



An Introduction to Interacting with ARPA-E

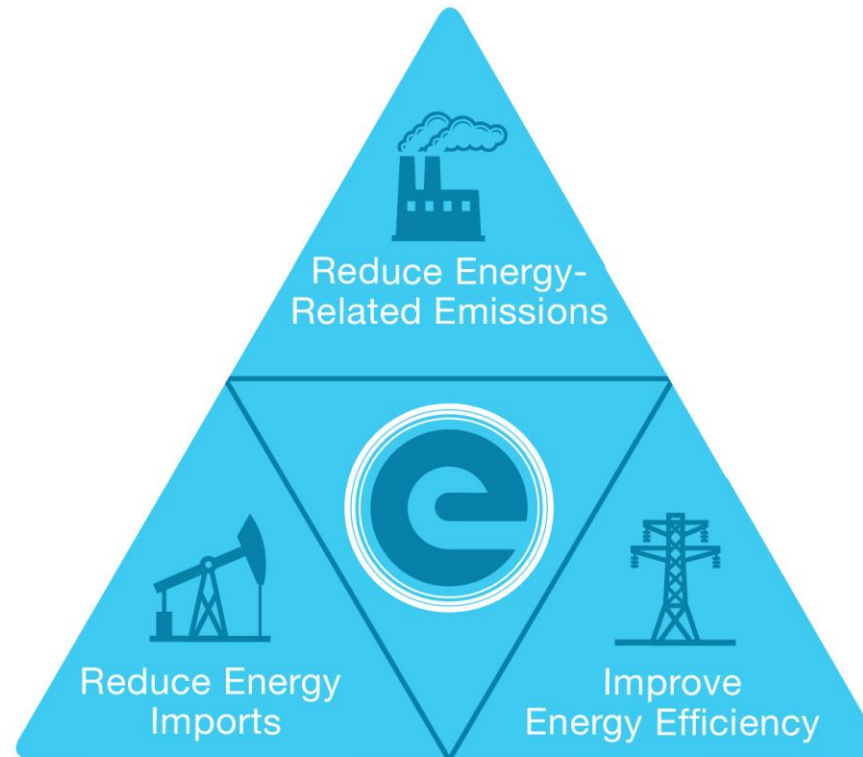
Addison K Stark

ARPA-E Fellow & Acting Program Director

May 6, 2017
ASEE ERC

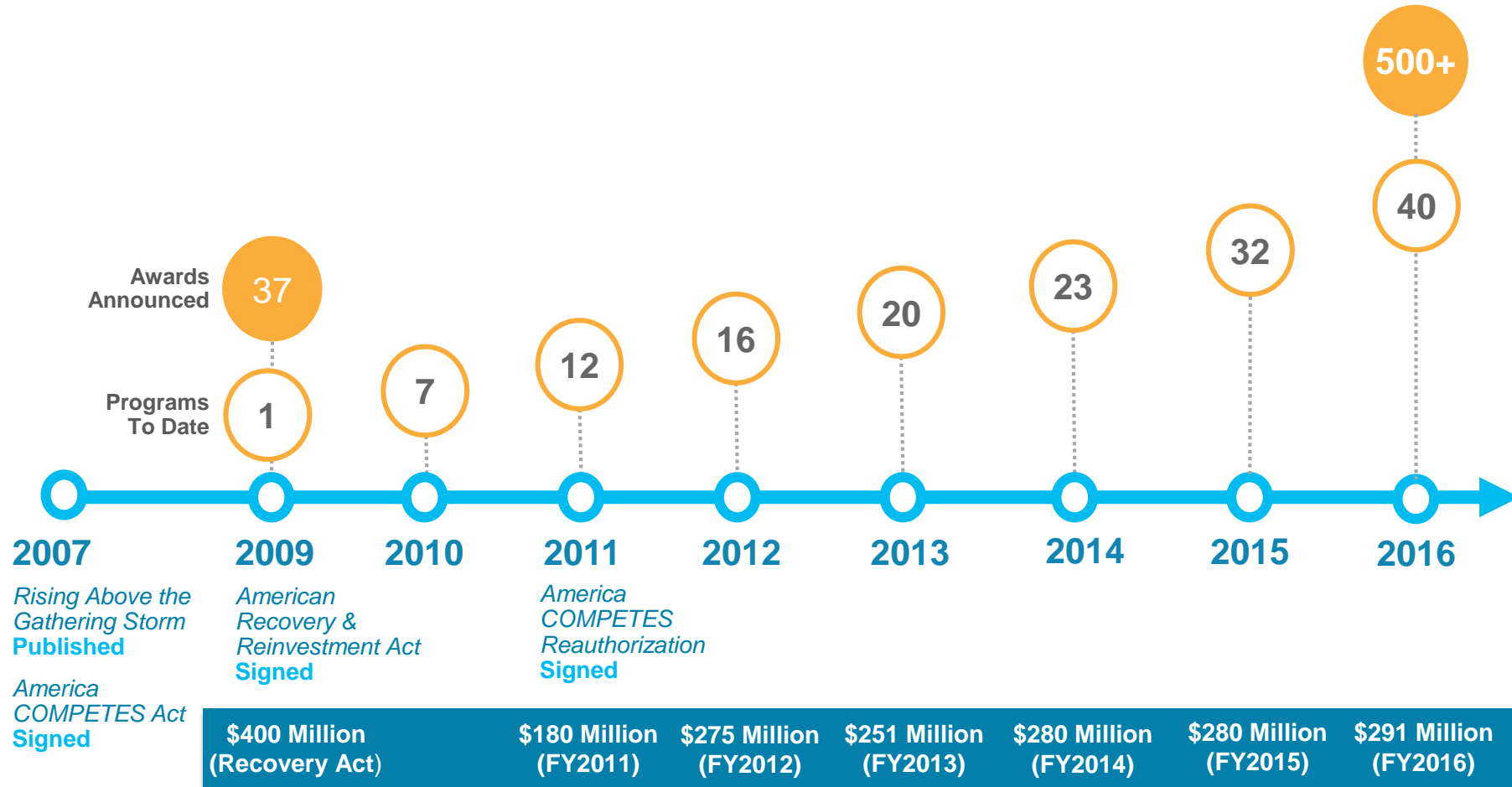
ARPA-E Mission

Catalyze the development of transformational,
high-impact energy technologies

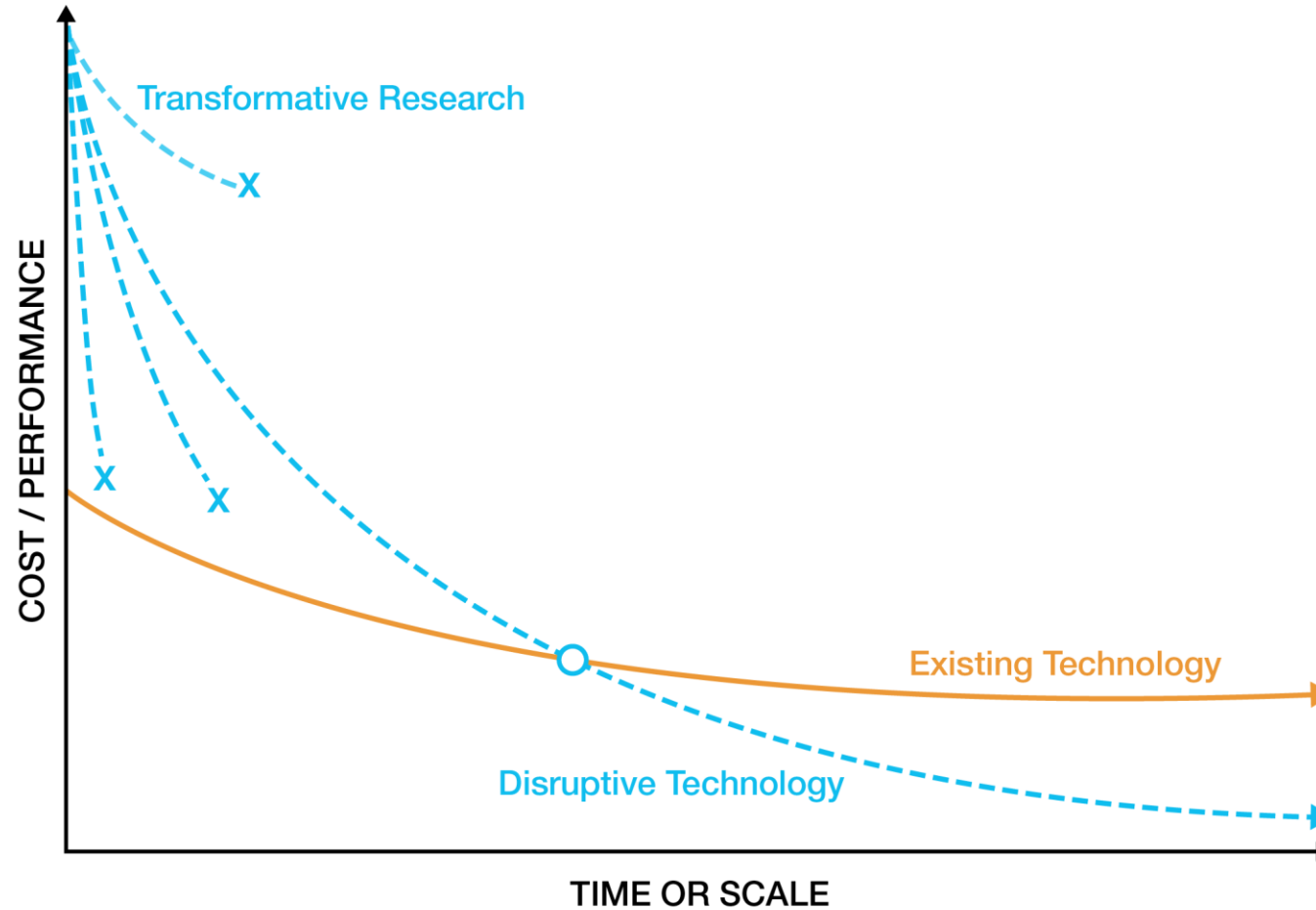


Ensure the U.S. maintains a lead in the development
and deployment of advanced technologies

Evolution of ARPA-E



Creating New Learning Curves



What Makes an ARPA-E Project?



IMPACT

- ▶ High impact on ARPA-E mission areas
- ▶ Credible path to market
- ▶ Large commercial application



TRANSFORM

- ▶ Challenges what is possible
- ▶ Disrupts existing learning curves
- ▶ Leaps beyond today's technologies



BRIDGE

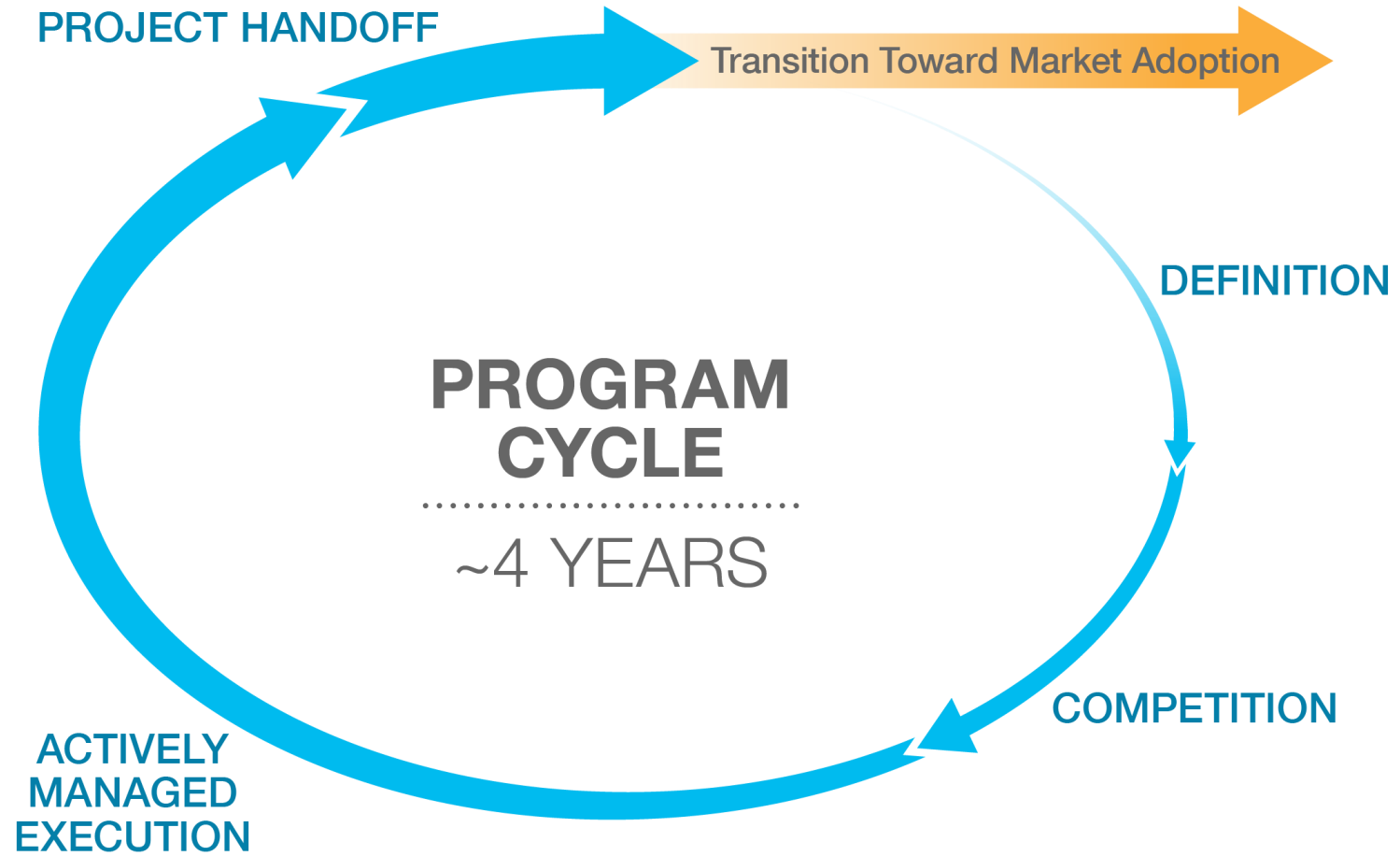
- ▶ Translates science into breakthrough technology
- ▶ Not researched or funded elsewhere
- ▶ Catalyzes new interest and investment



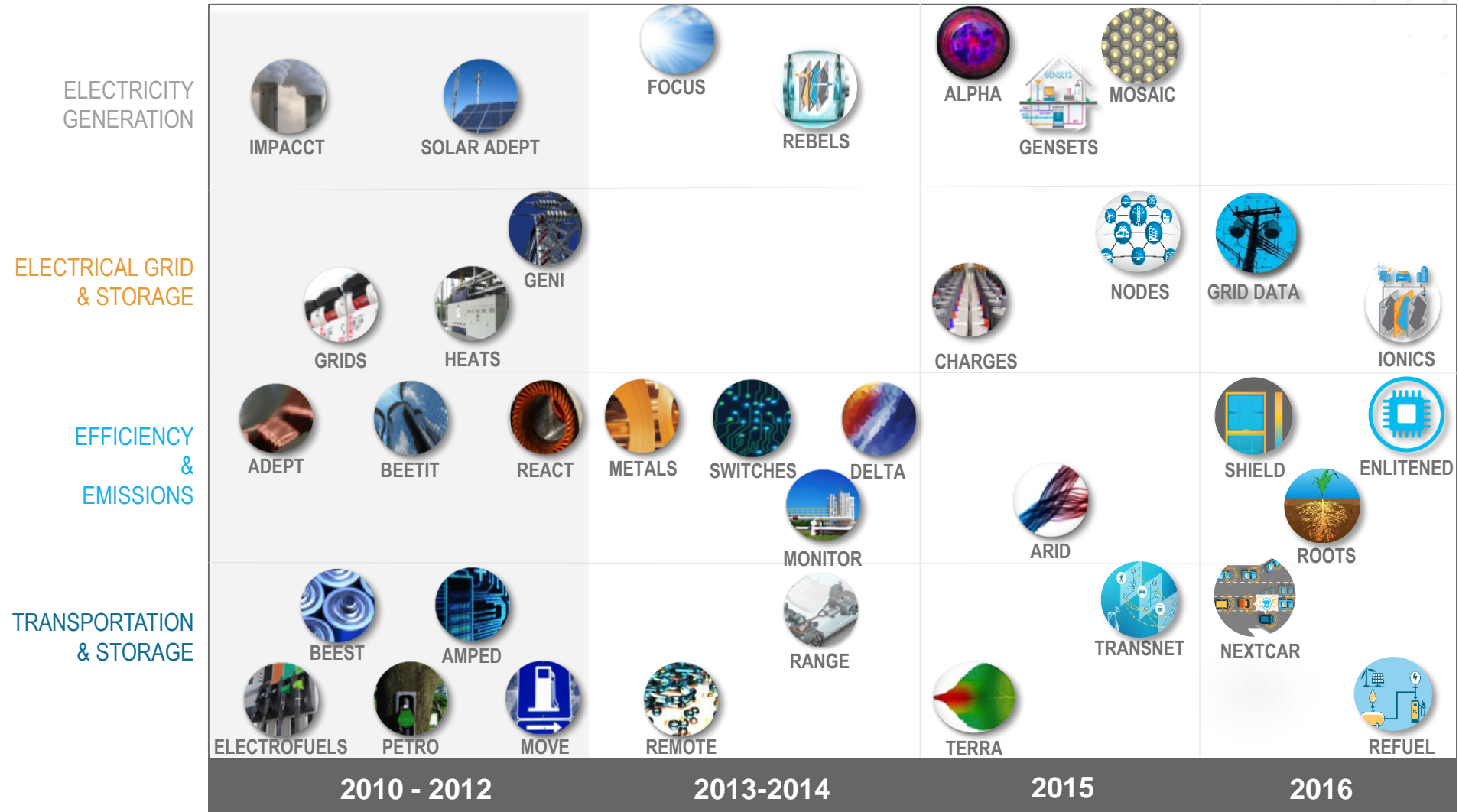
TEAM

- ▶ Comprised of best-in-class people
- ▶ Cross-disciplinary skill sets
- ▶ Translation oriented

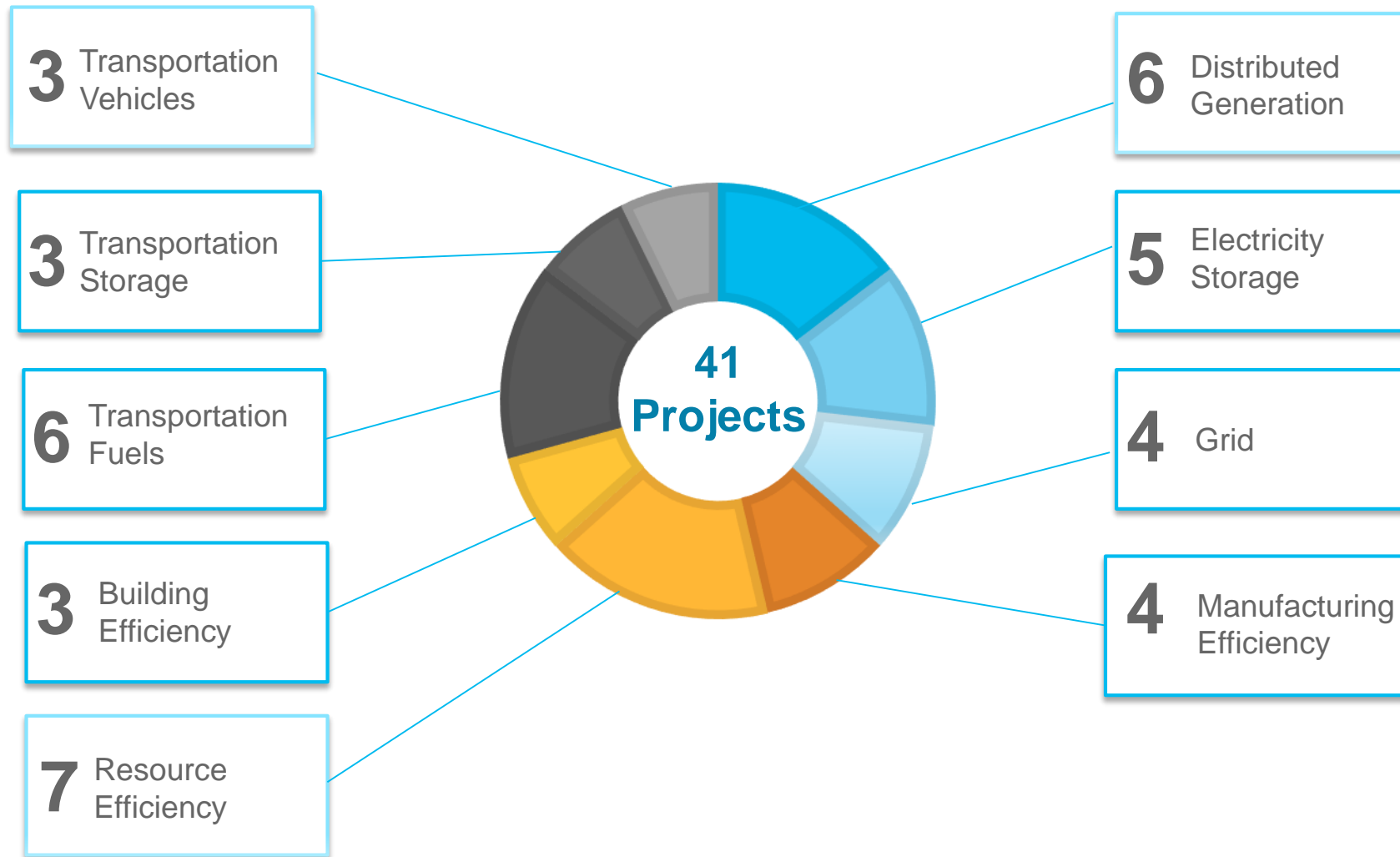
Technology Acceleration Model



Focused Program Portfolio



OPEN 2015: 41 Projects, 21 States, 9 Areas



Measuring ARPA-E's Success



MOVING TECHNOLOGY TOWARD MARKET

- ▶ Partnerships with Other Government Agencies
- ▶ Licensing/Acquisition by an Established Firm
- ▶ Licensing/Acquisition Resulting in a Spinoff
- ▶ Private-Sector Funding
- ▶ Growth of Existing Company (e.g., Organic Growth)



BREAKTHROUGH ACHIEVEMENTS

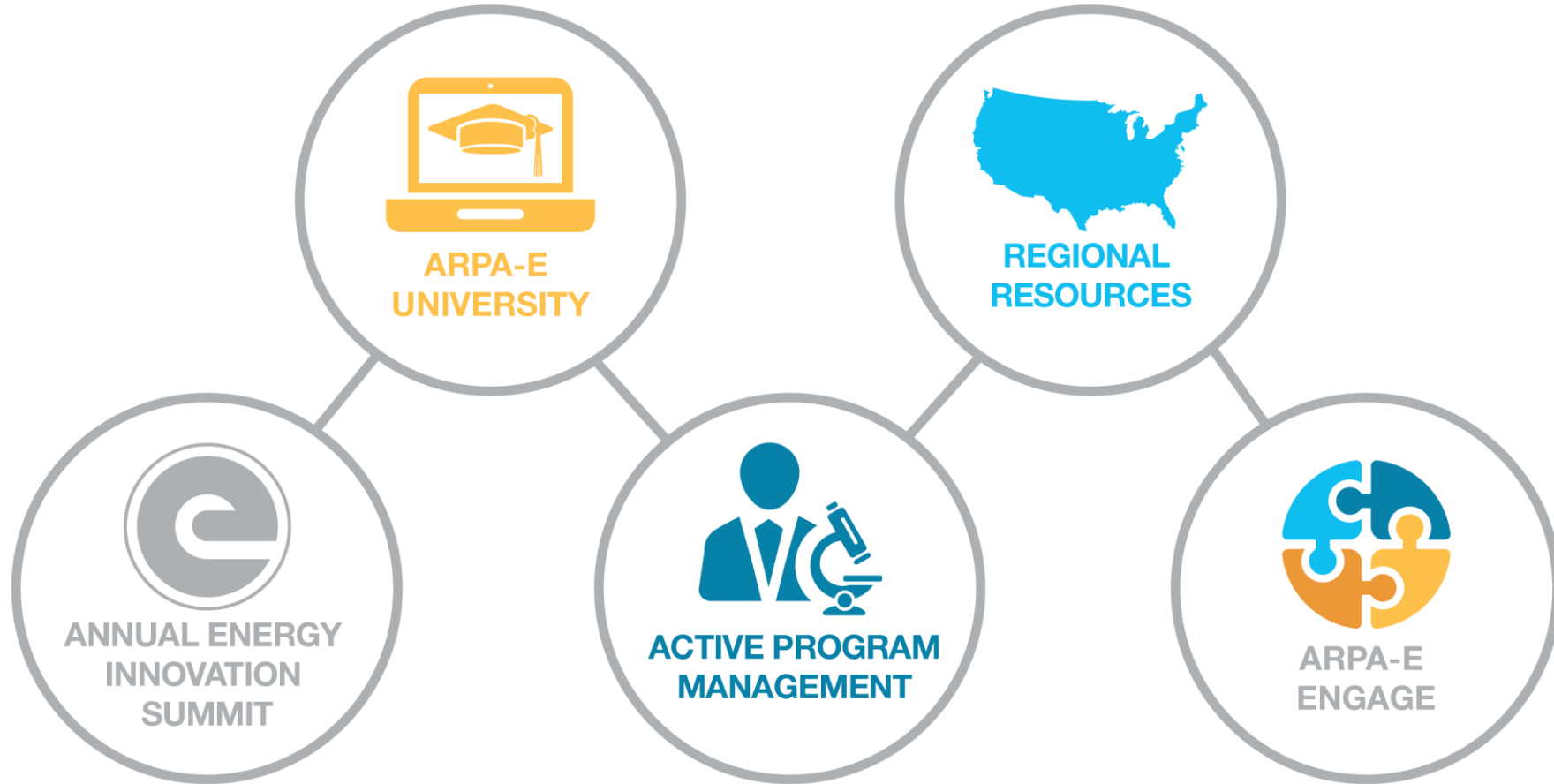
- ▶ Patents
- ▶ Publications



OPERATIONAL EXCELLENCE

- ▶ Expedited program development and project selection
- ▶ Aggressive performance metrics

ARPA-E Resources





Unparalleled
Networking



Highly Selected
Showcase



Inspiring Keynotes

www.arpae-summit.com

Mar. 12 - 14, 2018 | Washington, DC

Why Work at ARPA-E?



CONTRIBUTE TO A BETTER ENERGY FUTURE

Work towards creating a more efficient, more secure energy future



WORK IN DIVERSE TECH AREAS

At ARPA-E you'll have the opportunity to work with a diversity of energy issues and explore new fields



JOIN OUR INNOVATIVE STARTUP-LIKE CULTURE

ARPA-E is a fast-paced, action-oriented Agency



COLLABORATE WITH OTHER EXPERTS

Work with other experts from many different disciplines who are devoted to creating a better energy future

If you are interested in applying or learning more, please email arpa-e-jobs@hq.doe.gov.

ARPA-E Recruitment Opportunities



ARPA-E IS CURRENTLY HIRING NEW PROGRAM DIRECTORS — What makes an ideal candidate?

Roles, Responsibilities, and Attributes



Program Development

- Perform technical deep dive to solicit input from multiple stakeholders in the R&D community
- Present and defend program concept in climate of constructive criticism



Active Project Management

- Actively manage portfolio projects from merit reviews through project completion
- Extensive “hands-on” work with awardees



Thought Leadership

- Represents ARPA-E as a thought leader in the program area



Qualifications

- R&D experience; intellectual integrity and flexibility; technical breadth; commitment to energy; communication skills; leadership; and team management
- Confidence, but not arrogance

If you are interested in applying or learning more, please contact a current ARPA-E Program Director or email arpa-e-jobs@hq.doe.gov.

ARPA-E Recruitment Opportunities



ARPA-E IS CURRENTLY HIRING NEW TECHNOLOGY-TO-MARKET ADVISORS — What makes an ideal candidate?

Roles, Responsibilities, and Attributes



Business Development and Technical Marketing

- Advise project teams on market, strategy, business planning, IP, product development, and supply chain considerations
- Target public and private follow-on funding sources



Techno-Economic Analyses

- Perform techno-economic analyses to inform new programs and funded projects



Stakeholder Outreach

- Represents ARPA-E to a range of stakeholders and represents the Agency as a thought leader in the program area



Qualifications

- 5+ years of work experience, including technology, research, and business experience; advanced degree; strong technical background; superior analytic skills; strong written and oral communication skills; demonstrated interest/expertise in energy and energy technologies

If you are interested in applying or learning more, please contact a current ARPA-E Technology-to-Market Advisor or email arpa-e-jobs@hq.doe.gov.

ARPA-E Recruitment Opportunities



ARPA-E IS CURRENTLY HIRING NEW FELOWS — What makes an ideal candidate?

Roles, Responsibilities, and Attributes



Independent Energy Technology Development

- Perform primary technical and economic analyses to identify high-impact technologies for the Agency
- Learn from and brainstorm with experts in a variety of fields
- Publish original research papers and reviews



Program Director Support

- Help develop future programs through technical analysis, discussions, debate and workshops
- Support existing programs through technical and economic analyses and on-site project visits



Organizational Support

- Contribute to the strategic direction and vision of the Agency
- Review proposals and funding opportunities

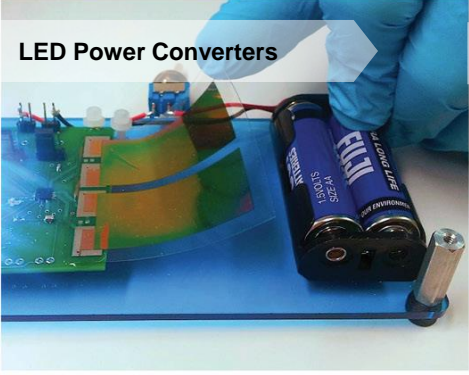

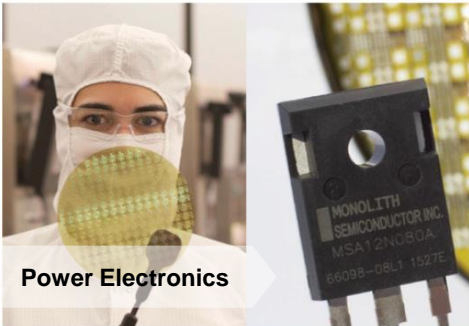


Qualifications

- Ph.D. in science or engineering; strong analytical, research, and communication skills; ability to initiate independent projects; passion to change the world through energy technology research; U.S. citizenship

If you are interested in applying or learning more, please contact a current ARPA-E Fellow or email arpa-e-jobs@hq.doe.gov.

Influence a Mission that Matters

TRANSPORTATION	STATIONARY ENERGY	ENERGY EFFICIENCY	ELECTRIC GRID	ENERGY STORAGE
 <p>Engine Compressor System</p>	 <p>Low-Cost Heliostats</p>	 <p>Personal Cooling Robot</p>	 <p>LED Power Converters</p>	 <p>Grid-Scale Storage</p>
 <p>Transportation Network</p>	 <p>Solar-Concentrating Photovoltaic Mirror</p>	 <p>Power Electronics</p>	 <p>Smartwires</p>	 <p>Battery Sensor</p>

Enhance Technological Lead in Advanced Energy Technologies

Ensure U.S. Energy and Economic Security

Develop Clean, Efficient, Reliable Energy Systems



U.S. DEPARTMENT OF
ENERGY

www.arpa-e.energy.gov