

Partnerships

How does the program partner with industry

Available Mechanisms

- DOE Partnership Mechanisms
 - Grants
 - SBIR/STTR
- Laboratory Partnership Mechanisms
 - Contracts
 - Collaborative Research and Development Agreements (CRADA's)
 - Technical Service Agreements (TSA's) and Work for Others (WFO's)

DOE – Grants/Cooperative Agreements

Overview

- Principal purpose is assistance
 - Grants (not substantial involvement between the recipient and the government)
 - Cooperative agreement (substantial involvement)
- Competitive solicitation where applicable
- Level of cost shared depends on the project (concept, component/prototype development)
- Funds go to industry
- Contracts held by DOE and managed by GFO

Pros:

- Considered more cost advantageous to the government

Cons:

- Less expedient comparing to lab subcontracts
- Less flexible due to government contracting requirements
- Less integrated with program research work at labs

Program Use/history:

- Limited use by program for technology development projects



SBIR / STTR projects

Overview

- Small Business Innovation Research (SBIR)
- Small Business Technology Transfer (with non-profit research inst.)
- Funds go to industry - Phase I \$100K, Phase II up to \$750K
- Managed by DOE SBIR/STTR Office

DOE Wind Program Participation

- Contributes ~2.8% of program budget
- Creates topics, reviews, and selects projects

Pros

- Solicitation is run every year
- Can fund R&D not in program plan

Cons

- Must be small business
- Relatively small funding per project
- Only for R&D projects
- Low control over the different topics and funded research

Program Use/history:

- To look at new and innovative approaches to technology issues



Lab – Funds out Contracts

Overview

- Principal purpose is to support the development of new technologies, systems, or components
- Can be competitive or non-competitive, though in almost all cases technology development projects are competitive
- Level of cost shared depends on project – but has recently been quite large
- Contract managed by labs, allowing a high degree of technical integration
- Typically integrated with use of program test facilities and other technical assistance
- Funds go to industry

Pros:

- Generally expedient and easy to implement
- Generally flexible approach
- Generally integrated with laboratory research and allows cross pollination of concepts

Cons:

- Relatively high overhead

Program Use/history:

- Historically used extensively in the programs technology development activities
- Based on EERE executive management review, significantly reduced/eliminated as an option in 2006



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Cooperative Research and Development Agreements (CRADA's)

Overview

- Principal purpose is to make available laboratory staff and facilities to industry partners
- Private company or program can cover laboratory costs but funds do not go to industry
- Can be competitive or non-competitive depending on program priorities
- Level of cost shared depends on project – but currently has been quite large (50% or more)
- Implicitly a high degree of technical integration with experience resting in the laboratory

Pros:

- Generally expedient and easy to implement
- Very flexible, IP negotiated
- Implicitly integrated with laboratory research and allows cross pollination of concepts
- By definition, program must see positive benefit

Cons:

- Relatively high overhead
- Low program flexibility due to staffing requirements at the labs
- Limited scope/area of engagement (company size vs project size)

Program Use/history:

- Used historically to grant access to lab facilities, primarily at the companies expense
- Initiated successful RFP this year following reduced focus on partnerships

WFO and TSA

Overview

- Principal purpose is to make available laboratory staff and facilities to industry partners
- Private company covers all costs
- Generally non-competitive
- IP rests with the company

Pros:

- Generally expedient and easy to implement
- Opens federally developed resources to industry
- Implicitly integrated with laboratory research and allows cross pollination of concepts, but not to the industry

Cons:

- Limited federal benefit (program perspective)
- High cost (industry perspective)

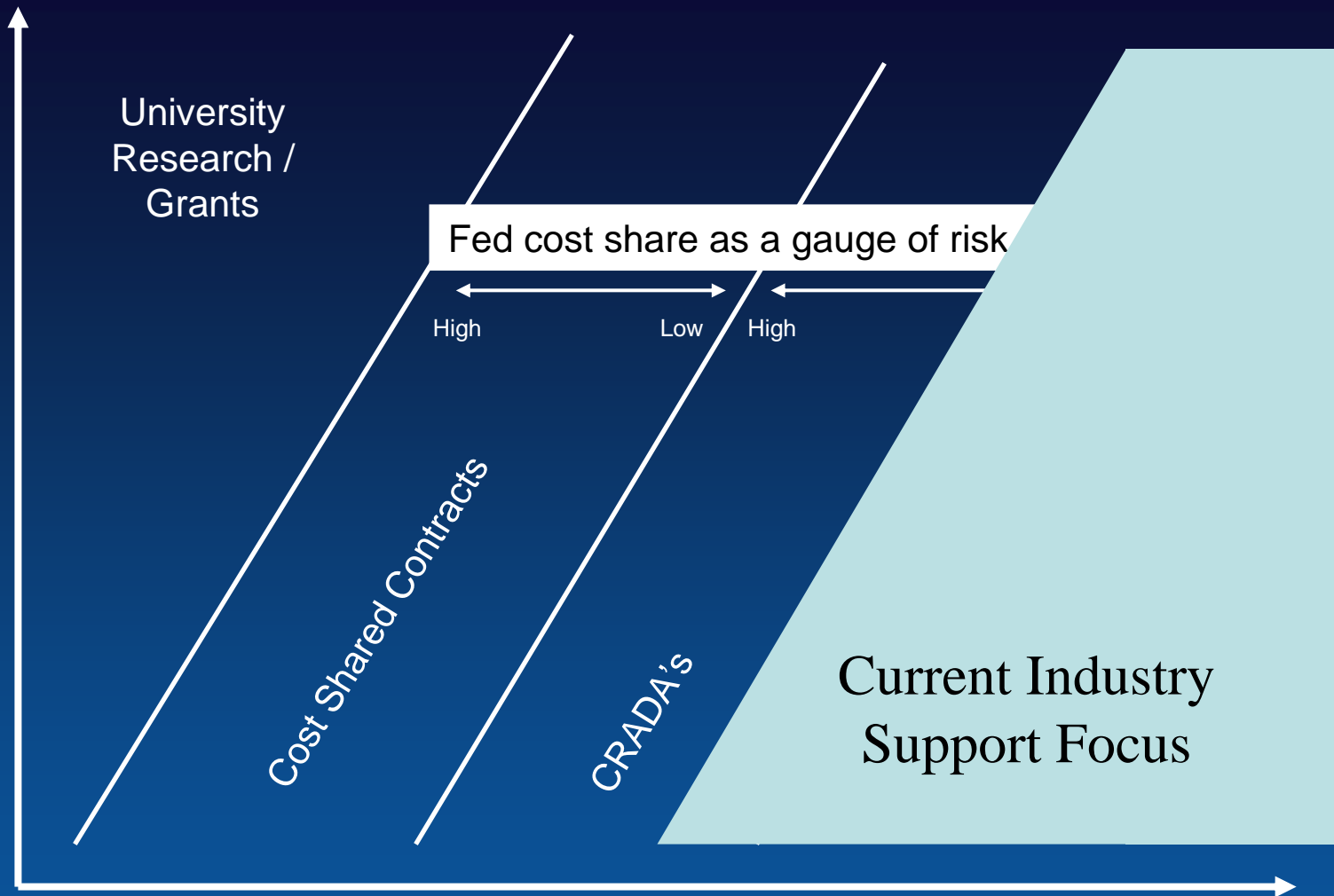
Program Use/history:

- Allow access to lab facilities



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Market Benefit in reaching 20% Contribution
 A higher or larger market benefit as seen through higher performance, increased reliability, lower COE and more competition in the market (new market players)



Corporate Development Risk (Corp Net Income / Project Cost)

A factor to assess the ability of a private or public (university, state etc) organizations to obtain the private capital needed to move a project forwards. The risk is dependent on the size of the company and the cost of the project undertaken, A large project by a small company will be less likely to succeed without some form of external support



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Questions

- Is there value in the different approaches to achieving your research objectives?
 - Does not make sense to rule out CRADA'S
 - CRADA's do limit what industry can do
 - Incentive risk
- The program is using a new distribution of assistance based on a lower corporate risk. Is this limiting the development of new technology or its deployment?
 - Yes
- Why and when is a cost shared partnership needed as compared to a CRADA
 - Relatively high risk but does not rely of federal facilities

What type of projects would be helpful?

- Small technical assistance grants
 - Small amounts of funding to do small projects or answer specific questions
- Wind turbine concept studies – Not now for large turbines (GE) – Yes for smaller ones or undefined markets
 - Initial investigation of new turbine concepts
- Collaborative wind turbine technology development projects – Likely from consultants
 - Assistance in addressing research questions or the development of new technology
- Wind turbine system or component development – Yes – this would help
 - Development of new turbines and/or components
 - Include testing of components
 - Trade off studies
- Industry support through – Yes
 - Testing of components and/or systems at federal facilities
- Market studies – Understanding the markets - Yes
- WindPACT – looking at pushing the envelope

Note: This could be done through CRADA's or funds out contracts.

Important things to industry

- Speed and ability to change/flexability
- IP – in many cases 5 years is not enough time
- Facilities or expertise that the company does not have
- Property
- US Manufacturing Clause
- Help to develop US supply chain
- Marketing studies (small companies/wind)