

NC STATE

College of Sciences

STRATEGIC PLAN

2021-2026



**Let's open the
doors to science
and build equity**



College of Sciences Strategic Plan 2021-2026

The College of Sciences launched less than 10 years ago to unite the scientific disciplines at NC State, but the pursuit of science at this university has a long history that goes back over 130 years.

Throughout our history of scientific learning, research and discovery, there has always been an organic commitment here — rooted in our land grant mission — to connect the communities we serve in the state of North Carolina and beyond.

At this point in our trajectory as a college, we are ready to launch a new strategy that will help us take that commitment to sharing science with our communities to the next level. We are ready to more intentionally open the doors to science and to invite our communities into our work — and also, to bring our work into our communities — in exciting new ways. This drive for a new level of openness in science is what is going to set us apart both in our state, nationally and internationally.

That's why our new vision for the impact our college will have on science and our society is one where **we are urgently expanding equity, public participation and discovery in science, so that anyone can contribute solutions for a sustainable, data-driven and just future.**

This strategy will guide our college as we endeavor to become a **local and global hub for open and participatory science** in order to grow scientific understanding, to accelerate rigorous research, and to share and facilitate much-needed discoveries to support our state, our country and stakeholders around the world. For many reasons, now is the time to focus our efforts on increasing meaningful public engagement and equity in science.

OUR STRATEGY

Our strategy was co-created during a time of immense uncertainty and significant social challenges due to the COVID-19 pandemic and social uprisings across the U.S. and around the world. This context shed new light on our work and provided deepened perspectives on the significance of science in our society today and also on what it will take for our college to grow in relevance as we step into the future. Our new strategy is built out of those rich insights and a diversity of voices from across the employee, graduate student and alumni populations.

IMPACT AREAS

When we asked our people about the big world problems that matter most to them and to their work, we heard a few key ideas.

We heard about:

- The **environmental crises** and climate change, including challenges with our oceans, air and our energy future
- The **challenges to human health** which have been underscored significantly by the global pandemic which raged during our planning period — as well as major issues related to infectious disease, antimicrobial resistance, unsafe products, sanitation and more
- The **complexity of harnessing data and information** and the question of how to better use data to solve critical societal and planetary challenges as well as to expand our understanding of the universe
- And finally, **the urgent imperative to accelerate equitable access to science** (learning, research and discovery) during a time in which continued inequalities in our society have been brought — resoundingly — to the forefront





These **impact areas** reflect the grand challenges that were top of mind for our people when we developed this strategy. The themes cut across disciplines, roles and personal identities, and will underpin and guide much of our research, teaching and community connections throughout this strategic term, and far beyond.

Beyond those impact areas, our students, staff and faculty members shared with us a most pressing concern that today, we are living in a time in which science has never been so essential to our present and future, and yet, also so poorly understood throughout our society and beyond academic walls.

What it will take to make our work in science more relevant in the years to come will not only come from our attention to these impact areas and grand challenges, but also from the ways in which we pursue science and endeavor to help solve those grand challenges via new methods in scientific research, education and discovery. We see a significant opportunity to drive deeper scientific awareness and understanding vis-à-vis broader public participation in science in the communities we serve.

Through this strategic plan we are working to set ourselves apart from other colleges of sciences locally, nationally and globally by bringing our collective attention to this question:

How can we build bridges that lead to participation, collaboration, and much needed discoveries to the advancement of science and our world?

This renewed and deepened focus on public (open) engagement is entirely aligned with our status as a Land Grant University¹ which gives our college a unique position in the State of North Carolina to provide lasting benefits to the people of our state, and the United States. That mission demands that we embrace openness in the pursuit and discovery of science.

As a result, in this strategic plan and through our work, we are endeavoring to become a **local and global hub for open science**. This strategy has been developed to inspire us to work toward a shared direction grounded in the pursuit of gains in equity and public participation in science and cross-functional and interdisciplinary thinking — so that one day soon **anyone can contribute to solutions to our world's greatest challenges for a sustainable, data-driven and just future**.

1. Broader discourse around equity, justice, and decolonization are increasingly highlighting the problematic histories and language around Land Grant Universities, and this consideration has been brought to our attention by members of the Strategic Planning Project Team. As of this draft, NC State University and the College of Sciences has not yet created language that addresses this important conversation. If / when such language has been co-created, we encourage the College to amend this document to reflect that evolution. One helpful perspective on this topic can be read here: www.nature.com/articles/s41559-021-01460-w.

VISION

We are urgently expanding equity, public participation and discovery in science, so that anyone can contribute solutions to our world's greatest challenges for a sustainable, data-driven and just future.

MISSION

To provide an inclusive, world-class science education to our students, to catalyze scientific research and innovation that improve our world and our collective understanding, and to invite the people of North Carolina, the United States and the world into our work as we become a local and global hub for open science.

CALL TO ACTION

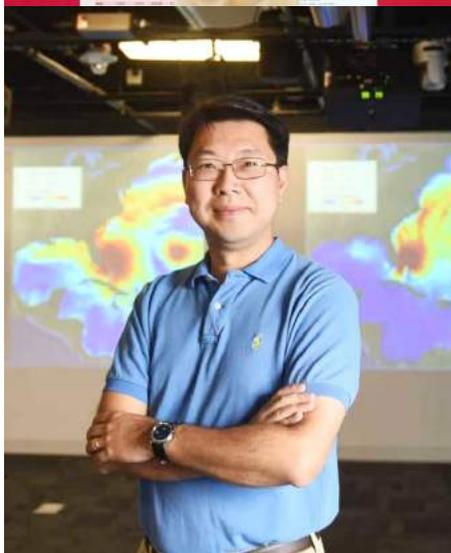
Build bridges that lead to participation, collaboration and much needed discoveries in science.

VALUES

Integrity + Curiosity + Collaboration + Innovation + Justice

STRATEGIC PRIORITIES

1. Deepen Scientific Foundations
2. Elevate Support Infrastructure
3. Advance Equity
4. Open Up Science



STRATEGIC PRIORITIES²

1. Deepen Scientific Foundations

Let's work together to develop robust and relevant foundational skills and research to advance scientific knowledge toward a better future for all.

2. Elevate Support Infrastructure

Let's invest in people and infrastructure that will empower excellence, inclusion and openness in research, teaching and community partnerships.

3. Advance Equity

Let's nurture a diverse, equitable and inclusive culture that values the experiences and perspectives of faculty members, staff and students, and breaks down barriers to equity and equality of opportunity.

4. Open Up Science

Let's empower the college to become a local and global hub for public participation in science to connect our entire community to scientific discovery and innovation in meaningful ways.

² These Strategic Priorities are high-level strategic directions, not operational tactics or project-level work.

ABOUT THIS STRATEGIC PLAN

This strategic plan was developed throughout late 2020 and early 2021, against the backdrop of the global COVID-19 pandemic, widespread protests centered around social injustice, and the 2020 Presidential election.

All of our staff, faculty members and graduate students from across the College of Sciences at North Carolina State University were invited to take part in designing the plan as part of a participatory and equitable strategy design process called a Wave. This new approach for our college empowered us to co-design our vision, values and strategic priorities, brought new voices and a diversity of perspectives to our strategy table, and helped us shape a plan that will have relevance and resonance for years to come.

As was the case for just about every organization and institution managing through 2020 and 2021, these were years of pivots, obstacles and significant hardships for all of us at the college of Sciences. Despite these realities, well over 200 college community members — including a diversity of graduate students, staff, faculty, volunteers and alumni — made time to contribute their voices and best ideas to the design of this strategic plan, and also contributed ideas that are now contained in our aligned culture charter.

This plan comes out of the ideas of the 200+ participants and brings together the different perspectives of people in a variety of roles and positions in the college to knit us together toward a common vision.

ABOUT THE COLLEGE OF SCIENCES

Our college is home to the biological, physical, chemical, mathematical, statistical and earth-system sciences and to a diversity of staff, students and faculty members who empower the success of our programs.

When our college was formed in 2013, we came together around two inaugural strategies. The first was focused on building bridges between the science disciplines toward solving big world challenges. The second strategy was focused on researchers pursuing discovery and important questions. Those overarching themes of collaborative problem-solving and discovery remain relevant across our college today and are ingrained in our approach to work.

Today, the college is one of the largest and most research-intensive units at NC State, with more than 4,100 students, 530 active research projects and about \$40 million in annual research expenditures.



**Integrity
+ Curiosity
+ Collaboration
+ Innovation
+ Justice**

NC STATE College of Sciences

NC State University
Campus Box 8201
Raleigh, NC 27695-8201

sciences.ncsu.edu



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