

Traditional Research University Model



OREC is designed to meet a critical gap in technology development.

Many technologies fail to transition through the “valley of death” between basic discovery and deployment. OREC is designed to bridge that gap in collaboration with companies who are evaluating the feasibility and manufacturing of more competitive or lower cost solutions. Collaborations with Oregon Tech include the use of unique labs and facilities, distinguished industry-aware faculty, and a focus on applied research.

Meeting the needs of small and mid-sized companies.



Making it happen

- **Stable funding sources to achieve public purposes.** Oregon Tech needs a stable funding source to direct the applied research center, and support faculty with dedicated time to conduct research in collaboration with industry partners.
- **Match investment approaches to other legislatively-authorized university centers:** OREC needs state support, like Oregon’s other university-led research centers, to build the infrastructure to fulfill OREC’s mission in applied research, technical assistance, and workforce development and lift it to a level of national prominence.

Contact

Lita Colligan Associate VP, Strategic Partnerships
 ☎ 503-821-1247 ✉ lita.colligan@oit.edu

Hallie Neupert Dean, College of Engineering,
 Technology & Management
 ✉ hallie.neupert@oit.edu

Jay Kenton Interim President, Oregon Tech
 ☎ 541-885-1103 ✉ jay.kenton@oit.edu

Leverage

Globally distinguished capabilities

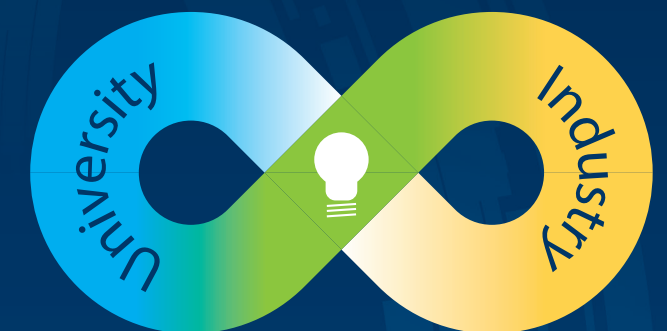
- Oregon Tech was the **first university in North America** to reach the goal of generating most of the electrical power for its campus.
 - Two geothermal power plants and testing sites, including the **280kW Geothermal power plant** and the **1750kW geothermal plant**.
 - **7,800 ground-mounted solar electric panels** on 9 acres of hillside at the Klamath Falls campus, with a total capacity of just under 2 megawatts.
- Oregon Tech was the **first ABET-accredited BS in Renewable Energy Engineering in the world**; also offers a Master’s degree in Renewable Energy Engineering.
- Oregon Tech is home of the **Geo-Heat Center**, an internationally renowned repository of information and technical advice on geothermal energy development.



Oregon Renewable Energy Center

Oregon **TECH**

Plan for Renewable Energy Education and Innovation



www.oit.edu/innovate
 Hands-on education for real-world achievement.

Oregon Tech/OREC Model

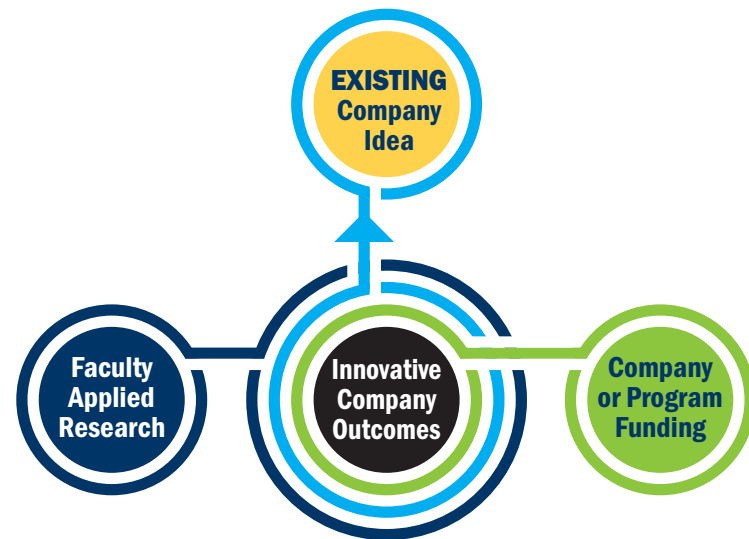
Outside **IN**

University



Industry

When a Company generates
OUTCOMES
with a University



Measuring OREC's Success

- **NUMBER** of BS and MS-level degrees awarded by Oregon Tech in energy and related fields
- **PERCENT** Employment of Oregon Tech graduates in Oregon
- **NUMBER** internships and industry-supported undergraduate/ graduate projects, related fields
- **VALUE** of contracts, grants or revenue from sponsored applied research
- **NUMBER** of jobs created through new or improved product development or manufacturing production
- **NUMBER** start-up companies

What OREC can do

- **Developing prototypes** for solar, wind and other energy devices
- **Testing** the manufacturability of new products
- Battery **characterization** and testing; expanding storage capabilities
- **Optimization** of hybrid vehicle control systems
- Building and testing **customized components** to reduce production costs
- Selecting materials, assessing **strength of materials**, especially composites and metals
- Manufacturing product or **process improvements**; manufacturing controls and robotics
- **Product development** and remote monitoring of solar energy systems
- **Utilizing geothermal energy** to accelerate food and agricultural products
- Geothermal combined with solar for boosting solar output in **hybridized systems**
- **Training** on the use of Oregon Tech's unique geothermal resource



Impact

OREC's is poised to develop into a preeminent applied research center of multi-disciplinary expertise that takes an applied research approach to accelerating and optimizing products, services and systems to assist companies and communities to solve the nation's technical challenges.

OREC has proven over the past 10 years that it can achieve significant ROI for the state. OREC has a 15 year history of successful execution, producing a 10-year ROI for state funds invested of 4.3 to 1.

Benefits

For Students:

- Hands-on experience for undergraduate and graduate students

For Faculty:

- Professional development
- Industry partnerships
- Relevant curriculum

For Oregon Companies:

- Talent development
- Graduates with experience
- Improved products, prototypes, testing, design innovation