



Oklahoma Center for the Advancement of Science and Technology

# FY11 Oklahoma Applied Research Support Workshop

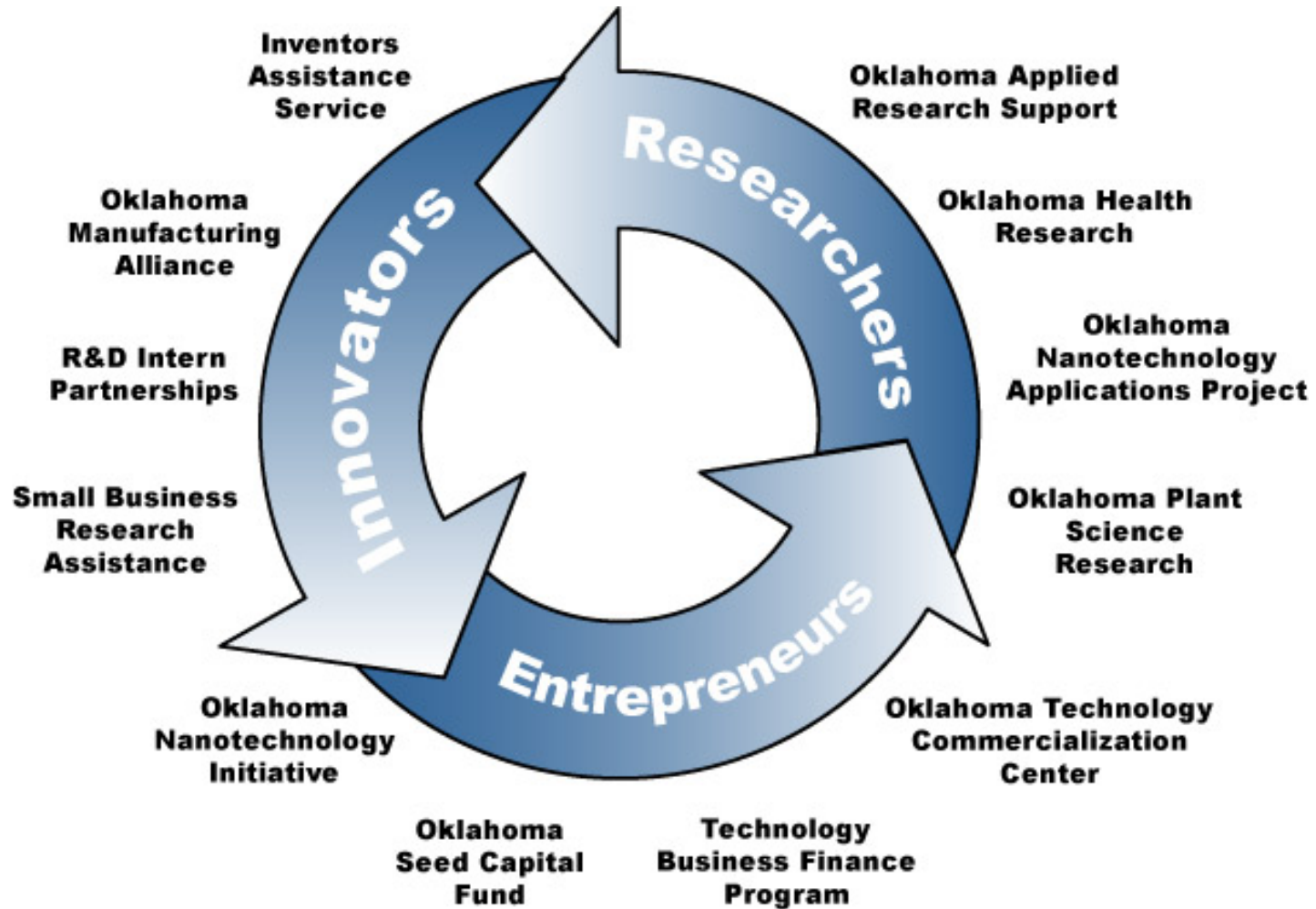
# OCAST ROI

- 19.92:1 cumulative return to Oklahoma
- FY09, OCAST funded 22 OARS projects totaling \$4,036,023.
- \$97,752,284 was leveraged in private, federal and business financials.
- 82 project funded in FY09
- \$15 million awarded for all programs in FY09
- 2,198 projects funded since 1987

# OARS Historical Data

- FY10 received 30 applications
  - 16 Accelerated
  - 14 Proof-of-Concept
  - 53% were approved for funding
  - 75% of those approved for funding were funded

# Funding Programs



# Applied Research Purpose

- This program supports proof-of-concept and applied research
- Requires a one-to-one match
- Reasonable probability to enhance employment opportunities in Oklahoma
- Must have a probability of producing new or improved commercially successful product, process or service

# Applied Awards

- Proof-of-Concept supports early stage applied research & development
  - \$10,000 minimum budget for each year
  - \$45,000 maximum each year up to two years
  - One-to-one matching requirements
- Accelerated supports later stage applied research & development
  - \$10,000 minimum budget for each year
  - \$300,000 maximum for a three year project.
  - One-to-one matching requirements

<b>Comparison</b>	<b>Applied</b>	
	Proof-of-Concept	Accelerated
<b>Matching</b>	1:1	1:1
<b>Yearly Award</b>		
<i>Minimum</i>	\$10,000	\$10,000
<i>Maximum</i>	\$45,000	\$300,000
<b>Funding Years</b>	1-2 years	1-3 years
<b>Collaboration</b>	Strongly Encouraged	Strongly Encouraged
<b>Economic Impact</b>	Must lead to commercialization	Must lead to commercialization

# Eligible Organizations

- Oklahoma institutions of higher education
- Oklahoma non-profit research foundations
- Oklahoma enterprise. An enterprise is defined as a firm with its principal place of business in Oklahoma.
- Oklahoma businesses and farms

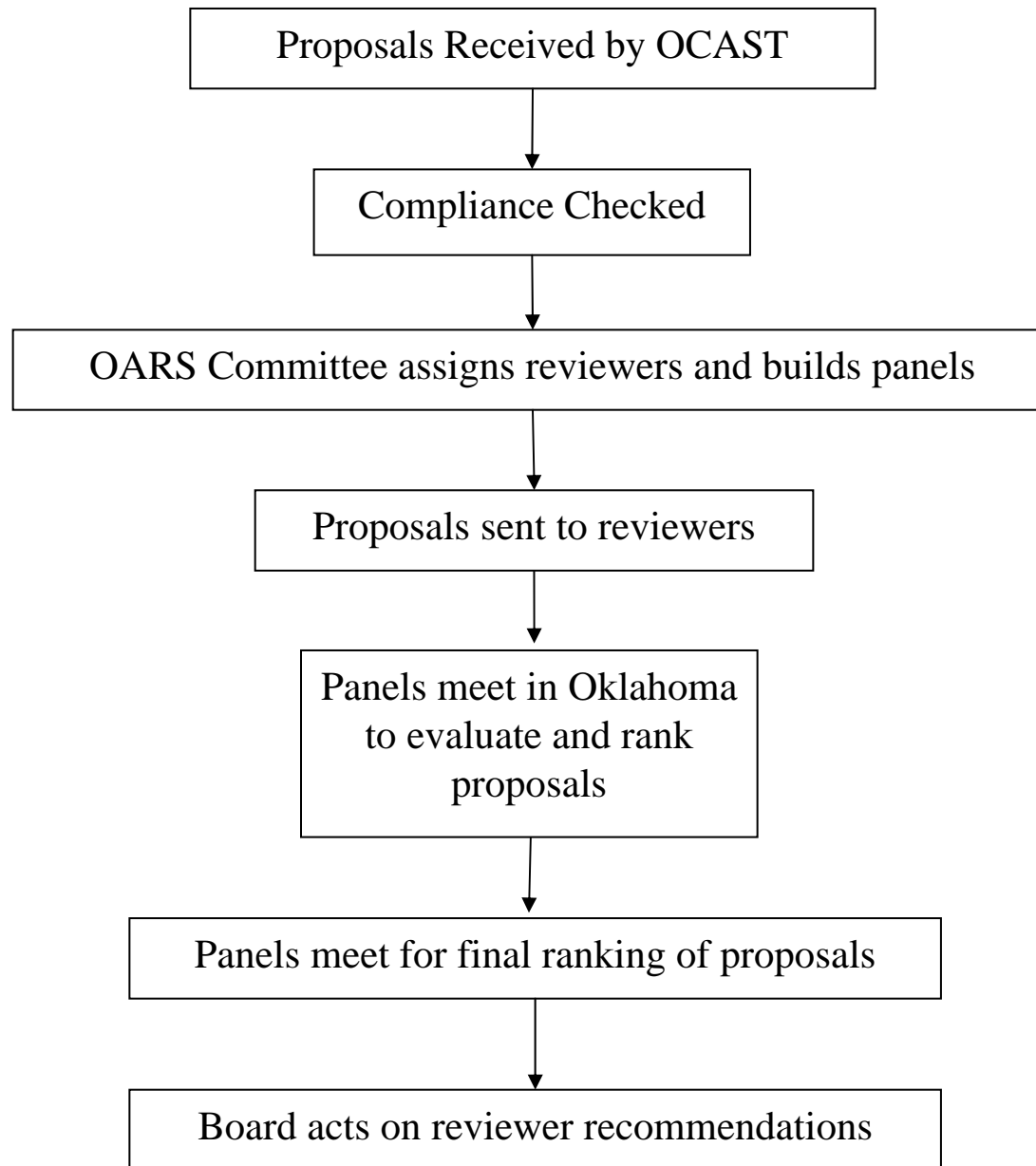
# Project Eligibility

- Projects that focus upon the following are ineligible for OARS funding:
  - Market surveys
  - Training or technical assistance for business firms
  - Fundamental or basic research
  - Lacks potential for commercialization



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# Review Process & Evaluation Criteria



# Evaluation Criteria

Peer reviewers in general evaluate all applications according to the following criteria:

Technical merit of the research and ability to perform the research

Potential for economic impact

# Evaluation Criteria

- Proof-of-concept proposals are evaluated 30% for the potential for economic impact and 70% for the technical merit of the research and the ability to perform the research.
- Accelerated proposals are evaluated 50% for the economic impact and 50% for the technical merit and the ability to perform the research.

# Evaluation Criteria

## **Technical Merit of the Research and Ability to Perform the Research**

1. Creativity and inventiveness of the proposed research.
2. Degree to which state-of-the-art techniques and processes are to be used.
3. Quality of the research plan.
4. Probability of success of the research plan design.
5. Competence of investigator(s) as measured by training and research experience.

# Evaluation Criteria

## **Technical Merit of the Research and Ability to Perform the Research**

6. Competence of support personnel as measured by training and research experience.
7. Adequacy of facilities.
8. Adequacy of equipment.
9. Commitment of the applicant organization(s) as evidenced by resources dedicated to the project
10. Appropriateness of budget.

# Evaluation Criteria

## **Potential for Economic Impact**

1. Potential for leading to a commercially successful product, process or service within 2 years of project completion
2. Potential for leading to a commercially successful product, process or service within 5 years of project completion
3. Potential for leading to a commercially successful product, process or service within 10 years of project completion
4. Status of Intellectual Properties Agreement
5. Commitment of financial resources to successfully bring product to market

# Evaluation Criteria

## **Potential for Economic Impact**

6. Availability of marketing capability to successfully bring product to market
7. National/international market growth potential
8. Potential for creating jobs in Oklahoma, considering both the probability and number
9. Potential of short-term impact (within 5 years of project completion) on the Oklahoma economy
10. Potential for creating jobs that will enhance the technology base in Oklahoma



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# Standards & Requirements

# Solicitation Forms

Application in an editable format can be found  
online at:

<http://www.ok.gov/ocast>

# Intent Deadline

- Deadline:
  - 5:00 P.M., August 11, 2010
- Delivery Method:
  - by mail or hand delivered only
- No e-mailed intents

# Application Deadline

- Deadline:
  - 5:00 P.M., September 8, 2010
- Delivery Method:
  - Mail or hand delivered only to Oklahoma City or Tulsa office

No e-mail or faxed applications

# Submission Requirements

Intents and applications will not be accepted after the deadline unless a national carrier, FedEx, UPS, etc., has guaranteed a delivery of 5 p.m. or before and you can produce confirmation.

# Required Materials

Each OARS application must include the following materials:

<b>Sets</b>	<b>Contents</b>
<b>1</b>	Original paper application, marked “original,” with appendices attached (stapled or fastened with a binder clip in the upper left corner). Prepare required application pages 1- 25 (Items 1-25) as provided. Refer to required attachments pages 1-8 (Items 26-42) for instructions to prepare text sections of the application including, presentation order and headings.
<b>1</b>	Paper set of application pages: 1-25 (Items 1-25) staple each set in upper left corner. Include in each set Items 22, 22A, 23, 24 and 25 for each budget year of project.
<b>1 CD</b>	File containing the entire application in (pdf) format including appendices.

# Required Materials

- A CD containing an electronic copy of the entire proposal as a single file using the Adobe Acrobat (.pdf) must be submitted. AR11-XXX First Name Last Name.pdf, (AR11-011 JessicaVinson.pdf).
- For identification purposes, the CD must be marked by a permanent marker or printed label using the above example.

# Required Materials

- 8 ½ x 11-inch white paper
- Not less than 0.5-inch margins
- Single to 1.5 spacing
- Font size not smaller than 10-pt
- Use the presentation order and headings as shown in solicitation
- Do not use
  - Binders
  - Notebooks
  - Rubber bands
  - Regular paper clips

# Required Materials

- Total section text page length includes
  - Text
  - Inserted graphs
  - Charts
  - Figures
- If not applicable, acknowledge by number the number and title by:
  - “Not Applicable”

# Resubmissions

- A resubmission is a *new* proposal, which includes the information below:
  - Indicate it is a resubmission. Include previously assigned project numbers.
  - Prepare a separate appendix that includes:
    - a letter responding to the reviewers' comments from the previous review and noting all changes in the research plan,
    - a copy of the previously submitted application and
    - all reviews of that application.

# Additional Requirements

- Refer to the solicitation for the following:
  - IRB
  - Biographical information
  - Letters of support/recommendation
  - OCAST, previous, and other support
  - Company profile
  - Contact Information
  - Post Award Support



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# Budgets

# Matching Requirements

- In order to qualify for funding for an OARS project:
  - Applicant organization must provide 50% of the total direct cost
  - Funding sources cannot be from state-appropriated money
  - Matching monies must be specifically for the OARS project

In-kind services and indirect costs are not allowed

# Matching Requirements

<b>Comparison</b>	<b>Equipment as Match</b>	<b>Salary as Match</b> No state appropriated funds can be used as match
<b>Business</b>	<b>CANNOT</b> use equipment & machinery as match	CAN use salary as match
<b>Universities</b>	CAN use equipment as match to fulfill part or the entire required match if the equipment did not originate from State-appropriated funds	<b>CANNOT</b> use salary as match
<b>Non-Profits</b>	CAN use equipment as match to fulfill part or the entire required match if the equipment did not originate from state-appropriated funds	CAN use salary as match if they do not receive monies from state appropriations

# Direct Costs

- The OARS program allows only research direct costs as part of matching expenses.
  - Examples of allowed direct costs:
    - Research related: travel, supplies, equipment, patient care, alterations, rent, phone, and utilities
  - Examples of non-allowed direct costs:
    - Advertising, public relations, food, housing cost, automobiles, personal computers, lobbying costs, selling and marketing costs, first class air travel, patent and licensing fees

# Indirect Costs

- OCAST does not allow indirect costs as part of the match expenses
  - Examples of Indirect Costs
    - Building & equipment depreciation, interest, operations and maintenance, overhead, administrative support, tuition and fees



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# Commercialization Development, Economic Impact & Research Plan

# Commercialization Development Strategy

Proof of Concept: 4 pages maximum

Accelerated: 10 pages maximum

- A. Describe in a short sentence the product, process or service to be commercialized and its end use
- B. Describe the customers or clients.
- C. Describe the domestic and global markets market size, market growth rates, number and nature of competitors

# Commercialization Development Strategy

- D. State the competitive advantage the project offers in the targeted markets.
- E. Using a chart or table, describe the key steps required to commercialize the product, process or service. This plan should include a schedule of key business milestones.
- F. Provide summary pro forma income statements and cash flow projections

# Intellectual Property Relationships and Protection

- Describe the plan to protect the intellectual property
- Collaborative proposals
  - Provide a short statement describing how the intellectual property patent and licensing agreements will be effectuated
- Existing agreements
  - Provide a short statement indicating the types of agreements that have been executed between the parties

# Economic Impact Statement

Maximum 4 pages

- Discuss the project's potential impact on Oklahoma's economy during the project and at 2, 5 and 10 years following the project.
- Carefully discuss under a separate heading for each time period items A. through G., during the project, and at 2, 5 and 10 years after completion

# Economic Impact Statement

- A. Increase in scientific and technical staffing levels
- B. Increase in work force staff
- C. Productivity, profitability or cost savings
- D. Amount of capital investment in equipment and facilities at the organizations participating in the project

# Economic Impact Statement

- E. The estimated gross sales, net sales, and cost avoidance
- F. If applicable, describe technology transfer plans
- G. Other sources of funding and capital attracted to Oklahoma

# Release of Information

OCAST is subject to the Open Meetings Act and the Open Records Act.

Application abstracts and executive summaries from progress reports are considered public information.

**HOWEVER:** marketing plans, financial statements, trade secrets, research concepts, methods or products, or any other proprietary information are exempt by statute.

# Research Plan

- A. Objectives for the period of the proposed work. State concisely what the research described in the application is intended to accomplish.

# Research Plan

- B. The significance of the research:
- i. Briefly sketch the background
  - ii. Evaluate existing knowledge in this area and identify the gaps that exist
  - iii. State the importance of this research by relating its aims to longer-term objectives
  - iv. Present related projects and demonstrate this effort does not repeat previous studies nor infringe on intellectual property rights

# Research Plan

## C. Preliminary and related studies:

- i. Describe prior research by the investigator(s) that lead to formulating the proposal
  
- ii. Describe competence of the investigator(s) who will perform the proposed project

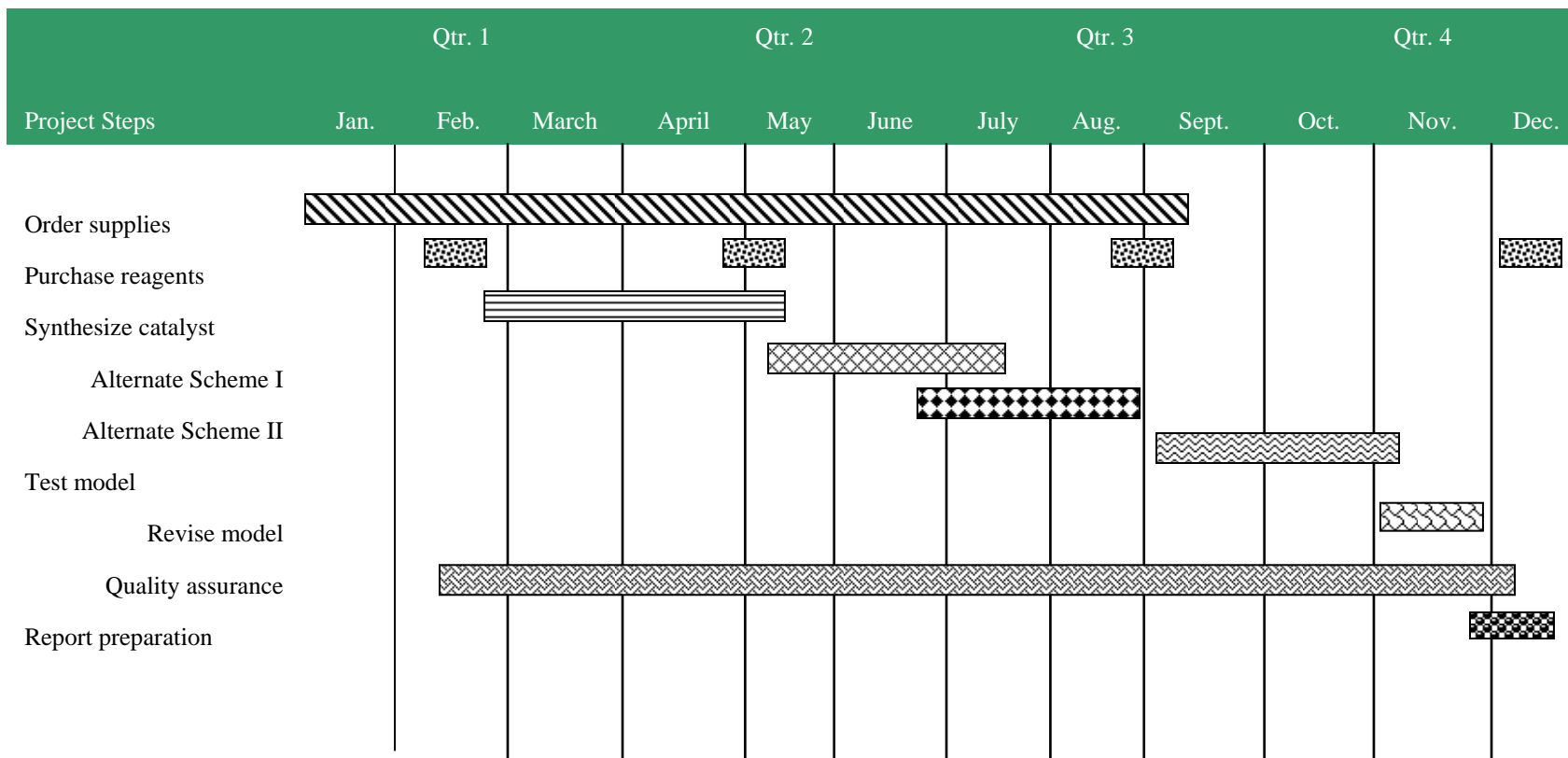
# Research Plan

## D. Research methodology:

- i. Detail the research design
- ii. Describe the sequence of events
- iii. Discuss the means by which the data will be analyzed and interpreted
- iv. Discuss the methodologies and any potential limitations of procedures and alternative approaches
- v. Note any procedures that may be dangerous to personnel and the precautions that will be used in these situations
- vi. Include indicators of success
- vii. Using the heading “*Facilities, Equipment and Resources*” describe the resources necessary and available for this project

# Research Plan

## Project Development Schedule



# Literature Cited

- Number the references in order of appearance, and provide the complete citations. Do not scatter throughout proposal.
- Each citation must include the title of the journal article or specific book chapter
- While disciplines vary in the accepted style, the citation must be sufficient for a reviewer to locate the cited information with little searching
- Use a referencing style suitable for your discipline



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