

Purdue University's Institute for a Sustainable Future fosters and promotes research, partnerships, and engagement in areas including the environment, climate impacts and resilience, food-energy-water security, human and biosphere health, and sustainability as broadly defined by the UN Sustainable Development Goals. The complex, multi-factor, and pressing nature of the challenges and opportunities in these areas require a collaborative, transdisciplinary approach. The Institute supports the research and development needed to provide viable solutions by forging linkages between disciplines and communities within Purdue and beyond. The Institute aligns with Purdue's Land Grant Mission of building human capital, advancing research focused on our world's most important problems and engaging deeply with our partners.

OUR HISTORY

Purdue has a longstanding commitment to sustainability research. Centers located in what is now Discovery Park District, including the Center for the Environment and the Climate Change Research Center, served as conduits for connecting faculty and researchers. These centers, which once operated independently, came together to form the foundation upon which the Institute for a Sustainable Future (ISF) was established in 2022. ISF now connects and supports hundreds of Purdue faculty across disciplines engaging in all aspects of sustainability research through organized events, facilitating talks, developing research teams, providing research, travel, and communication support, as well as fostering external connections.

LOCAL TO GLOBAL IMPACTS



OUR 290+ FACULTY AFFILIATES REPRESENT

11
UNIVERSITY SCHOOLS/ COLLEGES

70
UNIVERSITY DEPARTMENTS AND PROGRAMS

11
PROGRAMS IN COLLEGE OF ENGINEERING

14
DEPARTMENTS IN THE COLLEGE OF AG

OUR FACULTY RESEARCH
(Data from FY20-FY23)

\$80+
MILLION AVERAGE PER YEAR AWARDS

50+
FEDERAL DEPTS. & PROGRAMS

250+
CORPORATE PARTNERS

100+
PARTNERING UNIVERSITIES



INSTITUTE STRUCTURE

The Institute is structured to support the long-term needs of faculty-driven communities while remaining flexible enough to respond to rapidly developing concerns and unique opportunities. The Institute does this through working with faculty to sustain Research Communities, Strategic Research Teams and Special Initiatives. Institute staff strive to support faculty in ways that complement what is provided within departments and colleges, which includes promotion of research accomplishments, leadership opportunities, logistical support for events, and professional development training.

RESEARCH COMMUNITIES

Research communities represent enduring interdisciplinary topics of research that bring together groups of faculty from several colleges and departments. Typically led by two faculty from different colleges or departments, these communities give faculty the opportunity to build relationships, share current work, plan activities and events, and spin up research teams.

SPECIAL INITIATIVES

Special Initiatives provide faculty with resources and staff support to explore developing areas of interest or pursue short-term initiatives. Like Research Communities, they are faculty driven. Current initiatives include decarbonization, the Great Lakes Science Initiative, Imagining Sustainable Futures, and Risk & Resilience.

STRATEGIC TEAMS

Strategic teams bring together researchers with a long-term strategy to develop excellence in a particular area. They receive both resources and staff time to further the progress of the team as a whole in some aspect of sustainability research. Currently, ISF supports the PFAS Working Group, a preeminent team of faculty from the colleges of agriculture, health and human sciences and engineering.

Biodiversity

A central question this research community poses is: how can we meet the needs of people while sustaining the diversity of plants, animals and microbes that we depend on? Areas of interest include: biodiversity in a global context; biodiversity and climate change; big data & environmental sensing; promoting population stability, health and growth.

Climate and Weather

Faculty across many departments at Purdue pursue research on issues of climate change in a myriad of ways; some key topics this research community pursues include: heat stress and weather impacts; climate change and biodiversity; public health; climate smart agriculture; climate action and environmental justice.

Environmental Justice

The members of this community support research in, and programming on, aspects of environmental and social justice with particular emphasis on how research on topics ranging from systems of governance over environmental resources, to the right to live in safe and healthy communities to promotion of healthy ecosystems, and how these issues overlap and intersect.

Environmental Stressors

The members of this research community seek to better understand the human and environmental consequences of contaminants and stressors. Members pursue work in topics that include: toxicology via various chemical, air and soil contaminants; public health; the fate and transport of chemical contaminants; development of novel remediation technologies; communication of scientific risks.

Sustainable Communities

People are at the center of environmental challenges and solutions. Members of this research community identify equitable and effective solutions for addressing global environmental change. They focus on several overlapping areas that include: decision making and governance; human behavior, values and cultural norms; critical infrastructure systems; complex social-ecological systems and dynamics; and participatory research designs.

Water Challenges

The mission of the Water Challenges research community is to foster connections across campus and around the world to facilitate interdisciplinary research that helps communities solve their water challenges. Within the community, there are several areas of interest including: water management; human dimensions of water; urban water systems; Great Lakes water; ecological restoration; and water and energy.

Supporting Students & Early Career Researchers

ISF promotes collaborative research that advances understanding of persistent global sustainability challenges. This process includes training of the next generation of researchers in sustainability. To this end, ISF provides opportunities for students to engage in and conduct research, in addition to facilitating and organizing events through our RCs & SIs. These opportunities include trainings, travel and research grants for graduate students and post-docs, undergraduate research internships in collaboration with the DUIRI program, the annual research expo, and graduate fellowships.