

NETL Overview

Driving Innovation and Delivering Solutions

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NETL Director



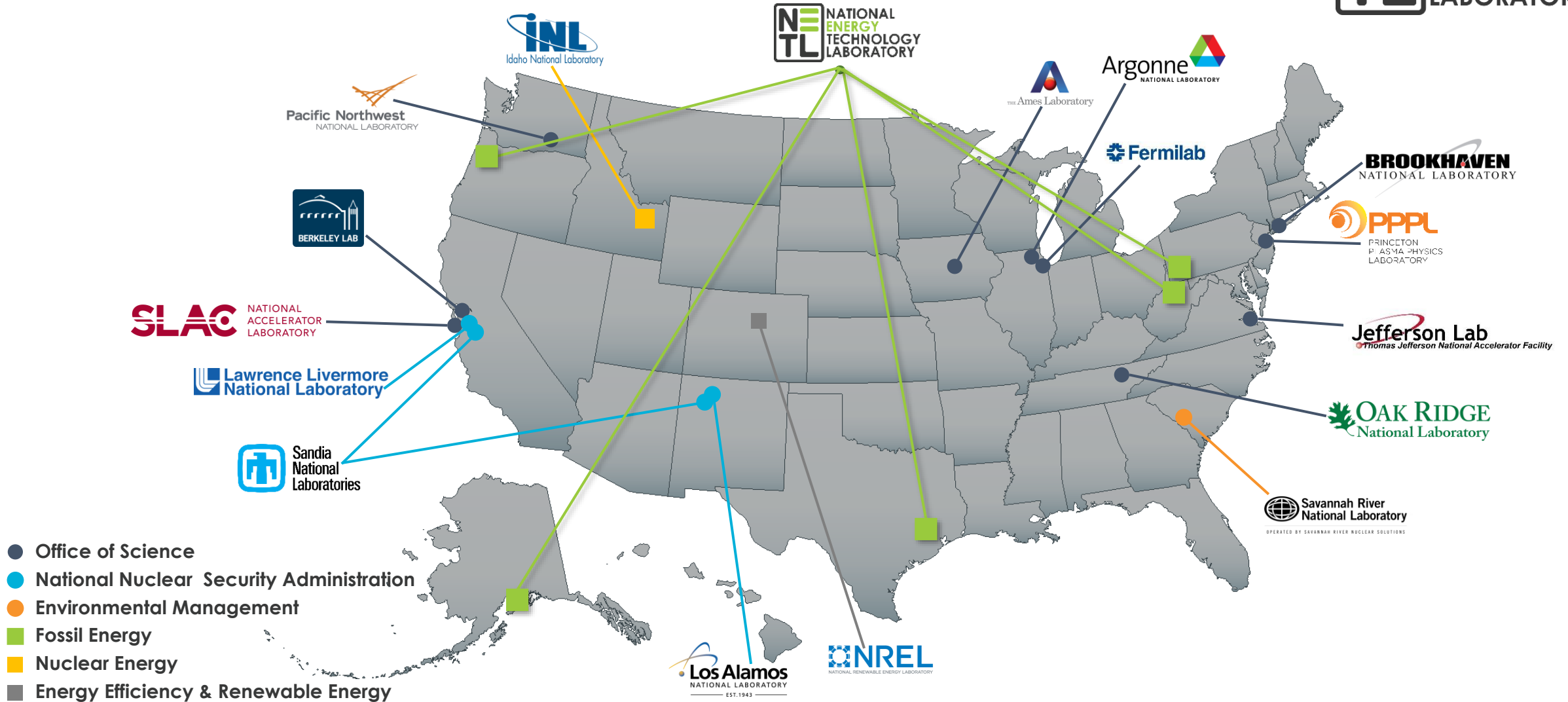
2021 UCFER Virtual Annual Review Meeting
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U.S. DEPARTMENT OF
ENERGY



The National Laboratory System



National Energy Technology Laboratory (NETL)



One of 17 U.S. Department of Energy (DOE) national laboratories; producing technological solutions to America's energy challenges.

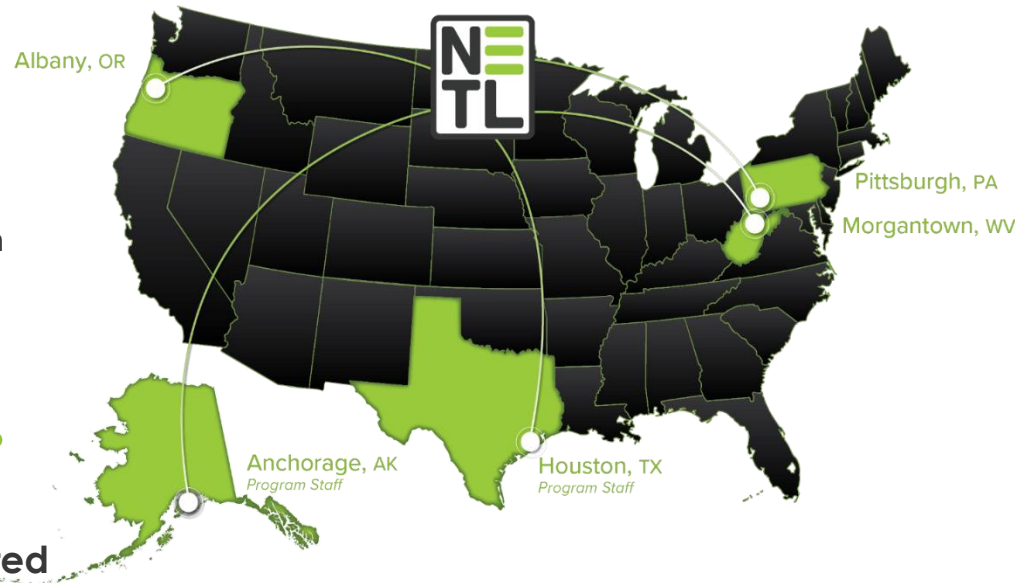
MISSION

Driving innovation and delivering solutions for an environmentally sustainable and prosperous energy future:

- Ensuring affordable, abundant and reliable energy that drives a robust economy and national security, while
- Developing technologies to manage carbon across the full life cycle, and
- Enabling environmental sustainability for all Americans.

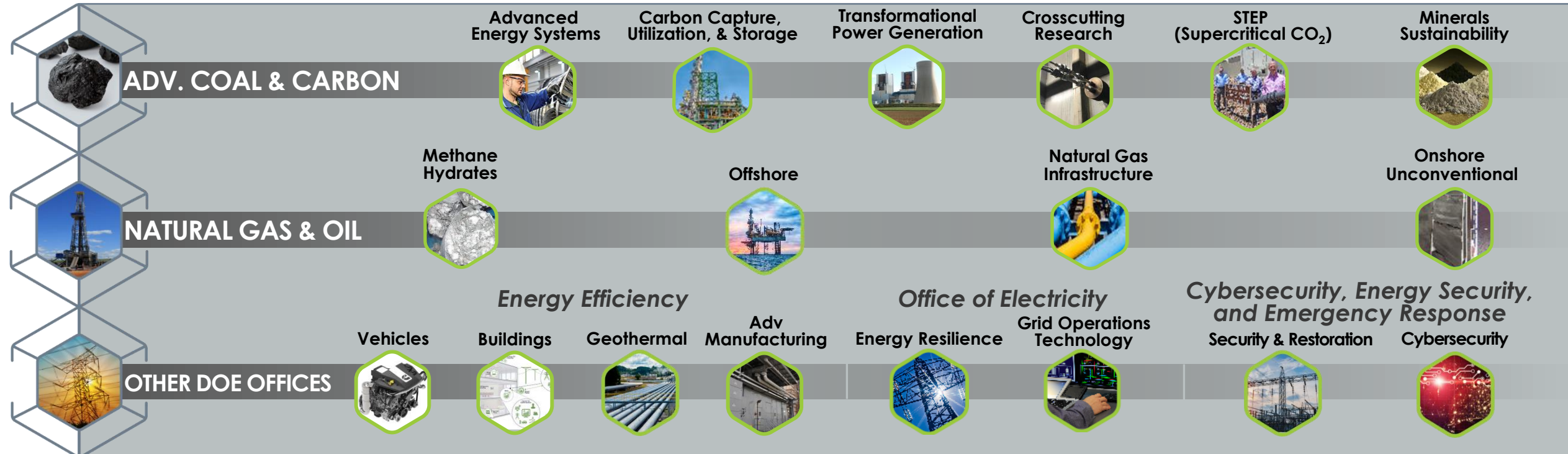
VISION

To be the nation's premier energy technology laboratory, delivering integrated solutions to enable transformation to a sustainable energy future.



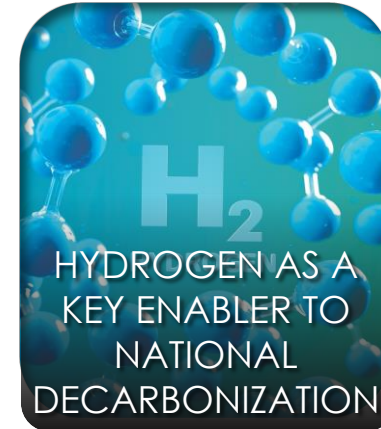
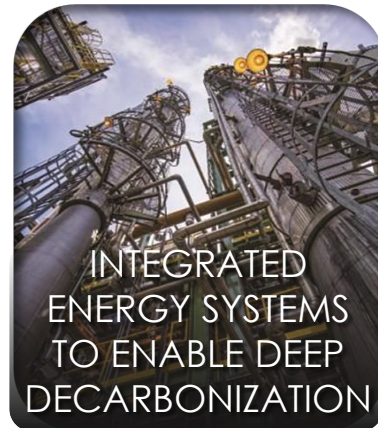
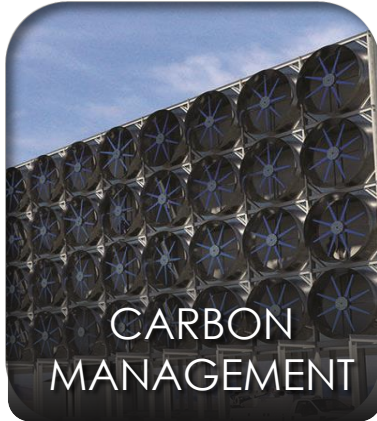
- NETL has **three laboratories**
- **Two field office locations**
- Only National Lab **dedicated to carbon research**
- Government owned & operated
- **One of three applied** national labs
- Leader in cutting-edge research in **conversion** to higher value products
- Flexible **Intellectual Property**

Core Competencies & Technology Thrusts

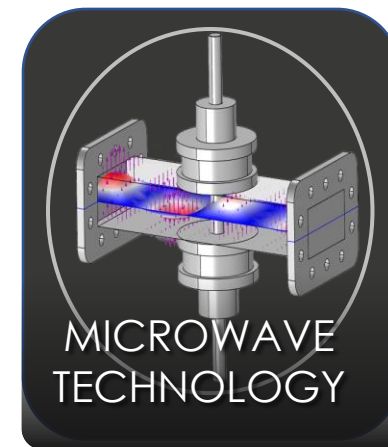


NETL Initiatives

STRATEGIC INITIATIVES



KEY LAB INITIATIVES



By the Numbers

3 labs across U.S.

1000+ R&D projects in **50** states

\$5.2B total award value

\$1.1B FY21 budget

Workforce

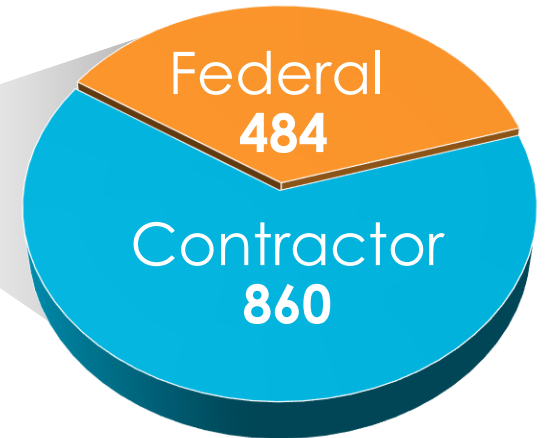
1,344 Full Time Equivalent Employees (FTEs)

34 Joint Faculty

28 Postdoctoral Researchers

33 Graduate Students

33 Undergraduate Students



NETL manages & implements an array of activities for multifaceted R&D programs

- Program planning, development, and execution
- Legal, financial, procurement and Head of Contracting Authority (HCA)
- Project management expertise

NETL Budget

FY2021 Budget \$1.1B

Advanced Coal & Carbon Management Program

Carbon Capture	\$126M
Carbon Utilization	\$ 23M
Carbon Storage	\$ 79M
Adv. Energy Systems	\$122M
Crosscutting Research	\$ 72M
STEP	\$ 15M
Transform. Coal Pilots	\$ 10M

Natural Gas & Oil Program

Natural Gas Tech.	\$ 57M
Unconvent. FE Tech.	\$ 46M

FE Program Support

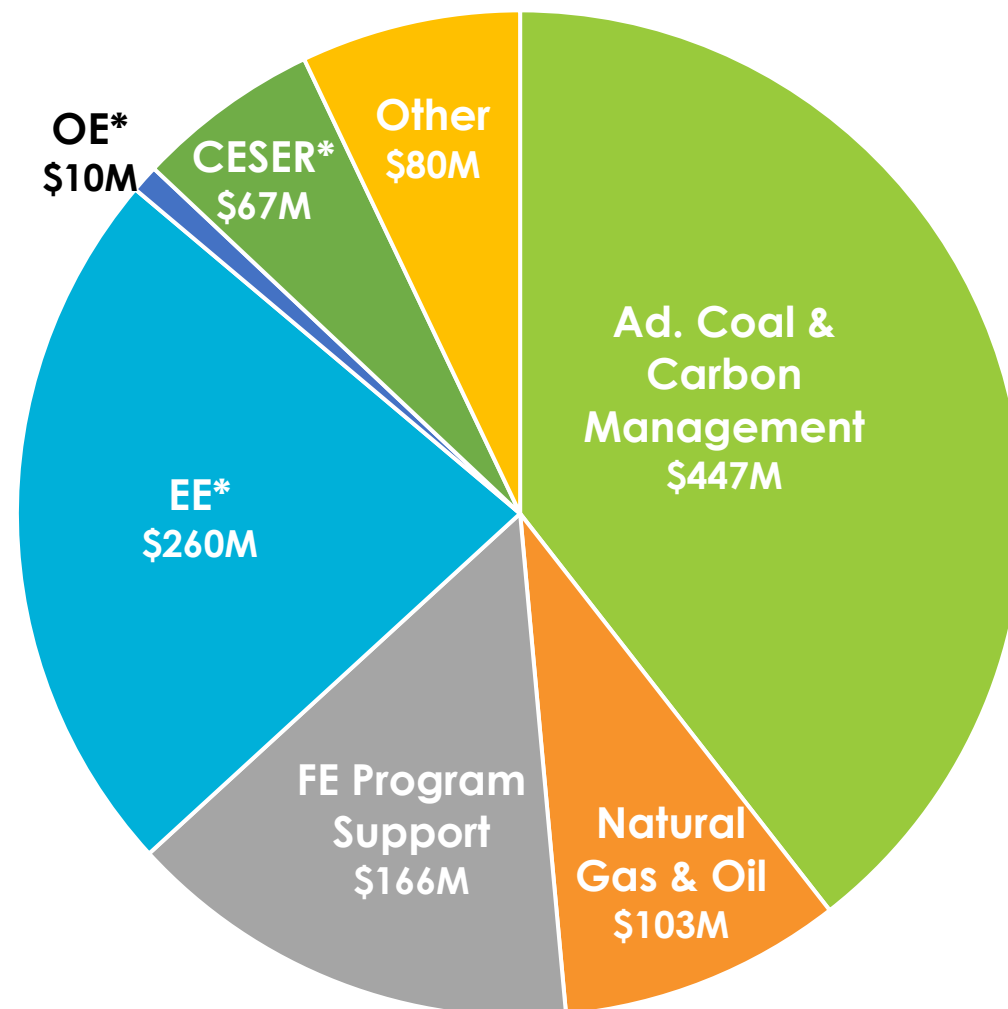
Program Direction	\$ 28M
NETL Research & Ops.	\$ 83M
NETL Infrastructure	\$ 55M

Non-Fossil Programs*

EE	\$260M
OE	\$ 10M
CESER	\$ 67M

Strategic Partnerships

Other	\$ 80M
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*estimated and subject to change

Technology Development Pathway

An Active Portfolio from Concept to Market Readiness

COMMERCIALIZATION

Technology available
for wide-scale market use

DEMONSTRATION

System demonstrated
in operational environment

SYSTEM TESTING

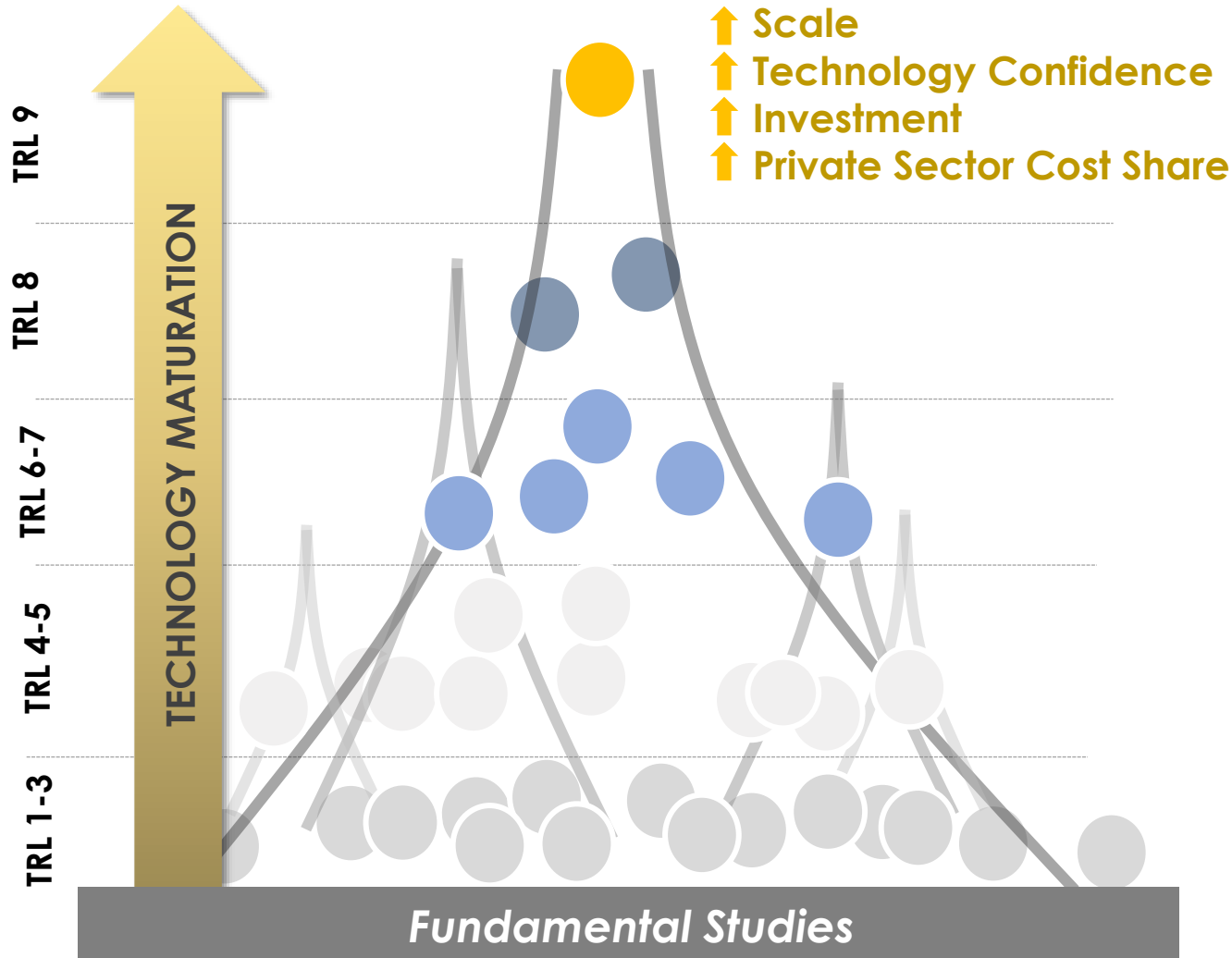
System performance
confirmed at pilot-scale

DEVELOPMENT

Technology component
validated/integrated

DISCOVERY

Concept identified/proven at
laboratory-scale



KNOWLEDGE-BASED DECISION MAKING

- **Systems Engineering and Integration**
 - Engineering analysis
 - Pre-FEED/FEED studies
 - NEPA
- **Decision Science and Analysis**
 - Screening studies
 - Techno-economic analysis
 - Technology Readiness Assessments

Thank You!

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