Stewarding Our Planet’s Resources

**Strategic Plan Statement: Penn State will be a leader in creating comprehensive solutions to mitigate the dangers of climate change and address the challenges of providing safe and abundant water, clean and renewable energy sources, and plentiful and nutritious food.**

# Strategy 1: PA 2050

Imagine what the Commonwealth of Pennsylvania might look like in 2050: economically, socially, and environmentally.

## Short Term Action Steps (next 6 months)

| Goals |
| --- |
| 1) Post-consultation engagement with potential applicants across the university system, to encourage this space as a continued strategy of 21st Century Land Grant activities. |
| 2) Extend consultation with external stakeholders (Commonwealth of PA, PA industries, potential early-adoption municipalities, others) to set up PA 2050 engagement process |
| 3) Recommend extending pilot communities for PA 2050 use cases, based on existing discussions with Sustainability Institute, Extension, and OVPR units. |

| Leads and Working Groups |
| --- |
| Leads: L. Fowler, M. Halsell, Outreach Committee  Working Groups: faculty and staff from all campuses; Extension staff; community and state partners (useful to set up steering committee) |

| Metrics |
| --- |
| # of interested stakeholders (internal, external) |
| # of RFP proposals that capture the PA2050 message |
| # of RFP proposals that capture the 21st Cent. LG message |

## Mid-range Action Steps (12-24 months)

| Goals |
| --- |
| 1) PA 2050 Forums: Prepare for, host, and document stakeholder discussion events led by Commonwealth Campuses and partners, to develop a regional or state plan (24 discussions, or more?). |
| 2) Grow Partners: Work with Commonwealth to build partnerships to assess local economic opportunities, law/policy needs and changes |
| 3) Develop opportunities for "applied" or "transformative" transdisciplinary research and engagement |

| Leads and Working Groups |
| --- |
| Leads: TBD in initial due diligence stage  Working Groups: to be developed in partnership with each campus |

| Metrics |
| --- |
| # of communities and people reached for discussions |
| # and content of ideas identified with community support |
| # of opportunities for research and engagement |

## Longer Term (Through 2021)

| Goals |
| --- |
| 1) Work among partners to develop and refine a PA 2050 state plan |
| 2) Prioritize and pilot local/regional opportunities for "applied" or "transformative" research and engagement |
| 3) Develop opportunities for entrepreneurship, communications, and training associated with PA 2050 |

| Leads and Working Groups |
| --- |
| Leads: TBD during mid-range actions  Working Groups: TBD |

| Metrics |
| --- |
| Economic impact of plan development opportunities |
| # jobs increased in key areas |

# Strategy 2: Research Re-Imagined

Research Re-Imagined - Address the challenge of providing safe and abundant water, clean and renewable energy sources, and plentiful and nutritious food in a changing world by working at global to local and local to global scale.

## Short Term Actions Steps (next 6 months)

| Goals |
| --- |
| 1) Continue to engage applicants across campuses to bring out strong, collaborative "focal areas" in SoPR work. Support community engagement, mentoring, and workgroup forums/webinars across the university to bring PSU people together and enrich the focal areas |
| 2) Transform the message from funded groups into marketable briefs. Work with Development, (Director of Campaign Imperatives) to complete Philanthropic Narrative document. |
| 3) Early Funding Targets: From Philanthropic Narratives, identify potential foundations or grant sources to match focal areas |
| 4) Develop clear communications frameworks to convey impact and value of focal areas to the public (from local to global) |

| Leads and Working Groups |
| --- |
| Leads: Depends on particular focal area.  Working Groups: Strategic Communications, Exec Committee, UHSC, Institutes, specialized task forces (e.g., infrastructure/support committee; enhancing health) |

| Metrics |
| --- |
| Confirmed identification of clear targets and leads or work groups for each Research Re-Imagined focal area |
| # of marketable messages in focal areas re: Development Portfolio Re-Imagined Initiatives. |
| # of impacted faculty and staff positively affected by shared goals and seed funds of Re-Imagined Initiatives. |
| # of social and creative activities associated Re-Imagined Initiatives. |

## Mid-range Action Steps (12-24 months)

| Goals |
| --- |
| 1) Work with faculty, Corp/Foundation Relations, and SIRO to match focal areas with funding sources |
| 2) Enable goals for living laboratory initiatives aligned with focal areas throughout campus network |
| 3) "Plug-in" priority focal areas with internal, external stakeholders in the context of PA 2050 and Earth 2050 |
| 4) Enable development of technologies, methods, and creative activities for implementation with society emerging from focal areas (including commercial approaches, open-sourced approaches, and distributed information platforms) |
| 5) Invest in repeated "Re-Imagination Funds" pivoting on focal areas and newly emergent areas: cyclic calls for research enrichment across campuses |

| Leads and Working Groups |
| --- |
| Leads: Depends on particular focal areas  Working Groups: Strategic Development and Communications, Assembled project leads with high impact potential |

| Metrics |
| --- |
| Funding levels associated with Research Re-Imagined focal areas (including # grants applied for/received; ratio of internal to external; development successes) |
| # events held to bring people together about focal areas; # students engaged |
| # of external partners associated with focal areas (research/gov’t/industry) on water/food/energy/society projects and creative activities |
| # reports of learning by doing emerging from Re-Imagined focal areas |
| Status of effort to compile a comprehensive inventory of stakeholders (including industry, government, and international organizations) |

## Longer Term (Through 2021)

| Goals |
| --- |
| 1) Individual initiatives clearly recognized and valued by the public (from local to global) |
| 2) Diversify funding sources to deliver sustainable "funding ecosystem", including an increased number of grants and donor support |
| 3) Increase number and diversity of students engaged in work (undergrad to post-doc) |
| 4) Increase # and diversity of "living laboratory" projects within the Penn State system (UP + Commonwealth) |
| 5) Sustained funds acquired for "Re-Imagination Fund" cyclic calls across campuses: pivoting on focal areas and newly emergent areas: |

| Leads and Working Groups |
| --- |
| Leads: TBD during mid-range actions  Working Groups: TBD |

| Metrics |
| --- |
| #, size, diversity of grants (including more funding from NIH, other sources), foundation funds, and Targeted Development Initiatives |
| # of students involved from each focal area |
| # of faculty retained due to shared initiatives (in particular, measure of under-represented faculty retention relative to prio 10 years) |
| Reductions in inputs (water, energy, food) and outputs (waste, sewage, GHG) across Campus System |
| # citations and funding associated with cross-unit institutes/centers related to water/food/energy/society; as well as interactions among them |

# Strategy 3: (21st Century Land Grant Outreach)

Earth 2050 - Engaging People in Places: Building Conversation, Capacity, and Positive Impact on our Finite Planet

## Short Term Action Steps (next 6 months)

| Goals |
| --- |
| 1) Inventory existing outreach programs aligned with SoPR (local and global), inventory diversity contributions, and estimate social needs in engaged communities (local and global): identify gaps and opportunities |
| 2) Extension Assessment: Develop ideas for where additional people (time, capacity, personnel) would be important |
| 3) Bring an Artist Along: Engage w/ Arts & Humanities in developing a voice for conversation, explore the "Collaboratory" |

| Leads and Working Groups |
| --- |
| Leads: TBD  Working Groups: Energy Systems, Water Systems, Food Systems, Communications, 21st Century Land Grant |

| Metrics |
| --- |
| # of art and design installations engaging human-nexus discourse |
| # of extension programs bridging faculty to communities in nexus frameworks (local and global) |
| Diversity of students/staff/faculty and communities engaged in sustainability arcs |

## Mid-range Action Steps (12-24 months)

| Goals |
| --- |
| 1) Stewards Program developed and piloted for Post-Docs and Visiting Faculty |
| 2) Develop Student Stewards program for undergraduate exchanges across campuses and locales |
| 3) Support existing Extension staff in agriculture, water, energy, and community development. |

| Leads and Working Groups |
| --- |
| Leads: TBD  Working Groups: Stewards Program, 21st Century Land Grant |

| Metrics |
| --- |
| # post-doctoral Stewards and diversity of participants |
| # Student Stewards |
| # and Diversity of Communities building local human capacity with Stewards Programs |

## Longer Term (Through 2021)

| Goals |
| --- |
| 1) Quantify levels and impacts of resource literacy (food, energy, water, climate change) |
| 2) Develop communications methodologies for the human-nexus discourse |
| 3) Identify returns on investment: human, social, produced, financial, and natural capital. Identify how they were achieved |

| Leads and Working Groups |
| --- |
| Leads: TBD  Working Groups: 21st Century Land Grant |

| Metrics |
| --- |
| # communities connected to the PSU 21st Century Land Grant approach |
| Diversity of communications strategies applied successfully |
| ROI report for Earth 2050: impact of 21st Century Land Grant approach to shift resource literacy, human capacity, social and natural capital, ecosystems services, job impacts, and well-being. |

(Resilience= Iulo, Keller, Tuana, Nicholas, Fowler) (Security = Houck) (Healthy Food Systems, Food Security, Sustainable Ag = College of Ag faculty) (Integrated water management = cross campus faculty task force to guide) (living landscapes= Smithwick, cross campus task for to guide) (solar ecology = Brownson, cross campus task for to guide) (Energy University: cross campus task force; Pres. Barron) (Health & Environment: IEE, Hershey)