



# RD&D Project Discussion



John A. Hopkins Sr. Project Controls Manager IACMI



Felix Nguyen
Principal Research Scientist
Toray Composites



Peter J. Fritz
Engineering Specialist
Eaton





# IACMI RD&D Project Overview and Guide

Institute for ADVANCED

Composites Manufacturing

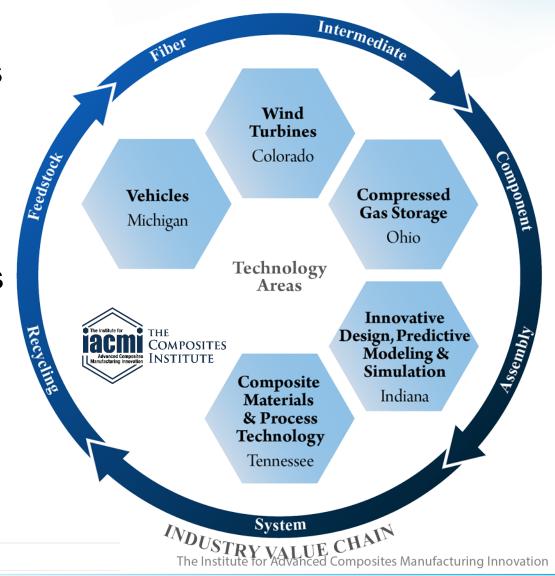
INNOVATION

John A. Hopkins Sr. Project Controls Manager

January 13, 2016

RD&D Projects Help Solve Industry's Composite Problems that Align with IACMI's Goals

- Industry driven: Focus on critical industrial problems
- Rapid innovation
- Support OEMs / Tier 1's& their supply chain
- Support small and medium enterprises in supply chain





## IACMI RD&D Projects

- Successful project proposals will demonstrate:
  - Impact to IACMI and DOE goals
  - Role of IACMI resources in path to scale-up
  - Defined commercial endpoint and appropriate TRL/MRL range (OEM, Tier 1 support)
  - Capacity to complete project successfully
  - Budget and cost-share that fit IACMI model
  - Well-defined utilization of resources and impact of outcomes
  - Relation to IACMI Technology Roadmap



# An Integrated Approach to meet DOE and IACMI goals

- · Low-cost fiber
- Fast processing resins
- User-friendly forms
- Rapid composite conversion processes
- NDE/repair
- Recycling
- Joining
- Cost-efficient part design
- · Manufacturing simulation
- Materials database

# **Materials** Insertion **Points** Manufacturing (Vehicles, Wind, CGS) Sub-scale Scale **Design and Simulation**

Technology Readiness



## IACMI Project Model

- Leverage Technology Area Assets
  - Are Technical Areas directly engaged?
- Employ Mix of Funds
  - Is cost share part of funding model?



- Focus on Commercial Implementation and Impact
  - Does project address appropriate TRL/MRL?
  - Is impact evident via path to capital investment and job creation?
- Address Energy Goals
  - Will implementation lead to reduced energy use?



### Projects - Overview

- Open call process for receiving, reviewing, and funding proposals
- Members in good standing are eligible to submit proposals
- Master Agreements streamline contracting
- Project types provide opportunity to address high risk and large-scale projects in a staged approach
- Membership fees feed into project cost share
- Communication is key part of project management



# IACMI Project Types

- Collaborative and Industry-led
- Leverage Partner Facilities and Expertise
- Combine Private and State Funds

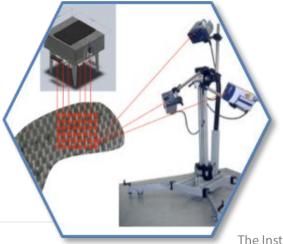
#### **Enterprise**

- >\$600k
- Long-term
- Commercialization & Scale-up



# Technical Collaboration

- <\$600k
- < 2 Years</li>
- Early Stage Concepts



#### **Topic Specific**

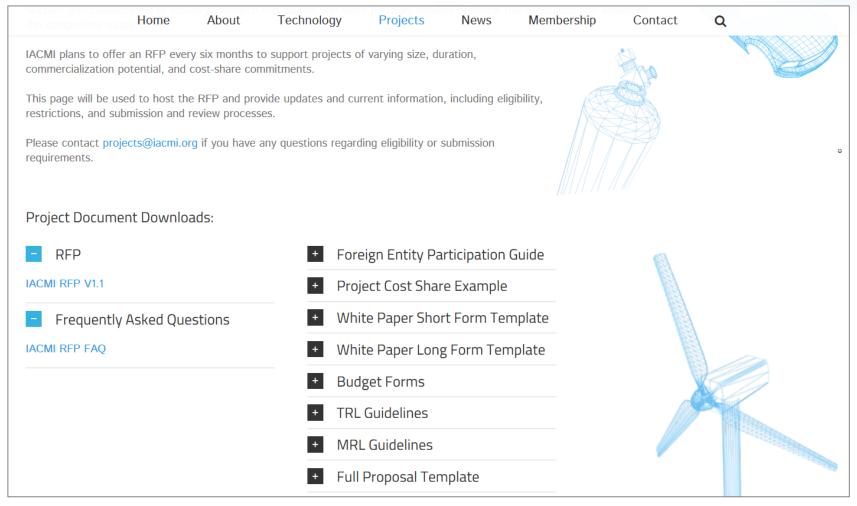
- >\$20k
- < 1 Year</li>
- Challenges identified in Technology Roadmap



The Institute for Advanced Composites Manufacturing Innovation

# RFP - Open for Submissions

# http://iacmi.org/projects/





### Proposals Received

- 15 Proposals
- 10 Technical Collaboration
- 5 Enterprise
  - \$1.3M \$3.7M
  - 48 months
- All Technical Areas

Technical Area	Integration
Vehicles	11
Wind	6
Compressed Gas Storage	3
Materials & Processes	10
Modeling & Simulation	6



## Proposal Checklist

- Leverages Technology Area Facilities?
- Addresses IACMI/DOE goals?
- TRL level appropriate?
- Cost share included in budget?
- Supply-chain aware?
- High commercial impact?
- Path and commitment to Scale-up?
- SMART Milestones?
- Defined Go/No-go Decisions?



## Summary

#### IACMI Project Call open for proposal submission!

# Your Path to World Leadership in Composite Manufacturing

- 1. Identify world-beating material/process/component
- 2. Assemble your project team
- 3. Work with IACMI Technology Areas to define project
- 4. Submit proposal
- 5. Successfully complete project
- 6. Lead your markets!



#### Questions?



Institute for ADVANCED

Composites Manufacturing
INNOVATION

# John A. Hopkins Senior Project Controls Manager

jhopkins@iacmi.org

