



Operational Plan

March 2014

TABLE OF CONTENTS

Operational Business Plan Overview	3
Introductory Statement	3
Registration Details	3
Value Propositions	4
For Government and Development Partners	4
For Industry	4
For University and Research Organisations	5
The Market	5
Target markets and Growth Opportunities	5
Marketing Strategy	6
Intellectual Property Portfolio	6
Marketing plan	6
The Future	9
Financial Plan	9
Entity Structure in Start-up Phase	9
Cash Flow Analysis Framework	11
Cash Flow Forecast	12
Organisation Structure	14
Key Personnel	16
Identified Risks for the Asset Institute	16
Appendix 1 – Worst and Medium Case Scenarios	20

OPERATIONAL BUSINESS PLAN OVERVIEW

Introductory Statement

This Operational Plan has been developed by the CIEAM Transition Planning Committee and the Australian Institute for Commercialisation in order to provide a disciplined approach and framework to the operational management of the Asset Institute (AI) over the next three to five years. It is to be read in conjunction with the Strategic Plan.

Registration Details

Business Name:	Asset Institute Limited.
Trading Name(s):	Asset Institute.
Date Established:	Trade Mark: 26 Nov 2012 Incorporation: 7 August 2013
Business Location:	Level 2, M Block Queensland University of Technology Gardens Point Campus, 2 George Street BRISBANE QLD 4000.
Business Structure:	Limited by guarantee public unlisted company.
ACN:	165 199 959
ABN:	38 165 199 959 (registered 19 September 2013)
GST:	FBT and GST concessions will be sought upon company registration.
Domain Names:	www.assetinstitute.com (registered, also .net) www.theassetinstitute.com (also, .org). www.assetinstitute.com.au
Licences & Permits:	NA.
Business Owner(s):	Asset Institute Members.
Products / Services:	Asset Institute is positioned as an International Research Institute providing transformational Infrastructure and Engineering Asset Management solutions by facilitating partnerships between industry and research providers.
Business Location:	Current office space for up to three full time equivalents on a peppercorn rental basis by host organisation until June 2016.

VALUE PROPOSITIONS

The Asset Institute has been established as a public charity to continue the work commenced by CIEAM. It adopts the structure of an incorporated company limited by guarantee established for the charitable purpose of making a positive difference to community livelihoods by improving the sustainability and increasing the usefulness of human created assets and infrastructure. The research and innovation pioneered by CIEAM will be built upon and disseminated to the public in further collaborative projects, so that Australians and others across the world can benefit from safer, more efficient, more effective, more environmentally conscious and sustainable asset management.

Financial support for the Institute is derived from member contributions and seed monies from CIEAM.

The corporate values that will govern the Asset Institute's development and growth include the following:

- *The Institute will promote a learning and nurturing culture amongst its stakeholders and staff.*
- *The Institute will promote the public benefit in all that it does, including through any related commercialisation and consulting required to resource its public benefiting activities.*
- *The Institute will operate in accordance with the highest standards in all its relationships with its stakeholders and the community.*
- *The Institute will promote an environment that will encourage innovation amongst its stakeholders and diligence amongst staff.*

The stakeholder groups are aligned in the vision, mission and values for the Asset Institute. Value propositions for the stakeholder groups are as follows:

For Government and Development Partners

The Asset Institute provides asset investors and development partners with the confidence that they are maximising both the social and economic return on asset and infrastructure investments and in so doing, contributing to the public good, through access to leading edge knowledge, expertise, products and services. The objective of the Asset Institute is to create and disseminate applied solutions for complex infrastructure and asset management problems and advance utility for industry and government so that communities all over the world can benefit from increased asset performance, availability, reliability, reduced cost of ownership and extension of asset life. These outcomes will enhance community livelihoods and sustainability. Intellectual property (IP) generated by the Asset Institute will benefit the public at large.

Association with the Asset Institute demonstrates a commitment to evidence-based solutions in pursuit of the public benefit.

For Industry

The Asset Institute collaborates with private, public and charitable asset owners, operators and service providers to create new knowledge to solve novel and complex asset and infrastructure problems. Industry stakeholders will play a significant role in The Asset Institute's mission, in predicting and identifying potential sites of research and hosting preliminary testing. Industry stakeholders are best placed to recognise problems which would benefit from solution and work with researchers to find and test practical solutions. It is expected that Institute members will be at the forefront of problem identification and will assist in solution identification and testing. Industry will benefit from leveraging Asset Institute's world class asset management IP base licensed through CIEAM and through collaboration with its unique international networks and leading edge expertise. New asset management technologies will assist in informing decisions, reducing costs and providing new offerings for service providers. Industry will also benefit from the

Asset Institute's education and training offerings, ensuring personnel are continually developing their professional skills and utilising the latest asset management knowledge in their work.

As part of research collaborations with the Asset Institute, members will require, and will be given, first rights to assess Background IP for potential use in relevant projects. If members identify Background IP that may be useful to them commercially, they may enter into a separate consultancy arrangement with the Institute on standard commercial terms.

For University and Research Organisations

The Asset Institute links research organisations with industry-funded research collaborations through established national and international networks to solve novel and complex asset and infrastructure problems for public benefit.

The Asset Institute aims to bring together large asset intensive firms, charities, governments, development partners and research organisations to predict, identify and resolve common asset management and infrastructure challenges. Through the Asset Institute's partner networks, member universities and research organisations (ROs) have the opportunity to undertake collaborative projects with industry. The Asset Institute's industry members will include representatives from the mining and resources, construction, defence, utilities, transportation, physical infrastructure, tourism and manufacturing sectors. The Asset Institute's industry training program utilises PhD, Masters and vocational students to work on projects proposed by industry. As a side benefit, students will be prepared for opportunities to work in industry and matching skills with industry requirements, smoothing the uptake of graduates into industry. With the participation of both university and industry members, the Asset Institute is also able to unlock industrially partnered grants, such as the Australian Research Council (ARC) linkage grants.

THE MARKET

Target markets and Growth Opportunities

Key markets for the Asset Institute's research and services are mining, energy and resources, utilities (electricity, water, oil and gas), transport and infrastructure (built environment, industrial and public sector assets) manufacturing and processing (metals, fluids and gases); engineering and ICT.

Key Target Market Segments are:

Existing CIEAM II participants seeking to continue their exploitation of the CIEAM research outputs through utilisation and commercialisation projects.

Private and public asset owners, designers, constructors, service providers and operators seeking new knowledge to solve novel and complex asset and infrastructure problems.

Governments, development partners and aid agencies seeking assurance of, and confidence in maximising the return on asset and infrastructure investments.

Research organisations seeking to continue their role in generating world leading innovation and applied knowledge in the field of infrastructure and engineering asset management.

Benefits to members include:

1. If part of an Institute Project, exploitation of IP from the Institute's repository which will initially be made available from CIEAM through 10 years of multidisciplinary research in asset management.

2. Access to domain knowledge, skills and expertise in whole of life asset based R&D.
3. Development of advanced domain knowledge, processes, systems, and skills in the field via knowledge transfer and member driven projects (funded separately).
4. Being able to access a single point of entry that provides brokerage services in asset management R&D and training.
5. Development of an advanced skill base by recruiting postgraduates (Masters & PhDs) through the Asset Institute's scholarships.
6. Leveraged investment in asset based R&D with other Asset Institute members.
7. Access the Asset Institute's e-based Asset Learning Portal for online training.
8. Eligibility for a Board seat (subject to nomination processes) and play a pivotal role in the Asset Institute's governance.
9. Access a unique international network which has been established by CIEAM
10. Being involved in national and international Asset Institute and stakeholder events
11. Exercising links with industry, other universities and the research sector with specialist expertise in the domain.
12. Access to Tax Offsets in Australia. For eligibility see <http://www.innovation.gov.au/Innovation/Policy/Pages/RDTaxIncentive.aspx>.

Marketing Strategy

Effective ongoing marketing and sales activities will be essential for sustainability of the Asset Institute. In transitioning to a self sustaining entity, the Asset Institute must continue to attract a pipeline of revenue, which differs from a CRC where most of the revenue is secured at commencement. As the Asset Institute's core revenue base for its activities is research projects on a commercial consultancy basis, it will need to continuously attract new clients, similar to a professional services organisation. Marketing and sales strategies for professional services organisations follow a model of: create awareness, create relationship, create client, retain client. Since the Asset Institute will be a small company, its marketing and sales/business development strategy and activities will be tightly integrated. In addition, project delivery will be an important influence on member and client retention since the Asset Institute's clients will have problems to solve and will want to access Asset Institute's expertise and IP to solve them in a timely way. It is likely that projects brought to the Asset Institute will require applied rather than blue sky research, and will be smaller in output than the research programs undertaken by CIEAM, and with shorter timeframes. This is an important shift in focus from the CRC model and should help inform and define the Asset Institute's marketing and sales activities.

Intellectual Property Portfolio

The Asset Institute will commence with access to a rich portfolio of world class IP in infrastructure and asset management built through ten years of research collaboration with industry through CIEAM and accessed through a non-exclusive licence with CIEAM. This is a core product offering of the Asset Institute and must be managed and leveraged as such. An IP Register will be maintained to track the status of all IP, opportunities for leveraging and the management of assignments and royalty streams.

IP may be utilised in different ways and the Asset Institute should consider opportunities for each unit of IP in terms of a number of factors including the mission of the Institute and sustainability of the Institute. Income from IP will augment the resources of the Institute. Asset Institute IP has the potential to create significant value, financially and socially for clients, and Asset Institute should clearly articulate the value the Asset Institute will generate from each IP transaction.

Marketing plan

Products and Services

The key products and services delivered by the Asset Institute to its target market will be:

- High quality asset management research services to solve novel problems. These research services will be underpinned by CIEAM's knowledge base and IP, built up over years of undertaking world class research on infrastructure and engineering asset management. The research will be delivered by researchers with extensive expertise in infrastructure and engineering asset management, many regarded as "thought leaders" in their field. Research services may be delivered to members or non-members of the Asset Institute.
- Online training in infrastructure and engineering asset management delivered in modular form through an accessible web platform.
- Professional courses in the field accredited by relevant professional associations.

Strategic Partners

The Asset Institute will form strategic relationships with key partners including researchers, some who may be employees of research organisations that are members of the Asset Institute, and professional services firms.

Research services will be delivered by a network of researchers associated with the Asset Institute. To mitigate the risk of research projects not achieving timeline expectations from industry, project management of research projects will in some instances be undertaken by professional service providers.

Applied services based on the Asset Institute IP and brokered through the Asset Institute will be delivered to industry via service providers.

Service providers will help identify opportunities for the Asset Institute research projects and the application of Asset Institute IP during their consultancy assignment to industry.

The Asset Institute will continue to benefit from the strategic relationships formed with International Society of Engineering Asset Management (ISEAM) and Australian Asset Management Collaborative Group (AMMCoG) to build relationships with potential members and clients. ISEAM is an important link into the international community and AMMCoG is an important connector to public asset owners, peak bodies and public sector grant sources in Australia.

Marketing Activities

Since it is a very lean start-up, the marketing plan is focused on cost effective marketing activities, focused on the target markets.

At Start-up

At Start-up, marketing activities will be focused on a "soft" launch of the Asset Institute including:

- Development of the Asset Institute brand and website utilising specialist input from a brand and a website consultant. The domain names <http://www.assetinstitute.com/> and <http://www.theassetinstitute.com/> have been secured and the website is planned to go live in August 2013.
- The first Asset Institute newsletter announcing the transition to the Asset Institute will be delivered via the CIEAM/ Asset Institute database and to other interested stakeholders.
- Publication of the Asset Institute Capability Statement.

In addition at start-up, \$450 K of the funds carried over from CIEAM is to be distributed to the universities for commercialisation/utilisation activities. The Asset Institute is required to ensure that these funds are expended in accordance with the terms of the commercialisation/utilisation outcomes that have been mandated by the CRC Branch of DIICCSRTE. The Asset Institute will closely monitor the universities' use of these funds for the prescribed activities. These requirements will have the added advantage of potentially attracting members and revenue for the Asset Institute.

It is important to also note that the carry over funding will be subject to the CIEAM Participant endorsement through the Wind Up Deed approval process. Of the carry over funding balance, approximately 60% or \$270 K

may be seen as attributable to Commonwealth funding and the remaining 40% or \$180 K to participant funding. This estimate will be reviewed at the end of July 2013.

Years one and two

During the first two years of operation, members will come from the domestic (Australian) market. First members are most likely to be from the CIEAM network. Marketing activities will occur through:

- Updates of website content.
- Publication of bi-annual newsletters via email.
- Presentations by Asset Institute researchers at the CIEAM initiated World Congress on Engineering Asset Management (WCEAM).
- Corporate sponsorships of activities and naming of research chairs.
- Submissions of press releases, editorials and news-worthy items that do not generally require direct costs focusing on successful achievements of the Asset Institute.
- Development and delivery of an Asset Institute Annual Report.
- Conference presentations and networking activities and follow up with contacts made.
- Case studies developed for projects successfully delivered.
- Articles for placement in industry publications.
- Leveraging the profile of Asset Institute researchers with relevant industry professional associations such as the Engineers Australia.

Year three and beyond

Australian memberships may start to plateau in the third year, accordingly, marketing activities from year three will include the following activities aimed at attracting international members, in addition to the above:

- Leveraging international relationships to attract international members and projects. This may occur through the international members of ISEAM and other international research institutes and associates.
- Leveraging relationships to understand and access international grants such as those sponsored through AusAID, the World Bank and the Asian Development Bank by registering as a consultant and tendering for technical assistance projects commensurate with the skills and expertise of the Asset Institute.

Cost of Services

The Asset Institute will price its products and services to reflect market rates. Membership of the Asset Institute will be levied at \$50 K per member per annum. Projects will be costed to cover the full cost of research services and project management surcharges based on commercial practices. Organisations that want to utilise Asset Institute's expertise but that are not members of Asset Institute will be charged initially using a 25% overhead recovery. Professional courses will be priced at market rates of \$600/day.

Competitor Analysis

Whilst consultancy Firms and brokerage Firms may have been considered to be the Asset Institute's competitors, by partnering with consultancy firms to gain industry leads and delivery of project management services, the Asset Institute will strengthen its position.

The Smart Infrastructure Facility, University of Wollongong is the key Australian research competitor. Whilst only in its third year of operation, the Smart Infrastructure Facility is well funded (\$65M) and integrated with the University. There is overlap with some CIEAM research themes however the Smart Infrastructure Facility concentrates on undertaking projects predominantly in NSW, which may make it difficult for the Asset Institute to establish a foothold in this market. The Asset Institute, through its CIEAM base, has a stronger IP base and is more established in the Australian and global asset management community, however it will be much smaller than Smart Infrastructure Facility as a self-funded entity.

CSIRO's Flagship Sustainable Asset Management theme focuses specifically on water management. Its aim is advancing best practice asset management across the Australian water sector by delivering tools and knowledge that allow water utilities to optimise their investment in infrastructure.

In addition, there are a number of smaller research programs within universities that deliver asset research services.

The Asset Institute's IP base is a core deliverable and a major contributor to the value of the Asset Institute. The Asset Institute should carefully define and monitor the terms under which it provides access to the IP base to existing research providers and ensure that collaborators do not become competitors by using IP in areas where the Asset Institute seeks to offer services and generate revenue for sustainability.

THE FUTURE

The vision of the Asset Institute is to be a leading International Research Institute providing transformational Infrastructure and Engineering Asset Management Solutions. The envisaged method of how this will be achieved is to provide collaborative research services, solutions and training, utilising the repository of world-leading knowledge in whole-of-life infrastructure and engineering asset management for public benefit. By applying this expertise, tools and technologies, the public will benefit from increased sustainability of infrastructure through improved asset performance, availability, reliability, reduced cost of ownership and extension of asset life. These outcomes will benefit the Australian public generally and enhance community livelihoods and sustainability internationally.

Specific business and operational goals position the Asset Institute to attract clients and stakeholders and fulfil their values and expectations. This will involve implementing world class business practices and performance, to serve as an exemplar to industry. To ensure successful delivery of this vision, it is the absolute goal to secure sufficiency of income and value of the Institute to achieve a fully staffed and fully operational position during a five (5) year window (refer Table 5). To this end, the following key goals have been adopted:

- To generate recurring income from members' contributions, brokerage services and royalties and licence fees from exploitation of IP pool; and
- To increase the value of the IP pool, the commercialised innovation from the IP pool; and any other business assets.
- To be thought leaders and knowledge experts in the Infrastructure and Engineering Asset Management domain and provide globally reputable education, training and e-learning products which will benefit its members and derive sustainable revenue streams to external parties at competitive rates.

FINANCIAL PLAN

The Asset Institute is incorporating as a not for profit organisation. It will seek tax exemptions afforded to charitable organisations. No profit will be distributed to the benefit of any one of its members. Membership to the Institute will be levied on an annual renewable basis from July 2013.

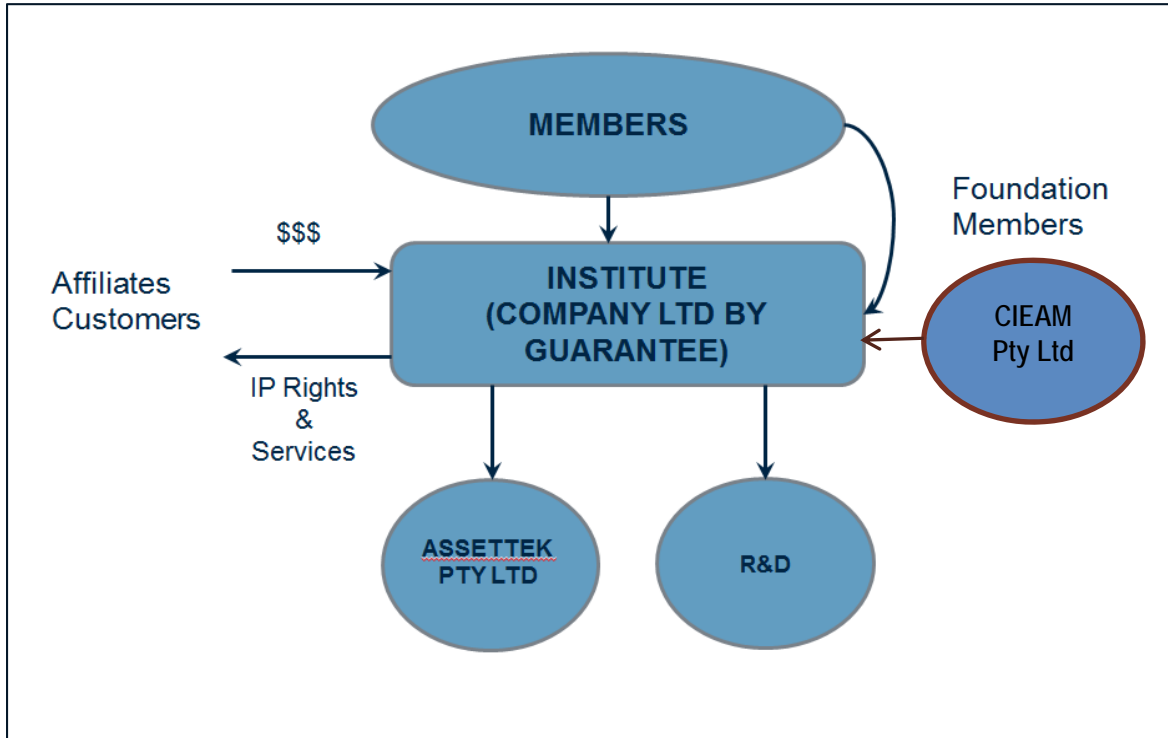
Entity Structure in Start-up Phase

The Institute will require the following key resources during its start-up phase:

- The Institute model includes an unlisted not-for-profit Limited by Guarantee Company registered to receive charitable contributions to carry out the public benefit.
- Coupled to the Institute is a wholly owned private company to undertake consulting activities, Assettek Pty Ltd.
- CIEAM Pty Ltd is the trust company in which all CIEAM IP is vested and will continue to be the holder of the IP. The Asset Institute will acquire access to the IP via non-exclusive commercial licences from CIEAM Pty

Ltd. Royalty fees and licence fees derived by CIEAM Pty Ltd will be transferred back to Asset Institute as its agreed commercial fee for undertaking commercial services of the CIEAM IP.

Figure 1: The Asset Institute Model



The structure is shown in Figure 1. The Asset Institute is structured on a public unlisted governance structure consistent with registered charitable organisations in Australia. The Institute will have an Industrial focused skills-based Board with mixed independent and representative members to support a lean and agile skilled Executive Team. In the start-up phase the Executive Team will be hands-on and flexible, consisting of only a few employees to undertake core activities of coordinating and monitoring research, business development and basic finance and administration services, supplemented by specific expertise provided by consultants as necessary. As the Asset Institute grows in members and projects and can sustain the costs, outsourced skills will be brought in-house.

CIEAM Wind Up and Translation to the Asset Institute

CIEAM ceased operations on 30 June 2013 however winding up activities including the provision of the final annual report will continue for four (4) months until 31 October 2013. Asset Institute operations are expected to formally commence on 1 August 2013. Details of the translation to the Asset Institute are the subject of a separate document, the Asset Institute Translation Plan.

Given that the CIEAM wind up phase is continuing beyond 30 June 2013, the Asset Institute will proceed to incorporation and will conduct operations leveraging access to CIEAM IP via its founding members, most of which are CIEAM participants and therefore have the right to access all CIEAM IP as and when required for internal use on a perpetual basis. In addition, for a period of 12 months after the closure of CIEAM (1 July 2013 to 30 June 2014) universities have an option to commercialise the IP under a non-exclusive commercial licence. If they do not take up this option the IP reverts back to CIEAM Pty Ltd. Asset Institute will be the vehicle for commercialising the IP, utilising CIEAM carry-over funds designated for commercialisation of CIEAM IP.

The Asset Institute will revise the value proposition for new members who were not participants of CIEAM to ensure they understand that the Asset Institute can still deliver research services without access to CIEAM IP. When CIEAM wind up arrangements have been finalised the Asset Institute will be granted a non-exclusive commercial licence to CIEAM IP.

Cash Flow Analysis Framework

A framework for the inaugural five years is provided in Table 1. It is provided as a guide and should be seen as a forecast, requiring rebalancing between revenue streams, resources and expenditures on an emergent basis. Confirmation of revenue streams as well as expenditure forecasts for operational planning will require close and frequent monitoring. Gross margin forecast or retained earnings will be essential to secure sustainability of the Institute. Asset Institute finances will need to be closely managed, particularly in the first three years and costs minimised as far as possible to ensure that positive cash flows are achieved.

Scenario Planning

Three scenarios reflecting differences in the number of members over a five year period and based on the following membership and revenue assumptions were modelled.

Table 1: Scenarios Modelled

NUMBER OF MEMBERS (CUMULATIVE)						
SCENARIO	START UP	1	2	3	4	5
Best case	6	6	12	15	22	30
Worst Case	5	5	6	7	8	10
Medium case	6	6	8	10	14	20

Membership Assumptions:

- Two universities, QUT and SCU, have stipulated a requirement for five (5) members at start-up to ensure the Asset Institute is not a Controlled Entity of the university. Other universities may have the same requirements.
- Members in years 1 and 2 will come predominantly if not exclusively from Australia.
- Domestic membership will start to plateau in year 3 and the Asset Institute will need to attract international members commencing in year 3.
- Growth in international members will continue in years 4 and 5.
- The Asset Institute will effectively manage projects to demonstrate value to members and promote ongoing membership. Despite these efforts, members will not necessarily retain their membership for the five years modelled therefore the Asset Institute will need to recruit more members than is shown in the cumulative figures.
- All seed funding carried over from CIEAM will be invested in the Asset Institute as seed capital at start-up but with the proviso that a minimum of 60% of those carry over funds will be mandated to complete commercialisation and utilisation projects.

Revenue Streams

Revenue for the Asset Institute will come from the following sources:

Membership fees - \$50K per member per annum. Membership fees will fund core Asset Institute activities including governance and project management.

Project funds – Assume three times the membership fee i.e. \$150K. Apart from year 1 which will draw heavily on carry over funding. Projects will be delivered by universities, service providers and SMEs at commercial rates.

Brokerage – The Asset Institute may broker access to IP and potential partners nationally and internationally. Brokerage fees will be charged for services delivered by the Asset Institute for non-members. A surcharge of 25% will be charged in addition to project costs to cover administrative and governance costs. Assume a growing rate of projects from non-members as the Asset Institute brand strengthens in the marketplace. For modelling purposes assume projects of \$100K each as in Table 2.

Table 2: Brokerage Modelling

YEAR	1	2	3	4	5
Number of projects from non-members	1	3	7	9	11

e-Learning courses

The Asset Institute can utilise its investment in e-Learning courses in a number of ways to create value including:

- Asset Institute members will be provided with five (5) places on Asset Institute e-Learning courses as part of their membership, generating additional membership value.
- The Asset Institute, may commercialise the e-Learning courses directly offering them via the web.
- The Asset Institute will negotiate a commercial arrangement with relevant professional associations that seek to continually create additional value for their members as distribution partners. For example, the Asset Institute could offer its e-Learning course to associations such as Engineers Australia and CPA Australia for a fee.

The revenue flows reflected in the modelling are based on best estimates that were available at the time of production. Further refinements are expected and will be considered in the business case that is being produced for Board consideration.

Revenue from commercialisation of Intellectual Property. Assumed that 20% of the projects undertaken by the Asset Institute are commercialised, assumed predominantly licensed, at a rate of 8%.

Professional Courses. The Asset Institute would run professional training and development activities for the asset management community on a commercial basis. Assume the Asset Institute courses are each of two days in duration at \$600/participant, attracting 20 participants. The Asset Institute would apply to have these professional training and development activities recognised by the Engineers Australia Institute as contributing to continuing professional development requirements. The model assumes gross revenue is based on 100% mark up on cost, accordingly net revenue has been determined after deducting cost of production.

The number of courses run by the Asset Institute is as shown in Table 3.

Table 3: Professional Course Modelling

YEAR	1	2	3	4	5
Number of Professional Courses	1	2	3	3	3

Cash Flow Forecast

Cash flow forecasts based on the worst, medium and best case scenarios were modelled. The results shows that the Asset Institute will only be viable with seed funding and if it achieves the membership and other revenues assumed in the best case scenario. The best case scenario is the base for the cash flow estimates shown Table 4. The cash flows for the worst and medium case scenarios are shown in Appendix 1.

Table 4: Asset Institute Cash Flow Best Case Scenario.

BEST CASE	Year 1	Year 2	Year 3	Year 4	Year 5	
	FYE 2014 (\$'000)	FYE 2015 (\$'000)	FYE 2016 (\$'000)	FYE 2017 (\$'000)	FYE 2018 (\$'000)	Notes
RECEIPTS						
Balance cash carried forward		103	191	483	1,099	
Seed Fund	450	-	-	-	-	1
Project Revenue	600	1,800	2,250	3,300	4,500	2
Membership Fees	300	600	750	1,100	1,500	3
Brokerage Fees	25	75	175	225	275	4
Commercial Fees	17	29	36	53	72	5
E-learning & course fees (net income)	1	40	78	118	157	6
Professional Training & Development Courses (net income)	6	12	18	18	18	7
Interest	13	7	16	36	77	8
Total	1,412	2,666	3,514	5,333	7,698	
PAYMENTS						
Project Expenditure	870	1,800	2,250	3,300	4,500	9
Salaries and O/H	309	475	550	658	684	10
Minor equipment	0	19	22	26	27	10
Travel & accommodation	31	48	55	66	68	10
Operational costs	43	71	83	99	103	10
Consultants	50	52	61	72	75	10
Training	6	10	11	13	14	10
Total Expenses	1,309	2,475	3,031	4,234	5,471	
CASH BALANCE	103	191	483	1,099	2,226	

Assumptions & methodology

1. Seed funding is calculated at a carryover of \$0.450 M from CIEAM II in respect of which 60% or \$0.270 M has been mandated for commitment to commercialisation and implementation projects in AI, with the remaining \$0.180 M being committed to administrative support of those endeavours.
2. Project revenue is calculated using estimated project costs=to 3 times membership fees.
3. Membership base commencing at six members each contributing \$50K at end Year 1 growing over 5 years to 30 members contributing \$50K PA.
4. Anticipated brokerage fees over the 5 years from external parties.
5. Commercial fees from Asset Institute technology exploitation - 20% of total project revenue (emerging) @8% pa.

6. E-learning income from AM BOKs, Wiki, Apps etc as advised E&T Consultant.
7. Professional development course 20 attendees@\$600 per registration/per annum set by assumptions less a 50% cost allowance.
8. Interest income based on average cash balances held each year at 4.75% pa.
9. Project costs are based on anticipated project revenue which is paid to research providers and services providers. Payments to research and service providers will be fully costed including direct and in-direct costs.
10. Expenses based on optimal admin service as per model developed by CEO, heads of expenditure based on average % of total expenditure as trending in CIEAM. Salaries in first year costed from 1 November 2013 to 30 June 2014 as positions funded by CIEAM to 31 October 2013. CEO salary costed on current salary costs in first year and at Professor Level E thereafter.

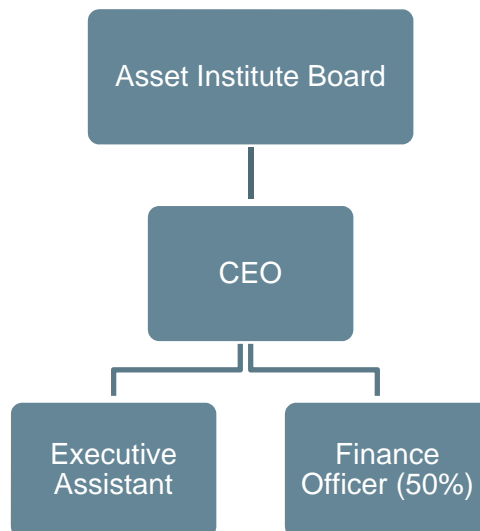
The cash flow shows the importance of the seed funding for start-up. Without it the Asset Institute would not survive the first year. Project expenditure is the largest cost and is derived in the same proportion as revenue from industry members and is expended on research which must be effectively project managed. Salaries and overheads are the next largest cost to be managed closely.

Current salaries will be funded from CIEAM during the wind-up and translation phase from 1 July 2013 to 31 October 2013. The salary levels used in this model are actual salaries for the first year, from 1 November 2013 to 30 June 2014. Thereafter the CEO salary is costed at Professor Level E, which is less than the remuneration being paid to the incumbent CIEAM CEO.

Organisation Structure

The proposed organisational structure for the Asset Institute is shown in Figure 2. To reduce costs at start-up this core structure will be supported by consultants for communications, business development, company secretary and audit services.

Figure 2: The Asset Institute Limited Organisation Chart at start-up



Asset Institute core staffing for start-up and the first five years of operations is as forecast in Table 5.

Table 5: Asset Institute Core Staffing

YEAR	Start up	1	2	3	4	5
CEO	1 x FTE	1 x FTE	1 x FTE	1 x FTE	1 x FTE	1 x FTE
Executive Assistant	1 x FTE	1 x FTE	1 x FTE	1 x FTE	1 x FTE	1 x FTE
Finance & Operations Coordinator	0.5 FTE	0.5 FTE	0.5 x FTE	1 x FTE	1 x FTE	1 x FTE
Business Development			0.5FTE	0.5 x FTE	1 x FTE	1 x FTE

This staff profile is based on the following assumptions:

1. The selection and appointment of all Board roles and the CEO will follow the process mandated in the Asset Institute Constitution.
2. The role of the CEO includes oversight of projects, managing relationships, contribution to business development and securing revenue and managing costs to ensure sustainability of the Asset Institute and is classified at SSG 4 + 10% risk bonus for the purposes of this exercise.
3. During the second year of operations, an ongoing BD role will be filled. Whilst the position will need to be classified it is costed at SSG 2 for the purposes of this exercise.
4. The Executive Assistant will be remunerated at HEW Level 6 and undertake general administrative duties, updating of the website (in Wordpress) and basic financial duties. He/She will spend 5% of their time on ISEAM network support duties.
5. For the first two years of operations, most financial operations will be undertaken by a HEW Level 7 Finance Officer on a half time basis, potentially under a job share arrangement with the host institution. During the third year of operations, financial work may be sufficient to justify a full time financial officer role.
6. The following roles will be undertaken by consultants to reduce costs:
 - a. Company Secretary – 4 days/quarter - \$10K/annum
 - b. Auditor - \$3,000/annum which has been absorbed under operational expenses
 - c. Business Development - \$20K retainer
 - d. Communications – develop two newsletters annually, develop the annual report, maintain website - \$20 K/annum
 - e. Project management – will be undertaken by service companies and is factored into the project costs.
 - f. Legal costs will be minimal as all costs of incorporation and establishment have been absorbed by the CIEAM transitional project to launch AI. Little or no legal costs are expected in the start up period as agreements will be driven by standard templates that will be developed and approved in the pre-incorporation translation project.
7. The Asset Institute is expected to be hosted at QUT and will draw on QUT services, such as HR and Payroll, which will be covered by on-costs.
8. The interim CEO will continue in his role of Chair of ISEAM. All work undertaken by the interim CEO in supporting ISEAM is undertaken after hours on his own time.
9. The interim CEO and EA will not spend more than 5% of their time supporting AMMCoG activities as part of their normal roles at the Asset Institute. Activities include participating in AAMCoG meetings each quarter. In the event that the Asset Institute is able to source funding for public good projects through the AAMCoG, then the time allocation will be reviewed.
10. The Chair and Independent Member of the interim Board have offered their services free of charge, other than to cover travel expenses, for the first six months of the Asset Institute.

Key Personnel

Roles required at Asset Institute start-up are outlined in Table 6.

Table 6: Core Roles, Skills and Abilities for the Asset Institute at Start-up

JOB TITLE	QUANTITY	SKILLS AND ABILITIES NECESSARY	DATE REQUIRED
CEO	1	National/International reputation in the whole-of-life engineering asset management field, strong business development capabilities with relevant relationships with funding bodies, benefactors and Asset Institute Members; expertise in project or commercial management of technology based enterprises. Demonstrated ability to tightly manage finances, secure members and flexible attitude and willingness to be “hands-on” in a start-up phase.	November 2013
Executive Assistant	1	Broad administrative and organisational skills including demonstrated ability to organise and deliver multiple administrative projects and tasks. Skills and experience in using MYOB and WordPress for maintaining the website. Experience in supporting virtual networks and assisting in organising events. Flexible attitude and willingness to undertake the diversity of tasks required to support a start-up operation.	November 2013
Finance Officer	0.5	Relevant qualifications and experience in undertaking day-to-day finance processes in support of a charity or not for profit entity as well as finance experience in a commercial environment. Experience in managing the finance for research grants. Flexible attitude and willingness to undertake the diversity of tasks required to support a start-up operation.	November 2013

Selection of Personnel

The Asset Institute Constitution assists in the transition from CIEAM by defining a transparent and meritorious assessment and selection process undertaken by a Nomination Committee with membership of a maximum of one of the existing Asset Institute Interim Board Directors. The Nomination Committee must be appointed within 3 months of incorporation and will select and recommend the full Board of Asset Institute, who in turn will select the CEO and executive of the Asset Institute.

IDENTIFIED RISKS FOR THE ASSET INSTITUTE

The Asset Institute faces a number of significant risks during start-up that will need to be managed closely by the CEO. These risks are shown the Risk Matrix in Table 7.

Table 7: Asset Institute Risk Matrix

IDENTIFIED RISKS	Risk Category (HIGH, SIGNIFICANT, MEDIUM, LOW)	CONSEQUENCE / LIKELIHOOD	IMPROVEMENT INITIATIVE / TREATMENT STRATEGY	STRATEGIC OWNER /STAKEHOLDER
<p>Financial – unable to secure significant funds to seed Asset Institute for 3 years.</p> <p>Lack of funding. Membership funding model is now based on significantly reduced fees (\$50 K pa).</p> <p>Lack of industry project funding.</p> <p>Insufficient cash flow while starting.</p> <p>Revenues from commercialisation of products and tools will not be available in the short term period.</p>	Significant /High	Possible/Major / Likely/Extreme	<p>Pursue use of carry over funds as the highest priority for seed funding. Develop Operational Plan to (i) forecast lean operational staffing (ii) implement tight financial controls to prevent erosion of all eligible funds, including unspent funds.</p> <p>Sell the value proposition of being a member of an industrial partner / association that can apply for industrial partnered grant monies.</p> <p>Seek new membership using the Business Development Plan and engage a dedicated business development professional to build relationships with donors and industry and the market generally.</p> <p>Persuade current participants to be more commercial.</p> <p>Implement a clear financial plan with base funding requirements to continue to fund a lean organisation. Leverage existing relationships within CIEAM's network to building new relationships with donors and industry to attract revenue.</p>	CIEAM Executive Team, BD Consultant, PM
<p>Intellectual Property</p> <p>All CIEAM participants do not assign IP rights via the Windup Deed</p>	High	Possible/Major	<p>Continue to engage with CIEAM participants to understand their position and reach agreement on Asset Institute's access to CIEAM IP and seed funds.</p> <p>Consider amendments to the Windup Deed as necessary.</p>	CIEAM Executive Team

IDENTIFIED RISKS	Risk Category (HIGH, SIGNIFICANT, MEDIUM, LOW)	CONSEQUENCE / LIKELIHOOD	IMPROVEMENT INITIATIVE / TREATMENT STRATEGY	STRATEGIC OWNER /STAKEHOLDER
for CIEAM, therefore Asset Institute is unable to access IP generated during CIEAM and seed funding from CIEAM.			Decouple the wind-up of CIEAM from the commencement of the Asset Institute. Since some of the founding members of Asset Institute are CIEAM participants, they already have access to all CIEAM IP. Revise the value proposition for new members who were not participants of CIEAM to ensure they understand that Asset Institute can still deliver research services without CIEAM IP.	
Competitive Offerings using CIEAM IP Former CIEAM participants may use CIEAM IP to deliver commercial services in competition with the Asset Institute during the first year, generating confusion in the marketplace and potentially resulting in some loss of opportunity for Asset Institute.	Possible	Moderate/ Possible	Maintain relationships with former CIEAM participants to monitor use of IP and encourage collaboration with Asset Institute. Clearly articulate the Asset Institute value proposition to the target market.	CIEAM Executive Team
Loss of industry support Lack of Industry commitment to the new organisation. High level of turnover of industry members.	Significant	Major/Possible	Engage industry early and ensure value is delivered and expectations are met. Clearly understand industry needs and align value proposition with those needs. Engage the services of professional services firms for project management to ensure that projects are delivered to meet industry expectations. This will increase the	CIEAM Executive Team, PM

IDENTIFIED RISKS	Risk Category <i>(HIGH, SIGNIFICANT, MEDIUM, LOW)</i>	CONSEQUENCE / LIKELIHOOD	IMPROVEMENT INITIATIVE / TREATMENT STRATEGY	STRATEGIC OWNER /STAKEHOLDER
<p>Trying to do it without engaging with industry first could lead to lack of industry association support.</p> <p>Lack of trust from partner organisations.</p>			<p>prospect of industry retaining and growing Asset Institute membership.</p> <p>Engage existing industry association support.</p>	
<p>Loss of key people, networks and connections, including loss of current CEO and his international networks and loss of industrial Board member networks</p>	Possible	Moderate / Medium	<p>Finding the right people at market rates that have extensive knowledge in asset engineering management and strong linkages globally in a lean greenfield environment.</p>	CIEAM Executive Team, PM
<p>Market Acceptance</p> <p>Risk of poor membership uptake.</p> <p>Unable to influence donor groups.</p> <p>Risk that technologies will not be broadly taken up by industry.</p>	Possible	Moderate / Medium	<p>Clearly understand the needs of the market and deliverables expected by industry and public asset owners through appropriate market research and engagement.</p>	CIEAM Executive Team, PM

APPENDIX 1 – WORST AND MEDIUM CASE SCENARIOS

Table 8: Asset Institute Worst Case Scenario

WORST CASE	Year 1	Year 2	Year 3	Year 4	Year 5	
	FYE 2014 (\$'000)	FYE 2015 (\$'000)	FYE 2016 (\$'000)	FYE 2017 (\$'000)	FYE 2018 (\$'000)	Notes
RECEIPTS						
Balance cash carried forward		50	(183)	(326)	(480)	
Seed Fund	450	-	-	-	-	1
Project Revenue	500	900	1,050	1,200	1,500	2
Membership Fees	250	300	350	400	500	3
Brokerage Fees	25	75	175	225	275	4
Commercial Fees	15	14	17	19	24	5
E-learning & course fees (net income)	1	40	78	118	157	6
Professional Training & Development Courses (net income)	6	12	18	18	18	7
Interest	12	-	-	-	-	8
Total	1,259	1,392	1,505	1,654	1,994	
PAYMENTS						
Project Expenditure	770	900	1,050	1,200	1,500	9
Salaries and O/H	309	475	550	658	685	10
Minor equipment	0	19	22	26	27	10
Travel & accommodation	31	48	55	66	69	10
Operational costs	43	71	83	99	103	10
Consultants	50	52	61	72	75	10
Training	6	10	11	13	14	10
Total Expenses	1,209	1,575	1,831	2,134	2,473	
CASH BALANCE	50	(183)	(326)	(480)	(479)	

Assumptions and Methodology

1. Seed funding is calculated at a carryover of \$0.450 M from CIEAM II
2. Project revenue is calculated using estimated project costs=to 3 times membership fees
3. Membership base commencing at 4 members each contributing \$50K at end Year 1 growing over 5 years to 10 members contributing \$50K PA
4. Anticipated brokerage fees over the 5 years from external parties

5. Commercial fees from Asset Institute technology exploitation-20% of total project revenue (emerging) @8% pa
6. E-learning income from AM BOKs, Wiki, Apps etc as advised E&T Consultant
7. Professional development course 20 attendees@\$600 per registration number PA per assumptions less a 50% cost allowance
8. Interest income based on average cash balances held each year at 4.75% pa
9. Project costs are based on anticipated project revenue which is paid to research providers & services providers. Payments to research and service providers will be fully costed including direct and in-direct costs.
10. Expenses based on optimal admin service as per model developed by CEO, heads of expenditure based on average % of total expenditure as trending in CIEAM. Salaries in first year costed from 1 November 2013 to 30 June 2014 as positions funded by CIEAM to 31 October 2013. CEO salary costed on current salary costs in first year and at Professor Level E thereafter.

From the modelling it can be concluded that the worst case scenario is not viable for the Asset Institute after the first year, supported by seed funding.

Table 9: Asset Institute Medium Case Scenario

MEDIUM CASE	Year 1	Year 2	Year 3	Year 4	Year 5	Notes
	FYE 2014 (\$'000)	FYE 2015 (\$'000)	FYE 2016 (\$'000)	FYE 2017 (\$'000)	FYE 2018 (\$'000)	
RECEIPTS						
Balance cash carried forward		50	(78)	(64)	97	
Seed Fund	450	-	-	-	-	1
Project Revenue	500	1,200	1,500	2,100	3,000	2
Membership Fees	250	400	500	700	1,000	3
Brokerage Fees	25	75	175	225	275	4
Commercial Fees	15	19	24	34	48	5
E-learning & course fees (net income)	1	40	78	118	157	6
Professional Training & Development Courses (net income)	6	12	18	18	18	7
Interest	12	-	-	1	17	8
Total	1,259	1,797	2,217	3,132	4,612	
PAYMENTS						
Project Expenditure	770	1,200	1,500	2,100	3,000	9
Salaries and O/H	309	475	550	658	685	10
Minor equipment	0	19	22	26	27	10
Travel & accommodation	31	48	55	66	69	10
Operational costs	43	71	83	99	103	10
Consultants	50	52	61	72	75	10

Training	6	10	11	13	14	10
Total Expenses	1,209	1,875	2,281	3,034	3,973	
CASH BALANCE	50	(78)	(64)	97	640	

Assumptions and Methodology

1. Seed funding is calculated at a carry over of \$0.450 M from CIEAM II
2. Project revenue is calculated using estimated project costs=to 3 times membership fees
3. Membership base commencing at 4 members each contributing \$50K at end Year 1 growing over 5 years to 20 members contributing \$50K PA
4. Anticipated brokerage fees over the 5 years from external parties
5. Commercial fees from Asset Institute technology exploitation-20% of total project revenue (emerging) @8% pa
6. E-learning income from AM BOKs, Wiki, Apps etc as advised E&T Consultant
7. Professional development course 20 attendees@\$600 per registration annual courses as per assumptions less a 50% cost allowance
8. Interest income based on average cash balances held each year at 4.75% pa
9. Project costs are based on anticipated project revenue which is paid to research providers & services providers. Payments to research and service providers will be fully costed including direct and in-direct costs.
10. Expenses based on optimal admin service as per model developed by CEO, heads of expenditure based on average % of total expenditure as trending in CIEAM. Salaries in first year costed from 1 November 2013 to 30 June 2014 as positions funded by CIEAM to 31 October 2013. CEO salary costed on current salary costs in first year and at Professor Level E thereafter.

From the modelling it can be concluded that the medium case scenario is viable.