

Making the Transition

Preparing for Large, Center-Level Research Proposals

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Proposal Coordination

Office of the Vice President for Research
and Partnerships

Purdue Research Development Services



Office of the Executive Vice President for Research and Partnerships

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Overview

Funding

Limited Submissions

Grant Writing Services

Grant Writing Resources

Site Visits

Events

FAQs

Where do I go for help with...

Cost Sharing

Research Bridge Program

Funding and Grant Writing

The goal of the EVPRP Research Development staff is to assist faculty in the development of research and education proposals. [EVPRP staff](#) provide a broad range of services and resources related to funding and grantsmanship. Below are some of the ways we can assist.



Funding Resources

The funding page provides information on internal, external, seed, and early investigator funding opportunities. Links to helpful funding search tools and e-mail alerts can also be found here.



Limited Submissions

Check here for details on internal competitions including deadlines, templates and submission guidelines.



Grant Writing Services and Resources

Research Development staff can provide assistance with both large and small proposals. This page explains our services and provides links to other useful proposal preparation resources.



Site Visits

Our staff can assist with the logistics and coordination of site visits allowing the research team to focus on their science and team. Follow this link to find out more about these services.



Events

The events page provides information on upcoming grantsmanship workshops and events including dates, times, and registration information. Presentations from previous events can also be accessed from this site.

Grant Writing Resources

Proposal Prep 101

OFFICE OF THE EXECUTIVE VICE PRESIDENT FOR RESEARCH AND PARTNERSHIPS

Proposal Prep 101

- **Need assistance setting up your Pivot account to locate funding?**
Contact Kristyn Jewell (kristynj@purdue.edu) for one-on-one help.
- **Interested in NIH funding opportunities?**
Contact Perry Kirkham (pkirkham@purdue.edu) for NIH-specific guidance.
- **Ready to start budget and authorization?**
Visit www.purdue.edu/business/sps/preaward.
- **Need a grant writer?**
Contact Sally Bond (sbond@purdue.edu) for larger, multidisciplinary proposal services and proposalcoordinator@purdue.edu for consultations and assistance on single-investigator proposals.
- **Want an internal review of your proposal before submission?**
Contact Sally Bond (sbond@purdue.edu).
- **Looking for boilerplate text on Purdue resources?**
Visit our e-Pubs site at <http://docs.lib.purdue.edu/ovpr/>.
- **Planning a site visit from your funding agency?**
Contact Sue Grimes (sgrimes@purdue.edu) for logistical help.

ACCESS THE FUNDING AND GRANT WRITING WEBSITE
www.purdue.edu/research/funding-and-grant-writing/overview.php

...for key resources such as:

- Registration for workshops
- Self-help proposal development tools and data management plan templates
- Instructions and templates for Purdue limited submissions
- Rolodex of potential broader impact partners
- *Guide to the Grants Process at Purdue* booklet

  Follow us on Twitter at @Research_Purdue.
Join the conversation with #PUgrantwriter.



4/3/2015

Today

- small team vs large center proposal development
- tips prior to solicitation
- keys to sausage making
- three action items for today
- panel discussion

Basic Grantsmanship is the Same

Strategies for a strong proposal submission

- tell a compelling story
- respond to solicitation
- answer “Why this team?”
- know your audience
- conduct internal review

....But More to Consider

Fuller spectrum of components. Complexity of scale and scope. Leadership.

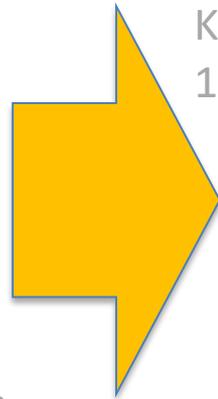
Complex management

marketing Ten-year milestones

Cost share Assessment Critical path IP policy Foreign collaborators

Stakeholder meetings

State agency partners



K-12

Site visit

Professional staffing

General 10-week project timeline:

	1	2	3	4	5	6	7	8	9	10
Analysis and Planning										
Distribute documents noted in RFP										
Identify previously successful proposals										
Identify PI										
Notify Pre-Award Center for assigned budget specialist										
Problem Overview										
What is the problem										
What has already been done to address problem										
What gaps remain										
How we propose to address gaps										
Vision Goals										
Identify proposal win themes/discriminators										
Program Officer Input										
Contact PO	initial									
Team debrief on meeting										
Refine initial analysis/planning										
Proposed Outline										
Discuss/refine outline structure										
More detailed outline, if needed										
Identify graphics needed										
Partnerships										
Recruit collaborative partners										
Produce "talking points" brochure or website										
Recruit industry affiliates										
Recruit advisory board members										
Collect letters of commitment										
Management and Personnel										
Identify basic management structure										
Collect biosketches										
Proposal Writing and Editing										
Assign writing										
Write section components										
Compile 1 st draft										
Project team 1 st edit										
Any outside review input/edit										
Editing iterations										
Write summary or abstract										

Red Text: Important to have agreement (and explicit text for problem overview) prior to proposal writing

ERC Full Proposal (25 pages) Due Thursday, June 18

Task	1	2	3	4	5	6	7	8	9	10
Industry and Innovation Partner Recruitment										
Finalize team members for IPAs and general conceptualized search plan (industry, state, academic, etc.)										
Identify potential partners										
Draft fee-based membership program (programmatic and privileges) and membership agreements/terms/conditions										
Develop EOI, logo and proposal brochure										
Identify industry Liaison Officers (could be TBD in proposal)										
IPAA membership list finalized										
Finalize national government agencies and professional organizations as non-fee innovation partners										
Configuration Strategy										
Develop management/leadership organizational chart for conceptualization										
Team Leadership Positions:										
Request Director, Deputy Director, Workforce Development Program Director (can split with faculty director of non-tenure and faculty personnel education co-director), Diversity Director, Research Team Leader										
Obtain staff Managing Director and staff Industrial Liaison Officer										
Finalize a NSF advising Northwestern as domestic partner university										
Finalize any additional domestic universities										
Finalize any foreign collaborations										
Identify up to five pre-college education institutions including non-academic colleges										
Final list of faculty/staff participants (e.g. master personnel) finalized										
Identify external evaluators for workforce development program										
Identify investigative agency agreements										
Assign out there prior review to industry partners										
Center-wide Council Strategizing										
Any refinement of strategy based on preproposal reviews										
What is the problem										
What has been done to address the problem										
What is the gap that remains										
How do we propose to address the gap										
Vision										
Overall Goals of CH2AR ERIC										
Goals and Objectives of Research, Training and Education (aligned with Science Directorate)										
Partner 2-page diagram										
Develop 25-year milestone chart										
Proposal Outline										
Finalize outline structure with page allocations										
Assign writing leaders and teams										
Identify graphics needed										

Contracting

Proposal Writing and Editing										
Finalize outline structure with page allocations										
Assign writing leaders and teams										
Identify graphics needed										
Budgeting										
Final meeting with ERIC/NSF specialist and cost share point person										
Costing and Pricing										
Meeting with ERIC/NSF regarding preliminary budget for proposal writing and final submission										
Request cost-sharing tables and justification										
Supplementary Discussion										
Collect any letters of commitment:										
Two from Purdue dean and one higher level academic official										
Dean of engineering from each partner										
Partner unit organizations and/or state level governmental agencies										
Administrators at pre-college partners										
Duplicate at partner time agencies										
National laboratories										
Domestic affiliated faculty										
Foreign industrialists										
ADIPAA members										
Collect faculty and equipment information from all partners										
Collect legislation and collaborative team										
Prepare conflict of interest list for PI files on PI										
Periodic mentoring plan										
Laboratory safety policy										
Final management plan										
Optional list of suggested review sites										
Submit June 18th										

Timeline Commercialization Headquarter space Research thrusts Diversity Liaison Fee-based industrial membership

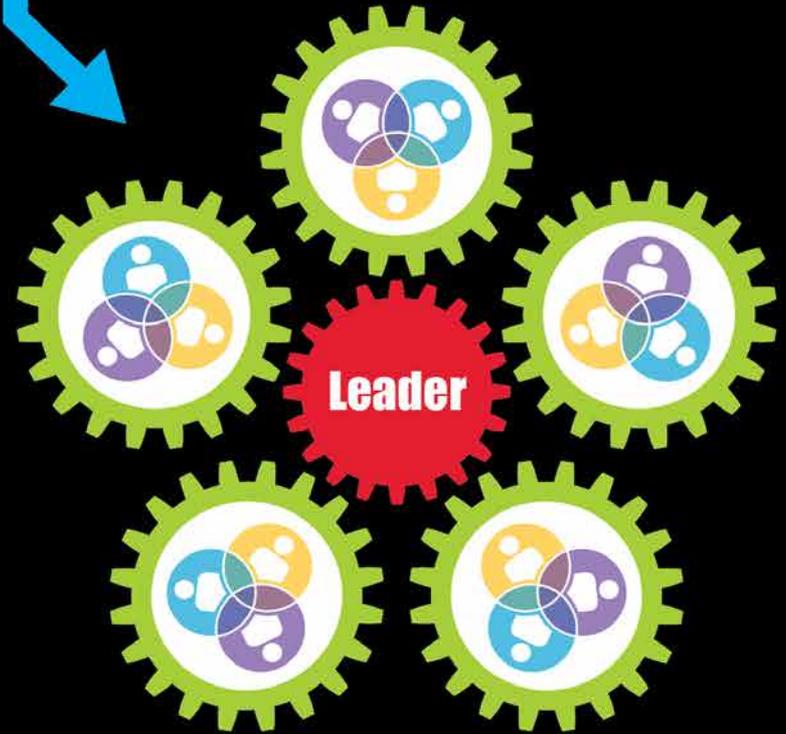
Team travel

WBS Cross-institutional mentoring educational programming

Multidisciplinary Team



Large Center



Multidisciplinary Team



Large Center



Millions \$

Tens of Millions \$\$\$

Multidisciplinary Team



Millions \$

Led by strong researcher

Large Center



Tens of Millions \$\$\$

Led by strong, senior researcher

Multidisciplinary Team



Millions \$

Led by strong researcher

Topics reinforce

Large Center



Tens of Millions \$\$\$

Led by strong, senior researcher

No overlap with existing centers

Multidisciplinary Team



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Led by strong researcher

Topics reinforce

Collaboration track record helps

Large Center



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Busy

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Major time commitment

Multidisciplinary Team



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Program awareness

Large Center



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Major time commitment

Agency and program culture

Multidisciplinary Team



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Program awareness

PI could write quite a bit

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Led by strong, senior researcher

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Major time commitment

Agency and program culture

Team must write collaboratively

Multidisciplinary Team



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Reviewers close to your discipline

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Interdisciplinary review

Multidisciplinary Team



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Can quickly add partners

Large Center



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Led by strong, senior researcher
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Collaboration track record necessary
Major time commitment
Agency and program culture
Team must write collaboratively
Interdisciplinary review
Must build on authentic partnerships

Multidisciplinary Team



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Program awareness

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Can quickly add partners

Sustainability appreciated

Management is largely

communication

Tens of Millions \$\$\$

Led by strong, senior researcher

No overlap with existing centers

Collaboration track record necessary

Major time commitment

Agency and program culture

Team must write collaboratively

Interdisciplinary review

Must build on authentic partnerships

Sustainability required

Need clear governance structure and

reporting lines

Multidisciplinary Team



Large Center



Millions \$

Led by strong researcher

Topics reinforce

Collaboration track record helps

Busy

Program awareness

PI could write quite a bit

Reviewers close to your discipline

Can quickly add partners

Sustainability appreciated

Management is largely

communication

Institutional resources leveraged

as needed

Tens of Millions \$\$\$

Led by strong, senior researcher

No overlap with existing centers

Collaboration track record necessary

Major time commitment

Agency and program culture

Team must write collaboratively

Interdisciplinary review

Must build on authentic partnerships

Sustainability required

Need clear governance structure and

reporting lines

Institutional role and commitment

clearly delineated



If you wait until
solicitation is
out, you are
already late!

Tips for Prior to Solicitation

Work year(s) ahead not months.

- **Meet with campus leaders**

Tips for Prior to Solicitation

Work year(s) ahead not months.

- Meet with campus leaders
- What can you drop? Is release time available?

Tips for Prior to Solicitation

Work year(s) ahead not months.

- Meet with campus leaders
- What can you drop? Is release time available?
- Travel to funded centers

Tips for Prior to Solicitation

Work year(s) ahead not months.

- Meet with campus leaders
- What can you drop? Is release time available?
- Travel to funded centers
- Travel to funding agency

Tips for Prior to Solicitation

Work ahead years not months.

- Position yourself as a thought leader on this topic

Tips for Prior to Solicitation

Work ahead years not months.

- Position yourself as a thought leader on this topic
- Develop real partnerships with key stakeholders



While You Write the Proposal

How a proposal is written is how the center will likely be run.

- grantsmanship on logistical steroids

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- build team trust and energy

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- shared vision and understanding of requirements...no siloes

While You Write the Proposal

How a proposal is written is how the center will likely be run.

- grantsmanship on logistical steroids
- build team trust and energy
- shared vision and understanding of requirements...no siloes
- buy in for strict review milestones

Action Items: Where to Start

Three ways to coalesce team prior to the solicitation



Develop a compelling storyline



Create an integrative graphic



Outline high-level milestones and deliverables

Develop a Compelling Storyline

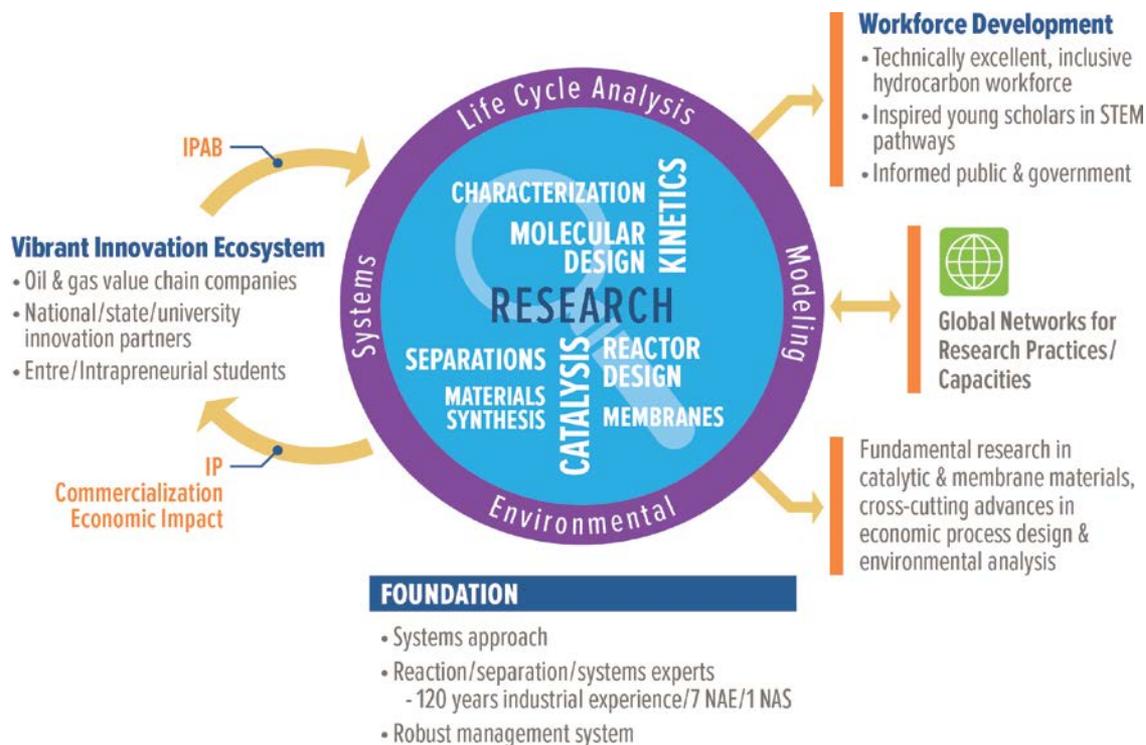


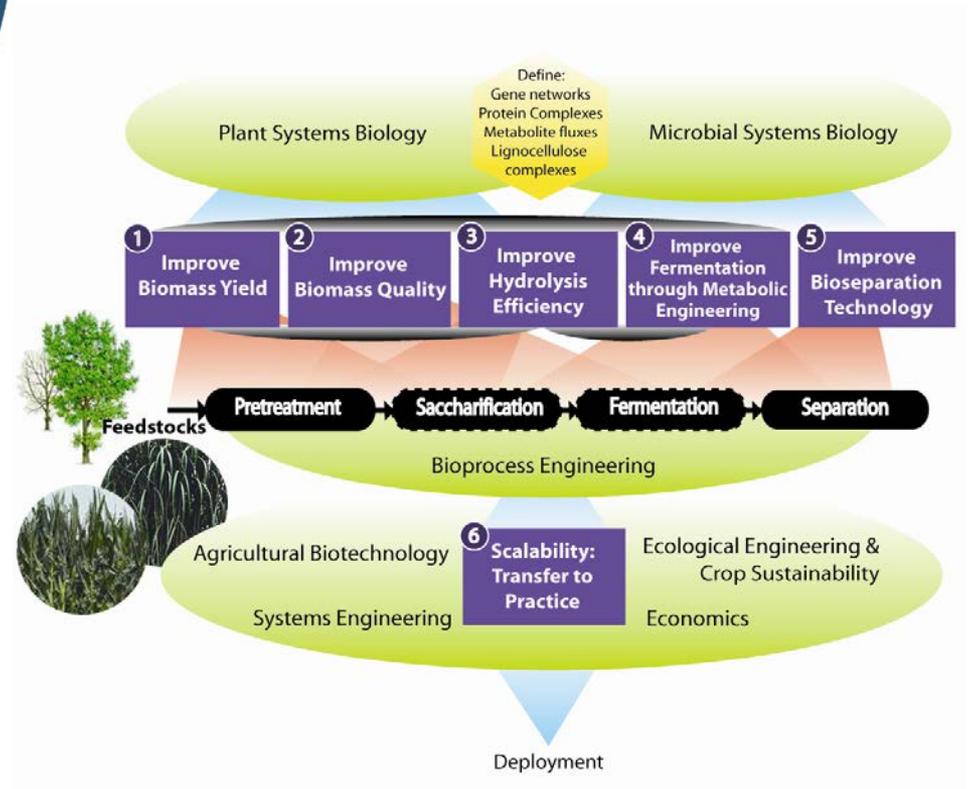
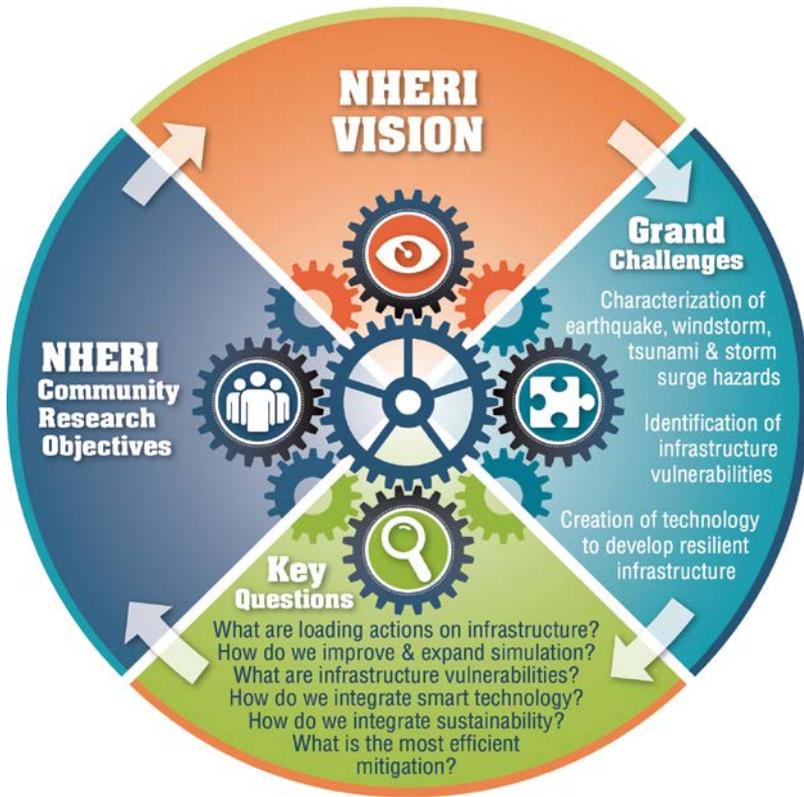
- What is the problem?
- What has been done already to address this problem?
- What is the gap that still remains?
- What do you propose to do?

Create an Integrative Graphic



Visual integration of all components

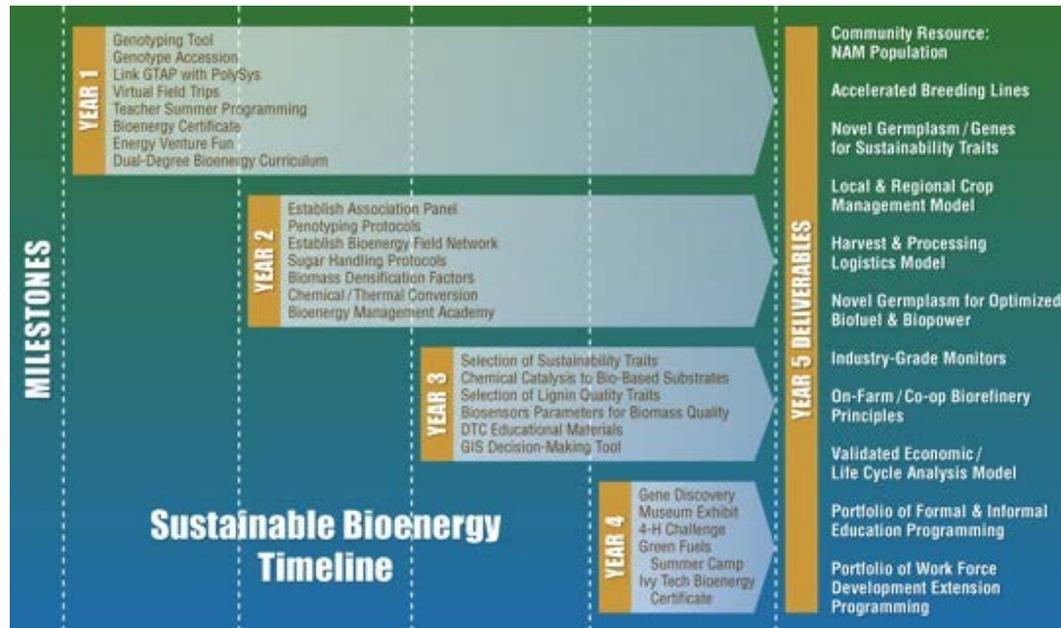


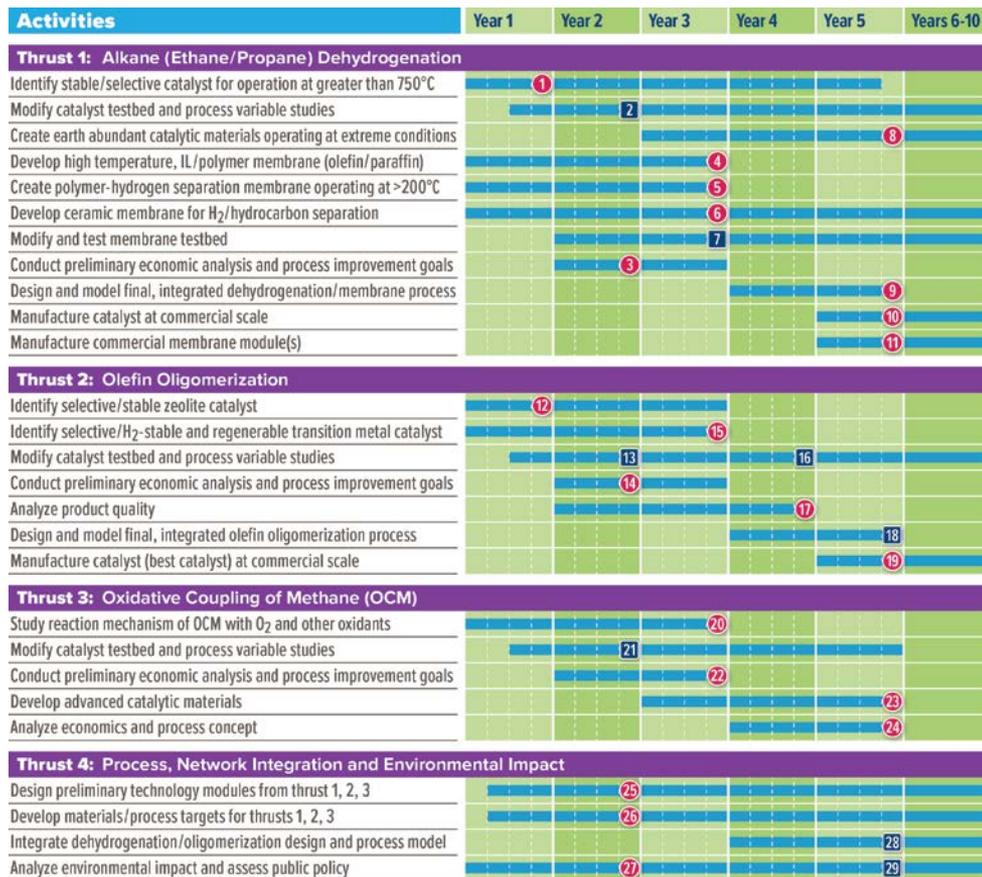
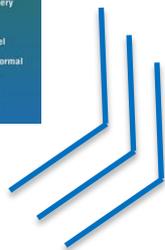
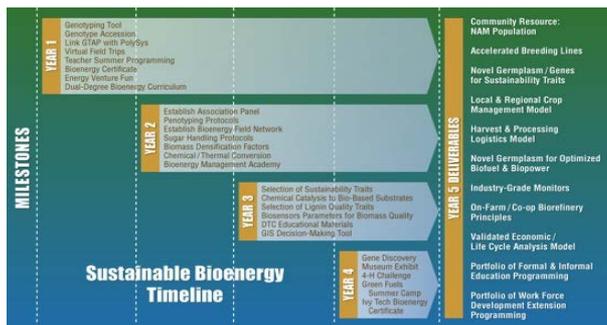


Milestones and Deliverables



- High-level 5 and 10 years
- Helps integrate workflow





● Milestones and ■ Testbed Milestones:

- 1-2. Preliminary catalyst selection for test bed evaluations
- 3. Preliminary economic analysis and process design
- 4-7. Selection of membrane for test bed evaluations
- 8. Development of advance dehydrogenation catalyst
- 9. Final catalyst/membrane process design and process model
- 10-11. Commercial manufacture of catalyst and membrane module
- 12-13. Preliminary catalyst selection for test bed evaluations
- 14. Preliminary economic analysis and process design
- 15-17. Preliminary catalyst selection for test bed evaluations
- 18. Liquid fuels and products analysis
- 19. Process design and process model of oligomerization process
- 20. Fundamental studies on OCM reaction mechanisms
- 21-22. Test bed process variable studies on best literature catalysts for preliminary economic analysis
- 23. Development of advanced catalysts/oxidants
- 24. Economic analysis of OCM for fuels
- 25. Integrated design and process model of shale alkanes to liquids and fuels
- 26. Preliminary process design and module performance targets
- 27. Network of chemical manufacturing and refining and supply chain models
- 28. Integrated design and process model of shale alkanes to liquids and fuels
- 29. Regional economic, environmental, and public policy issues for commercialization of targeted processes

Panel Discussion



Fabio Ribeiro
Director of the
CISTAR NSF
Engineering
Research
Center



**Shelley
MacDermid
Wadsworth**
Director of the
Military Family
Research Institute



Bob Brown
Managing Director
of the Center for
the Science of
Information