more, OTT developed programs to catalyze commercialization pipelines and activate innovation networks via TCF.











Since 2022, OTT and its partners have invested $175 million through BIL and IRA TCF funding to build networks of innovators, suppliers and manufacturers ready to scale clean energy technologies. These programs have engaged more than 650 participants and leveraged $18 million in private cost-share to amplify their reach and impact.

BIL and IRA TCF programs emphasize collaboration among DOE labs, industry and local communities, creating ecosystems that help demonstration projects overcome barriers and achieve commercial liftoff.

Empowering Communities Through Innovation: **Scenes from the SOLVE IT Prize Launch event in January 2024, where the focus is on supporting disadvantaged and energy-burdened communities in developing and implementing clean energy solutions tailored to their unique needs.**

Nimble Solution Development

Partnerships Reimagined

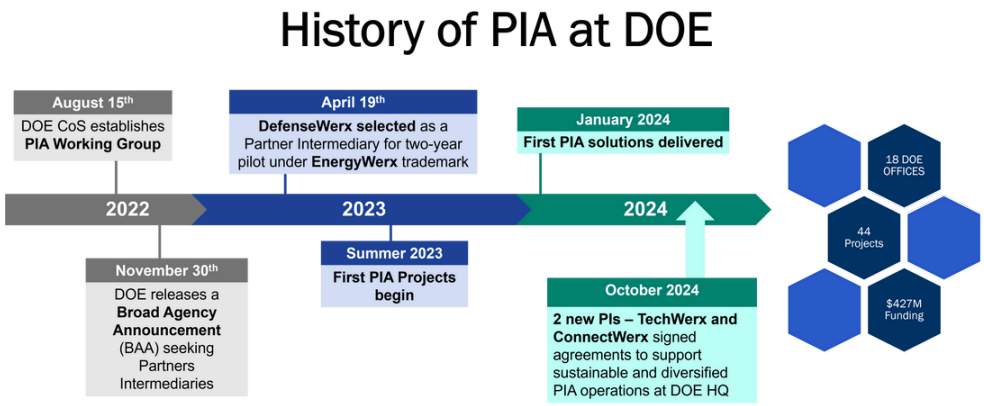
Adapative Accessible Resources

Transforming DOE Partnering Mechanisms

Advancing clean energy technologies requires more than research and development. It demands effective partnerships that connect innovators with the resources, expertise and funding needed to bring solutions to market. Recognizing this, OTT has focused on modernizing DOE's partnering mechanisms, creating adaptive, accessible and impact-driven tools to better support commercialization.

Expanding Access Through Partnership Intermediary Agreements

In 2023, OTT launched DOE's first-ever Partnership Intermediary Agreement (PIA) to create faster, more flexible pathways for collaboration with small businesses, academic institutions and non-traditional partners. PIAs have transformed DOE's ability to scale partnerships and reach organizations that previously faced barriers to working with the federal government.

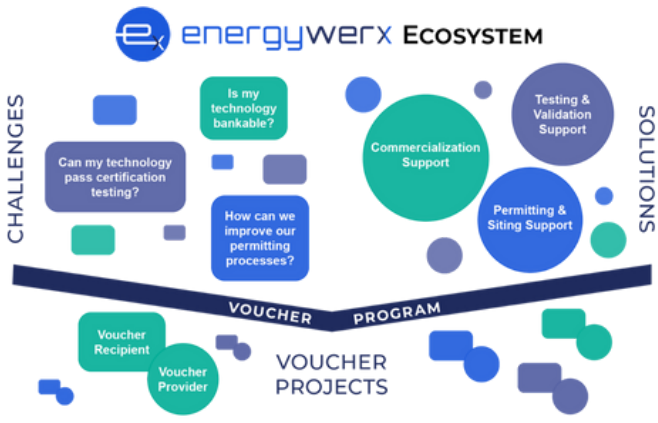


DOE maintains PIAs with **ENERGYWERX**, **ConnectWerx** and **TechWerx**—intermediaries that enable fast contracting and stronger engagement with businesses and local communities. Since their launch, $427 million in funding has been deployed through PIAs to 44 projects across 18 DOE offices.

PIA partnerships are not only delivering immediate results, but also creating a framework for ongoing collaboration and innovation.

Connecting Innovators with Resources Through Vouchers

Taking advantage of the PIA funding mechanism, OTT launched the **Voucher Program** to provide early-stage technologies critical commercialization support. The initiative opens the door to DOE's National Labs, testing facilities and expertise, helping private sector innovators to de-risk their technologies and accelerate market readiness at no cost to them.



Since its launch in 2023, more than 250 organizations have received voucher support, with a total funding value exceeding $29 million provided through the BIL and IRA TCF. Approximately half of the recipients had reported no prior DOE funding, underscoring the program's ability to reach new and diverse partners. In addition, it provides organizations a more straightforward way to access the National Labs' capabilities, as many of our labs are voucher providers.

Recent National Lab Voucher Matches

Carbon Storage Risk Assessment

Provider: Lawrence Livermore National Laboratory
Recipient: SCAPE

- Lawrence Livermore National Lab will provide **risk assessment support** to Scape Carbon, Inc, via Pre-Demonstration Commercialization Support voucher (OCED)

Advanced Nuclear Technologies Materials Characterization

Provider: Oak Ridge National Laboratory
Recipient: LAST ENERGY

- Oak Ridge National Lab will support **certification of materials** for advanced nuclear company Last Energy via Performance Validation, Modeling, and Certification Support voucher (OCED)

Iron and Steel Decarbonization Supply Chain Analysis

Provider: Idaho National Laboratory
Recipient: electra

- Idaho National Lab will provide **supply chain analysis** for Electrasteel, Inc. via Pre-Demonstration Commercialization Support voucher (OCED)

Carbon Dioxide Removal Technoeconomic Analysis

Provider: Pacific Northwest National Laboratory
Recipient: 280earth

- Pacific Northwest National Lab will provide **independent TEA and LCA** support to direct air capture company 280 Earth, Inc. via Commercialization Support voucher (FECM)

By addressing critical commercialization challenges, these vouchers are helping to build investor confidence, attract follow-on funding, and advance clean energy technologies from concept to deployment.

Catalyzing Investment Through FESI

Creation of the **Foundation for Energy Security and Innovation (FESI)** represents one of DOE's most significant steps toward enabling public-private partnerships and unlocking new sources of funding for clean energy innovation, notably from philanthropic organizations. Established under the CHIPS and Science Act of 2022, FESI is the first independent, non-profit foundation chartered to support DOE; its mission is similar to that of other foundations that amplify federal agencies' work.

- Blend public, private, and philanthropic funding to accelerate commercialization
- Support local innovation ecosystems and ensure that clean energy solutions reach diverse communities
- Expand access to DOE's resources and expertise

OTT played a central role in launching FESI—leading the team to create the inaugural board, identifying where the foundation could fill funding gaps and developing a structure to make it operational from Day One. In May 2024, the bi-partisan, 13-member board of directors was formally appointed. The board was chosen for their diverse experience and varied regional perspectives, which will foster scaling investment and collaboration.

FESI's first funded programs are already demonstrating its potential.

- The **Rural & Municipal Utility Advanced Cybersecurity (RMUC) Program** is using $200,000 in FESI support to provide capacity-building assistance to rural utilities, enabling them to access future DOE funding opportunities.
- The **Energy Program for Innovation Clusters (EPIC)** Prize received $50,000 in FESI support to host pitch competitions and accelerate commercialization within local innovation ecosystems.

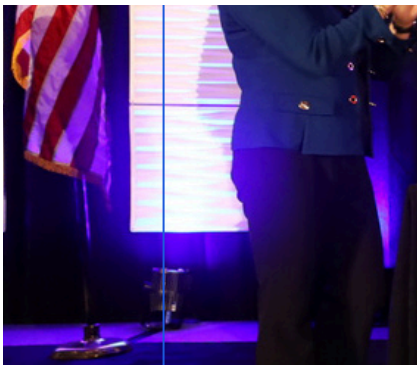
FOUNDATION FOR ENERGY SECURITY AND INNOVATION (FESI)

On May 9, 2024, Secretary Jennifer Granholm inaugurated the FESI board of directors. FESI is the first-ever congressionally chartered foundation established to support the U.S. Department of Energy, and is tasked with strengthening national security and advancing solutions to address America's energy and environmental challenges.

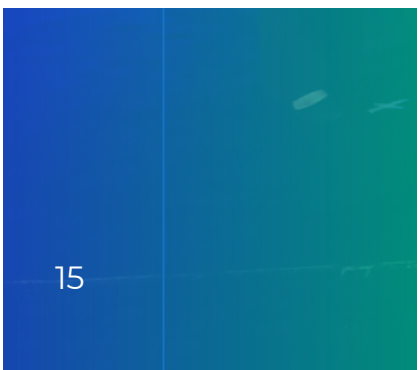
Forming Innovation Clusters Across the Nation & Inspiring Tomorrow's Energy Leaders

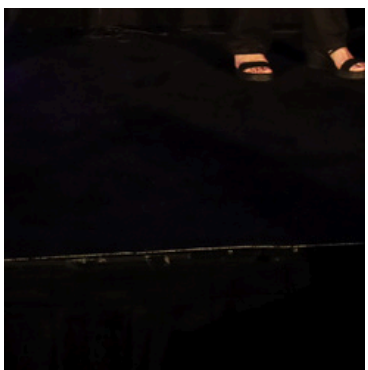
The past four years have seen unprecedented progress in building ecosystems and talent pipelines to bolster the clean energy transition. OTT has expanded its efforts to focus on regional innovation clusters, entrepreneurial training and inclusive workforce development. These efforts have transformed the approach to clean energy innovation, ensuring it is not only scalable but also accessible—laying the foundation for a thriving, sustainable energy ecosystem.

Cultivating Entrepreneurial Leaders

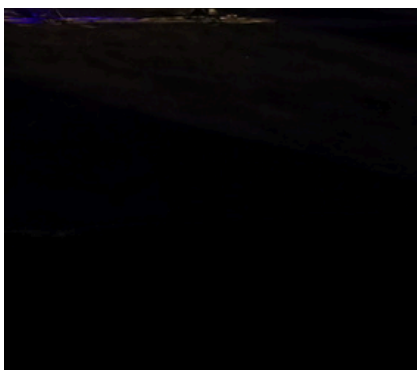


Regional Innovation Clusters





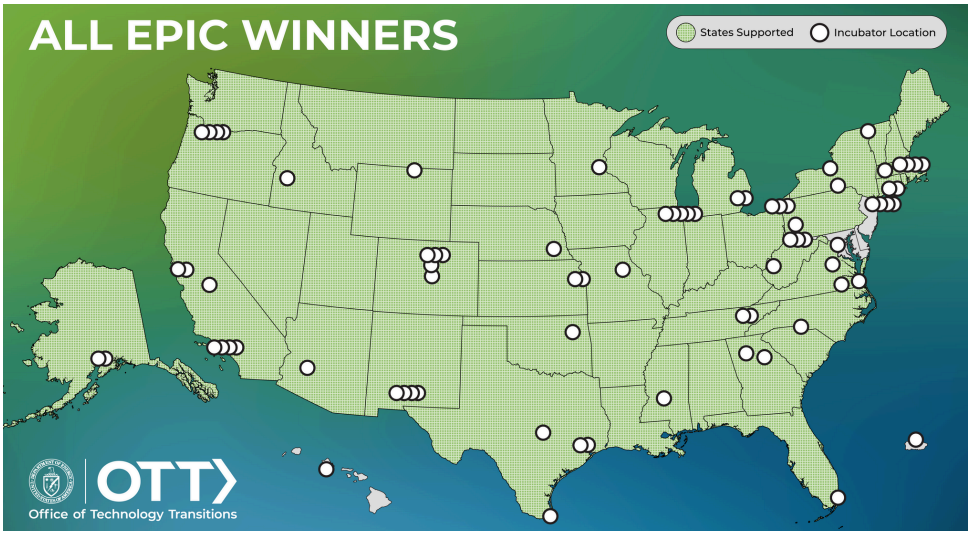
Equitable Workforce Development



Empowering Startups Through EPIC

The **Energy Program for Innovation Clusters (EPIC)** is DOE's only program dedicated to supporting technology incubators and accelerators, systematically driving regional innovation and business productivity. Launched in 2020, EPIC has become a cornerstone of OTT's efforts to help startups commercialize clean energy technologies.

Since the first awards made in 2021, EPIC has directly funded 90 incubators and startups covering more than 45 states and Puerto Rico. Those incubators have supported more than 230 companies, which have collectively secured more than $138 million in follow-on funding. These companies also reported creating more than 1,800 jobs during the same period. OTT has invested about $19 million in the program and secured another $2.1 million from 13 DOE program offices that support the value EPIC provides the energy innovation ecosystem.

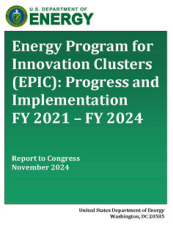


- **Pitch Competitions**: EPIC incubators have nominated startups to participate in five pitch competitions since 2021. To date, more than $723,000 in pitch prizes have been awarded, with 20 startup winners and seven incubator winners receiving funding to accelerate their commercialization efforts.

- **Expanding Opportunities**: In December 2024, OTT selected five grand prize-winning incubators competing in EPIC Round 3 to negotiate three-year, million-dollar cooperative agreements to further bolster regional innovation ecosystems.

By systematically supporting incubators, EPIC is delivering on DOE's goals to increase local business productivity, improve the commercial success of startups, and accelerate regional innovation across the nation.

Interested in learning more about EPIC's impact? Read the latest EPIC report to Congress here.



Inspiring Students with EnergyTech UP

Launched in 2022, the **EnergyTech University Prize (EnergyTech UP)** is a collegiate competition designed to inspire entrepreneurial thinking among students. Multidisciplinary teams create business plans using DOE-developed or other high-potential energy technologies, providing a hands-on opportunity to produce real-world solutions.

In 2024, **EnergyTech UP** introduced a faculty track to help university educators integrate energy technology commercialization activities into their institutions, further expanding the program's impact. See the **2024 Faculty Track Report** to learn more about the teams' findings.

Through EnergyTech UP, OTT is cultivating the next generation of energy entrepreneurs while accelerating the commercialization of cutting-edge technologies.

EnergyTech UP

- **2,000+ competitors** — Representing appx. 200 institutions
- **53** — Participating states, D.C. and territories
- **$1.1M+** — Total funds to 85 winning teams
- **26** — Industry partnerships
- **9** — Non-OTT program offices contributing funding

Driving Innovation Through OTT Programs

A standout example of the OTT programmatic impact is KLAW Industries, a startup that successfully leveraged EPIC and EnergyTech UP resources to bring its clean energy technology, low-carbon cement, to market. KLAW's growth highlights the critical role OTT initiatives play in driving startup success and scaling solutions.

2019
Initial Idea
KLAW Industries begins to develop initial glass-to-cement process and technology called Pantheon™

2022
More Fundraising
Secures $1.36 Million in Non-Dilutive Funding
Including a Phase II SBIR Award from the EPA worth $400K

2024
Progress
Over 60 Pilot Projects Completed, More than 84 Tons of Pantheon™ Sold
Contributing to environmental sustainability by diverting waste glass from landfills

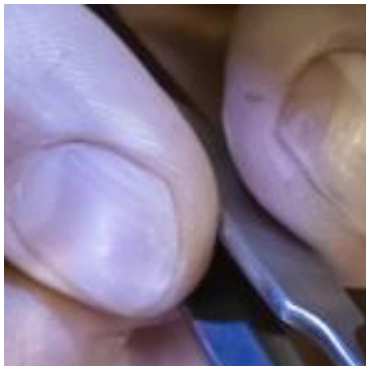
2022
OTT EnergyTech UP winner
$25,000 Prize Awarded for Their Innovative Idea
Accelerating development and commercialization of Pantheon™

2023
OTT's EPIC Prize
$100,000 Awarded for Expansion
Enabling the scaling of operations to meet increased demand, including purchasing a new truck and trailer

Interested in learning more about EnergyTech UP's impact? Read the 2024 Annual Report and 2024 Faculty Track Report.

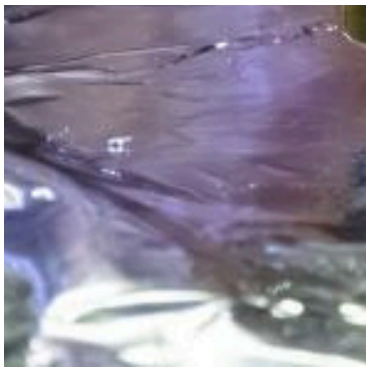
EPIC & ENERGY TECH UP

Highlighting innovation and entrepreneurship: A look back at EnergyTech UP and EPIC events from 2021 to 2024, showcasing student creativity, groundbreaking ideas, and impactful energy solutions that are shaping the future.



Accelerating Tech Transfer

Empowering Lab Innovation



Celebrating Lab Wins

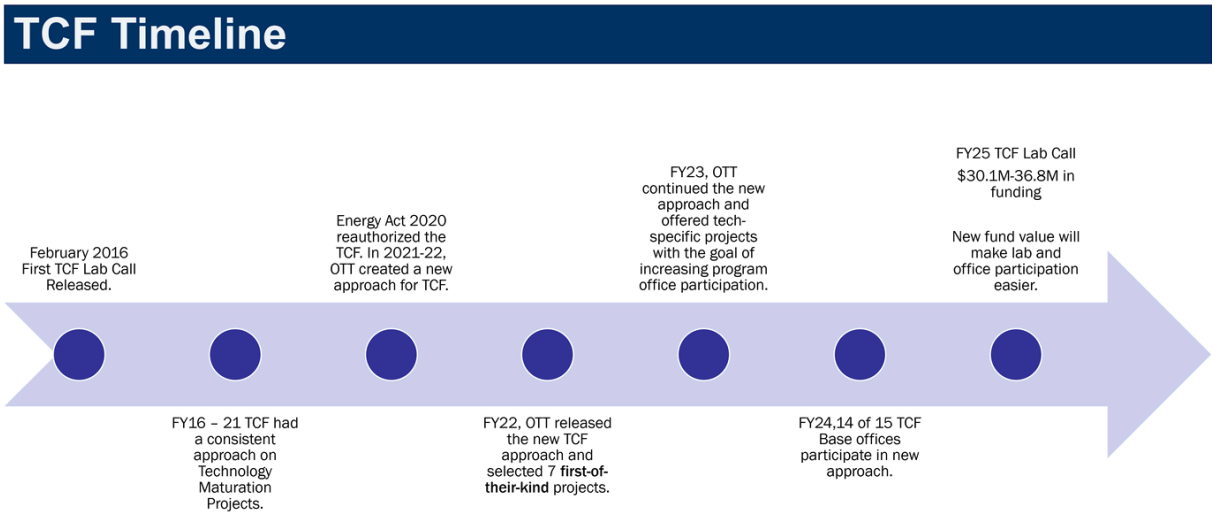
Catalyzing National Lab Commercialization & Trumpeting Successes

DOE's 17 National Laboratories are recognized globally for their cutting-edge research and groundbreaking discoveries. Unlocking their full potential to drive commercialization required strengthening infrastructure, streamlining processes, and raising visibility of their successes.

OTT has long supported the labs through programs such as the **Technology Commercialization Fund (TCF)** and **Energy I-Corps**. Building on this foundation, OTT focused on two priorities: investing in commercialization infrastructure to make technology transfer faster, more agile and more accessible; and elevating awareness of lab-driven commercialization successes to amplify their impact and attract greater private sector engagement.

Technology Commercialization Fund: Supporting Innovation at Scale

The **Technology Commercialization Fund (TCF)** was created to address a longstanding challenge: how to move federally funded technologies out of the lab and into the marketplace. By providing direct funding to labs and requiring a 50% cost-share from private-sector partners, TCF ensures lab innovations are tied to real-world needs and market demand.



Since 2021, OTT has awarded more than $140 million in TCF Base funding to strengthen commercialization capabilities and reduce barriers to market entry.

- **Modernized Processes**: In 2022, OTT revamped the annual TCF Base lab call to prioritize projects that enhance commercialization infrastructure. This resulted in seven first-of-their-kind projects aimed at improving methods for partnering with industry and streamlining commercialization pipelines.

- **Entrepreneurial Ecosystems**: Programs like DOE Boost and Cradle to Commerce (C2C) leverage TCF funding to connect researchers and entrepreneurs with lab technologies and provide training and resources to scale innovation.

    - DOE Boost has worked with 19 communities to identify energy challenges and helped 30 teams develop solutions using lab technologies.
    - C2C has supported 32 teams in developing business plans, with 17 teams advancing toward licensing and commercialization.

- **Cross-Lab Collaboration**: Recognizing the need for stronger partnerships across labs, in 2024 OTT hosted the first-ever National Lab Collaboration Event, bringing together 18 labs, plants and sites to enhance collaboration and proposal development.

Energy I-Corps: Empowering Researchers with Entrepreneurial Tools

While labs excel at research, navigating the complexities of commercialization requires new skills. **Energy I-Corps (EIC)** trains researchers to think like entrepreneurs, equipping them with the tools to engage stakeholders, validate market needs and scale their technologies.

Overall Program Stats

$18M+ Contributed by 25 non-OTT entities	**$192M+** Post Program Funding Generated
25 New Businesses Formed	**85** Licenses Executed
100% National Lab, Plant, and Site participation	**510** Researchers Trained

Since 2021:

- 128 teams and 296 researchers have completed EIC training, supported by 142 industry mentors. They have secured more than $114 million in follow-on funding.
- Recognizing evolving needs, OTT introduced Pipeline Development and Post-EIC Opportunities in 2023 to expand training and enable next steps, such as creating prototypes and testing technology.

Celebrating innovation and entrepreneurship: Participants, instructors and mentors gathered for the Energy I-Corps Closing Week in May 2024. The event marked the culmination of weeks of hard work through which teams honed their skills to bring groundbreaking energy technologies closer to market.

Advancing Polices that Address Commercialization Barriers

Over the past four years, OTT has worked with DOE's National Laboratories, the Technology Transfer Working Group (TTWG) and the Technology Transfer Policy Board to address gaps in technology commercialization. This collaboration has strengthened policies and mechanisms to accelerate the transition of lab innovation to market.

OTT and the TTWG Executive Board convene two annual meetings a year to advance commercialization strategies. In spring 2024, OTT co-hosted a meeting in Washington, D.C.; more than 120 attendees celebrated excellence in technology transfer with the newly introduced OTT Director's Award.

To enhance collaboration, OTT and TTWG launched:

- Market Analysis Community of Practice (CoP): Hosted eight sessions in 2024, engaging 167 participants on topics such as supply chains, grid planning and energy efficiency.

- Communications CoP: Organized a lab showcase series and strategies to elevate lab tech transfer successes.

FESI Partnership

OTT worked with the Foundation for Energy Security and Innovation to align lab tech transfer missions and private funding opportunities. In fall 2024, FESI approved recommendations to support lab commercialization efforts, with continued collaboration planned for 2025.

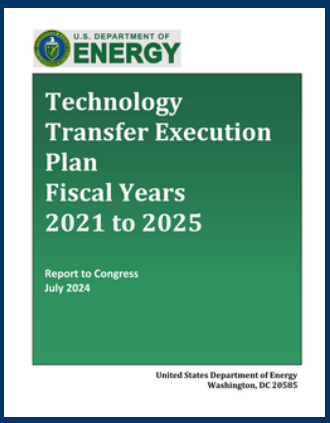
Technology transfer professionals from across the National Labs came together for the Spring 2023 Technology Transfer Working Group (TTWG) meeting, fostering collaboration and advancing innovation, partnerships and commercialization efforts.

Technology Transfer Execution Plan: A Strategic Blueprint

In 2024, OTT published the **Technology Transfer Execution Plan (TTEP)** for FY2021-2025, outlining strategies to expand DOE's commercialization impact.

Key TTEP priorities include:

- Accelerating the commercialization of lab discoveries
- Integrating private sector thinking into DOE decision-making
- Advancing policies and partnerships to overcome barriers
- Strengthening ecosystems and engagement to support innovators



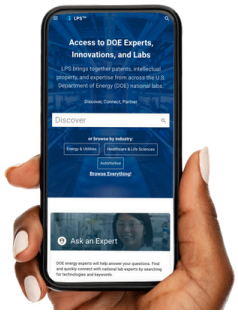
Interested in learning more about connecting policies and partnerships that advance commercialization? Click here to read the TTEP July 2024 report to Congress.

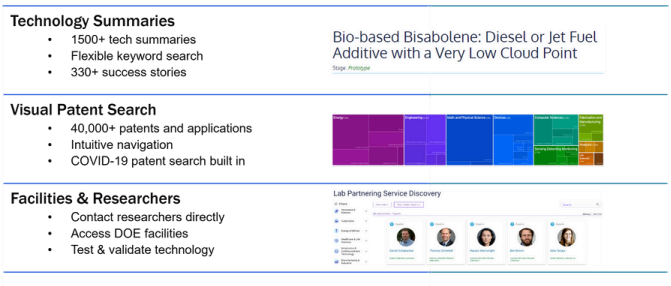
The TTEP underscores DOE's commitment to fostering cross-sector collaboration and ensuring accountability in the commercialization process. By coordinating with National Laboratories, industry and other stakeholders, OTT is creating a transparent, inclusive framework that drives economic growth while advancing clean energy solutions.

Modern Tools for Commercialization: VIPS & LPS

OTT also has modernized tools to make DOE resources more accessible to industry and innovators.

LabPartnering.org is where the public can use a keyword search to access the National Labs' portfolio and researchers.



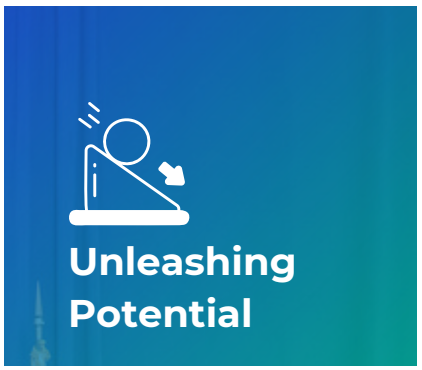


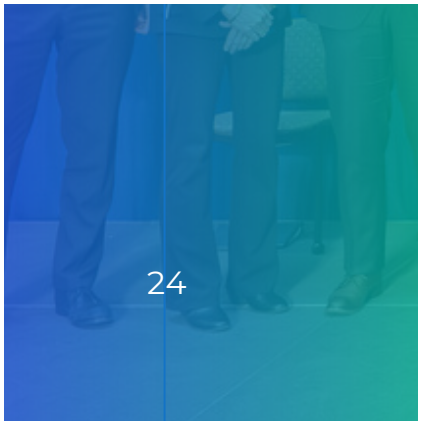
- **Lab Partnering Service (LPS)**: A platform connecting businesses with DOE's labs, generating more than 1,200 inquiries since 2021. LPS also has published a Lab Liftoff Addenda to highlight DOE capabilities in key areas such as long-duration energy storage and advanced nuclear technologies.

- **Visual Intellectual Property Search (VIPS)**: A searchable database of 6,200 patents and software packages, enabling easier access to DOE technologies available for licensing.

Investing in People & Building a Culture of Innovation

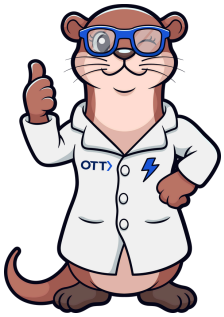
Both within OTT and across the DOE complex, we have built teams, strengthened partnerships and opened new doors of opportunity. At the core of this progress is a culture of innovation—one that challenges the status quo and asks, "How do we accomplish X?" instead of "Can we accomplish X?"





Building a Culture of Collaboration & Growth

At OTT, we set out to create a workplace culture rooted in collaboration, accountability and growth—one where employees feel empowered to take initiative and tackle challenges head-on. Over the past four years, we have made structural changes, streamlined processes and launched new programs to strengthen teamwork, increase efficiency and keep our focus on delivering results via four substantial efforts.



SAM (Small and Mighty!) the Otter reminds us to stay resourceful, keep pushing boundaries, and always work together to achieve big goals.

1. **Efficient Organizational Structure**: We started by building core business lines and clarifying roles across the team, ensuring that everyone understood how their work connected to OTT's broader mission. These changes enhanced coordination and allowed us to focus resources where they were needed most.

2. **Achieving Outstanding Employee Satisfaction**: In 2024, OTT earned two Secretary Honor Awards for Most Improved Office in "Employee Satisfaction" and "Confidence in Performance" based on results from the **Federal Employee Viewpoint Survey (FEVS)**. These awards reflect the progress we've made in creating an environment where people feel valued, supported and energized to perform at their best.

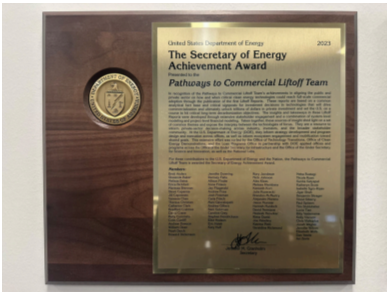
3. **Employee Recognition**: We introduced new recognition programs, including the **OTTer of the Year** and **OTTer of the Quarter** awards. These programs celebrate individual achievements and reinforce a culture of pride and accountability. Complementing this, we introduced **SAM the OTTer**—a fun and symbolic mascot representing intelligence, adaptability and persistence. SAM has quickly become a unifying figure within OTT, embodying the values that define our approach to work.

4. **Continuing the Momentum**: To sustain and build on this progress, we launched the **Great Place to Work Committee** in 2024. This volunteer-led group focuses on improving communication, promoting work-life balance and supporting employee wellness. Through regular feedback sessions, professional development opportunities and team-building activities, the committee helps ensure that OTT remains a workplace where people feel connected, supported and motivated to succeed.

OTT Leadership & Achievements

Our commitment to innovation and commercialization has been recognized both inside and outside DOE. In 2024, OTT Director Vanessa Chan was honored to be selected for the **TIME100 Climate List** in the Leader category. This recognition highlights the progress we've made in moving clean energy technologies from the lab to the marketplace—work that depends on breaking down barriers and building partnerships across industry, finance and government.

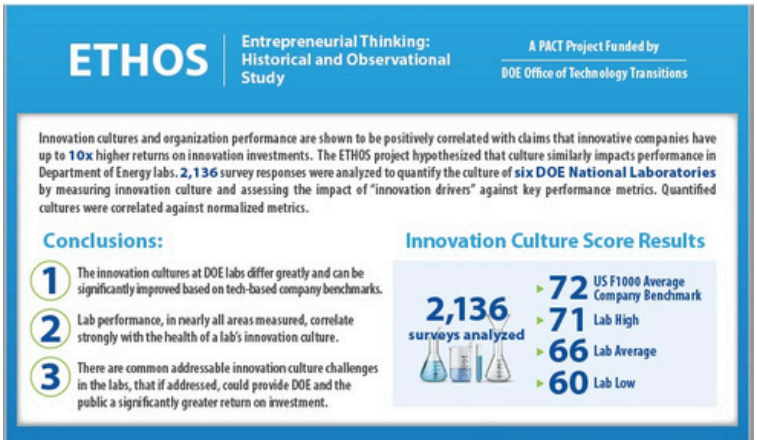
We've also worked to recognize excellence across the DOE complex. The **OTT/NAI Innovator of the Year Award**, launched in partnership with the **National Academy of Inventors**, celebrates groundbreaking contributions in energy innovation and commercialization. The inaugural award went to **Dr. Jason Zhang** of Pacific Northwest National Laboratory for his pioneering work in energy storage technology.



Our efforts have also been recognized at the highest levels within DOE with two Secretary's Honor Awards. One award highlighted OTT's role in introducing Partnership Intermediary Agreements, enabling greater collaboration with non-traditional partners and streamlining innovation pathways. The other honored OTT's contributions to the Pathways to Commercial Liftoff project, which aligned the public and private sectors and set a common knowledge base for commercialization of critical clean energy technologies. These awards reflect OTT's leadership in advancing innovation and driving clean energy adoption.

Strengthening Innovation Across DOE

Our focus on people and culture doesn't stop at OTT. We're helping DOE strengthen innovation practices across the 17 National Labs through studies like **ETHOS**, which evaluates lab culture. We recently entered into a new partnership with **InnovationOne** to assess performance on 12 drivers of innovation. This latest study will benchmark DOE labs against the high-tech sector, providing insights to help us continue improving commercialization practices across the complex.






The Best Team in the World

Over the last four years we have had the privilege of bringing many people through our OTTer bevy as federal employees, contractors, Intergovernmental Personnel Act (IPA) and interns. In order to join our team it is important to be passionate about our mission and most importantly to not have an ego because as a leverage office, the only way we can have impact is through collaboration. We couldn't be more grateful to everyone who was a part of our OTTer family over the last four years. Remember – Once an OTTer always an OTTer!

- Akbar Naqvi
- Amit Samra
- Andrea Yuzon
- Andrew Dasinger
- Andrew Peoples
- Anna Siefken
- Annabelle Swift
- Anne Philips
- Antonio Bouza
- Bahar Sayed
- Ben Ring
- Bernadette Hawkins
- Brandon Stike
- Brett Anders
- Brian Kurtz
- Carolina Villacis
- Carrie McIntosh
- Charles Russomanno
- Charlie Kong
- Clare Erslev
- Dominique Barthel
- Edward Rios
- Eric Dai
- Erick Hunt
- Erik Olson
- Erin Winograd
- Eshaan Agrawal
- Felipe Barcia
- Fernando Gouveia
- Graham Perner
- Hannah Hoffman
- Hannah Murdoch
- Herra Hameedi
- Isabella Ragazzi
- Jaclyn Franken
- Jacob Mees
- James Fritz
- Janice Staten
- Jared Bierbach
- Javier Ortiz
- Jeff Owens
- Jennifer Nelden
- Jenny Gao
- Jonathan Kiel
- Julius Goldberg-Lewis
- Kate Scott
- Katherine Harsanyi
- Katherine Taylor
- Kelsey Hamilton
- Kirsten Hillyer
- Kristen Paulsen
- Kyle Fricker
- Laura Burke
- Laura Prestia
- Lauren Shum
- Louise White
- Lucia Tian
- Lydia Young
- Mailinh McNicholas
- Marcos Gonzales Harsha
- Margaret Ahern
- Margarita Valkovskaya
- Margaux Murali
- Mary Hubbard
- Mary McManmon
- Mary Yamada
- Matt Hill
- Matt O'Brien
- Matthew Mattozzi
- Mayra Barbosa
- McCown Rouse
- Mohsin Ali
- Nick Kraus
- Nick Johnson
- Patricia Martinez
- Peebles Squires
- Peter Heywood
- Philip Hah
- Rachel Enright
- Rachel Hielm-Muller
- Ray Long
- Rebecca Szymkowicz
- Rima Kasia Oueid
- Rita Valkovskaya
- Robert Bectel
- Samantha Ruiz
- Sara Harvey
- Sean Sullivan
- Sencera Bright
- Shamere Cole
- Shane Harper
- Sonali Razdan
- Stephen Hendrickson
- Steve Palmeri
- Tanisha Parker
- Ushma Kriplani
- Vanessa Chan
- Vanessa Peña
- Victor Kane
- Zack Baize
- Zoe Shinefield