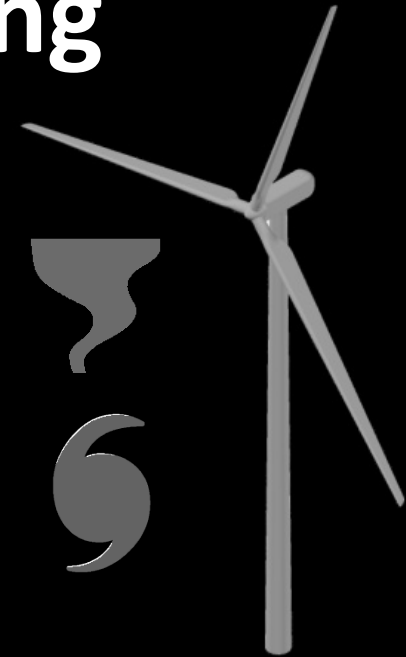




# National Wind Institute Fall 2016 Meeting

*The National Wind Institute is intended to serve as an intellectual hub for interdisciplinary and transdisciplinary **research, commercialization and education** related to wind science, wind energy, wind engineering and wind hazard mitigation.*



*Everything Wind!*

September 14, 2016





## Role of NWI

### Lead

- Strategic Initiatives
- Interdisciplinary Projects
- External Partnerships

### Share

- Research Facilities
- Human Capital
- Financial Resources

### Connect

- Funding Opportunities
- Alumni and Collaborators
- Communities and Society



## Promotion and Tenure





## Research Productivity

### FY2016

- New Awards: \$2.8m (TTU: \$72.3m; TechMRT: \$2.3m; WRC: \$1.9m; P3E: 2.6m)
- New Proposals: \$17m (TTU: \$428m)

### RRE (Preliminary)

- NWI: \$8.1m
- TTU: \$56.7m



## Faculty Feedback

Interviewed NWI affiliates

Common challenges

- High teaching load
- Need for technical support
- Student funding not guaranteed

Expectation for NWI

- Lead large proposals
- Share technical staff and facilities
- Bridge support for students
- Flexible accounting rules

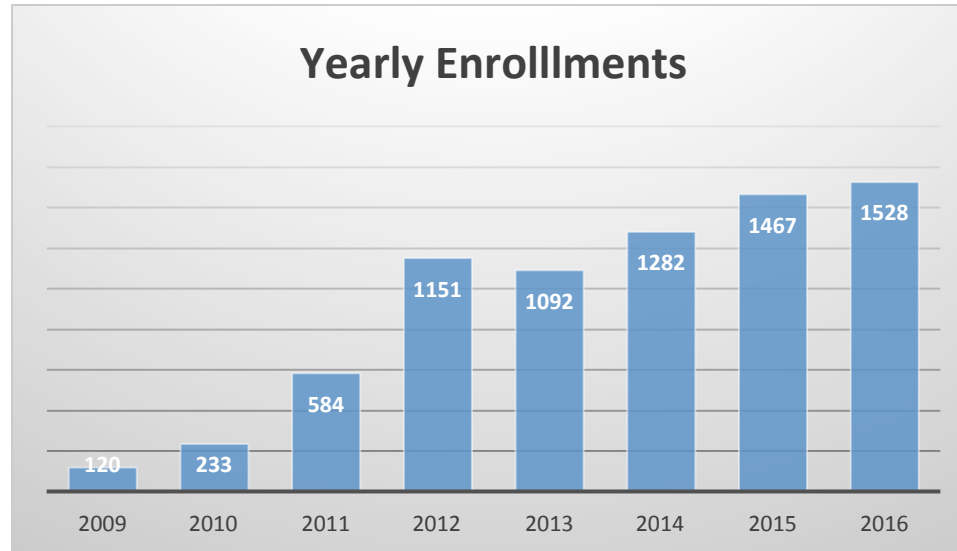


## FY 2017 Priorities (Updated)

1. Facilities and Operation
  - Improve laboratory safety
  - Maximize facility use & data access
  - Align NWI operation more with faculty needs
  - Improve communication
2. Education
  - Recruitment, retention, funding
3. Research
  - Develop a clear vision for wind hazard
  - Enhance industry & international partnerships
  - Build up capability in capturing large, complex funding opportunities



## BSWE



### Priorities

- Getting the on line degree approved for the BSWE
- Teaming with other universities to offer joint courses toward the graduate certificate
- Competing in the next DOE College wind competition
- Transition our faculty to professor of practice lines





## Wind PhD

### New Students:

- Jingying Tian (Presidential Graduate Fellow)
- Nariman Dehghani (Graduate Recruitment Fellow)
- Pratyasha Patnaik (Graduate Recruitment Fellow)

### Academic Committee:

- Daan Liang
- Kishor Mehta
- Brian Ancell
- Brad Ewing
- Delong Zuo

### Priorities:

- Increase quality and enrollment
- Secure internal and external fundings
- Improve mentorship

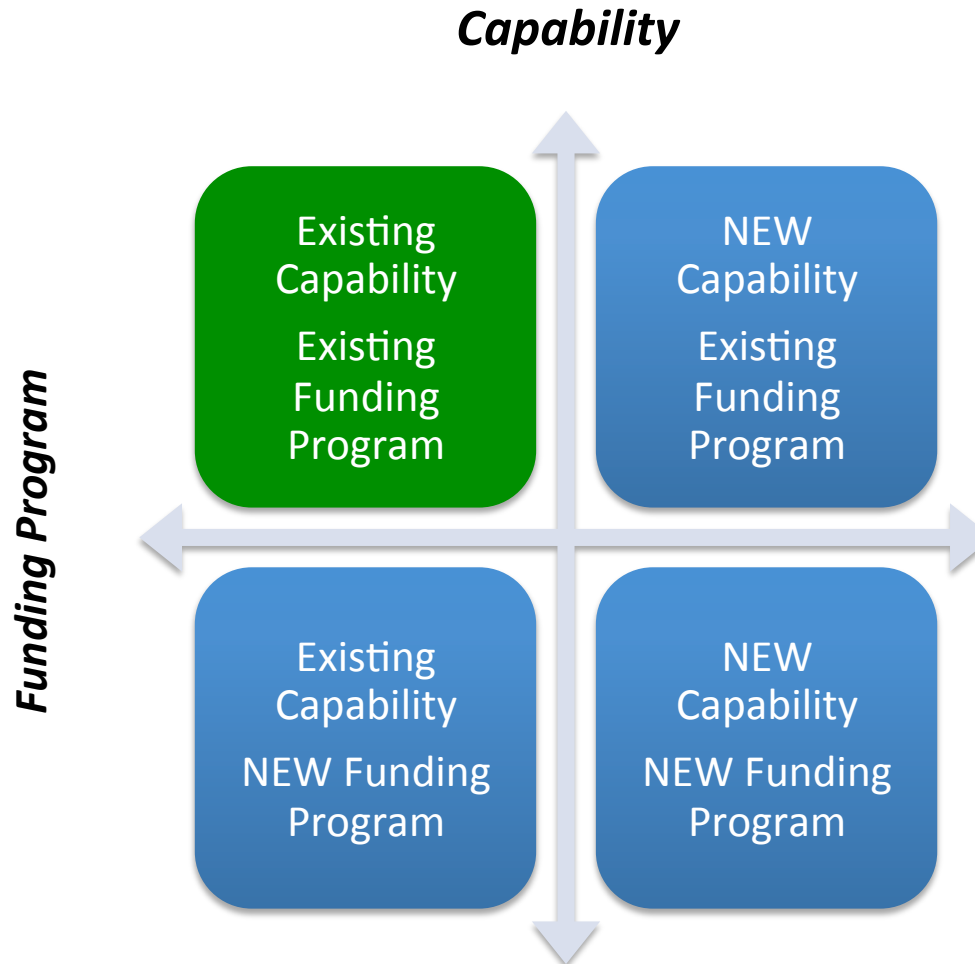


## Discovery Program

- *Initiated in 2014 and funded by F&A return*
- *Round #1*
  - *Released February 2015*
  - *Four projects, eight researchers, \$127k in total funding*
- *Round #2*
  - *Released August 2015*
  - *Three projects, three researchers, \$77k in total funding*
  - *Two projects, \$52k in total cost matching/ sharing*
  - *Seven incentive awards to high performers, \$36k in total*
- *Upcoming round*
  - *Aimed at catalyzing growth in federal, competitive grants*
  - *Pivot towards cost matching, course buyout, facility upgrade*

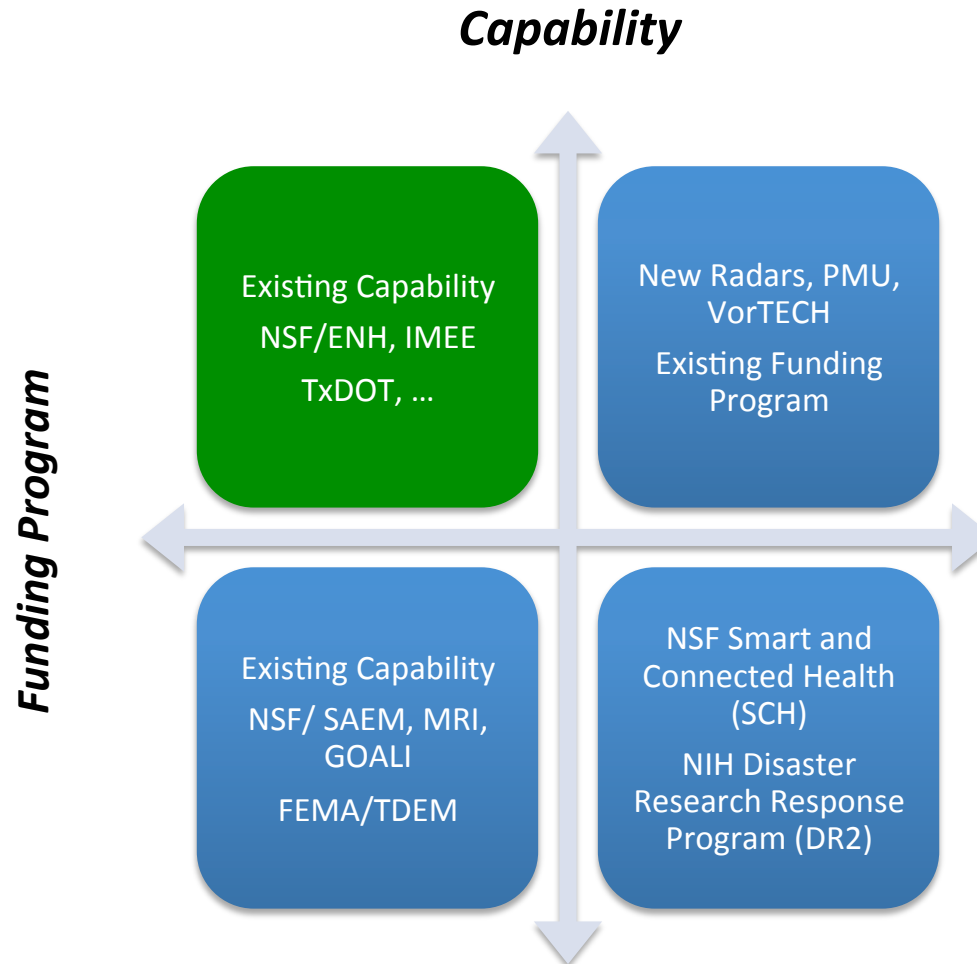


## Growth Strategies





## Growth Strategies – Wind Engineering & Hazard Mitigation





## NSF's 10 Big Ideas

### *Research*

- *Harnessing data for 21st century science and engineering*
- *Shaping the human-technology frontier*
- *Understanding the rules of life (i.e., predicting phenotypes from genotypes)*
- *The next quantum revolution (physics)*
- *Navigating the new Arctic (including a fixed and mobile observing network)*
- *Windows on the universe: multimessenger astrophysics*

### *Process*

- *More convergent research*
- *Support for midscale infrastructure (costing tens of millions of dollars)*
- *NSF 2050 (i.e., a common fund to seed large, ambitious projects)*



Coming together is a beginning;  
keeping together is progress;  
working together is success.

Henry Ford



**Thank you.  
Comments?**