INNOVATION, ENTREPRENEURSHIP, & TECHNOLOGY COMMERCIALIZATION

Enhance all aspects of technology commercialization to create a vibrant innovative & entrepreneurial ecosystem across UC

- **Learn**
  Engage with an external advisory board to guide the initiative

- **Communicate**
  Enhance communication and recognition of UC's technology commercialization successes

- **Streamline**
  Streamline existing processes and systems to increase efficiencies & interactions

- **Support**
  Increase financial support and flexibility for campus-priority programs and offices that make up the entrepreneurial ecosystem

- **Invest**
  Invest in UC inventors, early-stage UC technologies, and UC start-up companies
MAJOR ACHIEVEMENTS TO DATE:

LEARN:
• UC Innovation Council formed, 3 meetings held, planning for IC 2.0 with broader agenda!
• Initial IC WGs: Reward and Recognition, Best Practices, Communication, Entrepreneurship, Investment

COMMUNICATE:
• With BACEI developing a report to demonstrate the statewide economic impact of UC’s innovation and entrepreneurship activities associated with startup formation.
• Fact sheets and anecdotal stories that discuss the impact of research and innovation

STREAMLINE:
• “QuickStart” agreement to facilitate early access to UC technology for faculty entrepreneurs
• Review of process to include I&E as consideration for tenure and promotion
• “Entrepreneurial Leave Roadmap” under development

SUPPORT:
• Significant observable increase in grass-roots I&E activity across all campuses
• New physical facilities to support I&E (e.g., “the Cove” at UCI, UCD/HMClause innovation center, UCM)
• Pilot program of accepting equity from faculty startup companies in exchange for use of University facilities and services.
• New campus positions dedicated to supporting I&E activities (UCSB, UCI, UCM)

INVEST:
• Regents approved development of a $250M arms-length investment fund
INNOVATION, ENTREPRENEURSHIP, & TECHNOLOGY COMMERCIALIZATION

PRIORITIES FOR FALL 2015

CREATE A COMPETITIVE RESEARCH ENVIRONMENT THAT STIMULATES AND REWARDS CREATIVITY AND INNOVATION

- Prime UC – 260 companies submitted applications, finals in December.
- Presidential Research Catalyst Awards – Second round of the competition launched in December
- GradSlam -- Inaugural GS was great success, 2nd systemwide GS scheduled for April
- Precision Medicine Awards 2015 -- two competitive awards funded by the State
- Alzheimer’s Disease Research Initiative – program announcement in October
- Award for Outstanding Faculty Leadership in Presidential Initiatives – nominations closed, announcements in November

STRUCTURE THE UC SYSTEM TO ACTIVELY SUPPORT INNOVATION AND ENTREPRENEURSHIP

- Establish the Office of Research Innovation and Entrepreneurship at UCOP with a Senior Vice President (SVP) reporting directly to the President.
- Eliminate obstacles to innovation and entrepreneurship
- Support and coordinate existing incubators and accelerators.
- Develop a common set of metrics to measure the UC’s economic impact on the State and local communities.

WORK WITH THE LEGISLATURE ON PROPOSALS TO DRIVE INNOVATION AND ENTREPRENEURSHIP

- UC will work with the Legislature to jointly develop a statewide program around innovation and entrepreneurship that addresses areas of strategic importance to the State.
Joining ‘Pasteur’s Quadrant’ of Climate Research with Strategic Innovation and Deployment

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Relevance for Immediate Applications, and for Near-Term & Medium-Term Goals
- UC’s 2025 Carbon Neutrality Goal;
- CA’s 2030 and 2050 GhG reduction goals
Integrate and unite the UC system’s carbon neutrality research efforts to maximize both individual campus and systemwide impact

- Mapping pathways for deploying UC research to achieve the university’s carbon neutrality goals and the state’s climate mitigation targets
- Providing advice and guidance on the development of a set of “research grand challenges”
- Convening forums and launching demonstrations to support applied research and identify currently available technologies to accelerate, attain, and sustain UC’s 2025 Carbon Neutrality goal.
Research grand challenges needed for UC to achieve carbon neutrality by 2025, and to inform and propel California’s global leadership:

- Accelerated research on alternatives to natural gas.
- Systems integration of campus-level smart microgrids, particularly the development of on-site storage technologies;
- Research on deep energy efficiency
  - Advanced lighting systems as a “research gateway” which can be extended to examination of smart building management systems;
  - Electrification of heating and cooling systems via advanced heat pumps;
  - Efficiency of campus transportation systems, etc.
- Case studies and evaluation of policy, economics and behavioral dimensions, e.g.:
  - State and Federal regulatory issues that pose impediments to carbon neutrality, such as the limitations on direct access to wholesale electricity markets;
  - Institutional and regional carbon pricing; and
  - Climate equity and justice in California communities.

Achieving these goals will require establishing and leveraging collaborations, shared best practices, and other research networks among UC’s 10 campuses and three affiliated national laboratories.
Research Roadmap Implementation Timeline

**Water-Energy Nexus Workshop**
- May 2015

**Pathways to Carbon Neutrality: CA and the World**
- October 26-27, 2015

**Mini-Workshop On Deep Energy Efficiency Benchmarking**
- March 2015

**Solar Greenhouse Deployment**
- Summer 2015-Spring 2016

**Deep Energy Efficiency Study: Getting to Scale**
- FY 2015-2016; 2016-17

**Workshops/Summits/Deployments TBD:**
- Designing Incentives for Systemwide Collaboration
  - Deep Energy Efficiency Strategy
  - Renewable Power/Integrated Systems Strategy
  - Renewable Alternatives to Natural Gas Strategy
  - Policy, Economics and Behavioral Strategies 2015-16; 2016-17

**2018 deployment ...**

**2025 UC Carbon Neutrality**
RESEARCH DIMENSIONS OF CARBON NEUTRALITY

Pathways to Carbon Neutrality: California and the World
October 26-27 2015, UC San Diego

Top Ten Scalable Solutions for Our Toughest Climate Problems in California, the Nation and the World

➢ **How UC’s applied research solutions** are informing its quest to become in 2025 the first academic institution to achieve carbon neutrality;

➢ **How UC’s experiences and strategy** for tackling climate change can be applied to California’s ambitious goal of 40% GhG reduction **by 2030** (via Senate Bill 350);

➢ How UC’s Scalable Solutions can be impactful at the Paris Climate Summit (**COP21**) in December 2015