

SMART CROSSROADS RESEARCH CONSORTIUM

ALIGNING PURDUE'S RESEARCH STRENGTHS WITH INDUSTRY PARTNERS TO SOLVE COMPLEX CHALLENGES IN THE FREIGHT AND LOGISTICS INDUSTRY

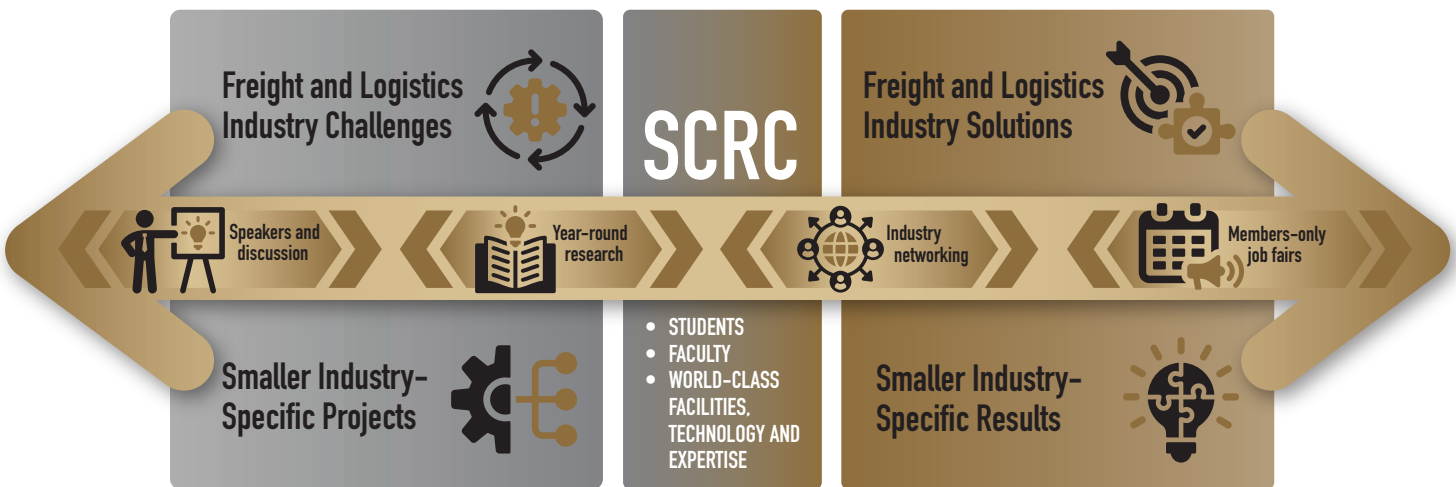
The global freight and logistics industry has entered an era of disruptive innovation and disintermediation. New technologies, AI, regulatory frameworks and geopolitics threaten industry roles, business models and boundaries. Alongside this disruption, new freight and logistics systems are emerging. The future of freight and logistics in the coming decades promises a landscape characterized by unprecedented efficiency, sustainability and innovation.

Supply chains will be tightly integrated, data-driven, and optimized for speed and cost-effectiveness. Advanced technologies and applications of AI will lead this transformation. The challenge is how to get there in a rapidly competitive world.

At the epicenter of innovation in freight and logistics at the Crossroads of America is the *Smart Crossroads Research Consortium*.

Participating, dues-paying Smart Crossroads Research Consortium (SCRC) member companies will have opportunities to:

- *Select pre-competitive research projects funded by the consortium*
- *Get needed work and analysis done*
- *Work with and recruit unmatched talent in undergraduate and graduate student employees*
- *Ask and help answer key research questions*
- *Collaboratively create and demonstrate new technology*
- *Access world-class facilities*
- *Grow their areas of expertise and collaboration networks*



SCRC EVENT PROGRAMMING

FALL GATHERING

-  MEMBERS-ONLY JOB FAIR
-  DISCUSSION GROUPS
-  SUBMIT, DISCUSS & SELECT NEW PROJECTS
-  GUEST SPEAKERS

SPRING GATHERING

-  STUDENT POSTER SHOW
-  DISCUSSION GROUPS
-  PROJECT UPDATES
-  GUEST SPEAKERS

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Purdue has a deep bench of applied research and project experience in advanced technologies analysis, and applications of AI that will lead this transformation, such as the following:

- IoT Platforms
- Robotic Warehouse Operation
- Cold Chain Refrigeration
- Autonomous & Connected Vehicles
- Infrastructure & Vehicle Electrification & De-Carbonization
- Supply Chain Management & Digitization
- Freight & Logistics Optimization
- Emerging Business Models
- International Trade & Global Logistics
- Managing System Fragmentation & Market Forces

As a pivotal player in the freight and logistics industry—whether as a manufacturer, a retail shipper, a 3PL, a fleet operator, or a tech provider—you are deeply invested in navigating the evolving landscape of the sector.

While you already prioritize R&D to enhance your business operations, the future demands a collaborative approach. The SCRC offers access to groundbreaking research, insightful analysis, and innovative solutions facilitated by collaboration with industry, academia and regulators. By pooling resources and aligning expertise from consortium member companies and Purdue University, we can proactively shape the trajectory of our industry, staying ahead of the curve and positioning ourselves at the forefront of tomorrow's solutions.

Joining the SCRC isn't about staying informed—it's about actively shaping the future of freight and

logistics. Together, we can navigate the complexities of tomorrow's challenges and seize the opportunities that lie ahead.

Industry partners and faculty collaborate on selected research projects that address pre-competitive, longer-term research and development issues in the areas of freight and logistics. The agenda for the consortium is set on a yearly basis with research projects identified through a ranking by all members. Regular updates are made available to members through a restricted-access web page.

A distinctive feature of the SCRC is that the research agenda is **set by the members** with each member having a strong input in the research directions adopted. Since members are from diverse industries, this provides beneficial cross-industry interactions.

The active involvement of graduate and undergraduate students in executing research, reporting on projects and carrying out the logistics of review meetings forms a foundation of the consortium. Each student is fully available as a resource to discuss project details of interest, and industry partner members can elect to serve as mentors to the students on each project. The opportunity provided that direct company contact represents for the growth of the students is unparalleled and routinely leads to placement of students with member companies after graduation.

Learn more about how membership in the Smart Crossroads Research Consortium can propel your company to the top of the ever-changing freight and logistics industry.

Smart Crossroads is a pivotal ecosystem strategically connecting Purdue's extensive resources with leading industry partners, including founding member Wabash along with transportation fleets; 3PLs; retail shippers; suppliers; and pioneers in telematics, autonomous vehicles and batteries.

The Consortium Will:

- Execute essential work and analysis funded by the SCRC or ecosystem partners
- Contribute to vital research to solve long-term industry challenges
- Co-create and showcase cutting-edge technology
- Work with, recruit, and place in industry top-tier student talent
- Use world-class facilities
- Grow and broaden areas of expertise of all members

WHY PURDUE?

Purdue is the only university that flexibly aligns its resources to meet the broad sweep of industry challenges.

Purdue University, a public research institution demonstrating excellence at scale, is one of the largest producers of high quality engineers and top-notch business talent. Purdue also offers a range of world-class research centers, leading public-private-academic partnerships, and government and industry collaborations that can be linked, leveraged and aligned to amplify the impact of Smart Crossroads.