

# ARPA-E Overview

## Transportation Network Optimization Workshop

Eric Rohlfig, Deputy Director for Technology

March 10, 2014

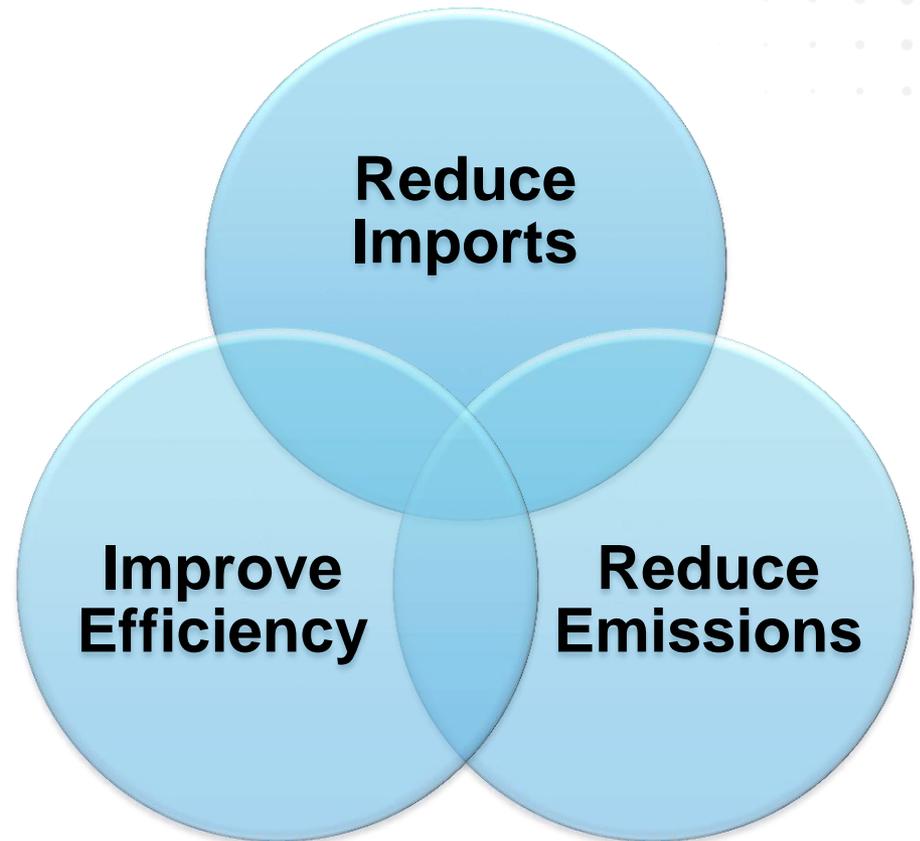


# The ARPA-E Mission

Catalyze and support the development of transformational, high-impact energy technologies

## Ensure America's

- National Security
- Economic Security
- Energy Security
- Technological Competitiveness

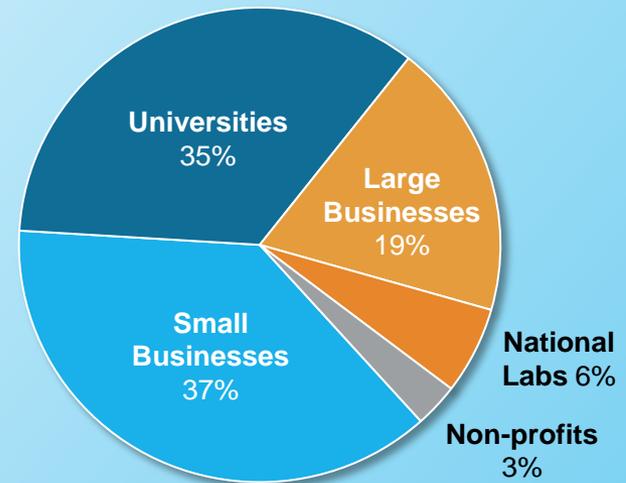


# A Brief History of ARPA-E

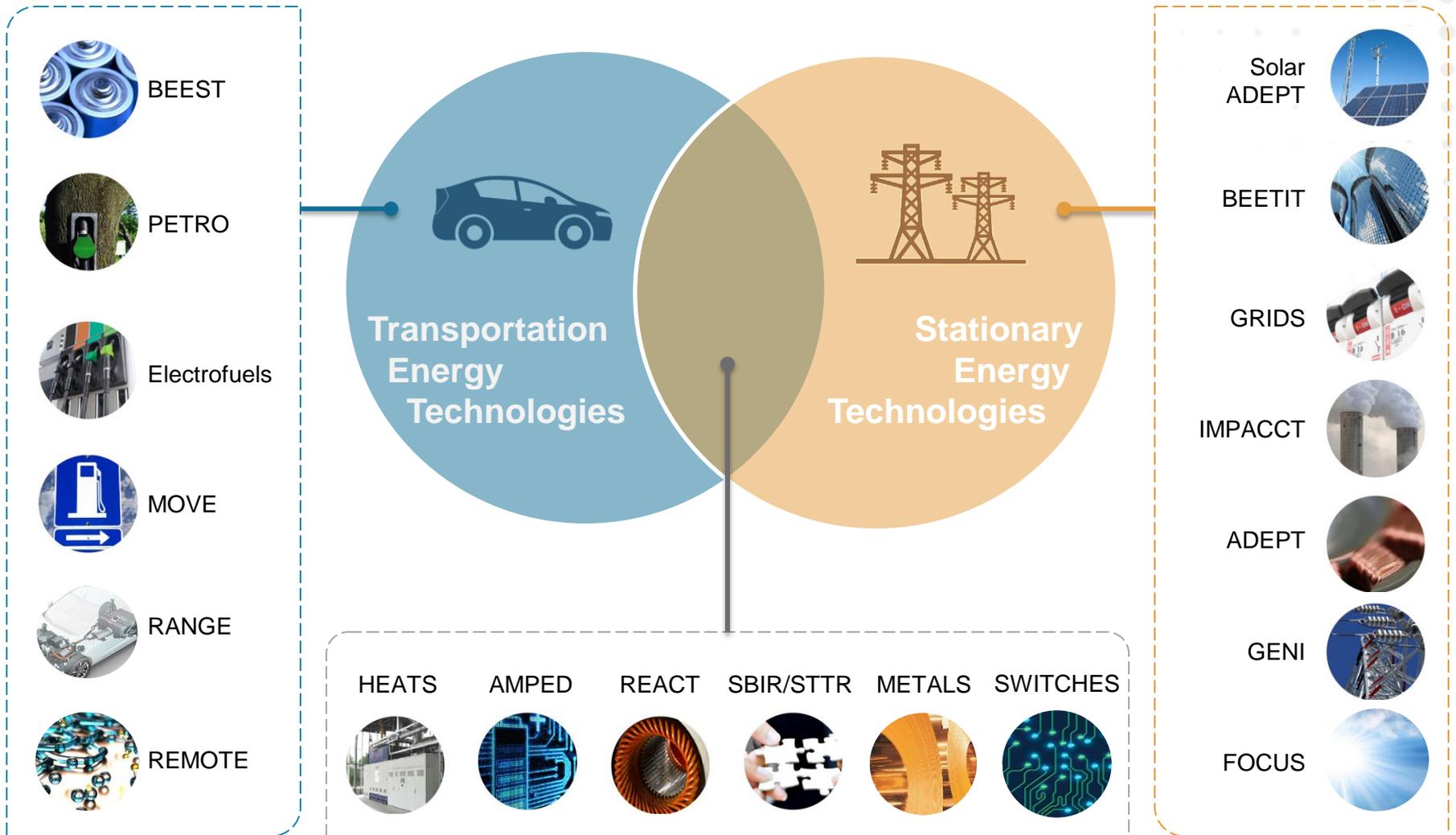
- **2007**
  - *America COMPETES Act signed, authorizing ARPA-E*
- **2009**
  - *American Recovery & Reinvestment Act signed, providing \$400M to establish ARPA-E*
- **2014**
  - *Over \$900M invested in 362 projects funded*
  - *22 projects have attracted >\$625M in private-sector funding*
  - *24 new companies formed*
  - *>16 projects partnered with other agencies for further development*

## *Investing in America's Best and Brightest*

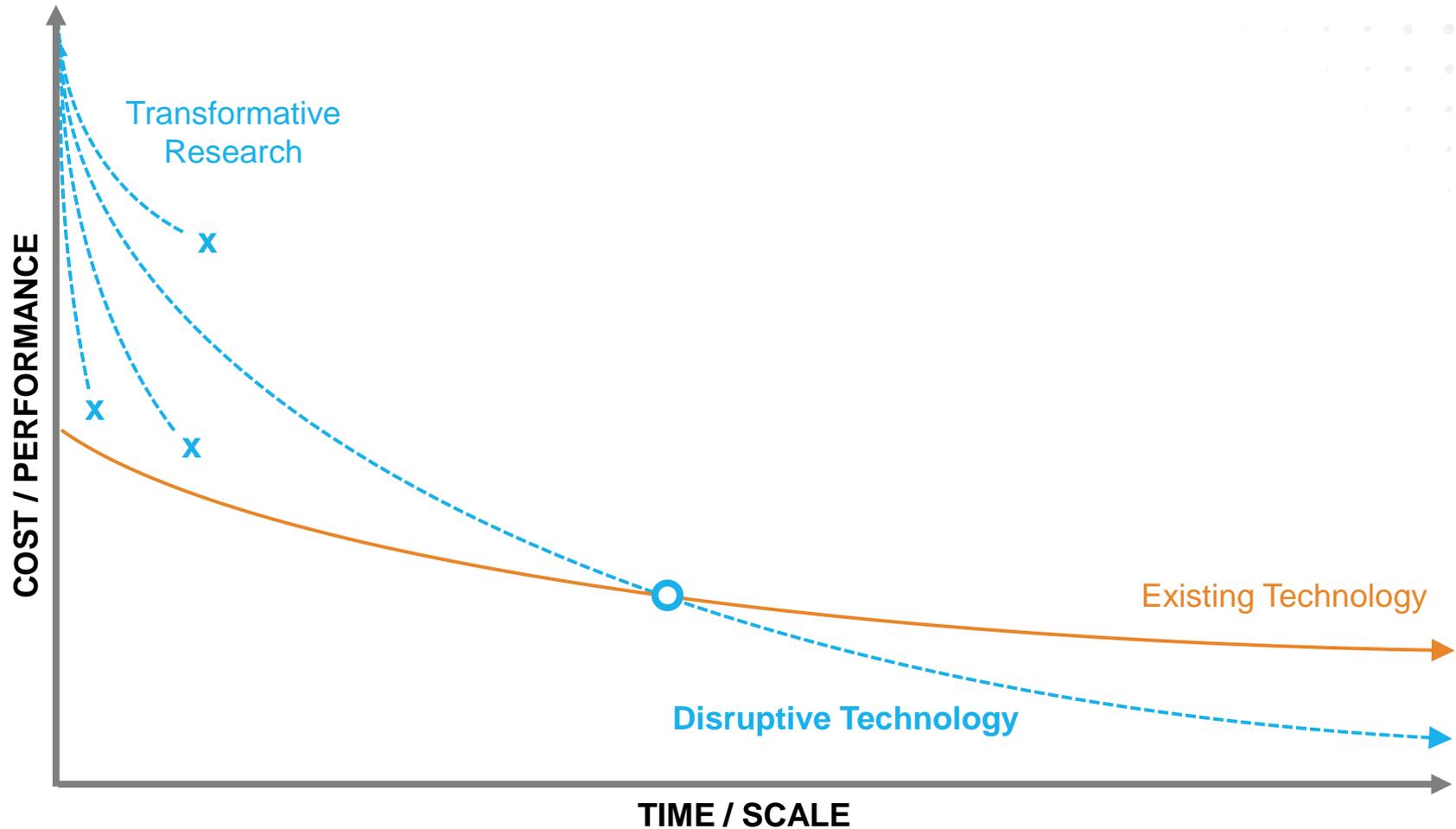
Funding Distribution (Lead Institution)



# Focused Programs



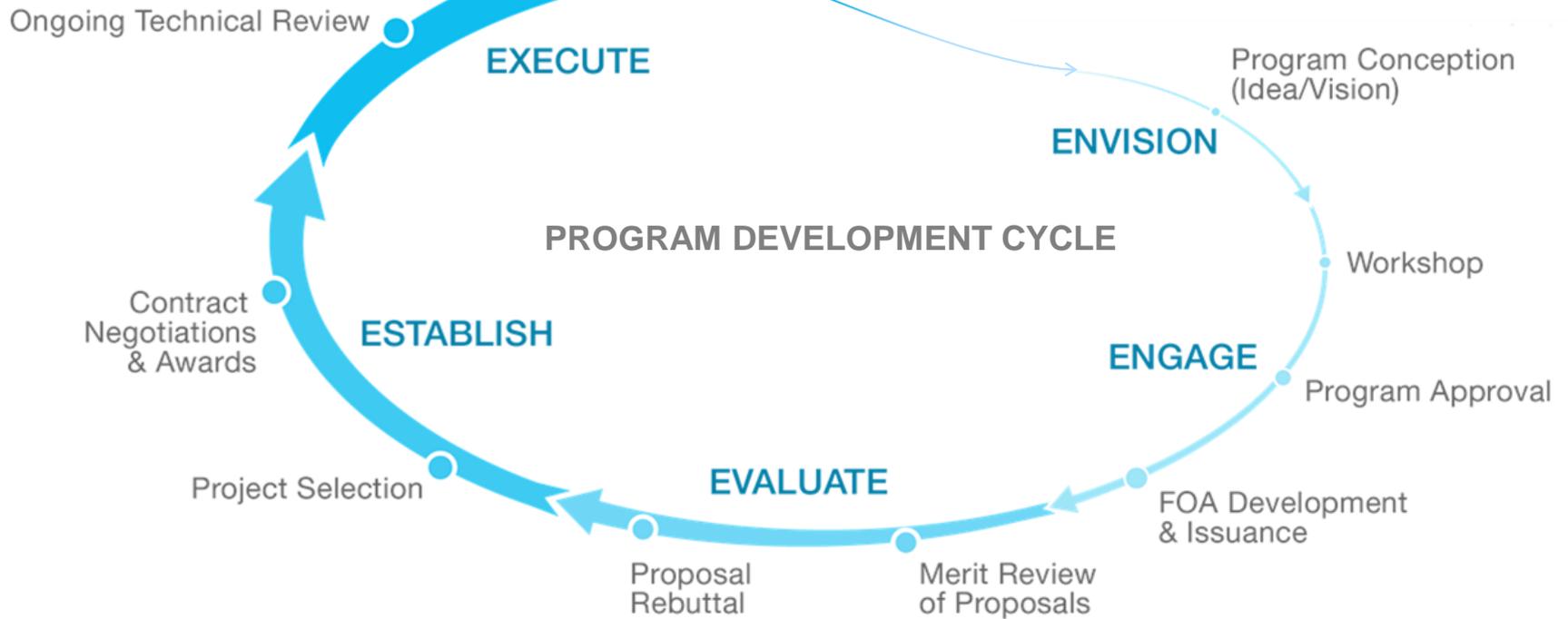
# Funding Disruptive Approaches to Innovation



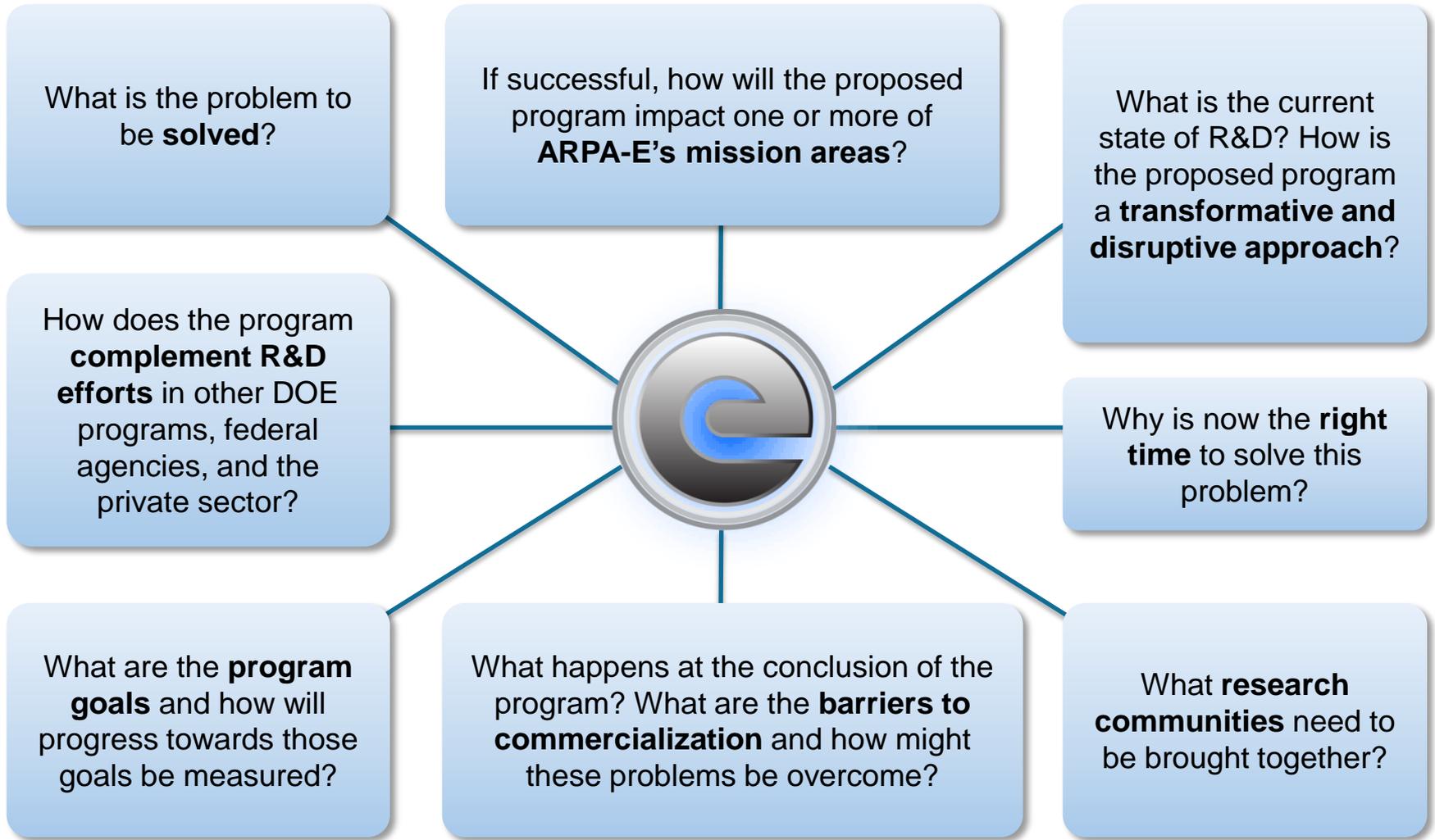
# Developing ARPA-E Programs



ARPA-E Program Directors  Transition Toward Market Adoption



# ARPA-E Program Framing Questions





If it works...

*will it matter?*

# 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

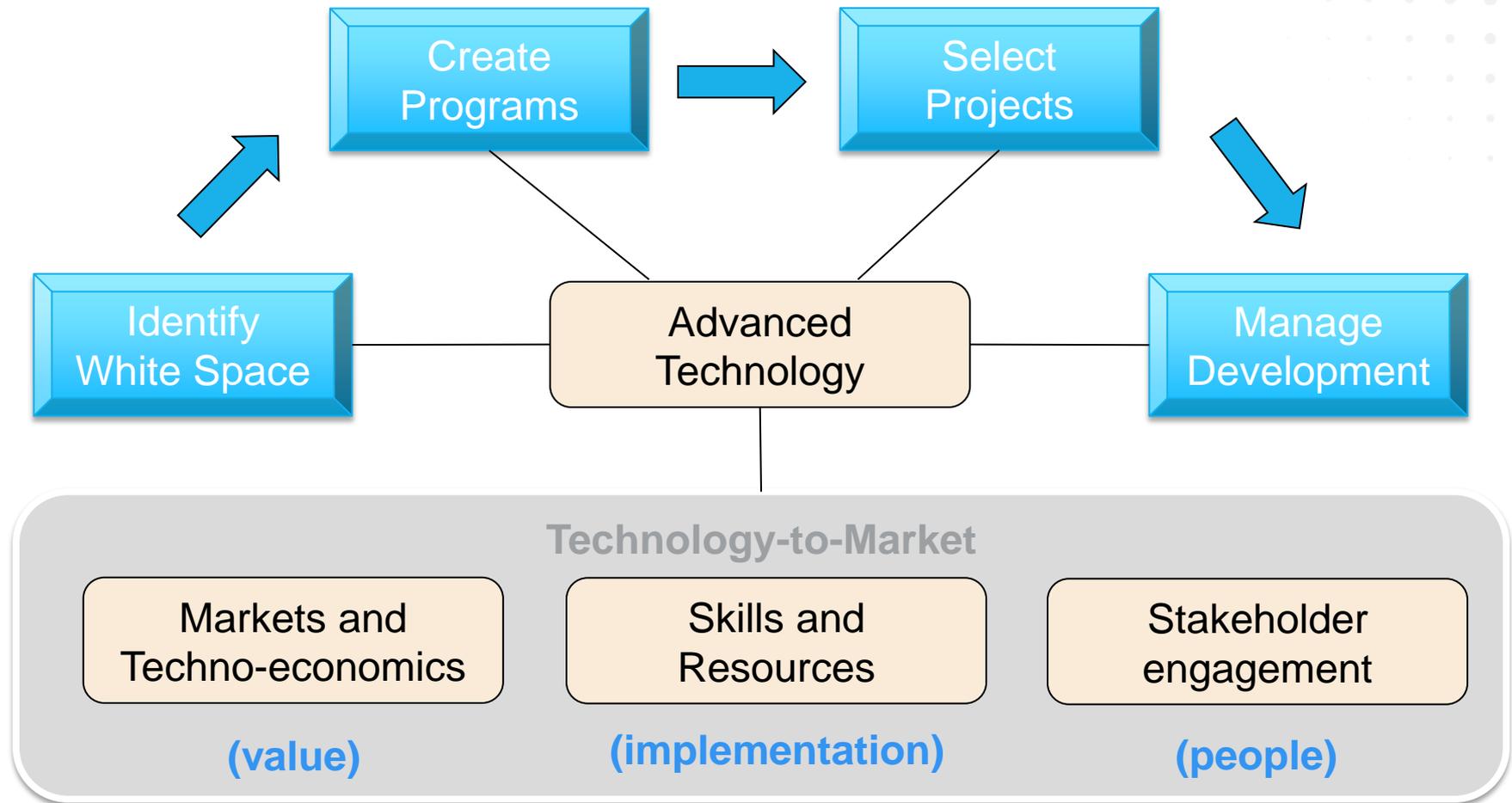
- ▶ Translates science into breakthrough technology
- ▶ Not researched or funded elsewhere
- ▶ Catalyzes new interest and investment



## TEAM

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

# Moving Technology to Market



# Program Directors

*ARPA-E is continually recruiting new Program Directors, who serve 3-year terms*

## ROLES & RESPONSIBILITIES

### Program development

- ▶ Perform technical deep dive soliciting input from multiple stakeholders in the R&D community
- ▶ Present & 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

- ▶ Represent ARPA-E as a thought leader in the program area

## ATTRIBUTES

- ▶ R&D experience; intellectual integrity, flexibility, and courage; technical breadth; commitment to energy; communication skills; leadership; and team management
- ▶ ***A passion to change our energy future***



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[www.arpa-e.energy.gov](http://www.arpa-e.energy.gov)