

Making the Transition

Preparing for Large, Center-Level Research Proposals

Sally Bond

Assistant Director of Research Development Services

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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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.

PURDUE
UNIVERSITY

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

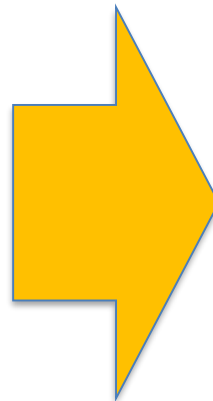
....But More to Consider

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

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



Draft 4

ERC Full Proposal (25 pages) Due Thursday, June 16

	328	33	338	339	342	39	40	404	405	428	44	501	509	528	62	68	456
Industry and Innovation Partner Recruitment																	
Recruiting team members for IPAB and projects conceptualization																	
Search Don McLean, Don McLean, the Public, Eric McLean																	
Recruit advisory partners																	
Draft fee-based membership program (requirements and privileges)																	
and membership agreement/letter templates																	
Develop EPO, logo and recruitment brochure																	
Identify Industry Liaison Officers (will can be TBD in proposal)																	
IPAB membership list budget																	
Recruit state/local government agencies																	
and professional organizations as non-fee innovation partners																	
Configuration Strategies																	
Develop management/leadership organizational chart for conceptualization																	
Name leadership positions																	
Request: Director, Deputy Director, Workforce Development																	
Program Director (can split with faculty director of university and faculty providing education to director)																	
Diversity Director, Research Travel Leaders																	
Optional: staff Managing Director and staff Industrial Liaison Officer																	
Finalize a NIE adding Northwestern as domestic partner university																	
Finalize any additional domestic institutions																	
Finalize any foreign collaborations																	
Identify up to five pre-college education institutions																	
including community colleges																	
Final list of faculty staff participants (e.g. senior personnel) due																	
Identify external evaluation for workforce development program																	
Develop implementation date agreement																	
Assign cost share point person to develop proposal																	
Center-wide Content Strategizing																	
Any refinement of storyline based on preproposal review																	
What is the problem																	
What has been done to address the problem																	
What is the goal that remains																	
How do you propose to address this gap																	
Vision																	
Overall Goals of CH2AR EPO																	
Goals and Objectives of Research, Training and Education																	
Identify win themes/discriminators																	
Refine 3-phase diagram																	
Develop 10-year abstracts chart																	
Proposal Outline																	
Discuss/refine outline structure with page allocations																	
Assign writing leaders and team																	
Identify graphics needed																	

writing leaders for feedback integration prior to writing																	
Proposal Writing and Editing																	
Team write section components																	
Complete 1 st draft and submit revisions																	
Provide draft to internal review panel																	
Red Panel Review																	
All team deliver on review and strategy for revisions																	
Editing iterations																	
Write one-page summary																	
Budgeting																	
Final meeting with Faculty and specialist and cost share point person																	
Current and Pending																	
Meeting with Faculty and specialist regarding preliminary budget for																	
personnel salaries and draft budget																	
Request cost-sharing, salary and justification																	
Supplementary Documents																	
Collect any letters of commitment:																	
• Two from Partner dean and one highest-level senior official																	
• Dean of engineering from each partner																	
• Partner state organizations and/or state local government agencies																	
• Administrative at pre-college partners																	
• Officials at partner firms/agencies																	
• National laboratories																	
• Domestic affiliated faculty																	
• Foreign collaborators																	
• All IPAB members																	
Collect faculty and equipment information from all partners																	
Collect biosketches and collaboration with																	
Propose conflict of interest list for PI team on PI																	
Provide summary plan																	
Laboratory safety policy																	
Data management plan																	
Optional list of suggested reviewers																	
Finalize Final Plan																	

Contracting

....But More to Consider

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

Complex management

Cost share

Assessment

Critical path

IP policy

Foreign collaborators

Stakeholder meetings

marketing

Ten-year milestones

General 10-week project timeline:

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Project team 1 st edit										
Any outside review input/edit										
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Write summary or abstract										

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State agency partners

K-12



Site visit

Professional staffing

Contracting

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Develop EPO logo and recruitment brochure																									
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• Foreign collaborators																										
• All IPAB members																										
Collect faculty and equipment information from all partners																										
Collect biosketches and collaboration with																										
Prepare content of answer list for PI four on PI																										
Finalize summary plan																										
Laboratory safety policy																										
Data management plan																										
Optional list of suggested reviewers																										
Finalize Answer List																										

Timeline

Commercialization

Diversity Liaison

Headquarter space

Fee-based industrial membership

Research thrusts

Team travel

WBS

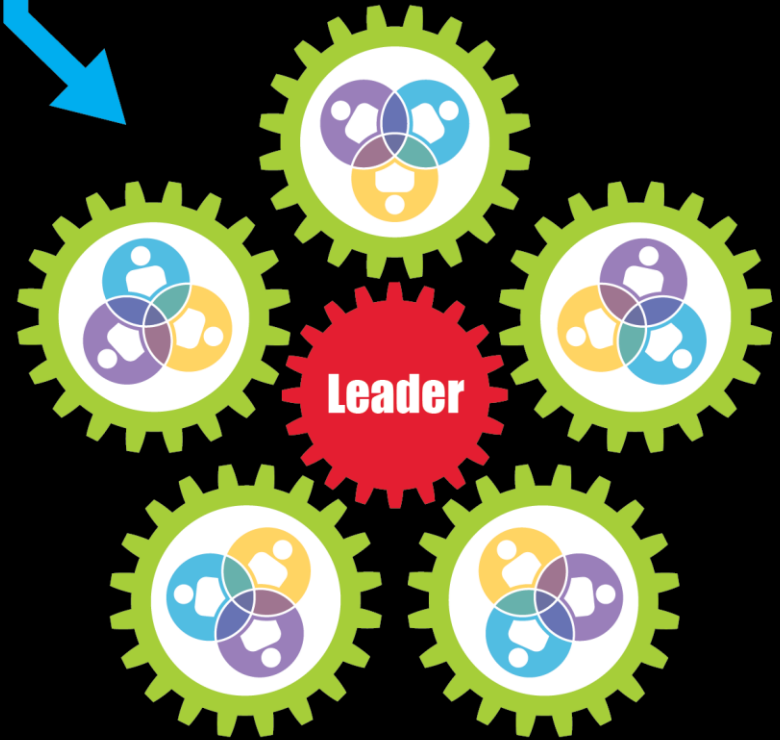
Cross-institutional educational programming

mentoring

Multidisciplinary Team



Large Center



Multidisciplinary Team



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

Large Center



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
- 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
- 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
- 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

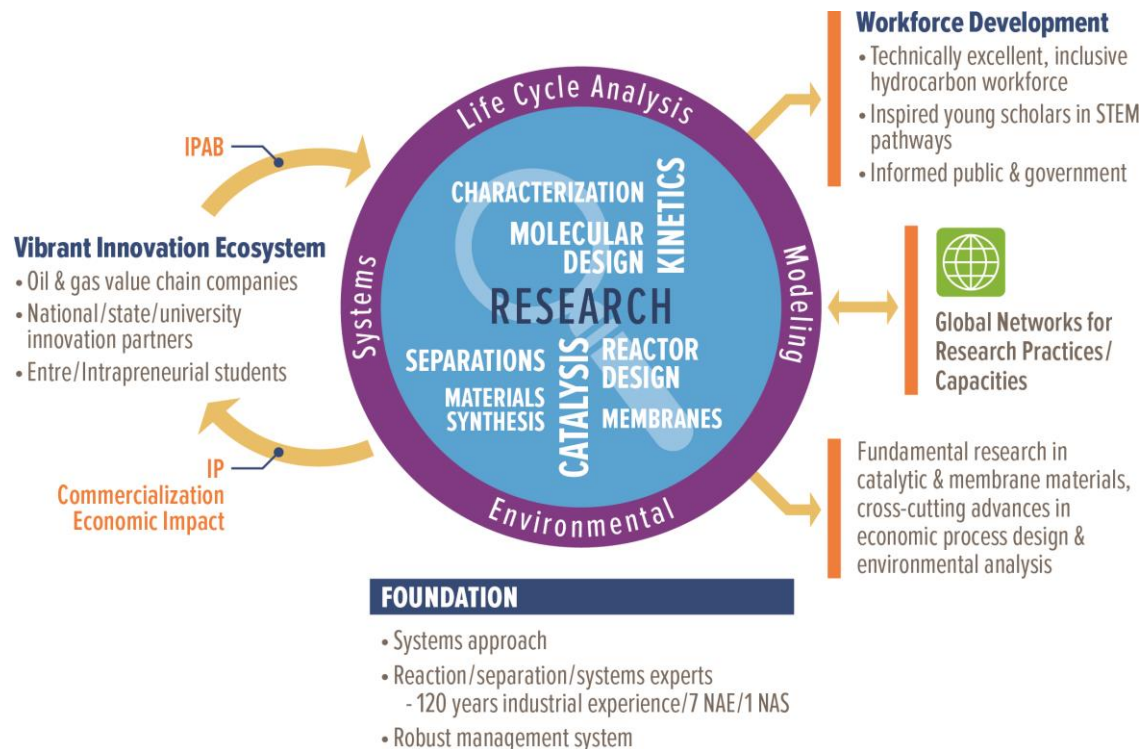


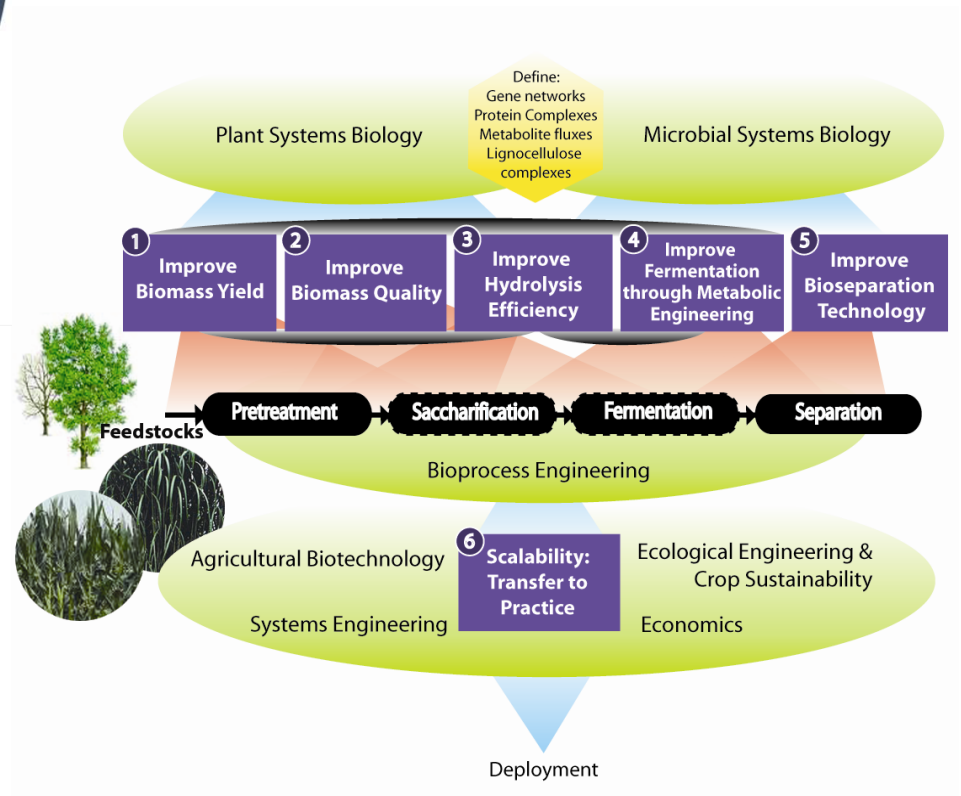
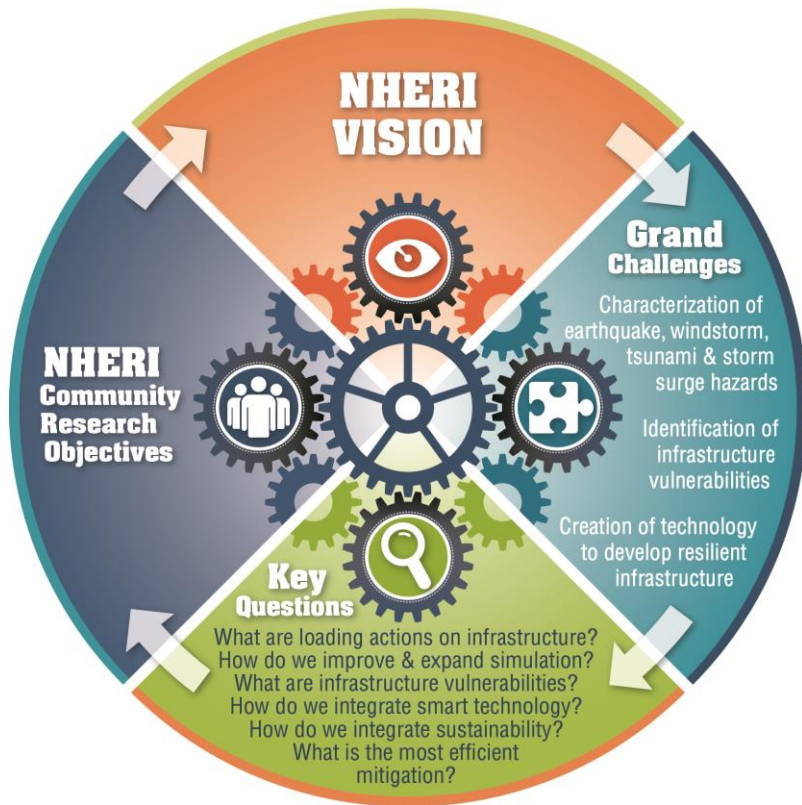
- What is the problem?
- What has been done already to address this problem?
- What is the gap that still remains?
- What do you propose to do?

Create an Integrative Graphic



Visual integration of all components

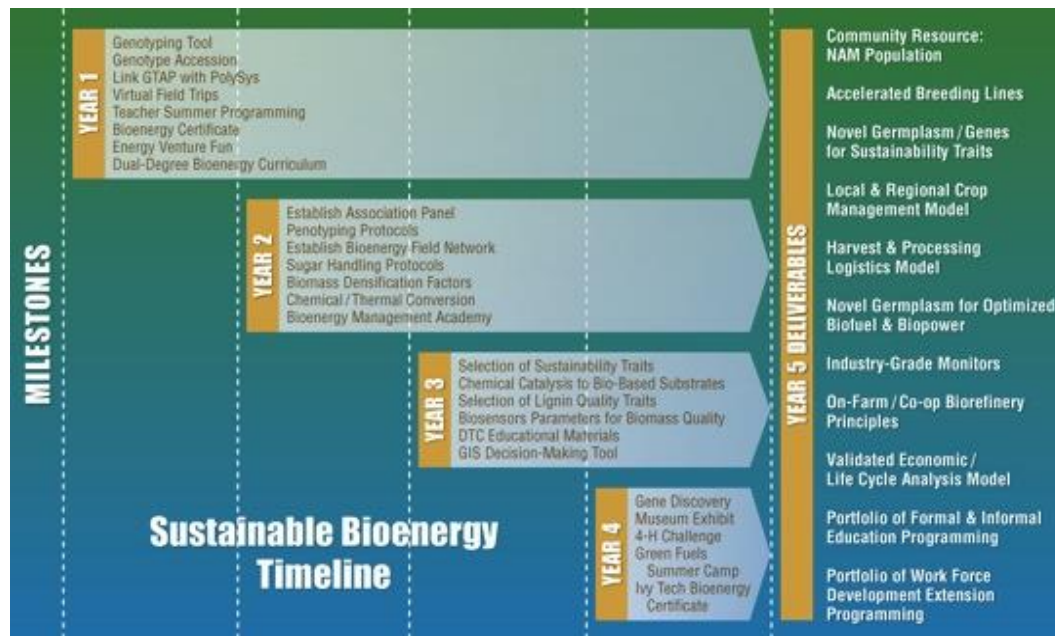


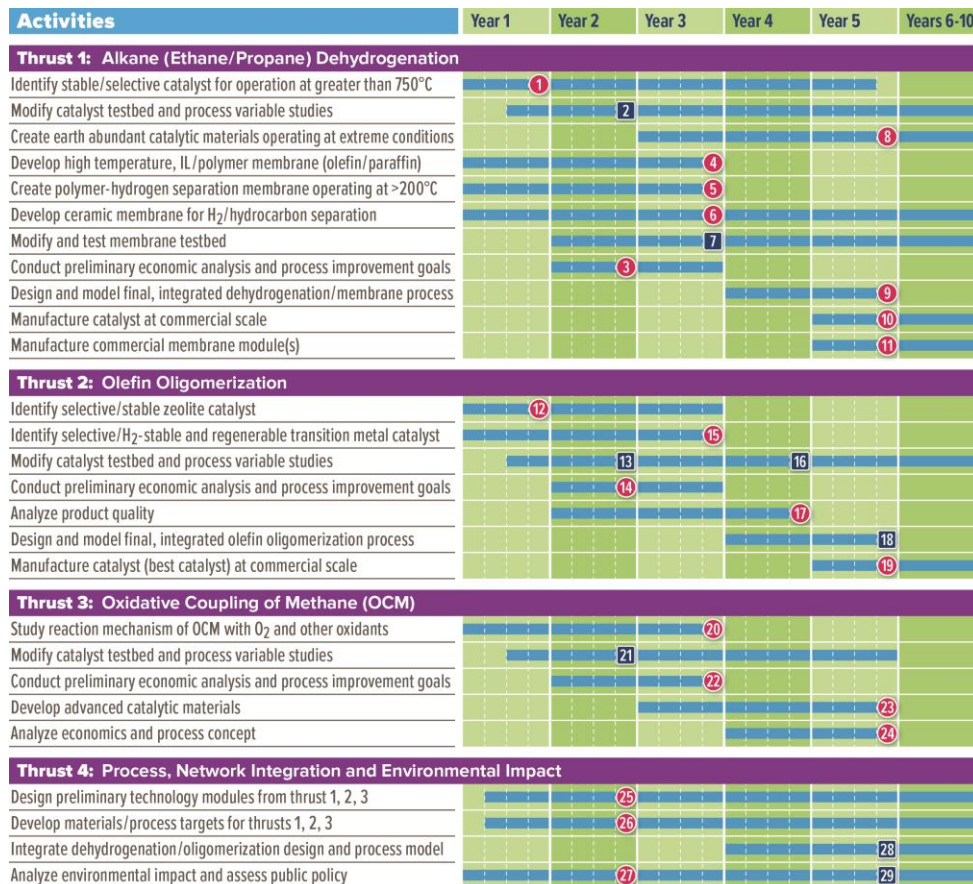
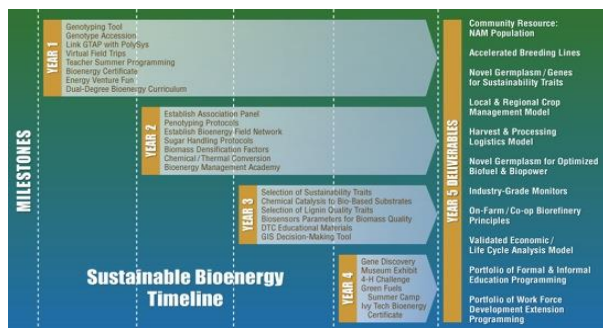


Milestones and Deliverables



- 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



Gerhard Klimeck
Director of the
Network for
Computational
Nanotechnology



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



Maureen McCann
Director of the
Energy Center at
Discovery Park



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