

Questions for Discussion:

1. Given the mission and vision for OEE, how can we work most productively with Marquette's Alumni Association to foster mutually beneficial relationships with external partners (corporate and community)?
2. OEE has been charged with thinking of creative ways to promote collaboration with corporate and community partners. Of particular interest are models that will enhance student learning opportunities as well as corporate sponsored research at Marquette. Innovation Alley is one idea that is being considered.
 - Are there other creative collaboration models that you are aware of that Marquette should consider?
 - Is the vision for Innovation Alley clear, as described in the pre-read?
 - What approach, Innovation Alley or others, seems most relevant for Marquette to pursue (especially in the post COVID-19 environment) in order to bring corporations and the university into productive collaboration?

OFFICE OF ECONOMIC ENGAGEMENT



MISSION: The Office of Economic Engagement fosters mutually beneficial relationships with external partners and facilitates comprehensive connections across the university.

VISION: To harness the power of university, corporate and community engagement to identify and solve the needs of a rapidly changing world and promote access and opportunity for all.

PARTNER WITH MARQUETTE UNIVERSITY: Our Economic Engagement team can help your organization collaborate with Marquette across a range of opportunity areas.

ECONOMIC ENGAGEMENT OPPORTUNITIES

Access Research and Innovation	Find Talent and Resources	Explore Professional Development Opportunities	Increase Outreach and Visibility
<ul style="list-style-type: none">• Sponsor research• License technology• Utilize facilities and equipment• Participate in center and institute activities• Partner in community engaged research	<ul style="list-style-type: none">• Recruit talent• Support internships and co-ops• Sponsor capstone projects• Engage faculty consultants	<ul style="list-style-type: none">• Participate on advisory boards• Teach in classrooms• Enroll in executive and continuing education programs• Work alongside Marquette faculty/staff/students in community engaged projects	<ul style="list-style-type: none">• Sponsor and participate in events• Volunteer and mentor• Host a corporate alumni event• Invest in naming opportunities

We invite you to schedule a visit to campus and explore the many partnership opportunities at Marquette. The visits are tailored to your specific areas of interest and we will coordinate all the details.

CONTACT US

Dr. Maura Donovan
Vice President,
Economic Engagement
414-288-5006
maura.donovan@marquette.edu

Dr. Carmel Ruffolo
Associate Vice President,
Corporate Engagement
414-288-6925
carmel.ruffolo@marquette.edu

Dr. Daniel Bergen
Executive Director
Community Engagement
414-288-3033
daniel.bergen@marquette.edu

Dr. Kalpa Vithalani
Executive Director
Technology Transfer
414-288-0668
kalpa.vithalani@marquette.edu

Ms. Sumathi Thiyagarajan
Sr. Director, Operations
Economic Engagement
414-288-7685
sumathi.thiyagarajan@marquette.edu



Economic Engagement

MARQUETTE UNIVERSITY

INNOVATION ALLEY VISIONING

SUMMARY REPORT

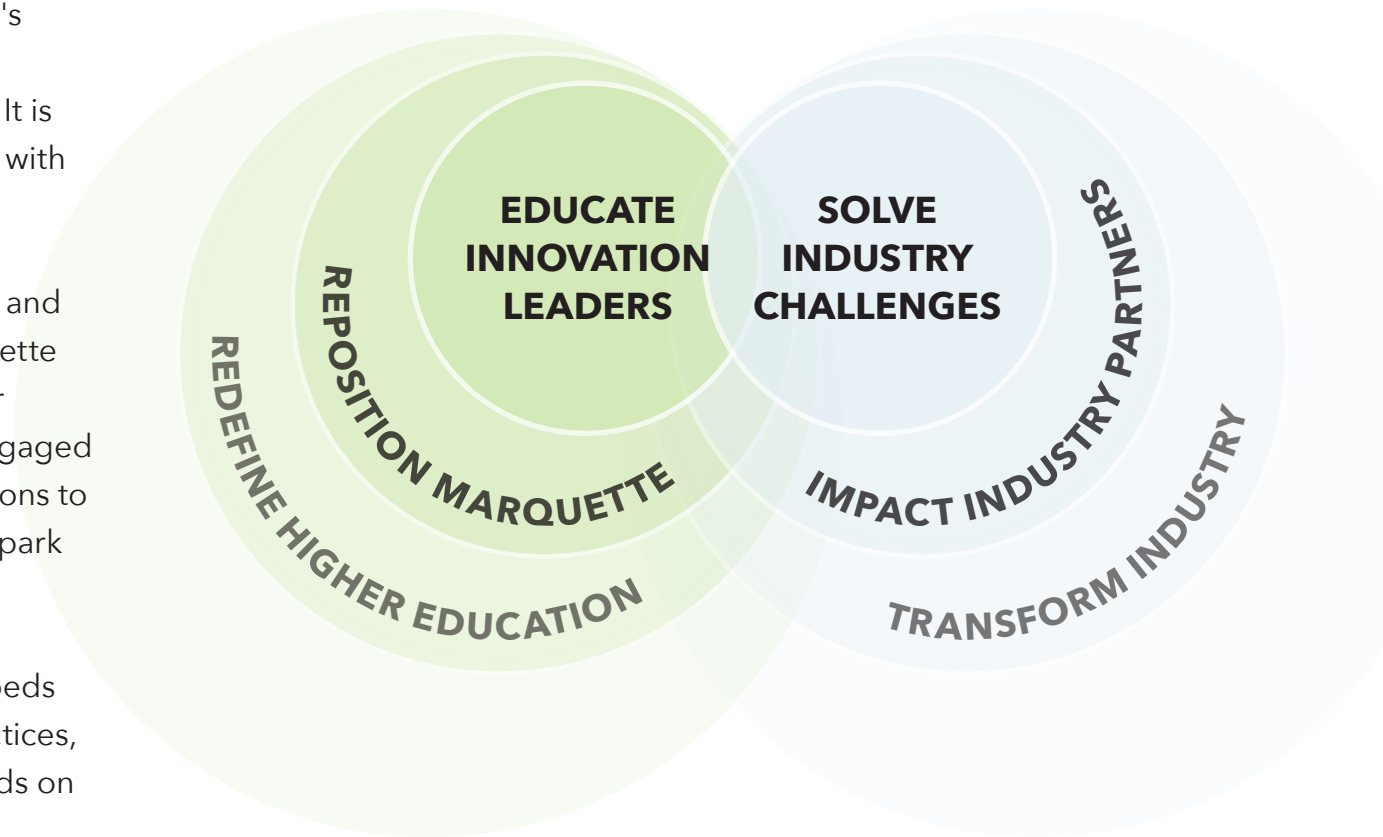
INNOVATION AT MARQUETTE

Vision for Innovation at Marquette University

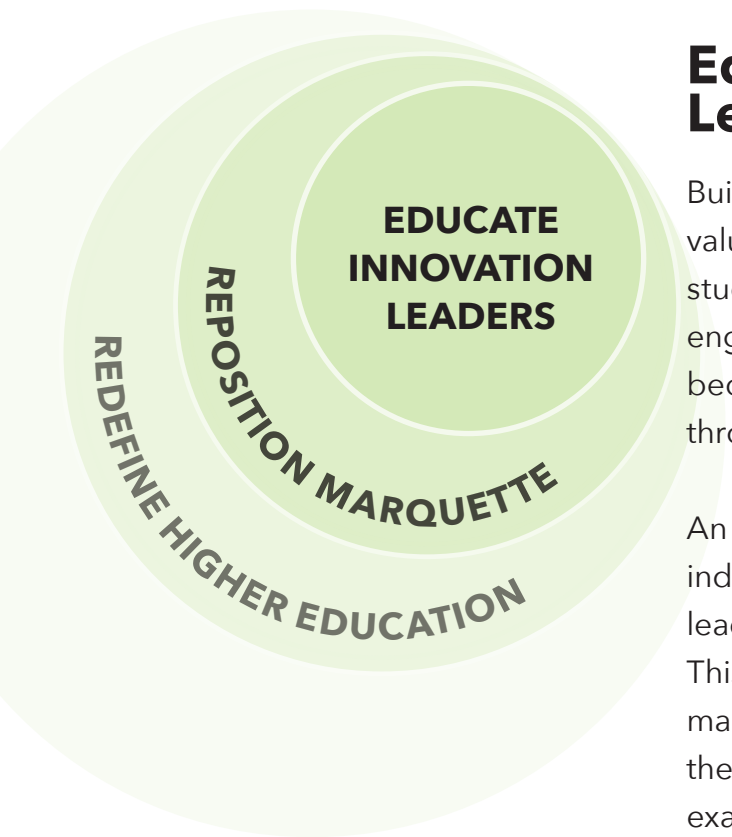
The vision for innovation at Marquette University is an all-pervasive focus on instilling a new mindset, welcoming change and transformation, and creating an environment for taking risks. This vision is anchored by Marquette's Jesuit values to *"graduate students who are transformed by their education and who will transform the world in which they live"* and the mission of higher education to prepare productive and engaged citizens of the world. It is distinguished by a central model to engage students in creatively solving real-world challenges in partnership with industry stakeholders while developing their abilities to *"lead oneself, others, and innovation."*

In undertaking this central model, Marquette can pursue broader goals that transform industry, the University, and higher education. By educating innovation leaders through collaborations to solve industry challenges, Marquette can reposition the University as a destination for innovation-infused education and continue to redefine higher education structures and norms to embed and incentivize innovation initiatives. Likewise, industry partners engaged in collaborative efforts with Marquette will benefit from an influx of innovation leaders and market-ready solutions to pressing challenges. Changing perspectives and methods from within partner organization create shifts that spark industry-wide transformation.

This vision provides a framework for the future of innovation at Marquette University to work towards as it embeds innovation into their values, methods, and goals. The success of the vision will lie in the new partnerships, practices, and projects, that with the engagement of all Marquette community members and partners, will carry the words on the page into action in the world.



Embedding an innovation mindset at Marquette



Educate Innovation Leaders

Building upon Marquette's Jesuit values is a desire to educate students across all disciplines to engage in critical thinking and become leaders in innovation throughout their lives.

An overarching challenge across industries is an absence of leaders that embrace innovation. This scarcity is the result of management styles that embrace the bottom line, rather than critical examination of current practices and novel proposals for change. Fresh graduates are quickly taught the behaviors that make one successful in the eyes of the company, and these traits remain

with employees for the entirety of their career.

Innovation Alley will serve as a conduit for students to begin their engagement with industry from an open and exploratory standpoint. Moreover, companies will send their employees to Innovation Alley to develop the traits of an innovative leader, so that this mindset can be brought back and implemented into the company.

Reposition Marquette

Marquette's unique definition of innovation will distinguish the University and spark an infusion of new thinking into how it provides teaching, learning, and

research, thus exposing students in all disciplines to an innovation mindset. Additionally, greater recognition of successful industry-Marquette collaboration efforts will contribute to a transformed perception of Marquette as an innovative institution.

Redefine Higher Education

Higher education is at a pivotal turning point as they shift from the "keepers" of knowledge to the "realizers" of knowledge. Marquette can be at the forefront of innovation in higher education by disrupting the traditional systems within higher education's organizational structure, reimaging the classroom experience,

and reinventing the industry-academia relationship. Imagine a new core curriculum that allows students to experiment with many different mediums and build an interdisciplinary skillset before selecting a major. Or consider how faculty incentives might be transformed to encourage publishing new knowledge as well as commercializing ideas. Additionally, a continuous relationship with industry professionals creates a program for lifelong learning and helps shape curriculum for the work of tomorrow.

By starting with Innovation Alley at Marquette, imagine how the entire University might become the Innovation Alley of higher education.

Infusing industry with innovation leaders



Solve Industry Challenges

Innovation Alley brings industry and academia together to collaboratively solve the most pressing grand challenges of today.

The need to facilitate these collaborations lies in the current academic and corporate structures. In industry it is uncommon to have allocated time and resources for brainstorming solutions to industry-transforming challenges. Funding and worktime is more likely spent on solving efficiency issues, client concerns, or a solution that directly impacts the bottom line. Likewise, academia often pursues exploratory research in directions not explicitly applicable to industry

practices. This disconnect creates a gap in the usefulness of academic research and fails to provide students the opportunity to solve real-world problems.

Innovation Alley provides the environment for risk taking and a structured approach that bridges the gap between research and application.

Impact Industry Partners

Innovation Alley will give current employees a chance to embrace thinking in a different way and bring new ideas and products back to the company, creating a ripple effect across the organization. Similarly, hiring graduates from

Marquette that engaged deeply with innovation are likely to bring that same energy and creative problem-solving into a company.

Transform Industry

Once a company can fully integrate innovation into the core of its culture, it will transform the organization in ways that can extend into the wider industry. Industry partners will make connections with other companies to not only solve challenges that they are facing but also address broader issues facing their industry. Additionally, Marquette graduates will have the experience of interdisciplinary collaboration to bring a new approach to engaging

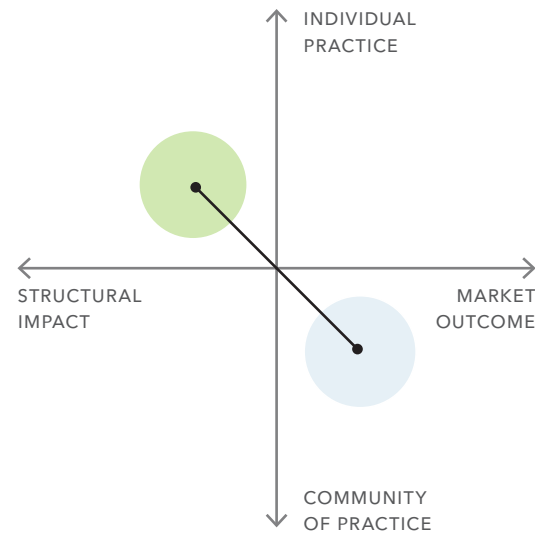
within and across organizations to move industries forward.

By engaging with Innovation Alley at Marquette, consider how the industries of healthcare, manufacturing, brewing, and the built environment might change with a network of innovation leaders addressing the most pressing challenges in their fields.

Phased approach to embedding innovation

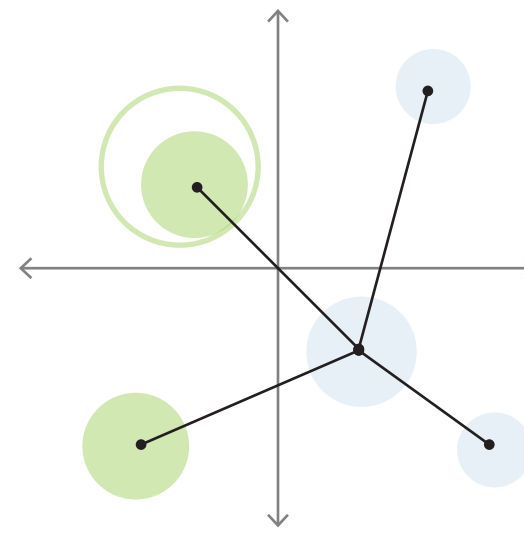
Embedding innovation into the Marquette system or transforming industry will not happen overnight. It will start with smaller initiatives that begin to grow and connect to others until it infuses the organization in broad, structural ways and produce tangible, market outcomes.

The diagrams at right describe how innovation begins as a collaboration at Innovation Alley and extends to embed innovation into Marquette University.



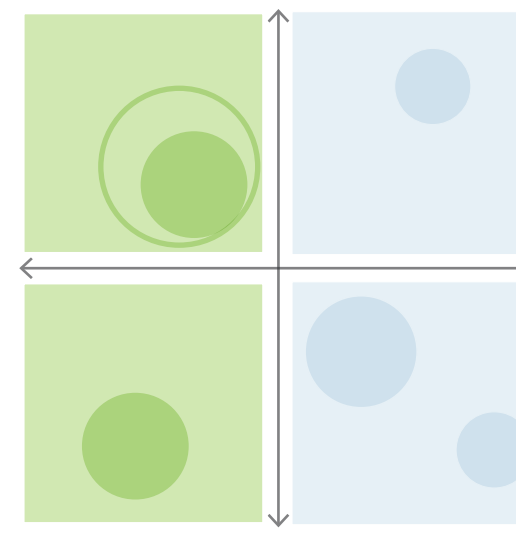
"Innovation Alley at Marquette"

- Innovation Alley will create a heart of innovation on campus at Marquette
- Additionally, it can serve as a destination for industry to collaborate with Marquette
- The projects, leadership training, and space will all seed innovation mindset on campus



"Many Alleys at Marquette"

- Over time Innovation Alley will grow to support more projects and engage more people
- Additionally, existing and new initiatives on campus and beyond will connect to create a network of innovation



"Marquette is Innovation Alley"

- As the network across campus engages all disciplines and impacts more students and faculty, innovation will be infused into programs and communications
- With Marquette as Innovation Alley it will send all its students out to bring innovation to real-world challenges

Impact



The impact of creating a center of innovation at Marquette will extend far beyond the University and its industry partners. The ultimate goal for Innovation Alley is that it will benefit the Milwaukee community, the regional economy, the Marquette brand, and industry across the globe.

Retain graduates in Milwaukee

Currently, the Midwest struggles to retain college graduates as they choose to accept positions in larger cities. This impacts the ability for companies in Milwaukee to recruit the talent they need to grow as an organization. By creating lasting partnerships with industry partners in Milwaukee, Marquette can develop a pipeline for graduates to transition into their first jobs, and develop a lasting career in the Midwest.

Support growth of local businesses

Through the collaborative partnership model of Innovation Alley, local businesses will have the opportunity to solve their pressing challenges side-by-side with the students and faculty of Marquette. By providing innovative and powerful solutions for local businesses, Innovation Alley helps companies grow and thrive in ways they were not able to do on their own. This growth translates to increased regional confidence that strengthens the entire Milwaukee economy.

Connect global products to a place

In order for a global business to succeed in any environment, consumers need to resonate with the companies' product or mission. Milwaukee is home to many multinational corporations, and recently, more international businesses are looking to make Milwaukee their US, or even North American headquarters. Innovation Alley is an attractive model for industry, and alongside Milwaukee's resources, may serve to drive more business to the region. When international corporations engage with programs like Innovation Alley, they are able to connect to the city and people in ways they are unable to do without a local partner. This shows commitment to the community, which helps them connect to their consumer base in an essential way.

Extend Marquette's brand

With a focus on the immediate community of Milwaukee, a focus on innovation will enhance Marquette's reputation for producing high quality graduates eager to solve large and difficult problems. It will also develop products, services, and research that extend beyond the community, to make impact on a global scale. A characteristic of being a leader, is that you are capable of attracting and inspiring followers. Marquette will become a symbol of disruption across higher education, which will excite both students and faculty to engage with this type of university.

INNOVATION ALLEY

Model for Collaborations at Innovation Alley

Innovation Alley is a new model for industry and academia to meet and gather, collaborate on industry challenges, and develop innovation leadership skills. It is an environment for taking risks, experimenting, working with interdisciplinary teams, and bridging the gap between research and application.

The collaboration model for Innovation Alley consists of two synchronous objectives – educate innovation leaders and solve industry problems. The existing E-Lead program provides a model by which Innovation Alley might mirror or incorporate to engage industry partners and Marquette participants in learning the mindset and skillset of an innovation leader. The parallel effort is focused on interdisciplinary, collaborative "grand challenge" projects that provide an opportunity for participants to engage in applying their research, expanding their thinking, and practicing their leadership skills. By combining more structured learning with an environment of applied project work, Innovation Alley will facilitate a direct connection between theory and practice.

This model builds upon Marquette's reputation as a valuable Jesuit educational institution and Milwaukee's position as a growing hub of industry. By engaging industry and academia partners, Innovation Alley can transform markets, modernize teaching and learning, and build the innovative leaders of today and tomorrow.

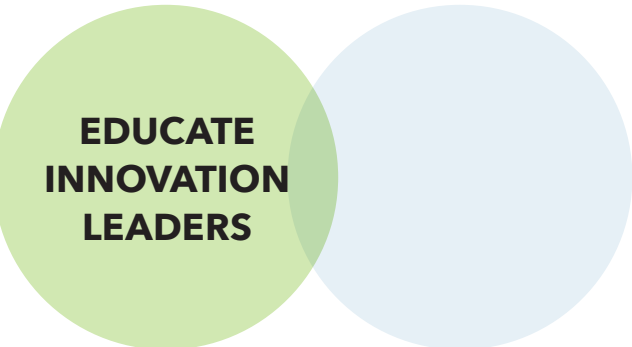


Educate innovation leaders



Solve industry problems

Educate innovation leaders



EDUCATE INNOVATION LEADERS

In many companies, innovation is often pushed aside in order to remain strong in the work the company already does well. Successful managers understand company systems and execute work accordingly. Leaders and shareholders are less likely to embrace an innovative effort due to the risk associated with exploring the unknown. However, long-term innovation is imperative to business success regardless. The disconnect between the managerial ways companies operate and the innovative spirit they need is causing company leaders to shift innovation efforts outside the company and outside the bounds of managerial thinking.

The disconnect with innovation also extends into the realm of academia. Success in academia lies in a long history of accomplishment through academic research. This system does not often embrace the same principles as innovation. Innovation Alley can provide an environment where the traditional norms of higher education are no longer part of the faculty expectations and student experience. Faculty can pursue innovation in their field, push their research toward application and commercialization, and develop their leadership skills to encourage risk-taking in their students. Students, when given opportunity to apply this behavior in a hands-on setting with industry professionals, are encouraged to think big, solve difficult problems, and develop the essential skills to becoming an innovation leader.

Simply by collaboratively engaging in the innovation process, students and industry partners alike have a unique opportunity to develop leadership skills not found in traditional industrial and academic environments. This approach is supplemented by Marquette learning modules to teach leadership in innovation.

In order for Innovation Alley to be inclusive of a wide breadth of participants it needs to be supported by flexible learning modules. Not everyone has the opportunity to attend classes during the day or take two years off to pursue a master's degree. Therefore, different levels of credentialing can be established alongside an expanded collection of supplementary programming such as speaker series, weekend bootcamps, or online microcredentials.

Bringing together disruptive thinkers, standout leaders, and eager learners Innovation Alley provides individuals the opportunity to become the leaders necessary to solve the grand challenges of industry.

Solve industry challenges



**SOLVE
INDUSTRY
CHALLENGES**

Academia and industry often operate in different worlds without many opportunities to make connections between each other's work. In many instances, industry lacks the time and resources to pursue more "risky" research, while students often graduate under-prepared for their first jobs due to a lack of industry experience.

Innovation Alley brings together different players in industry, from startups to multinational corporations, and pairs them with partners at Marquette across a wide breadth of disciplines. Together they have the dedicated time, space, and resources to freely innovate to solve grand challenges currently facing industry. This partnership allows for industry to outsource projects with larger risk and resource requirements to a partner free from "quarterly reports" and other innovation impediments. Similarly, students benefit from a learning environment focused on exposure to real-world experiences. In solving these challenges there is an opportunity to create new products, services, or research that can distinguish Marquette and create value for industry partners.

Four themes have been identified as potential starting points for identifying industry challenges – Smart Work Environments, Accessible Healthcare, Advanced Manufacturing, and Sustainable Fermentation. The Visioning Sessions facilitated with industry and Marquette stakeholders developed a series of grand challenges that might serve as projects at Innovation Alley.

A new, collaborative approach to partnerships between industry and academia at Innovation Alley makes it possible to solve the greatest challenges and make a positive impact on our world.

Impact



The impact of Innovation Alley will transform all who participate – the students, faculty, and industry partners – as it enriches their studies, research, and work.

Access to Space and Resources

Participating in Innovation Alley gives industry partners an opportunity to work in an environment outside of their organization and experiment with new tools and resources, such as emerging technology like VR or historic documents and collections.

Return on Investment

The objective for all participating in Innovation Alley will be to ensure the time and resources invested will produce a return. The collaboration on real-world projects will provide applied experience for students, an opportunity to test research ideas for faculty, and market-ready solutions for industry partners. Additionally, the innovation leadership development will equip all participants with the skillset to lead change and new initiatives.

Diverse Teaming

The interdisciplinary nature of the challenges provide an opportunity for people of different skill levels, expertise, experiences, and roles to engage with each other, breaking down barriers that often stifle exploratory thinking in innovation.

Infusion of Talent

Participants in Innovation Alley creates a diverse network of connections between Marquette and industry partners. This pipeline makes it possible for local businesses to attract and retain employees that add new perspective to the company. Through their engagement with Innovation Alley, graduates will have developed directly applicable skills for business, which cuts down on training and efficiency issues that accompanies many new hires.

Connect with Other Businesses

Additionally, Innovation Alley is not only a place for Marquette to connect with industry, but also an opportunity for companies to connect with each other and learn about the innovative efforts happening across Milwaukee. By solving problems, attending educational sessions, and socializing with other companies Innovation Alley becomes a network for industry to utilize in understanding regional challenges, opportunities, and collaborations.

Facilitate a collaboration pilot

With a team and structure in place – pilot it!

Designate a space (e.g., a temporarily vacated space) for the team to use as a home for the collaboration and leadership training with sufficient space to test different layouts, project needs, and team interactions (e.g., brainstorming workshop or training session). Start small and scale as needed.

Use a kickoff to celebrate the initiative – publicize the event – as well as to plan and set expectations. Revisit the preliminary agreements and make any refinements to tailor it to this collaboration. Be explicit and transparent about roles, expectations, and timelines – make it visible on a wall with post-its! Identify how the pilot will be assessed and tracked so that it can be improved along the way and evaluated at the end. Keep things flexible so that there is enough structure but also adaptable as the team learns how to best collaborate.

Continue monitoring the project and training to solicit open feedback from individuals. Ensure that people are being heard and responded to when there are issues or concerns and find opportunities to celebrate small successes along the way.

Once the pilot is wrapping up facilitate a reflection and feedback session to gather lessons which can be applied to refine Innovation Alley and ensure future success of partner collaborations and innovation leadership training.

Task Breakdown

1. Find a temporary space for the team to use and collaborate in
2. Kickoff the pilot project!
3. Make any refinements as appropriate
4. Monitor project and collaboration progress with open feedback and tracking key metrics
5. Collect lessons and feedback to apply to future initiatives and long-term planning

Start long-term planning

While the pilot is underway, initiate long-term planning by visiting existing innovation labs and executive leadership programs. Additionally, identify existing models that provide simultaneous training and applied project experience to benchmark. This research will help understand what is working, not working, and the overall scale of these initiatives.

Engage Marquette leadership and planning teams to discuss the potential scale and scope for Innovation Alley – both the scale of training and types or size of projects. How many projects need to be facilitated simultaneously? What projects, if any, will we not take on? How many innovation leadership programs and courses will be offered? What are the implications for operations? This may require discussions about possible donors, grant funding, or a business model to sustain it. Ensure that there is alignment of the scope of Innovation Alley with the overall vision for innovation at Marquette (as described in section 1).

Finally, start the long-term planning process to design a destination for Innovation Alley; for example, a space with central wet lab for modeling and simulation, satellite project spaces at various scales, cross-cutting labs (e.g., data analytics) and training spaces.

Task Breakdown

1. Visit existing innovation labs and executive leadership programs
2. Define scope and scale of Innovation Alley
3. Initiate the long-term design planning process