



Comment

DAVID CHUTER – CEO and managing director, IMCRC

Effective industry and research collaboration: Cultivating the right culture

IMCRC

IN today's world of global competition and digital disruption, Australian manufacturers are becoming acutely aware of the need to do things differently.

The fourth industrial revolution (Industry 4.0) has brought with it a range of new technologies that have enabled manufacturers to disrupt and transform traditional manufacturing.

But it is not just about technology. To compete in today's global economy, manufacturers must establish new ways of working – with collaboration central to success – to improve productivity, stimulate innovation, and adapt to changing

business environments.

At IMCRC, we facilitate collaborative R&D projects between manufacturing companies and research organisations across several primary industry sectors, ranging from mining to the arts.

While the individuals working on these projects invariably have different skill sets, cultures, and goals, the most successful collaborations have all been built on a foundation of trust, respect, aligned goals, effective working relationships, and a focus on outcomes.

In the first of a three-part series on cultivating successful industry and research partnerships, we look at

four ways to establish and maintain the right culture for collaboration.

“I think collaborating to innovate is key. No one company can do it all on their own. No one company has all that knowledge in-house, and it's the relationships, not only with universities but other companies together. Collaboration will help us to become the next generation manufacturer.”

Jess Madden, former CEO of Mineral Technologies

collaborations require buy-in from senior leaders on both the research and industry side.

As a business leader, it might seem sensible to provide your team with a budget and a mandate for innovative projects. But without your approval and involvement, the team may not feel comfortable embarking on a collaboration with a university or other research organisation.

Equally important is for both leaders – research and industry – to be aligned on their goals for the project. Each side will usually have a different priority; for the research partner, it might be exposure and acclaim, while for the industry

1. Ensure committed and supportive leadership

First and foremost, successful R&D

Successful partnerships between industry and research require a sense of mutual understanding.





Making room for the unexpected can lead to innovative outcomes.

partner, it might be growth and sales.

If leaders understand each other's priorities and are committed to achieving the same overarching goals, a project will have a much higher chance of success.

2. Build an empowered network

Collaborative R&D projects generally involve combining the diverse skills, backgrounds, and expertise of industry and research participants. Partnerships that bring in parties from different walks of life tend to succeed when there is mutual respect, open communication, and transparency across team lines.

An excellent example we have seen is the collaboration between UAP (Urban Art Projects), the Queensland University of Technology (QUT), and RMIT University.

Together, as part of their research collaboration with IMCRC, they have established the Design Robotics Open Innovation Network, which shares research outcomes on using robots and vision systems for design-led manufacturing and helps facilitate collaboration across industry for the benefit of the wider Australian manufacturing sector. When you visit the project site in Brisbane, the cultural fit is so strong it's impossible to tell who is from what organisation. This has led to the establishment of a new \$18m Advanced Robotics for Manufacturing (ARM) Hub, to be based at UAP in collaboration with QUT, CSIRO, and others.

3. Foster curiosity and have the courage to fail

While the R&D projects that we

support have a strong focus on commercialisation and return on investment, it's also important for participants to have enough academic freedom and encouragement to explore new ideas throughout the collaboration – that's what allows them to innovate.

Just as research participants must understand and value the commercial elements of the project, industry participants must be comfortable with the complex, cyclical, and somewhat long-term nature of R&D, as well as the possibility of failure.

To create a culture where participants are not afraid to fail, there also needs to be a system of accountability and justifiable risk tolerance. Participants need to set aligned goals, focus on the problems, increase transparency, and incorporate effective feedback loops into their projects.

4. Connect with the right catalyst

Ultimately, Industry 4.0 is all about innovation and finding new ways of doing things. For an effective collaboration between researchers and industry participants, there must be a culture in which both sides can do what they do best.

At IMCRC, it is our mission to help catalyse the transformation of Australian manufacturing through collaborative investment, research impact and innovation. We do this not only by co-funding collaborative R&D projects but also by creating an ecosystem for industry and researchers to work successfully together. Through our projects and by providing practical guidance, we help participants to cultivate a culture that allows them to thrive and take innovative new projects through to commercialisation.