

Stanford

NAVIGATING A DYNAMIC FUTURE

Our Shared Journey Forward

Marc Tessier-Lavigne, Academic Council

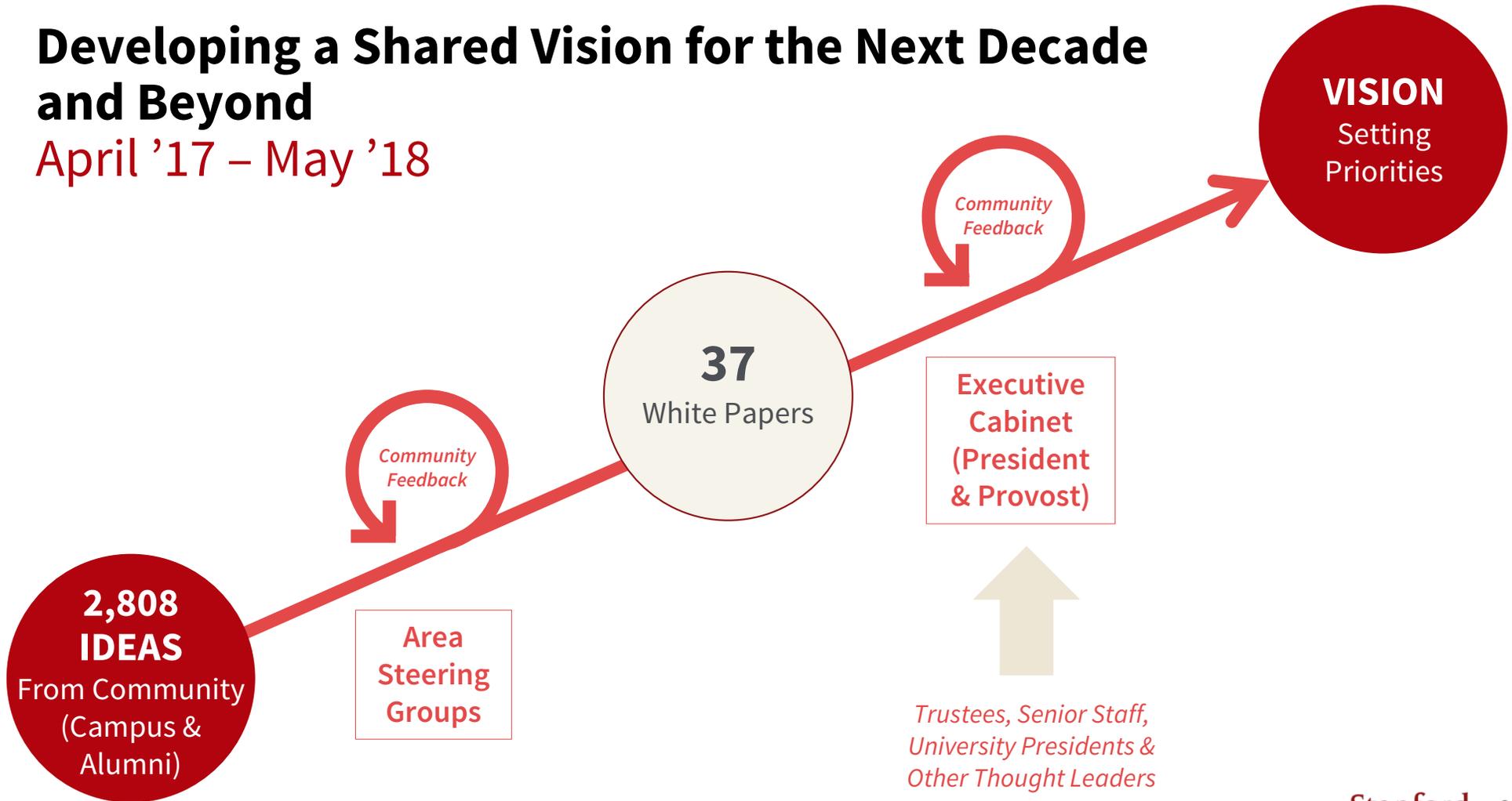
May 17, 2018

Stanford's Journey to the Present

- Transforming a Palo Alto farm to a “university of high degree” through courageous risk-taking
- Emerging as a leading global research university by building excellence across all disciplines
- Propelled by a pioneering spirit, pursuing discovery and solutions, including through innovative non-academic partnerships
- Fostering a culture of collaboration and optimism, and a sense of unlimited potential
- How can we further advance Stanford in service to the world?

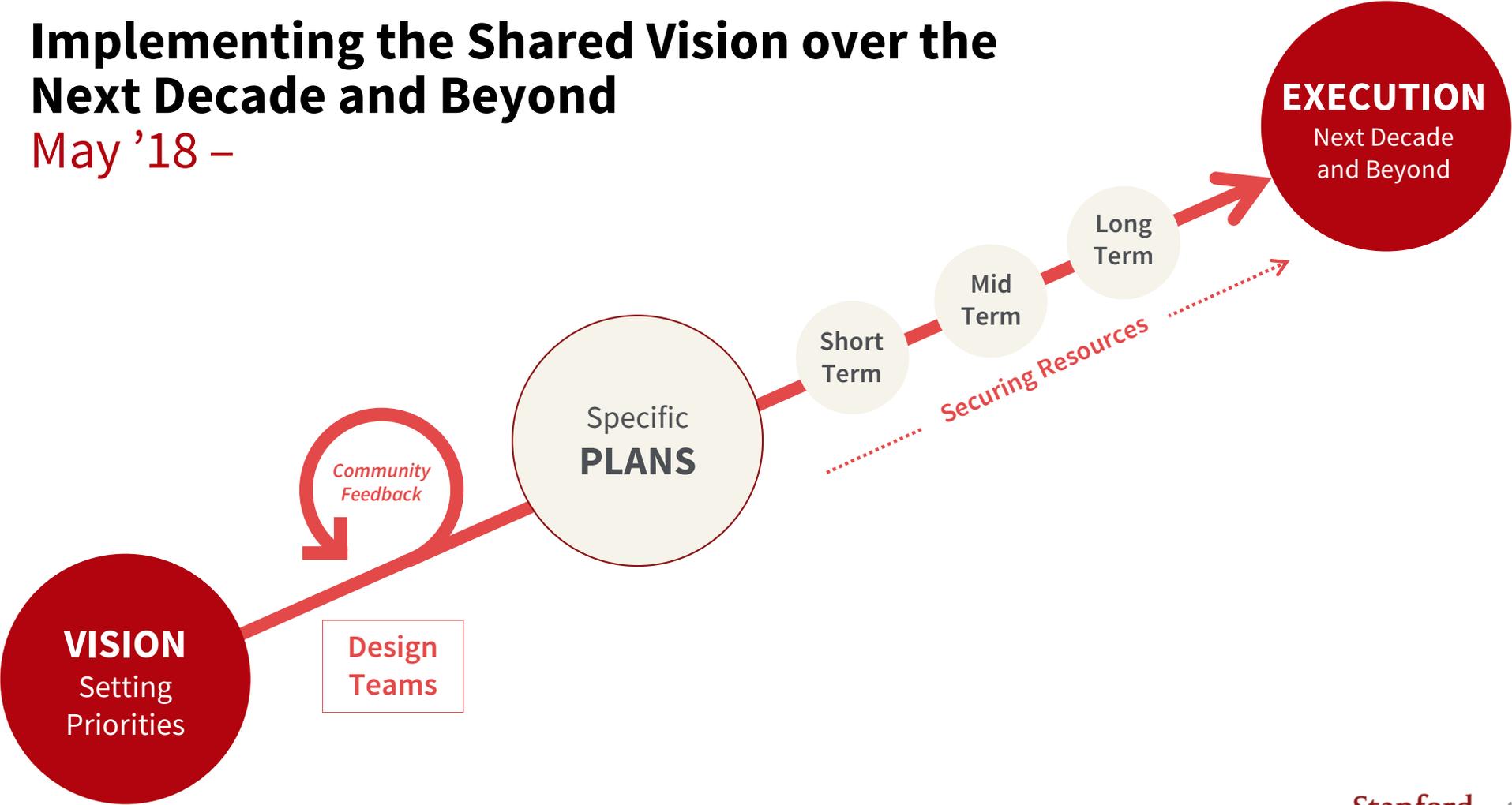
Developing a Shared Vision for the Next Decade and Beyond

April '17 – May '18



Implementing the Shared Vision over the Next Decade and Beyond

May '18 –



Our Starting Point: **The Call to Action**

Dramatic changes are upending our ways of thinking, working, learning and governing

- High-velocity scientific and technological change creating both opportunities and disruption
- Urgent societal problems on a broad scale
- Diminished trust of institutions

Stanford is strongly positioned to help society navigate this dynamic future

Through the long-range planning process, our community overwhelmingly expressed the will to seize transformative opportunities and to tackle pressing societal problems

Navigating a Dynamic Future: **Embracing New Thinking**

LRP input highlighted that complex challenges require new approaches and ways of thinking

- **Agility** to manage accelerated change
- **Humanistic perspectives** for complex societal problems
- **State-of-the-art** tools and big data for breakthroughs
- **Strategic use** of resources to offset constrained funding
- **Flexible structures** for experimentation and collaboration
- **Accelerated application** possible in multiple fields
- **Active engagement** with our community

“Let us not be afraid to outgrow old thoughts and ways and dare to think on new lines.”

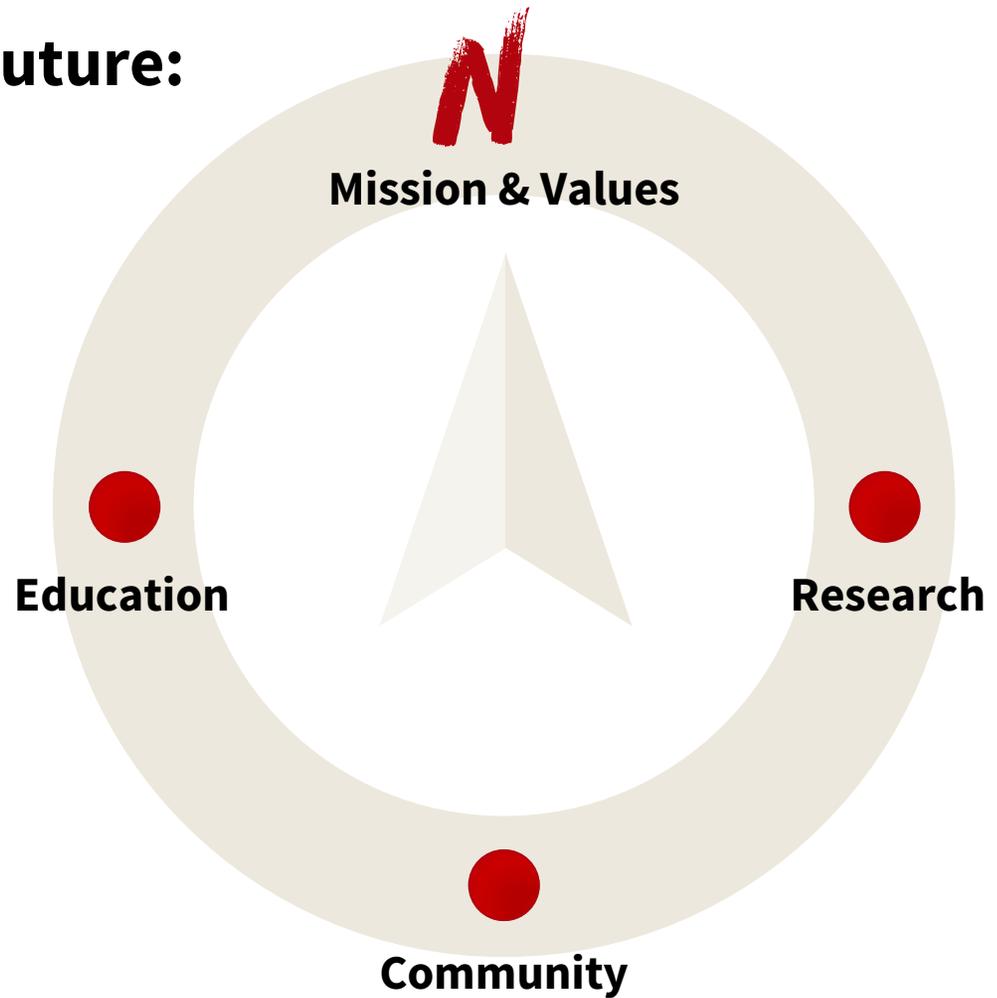
JANE STANFORD, 1903

Navigating a Dynamic Future: **Charting a Purposeful Course**

We will spark knowledge and creativity,
advance learning, and accelerate impact for
the benefit of humanity

*A purposeful university promotes
and celebrates excellence as a means to
magnify its benefit to society*

Navigating a Dynamic Future: The Cardinal Points of Our Compass





NAVIGATING A DYNAMIC FUTURE

Mission & Values

“We have a striking opportunity to define the 21st century research university, grounded in traditional values and our founding mission, extended purposefully across time and space.”

Mission & Values: **Presidential Initiatives**



Cross-cutting initiatives to put our values into action on campus and in our world

Mission & Values

The foundation for all our aspirations



Ethics, Society & Technology

- Unprecedented societal change driven by science and technology

Purposeful Engagement with Our Region, Nation & World

- Responsibility to actively contribute to the world

Inclusion, Diversity, Equity & Access in a Learning Community (IDEAL)

- We must embrace and reflect the diversity of students and scholars we hope to attract

Mission & Values: True North



Mission

- **Research:** Extend the frontiers of knowledge, stimulate creativity, and solve real-world problems
- **Education:** Prepare students to think broadly, deeply and critically, and to contribute to the world
- **Service:** Deploy Stanford's strengths to benefit our region, country and world

Values

- **Ethics:** Anchor education and research in ethics and human welfare
- **Boldness:** Advance our mission boldly but with an eagerness to collaborate and learn from others
- **Foundations:** Stay true to our values, including integrity, diversity, respect, freedom of inquiry and expression, tenacity and optimism

Mission & Values: Presidential Initiative **Ethics, Society & Technology**



Infusing ethical and societal considerations into our role in the technology revolution

- **Research:** Exploration of societal and ethical consequences of scientific and technological advances (e.g., genome editing, ubiquity of social media, autonomous vehicles) to accelerate benefits and address challenges
- **Education:** Ensure students are equipped to address societal and ethical impacts of technologies they develop, apply or use
- **Exploration:** Empower faculty and schools with resources to create novel approaches to ethical considerations

Mission & Values: Presidential Initiative

Purposeful Engagement with Our Region, Nation & World



Develop intentional strategies for service and engagement

- **Service:** Expand opportunities for public service and civic engagement for our entire community, building on Cardinal Service
- **Local:** Enhance our local community through the arts, healthcare, education and athletics; and collaborate with local partners on sustainability, affordability, housing and transportation challenges
- **National:** Engage in problem-solving on the dynamics of the divisions in our nation
- **Global:** Launch Global Advisory Council of external experts to advise on strategy in collaboration with faculty, and building on existing programs



Mission & Values: Presidential Initiative

IDEAL – Inclusion, Diversity, Equity & Access in a Learning Community

Achieve sustainable change on campus and beyond

Community

- Excel at recruiting diverse talent, including:
 - Apply best practices to diversify our entire community
 - Create an outstanding, diverse postdoc program
- Foster an inclusive environment, including:
 - Increased Community Center support
 - Programs for open exchange of diverse opinions

Access

- Continue to diversify our student population through:
 - Enhanced financial aid for a broad range of students, including from low- and middle-income families, and international students
 - Gradually increasing enrollment of undergraduates



Mission & Values: Presidential Initiative

IDEAL – Inclusion, Diversity, Equity & Access in a Learning Community

Achieve sustainable change on campus and beyond

Education

- Enhance onboarding and advising
- Ensure majors and other educational experiences are accessible to students regardless of background and incoming preparation
- Develop curricular content and pedagogy that embrace difference

Research

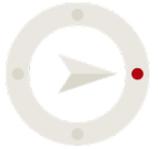
- Become a site of scholarship to foster the goals of IDEAL at Stanford and for other learning communities
- Improve data transparency to monitor and guide our progress and advance research

A photograph of two scientists in a laboratory. A woman on the left is wearing a white lab coat, safety glasses, and purple gloves, holding a pipette. A man on the right is also in a white lab coat and safety glasses, looking at the woman. In the foreground, there are several yellow and green microcentrifuge tubes in a rack, and a small glass vial. The background shows a typical lab setting with shelves and equipment.

NAVIGATING A DYNAMIC FUTURE

Research

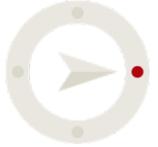
“We need to balance the desire to accelerate certain areas of research with support for all researchers.”



Research: Resources

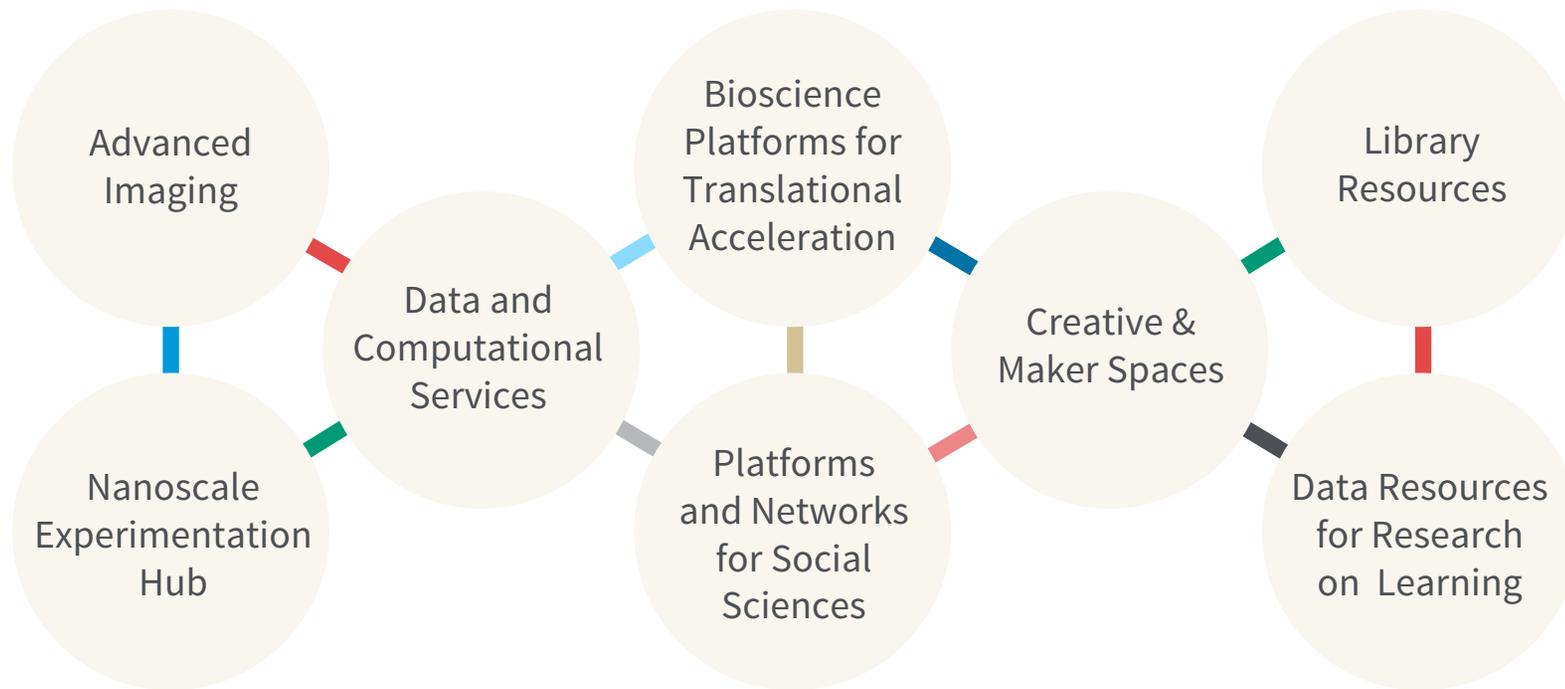
Suite of flexible resources to empower researchers in all disciplines

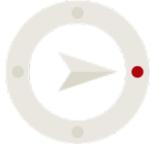
- **People:**
 - Recruitment and retention of faculty for excellence in all fields
 - Graduate fellowships focusing on areas with constrained external funding
- **Competitive Grants:**
 - Seed grants in the schools for novel and risky ideas
 - Pioneer Grants for both fundamental and applied research at scale
- **Building Knowledge Communities:**
 - Communal resources for seminars, retreats and networking
- **Platforms:**
 - State-of-the-art, shared infrastructure for cutting edge research



Research: Shared Platforms & Resources

Empowering research at the cutting-edge





Research: **Initiatives**

- For broad-based activities, selected based on opportunity and urgency
- Faculty-led groups to design frameworks and priorities

Sparking Discovery, Creativity & Knowledge

- Basic research is the key to transformative advances
- But funding for new, risky directions is constrained

Shaping the Digital Future

- Flood of data needs harnessing
- AI is upending society, research, education



Accelerating Applications

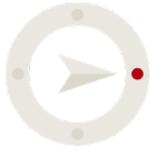
- Application of knowledge is often inefficient
- But can be accelerated via infrastructure

Solutions for Our Region and the World

- Regional focus can augment impact
- Transportable solutions help our nation and world

Research: Initiatives

Sparking Discovery, Creativity & Knowledge



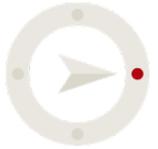
The Changing Human Experience

To deepen understanding of humanity past, present and future through thought, cultures, the arts, institutions and behaviors

The Natural World

To deepen understanding of the physical world and of life through imaging, probing, modeling, theory and design

Research: Initiatives **Accelerating Applications**



Social Problem-Solving Accelerator

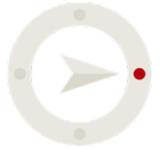
To push the frontiers of social science and to craft solutions and policies for challenging societal issues such as economic opportunity, polarization and ineffective institutions

Innovative Medicines Accelerator

To accelerate translation of breakthroughs in understanding disease mechanisms into innovative therapies and cures

Research: Initiatives

Solutions for Our Region and World



Sustainability in the Bay Area and the World

To develop transportable solutions with regional partners

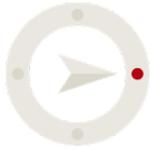
- Includes **Stanford as a Lab**, with goal for campus to be 80% carbon-free by 2025, zero waste by 2030

Precision Health in the Bay Area and the World

To develop transportable solutions with regional partners for preventive and population health

Research: Initiatives

Shaping the Digital Future



Data@Stanford

To harness the explosion of new data to advance all fields of research

Human-Centered Artificial Intelligence

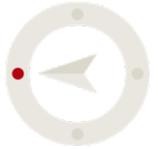
To advance development of AI and to tackle its ethical and societal impacts



“Reimagine Stanford as a university whose focus on learning compels us to invent, assess, and share what we learned.”

NAVIGATING A DYNAMIC FUTURE

Education

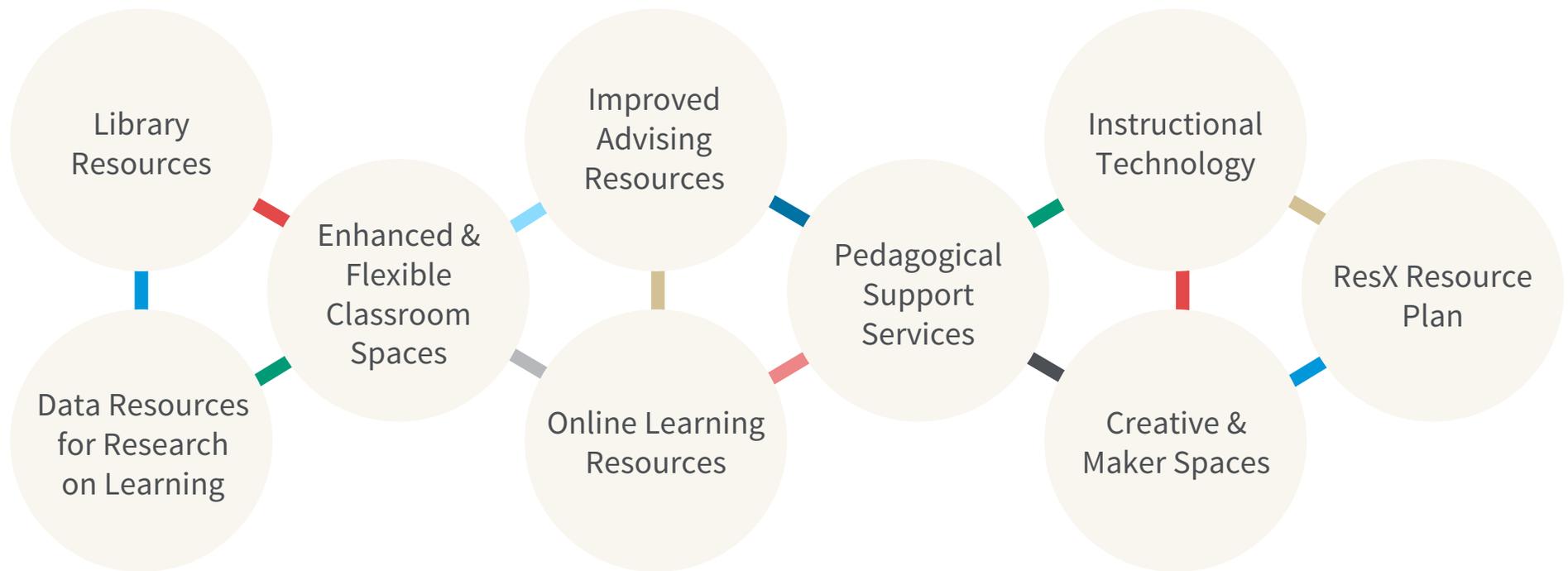
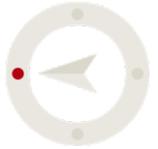


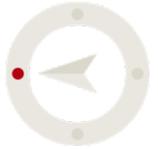
Education: Resources

Suite of flexible resources to empower educators

- **People:**
 - Recruitment and retention of educators for excellence in all fields
 - Education fellowships for pedagogical improvement
- **Competitive Grants:**
 - Seed grants in the schools for for course development and experimentation
 - Pioneer Grants for bold innovations in curricular design and teaching
- **Building Knowledge Communities:**
 - Communal resources for seminars, retreats and networking
- **Platforms:**
 - State-of-the-art, shared infrastructure and services

Education: Communal Platforms & Resources





Education: Initiatives

- To advance the understanding and practices of learning to benefit all
- Academic leadership to design frameworks and priorities

Undergraduate Academics

- Embrace focus on student learning
- 21st century demands a broad education



Learning for the Future

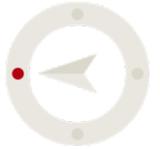
- Research and innovation needed to improve educational outcomes

Learning & Support Outside the Classroom

- Students need better guidance to succeed
- Co-curricular experiences enrich learning

Extending Our Impact

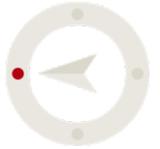
- Opportunity to help many learners beyond Stanford



Education: Initiatives

Undergraduate Academics

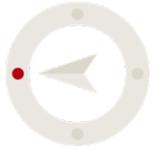
- **First Year:** Encourage exploration and a shared intellectual experience
- **Majors:** Design majors for the 21st century to enable a broad and deep academic experience that crosses disciplines and cultures
- **Education for Life:** Build creative confidence and personal capabilities to navigate a dynamic future
- **Innovation:** Equip faculty with resources to create new pedagogical approaches and flexible on-ramps to disciplines
- **Space:** Design open and welcoming facilities tailored to learning in the 21st century



Education: Initiatives

Learning & Support Outside the Classroom

- **Advising:** Improve advising for graduate and undergraduate students
- **Residential Life:**
 - Develop comprehensive plan, including considering residential neighborhoods
 - Bridge academic and residential life to foster thriving learning communities within residences
- **Learning Opportunities:** Forge directional pathways for learning outside the classroom and off campus
- **Health & Well-Being:** Strengthen resources for mental and physical well-being and safety



Education: Initiatives

Learning for the Future

- **Science of Learning:** Support research on learning to improve educational opportunity and outcomes for all learners, at Stanford and beyond
 - **Pedagogy and Innovation:**
 - Foster creation of tools and experimentation to deepen learning
 - Equip faculty with resources and data to evaluate new methods of teaching
-

Extending Our Impact

- **Collaborate:** Produce and exchange scholarship and innovations in learning with other educators nationally and globally
- **Increase Reach:**
 - Partner with other educational institutions to extend access to learning
 - Explore additional opportunities for online and extended learning

A large group of people, mostly young adults, are sitting on a grassy lawn. In the background, there are trees and a building with a prominent dome. The scene is outdoors and appears to be a campus event.

NAVIGATING A DYNAMIC FUTURE

Community

“Creating an inclusive environment is both an individual and a shared responsibility.”



Community: Initiatives

- To foster a stimulating, inclusive and supportive environment for all
- University leadership and community to set frameworks and priorities

Affordability

“The Bay Area affordability crisis has enveloped Stanford and poses a clear and present danger to the future of our institution.”

Community Engagement

“... the networks, connections, collaborations ... that are unique to Stanford.”



Personal Development

“Stanford could show the way ... of what it means to be a university dedicated to all of its constituents.”

Stewardship

“Good decisions ... require both an understanding of the community, as well as a willingness to be held accountable.”



Community: Initiatives

Affordability

Pursuing decisive steps to enable our community to thrive

Near Term

Graduate Students:

- Increased need-based financial assistance for grad parents
- Expansion of on campus graduate housing

Postdocs:

- Increased minimum salary to \$60K for FY19, with need-based mitigation funds for PIs
- Enhanced need-based Financial Hardship Fund to help with childcare and housing costs

Faculty:

- Enhanced loan program for faculty housing

Staff & Academic Staff:

- Expanded FY19 salary program
- Satellite work centers
- Work from home policy
- Transportation improvements to ease commute

Longer Term

New Affordability Task Force with recommendations by Q2 2019

- Affordability Task Force of stakeholders for analyses of challenges and priorities for: staff, faculty, academic staff, grad students and postdocs



Community: Initiatives **Personal Development**

- **Community learning** programs for personal development
 - **Professional development** opportunities for staff and faculty
 - **Enhanced wellness** support for our community
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Community Engagement

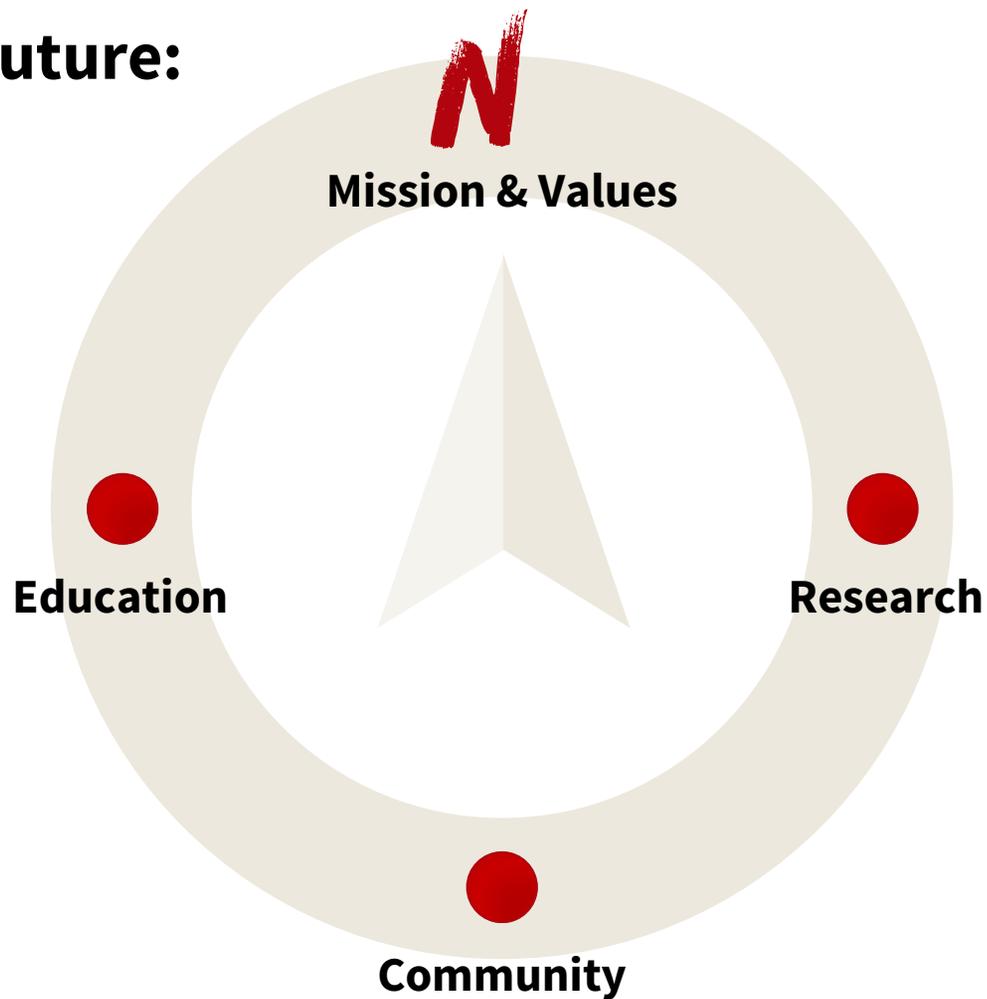
- **Master space plan** to foster community
 - including reimagining White Plaza as a vibrant gathering place
- **Programming**
 - to encourage connections among faculty, academic staff, students, postdocs, staff, alumni and trustees
 - to unite our campuses and satellite work centers



Community: Initiatives **Stewardship**

- **Stanford as a Lab:** To enhance operational excellence and accountability
- **Decentralization:** Address “Decentralization: Too Much of a Good Thing?”
- **Governance:** Stakeholder engagement in policy development
- **Communication:** Enhance communication and ongoing engagement across our community

Navigating a Dynamic Future: The Cardinal Points of Our Compass



Navigating a Dynamic Future: **Next Steps**

Continue discussions with our community in sessions across campus and at Porter

Near Term

University leadership will continue to take near-term actions to support the community

Design Phase

To build on the concepts submitted by the community

- June – Aug '18: **Lay the groundwork**
- Sept '18 – June '19: **Design Team process**
 - Specific operational goals
 - Timing of implementation, metrics for success
 - Progress tracked on Vision Website

Acceptance and Execution

- After acceptance by Executive Cabinet, university leadership to develop plans to secure resources
- Long-term execution, through 2030 and beyond

NAVIGATING A DYNAMIC FUTURE

“When Stanford sets ambitious, bold goals and marshals the institutional will to achieve them, dramatic things can happen.”

A Vision for Stanford

NAVIGATING A DYNAMIC FUTURE

Stanford

Values

We will ground ourselves in our fundamental values.

Presidential Initiatives:

- Ethics, Society & Technology
- Purposeful Engagement with Our Region, Nation & World
- Inclusion, Diversity, Equity & Access in a Learning Community (IDEAL)

Education

We will equip students for a world of change, and magnify our educational contribution.

Initiatives:

- Undergraduate Academics
- Learning & Support Outside the Classroom
- Learning for the Future
- Extending Our Impact

Research

We will create more nimble structures and resources for fundamental and applied research.

Initiatives:

- Sparking Discovery, Creativity & Knowledge
The Changing Human Experience; The Natural World
- Accelerating Applications
Social Problem-Solving; Innovative Medicines
- Solutions for Our Region and the World
Sustainability; Precision Health
- Shaping the Digital Future
Data@Stanford; Human-Centered AI

Community

We will provide the necessary foundation for our journey.

Initiatives (in addition to IDEAL):

- Affordability
- Personal Development
- Community Engagement
- Stewardship

