



# Strategic Intent and 2020 Vision

v.16: November 2016

## 150 Years of Learning, Discovery, and Engagement

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As the founding college of Oregon's land-grant university, the College of Agricultural Sciences at Oregon State University has a long-standing commitment to understand social, economic, and environmental issues important to Oregon; to research effective ways to address those issues; and to engage the public with practical solutions, locally and globally.<sup>1</sup>

This commitment is even more important as we face the *global* challenge to provide food, safe environments, and livelihoods for 9 billion people and the *local* challenge to sustain quality of life in Oregon through the 21st century.

The College of Agricultural Sciences has faculty stationed in Corvallis and across the state, where we are fully engaged in our communities. We bring the power of science to address local problems and emerging issues important to Oregon and the world, through teaching, research, and Extension. *The state is our campus, and the world is our commitment.*

## Where We are Now

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### Our Mission

The College of Agricultural Sciences is a world-class leader in agricultural, environmental, and life sciences. We foster leadership and science-based expertise in our students; and we create knowledge to solve problems, manage natural resources, create jobs, and support the economy.

**Academics within the College of Agricultural Sciences** prepare the next generation of scientists, managers, and leaders in the fields of food, agriculture, natural resources, and life sciences. With 14 academic programs, learning is integrated with research and Extension to provide students with inquiry-based, hands-on experiences in laboratories and field locations across Oregon and the world.

**The Oregon Agricultural Experiment Station (AES)** is Oregon's principal research engine related to agriculture and natural resources. Centered in the College of Agricultural Sciences, AES engages more than 400 scientists in five OSU colleges, on campus and at branch stations across the state. The strengths of all these disciplines are put to work to solve complex problems of productivity, profitability, environmental quality, and human health.

**The Agricultural Sciences and Natural Resources Extension Program** connects Oregonians to research-based knowledge in a wide variety of topics. Extension programs support production of Oregon's major crops, management of working landscapes, and integrated pest management strategies. In addition, well-known Extension programs, such as Master Gardeners and the Small Farms programs, enrich communities across Oregon.

**Equity, inclusion, and civil discourse** are highly valued within the college. It's worth remembering that the legislation that established the nation's land-grant university system was intended to educate all the people, not only the privileged class. That original intention has grown within the College of Agricultural Sciences, where today, diversity and excellence go hand-in-hand.

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<sup>1</sup> The idea of research and education in the service of society began with the Morrill Act of 1862 that created the nation's land-grant university system during the height of the American Civil War. In 1887, the need for site-specific research led to the Hatch Act that created a national network of Agricultural Experiment Stations. In 1914, the need for educational outreach to communities led to the Smith-Lever Act that established an Extension Service in every state.

## Our Values

*We are responsive* to the needs of those we serve;

*We are a reliable source* of credible, evidence-based information and education;

*We partner* with individuals, organizations, businesses, and stakeholders beyond OSU;

*We collaborate* with colleagues to tackle complex problems with integrated ideas;

*We include diverse perspectives* in our research, outreach and educational efforts;

*We foster mutual respect* among ourselves and the broader community;

*We are accountable* for stewardship of resources and for fulfillment of our missions.

## Our Areas of Excellence

We serve Oregon, a state with remarkable diversity in agriculture, natural resources, ecosystems, and communities. In a 2014 international survey, OSU's programs in agriculture and forestry were *ranked seventh in the world*. Clearly, the college is well positioned to address local and global challenges through the following areas of excellence:

**Sustainable food and agricultural systems:** Global population growth and economic development increase the urgency for sustainable approaches to grow food. While Oregon is a global leader in food production, *the college leads research and education in sustainable, profitable agricultural systems*. This work is helping to increase a safe and reliable food supply in developing countries and to add value to Oregon's agricultural and seafood products to keep Oregon industries competitive.

**Water quality, quantity, and marine resources:** As the global population continues to grow, competition increases for fresh water and marine resources. *The college leads research and education in freshwater, coastal, and marine resources*. This work is helping to increase efficiency in the use of water in agricultural systems and to conserve the world's fresh water and marine resources.

**Environmental and human well-being:** Oregon's high quality of life requires confidence that the food supply is safe and that air and water are clean. *The college leads development of technologies to protect human and environmental health*. This work is helping to identify alternatives that will reduce risk and improve lives of individuals and communities, from Oregon to Africa.

**Integrated systems biology:** Understanding the basic building blocks of life is essential to sustaining agriculture, natural resources, and human health. *The college leads development of revolutionary discoveries in the basic function and structure of life*. This work creates new knowledge that builds from fundamental genomics to integrated cells, organisms, and ultimately, ecosystems.

**Natural resource stewardship:** Oregon has exceptional natural resources that support both our economy and our quality of life. *The college leads the nation in programs in fisheries, wildlife, and range management*, and is internationally known for work in the sustainability of managed landscapes, natural resources, and the world's oceans.

## Where We are Heading

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To advance Oregon State University’s Strategic Plan 3.0, we will pursue innovative initiatives within our areas of excellence and make intentional, targeted investments to achieve leveraged impacts.

### Our Intentions

**We will integrate food systems research across the full spectrum of food issues**—breeding new crops, developing food safety practices, creating new products—to build Oregon’s reputation as a global food leader and to address the needs of a growing, hungry world.

**We will address critical environmental issues facing Oregon and the world**, such as climate change, land use, and invasive species, to ensure sustainable use of land, water, and resources for future generations.

**We will work with Oregon industries to provide research, education, and outreach** for the development of new precision technologies, new products that add value to resources, and new businesses that keep jobs in the state.

**We will discover new approaches to improve environmental and human health**, to reduce risks, and to reveal the complex mechanisms that drive plant and animal health.

**We will help build a world-class marine studies program** on the foundation of our recognized excellence in marine resource management, ecology and genetics, and seafood-related research and outreach.

**We will inspire a new generation of leaders to solve society’s most pressing challenges** through mastery of STEM fields (science, technology, engineering, and mathematics) and evidence-based, experiential learning throughout Oregon and the world.

**We will continue our commitment to the people of Oregon**, to address their site-specific needs through our statewide network of facilities, faculty, and long-term collaborative relationships.

### Call to Action

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This document is *not* a detailed “strategic plan” with metrics and evaluation plans. It is a “strategic intent” meant to guide investments of time and resources toward the year 2020. It is meant to chart a course for the college that is roughly right and directionally correct, to address challenges, and to intentionally move this great college toward greater excellence.

The following pages include a list of actions and operations that will guide our decisions in the coming years. As we move forward, we encourage your continued participation. *We ask that you use this document to develop your annual plans of work and move the college forward in a positive, intentional direction.*

It will take energy, passion, and resources to align what we *say* with what we *do*. The CAS leadership will do whatever possible to support the collaboration and creative thinking that will achieve our shared intent for the college.

## APPENDIX A: ADVANTAGES and CHALLENGES

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### Existing ADVANTAGES

- Integral part of a world-class, land-grant university
- National reputation for the highest quality science
- Engaged, talented new faculty and future hires
- Increased investment in STEM education
- Improving state economy
- Established culture of openness and inclusion

### Existing CHALLENGES

- Aging facilities and information technology infrastructure
- Uncertainty with higher education funding
- Reduced federal funding
- Increased burden in administering compliance, permitting, and grant funds
- Hiring and retention of high quality faculty
- Limited public understanding of the scope of agricultural sciences

## APPENDIX B: OPERATIONS and ACTIONS

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In 2013, the dean of the College of Agricultural Sciences invited a series of conversations about the college's strategic intent and direction, in the context of the university's Strategic Plan 3.0. These conversations focused on the mission of teaching, research, and engagement; our commitment to equity and inclusion; and the forces that enable our success. The following summary reflects those conversations.

### Part One: fulfill the land-grant mission

Learning, discovery, and engagement, within the context of equity and inclusion, describes the land-grant mission of the university and the college. The following examines each part of that mission in detail.

#### 1.1 Fulfill the mission of education

##### **1.1.1 Equip students with the relevant knowledge and skills to enable success** **WHERE WE ARE NOW**

The college offers a wide range of programs that use science to solve real-world problems, with a team of advisors and faculty who engage students individually. CAS educational programs contribute directly to Oregon's educated workforce, growing the economy, improving the environment, and building community capacity.

##### **WHERE WE ARE HEADING**

Our programs will engage students, on and off campus, to:

- ▶ attain transferable and lifelong learning skills,
- ▶ discover social, economic, and ecological impacts of their studies, and
- ▶ develop a habit of inquiry-based problem solving.

Our recruitment materials for students (and for teachers, parents, advisors, etc) will feature opportunities for internships, research, international experiences, and service learning to elicit excitement for an educational experience that leads to a broad range of rewarding career choices.

We will help develop a pipeline of pre-college and transfer students who are well-prepared for a rigorous, experiential education in basic and applied sciences.

## HOW WE WILL GET THERE

- ▶ Expand experiential learning opportunities through scholarships, internships, travel and research grants, and flexible curricula.
- ▶ Develop student research and learning opportunities at our statewide network of Experiment Stations and with our statewide faculty to create an outstanding learning experience.
- ▶ Create a student corps for addressing community and industry needs and to provide students with a relevant, innovative learning experiences.
- ▶ Provide support for existing programs that seek to enhance student diversity.

### ***1.1.2 Establish STEM fields as the educational emphasis of the college***

#### WHERE WE ARE NOW?

The college offers education in the STEM fields (science, technology, engineering, and mathematics) as they apply to critical global needs: food, water, health, and the environment. CAS education intentionally integrates student learning with research and Extension across the state and with related agencies, industry and organizations.

#### WHERE WE ARE HEADING?

Student research experiences with CAS scientists in STEM fields attract talented undergraduate students, many from underrepresented backgrounds, interested in STEM-based, globally relevant education. Internships provide career-relevant experiences and bring purpose to a student's education.

Current national attention to STEM education offers opportunities for funding from federal, state, and private resources and partnerships as we promote the STEM aspect of CAS programs.

#### HOW WE WILL GET THERE?

- ▶ Partner with existing programs that prepare K-12 students and support under-represented students to pursue STEM education within CAS.
- ▶ Facilitate development of new STEM-based programs (such as a computational biology / bioinformatics summer program).
- ▶ Facilitate educational grant opportunities and incentives for faculty.
- ▶ Build the branch stations into a statewide network of STEM learning centers, with opportunities for internships, experiential learning, and student research.

### ***1.1.3 Graduate education is where research and education connect***

#### WHERE WE ARE NOW

Our graduate programs offer excellent opportunities for in-depth training in a variety of disciplines leading to several graduate degrees. We currently offer (1) research-intensive, doctoral programs with dissertation, (2) research-intensive master's programs with thesis, and (3) a few non-thesis master's programs.

Quality Ph.D. programs are the cornerstones for success in graduate education, although most require multi-year funding. Research-intensive, thesis-based master's degrees are expensive to deliver and often require substantial extramural resources. Non-thesis master's degrees are less expensive to deliver and have the potential to generate resources while filling an educational need.

#### WHERE WE ARE HEADING

Given the centrality of graduate education to our missions, CAS will explore policies, procedures, and incentives that encourage faculty to train more graduate students.

#### HOW WE WILL GET THERE

- ▶ Expand graduate research assistantships and fellowships
- ▶ Expand extramural research grant and training grant support.
- ▶ Support continuation of the Provost's Distinguished Fellowships for Ph.D. students and

implementation of new similar programs.

- ▶ Pursue partnerships especially within the College of Forestry, and the College of Earth, Oceanic, and Atmospheric Sciences, and with other universities in the region.
- ▶ Explore the development of new non-thesis masters programs and their value to students, stakeholders, and the college
- ▶ Actively work with the OSU administration and government entities to devote greater resources to graduate education and to develop a funding model that realistically supports graduate (and undergraduate) instructional activities.

## **1.2. Fulfill the land-grant mission of research**

### **WHERE WE ARE NOW**

Science is what the College of Agricultural Sciences does, and does well. Research within CAS is linked to many other facets of strategic importance that collectively build upon a very diverse and very successful research effort.

### **WHERE WE ARE HEADING**

Future CAS research increasingly will include a component of public outreach and engaged learning. CAS research helps solve problems in Oregon, with solutions that can have impact nationally and internationally. Faculty diversity coupled with the breadth of scientific disciplines under the CAS umbrella will create research opportunities that address climate change, food safety, environmental and human health, and energy.

Research requires both internal and external collaboration. Collaborative networks will attract potential faculty and students, improve diversity and equity, and engage our stakeholders in a community that is supportive of the research enterprise.

### **HOW WE WILL GET THERE**

- ▶ Communicate the importance of CAS research findings to stakeholders and the public, emphasizing the economic activity that ultimately follows investments in research.
- ▶ Facilitate collaborations, particularly for younger faculty members, so faculty and resources within CAS and the university can add value to research efforts.
- ▶ Intentionally focus resources to improve infrastructure and equipment that keeps us competitive (for research funds, new faculty, graduate and undergraduate students) and helps us produce graduates who will succeed in a highly competitive job market.
- ▶ Encourage research clusters that highlight our unique strengths within the national and international research enterprise.
- ▶ Expand CAS research grant portfolio, especially with National Institutes of Health, the largest source of federal research funds.
- ▶ Improve faculty productivity by providing greater support for administrative, fiscal, and grants management.

## **1.3. Fulfill the mission of outreach and engagement**

### **WHERE WE ARE NOW**

The College of Agricultural Sciences is a leader in outreach and engagement at OSU. CAS faculty working in regions across the state have a fundamental understanding of the problems, interests, and opportunities faced by communities and partners. This two-way relationship helps CAS faculty develop appropriate solutions to real world challenges.

CAS programs are drivers for an educated workforce, growing the economy, improving the environment, and building community capacity. Such engagement is built upon a long-standing relationship with the communities in which we serve.

### **WHERE WE ARE HEADING**

Because our hallmark as a university is science-based information, our outreach and engagement must remain science-based. Technology is creating new ways to engage with communities; and changes in funding streams demand new ways to organize, deliver, and finance outreach and engagement activities.

#### HOW WE WILL GET THERE

- ▶ Foster collaborations across the college and with industry, agencies, and non-government organizations to address regional issues and opportunities.
- ▶ Enhance our communication technology at off-campus locations to expand their service to the surrounding community and provide professional development to help faculty and staff deploy more technology-based outreach.
- ▶ Enhance collaborations with Open Campus, community colleges, and other education partners.
- ▶ Encourage student service learning with a business consulting model that offers applied research in communities of place and communities of interest.
- ▶ Engage STEM faculty and 4-H faculty to support natural resource programs for middle school and high school students.

### 1.4. Fulfill the mission of equity and inclusion

#### WHERE WE ARE NOW

The college has an especially broad definition of equity and we work intentionally on relationships and collaborations. We are committed to bringing people together to discuss issues that are important, and we continually seek input for a variety of sources.

#### WHERE WE ARE HEADING

CAS actively supports programs that help resolve unintended inequities. We draw on our land-grant heritage as the university established for the public good as we seek to provide access to all the university's benefits by our increasingly diverse stakeholders.

#### HOW WE WILL GET THERE

- ▶ Nurture our established culture of equity, inclusion, and civil discourse.
- ▶ Intentionally welcome diversity and equity in hiring and retaining faculty, and help build those values into the P&T process.
- ▶ Integrate Difference, Power and Discrimination course offerings into multiple courses. Create an optional certificate in cultural fluency, a desirable job qualification.
- ▶ Foster coordination and connections among successful existing programs, such as Minorities in Agriculture and Natural Resources-Related Sciences (MANRRS), Society for Advancement of Chicanos and Native Americans in Science (SACNAS), Louis Stokes Alliance for Minority Participation (LSAMP), Leadership Academy, Ambassadors for Agriculture and Natural Resources, Agricultural Executive Council, and clubs.
- ▶ Leverage existing resources by partnering with 4-H, OSU Extension, Center for Latino/Latina Studies and Engagement (CL@SE), and K-12 teachers.

## Part Two: Strengthen the forces that enable the college to succeed

### 2.1. Ensure faculty success in research, teaching, and outreach

#### WHERE WE ARE NOW

There are many dimensions to the success of CAS faculty. Among the most readily measured are success in research (grants, publications, awards, impact), teaching (student and peer feedback, awards), and outreach (stakeholder feedback, impact). Faculty success includes promotion and tenure for early career faculty, as well as continued success and retention of mid- and senior level faculty. The success of our faculty is reflected in the college's #7 world ranking (QS 2014).

#### WHERE WE ARE HEADING

We are continuing to develop the collegial environment that faculty need, supported by their supervisors and departmental colleagues, where their opinions matter, and where they feel like they and their families are cared about. Mentors are important in helping faculty develop their potential, as are performance reviews that provide consistent and constructive feedback.

Support is needed for fiscal management, compliance, and other duties that detract from teaching, research, writing, and mentoring. The overall campus research infrastructure, including IT, is not competitive, and negatively impacts new faculty recruitment, research productivity, and retention.

#### **HOW WE WILL GET THERE**

- ▶ Create opportunities for college-wide networking to help faculty on and off campus build collaborations in a more inclusive environment.
- ▶ Make more investment in faculty development. Clarify expectations of university-level service, especially for remote faculty. Ensure all units maintain accurate Position Descriptions and mentoring/evaluation processes.
- ▶ Address numerous requests for help from faculty for budgeting, regulatory compliance, assessment documentation, etc. Provide help in achieving work-life balance.
- ▶ Support a greater OSU investment in research and graduate education.

### **2.2 Address critical infrastructure problems**

#### **WHERE WE ARE NOW**

Much of the infrastructure on which research and learning depends is aging, showing the effects of long deferred maintenance. Cordley, Withycombe, Wiegand, and Gilmore are striking examples of on-campus buildings in need of major renovations. Branch experiment stations and other off-campus facilities face similar needs, and although they are usually narrower in scope, there are many more of them.

The current need for scientific instrumentation as well as farm equipment is less dire. Basic arrangements for acquisition and maintenance of major instruments and other equipment serve our purposes reasonably well. “Program renewal” works to update laboratory space and offices within CAS.

#### **WHERE WE ARE HEADING**

While renovation of laboratories and offices is within the capacity of the college, renewal of entire buildings is not. Most buildings on the OSU campus serve more than the College of Agricultural Sciences, and with “building renewal” costs in the \$10M+ range, university-level funding is essential for such projects.

#### **HOW WE WILL GET THERE**

- ▶ Help to facilitate a university-level capital plan that includes: (1) an adequate maintenance budget, (2) a schedule and budget for building renewal, (3) a schedule and budget for program renewal, and (4) plans for new building construction.
- ▶ Consider investment of a greater proportion of the annual AES budget (currently about 4%) to infrastructure improvement. Recognize, however, that this could mean fewer faculty lines or increased retention of indirect cost returns and intellectual property revenue.
- ▶ Consider more cost-recovery from private sector funding and pursue philanthropic support of new buildings and renovations.
- ▶ Address housing on branch stations or in communities so that graduate students, interns, faculty, or visiting experts have an accessible, reasonably priced place to stay.
- ▶ Develop risk management and safety plans for on- and off-campus facilities.

### **2.3 Create a business plan that will help broaden the college’s resource base**

#### **WHERE WE ARE NOW**

Constraints beyond the college represent significant barriers to strategic budget planning. The lack of certainty in budget allocations for E&G funds is a critical barrier to strategic planning of on-campus E&G investments. Uncertainty regarding university-level capital investment planning complicates efforts to address major infrastructure and deferred maintenance issues.

Deferred maintenance and capital planning remains both a priority and a challenge. Many deferred maintenance issues will require building renovations that are beyond our capability. Another challenge is the need for political support in the state budget process to provide base support through AES and Extension.

#### **WHERE WE ARE HEADING**

We continue to broaden the resource base of the college by enhancing current funding streams and developing new ones. To begin to address infrastructure issues, we will examine the proportion of base support invested in faculty relative to enabling support (office and research staff, maintenance, infrastructure).

#### **HOW WE WILL GET THERE**

- ▶ Focus on the governor and legislature; build relationships, lay foundation, build strong case for key funding initiatives.
- ▶ Continue branch station local support initiatives and facilitate the development of additional sources.
- ▶ Position ourselves within funding frameworks to earn more E&G funds. Increase focus on outreach and teaching grant opportunities, particularly STEM focused and capture more FTE for STEM-focused teaching.
- ▶ Focus more attention on key, large foundations.
- ▶ Continue development efforts – make sure we’re part of new campaign priorities.
- ▶ Create incentives for increased research funding, especially that which generates full F&A.
- ▶ Continue to expand opportunities with Professional and Continuing Education and other forms of revenue generation.
- ▶ Reconsider the college’s name, which currently narrows peoples’ perception and complicates efforts to explain all we do in life sciences, natural resources, food systems, environmental sciences, and rural development.
- ▶ Pursue collaborations and opportunities to add revenue or reduce expenses.

### **2.4 Expand our international footprint**

#### **WHERE WE ARE NOW**

Despite valuable assets in outstanding faculty and a statewide network of branch experiment stations, the college lacks an intentional strategy for its international program. Many international activities have occurred in response to individual, program, or unit needs.

#### **WHERE WE ARE HEADING**

The college currently has an array of international teaching, research, and extension activities underway in the form of student programs, research collaborations, and faculty exchanges. A collective vision for international engagement can be built on these individual activities.

#### **HOW WE WILL GET THERE**

- ▶ Empower an internal champion that works toward development and fulfillment of a collective vision for the college’s international engagement.
- ▶ Create an internal process that catalogs, summarizes, and supports international activities across the college.
- ▶ Address challenges that limit the ability to attract and retain international students and to engage in student and faculty exchanges.
- ▶ Assess domestic and foreign students’ needs (e.g., funding, visa issues, foreign student publishing in western journals, type of degree, housing). Evaluate the process associated with international program administration (e.g., visa processing, travel, foreign requirements) and ensure needs are met with a minimum of red tape.
- ▶ Communicate the success of the college’s international programs in a way that enhances the reputation of OSU and showcases their benefit to Oregonians. Highlight the college’s ability to provide education, experimentation, and experience to students at home and abroad.

## **2.5 Create networks for internal and external communications and marketing**

### **2.5.1 Strengthen CAS web capacity for effective internal communications**

#### **WHERE WE ARE NOW**

CAS web presence needs an upgrade. Department and program websites reflect inconsistent branding, navigation, and content management systems, making web-based communication difficult and unnecessarily expensive.

#### **WHERE WE ARE HEADING**

We are a statewide organization, so we have begun to invest in technology support and content development to connect effectively statewide.

#### **HOW WE WILL GET THERE**

- ▶ Strengthen the college website so that it becomes the hub for college-wide websites, including consistent designs, navigation, branding, and content management system.
- ▶ Align web communications across the college in preparation for OSU Central Web Service's upgrade to Drupal 7 to be served by central CN servers.

### **2.5.2 Develop strategies for coordinated external communications and marketing**

#### **WHERE WE ARE NOW**

CAS has made several investments in communications: in *Oregon's Agricultural Progress*, the CAS website, *The Source*, and in a culture of purposeful conversations. Yet, the college is not well understood by the public.

#### **WHERE WE ARE HEADING**

We are beginning to coordinate stories across platforms, strategically and intentionally, and to develop themes that link strategic priorities and public interest.

#### **HOW WE WILL GET THERE**

- ▶ Develop a comprehensive communications plan that illustrates the contributions the college makes across the state and world; address the new governing board and OSU's upcoming 150th anniversary in 2018.
- ▶ Develop a comprehensive marketing plan that identifies our most critical audiences and creates targeted messages for each, with goals, strategies, metrics, and a budget.
- ▶ Offer communications training to key faculty both on and off campus.
- ▶ Develop a graduate-level science communication program.
- ▶ Rigorously hold to our values as a powerful group and the essentials of civil discourse when we exercise scientific debate.

