

MAPPING THE REGIONAL INNOVATION ECOSYSTEM (2.0)

GW3D

GREATER WHITSUNDAY ALLIANCE
MACKAY ▶ ISAAC ▶ WHITSUNDAY



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The regional innovation ecosystem in the Mackay Isaac Whitsunday region continues to flourish and grow in size, in strength and in maturity.

With the assistance of a strong network of support agencies and a significant degree of networking, innovators in the region continue to kick goals.//

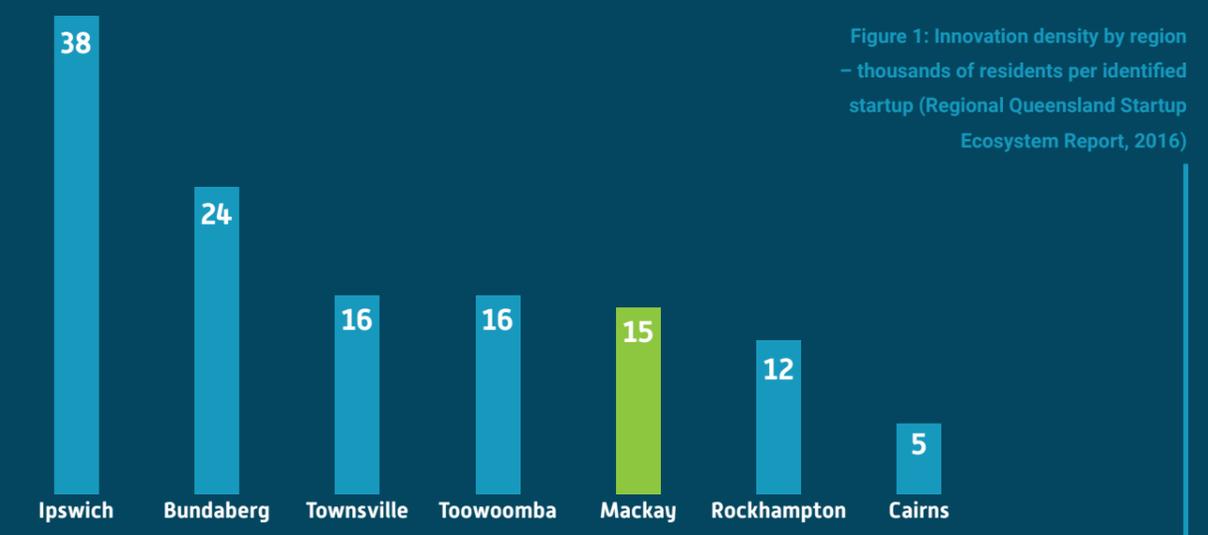
> Background

This report presents the second “check in” with those active in the Mackay Isaac Whitsunday region innovation space. In 2018 a similar survey and analysis was undertaken, and this report identifies the developments and changes over that period.

As it becomes an organic and networked nature of the innovation space, an online SurveyMonkey platform was redeveloped (based on the 2018 survey to allow longitudinal analysis) and implemented- remaining open for six weeks to October 15, 2019. The survey was promoted widely online using social media channels not only of the project partners, but also other key regional influencers including industry networks, chambers of commerce and key individuals. Promotion was further extended by coverage in traditional media. An incentive of \$250 was provided by GW3 to one randomly selected respondent.

An online search for the most current data on the Queensland and regional ecosystems showed that the 2016 “Regional Queensland Startup Ecosystem Report” compiled by the Queensland Government was still the most recent empirical data. While there has been significant promotion and activity from the state Government and others in the innovation space through groups including Innovate Queensland, Advance Queensland, Advance Queensland’s Advancing Regional Innovation Program (ARIP), and the Office of the Chief Entrepreneur there have been no significant data updates since 2016.

At that time, the Regional Queensland Startup Ecosystem Report identified that the Mackay region “had struggled to establish an ecosystem over the past few years” and rated it well below Cairns and Rockhampton in the number of organisations involved in the innovation space per head of population.



The report identified only 8 startups across the region in 2016 and found the lack of established networks, mentors and educators to help build the ecosystem was a fundamental issue. It also identified the need for a centralised innovation incubator to be established to kick-start the ecosystem.

The report stated Investment in innovation in the region was running at \$0.87 per capita, compared with \$1.20 across all regional Queensland and \$5 for each person in South East Queensland. This compares with \$11 in New Zealand and \$81 in the USA (\$4,241 in Silicon Valley).

➤ Sectoral change

Since publication of that report, the Queensland Government has provided renewed focus on promoting and stimulating innovation across the state, including within the regions.

Review of mainly online information sources from government agencies shows their focus is almost solely on the ICT sector as the foundation and driver of innovation.

Major universities are progressively moving into the innovation sector (examples being the UQ Idea Hub, Innovation Centre Sunshine Coast, JCU's Cairns Innovation Centre, The Collaboratory at Griffith University to mention just a few) and beginning to consume more of the available funds and resources to establish physical hubs, incubators, centres of innovation, and the like within their campuses and in competition with community-based initiatives. What impact this movement of funds and influence has is yet to be seen.

➤ 2018 regional mapping findings

In 2018, 101 individuals responded (two were removed from the dataset as they were incomplete or obviously obtuse). 7 people represented only themselves individually – 93 from one or more organisations (11 from CQUni alone). The results demonstrated a significantly stronger regional ecosystem than that identified in the 2016 state-wide report.

More than half of respondents (57%) represented SMEs, with the location of respondents heavily weighted in favour of Mackay (73%), broadly following the regional population split and allowing for the higher penetration of business and education in Mackay.

As expected, METS (22.5%) was the best represented area of interest for respondents, with Software/Technology (16.9%), Business/Professional (14.1%), and Education (9.7%) [mainly CQUni staff identifying as “Interested” rather than necessarily active in the Education innovation space].

Respondents were well spread across the innovation journey, with a strong skew towards “Interested” (32.4%) made up almost solely from organisations supporting innovation or business in the region. “Development” (26.8%) and “Commercialisation” (21.1%) were the most significant categories for active participants.

There was no significant correlation observed between location, areas of interest, or stage of development.

Just under half (41%) of respondents identified that they were already linked to others in the regional innovation space. Split Spaces, and its lead Jarryd Townson, featured heavily.

Figure 2: Regional innovation connections (2018) weighted by number of connections.



For comparison purposes, the 2018 Mapping the Innovation Ecosystem report is available to [download here](#).

2019 insights

The 2019 survey attracted 59 responses (eight were discounted as either duplicates or grossly incomplete) leaving 51 valid respondents. While the response rate was only approximately half of that achieved last year, the spread of respondents and the data they provided was both solid and compelling.

73% of respondents identified that they had not been involved in the 2018 exercise. This is significant, potentially indicating that the networking opportunities, respondents requested in 2018, are more effective and this has created a stronger will to be involved in identifying as an innovator in the region. The bulk of new respondents indicated that they were actively involved in innovation, with a higher proportion in the more advanced stages of the journey compared to the 2018 cohort.

With such a small dataset it is complex to make comparisons about small changes in results – one single respondent moving categories will result in a 2% variation. Therefore, only gross variations in data have been identified and provided with comment.

Figure 3: 2019 respondents by sector

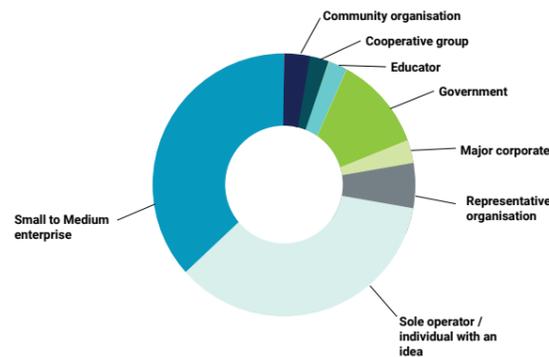
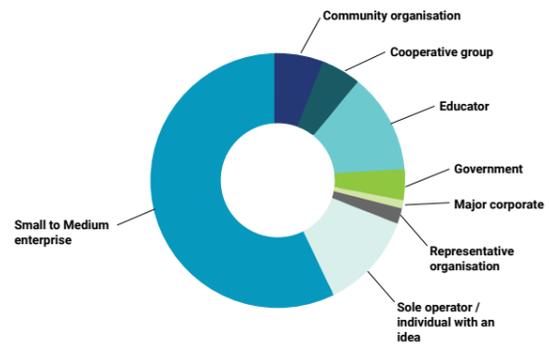


Figure 4: 2018 respondents by sector



Significantly, the number of interested others dropped in 2019 – Educators especially dropped away (3% compared to 13% last year) along with community organisations and cooperative groups. Government, however increased its representation correspondingly which effectively negated the drops in Community organisations and Cooperative groups.

Taking this distort into account, two changes to the respondent composition become significant - 36% identified as sole operators / individuals which was a significant increase, while SME dropped correspondingly from 57% last year to just over a third (37%) in 2019. All other sectors retained their relative weighting relatively unchanged.

Location of respondents swung slightly towards Mackay (78% compared with 73%) with Isaac and Whitsunday proportions remaining stable.

Respondents were generally spread across areas of interest in broadly the same distribution as in 2018 and while the small dataset makes analysis difficult, there is a slight increase in the ICT area (up 4% to 20%) with a corresponding dip in METS (down 5% to 17%). It is both interesting and valid to note that, even with almost three-quarters of respondents being new, the relative spread of areas is largely unchanged.

Respondents involved in "other" areas identified:

- Manufacturing
- Innovation support
- Media and security
- Researcher / activist
- Economic development, trade and investment

Figure 5: 2019 respondents by area of interest

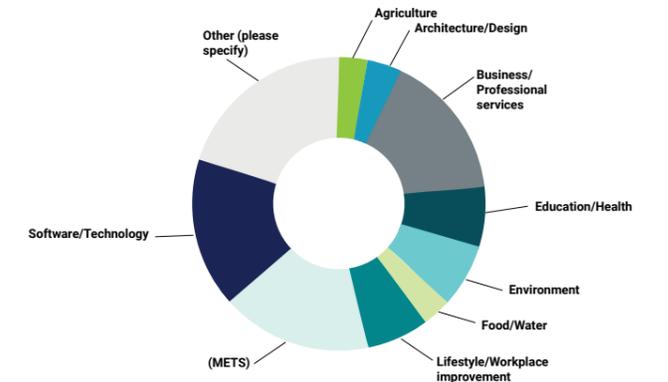
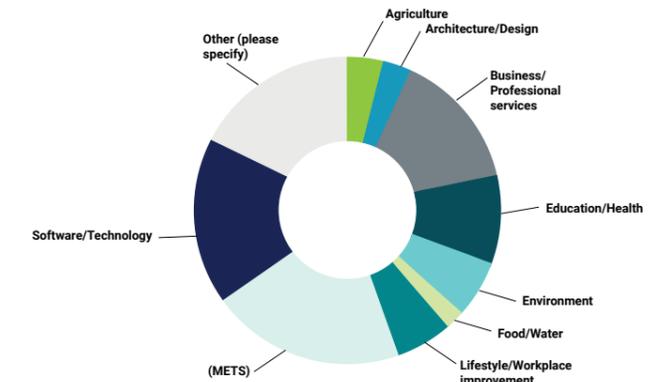


Figure 6: 2018 respondents by area of interest



Charting respondents' locations on the innovation journey showed significant change from 2018 in several areas.

The cohort of "interested" respondents in 2018 almost solely from organisations supporting innovation or business in the region dropped significantly as this group did not feature as heavily in the 2019 results (halving from 32.4% to 15%). This indicates that the 2019 results are probably much more indicative of the true innovation ecosystem in the region.

Taking into account the smaller cohort of interested but not directly involved respondents, the maturity of the regional ecosystem has changed demonstrably.

Note we again make the caveats that the dataset is small, and that a significant majority of respondents are new to the survey, so it is impossible to claim that individual respondents have progressed in their journey (a manual review of return respondent data did not provide conclusive evidence either way).

Of actively involved respondents, 50% were at a development stage (significantly larger proportion than 2018), 18% involved in commercialisation (significantly fewer), and 15% involved in both concept work and with mature products (again, both higher than last year).

Figure 7: 2019 levels of progress on innovation journey

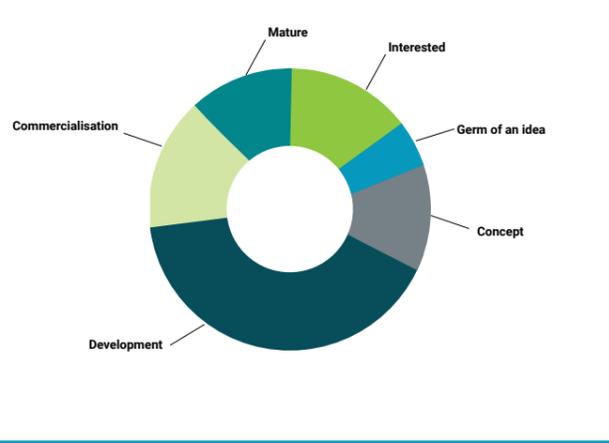
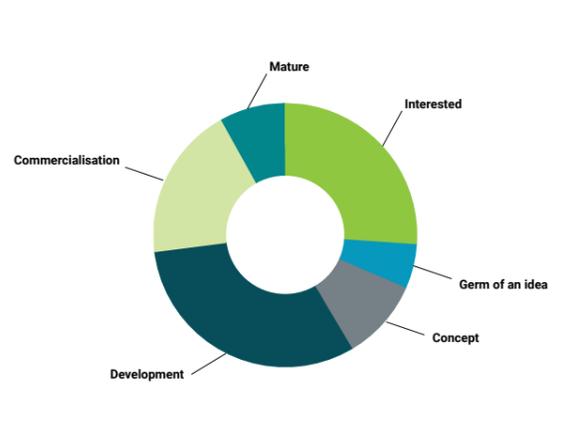


Figure 8: Comparative 2018 levels of progress on innovation journey

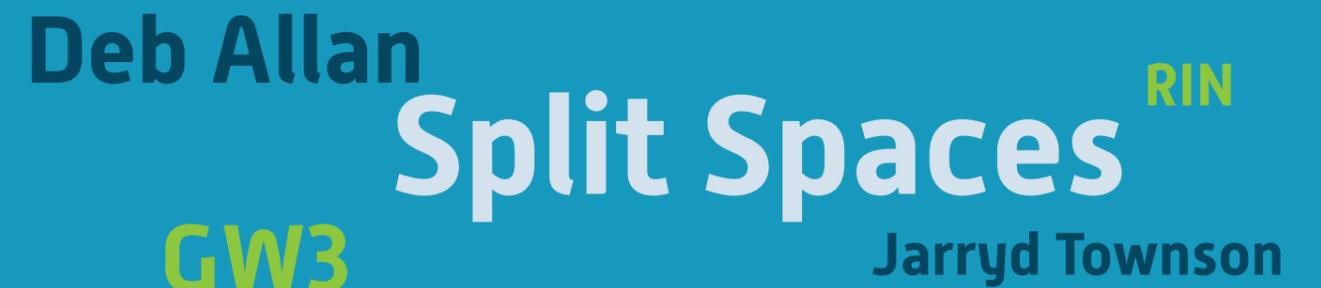


Review of the 2019 data showed no obvious correlation between area of interest and stage of development.

Networking continued to be a significant constant in the data between years. An additional question for 2019 asked "Are you interested in receiving information about Regional Innovation groups you can connect with?" and received 88% positive responses.

Respondents (noting that the majority of respondents were not surveyed last year) are remarkably consistent with their connections. In 2018, respondents identified significant links were Split Spaces (32%), Resource Industry Network (13%), GW3 (10%), Jarryd Townson (10%) and the Mackay Innovation Centre (10%). Refer to Figure 2 above.

Figure 9: Regional innovation connections weighted by number of connections



This year, respondents individually identified a wider range of linkages – many of them sector specific or regulators, but as shown above a smaller number of key linkages remain.

Split Spaces (25%), Deb Allan (14%), GW3 (14%), Resource Industry Network (7%), Jarryd Townson (7%). It is important to recognise the combined influence of Deb and Jarryd - Split Spaces community manager, Deb Allan has replaced Jarryd Townson as a focus.



Closing observations

It is clear that the innovation ecosystem is both gaining weight and strength as many participants progress along the journey towards product maturity and become exemplars to others in the Mackay Isaac Whitsunday region, exhibiting a solid mix of areas of interest.

Locals are to be found on all stages of the innovation journey, especially at the “pointy end” where they are moving into serious and costly business of product development and commercialisation.

While it is impossible from the available data to determine if individuals have progressed since the 2018 survey, the data shows that, across the cohort there is progress across the ecosystem as more participants advance through the journey. It will be interesting to confirm in future years, that there are an equivalent number of newcomers being attracted to the space to ensure that the innovation pipeline continues.

Local innovators are well linked into the local ecosystem, especially through Split Spaces, GW3 and RIN. Regional innovators universally want greater opportunity to network and receive information.

Were the 2016 Regional Queensland Startup Ecosystem Report to be revised and re-released, the outlook for this region would undoubtedly be different and significantly improved.



Case study



Corey Vaughan – JCV Services and 2sensor

Corey Vaughan doesn't see himself as an inventor or innovator, just someone who is always looking for better ways to do things for his business and his clients.

Fifteen years providing specialist pipe maintenance services to the mining industry in the Bowen Basin means he's seen a lot of piping problems and solutions, none of which really helped address a common, expensive and potentially dangerous problem faced by his clients – how to predict when a pipeline will wear through or rupture.

Identifying the amount of wear inside industrial piping is possible but generally requires either removing the pipe section and manually inspecting it, using expensive and cumbersome ultrasound equipment, or waiting for the pipe to fail and repairing it under emergency conditions. When a client came looking for a better way, Corey started to think, and the result is 2Censor.

Embedding a cost effective WIFI-connected sensor through the wall of pipes at locations which generally wear most allows real-time information on wear rates and informs maintenance schedules – saving time, money and improving workplace safety for users.

Over the past two years, Corey has taken what started out as an idea and prototype to what is today a commercial reality being trialled worldwide. He says his company was

always looking for opportunities to diversify from mining maintenance services to reduce the reliance on any one sector or any one service – an approach which bore fruit during the recent mining downturn.

Running a services company has meant Corey is tied to staff-management, contracts, locality and the vagaries of client schedules. Expanding into a produce-based enterprise reduces that exposure and provides a global marketplace.

Moving into large global market has relied heavily on utilising existing industry networks, word of mouth, knocking on doors and following opportunities when they present. Corey says he has been amazed at the reach of LinkedIn – where others share, comment on and promote his products rather than JCV having to market. He also believes in not being afraid to get on a plane with a box of samples to go where potential clients rather than sitting in one spot hoping people will come to you.

JCV did not strongly engage with local innovation support services. “We had the concept and a course to follow, we knew the industry, and we knew where we needed to be. It was also difficult to be able to decide which of the many local opportunities and organisations was going to be a best fit for us as well as having the spare time to devote to generalist forums and gatherings – had we engaged earlier it might have been different but we ended up building this on our own with the help of Digital Crayon our Mackay-based software developer.”

Corey said that his company had also been cautious about relying on government innovation and commercialisation grants, saying that their experience was that grant timelines often did not fit with the project, proposals were complex and expensive, and there was limited guarantee of payback for time and investment. He believes others working earlier in the innovation process or with more flexible timelines may find more benefit.

He says sequencing is critical to the success of innovations – not getting ahead of yourself or trying to fit into the schedules of other processes. He tells of taking an early prototype to a client last year when it and the company wasn't ready. “It was too soon for us and 2Censor so we ended up getting limited traction and we lost ground. This year, when we were more ready and the product more mature we went back to speak to major resource companies in South America and have come away with at least one large-scale company-wide trial which could be the tipping point for us.”

Corey says another area JCV misjudged was at what level to approach potential clients. Rather than dealing with the on-ground maintenance engineers whose focus had to be on day to day operations, he believes that from the start they should have worked to engage with process engineers and those making investment decisions because the true value of the product is seen more at a company-wide level than as an individual sensor in a single pipe.

Talking about the step away from his original business focus, Corey says that had to happen and the company has brought in additional management to allow him to focus fully on 2Censor. “You can't concentrate on both the old and the new, at some stage you have to say 'so be it' and decide what you want to achieve.”

He says progress can be frustrating and slow but innovators need to keep the prize in mind and “just keep hassling” towards the ultimate goal.

“We just wanted to bring the market the best possible product to solve a perennial problem; make industry maintenance more effective and safer; and above all to enjoy the journey we are on.”

With 2censor poised to enter the marketplace what's next for JCV? “We are looking at what other opportunities there are to use our remote technology within the mining sphere – temperature sensors on equipment, remote tank level monitoring and others – using the base technology to extend the solution as far as it will go, with the ultimate goal of a client being able to use remote telemetry to know exactly what's going on everywhere in their facility and better predict and plan maintenance to avoid emergency work. But primarily, we want to get 2Censor perfect.”



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