

OCAST >>

CELEBRATING

20 YRS

ADVANCING OKLAHOMA'S KNOWLEDGE ECONOMY  
FOR THE NEXT

100 YRS

[WWW.OCAST.STATE.OK.US](http://WWW.OCAST.STATE.OK.US)

# OCAST PROGRAMS/INITIATIVES AND THE TECHNOLOGY PIPELINE

*from concept to commercialization*



Advancing Oklahoma's Knowledge Economy for the Next 100 Years

# **OCAST**

# **RETURN ON INVESTMENT**

***FY1987 – FY2008***

**\$165.5M**  
**(State Funding)**

**\$3.1B**  
**(Private and  
Federal)**

**ROI = 18.47**

# OARS Program Purpose

- Provides State matching funds for R&D projects
- Reasonable probability to enhance employment opportunities within Oklahoma
- Must have a high probability of producing new or improved commercially successful

*Products*

*Processes*

*Services*

# OARS

- On average 28% of OARS projects are funded
- Approximately 45-50 applications are submitted each competition
- Approximately \$4 million is allocated for two award competitions this fiscal year

# Award Types

- ***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
- ***Accelerated:*** supports later stage applied research & development
  - \$10,000 minimum budget for each year
  - \$300,000 maximum over three years

# APPLICANT ELIGIBILITY

- Eligible applicants for OARS funding include:
  - ▶ Oklahoma public or private colleges and universities;
  - ▶ Oklahoma non-profit research organizations;
  - ▶ Oklahoma enterprises of special importance to the Oklahoma economy; and
  - ▶ Oklahoma businesses and farms.

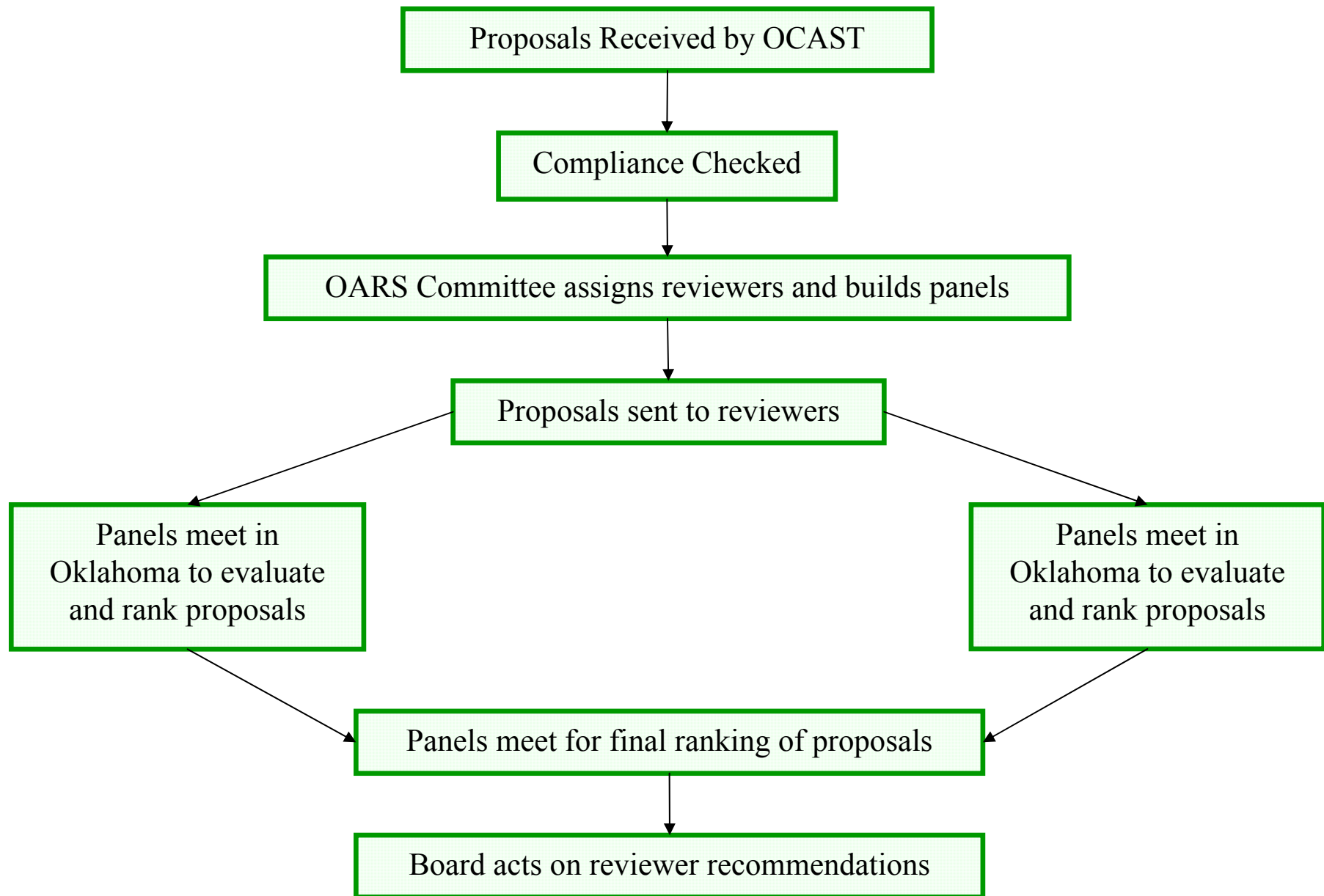
# APPLICANT INELIGIBILITY

- Projects that focus upon the following are *NOT* eligible for OARS funding:
  - Market surveys
  - Training or technical assistance for business firms
  - Fundamental or basic research and lacks potential for commercialization

# Review Process & Evaluation Criteria

# The Review Process

- ▶ Highly Competitive
- ▶ Outside Peer Review
  - (for scientific merit and potential for commercialization)
- ▶ Catalyst for Collaboration Between State Government, the Private Sector and Higher Education
- ▶ Technical Advisory Committees



# 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

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

- ✓ Technical merit of the research
- ✓ Ability to perform the research
- ✓ Potential for economic impact

# EVALUATION CRITERIA

- Technical merit of the research
  - » The creativity and inventiveness of the proposed research
  - » The significance of the research to generate intellectual property to meet Oklahoma goals

# EVALUATION CRITERIA

- **Ability to perform the research**
  - » The degree that the state-of-the-art techniques and processes are to be used
  - » The quality and probability of success of the research plan
  - » The competence of the research personnel
  - » The adequacy of the existing or proposed resources including facilities
  - » The commitment of the applicant organization
  - » The appropriateness of the budget

# EVALUATION CRITERIA

- Potential for economic impact
  - » The degree of interest shown by industry
  - » The domestic and international growth potential in the proposed area
  - » The potential of short, medium, and long-term impact on the Oklahoma economy
  - » The amount of risk relative to the return for the proposed project

# EVALUATION CRITERIA

- **Potential for economic impact (cont.)**
  - » Status of Intellectual Properties Agreement
  - » Commitment of financial resources to successfully bring product to market
  - » Availability of marketing capability to successfully bring product to market
  - » Potential for creating high-tech jobs in Oklahoma, considering both the probability and number

# Standards & Requirements



Advancing Oklahoma's Knowledge Economy for the Next 100 Years

# Solicitation Forms

Statement of Intent  
&  
Application

Editable forms can be found online at:

[www.ocast.ok.gov](http://www.ocast.ok.gov)


# SUBMISSION REQUIREMENTS

## Statement of Intent

- Deadline:

 5:00 P.M., August 26, 2009

- Delivery Method:

 By mail or fax to (405) 319-8426

Intents will **NOT** be accepted by email

# SUBMISSION REQUIREMENTS

## Applications

- Deadline:

 **5:00 P.M., September 9, 2009**

- Delivery Method:

 by mail or hand delivered only

***No email or faxed applications***

**NO EXCEPTIONS**

**STATEMENT OF INTENTS  
OR  
APPLICATIONS**

**WILL NOT BE ACCEPTED AFTER THE  
DEADLINES...**

# Required Materials

Each OARS application must include the following materials:

Number of Sets	Contents
1	Original Application
1	Copy of Application Pages 1-13(e) (Items 1-25)
1CD	File containing the entire application in (.pdf) format including appendices

# Required Materials

## **IMPORTANT NOTE:**

- ✓ Each OARS application must include one signed paper original of the entire proposal
- ✓ One paper set of Application Pages 1-13(e) (Items 1-25)  
Include in each set Items 21 - 25 for each budget year requested
- ✓ A CD containing an electronic copy of the entire proposal as a single file using the Adobe Acrobat (.pdf) must be submitted
- ✓ The file must be named AR10.1-XXX and P.I.'s First and Last name.pdf, where XXX is the Project Number received from OCAST upon submission of the Statement of Intent (e.g., AR10.1-001 Michelle McFarland).

*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 no smaller than 10-pt
- Fonts must be Arial, Helvetica, Palatino, Computer Modern, or Georgia
- Use the presentation order and headings as instructed in the solicitation (see Required Attachments page 1)

# 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”

# Required Materials

- Do not use
  - ▶ Binders
  - ▶ Notebooks
  - ▶ Rubber bands
  - ▶ Regular paper clips
- OCAST recommends colored sheets to set-off major sections of the *original* proposal
  - ▶ Do **NOT** type text on colored sheets.

# RESUBMISSIONS

- A resubmission is a new proposal, which includes the information below:
  - A current Statement of Intent is required
  - Indicate it is a resubmission in Item 2
  - Prepare a separate appendix (item 42) 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.

# R&D APPLIED PARTNERSHIP PROJECTS

- For two- or four-year institutions of Higher Education
- Special designation
- Receive a review that recognizes the distinctive nature of the two and four-year institutions

# RELEASE OF INFORMATION

OCAST is subject to the:

**Open Meetings Act**

and

**Open Records Act**

# RELEASE OF INFORMATION

- Statement of Intent
- Application Abstracts
- Executive Summaries from Progress Reports  
are consider public information

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

# **ADDITIONAL REQUIREMENTS**

**Refer to the solicitation for the following required information:**

- **Principal Investigator and key personnel biographical information**
- **Letters of support/recommendation from applicant organization**
- **OCAST, current, previous, and other support**
- **Company profile(s)**
- **IRB**

# Budgets & Matching Documentation

# Solicitation Forms

FORMS

# MATCHING REQUIREMENTS

## Business vs. Universities & Non-Profits

### Equipment as Match (in-kind)

Business **CANNOT** use equipment & machinery as match

Universities & Non-Profits **CAN** use equipment as match to fulfill part or the entire required match. Equipment will be considered for match if it does not originate from State-appropriated funds

### Salary as Match

*No state appropriated funds can be used as match*

Business **CAN** use salary as match  
Non-profits & Private Universities **CAN** use salary as match as long as they do not receive monies from state appropriations

State Universities **CANNOT** use salary as match

# MATCHING REQUIREMENTS

- In order to qualify for funding for an OARS project:
  - Applicant organization must provide 50% of the total direct cost
  - Funding sources must come from non-State appropriated money
  - Matching monies must be specifically for the OARS project

**In-kind services and indirect costs are not allowed**

# 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

# Indirect Costs

- OARS **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, and patent and licensing fees
    - Advertising, public relations, food, housing cost, automobiles, personal computers, lobbying costs, selling and marketing costs, and first class air travel

# Research Plan



Advancing Oklahoma's Knowledge Economy for the Next 100 Years

# Research Plan

The Research Plan is

**70% (Proof-of-Concept)**

or

**50% (Accelerated)**

of the reviewers evaluation.

*Maximum 15 pages!*

# Research Plan

## **A. Objectives for the period of the proposed work:**

- Hypothesis: 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 and procedure to accomplish the objectives of this research
- ii. Describe the sequence of the investigation within a calendar framework
- iii. Discuss the methodologies and the means by which the data will be analyzed and interpreted
- iv. Discuss the methodologies and any potential limitations of the proposed procedures and alternative approaches that may be used to reach the objectives of this proposal

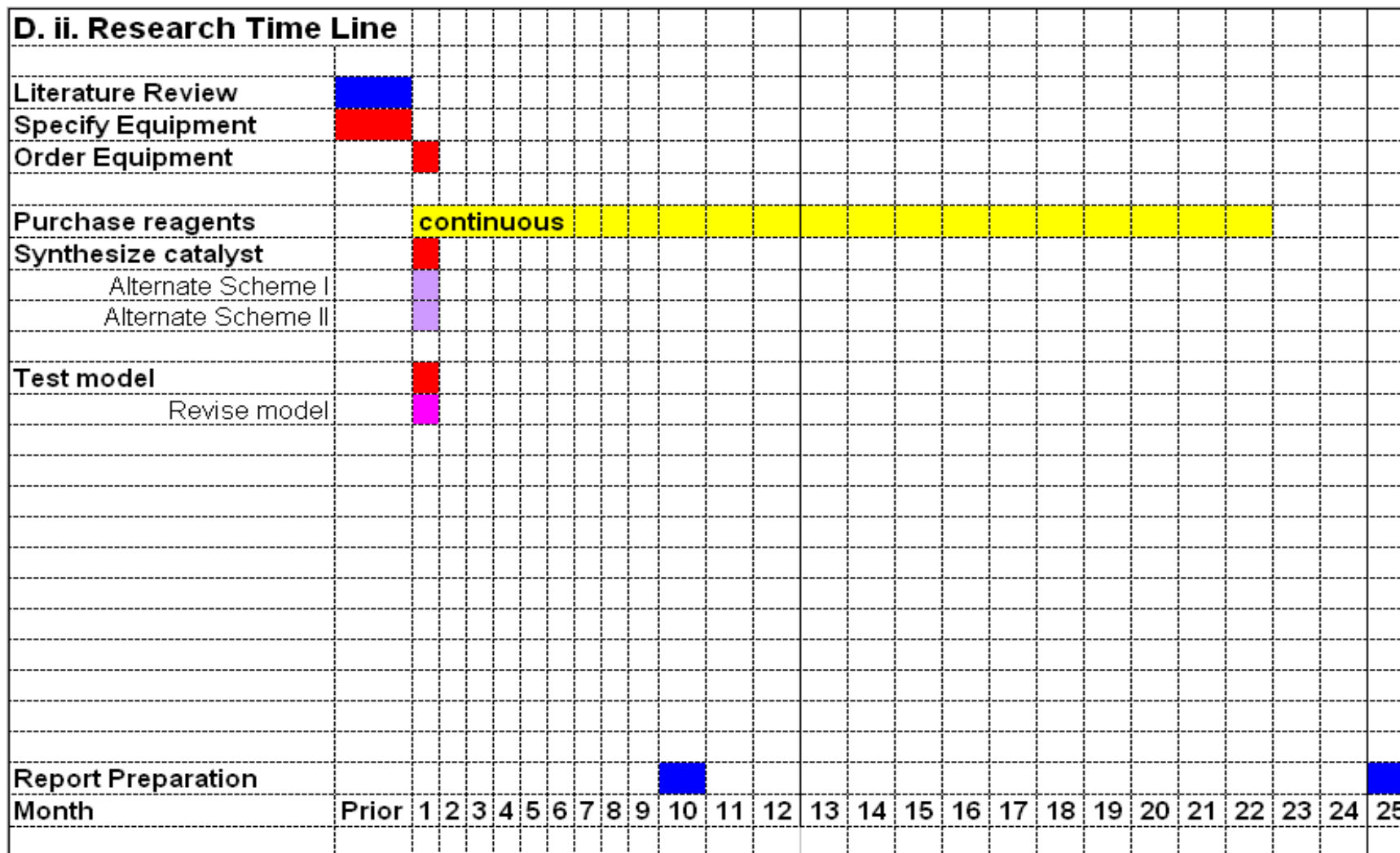
# Research Plan

## **D. Research methodology (cont.):**

- 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 related to sections D. i – D. iii. **A timetable should be prepared:**

Included in the timetable show research goals and the alternate path(s) if the research goal is not attained.

# Research Plan



# Research Plan

## **D. Research methodology (cont.):**

- vii. Using the heading “*Facilities, Equipment and Resources*” describe the resources necessary and available for this project

# Literature Cited

- Number the references in order of appearance, and provide the complete citations
- 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
- Suggestion: Use a referencing style suitable for your discipline

# Commercialization & Economic Impact



Advancing Oklahoma's Knowledge Economy for the Next 100 Years

# **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

# 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

# **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

# Tips for Successful Proposals

# Tips

- It's important to always close the loop on every concept. Every presentation has a goal, purpose, or point, and it's vital the author keep it in both his mind and his audience's.
- Know your competitors; do not duplicate known work
- When your product is similar to another product, clearly show why your efforts will result in a superior product

# Tips

- Techniques do not need to be groundbreaking, however they need to be adequate to solve the problem
- Innovative methods can strengthen a proposal if the details are well described
- Always use details when describing tools and techniques

# Tips

- Collaborations with senior investigators are encouraged to strengthen new investigators
- If the project expands outside the area of expertise, collaborate with an expert in that field
- Proof read and eliminate grammatical and typographical errors
- Ensure all components of the application are addressed and included

# Tips

- Ensure the research plan supports the core intent of the project
- The research plan must include details and be well laid out
- The research plan, schedule, and budget needs to be thoroughly defined
- Focus your research project to accomplish one goal well, do not dilute your project with too many goals

# Tips

- If research equipment and facilities are lacking, collaborate with a well established company or organization
- The letter of recommendation is very important; do not overlook
- Design your budget to meet the needs of your plan
- Make sure that the economic benefit will remain in the State of Oklahoma

# Tips

- Ensure you have a well qualified team and describe with details their expertise
- Ensure labor cost are appropriate and comparable to the Oklahoma market
- The budget description and the research plan should provide sufficient information to justify the funding requested

# Tips

- Make sure to explain the regulatory steps needed prior to commercialization
- Clearly state the market niche that will be filled
- Provide clear analysis of the current competitors to convince reviewers that the project will lead to a better product with great commercialization potential

# Tips

- Fully described any commercialization partners. Add supporting letters to show the relationship is well established.
- Make sure to give enough information for the reviewer to make an assessment of the potential for commercialization

# Tips

- Provide sufficient information to show why and how your project can succeed against the competition
- Provide sufficient focus to identify a market
- Justify market numbers in the proposal and do not overstate

# Tips

- Think about your economic impact statement in terms of jobs created & retained, tax revenue, and sales revenue to the State of Oklahoma
- Ensure that your research plan correlates to your economic impact statement

# Did you remember??

Proof read & spell check

Details, Details, & Details

Collaborations

Economic Impact to Oklahoma

# Contact Information

Michelle McFarland

Program Officer IV

(405) 319-8408

[mmcfarland@ocast.state.ok.us](mailto:mmcfarland@ocast.state.ok.us)

OCAST Website

[www.ocast.ok.gov](http://www.ocast.ok.gov)