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# CAES Strategic Planning Workshop Director's Remarks

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Director, CAES

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BOISE STATE  
UNIVERSITY



Idaho State University



Idaho National Laboratory

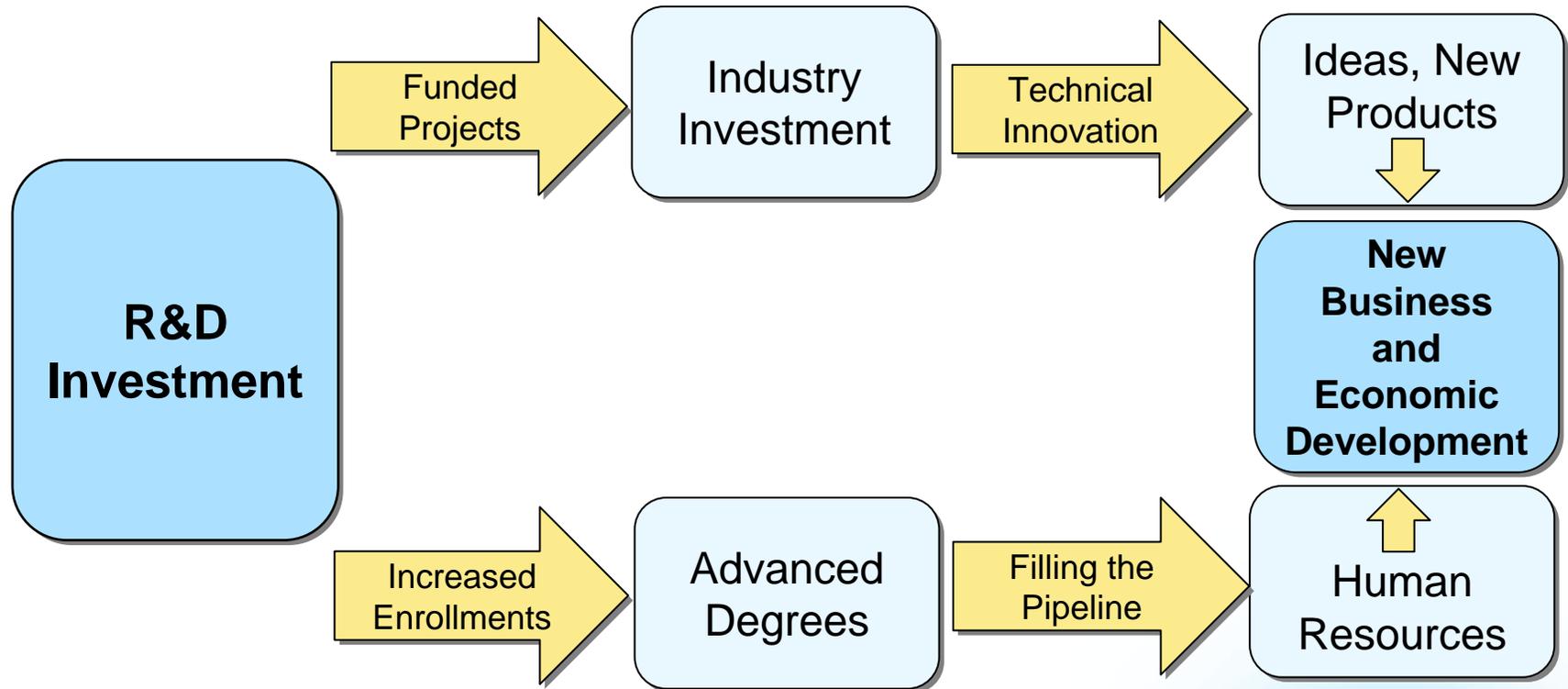
University of Idaho

# CAES

Center for Advanced  
Energy Studies



# How R&D Investments Lead to Economic Growth

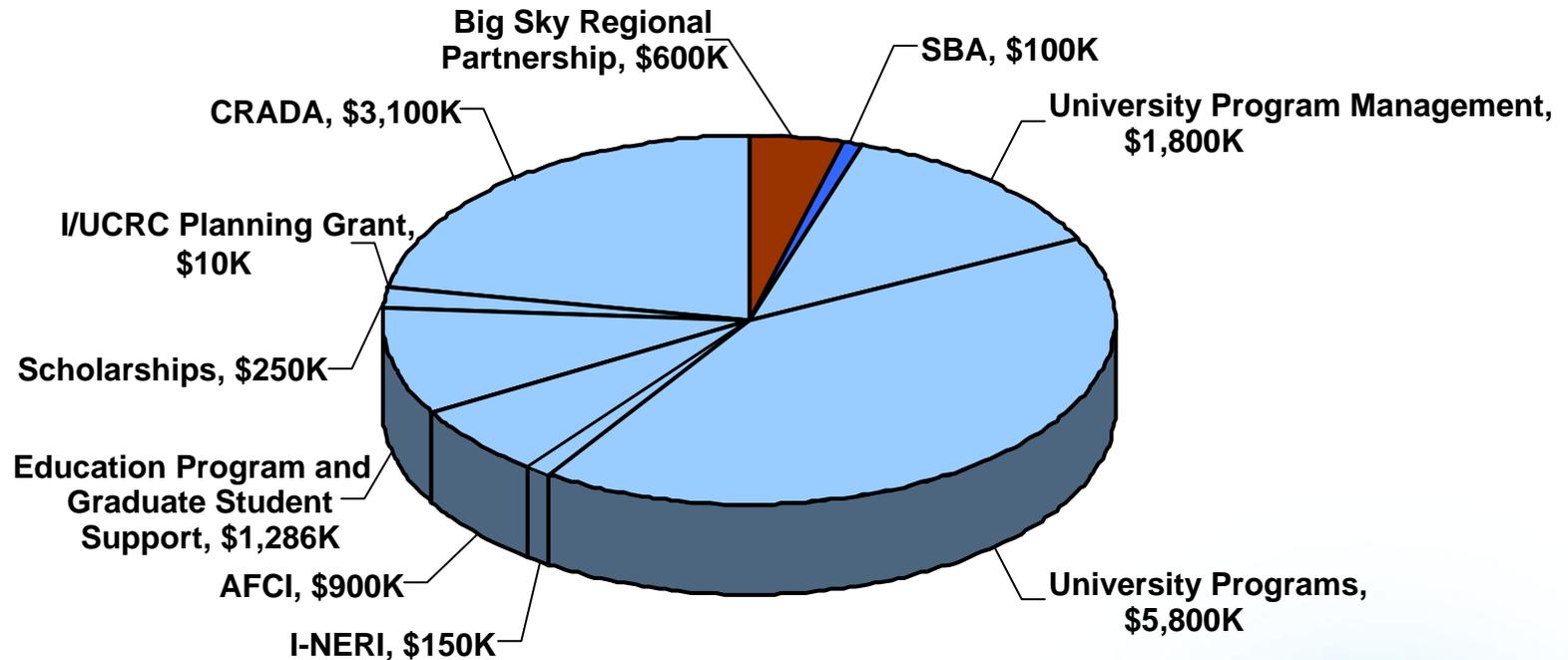


# R&D and Educational Collaboration

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- CAES develops meaningful R&D and educational collaborations among the state universities, the Idaho National Laboratory, and private industry
- Progress to date:
  - CAES affiliates have won almost \$15M in R&D grants and contracts
  - 200 Nuclear Engineering students
  - Equipment appropriation
  - Increasing grand recognition by both public and private sectors

# Success Communicated to Stakeholders



■ Nuclear Science and Engineering/Materials

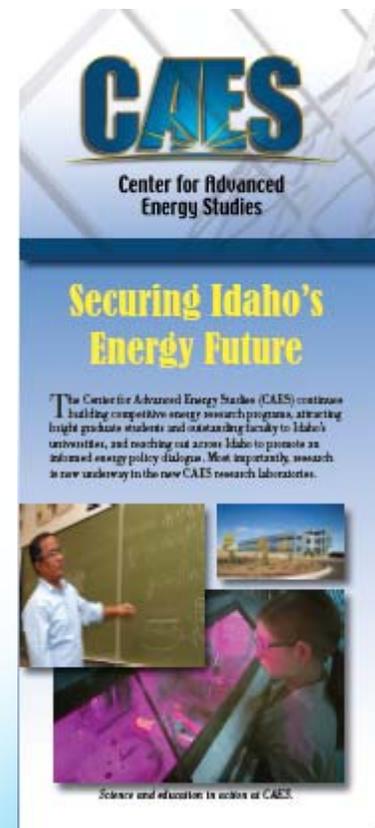
■ Carbon Management

■ Policy

# Success Communicated to Stakeholders

## Exploratory Research

Title	Initiative Date	Annual Funding	Partners
Optimization of Ceramic Waste Forms Used for Electrochemical Processing of Spent Nuclear Fuel	2010	\$140K	INL, ISU, UI
Prediction and Monitoring of CO2 Behavior in Deep Reactive Geologic Formations	2010	\$180K	INL, UI, BSU
Fabrication of Advanced ODS Alloys Using Field Assisted Sintering	2010	\$200K	INL, BSU, UI
Investigation of Public Discourse Methods in Energy Policy Decision-Making	2008	\$103K	INL, BSU, ISU, UI
Development of Lignocellulosic Ethanol Production Potential in Idaho	2008	\$150K	INL, BSU, ISU, UI



# CAES Goals Stimulate Economic Development through Education and Research

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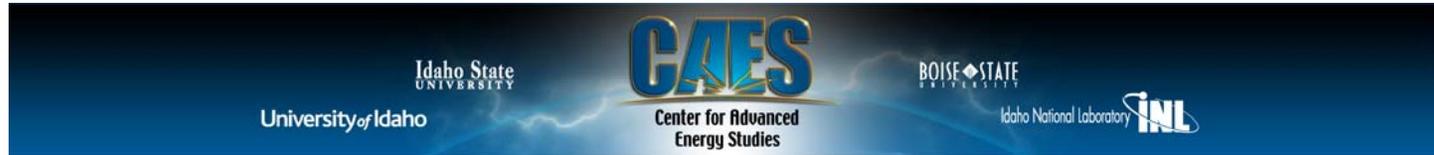
- Increase the number of engineers, scientists, and technicians ready to work in Idaho
- Build university research programs to fuel the state economy
- Create intellectual property to stimulate new business development
- Create innovative solutions for current business
- Spin out high value added enterprises

# Opportunities to Excel and Improve

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- Focus on market segments that make sense for Idaho: energy, semiconductors, agriculture, advanced manufacturing
- Continue to build and broaden collaboration among Idaho's universities to provide both R&D support and build the next-generation workforce
- Continue state support of meaningful university participation in CAES that produces tech-based development and business growth
- Build an Idaho research base to attract and support high technology industries

# Opportunities to Excel and Improve: CAES the Virtual User Facility



## University of Idaho

- Biodiesel Research
- Agriculture Research & Extension Centers
- Radiochemistry

## Idaho State UNIVERSITY

- Research Reactor
- Nuclear Engineering Lab



- Spark Plasma Sintering
  - TEM\*
- Glove Boxes
- CAVE\*
- 8 Station Process Controller\*
- High Temperature Furnace

## BOISE STATE UNIVERSITY

- TEM & SEM (w/sample prep facilities)
- Powder & Nuclear Fuels Processing Equipment
- Magnetic Testing System
- Materials Corrosion Testing

## INL Idaho National Laboratory

- Advanced Test Reactor
- Labs & Equipment
- Hot Cells

Center for Advanced Energy Studies



\*Being procured

# Funding Profile: 2009 and 2010

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Funding Type	2009 (K)	2010 (K)
IUC	3,139*	768
ACE	150	150
Program Development	200	200
LDRD	1,000	1,200
State Stimulus		1,600

\*funds expended or accrued through 2009

# Challenges and Risks

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- Secure recurring funding – if not, then what?
- Hire staff to support research growth
- Establish a mechanism for overhead recovery

# Cross-Cutting Discussion Points

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- Commitment of CAES partners
- Engagement of VPRs and lab leadership with CAES
- Initiatives VPRs may influence
- Building industrial partnerships
- Funding
- Strengthen IP lead-VPR-AD connections
- Alignment of CAES mission and initiatives with each university's strategic plan
- Need for recurring funding

# Cross-Cutting Discussion Points

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- CAES as a customer vs. opportunity
  - How do we communicate/realize the opportunity presented by CAES beyond funding LDRD/PDF activities?
- Faculty and laboratory staff more engaged with CAES (increasing support levels and increasing interest in CAES)
- HR/Human Capital Strategies and Issues
  - Limits on research capacity
  - Impact of not having recurring funding
  - Consolidation of Educational Programs across universities to improve quality and to reduce cost
- Need for researcher/leadership presence at CAES
- Infrastructure constraints – office and research lab space

# Meeting Outcomes

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- Initiatives
  - Validation of initiatives, goals, and strategies
  - Refined list of research targets and customers
  - Improved strategy for partnerships and collaborations
- Capabilities: Common understanding of CAES capabilities and how they can be leveraged
- Stakeholders: What we need from the State, Board, INL, and other stakeholders
- Risks and Challenges: Documented and preliminary mitigation strategies

# Meeting Outcomes

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- Funding: Decisions on use for 2010
- Partnerships and Collaborations: Refine targets and strategies
- CAES Business Model: Develop path forward
- Stakeholders: Identify what we need from the State, Board, INL, and other stakeholders
- Communications and Outreach: Refine strategies