

TRANSFORMATIVE EDUCATION 2.0

Board of Trustees Update

August 2022

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Transformative Education 2.0 Update

Questions

- What is the “game changer” point of success in the entire transformative project?
- Is it clear improvements in pedagogy? Clear improvements in the use of technology? Clear step change improvement? How are we measuring “transformative” chance/success?
- What are the metrics we are comparing to determine if we are successful – which universities or entities? What does the data show from a start point in that comparison? What are we shooting for? Do we have any data on how we compare now?
- What is the timeline upon which we expect to achieve success? What are the annual goals?
- Will this position Purdue clearly out front of the best in the US? If not, what will it take for us to get there that is not included in the plan?

Today - Brief Overview
September/October - Full update

August 2022



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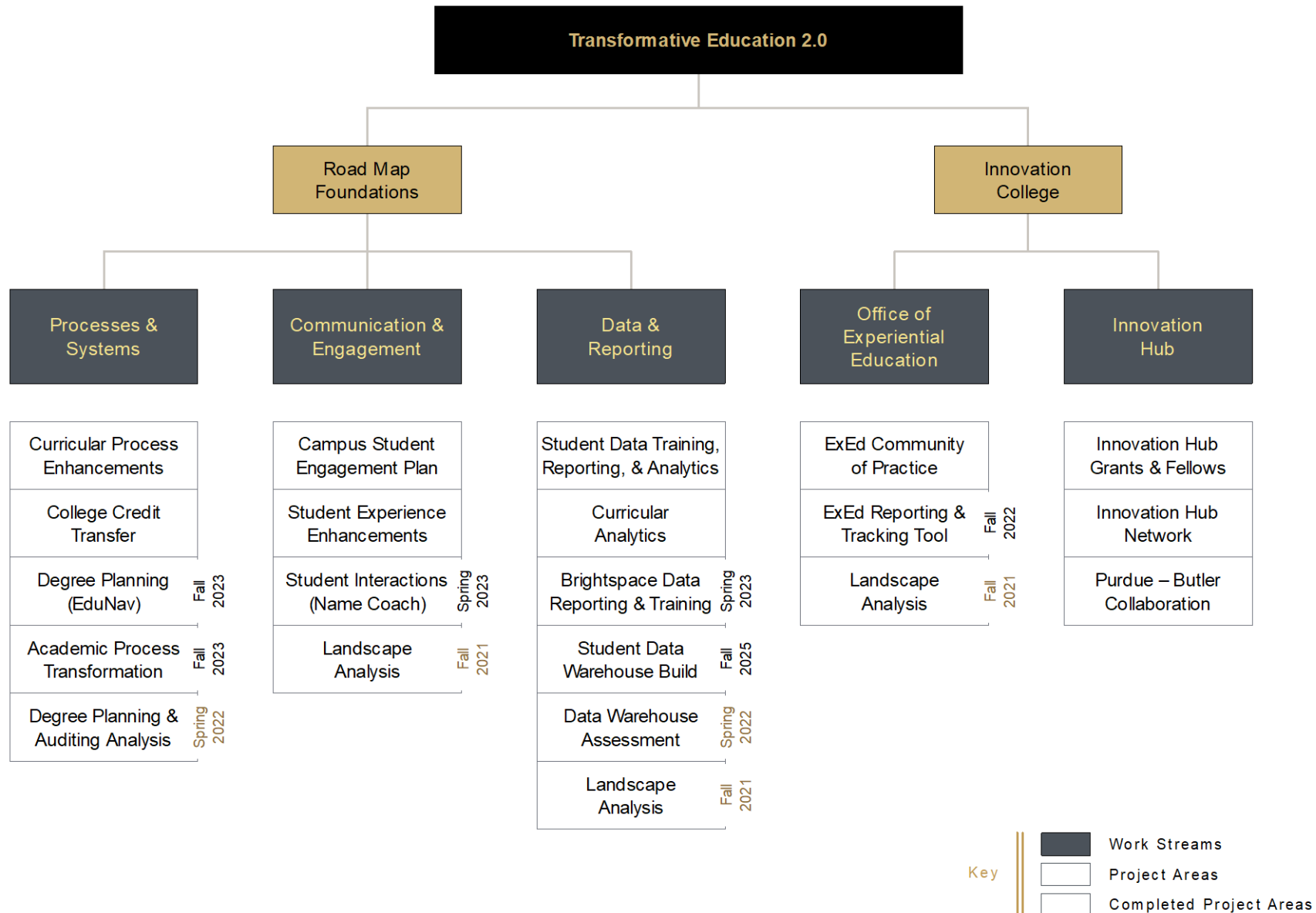
Position Purdue as T1 Institution

The most innovative residential learning program in the U.S. among large research universities

- We are focusing on these metrics to track progress/compare ourselves to peers:
 - Student Retention Rates (4 and 6 year)
 - Time To Degree
 - Student Satisfaction (SERU)
 - Placement
- Supporting Metrics (partial list):
 - Student Experiential Learning Opportunities (number/type, participation, etc.)
 - Instructor Innovations (number/type, adoption, etc.)
 - Process Improvements (simplification, time savings, etc.)



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EduNav // Degree Planning, Progression, and Graduation

- Every Purdue student will have a personalized, goal-oriented degree plan with the time required to complete their degree visually represented in EduNav.
- As students plan and work with their advisors in subsequent semesters, EduNav will alert them to any choices that might impact the original time to degree.
- EduNav will give Purdue more granular, real-time insights into **every student's** degree plan, status of "Time To Degree", and retention metrics.
- EduNav will enable Purdue to be more responsive in improving students' "on time" degree progression than our Big 10 peers.
 - Purdue will be in the top five of all Big 10 institutions for "Time To Degree".
- Pilot Release: 28 Majors and 30 Concentrations will be coded into EduNav by September 2022.
 - Health and Human Sciences (HHS)
 - Technology, Leadership, and Innovation (TLI)



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Academic Proposal Process Transformation

Current State

- Purdue cannot currently react to market / student demand for new majors or areas of study.
 - Purdue (PWL) completes nearly **1,000** course proposals, **1,000** curricula proposals, and approximately **650** plan of study proposals with approval timelines as long as 18 months.
- There are more than **20,000 individual workflow actions** required annually for PWL proposals.
- While modest regulatory, resource/education, and workflow revisions are achievable, these efforts will **not** make a material impact on meeting market demands.



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Academic Proposal Process Transformation

Future State

- Preliminary findings indicate transforming the end-to-end process will position Purdue to quickly respond to market demand for new majors.
- Academic proposals will go from ideation to implementation at a faster pace than the current structure allows.
- Purdue will be able to meet ongoing demands for innovative curricula at the same time balancing appropriate faculty oversight and regulatory compliance.



Innovation Hub Project Example

Developing an AI-powered “TA” Tool for IE 343 Engineering Economics

Course:

- Highly accessed elective by many majors with significant career relevant content.
- 180 – 200 students per section

Today:

- **Student Experience:** Not enough practice problems with rapid feedback to learn from mistakes. Limits learning and performance on exams.
- **Instructor Experience:** Overloaded with grading. Never enough time. Subtracts from “human” time instructor can spend with students.

Future:

- **Student Experience:** Robust set practice problems. Rapid customized feedback. AI predicts the cause of error to guide student learning. Improved learning and final grades.
- **Instructor Experience:** Rebalance time. Focus on human student-instructor interactions. Access to real time data on class learning including most common mistakes.

In Development: First In Class Pilot Fall 2022



Principle Investigator
Hua Cui
Industrial Engineering
Environmental &
Ecological Engineering

Spring 2022



THANK YOU

August 2022

