

U.S. DEPARTMENT OF  
**ENERGY**

Office of  
ENERGY EFFICIENCY &  
RENEWABLE ENERGY

# Wind Industry R&D Market Survey Project ID # T23

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# SURVEY RESULTS ARE IN!



# FY17-FY18 Wind Office Project Organization

“Enabling Wind Energy Options Nationwide”

Technology Development

Atmosphere to Electrons

Offshore Wind

Distributed Wind

Testing Infrastructure

Standards Support and International  
Engagement

Advanced Components, Reliability, and  
Manufacturing

Market Acceleration & Deployment

Stakeholder Engagement, Workforce  
Development, and Human Use Considerations

Environmental Research

Grid Integration

Regulatory and Siting

Analysis and Modeling (cross-cutting)

# Project Overview

## T23: Wind Energy R&D Market Survey

### Project Summary

The Technology to Market (T2M) Industry Survey Project solicited feedback from a broad range of wind industry representatives to identify the research areas of highest value that would benefit from DOE investment.

### Project Objective & Impact

The objective of the Industry Survey was to provide information to WETO on research areas where the program could provide the most impact to help the industry continue to advance. The results also help WETO and the labs improve how they collaborate with industry to advance technologies.

### Project Attributes

#### Project Principal Investigator(s)

Brian Naughton, SNL  
Katherine Dykes, NREL

#### DOE Lead

Shane Beichner

#### Project Partners/Subs

Sandia National Laboratories  
National Renewable Energy Laboratory

#### Project Duration

3 years

# Technical Merit and Relevance

- In spring 2017, the Wind Energy Technologies Office conducted a survey to better understand the technology development needs of greatest importance to the wind industry and determine where federal support could be most valuable
- The primary objectives of the survey were to identify new and improved research capabilities and technologies that would be of high value to the industry and those that can be significantly impacted by DOE-led research and development
  - ✓ **Wind Power Resources and characterization**
  - ✓ **Wind turbine and plant technology advancement**
  - ✓ **Wind plant performance and reliability**
  - ✓ **Wind electricity and integration**
- Survey respondents included 150 wind industry representatives across the value chain, including equipment manufacturers, developers, owner/operators, service providers, consultants, financiers and insurers, utilities, and system operators
- The response rate was **more than double** the typical response rates from comparable surveys.

# Approach and Methodology

## Approach

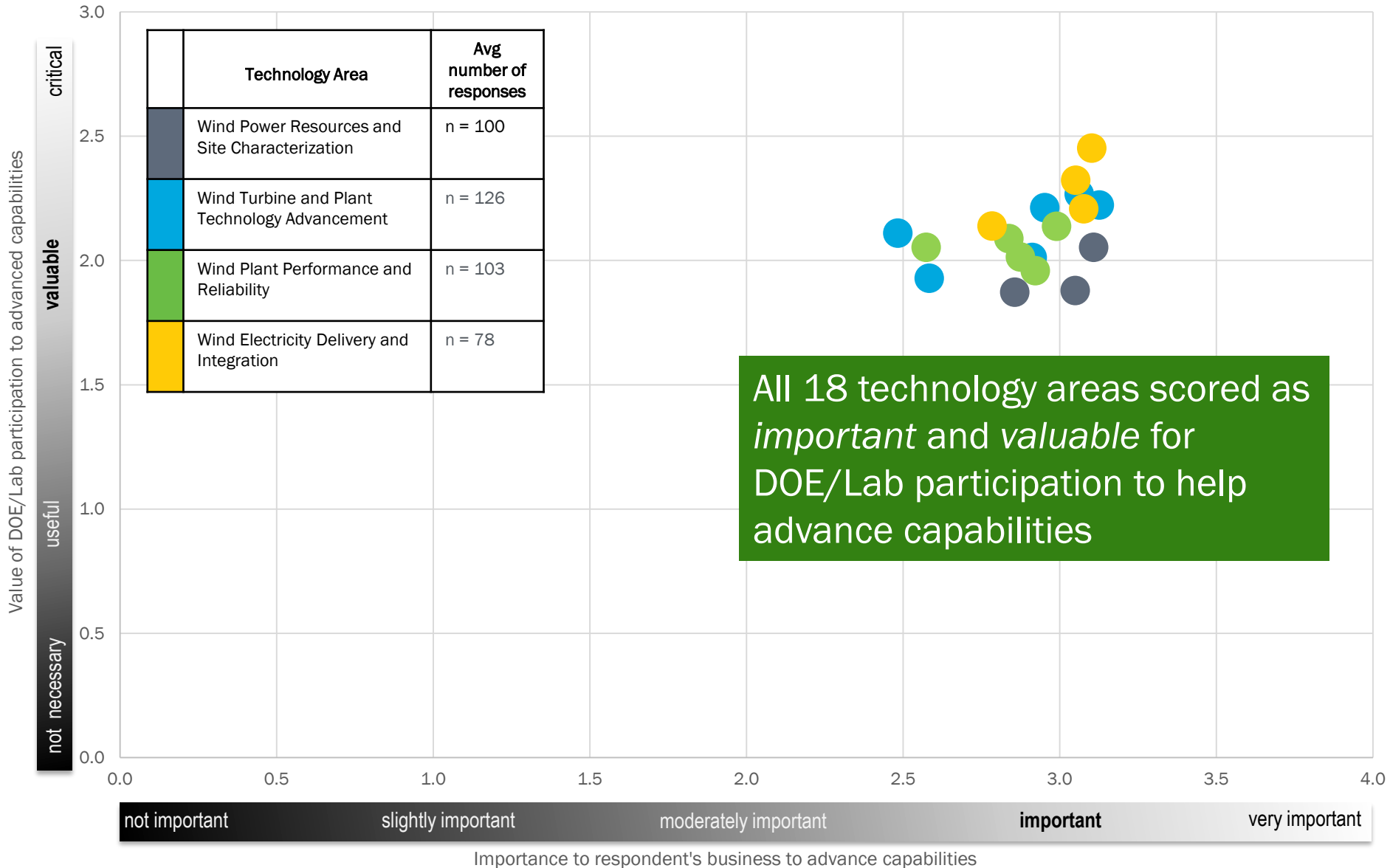
- Identify research capabilities and technologies that would be of **high value** to the wind industry and those that can be **significantly impacted** by DOE-led research and development
- Benefits of, and barriers to, private-public sector collaboration on technology development and transfer in those high-value areas.

## Methodology

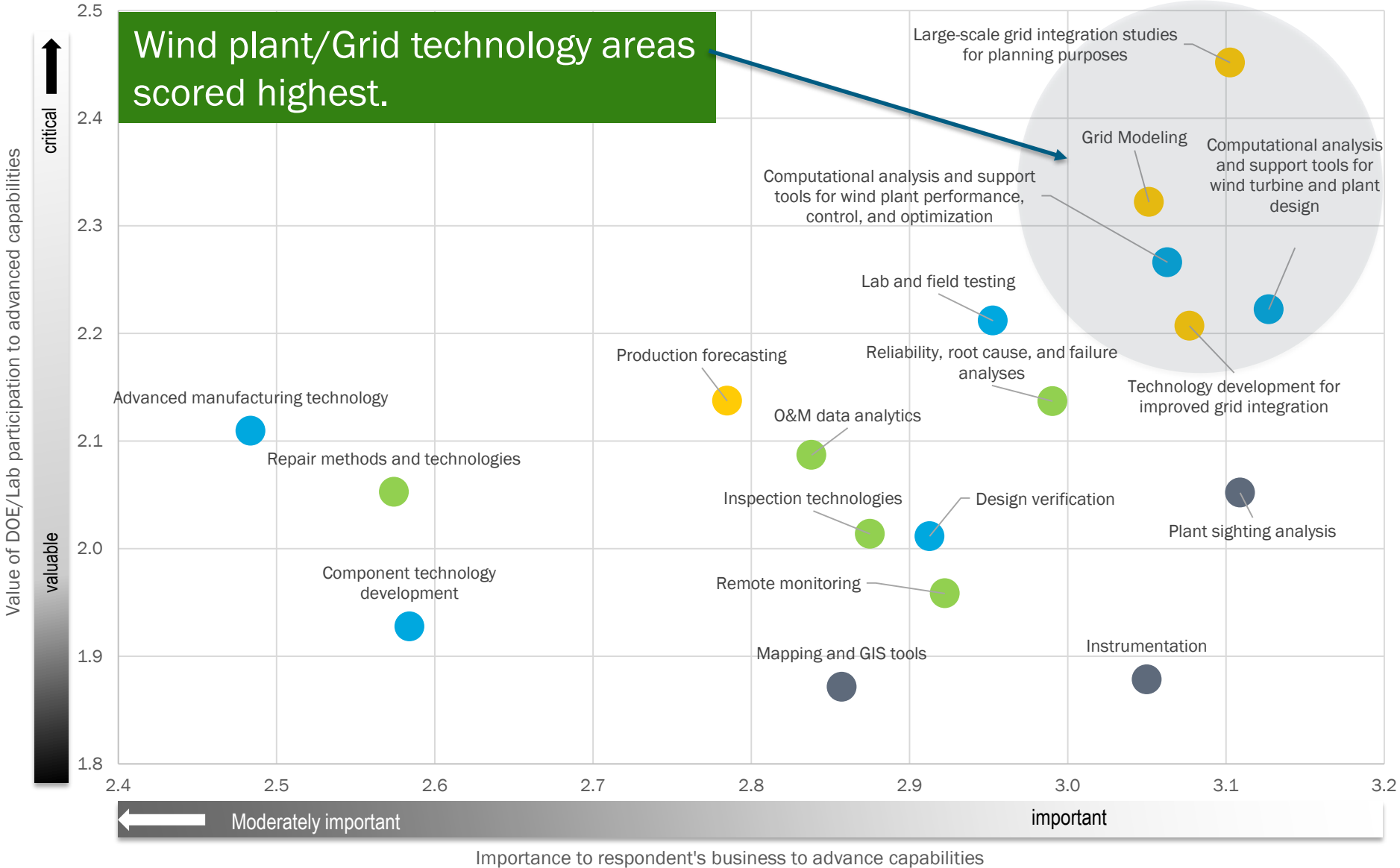
- A broad representation of the industry was invited to take the survey using an anonymized online platform to encourage honest responses
- Lessons-learned were documented to inform and improve future surveys



# Accomplishments and Progress



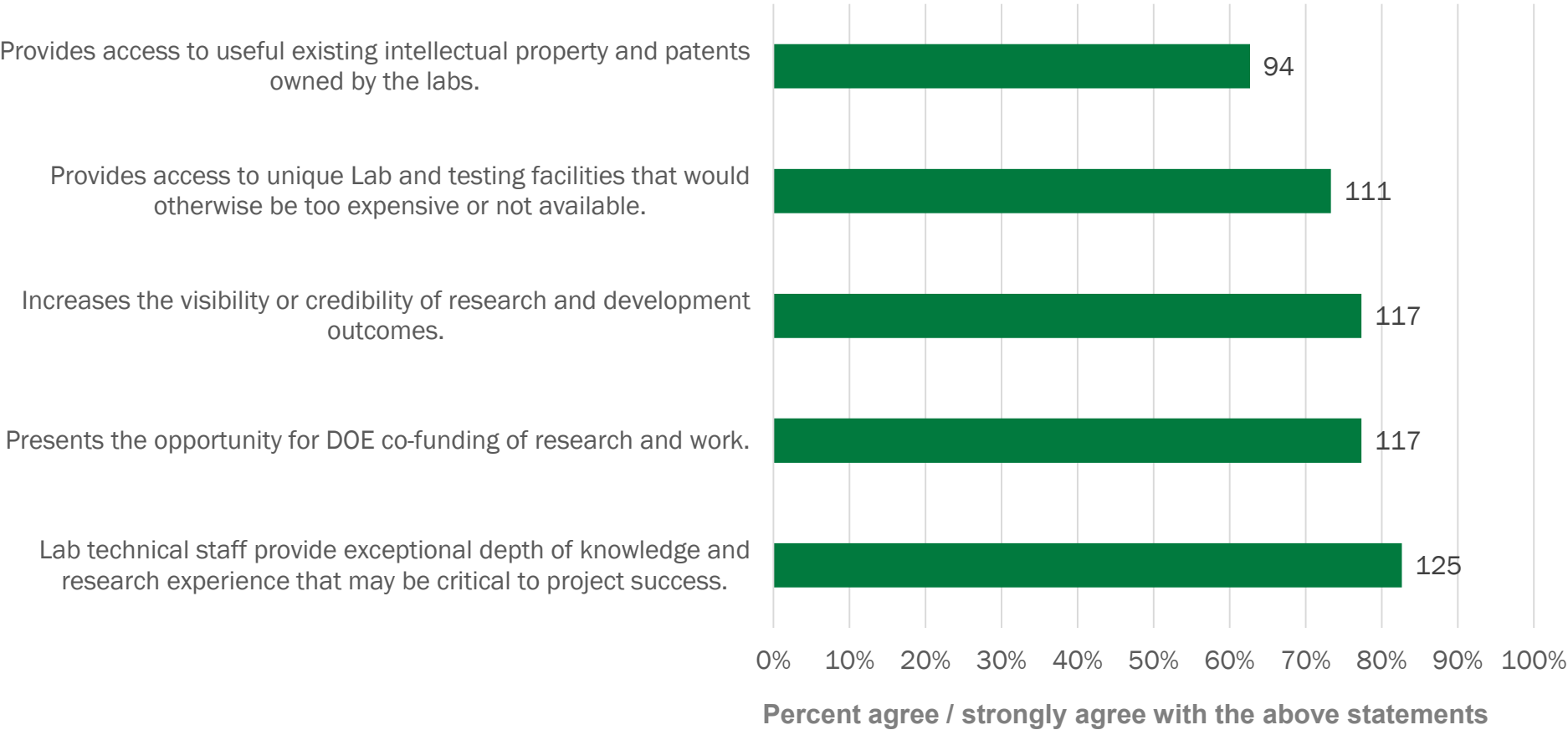
# Accomplishments and Progress



# Benefits of working with the labs

Perception of benefits to working with the labs is strong across the board

## Benefits of Working with the Labs

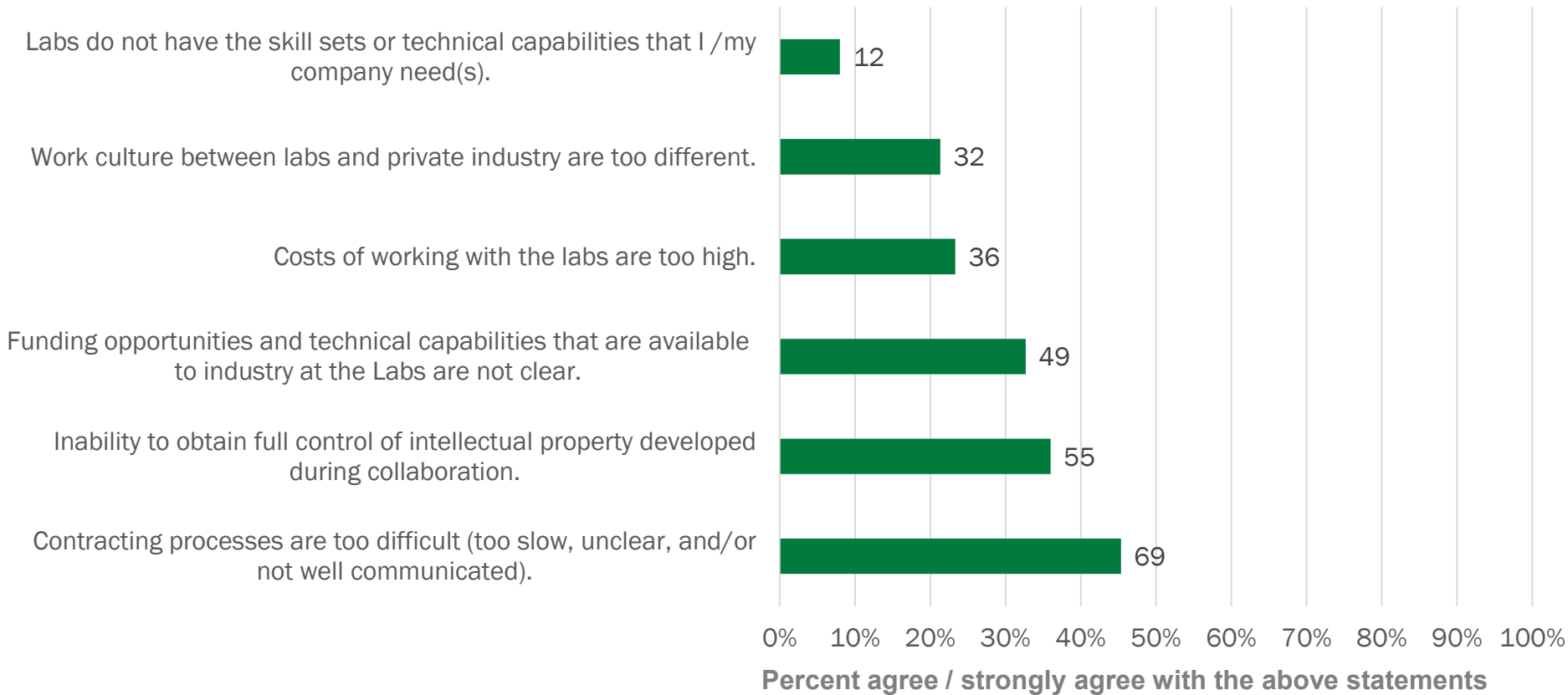




# Barriers to working with the labs

Largest impediments to collaboration include contracting processes and IP ownership

## Barriers to Working with the Labs



# Accomplishments and Progress

## Timeline

June 2015, Project start

Oct 2015, test survey executed with 10 hand-selected industry responses

Jan 2016, Final survey submitted to Office of Management and Budget (OMB) for approval

### **1-year delay at OMB**

February 2017, OMB formally approves survey for release on February 10, 2017

April 2, 2017, through May 12, 2017, survey is open and collecting responses

May 2017, through September 2017 survey data analysis and draft presentations to DOE

January 2018, Presentation of survey results at Wind Industry Partnership Summit.

June 2018, final report delivered to DOE

**The project has achieved all of its original objectives and milestones. The issues around the 1-year delay due to the OMB review and approval process was well-documented in the lessons-learned to help avoid that issue in the future.**

# Communication, Coordination, and Commercialization

Survey results presented  
at Wind Industry  
Partnership Summit  
held January 2018



Internal report and  
survey data delivered to  
DOE in June 2018