

The U.S. Government's Strategy for Investing in Innovation

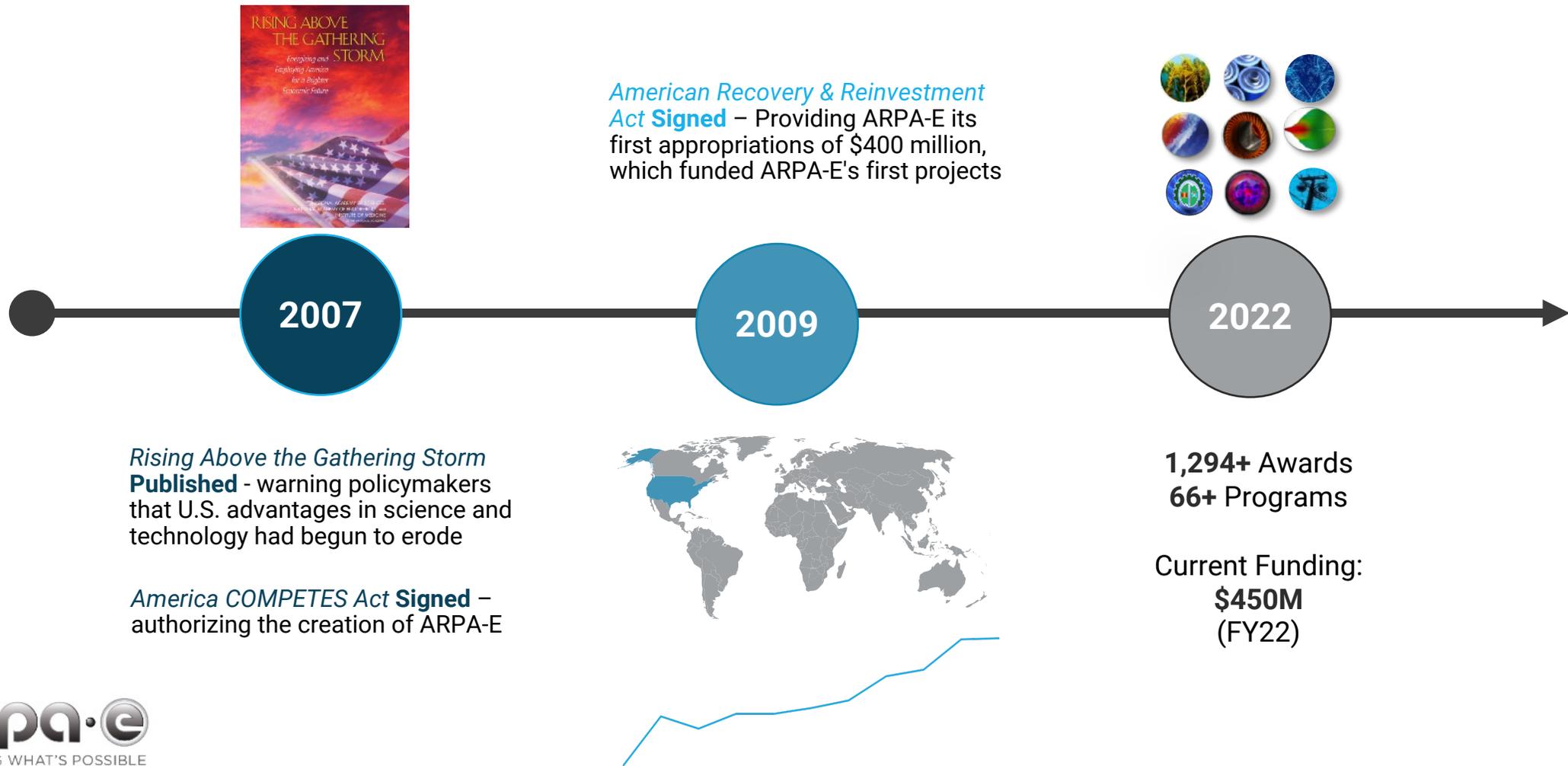
a conversation with Dr. Jennifer Gerbi of ARPA-E & NYU Professor and Fubon
Director of the Innovation Technology Initiative Melissa Schilling

Dr. Jennifer Gerbi
Acting Director, ARPA-E

March 24, 2022

History of ARPA-E

In 2007, The National Academies recommended Congress establish an Advanced Research Projects Agency within the U.S. Department of Energy to fund advanced energy R&D.



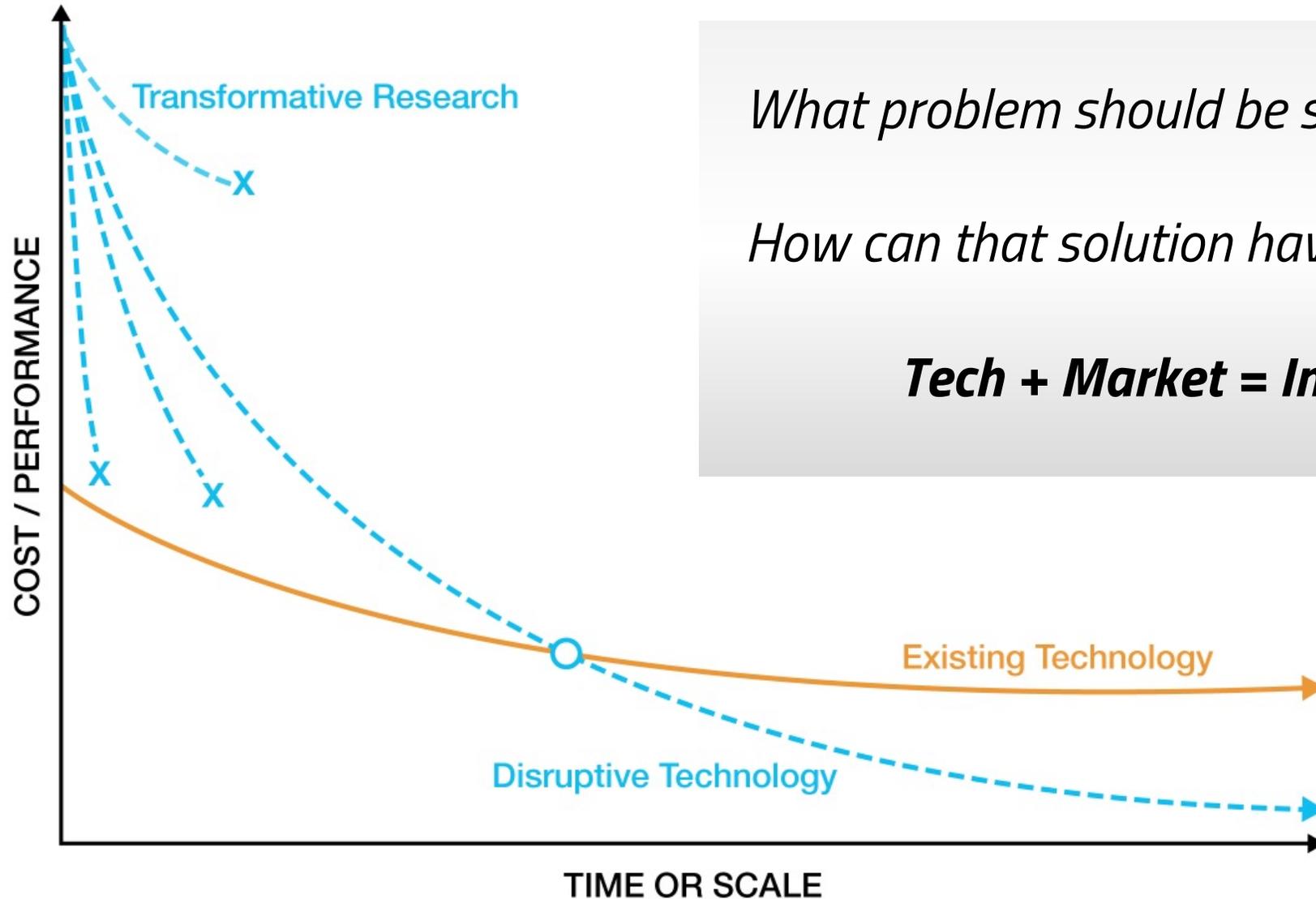
ARPA-E Mission

Goal 1: To enhance the economic and energy security of the United States:



Goal 2: Ensure that the United States maintains a technological lead in developing and deploying advanced energy technologies.

We are a high-risk, high reward applied R&D Agency



What problem should be solved... And why?

How can that solution have an impact?

Tech + Market = Impact

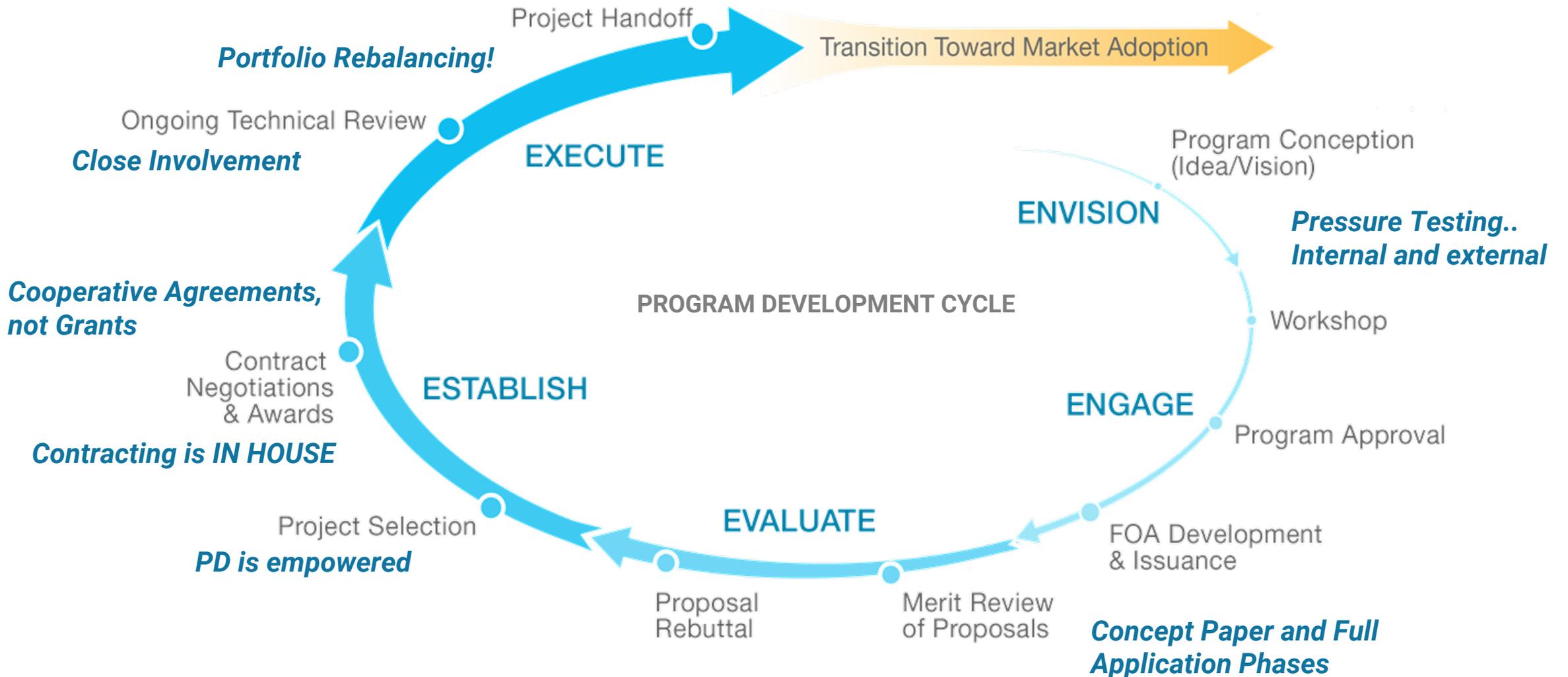
ARPA-E: What makes us different

- Startup-esque approach. Continuous Learning!
- Term limited, core group of empowered **Program Directors**
- Term limited T2M Advisors, PhD Fellows work seamlessly with Program Directors
- Collaborative instead of competitive
- Structure: Flat, lean, no 'roadmaps', no top-down direction
- Comfort with risk and ambiguity crucial – TRUST is essential.



Our Culture Enables our Mission

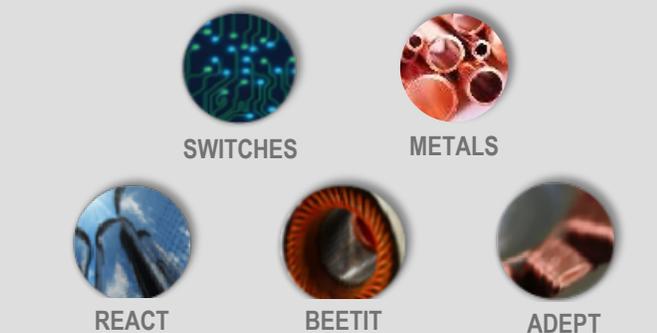
Technology Acceleration Model



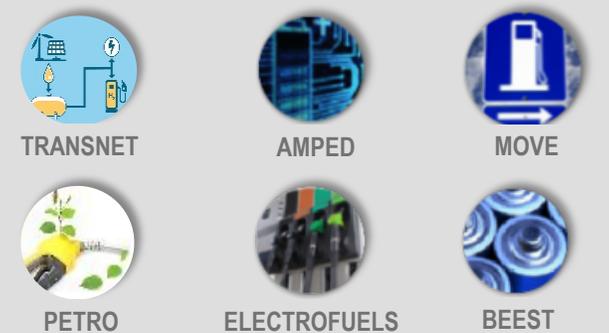
ELECTRICITY GENERATION & DELIVERY



EFFICIENCY



TRANSPORTATION



+ OPEN 2009, 2012, 2015, 2018, & 2021 Solicitations
+ Seedlings, Competitions, Complementary Exploratory Topics
+ SCALEUP 2019 & 2021

Active

Alumni



SCALEUP

Seeding Critical Advances for Leading Energy technologies with Untapped Potential

First-of-its-kind initiative at ARPA-E to translate previously funded ARPA-E technologies to commercial viability

10 Awardees

*

\$70+ million

*

Takes the tech de-risked in the lab to the next step

*

SCALEUP selectees must partner with potential customers, end-users, etc.

**US Manufacturing Requirement
Waivers and FWWs Enable Global
Engagement**

Is it Working? ARPA-E Impact Indicators at the end of 2021

Since 2009
ARPA-E has
provided
\$3 billion
in R&D funding to
more than **1,294 projects**



185 projects
have attracted
more than
\$9.87 billion
in private-sector follow-on funding



129 companies
formed by
**ARPA-E
projects**



20 exits
market valuations worth
\$21.6 billion
from mergers, acquisitions, and IPOs



268 projects
have **partnered**
with other
government
agencies
for further
development



5,497
peer-reviewed
journal articles
from ARPA-E
projects



829 patents
issued by U.S.
Patent and
Trademark Office

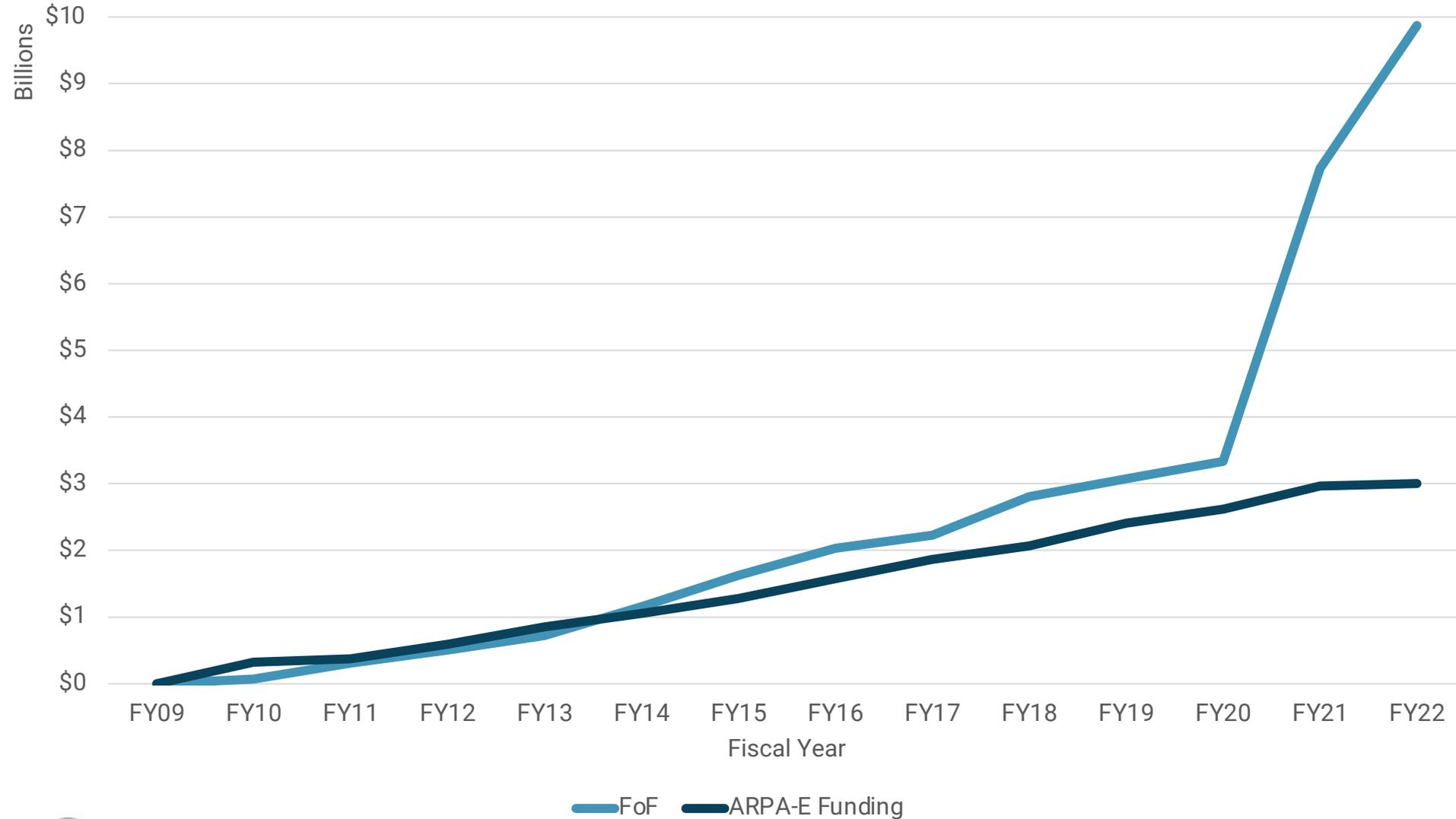


285 licenses
reported from
ARPA-E projects

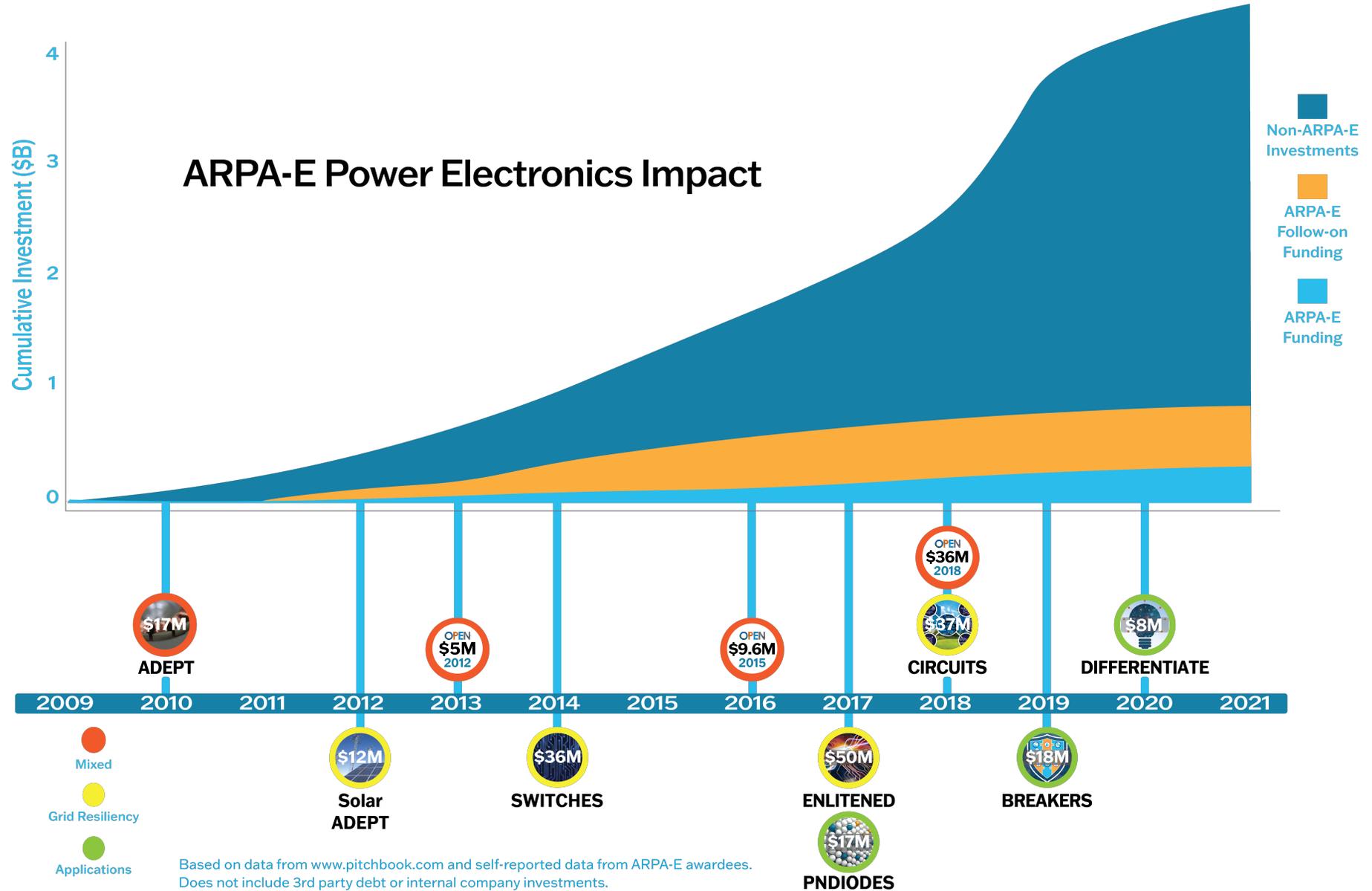


As of January 2022

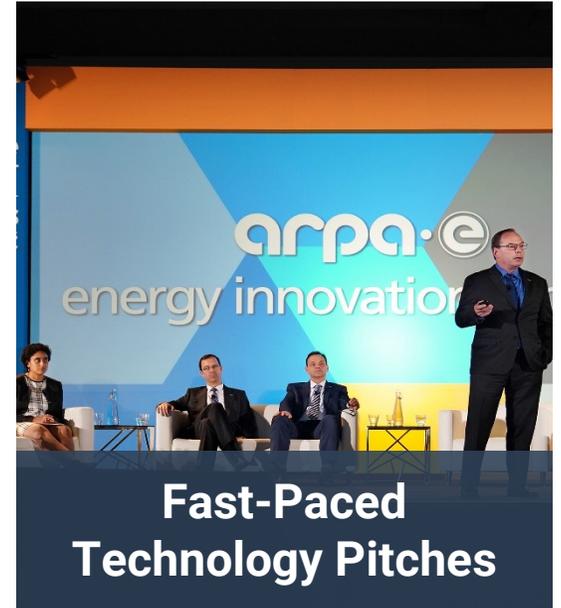
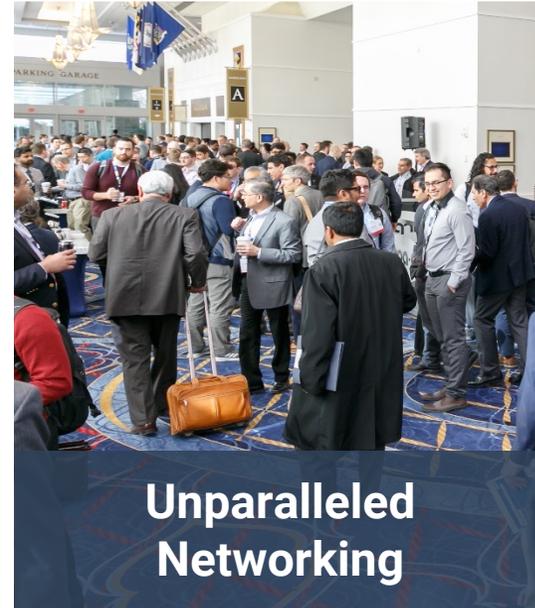
Private Follow-on-Funding and ARPA-E Funding Over Time - Cumulative



Investment time series



arpa·e energy innovation summit



arpae-summit.com

May 23-25, 2022

Denver, Colorado

ARPA-E Could be the Hallmark of Your Career



CONTRIBUTE TO A
BETTER ENERGY FUTURE

JOIN OUR INNOVATIVE
STARTUP CULTURE



COLLABORATE WITH
OTHER EXPERTS

WORK IN DIVERSE TECH
AREAS



Learn more and apply: www.arpa-e.energy.gov/jobs

Enhance Technological Lead in Advanced Energy Technologies



Develop Clean, Efficient, Reliable Energy Systems

Ensure U.S. Energy and Economic Security



If it works...

will it matter?



U.S. DEPARTMENT OF
ENERGY

arpa-e.energy.gov

arpa-e.energy.gov/news-and-media/newsletter