



NIST Strategic Planning VCAT Meeting

October 29, 2019

Why a NIST Strategic Plan?

Competition

New Business
Models

Aging
Infrastructure

Changing
Expectations

Outdated
Processes

Limited
Resources

NIST Strategic Planning Steps



Deliberate Community Engagement



Open House Events in Gaithersburg and Boulder

Goal Team 1 members chat with visitors at the Gaithersburg event.

Focused outreach events on specific topics



COMMUNITY CONVERSATION ON
TECH TRANSFER AT NIST

COMMUNITY CONVERSATION ON
RESEARCH DATA INFRASTRUCTURE

1. Workforce – career paths, development, bias, diversity

2. External stakeholder relations

3. Infrastructure – maintenance

4. Support for research and facilitating technology transfer

Goal 1: Position NIST to Advance U.S. Science and Innovation



Increase agility, promote collaboration, and maintain technical excellence to strategically advance emerging technologies and address national needs.

- ***Identify and address institutional bottlenecks that inhibit all aspects of NIST's technical agility and excellence.***
- ***Create an environment that allows NIST staff and associates to achieve technical excellence while minimizing impediments.***
- ***Foster a culture that promotes cross-OU collaboration, both socially and technically, including in areas of national need.***

Develop and leverage flexible approaches to attract, retain, retrain, and grow talent (both Feds and Associates) in critical areas and adapt to demographics and expectations of the changing workforce.

- ***Create, promote, and support growth opportunities***
- ***Prepare (and support/improve) individuals for leadership and management positions to create a strong workforce.***
- ***Promote an inclusive and equitable environment***

Develop creative models that strategically expand our external engagement and impact, aligned with our mission to maximize the value of our technical program.

- ***Take a more purposeful approach to identifying and nurturing external partnerships***
- ***Establish and implement rigorous, fair, and transparent mechanisms to assess the effectiveness and impact of existing partnerships***

Goal 2: Maximize NIST's Stakeholder Impact through High-Value Service Delivery



Facilitate the transfer of NIST knowledge, inventions, and technologies from the laboratory to the marketplace.

- *Cultivate a technology transfer-savvy research staff by improving communications about NIST tech transfer processes and policies*
- *Ensure businesses are aware of opportunities to transfer NIST knowledge, inventions, and technologies*
- *Pilot new efforts and policies for NIST to catalyze technology transfer improvements*

Provide high quality products and services that NIST's customers and other key stakeholders value.

- *Continually improve customer and other key stakeholder relationships by implementing proven practices from the Baldrige Excellence Framework and disseminating best practices internally.*
- *Make it easier to "Work with NIST" by providing an easy to navigate website and modern e-commerce tools.*

Strategically communicate NIST's key messages so that stakeholders can readily identify and share NIST's priorities, capabilities, and value.

- *Adopt organizational branding best practices to enhance NIST's reputation with key stakeholders as a leader in advancing innovation and economic impact.*
- *Enhance internal and external communications management and policies in ways that encourage a "One NIST" culture and support organizational branding efforts.*
- *Implement strategic communications planning led by Public Affairs, with participation by all NIST operating units, focused on priority messages, tactics, and metrics of success.*

Goal 3: Create the Infrastructure for a 21st Century Research Institution

Facilitating Next-Gen Research Data Infrastructure.

Develop and implement plans for major facility upgrades.

Upgrade NIST's IT infrastructure, develop a sustainable plan to support future growth.

Adopt and transition to modern business systems and operational practices.

- ***Coordinate research data infrastructure development***
- ***Establish research driven infrastructure***
- ***Provide a Sustainable Open Access Research framework.***

- ***Develop a sustained multi-year NIST campus and facility modernization program.***
- ***Develop and implement an efficient space usage system***
- ***Develop an analytical framework for prioritizing investment for major infrastructure projects and secure funding for facility***

- ***Re-engineer network and communications infrastructure.***
- ***Establish NIST-wide desktop support program for all major platforms.***
- ***Build in the cost of IT infrastructure modernization and***

- ***Streamline business system workflows.***
- ***Establish a program to stimulate and reward internal process innovation and improvement.***
- ***Provide default support for NIST remote access***

Goal 4: Build a One NIST Culture



Ensure NIST has accountable leaders/managers with broadly defined, recognized, and implemented competencies.

- *Enhance the capability to develop and/or hire the 'right' leaders/managers.*
- *Set expectations for leadership/management across the organization.*
- *Create comprehensive tools for training leaders/managers for success.*
- *Create a structure of accountability for leaders/managers.*

Create an engaged, empowered, and agile NIST workforce aligned with the One-NIST vision and NIST core values.

- *Increase institutional support for the standardized attraction and recruitment of new talent across all career paths and aligned with NIST core values.*
- *Clarify the role of, better integrate, and focus more on the careers of the non-federal portion of NIST's workforce.*
- *Incentivize cross-collaboration between different OUs and improve the engagement and empowerment of the NIST workforce.*

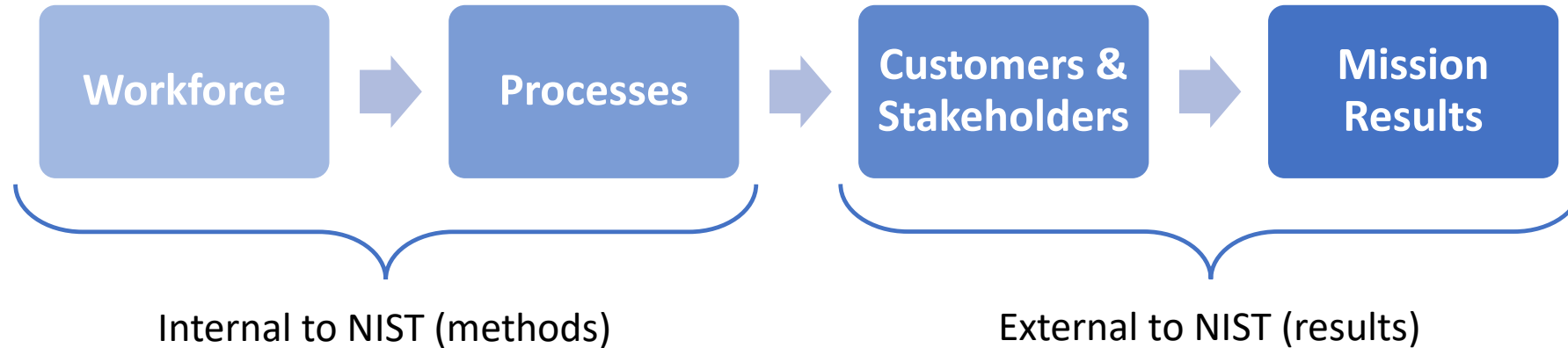
Strengthen the workplace environment at NIST making NIST a welcoming institution that empowers its employees and rewards innovation.

- *Establish a One NIST Service Initiative where all employees will have the opportunity to engage in One NIST-building activities.*
- *Communicate the broad competencies/behaviors that are in line with the culture and hold all employees accountable for meeting these standards.*

Diversity and Inclusion - To attract, develop and retain a diverse workforce that's representative of the nation we serve.

- *There is a primary point of accountability for diversity and inclusion activities at NIST.*
- *Steps are taken to create a more inclusive and welcoming community environment for all NIST employees and associates.*

Strategy Map – Interdependency between four perspectives



Features of a Strategy Map:

- Not hierarchical format, but rather a format that shows the logical order that connects four perspectives – a series of cause-and-effect relationships:
 - **Workforce** operate and drive **Processes**
 - **Processes** deliver value that impacts **Customers and Stakeholders**
 - **Customer** results contribute to **Mission Results**
- The chart also shows how the four components are balanced between **internal** components and **external** components
- Arrows link objective in one perspective with objective in the next perspectives to the right (arrows cannot go back)
- The function of the arrow is to indicate that **achieving one objective is necessary to achieving another objective**

Workforce

Ensure that NIST has accountable leaders/managers (4.1)

Attract, retain, retrain, and grow talent (1.2)

Create workforce, aligned with One-NIST vision and NIST core values (4.2)

Strengthen the culture of the workplace environment (4.3)

Make NIST diverse and inclusive (4.4)

Processes

Develop and implement plans for major facility upgrades (3.2)

Improve transparency and agility in our research, service delivery, and business operations (3.4)

Upgrade NIST's IT infrastructure (3.3)

Facilitating Next-Gen Research Data Infrastructure (3.1)

Customers & Stakeholders

Communicate key messages so that stakeholders can identify and share NIST's priorities, capabilities, and value (2.3)

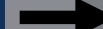
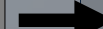
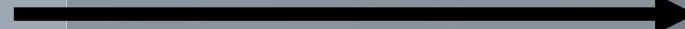
Expand external engagement and impact to maximize the value of technical program (1.3)

Mission Results

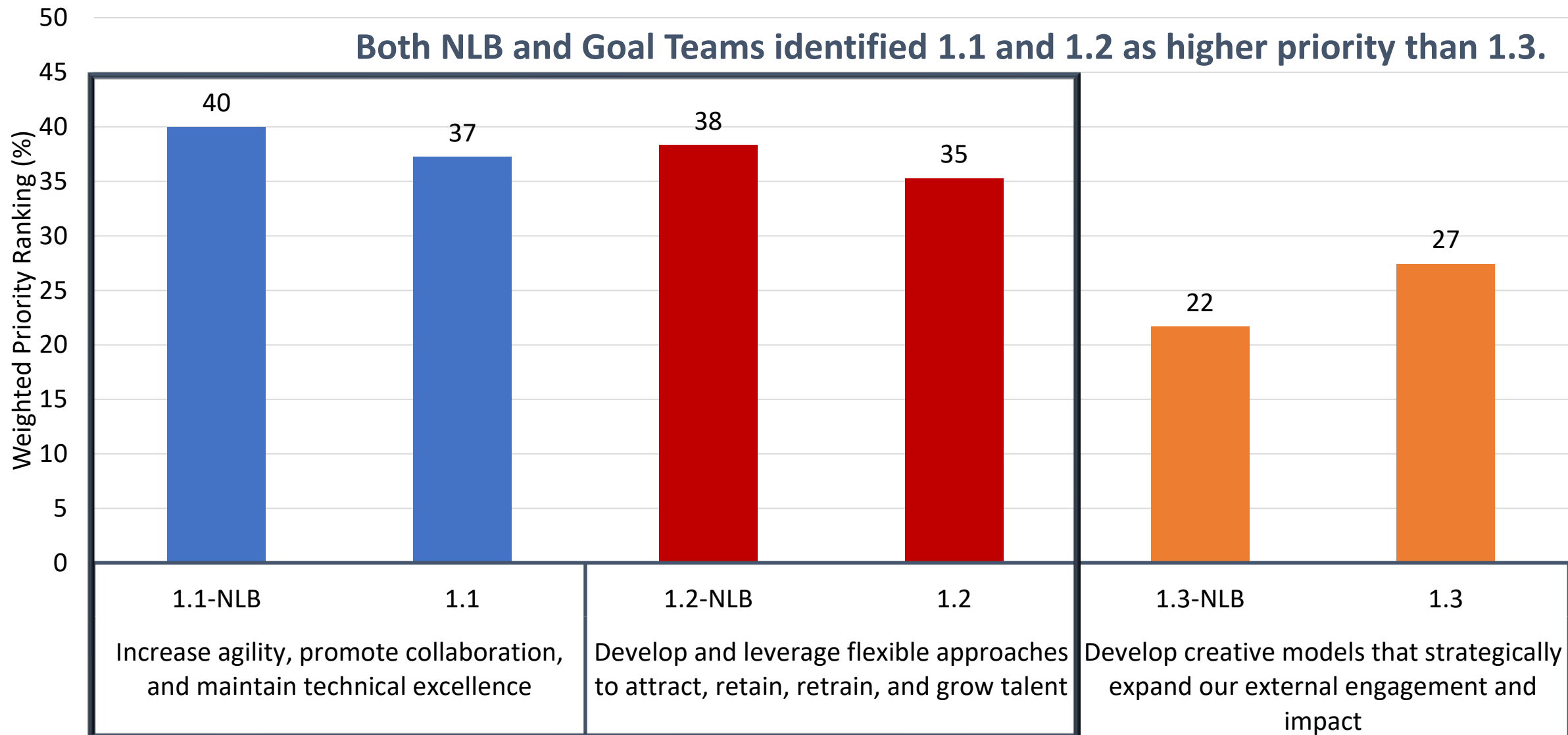
Advance emerging technologies and address national needs (1.1)

Facilitate the transfer of knowledge, inventions, and technologies from the laboratory to the marketplace (2.1)

Provide high quality products and services (2.2)



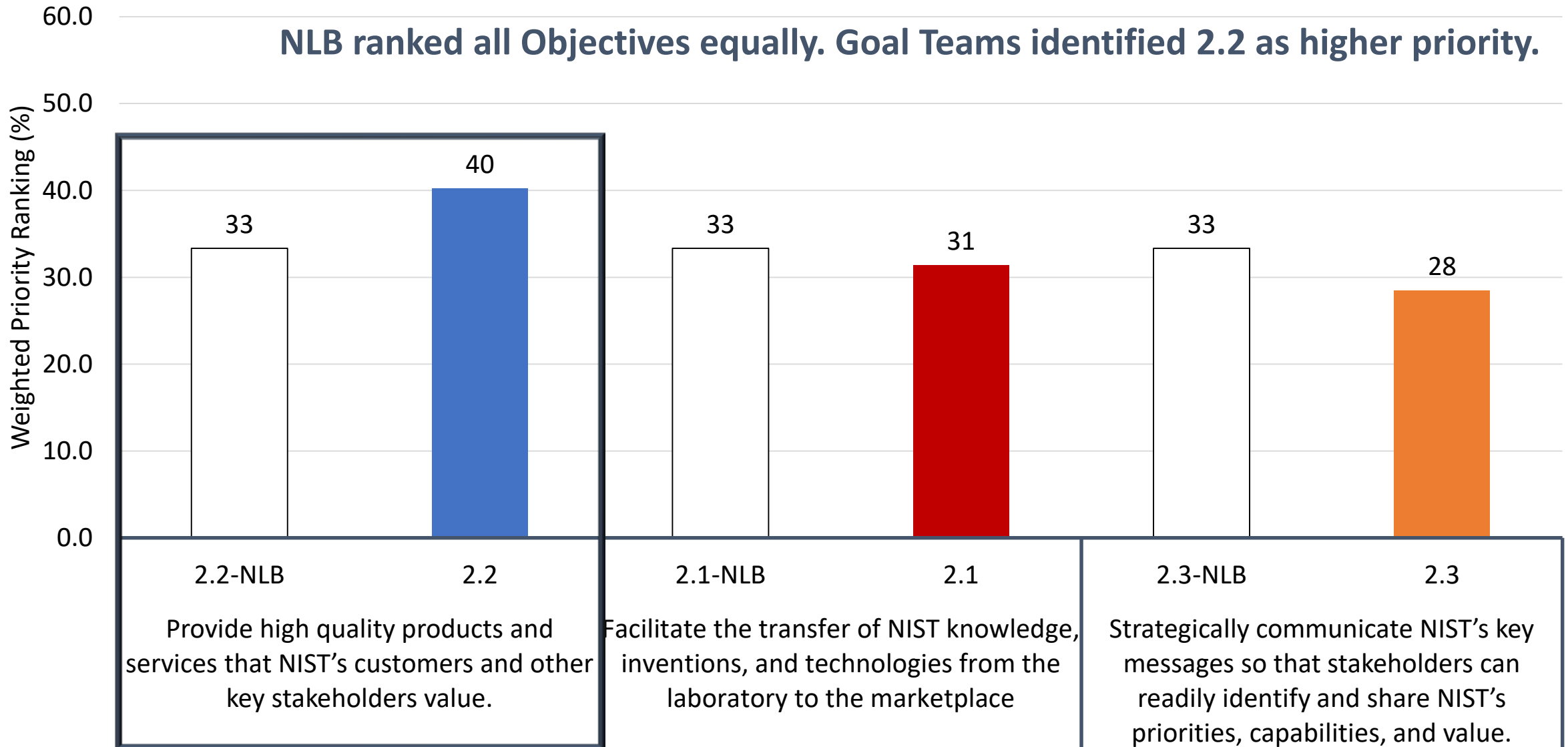
Goal 1: Position NIST to Advance U.S. Science and Innovation



Goal 2: Maximize NIST's Stakeholder Impact through High-Value Service Delivery

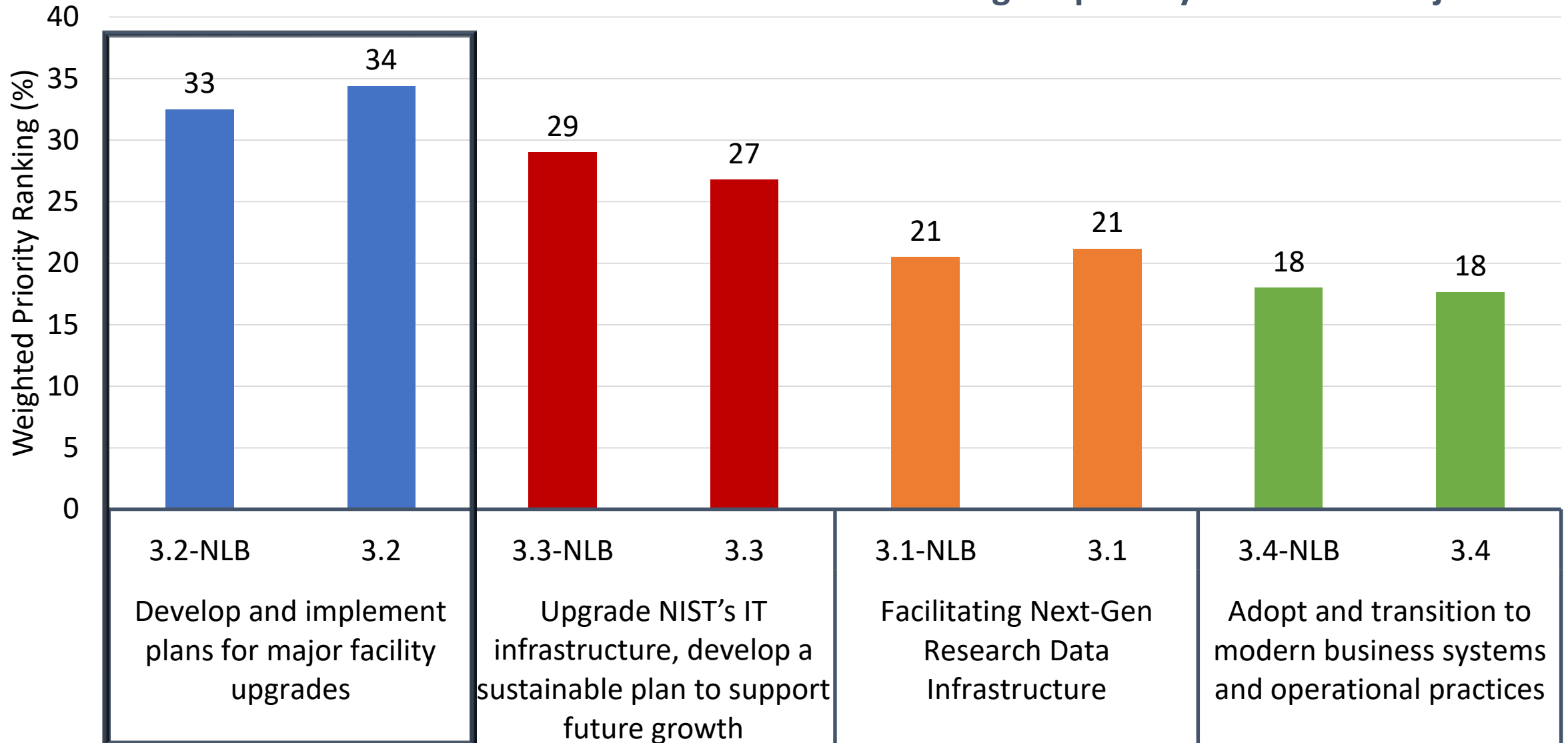


NLB ranked all Objectives equally. Goal Teams identified 2.2 as higher priority.

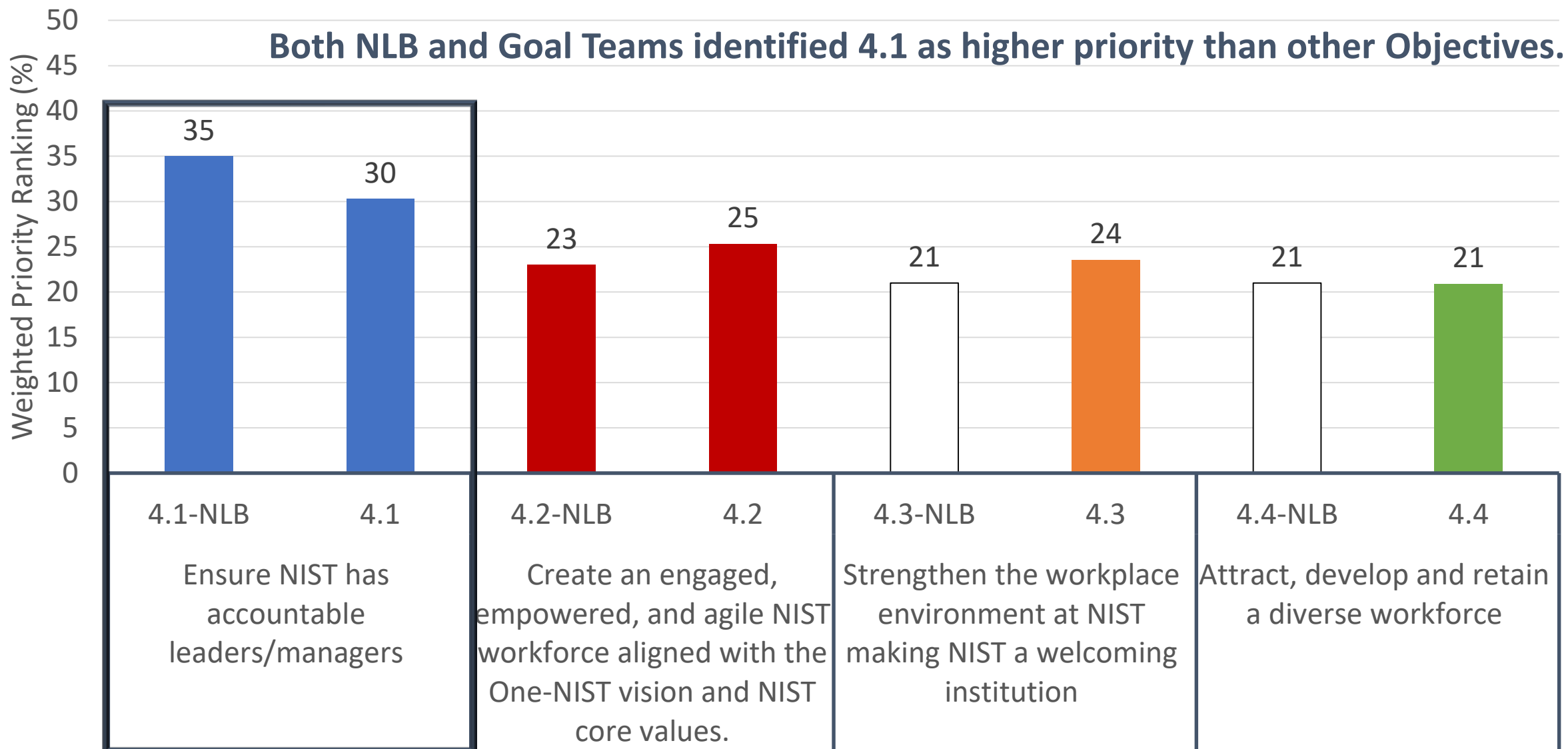


Goal 3: Create the Infrastructure for a 21st Century Research Institution

Both NLB and Goal Teams identified 3.2 as higher priority than other Objectives.





Goal 4: Build a One NIST Culture




Cost Considerations

Given that these are all worthy problems to address, but we have limited fiscal resources, if new funding is required for implementation **what Objectives would you most want to see that funding go towards?**

Results: IT infrastructure (NLB) and facility upgrades (Goal Teams) got the most votes; all agree that growing talent is the third most important Objective.




	NLB (% of votes)	Goal Teams (% of votes)
3.3. Upgrade NIST's IT infrastructure , develop a sustainable plan to support future growth	70	59
 3.2. Develop and implement plans for major facility upgrades	60	79
 1.2. Develop and leverage flexible approaches to attract, retain, retrain, and grow talent	55	44


 Designates the Objective that was ranked first priority

Culture Considerations

Given that these are all worthy problems to address, but we have limited leadership and management capital, if successful achievement of an Objective would require driving significant cultural change **what Objectives do you want to ensure management focuses their attention on?**

Results: NLB and Goal Teams agree on the importance of accountable leaders and managers.

	NLB (% of votes)	Goal Teams (% of votes)
 1.1. Increase agility , promote collaboration , and maintain technical excellence	70	*
 1.2. Develop and leverage flexible approaches to attract, retain, retrain, and grow talent	*	56
 4.1. Ensure NIST has accountable leaders/managers	65	62
4.4. Attract, develop and retain a diverse workforce	60	*

 Designates the Objective that was ranked first priority

*Received ≤40% of votes

Key Strategies for Immediate Action



Workforce

- Improve collaboration and agility across NIST programs
- Strengthen NIST's ability to attract, retain, and retrain a diverse and inclusive talent base
- Provide support for a strong and accountable leadership corps



Infrastructure

- Implement a multifaceted facility renovation and upgrade strategy

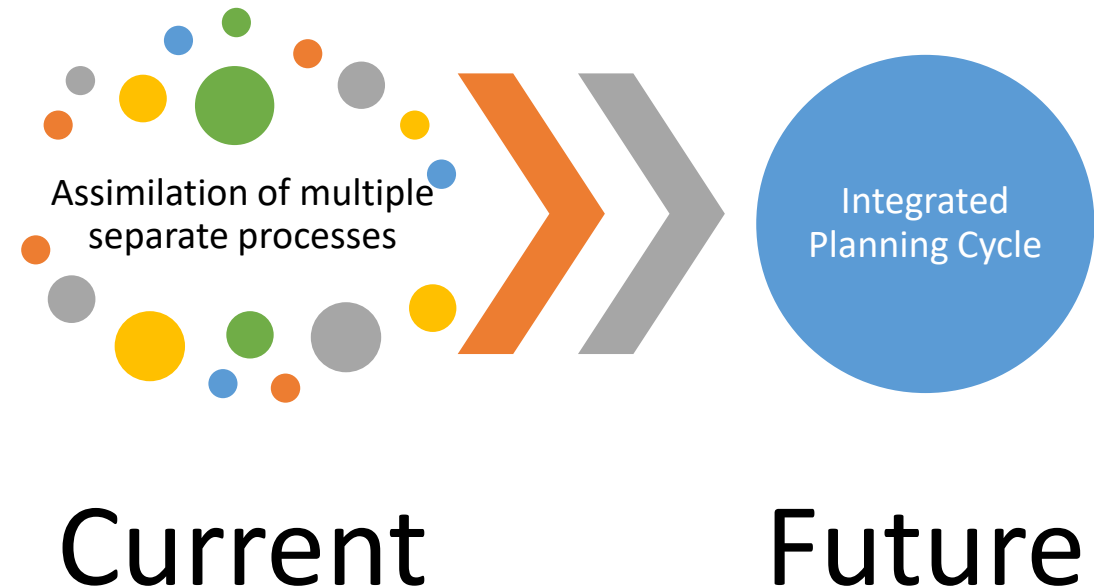


Operations and Processes

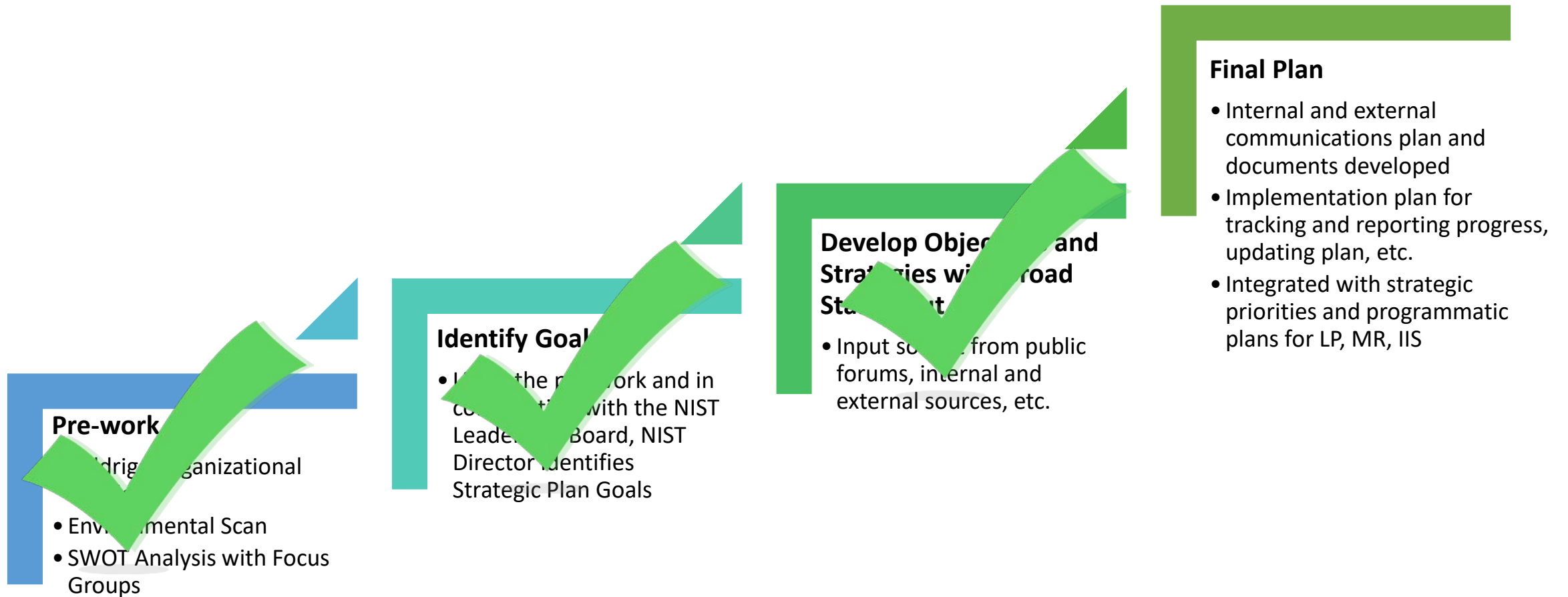
- Make it easier to work with NIST
- Strategically communicate NIST's key messages

Next Steps

- **October 2019 through November 2019**– Appointment of strategy leads and formation of implementation teams
- **November 2019** – Alignment of OUs with Strategic Plan
- **November 2019 through January 2020** –
 - Inventory of all strategies underway
 - Development of milestones and performance measures and reporting process and a strategy for monitoring and managing implementation and performance
- **January 2020** – Formal launch of plan implementation
- **February 2020** – Launch of integrated planning cycle combining Lab, IIS, and MR processes.



NIST Strategic Planning Steps



Strategic Plan Goal Teams – Thank You!



**Position NIST to Advance
U.S. Science and Innovation**

J. Olthoff, Sponsor

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Essex Brown
Jeanita Pritchett
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1

**Maximize NIST's
Stakeholder Impact through
High-Value Service Delivery**

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Heather Mayton
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2

**Create the Infrastructure for
a 21st Century Research
Institution**

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3

Build a One NIST Culture

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Chris Szakal
Jose Colucci
Kara Arnold
Kelly Welsh
Kirk Dohne
Kristen Gilbert
Mary Clague
Michael Souryal
Jason Boehm (PCO)

4

1. What methods have been useful in driving cultural change in your organizations?
2. What best practices do your organizations follow with respect to implementation of strategic planning?

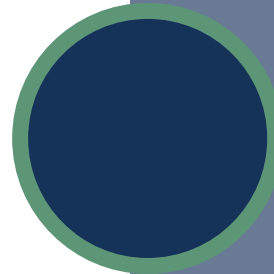


Thank You

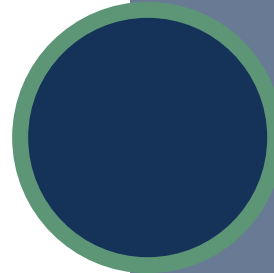
Goal

Objective

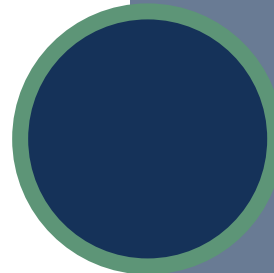
Strategy



Outcome oriented long-term goal for major function of the agency



Objectives describe the outcome or impact NIST is trying to achieve



Strategies reflect the actions, processes changes, practices, that will be implemented to achieve objective

Lab Planning

