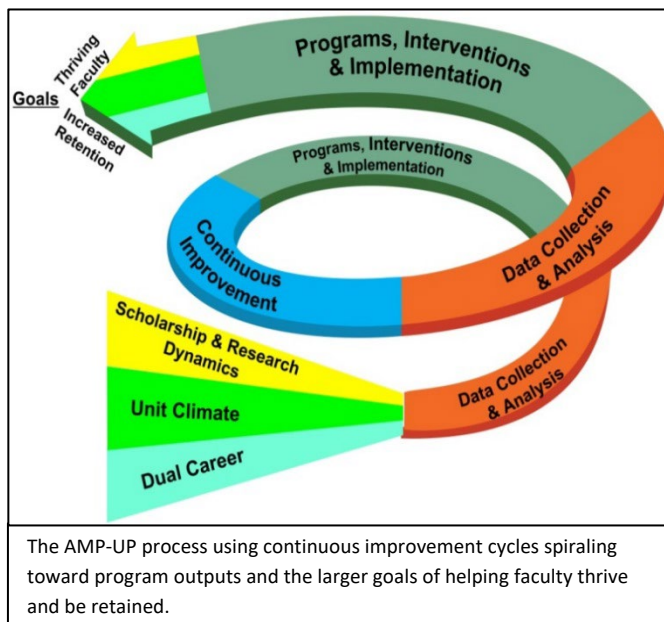


ADVANCE Matrix Process—University Programs



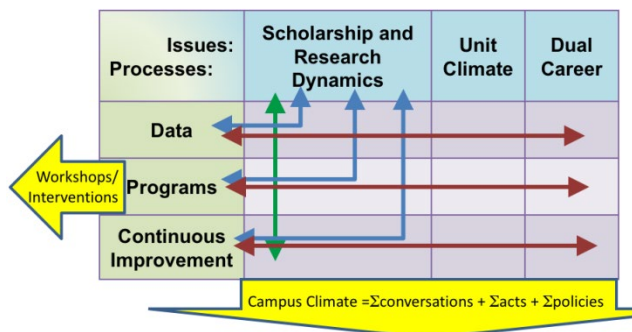
Professors Sonia Goltz (School of Business and Economics) and Patty Sotirin (Humanities), Associate Dean for Research and Innovation Adrienne Minerick, Provost and Vice President for Academic Affairs Jacqueline Huntoon and Special Assistant to the Vice President for Administration Anita Quinn used seven continuous improvement events (kaizens) as a springboard to develop a \$3.8 million proposal for an ADVANCE grant. ADVANCE is a National Science Foundation initiative to



develop systemic approaches to increasing the representation and advancement of women in academic STEM careers. The kaizens were held over the 18 months leading up to the proposal submission and involved over 70 administrators, faculty, and staff. Kaizen outcomes included data, programs, processes, obstacles, resources, and future opportunities.

Of particular note is the creation of the ADVANCE Matrix Process for University Programs (AMP-UP). AMP-UP combines Lean processes, methods, and tools with NASA's matrix organization approach, resulting in a revolutionary, adaptive change management process to transform our organization's culture. AMP-UP is [currently](#)

[being used](#) at Michigan Tech to address dual career, unit climate, and research and scholarship dynamics initiatives. Teams of faculty, staff, and administrators apply data collection and analysis, program development and implementation, and the continuous improvement cycle to each initiative. The robust AMP-UP change model can be used for any initiative the university chooses to pursue.



Information flow between columns (initiatives) and rows (process steps) for the AMP-UP process.



Lean Outreach and Connections

- **Two New Lean Academic Courses.** Two new undergraduate courses on continuous improvement are on the course schedule for next year. The courses are being offered through the Pavlis Honors College's Enterprise Program. In the fall, students can take Continuous Improvement Using Lean Principles, and in the spring, they can register for the Culture of Continuous Improvement.
- **Auxiliary Services Delivers Presentation on Lean Innovation.** Ernest Beutler (Dining Services) and Robert Hiltunen (Auxiliary Services) delivered a presentation at the National Association of College Auxiliary Services annual conference. They spoke about their innovative Senior Checker Program and the continuous improvement event that spawned it.
- **Seppala Article in Cost Management Journal.** Julie Seppala (Executive Director of Financial Services and Operations) was invited to write an article about kanbans for the February Cost Management journal. A kanban is part of a visual management system that focuses work efforts and allows everyone to see if the project is ahead or behind. Management uses this information to reallocate resources to stay on schedule. Seppala uses kanbans to keep track of major initiatives in her area. Her material was first developed for and presented at the Michigan Lean Consortium annual conference.
- **Housing and Residential Life On Board with Lean.** Housing and Residential Life's Travis Pierce created a position which has a significant portion of the duties as continuous improvement work. The person currently in that position, Heather Dunne, is participating in the Lean Facilitator Training. In addition, Housing and Residential Life regularly holds kaizens and educates their personnel on the basics of Lean and continuous improvement.
- **LCI Connects with Little Brothers/Friends of the Elderly.** The Leaders in Continuous Improvement (LCI) student organization met leaders from Little Brothers/Friends of the Elderly at a Lean tour of The Muffler Shop in Houghton. Little Brothers is a nonprofit organization committed to relieving isolation and loneliness among the elderly. LCI arranged to provide Little Brothers with training on the basics of continuous improvement. Little Brothers immediately started implementing improvements in their organization's processes.
- **LCI Group on LinkedIn.** LCI formed a new group on LinkedIn, "Leaders in Continuous Improvement at Michigan Technological University." Anyone interested in learning what college students are doing to learn and implement Lean and Continuous Improvement is welcome to join their group. There are currently 65 members, including Michigan Tech faculty, staff, and students and Lean practitioners in industry.
- **A Calm Mind, Ready to Learn.** One of Michigan Tech's value streams is educating students. A value stream is a sequence of activities and information that provides a specific good or service. Our goal is to get students in the classroom with a calm mind, ready to learn. Anything that gets in the way of that is an opportunity for improvement. Read more about this idea on the [Continuous Improvement Blog](#).

Formal Continuous Improvement Events as of February 1, 2016

Executive Team Area	Active as of 1 Feb 16	Completed since last report 1 Nov– 1 Feb 16	Completed FY16 YTD	Completed FY15 Full Year
Academic Affairs	2	3	5	11
Administration	1	1	9	9
Financial Services and Operations	0	0	0	0
Information Services	0	0	1	1
Research	0	0	0	1
Student Affairs and Advancement	1	2	2	1
Total	4	6	17	23