



Research  
Office

Responding RAPIDly and remaining NIIMBL in the  
Manufacturing USA proposal development  
phase: Adapting resources in a changing research  
landscape

May 9, 2018

# University of Delaware Presenters

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# Overview of Discussion

- UD submitted three NNMI proposals
  - Two full proposals (Accelerate America and NIIMBL)
  - One subaward proposal (RAPID)
- UD received awards for NIIMBL (\$70M) and RAPID (\$7.1M)
- Quickly review resources utilized with Accelerate America and RAPID
- Focus time on infrastructure/resources associated with NIIMBL

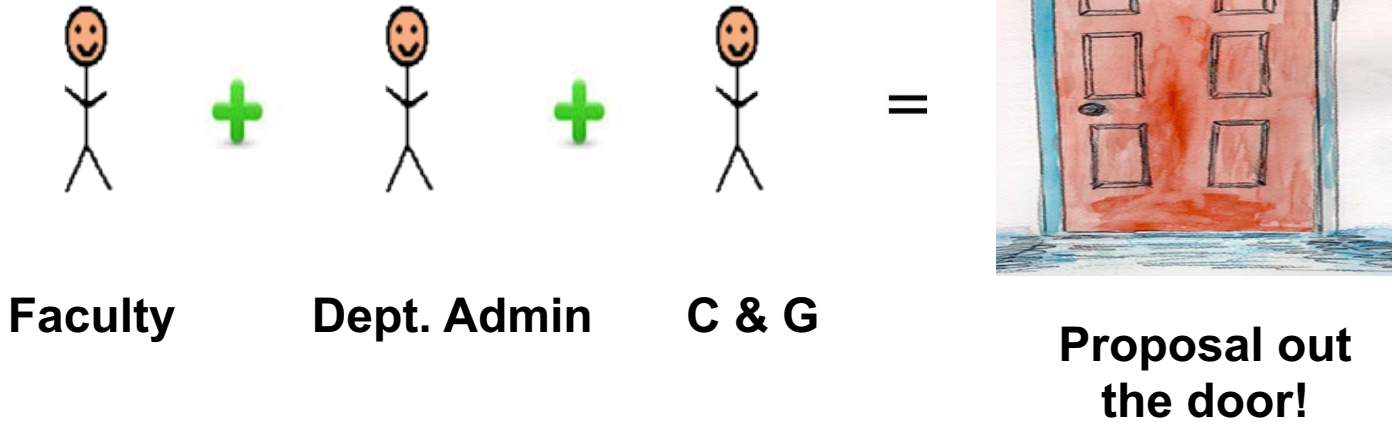
# UD Overview

- State-assisted, privately governed institution
- Land Grant, Sea Grant and Space Grant institution
- Research university with very high research activity
  - FY 17 sponsored program expenses: \$213.5M
    - Proposals submitted: 1,696
    - Proposal awarded: 697
- Student body encompasses:
  - >17K undergraduate students
  - >3K graduate students
  - 841 associate in arts
- Faculty body: ~1K





# Typical administrative structures for UD single investigator proposals

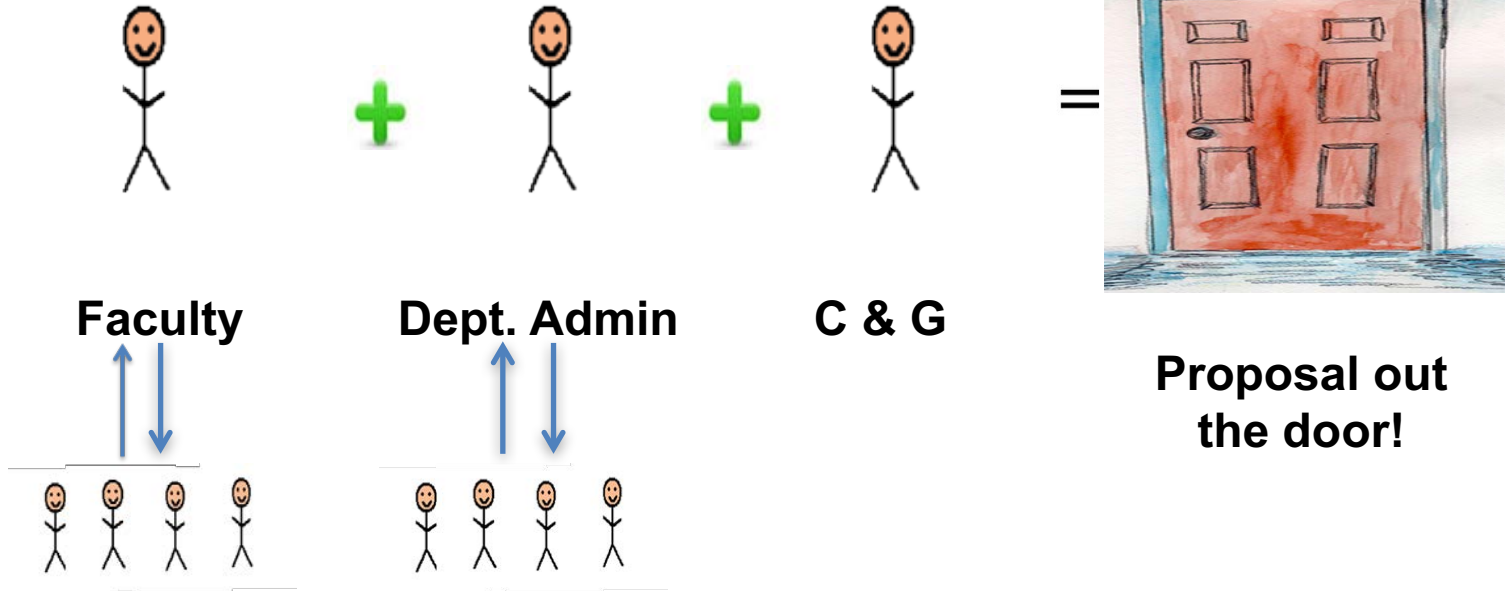


# College and Institute Level Support

- Admin support varies depending upon the college and/or institute
- Experience level of admins varies as well

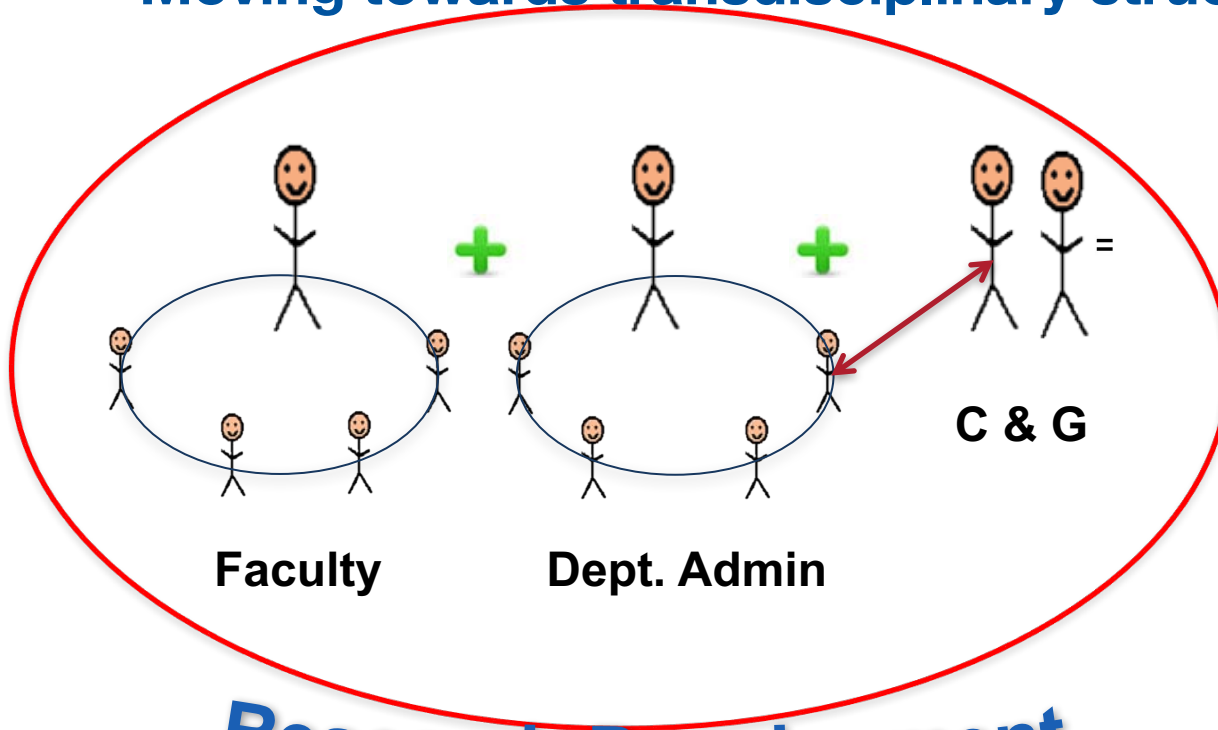
Training Profile	Less than 1 year	1-2 years	3-5 years	6-10 years	10+ years
How long have you worked with research related responsibilities?	26%	22%	21%	13%	18%
	<b>Less than 25%</b>	<b>25%</b>	<b>50%</b>	<b>75%</b>	<b>100%</b>
How much of your entire position is dedicated to research related activities?	16%	13%	15%	18%	38%

# Typical administrative structures for UD collaborative proposals





## Moving towards transdisciplinary structures- 2010



**Proposal out  
the door!**

**Research Development  
Facilitator Among the Teams**

# National Network of Manufacturing Innovation

- In 2012, President Obama announced plan to invest \$1B to catalyze a national network of up to 15 manufacturing innovation institutes and called on Congress to act on this proposal and create the NNMI
- NIST release first open solicitation in 2016
- First Five federal agencies:
  - Department of Defense
  - Department of Energy
  - Department of Commerce
  - NSF
  - NASA

# 2014 DOE NNMI Solicitation Released

- Issue Date: 02/25/2014
- Informational Webinar: 03/06/2014 3:00 PM ET
- Submission Deadline for Concept Papers: 04/22/2014 5:00 PM ET
- Submission Deadline for Full Applications: 06/19/2014 5:00 PM ET
- Submission Deadline for Replies to Reviewer Comments: 07/24/2014 5:00 PM ET
- Expected Date for EERE Selection Notifications: September 2014
- Expected Timeframe for Award Negotiations: 90 days

# Clean Energy Manufacturing Innovation Institute for Composites Materials and Structures

- Total Amount to be awarded was \$70M for one award
- Period of performance up to 60 months
- Type of funding agreement was cooperative agreement
- **Required minimum of 50% of the total allowable costs**

# Solicitation Requirements

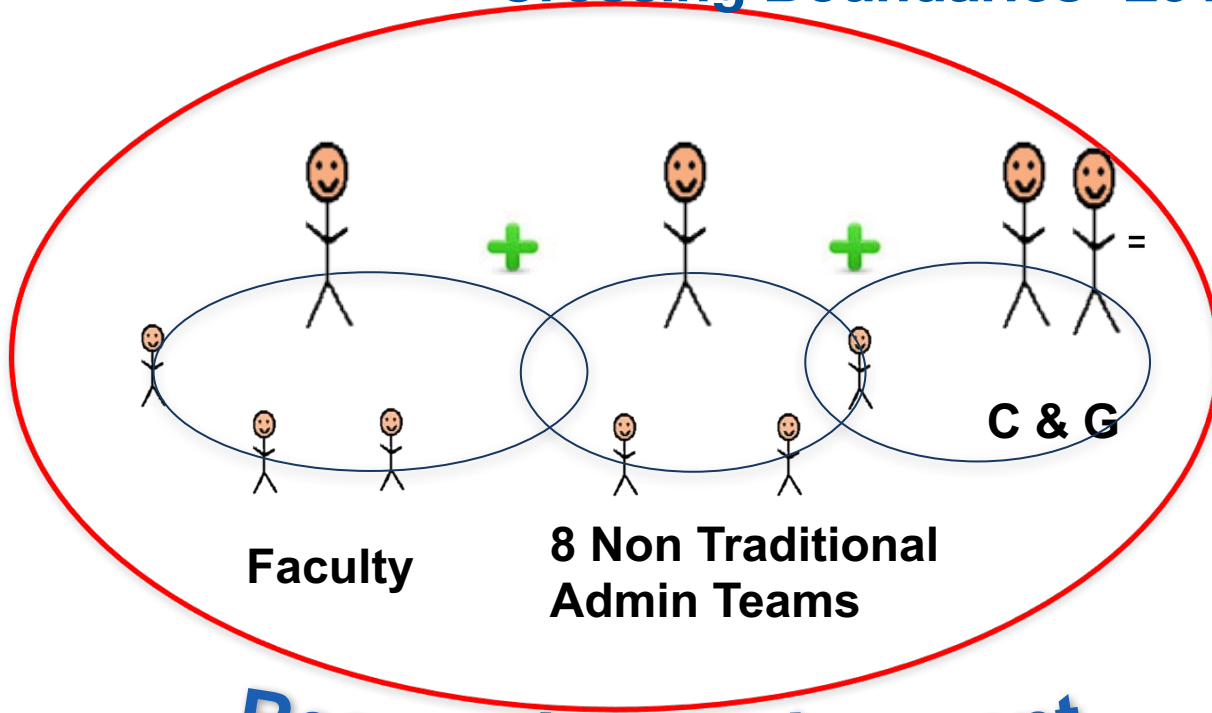
- Management by a 501 (c) organization
- Space for institute
- Partnerships with companies, research universities, community colleges, non-profits
- Nondisclosure agreements, conflicts of interest, bios, budget, budget justifications

# Accelerate America Ten Weeks and Counting!

- 4/14/14- VPR asked RDO to reach out to a college level institute that was working with an external consultant to prepare a DOE concept paper for an NNMI
- 4/22/14- Concept paper submitted
- 4/28/14- RDO initiated weekly “all hands on deck” conference calls



## Crossing Boundaries- 2014



**Proposal out  
the door!**

**Research Development  
Facilitator Among the Teams**

# Admin Teams

1. Dept. Admins (Total of 4 : 3 dept. admins & 1 C&G)
2. C & Gs (Total of 2 plus supervisor)
3. Cost share (PI, VPR, Assoc. Dean, VPR of Research Admin, OEIP)
4. Operations/Mgt Plan (Assoc. VPR of Research Admin, Univ. Budget Officer, General Counsel, Post Award Director, Manager of Cost Accounting)
5. IP Mgt Plan (OEIP, RO Counsel)
6. Manufacturing Plan (PI, coPIs, OEIP)
7. Compliance (Assoc. VPR of Regulatory Affairs, Director of Res. Compliance)
8. Non NNMI (Leadership from COE, supervisors from RO, staff reassigned to assist with non NNMI related responsibilities *(those who picked up the slack!)*)



# Collaboration Resources

- Weekly conference call with all participants (faculty and admin teams)
- Formal agenda, minutes, timeline
- Google docs for sharing of documents
- Utilized two Teamwork accounts (one for faculty, one for admin team)
- UD admin expert with DOE budgets
- Utilized an external consulting firm to help with grant writing and bringing companies on board

# Outcome

- \$70M DOE request, \$80M match, 150 collaborating partners
- One of two invited to a reverse site visit
- Ultimately did not receive an award
- Learned a great deal which provided a foundation for our future NNMI efforts

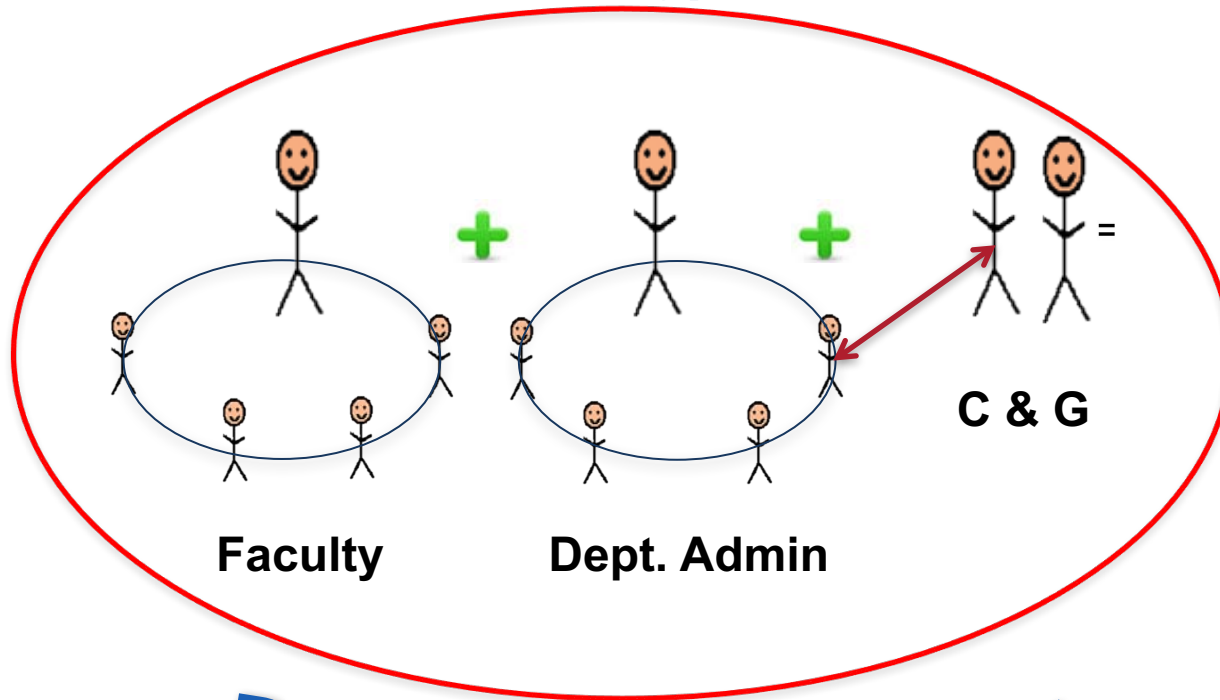
# 2016 DOE NNMI Solicitation Released

- Issue Date: 05/05/16
- Informational Webinar: 05/11/16 3:00 PM ET
- Submission Deadline for Concept Papers: 06/15/16 5:00 PM ET
- Submission Deadline for Full Applications: 08/17/16 5:00 PM ET
- Submission Deadline for Replies to Reviewer Comments: 9/15/16 5:00 PM ET
- Expected Date for EERE Selection Notifications: Fall 2016
- Expected Timeframe for Award Negotiations: 120 days

# RAPID

- NIIMBL proposal development efforts had been ongoing for a little over two months
- Leadership decided that UD did not have the scientific or administrative capacity to lead a second NNMI
- Actively searched for a lead organization that aligned well with UD's strengths
  - Partnered with the American Institute of Chemical Engineers

## Fell back on typical RDO structure- 2016



**Proposal out  
the door!**

**Research Development  
Facilitator Among the Teams**

# NIST NNMI Open-Topic Competition

- Total Amount to be awarded \$70M to one awardee
- Period of performance up to 60 months
- Type of funding agreement was cooperative agreement
- Required minimum of 1:1 cost share, with additional cost share being reviewed favorably

## NIST NNMI Solicitation Released

- Issue Date: 02/19/2016
- NNMI proposers day webinar 03/08/2016
- Webinar Resources and FAQ 03/28/2018
- Submission Deadline for Concept Papers: 04/20/2014
- Expected Date for notification to submit Full Application: 05/23/2016
- Informational Webinar: 06/16/2016
- Submission Deadline for Full Applications: 07/22/2016
- Post Application Questions August – November
- Reverse Site Visit Practice in Boston, MA 09/18/2016
- Reverse Site Visit at NIST 09/30/2018
- Expected Date for NIST Selection Notifications: November 2016
- Expected Timeframe for Award Negotiations: 90 days

# Solicitation Requirements

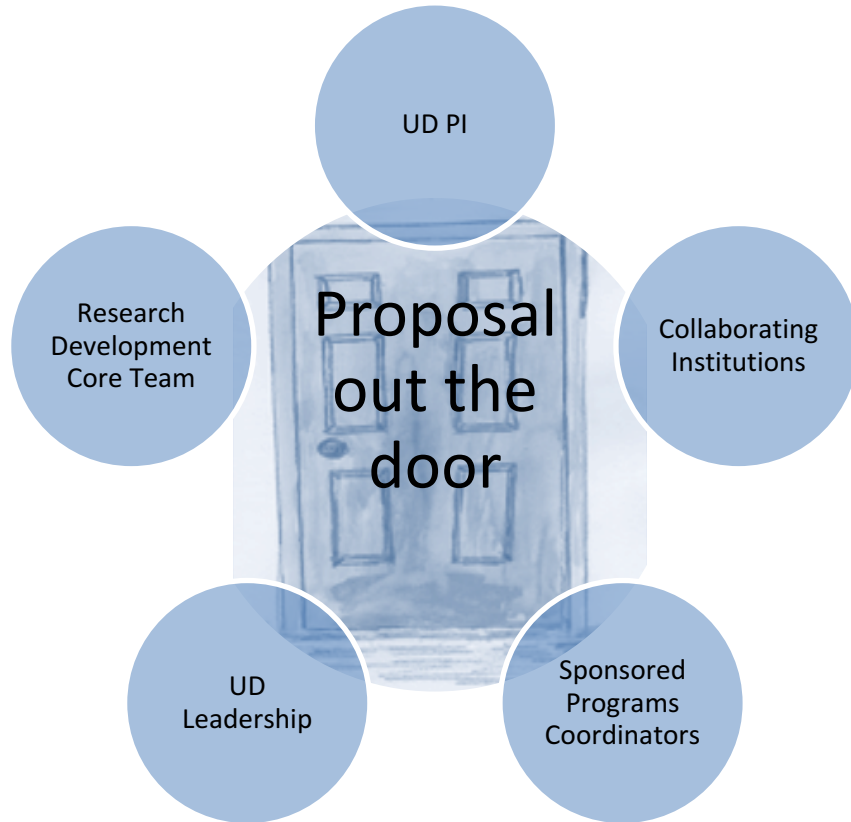
- Space for the Institute
- Partnerships with companies, research universities, community colleges, non-profits, small-to-medium enterprises (SMEs)
- Sustainability plan
- Governance structure, including conflict of interest policy and Intellectual Property paradigm
- Sample Annual Institute Plan, including 5 sample projects



# Proposal Format

In addition to the Technical Volume, the proposal included the following appendices:

Gantt Chart/Timeline	Resumes
Table of Abbreviations and Acronyms	Letters of Commitment
Bibliography	Letters of Interest
Table of Funded Participants and Unfunded Collaborators	Estimated Funding by Work Breakdown Structure (WBS)
Table of Cost Share Components and Contributors	Indirect Cost Rate Agreement
Compliance Matrix	Data Management Plan
Budget Table and Budget Narrative	



## Enhancing Flexibility and Collaboration: 2016 Changes to Structure

# Research Development Core Team

- Included 2 Contract and Grants Specialists from central research office and 1 Sponsored Programs Coordinator in the college.
- Workloads lightened for these 3 staff members to enable more time dedicated to the project
- Interfaced closely with all facets of the structure

# Proposal Team

- Governance and Membership Tier Strategy
  - 1. UD PI
  - 2. Add. UD faculty/research scientists and collaborating partner institutions
  - 3. Consulting firm
  - 4. UD leadership
  - 5. Research Development Core Team
- Budget Planning
  - 1. UD PI
  - 2. Research Development Core Team
- Proposal Writing/Refining/Layout
  - 1. UD PI
  - 2. Add. UD faculty/research scientists and collaborating partner institutions
  - 3. Research Development Core Team
  - 4. UD Communications Specialist
  - 5. Consulting firm
- Subcontracting Coordination
  - 1. Research Development Core Team
  - 2. Sponsored Programs Coordinators

# Proposal Team, cont.

- Intellectual Property planning
  1. UD PI
  2. Office of Economic Innovation and Partnerships
  3. Research Office Counsel
- State cost share strategy and recruitment
  1. UD PI
  2. Add. UD faculty/research scientists and collaborating partner institutions
  3. VP Research
  4. Dean of Engineering
  5. Director of Fed. Gov. Relations
- WBS and operational planning
  1. UD PI
  2. Research Development Core team
- 501(c)3 development
  1. UD PI
  2. VP Research
  3. Research Development Core Team
  4. Associate VPR for Research Admin.
  5. General Counsel's Office
  6. VP Finance
  7. Manager of Federal Cost Accounting

# Collaboration Resources

- Weekly conference call with all participants (faculty and admin teams)
- Formal agenda, minutes, timeline
- Utilized two Teamwork accounts (one for faculty, one for admin team)
- Deployed resources developed in previous NNMI efforts from UD (from Accelerate America) and partner organizations (from other NNMI proposals)
  - Subrecipient information packets
  - Budget template
- Utilized an external consulting firm to help with proposal layout and graphics as well as partner recruitment

# Using the Structure to Address Challenges: 501(c)3

- The need to propose that the award be made to a 501(c)3 presented several challenges.
- Flexible structure enabled team to pull expertise from different elements within and outside of UD to plan.

Challenge	Collaborative Solutioning
Creation of the 501(c)3 and corporate structure	UD PI, UD leadership, Partner Organizations, RD Core
Budget generation	UD PI, RD Core, AVP Research Admin, VP Finance

# Using the Structure to Address Challenges: Partnering

- Getting industry buy-in and support without committing to the membership fees
  - Workshops held across the country
- Getting academic institutions' buy-in and support without guarantee of funding
  - Using partners to expand the network
- Getting state governments' buy-in for significant cost share
  - Using partners and organizational leadership



# Using the Structure to Address Challenges: Document Generation and Refinement

- Proposal Writing/Refining/Layout was accomplished by utilizing a colored review process comprised of PI, Research Development Core team, additional UD faculty/research scientists and collaborating partner institutions.
  - A subset of the members from the five core teams performed the early reviews
  - As the reviews progressed the review teams grew smaller
  - Final review was conducted by reviewers who were not part of the team
- Research Development Core team contributed significantly to several supplemental documents.

# Proposal Format

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Budget Table and Budget Narrative	

# Using the Structure to Address Challenges: Post-Submission Q&A and Review

- Research Development Core team continued to support the proposal in the post-submission stage.
  - Responding to sponsor questions and requests for clarification
- Pre-selection Interview preparation and delivery
  - PI, UD Leadership, additional UD faculty/research scientists and collaborating partner institutions, and the Research Development Core team rehearsed and completed a mock pre-selection interview panel to prepare.
- Supported the transition for the Institute from concept to reality

# Outcome

- First open topic NIST support Manufacturing USA Institute to be funded.
- 90 member organizations joined (including core members of the proposal team)
  - Large BioPharmaceutical companies
  - Academic Institutions
  - Start-ups, SME, NFP, States
  - Federal stakeholders
- Executed 2 calls for proposal in the first year of the Institute

# Outcome Research Development

- New Senior Associate Vice President for Research
  - Proactive/strategic planning around federal priorities
- Crossing boundaries on more and more proposals
  - Relying on expertise not role
  - Will model future large proposal submissions on NIIMBL resource structure
- Utilizing external consultants more and more
  - Initiating new grant writer/editing and graphic assistance program