



ANNUAL BUSINESS PLAN 2020-2021

30 April 2020



Australian Government
Department of Industry, Science,
Energy and Resources

Industry
Growth
Centres



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Executive Summary

METS Ignited is strengthening Australia's global reputation as a hub for mining innovation, providing leadership in enhancing the competitive position of our Australian Mining Equipment, Technology and Services (METS) sector by aligning an efficient and agile industry ecosystem, establishing a high degree of collaborative innovation and driving a growing share of the global market.

The success of our programmes has resulted in an increase in more highly skilled jobs and extended the reach of Australia's METS companies, as we move through the delivery phase of those initiatives first established under our inaugural Sector Competitiveness Plan (2016 SCP).

Our 2020–21 Business Plan is heavily focussed on delivery and execution, ensuring that we capitalise on the investments of the past, and maximising the future opportunities to be captured as a result of the hard work and dedication not only within METS Ignited but from across the broader resources industry.

With the impacts of COVID-19, this year will be one of the most challenging many in our industry have experienced. The mining technology sector has always provided significant opportunity for us here in Australia—and this year in particular METS Ignited will have a critical role to play in continuing to lead the advancement of our technology capability while playing a pivotal role in the recovery of our local economy.

As we focus on growth, the priority is continuing to develop our future skills in data, analytics, robotics, automation and services, particularly within our regional communities for the years ahead. The international demand for our skills and experience has expanded to our regulatory frameworks, such as our environmental and safety practices and standards. Australia is not only recognised globally as an industry leader in our skills and technology, but also in our environmental, safety and sustainability standards.

At METS Ignited we are very proud of what we have already achieved and the strong technology ecosystem that can be leveraged to support the country through this tough period ahead. As we share the lessons learned from our global position as an industry leader in the technology sector, our 2020–21 business plan expands on those successes, focusses on execution, and accelerates those activities that will create more jobs and opportunities to support our local economy.



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METS IGNITED

WHAT IS METS IGNITED? A new digital platform for the mining industry, designed to help companies connect, collaborate and grow.	WHY METS IGNITED? To provide a central hub for the mining industry, where companies can find the people, products and services they need to succeed.	HOW METS IGNITED WORKS By providing a secure, easy-to-use platform where companies can connect, collaborate and grow.
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CONTACT US
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METS Sector Overview

Prior to COVID19 the issues around social licence and the impact of climate change had created significant public debate about the role of the mining industry in society. The public image of the industry had changed dramatically, challenging the industry's social licence to operate. We saw protests and climate change activists continuing to pursue behavioural change from the market — whilst the industry continues to deliver innovation and technology at an increasing rate of change.

The technical solutions to many of the social licence challenges facing the industry are already available today, or are in advanced stages of development in the METS sector—but without investment, or sustainable commercial outlet for these innovations to reach the market, the public perception will continue that the industry is failing to act. Creating greater visibility around the advances in technology to address sustainability is an opportunity for Australia's METS sector.

Adapting to change and industry shocks is common for the mining industry, and innovating to overcome adversity is an area where Australia continues to lead the world. The disruption caused by COVID-19 has

acted as a catalyst to accelerate the adoption of some of the digital technologies that were previously being implemented in a more gradual manner. It comes as no surprise that there has been a dramatic increase in demand for automation technology, robotics and remote operations capabilities in the early response to the global pandemic.

For us at METS Ignited, there are a number of overarching themes emerging across the industry that embrace these opportunities. This year is a transformative year for the sector, not just because of the disruption of COVID-19, but certainly accelerated by the effects of it. The resources sector will continue to operate and, in many ways, support a large part of the local economy as we rebuild from the effects of the virus on our country.

METS Ignited is focussed on furthering our sector in supporting greater cross industry collaboration, driving the productisation and commercialisation of technology within the sector, future skills, regional development, and expanding and supporting the METS companies' recovery through COVID-19 as export markets re-open.



METS Sector Overview (continued)

1.1 CROSS INDUSTRY COLLABORATION

The METS sector has extended well beyond its traditional markets, as other industry segments look to learn from the success of the Australian METS sector. The challenge is balancing the needs between continued investments in existing technologies, and working with clients to realise the commercial benefits that come from investing in future technologies, while at the same time sharing our lessons learned and our knowledge with other segments to see what else they can achieve from bringing a much broader range of industry perspectives.

1.2 COMMERCIALISATION OF TECHNOLOGY

One of those major shifts is the adoption of new technology over the enhancement of existing solutions. In our previous Business Plans and SCPs we have discussed, through the AARI1 and TMM2 initiatives the impacts of automation on the sector. COVID-19 has seen many mining companies rapidly implement the 'last mile' of their automation systems. Much of the research into automation has been heavily funded by operators directly to research to improve production outcomes, with a poor track record of productising

solutions to be made generally available for the market. METS Ignited will use the disruption of the pandemic to drive a shift from operational profit-led research to METS sector commercial focussed outcomes as a major strategic focus of our 2020–21 Business Plan.

1.3 FUTURE SKILLS

One of the greatest challenges we face as an industry, and probably the most significant challenge facing the broader technology sector is the shortage of STEM students entering our universities and workforce. We need to attract the next generation of students who are key to the future technology needs of our sector to continue to innovate, invent and create the solutions that the industry will need. By working with our technology sector on the commercialisation of innovation, METS Ignited is developing a pipeline of technology opportunities and innovation to attract the next generation to the industry. Increasing awareness and promoting collaborative technology programs including our Digital Test Mine, Interoperability Lab, and working with CSIRO's Data61 and our research partners will be key for attracting STEM students to the METS sector.



1.4 REGIONAL DEVELOPMENT

To extend Australia's global leadership position, we must extend our capabilities and skills in our regional communities where we will need them most. Our industry comprises highly complex and geographically distributed supply chains. Operations will continue to require access to a highly skilled and capable workforce, with both technical and commercial skills to support and sustain these complex operating environments. As we move further towards digital and autonomous operations, our systems and processes will become, by their very definition, remote. We have an increasing need for greater skills in our regional and remote communities to support these operations. It is not sustainable to concentrate resources in high cost locations, where skills are rare, overheads are high, and practical knowledge and experience must be flown in. Providing future skills to our regional mining centres is a key focus for METS Ignited in 2020–21, and delivered as key part of our operational activities.

1.5 EXPORT RECOVERY AND GROWTH

During the isolation of COVID-19, METS Ignited has maintained relationships with the international mining communities in preparation for the return to growth. We have seen a sharp increase in exports of technology products from Australian METS vendors who supply software and analytics products as mines extend automation in their operations due to COVID-19 protection measures. Many METS companies in Australia have strong technical value offerings which are highly sought after internationally, but they struggle with the commercial maturity to capitalise on these opportunities. METS Ignited's programmes address these needs to support building METS companies' capabilities in addressing international markets in a commercially sustainable and profitable way.

This year will be one of the most challenging for the global economy in generations, and being part of a world leading technology sector will bring with it a very different mix of challenges and opportunities for all of us in the Australian METS sector.



METS Ignited Activities

The objectives of the METS Ignited Growth Centre align with the initiatives within the Department of Industry, Science, Energy and Resources and the needs of the METS sector which are:

- ▶ **Accelerating the commercialisation of innovation**
- ▶ **Enhancing industry skills and capabilities**
- ▶ **Growing exports, and**
- ▶ **Improving the regulatory environment.**

The success of the programme thus far has proven to create more highly skilled jobs, grow exports, scale high-potential Australian companies and continue to expand the economic value generated by Australia's leading technology sector, including building our future skills and growth in data, analytics, robotics, automation and services.

As we are moving further into the delivery phase of our Growth Centre's lifecycle, METS Ignited is now managing the output of many of the programmes first established at the formation of the Growth Centre and the initiatives outlined in the original Sector Competitiveness Plan. The first tranche of project funds is nearing completion, and many of the masterclass and accelerator participants have successfully gone on to expand and grow their businesses, with a number coming back to become

facilitators for our new rounds of commercial maturity programs.

Our focus now is shifting towards scaling and building upon the successful programmes, to 'double down' on success and accelerate and leverage those programmes that have delivered the greatest value and benefit against our objectives. Furthermore, we have seen numerous unexpected benefits come from the initiatives, including cross sector collaboration around innovation and technology, particularly in areas of automation and robotics.

As we strive to move faster and achieve more in 2020–21 METS Ignited has further simplified its execution focus which is centred on three primary sets of activities:



1. STRATEGIC PRIORITIES

These acceleration priorities include Transformative Automation in METS and Mining (TAMM), Industry-driven Research, and the Digital Mine Interoperability Project. These high visibility outcomes expand upon the global competitive advantage of Australia's METS sector and will drive the future direction of our technology sector.

2. OPERATIONAL PROGRAMMES

These make up the day-to-day activities of the Growth Centre and are the activities most visible to the everyday communities that we support and influence. They are focussed on enhancing the skills and capabilities of the sector and developing its export capabilities and include:

- ▶ Masterclass—Trademark and Intellectual Property Management
- ▶ Accelerators—Commercial maturity for METS
- ▶ Industry Clusters—Collaborative ecosystem
- ▶ International Markets—Market Access Strategy
- ▶ Regulatory Reform—driving industry

3. PROJECT FUNDS

During 2020–21, the majority of our collaborative projects will reach major delivery milestones. These projects demonstrate Australia's capabilities as an industry leader and have successfully overcome barriers to innovation, such as the high demand for productivity improvements of existing production processes at a small number of high-volume production operations through the last commodity cycle.



METS Ignited Activities (continued)

2.1 STRATEGIC PRIORITIES

2.1.1 TAMM (TRANSFORMATIVE AUTOMATION IN METS AND MINING)

METS Ignited through the AlphaBeta Staying Ahead of the Game report identified automation and associated technologies as the primary driver of growth and productivity in the next 10 years, with the potential of a \$52B uplift in value for the industry in 2030 through automation technologies. The largest single contributor to this, at \$22B, is Systems Impact, i.e., automated data and workflow processes leading to a completely integrated value chain. This benefit is driven entirely by our ability to automate and does not rely on any other assumed factors such as operational productivity effects or capital productivity, and is the focus of our TAMM initiative.

METS Ignited has commenced engagement with a diverse range of Tier 2 mining companies to define the future requirements from the METS sector. Their major technical challenges are often very different from Tier 1 miners, but similar to each other. More automated and integrated operations are high priority objectives but have yet to be fully realised from within the METS sector. Engaging with Tier 2 miners is seen as the most effective strategy to aggregate demand, promote rapid development of solutions, and achieve implementation and wider distribution of automation products and services.

METS Ignited is providing the lead facilitation role, ensuring that the Tier 2 miners' problems and needs are adequately communicated to the METS sector so that the most effective products are developed. Encouraging collaboration between METS companies will be a key strategy to ensure scale and capability issues do not compromise development efforts.

Discussions with Tier 2 mining companies have already provided some common themes and stakeholder focus areas. These are:

- ▶ Many current digital solutions are not robust and even the global OEMs are not capable of supporting their products well in mining operations.
- ▶ Tech suppliers are not moving fast enough in some fields, e.g., continuous mining, battery electric vehicles, LTE for underground communications.
- ▶ Miners need more regular forums around the country to compare and collaborate—could be beyond IMARC and Austmine in their current versions.
- ▶ Lack of understanding and engagement with industry groups and researchers, who are focussed primarily on servicing Tier 1 operators.
- ▶ Mid-Tier Miners not engaging in research because time frames for solutions are too long.
- ▶ Miners are prepared to provide in-kind (operational) support to prove technologies.



- ▶ Miners have not been taking a collaborative approach to problem-solving amongst themselves but would gain significant value from sharing some common problems together—however they require a non-commercial partner to facilitate.

Two key themes have emerged from the TAMM initiative requiring immediate attention and priority. The lack of research and technology innovation access to support the mid-tier industry needs, and the lack of inter-operability and challenges with integration of the multiple different digital and automated technologies available in the market.

From these industry needs, the following are included in METS Ignited 2020–21 Strategic Priorities:

2.1.2 INDUSTRY-DRIVEN RESEARCH

METS Ignited has supported several initiatives in this area including multiple Project Funds, sponsorship and support of initiatives such as GMG, ERDi Labs, CORE and Clusters. METS Ignited continues to provide guidance and support for skills development, research investment, (CRCs, CRC- Ps and ARCs), regulatory improvements, and evolving operationally to adapt its organisational design and structure to meet the changing needs of its stakeholders.

Discussions with a preliminary Miners Reference Group have already commenced with some useful early learnings. METS Ignited's role in establishing

the TAMM initiative provides leadership, aggregates demand and supply and promotes collaboration amongst the main participants. This is driving outcome-based engagement with the mining industry—which has resulted in action-based activities driving clear sets of industry-based problem statements that form the basis of priorities for Industry-driven Research priorities and METS sector solution development.

One of the challenges facing the METS sector is the commercialisation of technology outcomes from research directly funded by the mining industry. In recent years, much of the technology development and innovation in the sector has been funded by Tier 1 miners directly with research organisations improving the productivity of their mining processes, or improving the quality outcomes of their production processes.

The focus of METS Ignited's Industry-driven Research strategy is to establish commercial pathways for innovation to establish the METS sector as a viable channel to bring technology innovation to market for the benefit of the entire mining industry.

METS Ignited is proactively facilitating the industry problem definitions (beyond the TAMM initiative to work across the broader Australian mining industry in defining the industry challenges at the sector level), and then work with the research community



METS Ignited Activities (continued)

in collaboration with the commercial sector to both define/develop the technical and commercially viable outcomes to address the challenges facing the sector.

The ability for vendors to provide technology that can be integrated into operating environments and be readily consumed within the sector by multiple end users, where data and information can flow freely between technology vendors and end users is critical to improving the speed at which innovation is adopted and commercial benefits are realised across the sector.

2.1.3 DIGITAL MINE INTEROPERABILITY INITIATIVE

This initiative recognises the critical need for the Australian METS sector to act quickly to capitalise on the dramatic shift to automation in the mining industry. The opportunity must address not only the technology, but the skills required and the infrastructure required to integrate multiple automated technology solutions into a functional and operational environment.

Currently in Australia there are a small number of highly autonomous mining operations predominantly in the bulk commodity areas of iron ore in the Pilbara. These investments are highly concentrated to a specific number of global vendors, automating their existing mining supply chains with proprietary systems for which the IP is owned either by the mining company or the technology vendor.

For the majority of operating mines in Australia, this form of automation is generally not suitable for their operations. A range of factors such as the complexity of their mining methods, the frequency of changes to their production processes or issues like the variable lifecycle of their mining asset precludes the level of investment necessary to deliver and maintain these types of automation outcomes.

What has emerged as the needs of both METS companies who are innovating around the future technologies, and the mining companies looking to apply or develop the next generation of solutions, is the ability to test, apply and to integrate this next generation of solutions to their operations. Most small to medium mining companies are unable to provide access to operations for trialling or testing new technology. Introducing new technology into complex value chains can create far greater risk or complexity, more than can be tolerated when production is already pushed to the limits. Many start-ups, researchers and innovators also struggle to find industry partners and real applications to address, as well as proving grounds to test out their solution—even when their solutions have been developed with the most thorough of processes and a high degree of industry engagement.

All of these factors are major contributors impacting the speed to market of innovation and commercialisation of technology in the Australian



METS sector. To overcome this major obstacle, METS Ignited is partnering with DGM and our partner in the ERDi test lab to provide the Australian METS sector access to a fully operational mine facility and inter-operability lab to develop and prove out technology innovation.

By providing the METS sector with access to these facilities, METS Ignited can rapidly accelerate the commercial development of technology outcomes in the METS sector, as well as provide support for our industry research partners. This facility will be the first of its kind in Australia, and made available through METS Ignited's DGM Interoperability Programme as a key strategic initiative to accelerate commercialisation of innovation from both the TAMM and Industry-driven Research initiatives.



The focus of METS Ignited's Industry-driven Research strategy is to establish commercial pathways for innovation to establish the METS sector as a viable channel to bring technology innovation to market for the benefit of the entire mining industry.



METS Ignited Activities (continued)

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2.2 OPERATIONAL PROGRAMMES

In addition to the strategic initiatives of METS Ignited, the Growth Centre will continue to build upon the successful program to support the enhancement and growth of the Australian METS sector.

2.2.1 MASTERCLASSES

METS Ignited is focussed on enhancing the industry capability and workforce skills. Through industry consultation it was identified that the sector would benefit from a series of specific training programmes to improve the commercial maturity of the sector. Australian METS companies are highly skilled in technical solution development, but have limited capabilities in the commercialisation of those solutions.

The 2020–21 Masterclass programme collaboration is focussed on developing the capabilities of protecting intellectual property through trademarks and Intellectual Property (IP). To support the development of our regions, the delivery of these Masterclasses will be via local organisations who will provide the ongoing support for METS companies in their community.

The combination of training regional organisations to deliver the material to their local communities will expand the skills and grow their capabilities and further enable their market reach.

This programme will be delivered in a mixed method

from classroom, virtual, online and in situ training and development, expanding on the skills' needs to address the next generation of industry opportunities whilst also addressing the short-term constraints due to travel restrictions from COVID- 19.

In 2020–21 there will be a minimum of 15 Masterclass events delivered across regional centres with a target of 25 participants per Masterclass.

2.2.2 ACCELERATORS

The METS Accelerator programme is targeted towards technology scale-ups for METS SMEs in FY21. METS Ignited has partnered with Atomic Sky to deliver the Accelerator programme for the 2020–21 financial year. Established in 2013, Atomic Sky has supported the development or growth of over 200 businesses, trained over 400 researchers to commercialise new products and led numerous accelerators and commercialisation programmes.

The team has exceptional depth and breadth of experience, networks and knowledge of the mining, energy and METS sectors with particular strength across the strong resource economies of Queensland and Western Australia. Atomic Sky is a registered Commercialisation Services Supplier on the CSIRO Approved Panel and has successfully delivered business initiatives for or with support from METS Ignited and NERA, state and federal governments and industry clients.



Due to the impact of COVID-19 on the delivery of the programme, METS Ignited has transitioned the execution of the accelerator to a full online delivery mode which was planned for FY21 as the accelerator takes participants from the regional accelerators operating around the nation and on a national scope. Atomic Sky has adapted their QuantumTX programme to leverage the cross-sector collaboration and exposure. The QuantumTX accelerator programme can be adapted to suit both regional and metro METS participants.

The key changes to enable online delivery are:

- ▶ removal of site visits and regional events and addition of projects to align the participants
- ▶ providing a range of presenters and interaction during each online session
- ▶ allowing more individuals from the participating SMEs to attend each online session, and
- ▶ providing options at the end of the accelerator for site visits at company discretion.

With the program now delivered online, this provides new opportunities to invite additional stakeholders to audit and evaluate sessions. There will be 2 Accelerators each containing an estimated 8 topics, with a total of approximately 16 webinars throughout the year.

2.2.3 CLUSTERING

The clustering initiative has grown dramatically over the past 12 months. The three original clusters which were formed as part of the Queensland State Government programme have now grown to include both national and international members. They include:

- ▶ **Digital and Data Analytics Cluster:** a group of 30-member companies with a mission to facilitate collaborative opportunities and strengthen the digital ecosystem to enable the conversion of data into knowledge and value.
- ▶ **Tailings and Mine Affected Waters:** consists of a strong group of well over 30 members with the goal to develop and promote innovative and commercial solutions for tailings and mine affected water globally.
- ▶ **Robotic and Automation:** this is a highly active and self-sustaining cluster that has already engaged with a range of international clusters in the same area. This group has over 35 members and is working across industry sectors including Oil and Gas, Space and Agriculture.



METS Ignited Activities (continued)

2.2.3 CLUSTERING (CONTINUED)

In 2020–21, METS Ignited is expanding this programme nationally. In addition to the expansion of the programme, this initiative is also addressing areas of regulatory reform, working to break down state boundaries across different regulations and operating standards within mining jurisdictions. In addition to working with the new SME Export Hub initiatives, METS Ignited is seeking direct funding from each of the state governments to appoint local state-based Cluster Development Managers to support their local METS companies as they recover and expand from COVID-19 recovery.

In 2020–21, METS Ignited is planning to appoint two additional METS Cluster Development Managers, supported by state governments to establish additional regional clusters. Our goal is to create an additional three clusters within the reporting period.

2.2.4 INTERNATIONAL MARKETS

Australia's strong international reputation as a global hub for mining technology and innovation has created a significant demand for the technology developed in our local market. Furthermore, many tier one global technology companies come to Australia to collaborate

with our local mining community to develop their technology solutions. The International Markets initiative brings together opportunities available for Australian METS companies to access global markets, through a range of flexible programmes linked to companies, industry, and regional needs—helping Australian METS companies accelerate and grow into global mining regions.

Exporting of equipment and products has been significantly impacted by the global effects of COVID-19, however the export of knowledge product and technology services has continued to expand and grow. Access to international markets through the use of technology partnerships and collaborations has created a range of non-traditional alternative channels to market.

To date METS Ignited has established a series of collaborations working with the Southern Peru Mining Cluster, with organisations such as Expandé Open Innovation Program, and the Chilean METS sector for collaboration/partnerships taking advantage of the Free Trade Agreement (FTA) that eliminates all tariffs (since 2015). In Canada, engaged with CEMI and potentially extending to CMIC, NORCAT, SAMSSA on the back of the FTA with Canada in force since 2018.



To ensure Australia's METS sector remains strong and competitive, ready to support the global mining industry in the recovery post COVID-19, in 2020–21 METS Ignited is undertaking a number of activities focussed on international markets. In addition to the IP and Trademark masterclasses, we are implementing a series of virtual trade missions, gathering industry representatives from the major mining economies to present their industry challenges to the Australian METS sector to develop solutions to meet the industry needs. These virtual trade missions will be run in parallel to the development of market distribution channels above.

METS Ignited intends to operate five Virtual Trade Missions during the reporting period with a total of 100 METS participants attending across the programme.

2.2.5 REGULATORY REFORM

As an industry, one of the challenges facing the METS sector is the complex site induction requirements and access rules particularly related to FIFO (Fly In, Fly Out) operations. During COVID-19 the conditions and restrictions on the movement of people between states and regions placed considerable strain on these processes, and highlighted the need for the sector to reconsider how site regulations and restrictions are

managed at both a site level, and across state borders and jurisdictions. In 2020–21, METS Ignited will be focussing on working with both the mining industry and the state governments and local regulators to simplify the access requirements for sites, to reduce the complexity and overhead burden for METS companies, ensuring operations can get access to the skills and resources necessary to drive the safe and productive operational outcomes for the sector.

Australia sets the global industry standard in terms of safety and environmental operating standards when it comes to international mining regulations. METS Ignited will continue its work with international mining regions to share the industry benchmark for safety and environmental standard for the protection of both people and the future sustainability of our ecosystem. In addition to the strategic initiatives of METS Ignited, the Growth Centre will continue to build upon the successful program to support the enhancement and growth of the Australian METS sector.



METS Ignited Activities (continued)

2.3 PROJECT FUNDS

One of the ways in which METS Ignited is enabling Australian METS companies to embrace the development of new innovative digital technologies is to administer collaborative project funds whereby participants (industry, METS companies and research organisations) work together to deliver outcomes for the mining industry. It also provides ways for technology providers to connect and combine their individual solutions into merged offerings to solve industry challenges and are more commercially viable.

Since the formation of METS Ignited, a total of 21 projects have been selected with a combined industry value of \$24.3M invested, with four projects having been completed. In 2020–21, METS Ignited is scheduled to complete an additional 11 projects from the first three rounds of project funds. In addition, three new projects are expected to commence, one of which is the further extension of a project that commenced in Round 3. Furthermore, we continue to see extensions across a number of existing projects where end-mining clients continue to add scope and functionality to project outcomes.

Australian METS companies are better placed to realise these opportunities than competitors in other markets globally, thanks to Australia's bounty of natural resources, the sector's world-class capabilities and skills, and the leading global position of the Australian METS and mining industries. Australia is well placed to lead the widespread adoption of Industry 4.0 technology and the real and immediate opportunity automation is providing to the mining industry.

In addition to the scheduled completion of 11 of our projects, a TAMM acceleration project initiative will be launched in 2020–21 to accelerate the commercialisation of technology in the METS sector, capitalising on the use of the DGM Interoperability initiative. METS Ignited is targeting the implementation of five additional acceleration projects at the DGM Interoperability site during the 2020–21 year.



EVENTS & CONFERENCES



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METS Ignited Activities (continued)

2.4 MEMBERS

There have been no changes to the membership of METS Ignited and there is not expected there will be any further changes during the 2020–2021 Plan year. Members do not provide financial contributions to METS Ignited during the business plan period.

As at April 2020, there are over 6,000 Network Associate registrations. Whilst there was a modest increase in the number of registrations over the preceding year, Network Associates are a

representative sample of the Growth Centre's sector participants, and are primarily used by the Growth Centre for the purpose of indicating the effectiveness of the various programmes on the sector. The predominate engagement method for the sector is through the METS sector ecosystem which comprises a range of industry associations, membership organisations, research communities, regional hubs as well as the Clusters and working groups facilitated by the Growth Centre.

AT 30 APRIL 2020, METS IGNITED MEMBERS COMPRISED

Name	ABN	Organisation Type	Address
Orica	69 009 781 257	Multi-National Corp.	GPO Box 4311, Melbourne Victoria 3001
AMIRA	60 176 687 975	Research	Level 2, 271 William Street, Melbourne VIC 3000
Russell Mineral Equipment	20 010 708 406	METS (SME)	141/143 Russell St, Toowoomba, QLD 4350
Whittle Consulting	71 086 470 457	METS (SME)	Suite 8, 660 Canterbury Road Surrey Hills, Victoria 3127
Gekko Systems	77 064 618 293	METS (SME)	321 Learmonth Road, Ballarat, Victoria 3350



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Budget

Set out below is the consolidated budget for the Financial Year ended 30 June 2021. Details are provided for revenue and expenditure in the tables following this summary. The carried forward balance is calculated on the basis of funds remaining at 30

June 2020 as forecast at 31 March 2020. All amounts presented in the budget are Australian dollars net of GST. The Funding Agreement requires the declaration of in-kind revenue and expenditure and this has been provided in the table at 3.2

3.1 BUDGET SUMMARY

FINANCIAL YEAR ENDED 30 JUNE 2021 - BUDGET					
	Core Activities	Project Funds	Total DISER Funds	QLD Funds	Total Funds
Funds Grant Funding - Core	5,000,000		5,000,000		5,000,000
Grant Funding -Qld			-	2,000,000	2,000,000
Interest Income	57,000		57,000		57,000
Surplus Carried Forward From FY2020	2,421,674	9,319,177	11,740,851		11,740,851
Total Funds Available	7,478,674	9,319,177	16,797,851	2,000,000	18,797,851
Administration Expenses	419,526		419,526		419,526
Operations Expenses	3,186,401		3,186,401		3,186,401
Total Administration & Operating Expenses	3,605,927	-	3,605,927	-	3,605,927
Revenue Available For Project Expenditure	3,872,747	9,319,177	13,191,924	2,000,000	15,191,924
Initiative Expenses	1,863,000		1,863,000		1,863,000
Marketing & Communications Expenses	430,000		430,000		430,000
Industry Engagement Expenses	367,500		367,500		367,500
METS Research & Reports Expenses	290,000		290,000		290,000
Enabling Activities Expenses	343,000		343,000		343,000
Project Funds Milestone Payments		9,319,177	9,319,177		9,319,177
Queensland Work Program Expenses			-	2,000,000	2,000,000
Total Project Expenses	3,293,500	9,319,177	12,612,677	2,000,000	14,612,677
Total All Expenses	6,899,427	9,319,177	16,218,604	2,000,000	18,218,604
Closing Surplus June FY2021	579,247	-	579,247	-	579,247

3.2 BUDGET SUMMARY (IN-KIND CONTRIBUTION)

QUT provided a fully serviced workspace at the Gardens Point campus under a Lease Agreement dated 16 October 2015 for a period of five years. The in-kind value was determined at the time of establishment of the lease. The Lease Agreement is

expected to be renewed for a further two years at the end of the current lease period until the end of the extended Funding Agreement. The in-kind value of this access has been determined at \$250,000 per annum.

3.3 BUDGET REVENUE – CORE

Budget revenue consists of four quarterly payments under the extended Funding Agreement of \$1,250,000 each. Note: Funding for the budget period is dependent

upon meeting the milestones contained within the Funding Agreement with the Department. Those milestones are set out in the table below.

BUDGET REVENUE - CORE				
Payment Number	Deliverable	Deliverable Date	Payment Date	Funding Amount (\$)
Payment 20	Q4 FY20 Quarterly Report	31/07/2020	31/08/2020	1,250,000
Payment 21	Q1 FY21 Quarterly Report FY20 Annual Report	31/10/2020	30/11/2020	1,250,000
Payment 22	Q2 FY21 Quarterly Report	31/01/2021	31/03/2021	1,250,000
Payment 23	Q3 FY21 Quarterly Report Business Plan FY2020	30/04/2020	31/05/2021	1,250,000
Total FY21				5,000,000

Interest of \$57,000 is calculated on the balance of funds held on deposit. Interest bearing accounts have been established for on demand, 30 day and 90 day deposits. Cash deposits are reviewed monthly.

3.4 BUDGET EXPENSES

3.4.1 ADMINISTRATION & OPERATIONS EXPENSES

Budget Administration and Operating Expenses for the year are presented on the next page. The full year budget allowance of \$3,605,927 represents a slight decrease over the FY2020 budget. However, it does depict a significant increase of approximately

\$1,262,000 over the FY2020 forecast. The major variance of the FY21 budget increase compared to the FY20 forecast is a result of the introduction of new staff roles within the organisation including on-costs and travel requirements.



3.5 PROJECT FUNDS

As at 31 March 2020, of the \$15.6M received in Project Funding, \$13,572,573 has been committed to collaborative projects across four tranches, leaving an uncommitted balance of \$2,027,427. For budget purposes, the Project Funds have been presented as if they were all paid during the financial year, however some funds will be carried over to FY2022.

Nevertheless, all Project Fund Milestone Payments are expected to be allocated and paid by the end of the extended Funding Agreement period.

Details of Project Fund balances as at 31 March 2020 are provided on the next page.

3.6 QUEENSLAND WORK PROGRAM ACTIVITIES

The following table sets out the status of the Queensland Work Programme as at 31 March 2020. The programme is largely cost neutral to METS Ignited with each programme of work agreed in advance, with costs incurred reimbursed by the Queensland Government. All transactions relating to Work Programs 1, 2 & 3 have been settled with the Queensland Government.

Work Program 4 has been approved by the Queensland Government and is budgeted to deliver up to \$2,231,818 in funding for Queensland Approved Activities. For the purposes of the budget it is assumed the revenue and expenses for the Queensland Work Program for the FY2021 equates to the unspent value of Work Program #4 of approximately \$2million.

Description	Grant Value \$	Receipts		Expenditure		Net FY 2020 Position \$	Net Activity Position
		FY 2020 \$	Recovered to date	FY 2020 \$	Expended To Date \$		
32 Queensland Cluster Program	325,455	134,784	134,784	134,784	134,784	0	0
33 Collaborative Project Funds	1,000,000						
34 BBC Cluster Development Program	50,000						
35 METS Capabilities Workshops	13,636						
36A Regional Accelerator Program	136,364	37,500	37,500	37,500	37,500	0	0
36B Accelerator Program	454,545						
37 Scale Up & Take Off Program	31,818						
38 METS SME AV Promotion Program	100,000						
39 CEEC Research & Workshop Program	33,636	33,318	33,318	33,318	33,318	0	0
40 Sector Capability Promotion Program	81,818	25,751	25,751	25,751	25,751	0	0
41 Stakeholder Engagement Program	0						
42 Significant Industry Challenges	4,545						
Subtotal Work Program 4	2,231,818	231,353	231,353	231,353	231,353	0	0



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