

Annual Report

2016/17



Centre for Appropriate
Technology Limited



Jim Bray

10 June 1941 – 20 October 2016

Chairmanship, 1980 – 2010

It is our solemn task to report the passing of Jim Bray during the year. An Eastern Arrernte man, Jim was the long-standing founding Chair of the Centre for Appropriate Technology Ltd.

He has left a huge legacy as an ambassador for science and technology, education and development for Aboriginal people in Central Australia.

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Who we are

The Centre for Appropriate Technology Company Group comprises the Centre for Appropriate Technology Ltd (CAT Ltd), an Aboriginal and Torres Strait Islander (ATSI) owned not-for-profit business and Ekistica (Pty Ltd), its wholly owned commercial subsidiary.



CAT Ltd is based in Alice Springs with a national focus, currently undertaking projects across Central and Northern Australia (WA, NT, Qld and SA). CAT Ltd has a proven record of accomplishment of implementing highly successful partnerships and technology solutions with Aboriginal and Torres Strait Islander communities. Success is built upon effective Aboriginal community engagement and true collaboration in decision-making, planning, implementation and assessment. CAT Ltd is also a Registered Training Organisation (RTO).

Ekistica is regional and remote Australia's leading advisory and technical consultancy firm providing advisory, engineering design and project delivery services. Clients include state and national governments, intergovernmental agencies, power utilities, community service organisations, and large commercial and private investment firms across a range of domestic and international markets.

The Company Group employs over 60 Staff and has a \$9m annual turnover.



Who we are

Meet the board



Grant Behrendorff

Grant Behrendorff is a professional engineering technologist specialising in renewable energy systems and energy efficiency program development and implementation. Grant spent several years as Group

Manager of CAT Ltd's Bushlight renewable energy program from its inception in 2002. He has since lead projects in the energy sector in Australia, India, North America, and the Pacific Islands. Grant is currently the Director of Evolve Energy Pty Ltd, a Director of Energy Innovations Pty Ltd, and is based in Cairns, Queensland.



Frank Curtis

A local Arrernte man, Frank Curtis served the people of central Australia for a period of twenty years in his role as an Aboriginal Community Police Officer. Frank is currently in the process of developing a

Youth rehabilitation camp at Umbussa Amurra outstation. Frank enjoys working with young people to build up their self esteem and confidence. He strives to instill in these youth a vision that someday they will end up being leaders of their country. As a member of the CAT Ltd Board, Frank is passionate about finding ways for Aboriginal people to return to country and live on their homelands.



Noel Hayes

Noel Hayes is a Kaytetye man from Ali Curung, central Australia. For ten years, he served as an ATSIC commissioner. He currently serves on the Barkly Shire Council in the NT. Noel has been involved in a leadership

capacity for a range of social programs and community justice initiatives. He brings strong expertise in working with government.



Jenny Kroker

Jenny is an Eastern Arrernte woman. Jenny has a practical background in cross-cultural education and uses this to nurture the organisational culture at CAT Ltd. She has integrated Indigenous Knowledge into science

curriculum in schools. Jenny is a strong advocate for women in technology.



Helen Martin

Helen Martin joined the CAT Ltd Board in September 2016 as a Director. Helen is a local Arrernte woman and for the past 12 years co-owner of an eco-friendly tourism retreat 'Banu Banu' located off the coast of Nhulunbuy,

Arnhem Land. She was a finalist in the Entrepreneur Category of the NT Telstra Women's Business Awards in 2015 and is the Chair of the Northern Territory Indigenous Tourism Advisory Council. As someone who has first-hand experience of growing a business from the grassroots level up, Helen is passionate about helping other Indigenous people start and operate their own businesses.



Peter Renehan

Peter Renehan was born and raised in Alice Springs. He has been CAT Ltd Chair since October 2010. He brings to CAT Ltd strong community engagement skills and practical hands-on abilities. Peter's leadership underpins

the strength of the CAT Ltd Board and their focus on achieving positive outcomes for Aboriginal and Torres Strait Islander people.



Dr Steve Rogers

Dr Steve Rogers commenced as the CEO of CAT Ltd in January 2015. He has most recently been the Science and Industry leader at the Australian Institute of Marine Science in Perth. He has also been the CEO and

Managing Director of two mining industry related Co-operative Research Centre's and Principal Research Scientist with CSIRO Land and Water. He is an experienced company director with a strong vision for CAT Ltd as a national organisation delivering the technology innovation needed to stimulate economic development across remote Australia.



Brian Singleton

Brian Singleton is a Yirraganydji Rainforest Bama (People) whose people Ancestral Traditional Lands are from the Cairns region to Port Douglas. Brian works for the Great Barrier Reef Marine Park as an Indigenous

Community Compliance Liaison Officer. He brings more than 15 years' experience in engaging Traditional Owners and Indigenous Communities in Land and Sea Management. Brian is passionate about providing training and knowledge exchange to communities and Traditional Owners, to manage their own sea and country.



Brian Stacey

Brian Stacey is an anthropologist by training and worked in the Australian Public Service for more than 30 years in Indigenous Affairs. He started in Alice Springs as a graduate clerk for the former Department of

Aboriginal Affairs in 1983 and worked with CAT Ltd in helping Aboriginal people to return to their country. Ultimately Brian became a senior officer including the State Manager in the Northern Territory and a Division head responsible for Land for Indigenous people. Brian has left the Public Services and now works as a consultant.



Who we are

The Chairman and CEO's report

We are pleased to report that during the year CAT Ltd has made significant progress in achieving the goals set out in our 2016–2021 Strategic Plan. To quote a recent visitor to our operations:

'CAT Ltd is open for business'

An achievement that we are all justifiably proud of is the increase in employment of Aboriginal and Torres Strait Islander (ATSI) staff. At 30th June 2016 CAT Ltd employed 24 ATSI members of staff, comprising 61% of our workforce. Our project with Geoscience Australia, involving the establishment of a temporary soil sample processing laboratory at our facilities, provided 25 hours a week employment at 'award

rate' wages for six months for seven long term unemployed Aboriginal workers, and three workers who were part of the NT Correctional Services/Alice Springs Correctional Centre 'Sentenced to a job' program.

As an Aboriginal company, providing our ATSI staff with opportunities for professional development is important. Two of our Fabrication Enterprise staff commenced their Apprenticeships this year studying for their Certificate III in Engineering- Boiler making, and our Fabrication Enterprise manager and Training coordinator both commenced their Certificate IV in Training and Assessment.

2016-17 was a year of awards for CAT Ltd. The Manymak Energy Efficiency project, which CAT Ltd was a core consortium partner, was awarded the 2016 NAIDOC Caring for Country Award along with three other national awards. Our mobile phone hotspot received the NT Department of Trade and Innovation Industry Innovation Award 2016. These awards provide external, third-party validation of our work.

Financial stability is critical to the future of CAT Ltd. The company can report a significantly reduced operating loss for the 2016-17 period. Excluding extraordinary items to allow 'like for like' comparison, we have reduced the operating loss by almost two thirds, compared to 2015-16 financial year. More importantly, for the six months from 1st January 2017, the company has consistently delivered a month on month operating surplus. This is partly the result of; a targeted 'downsizing' of our capacity to better reflect the reality of environment we operate in, success we have achieved this year in utilising our assets to generate income, and securing external contracts by our facilities management and IT teams. But most importantly maintaining a pipeline of contracted project work. We expect to continue to generate an operating surplus for the coming financial year.

Our mobile phone hotspot program continues to be a technology leader. At year's end, 41 MKI hotspots had been installed in the Northern Territory, over half of these being in Aboriginal communities, the remainder in roadside and tourism



Who we are

The Chairman and CEO's report

locations. We have tracked how often our hotspots are used; at the Tropic of Capricorn pullover on the North Stuart Highway the mobile hotspot is being used 22 times a day. The next generation MKIII hotspot design, aimed at locations that are beyond the coverage achievable with the current Hotspot, was successfully developed. The first MKIII customer installation is planned for mid-2017, at a location over 100Km from the nearest mobile phone radio base station.

Work on a number of infrastructure projects is progressing well, notably the Koongarra Homeland project. In order to maximize the benefit of this project to local Aboriginal people, significant components of the Koongarra project have been sub-contracted to the local Warnbi Aboriginal Corporation based in Jabiru. Our infrastructure team has re-established CAT Ltd's presence in WA during the year, undertaking a building design consultancy for Kimberley Aged Care Services in consultation with the Wangkatjungka community, located 130 Km south East of Fitzroy crossing for a community care services facility. Our design for a public toilet located at the

studio of Kathleen Buzzacott, a renowned local Alice Springs Aboriginal artist and entrepreneur, received the Best Design (Joint winner) award at the 2017 Inaugural International Toilet Tourism Awards.

The first six months of 2017 has been an outstanding period for our training team. We delivered job related competencies in Certificate III in Civil Construction Plant Operations in ten Central Australia communities, and worked with the CDP MyPathway at Alpara to deliver Certificate II in Construction training to local job seekers. In a new and exciting direction for CAT Ltd, we have formed a partnership with the Aboriginal Carbon Fund to design, develop and then implement a nationally accredited (Certificate II) in Carbon Farming course under the CAT Ltd RTO.

We would like to take this opportunity to congratulate management and staff of our wholly owned subsidiary Ekistica (previously known as CAT Projects), on their ongoing success, end of year operating result and highly successful corporate

rebranding exercise. Ekistica has certainly come of age with 2017 marking the tenth anniversary of its establishment. It is perhaps worth reflecting on the story of Ekistica, on how CAT Ltd, a small aboriginal not for profit organisation was able to set up a commercial, wholly owned subsidiary, that is now operating successfully in a highly competitive business sector.

After a successful year, we would like to thank all of our staff for their ongoing commitment to the company and support for our Strategic direction; we can honestly say it is a real personal pleasure working with you all. We would also like to thank our company members, supporters, and many partners in the wider community.

Finally, we would like to express our gratitude to the CAT Ltd Board for their support for the company, we are on a challenging journey together.

Why we exist

CAT Ltd exists to support people in regional and remote Australia in the choices they make in order to maintain their relationship with country.

Maintaining a relationship with country may include a desire to live on country, visit country, develop country for economic benefit or protect country.

We achieve this by providing solutions to infrastructure challenges that people face in maintaining their relationship with country, primarily: reliable power, water supply, digital connectivity, built infrastructure, training and skills development.

Our Vision

Sustainable and enterprising communities of Aboriginal and Torres Strait Islander people underpinned by appropriate 'fit for purpose' technology

Our Mission

Through our unique knowledge of and engagement with remote people and place, we will deliver practical, integrated project design, technical innovation, training and infrastructure products and services — supporting livelihoods and growth in economic opportunities across remote areas

Why we exist

Our Capabilities

Architectural design construction and project management: residential, commercial, public/community buildings

Infrastructure design and development: remote small business enterprise infrastructure (i.e. remote tourist camps), establishment of community housing programs, remote homeland planning and establishment

Digital connectivity: survey and installation CAT Ltd unpowered mobile Hotspot and generic powered mobile Hotspot, point-to-point WiFi

IT Services: Full IT service provision, server hardware hosting

Facilities management: Full lifecycle - building, infrastructure and grounds maintenance

Metal fabrication, design and engineering: High-end designer furniture (in partnership with specialist designers), bush-hardy products, and structural steelwork

Small scale (off-grid) remote power supply: procurement and project manage installation of small 'off grid' solar (PV) systems, installation of 12V PV power supply to 'off grid' campgrounds.

Registered Training Organisation: Accredited training; automotive, rural operations, engineering/welding, construction/plant operations. Design of tailored training programs to meet client requirements.

Healthy Country Planning: Tailored, participatory planning on country, development of strategic plans for managing traditional homelands

Technology innovation
and application

Aboriginal and
Torres Strait Islander
enterprise and jobs

Applied project design,
management and
professional services

Infrastructure design

Community
engagement, planning
and facilitation

Engineering and metal
fabrication

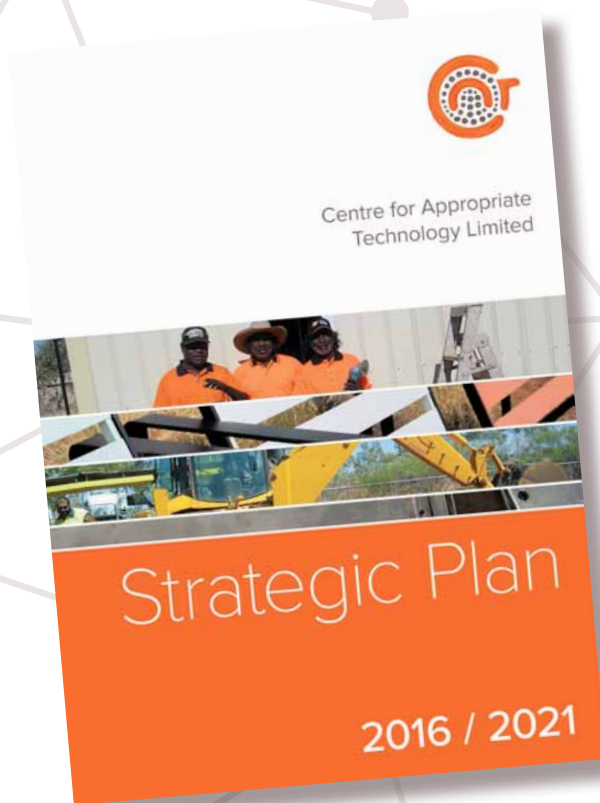
Place based accredited
training, skills
development and
capacity building

Facilities management

What we do

Our Strategies

Our Strategic Plan sets out four Goals



1

Transition to a successful enterprise based not-for-profit business

2

Further establish CAT Ltd as a remote technology innovation leader

3

Maximising Aboriginal and Torres Strait Islander employment

4

Building training and skills development outcomes

What we do – achieving Strategic Goal

1

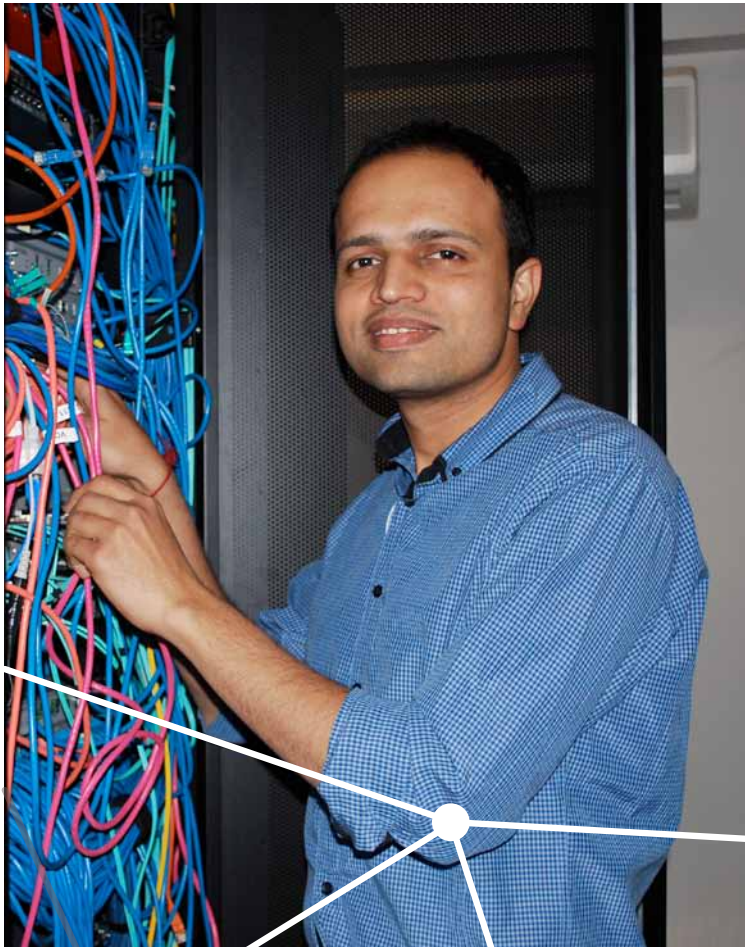
Transition to a successful enterprise based not-for-profit business

Project partnership with Ernst and Young establishment of the NT Remote Housing Organisation

A core element of Strategic Goal 1 is the development of strategic partnerships. CAT Ltd partnered with the multinational professional services company Ernst and Young on a project commissioned by the Northern Territory Government (NTG) Department of Housing and Community Development, to outline conceptual model options for the establishment of a Remote Housing Organisation, an alternative to the current public housing model in remote communities.

A number of key stakeholder meetings were held with peak NT Aboriginal organisations providing their vision of a future organisation model, and detailed input to model elements. Outcomes from these meetings provided a clear consensus around a model that is 'independent of government departments, Aboriginal controlled, and focusses on place based solutions'. A final report was submitted to the Department in October 2016.





Utilising our assets, and commercial opportunities for facilities management and IT teams

We have identified maximising the return from our assets as a means of achieving our enterprise goals. During the year, we not only critically assessed opportunities for income generation from our assets, but also identified potential opportunities for external contract work for our facilities management and IT teams.

As a result, we have successfully rented vacant office space at our Heath Road complex to a number of third parties, generating an annual six-figure income for the company.

Our facilities management team commenced a contract to provide full facility management services to the Geoscience Australia satellite Earth Station, located on our Heath Road property, and contracts for the provision of buffell grass management and cleaning services with Desert Knowledge Australia. These contracts generate external third party income that supports the salaries of our Aboriginal facilities employees.

During the year, our IT team has been successful in securing contracts with a number of local (predominantly Aboriginal) organisations to provide IT services and access to infrastructure.

These business development initiatives have proved highly successful in generating 'independent' income for the company, and we will continue to vigorously pursue further opportunities.



What we do – achieving Strategic Goal

2

Further establish CAT Ltd as a remote technology innovation leader

Mobile phone Hotspot: continuing the roll out

2016/17 marked the expanded implementation of CAT Ltd mobile phone Hotspots throughout the Northern Territory, and in particular the near completion of the current NT Government contract agreements with 18 sites being installed in central Australia and 5 in the Top End.

The project, funded by the NT Government Department of Business, was established to deliver 22 Hotspots over a two-year period commencing July 2015. During 2016 a further agreement was reached to extend the project into the NT Top End, adding 8 further sites to the delivery program for 2016/17.

The CAT Ltd Fabrication Enterprise Aboriginal staff were heavily involved in the fabrication and installation phases of the project.

At year's end, 41 Hotspots had been installed, over half of these being in Aboriginal communities, and the remainder in roadside and tourism locations. Roadside and tourism locations can be accessed via Google Earth (see map overleaf).

We have surveyed the use of Hotspots using a simple device, the summary table shows that the public are certainly adopting and using this novel technology.



Examples of Hotspot usage

Hotspot location / type of site	calls per day	median call duration
a Finke Desert Race weekend Spectator point 60km from Alice Springs (MKII)	56.6	72 seconds
b Tropic of Capricorn North Stuart Highway – Roadside overnight stop	22.3 (peak season)	65 seconds
c Mt Polhill South Stuart Highway – Roadside overnight stop	11.6 (peak season)	76 seconds
d Simpson's Gap Bushwalkers – trail head	7.7 (shoulder season)	63 seconds
e Yulara East Lasseter Highway – Roadside overnight stop	4.6 (off season)	41 seconds

Public Hotspot locations

- A South Alligator River truck stop
- B South Alligator River boat ramp
- C South Warloch
- D Daly Waters North
- E Gilbert Swamp truck bay
- F Ali Curing turnoff
- G Stuart Memorial
- H Utopia Clinic
- I Prowse Gap
- J Aileron village
- K Tropic of Capricorn
- L Simpson's Gap
- M Palm Valley
- N Old Station / Boggie Hole track
- O Mt Polhill
- P Kata Tjuta view
- Q Yulara East



Case study:

Numbulwar Homelands Council Association

We worked closely with the Numbulwar Homelands Council Association (NHCA) who received Indigenous Advancement Strategy (IAS) funding to install up to eight Hotspots in nominated homelands throughout the Numbulwar region. The Association participated in the project implementation, with CAT Ltd sub-contracting NHCA to build the concrete footings for five of the hotspots, and carry out the installations under supervision by CAT Ltd, maximizing local ATSI employment. At three locations, Hotspots are being installed directly by CAT Ltd as powered Hotspots.

The Hotspot project received the NT Chief Minister's inaugural Industry Innovation Award in September 2016.

Hotspot financing is now available through the Indigenous Business Australia (IBA) leasing scheme.

Hotspot financing through IBA

Why buy when you can lease?

- Leasing conserves cash for other business needs
- Options for ownership at the end of the lease
- Competitive interest rate (between 4 and 7% depending on your circumstances)
- Obligation free quote

Who can lease?

- Organisations/businesses who service remote Indigenous communities

Want to know more?

phone **07 3008 8325**

or **1800 107 107** (option 4)

or visit **www.iba.gov.au/lease**

MKIII Hotspot development project

The first prototype MKIII Hotspot constructed in our Fabrication Enterprise workshop was installed and tested at our Heath Road site. The MKIII is an advanced design, aimed at locations that are beyond the coverage footprint achievable with the current Hotspot. A survey program identified the Neil Hargrave Lookout, a tourist location in the West MacDonnell National Park as a suitable location for the first MKIII customer installation, planned for mid-2017.



This location is over 100km from the nearest mobile phone radio base station, extending access to a useable mobile phone signal almost ten times further from the tower than normally experienced.

This project is funded in equal parts through the NT Government Business Innovation Support Initiative (BISI) Program, and through the CAT Ltd Innovation Fund.

The project, which commenced late in 2015, had two aims:

- 1 To develop and prototype an enhanced Hotspot design for locations that are beyond the coverage footprint achievable with the existing Hotspot.
- 2 To support the activity required to extend the Hotspot market to include the Top End of the NT.





Powered mobile phone Hotspot booster rollout

In partnership with NTG Office of Township Leasing, and Department of Housing and Community Development, Tiwi Shire Council, Department of Prime Minister and Cabinet, and Numbulwar Regional Homelands Association. We commenced roll out the 'off the shelf' Cel-Fi, powered Hotspot technology in four remote Aboriginal communities; Wuyagiba (Numbulwar Region), Wandu (Numbulwar), Yililia (Numbulwar), Wurankwu (Tiwi Islands).

The powered Booster system, using Cel-Fi technology (Telstra and ACMA approved) can provide for up to 40 simultaneous mobile telephony connections or 20 simultaneous data connections (signal strength dependent).

We have been working with the Australian distributor of a low cost mobile phone booster system to extend the range

beyond what has been considered possible in the past, and have successfully installed these systems up to 55km from the nearest mobile phone tower.

For communities that have no power, an intermittent power supply or a system that is independent of the community power supply, CAT Ltd provides a small, robust 12V solar system to support the Mobile Hotspot system.

A recent install in the community of Wuyagiba in the Numbulwar region (29.8km from mobile tower in Numbulwar) which has had no previous mobile phone reception, can now receive 13.3Mb/second download speeds and all five houses now have mobile phone reception. The community expects to utilise this new connectivity with timely reporting of essential service issues to their service provider, but also to allow commercial businesses to be operated from the community. In particular, the community hopes to have self-drive tourists and guided tour groups access their community via an online booking system that they can now run from the site.



Solar Power for Aboriginal tourism business Kakadu Billabong Safari Camp

Kakadu Billabong Safari Camp is an Aboriginal owned business that provides eco accommodation and Aboriginal Cultural experiences along the Jim Jim Creek in Kakadu National Park (https://www.facebook.com/pg/KakaduBillabong/about/?ref=page_internal). The owners had identified the need for additional power supply to the office and provision of power to the eco safari tents in the campground. Working in partnership with the owners, NT Government Department of Tourism, Warnbi Aboriginal Corporation, Sustainable Power Systems NT, Parks and Wildlife Kakadu, and CAT Ltd undertook two projects.

The first involved the connection of an old office block in the community of Patonga Homestead to the existing CAT Ltd installed Bushlight solar system. We also rewired the old office and supplied new fittings and fixtures to provide a safe office where the community can meet guests, and operate the Kakadu Billabong Safari Camp.

The second project involved designing and installing 10 small 12V solar systems with battery storage to the eco safari tents. This system comprises a fully enclosed plug and play 12V solar system providing reliable power to visitors including; access to small lights, fans, and the opportunity to charge mobile phones, iPads, cameras and 12V camping equipment.

The system comprises the following features:

- 120Ah maintenance free battery
- 260W solar panel
- 2 x USB charging points for phones and cameras
- 1 x car 12V cigarette lighter socket
- Anderson plug for optional 240V inverter
- Digital battery voltage display
- Circuit board for optional hardwired 12V appliances such as lights and fans

This system is built to accommodate a second 12 volt battery, increasing capacity to 240Ah. In this configuration, the system has the ability to provide continual power to a moderately sized car fridge.

This system has been added to our product catalogue and we welcome enquiries from interested customers.



Koongarra Homeland project

The Koongarra Homeland project funded by the Australian Government Department of Prime Minister and Cabinet, aims to establish a small homeland on the ex Koongarra Lease within the boundaries of Kakadu National Park. The project, managed by CAT Ltd and co-designed by CAT Ltd and the Traditional Owner Jeffrey Lee, has made significant progress this year.



Water infrastructure has been established at the site including; a solar bore pump, reticulation to the house site and campground and overhead tanks installed. Two septic systems have been installed, one for the planned house and one for a campground. A solar powered energy system has been commissioned that will provide reliable 24 hour power to the Homeland. CAT Ltd worked with Jeffrey on an appropriate house design that was put out to tender. House construction is planned to commence during late 2017.

Maximising ATSI employment is a key strategic goal of CAT Ltd (see Achieving Strategic Goal 3), not just within the company, but when engaging sub-contractors on projects such as Koongarra. We worked closely with the local Warnbi Aboriginal Corporation based in Jabiru, sub-contracting; installation of the two septic tanks, water tower and tank, underground reticulation and concrete pad for the campground ablution block. These contracts provided three weeks full time employment for three Warnbi ATSI employees.

What we do – achieving Strategic Goal

2

Further establish CAT Ltd as a remote technology innovation leader



Kathleen Buzzacott art studio – toilet block wins international award

Kathleen Buzzacott, a renowned local Alice Springs Aboriginal artist and entrepreneur secured Northern Territory Government, Department of Aboriginal Affairs funding to improve public amenities for her art studio West of Alice Springs. She approached CAT Ltd to design and project manage construction of a toilet block, and bough shelter adjacent to her studio in Tyewenpe.

CAT Ltd architects and designers worked closely with Kathleen to develop the designs for the toilet and brush screens, to assist her to realise her vision for the toilet. The building was constructed by MPH Projects (<https://www.facebook.com/mphnt/>). Kathleen painted doors and splashbacks for the toilet, and the Industry Facility at the Alice Springs Corrections Centre were engaged to cut the cockatoos in steel for the screen.

Kathleen entered the design into the 2017 Inaugural International Toilet Tourism Awards (<https://www.mytravelresearch.com/the-international-toilet-tourism-awards/>) where it received the Best Design (joint winner) award.



Design of community care building at Wangkatjunga Western Australia

CAT Ltd was contracted by Kimberley Aged Care Services (KACS) with a request for assistance to draw up a building design in consultation with the Wangkatjunga community, for housing the community care services. The community is located 130 Km south East of Fitzroy crossing in the Kimberly region of WA. The current Wangkatjunga community care facility does not meet current standards for disability access, has inadequate space for efficiently conducting day-to-day functions and delivering services for one of the largest client bases in the Kimberley, and will not be able to handle the projected client needs in the future. The project brief called for a site visit and community consultation followed by the development of design proposals. CAT Ltd delivered the final proposed designs to KACS in June 2017.

The project has provided CAT Ltd with the opportunity to re-establish its footprint in Western Australia.

Delivering Healthy Country Planning Queensland

The CAT Ltd Cairns Office has been engaged in a number of Healthy Country Planning projects during the year. Healthy Country Planning is a process based in traditional knowledge that follows an international standard for conservation planning. The process is heavily participatory, involving many workshops with Traditional Owners to build the content of plans for how they want to look after country, culture, people

and business. Participatory Planning, when done the right way, is an important 'Appropriate Technology'. We worked in partnership with the Indigenous Lands Corporation, Balkanu, Cape York Development Corporation, Queensland Government Department of Aboriginal and Torres Strait Islander Partnerships, and the Nature Conservancy to work with the following groups; Merepah station Traditional Owners, Cape Melville Flinders and Howick Islands Aboriginal Corporation, The Lama people, and Hopevale Congress Rangers.

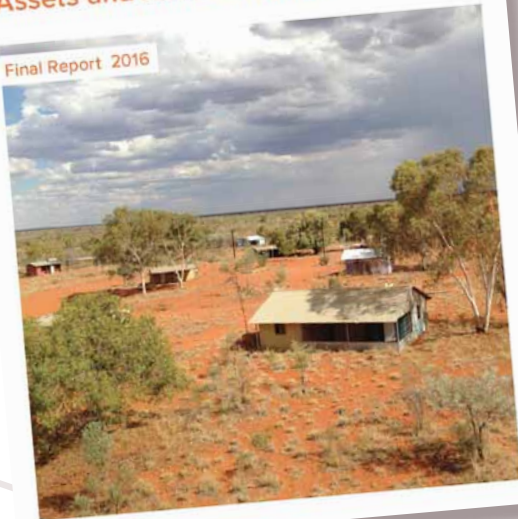
Project outputs result in each group having a clear vision and strategic plans for managing traditional homelands. Good planning, lead and owned by traditional owners, is critical to enabling people to benefit economically, socially and culturally on their own terms, from their homelands.





**The Northern Territory
Homelands and Outstations
Assets and Access Review**

Final Report 2016



NT Homelands and Outstations Access and Assets Review

During 2015 CAT Ltd undertook a review of infrastructure assets and service access in Homelands and Outstations across the NT on behalf of the Commonwealth and Northern Territory Governments. Detailed information on 401 Homelands and Outstations was collected through site visits and interviews with residents.

The final project report was publically released on 7th October 2016 and is available on our web site www.cat.org.au. The project provides a comprehensive snapshot of assets and social service access.

Of note was the fact that majority of Homelands residents contribute both time and their own money in managing and maintaining assets and services.

Key findings include:

- Significant investment in physical infrastructure is evident
- Nearly 40% of homelands and outstations have no energy supply or rely on small domestic diesel/petrol generators
- The remote 'digital divide' was very evident with only 82 out of 401 Homelands and Outstations having access to the mobile phone network. Access to the internet was also limited with availability in 38% of Homelands and Outstations, the majority only having a single point of access (computer terminal)
- 45% of Homelands and Outstations do not receive broadcast services (radio and TV)
- Whilst an active enterprise was only recorded in 72 Homelands and Outstations, a broad range of enterprises was observed, including; arts and crafts, horticultural produce and livestock rearing, commercial tourism operations, civil contracting, carbon farming and firearm storage
- We have detailed data on all 401 Homelands/Outstations surveyed in the Northern Territory and can provide further analysis on request

Maximising Aboriginal and Torres Strait Islander employment

Investing in our people: accredited training for our ATSI staff

CAT Ltd commenced formal Apprenticeships for two of our Fabrication Enterprise staff during the year. Aaron Burdett and Brentley Austin commenced their Certificate III in Engineering-Boiler making in February at Charles Darwin University, Alice Springs. These extra skills and qualifications will be assets to both CAT Ltd and these employees as the Enterprise develops in the coming months and years.



CAT Ltd Aboriginal and Torres Strait Islander employment 2017

CAT Ltd finished the year with 24 Aboriginal and Torres Strait Islander employees comprising 61% of our workforce



In addition, our training coordinator Murray Liddle and Fabrication Enterprise manager Aaron Bolger both commenced studying for their Certificate IV in Training and Assessment at Batchelor Institute.

Geoscience Australia soil sample processing project

CAT Ltd created ten new temporary laboratory-based roles in partnership with Geoscience Australia, the Commonwealth Government Geoscience Agency based at our Enterprise workshop facilities in Alice Springs. Geoscience Australia established a soil sample processing laboratory as part of a four-year \$100.5 million Australian Government program 'Exploring for the Future', that aims to map out the mineral deposit and water resource potential of northern Australia, and inform future exploration. CAT Ltd signed a six-month contract, which created 10 new 'identified' roles for Aboriginal workers.

Our role was to oversee the recruitment and personnel management of workers. We partnered with local Alice Springs JSAs; Karen Sheldon Group, Salvation Army, Max Employment and Tangentyere CDP to recruit seven workers. In addition, we worked with NT Correctional Services and the Alice Springs

Correctional Centre to recruit three workers who are part of the 'Sentenced to a job' program. The 10 employees were provided 25 hours a week employment at 'award rate' wages for 6 months.

Geoscience Australia provided training for the workers. Our team processed 1340 soil samples from an area between Tennant Creek, Mount Isa and the Gulf of Carpentaria; involving grinding, sieving and splitting samples to produce 16,700 different sub-samples that will be analysed in laboratories around Australia. Team performance was exceptional, for most of the project processing was ahead of scheduled. Geoscience Australia Supervisors were highly complementary with regard to the team skill, professionalism and dedication to the project. 'Well done gentlemen'.



Fabrication Enterprise

Our metal Fabrication Enterprise employs 100% Aboriginal workers, with a current component of four full time positions and three to four casual workers, our goal is to further establish the enterprise as a commercially sustainable operation. It has been a busy year for the team.



Beds for elders

CAT Ltd was contracted by the Waltja Tjutangku Palyapayi Aboriginal Corporation (Waltja) to design, manufacture and supply 200 beds and mattresses for elderly people and people with disabilities in 17 remote Aboriginal communities throughout the Southern region of the Northern Territory. Funded by the Centrecorp foundation, and developed in consultation with Waltja, the beds were designed to

be portable with folding legs allowing ease of storage and relocation, comfortable and durable with the aim of maintaining safety and mobility for the end users. Waltja have noted that the beds have proved especially suitable for people who have limited mobility and struggle to get up from a bed mattress that is on the floor.

We have now added this item to our fabrication product line, and welcome enquiries if interested in this product.



Parrtjima – A Festival in Light

The inaugural Parrtjima – A Festival in Light was held in Alice Springs in September 2016. The festival program involved projecting light images onto the MacDonnell Ranges, and fixed installations highlighting artworks by local Aboriginal artists. The CAT Ltd design team and metal fabrication enterprise collaborated with the festival artistic directors in the design, piloting, fabrication and installation on site of five metal frames designed to support renowned Aboriginal artist Lenie Namatjira's painted skirts. The skirts were displayed on the frames and illuminated as part of the festival.

The Fabrication Enterprise team have been invited back to produce additional metal frames for the 2017 festival.



Construction training at Alparra for MyPathway

On behalf of MyPathway, CAT Ltd provided Certificate II in Construction training to local CDP job seekers at Arlparra in the Utopia Homelands. Additional welding training was also provided. New housing construction is earmarked for the region as part of the NT Governments Remote Housing Program. The skills gained by the learners through their accredited training program can be applied to the planned construction program.

MyPathway were very pleased with the outcome of the training program as evidenced by the comment below from Christine Holding, Regional Manager My Pathway:

"I wanted to take a few moments to tell you how happy I am with the training being conducted in Arlparra, particularly in relation to the trainer. Bol (CAT Ltd trainer) is exceptional at engaging with our jobseekers and they respond well to his quiet, calm approach. He also impresses me with his can-do attitude."



Plant operations training

The CAT Ltd RTO team delivered job related competencies in Certificate III in Civil Construction Plant Operations, for Barkly Regional Council, Julalikari Council Aboriginal Corporation, Central Desert Regional Council, MacDonnell Regional Council and Central Land Council in ten communities including; Ali Curung, Wutungurra, Lajamanu, Hermannsberg, Santa Teresa, Titjikala, Amoonguna, Areyonga and Wallace Rockhole, for local Aboriginal council staff.



Training with Central Land Council included Grader machine check, identification of hazards and environmental issues, managing soil erosion through moving and bringing soil into the gully to be filled and levelled off, and grader operation.

Training with MacDonnell Regional Council staff, at Titjikala, involved theory and practical activities relating to the safe use of machinery, the importance of maintaining machines and competent operations achieving four competencies from Certificate III in Civil and Construction, plant operations.

Chainsaw training at Yuelamu and fencing training at Heath Road

In partnership with MacDonnell Regional Council, CAT Ltd delivered Chainsaw Training in Yuelamu. The course delivered focused on how to use the chainsaw safely and correctly. All learners took part in theory and practical activities, and when competent received their ticket to operate a chainsaw. It was pleasing to have two females signed up for the course; this was a first for us.

We also delivered a course in fencing and general safety and awareness in the workplace at our Heath Road site to participants from Karen Sheldon Group Training. Students achieved a cluster of Cert II Rural Operations competencies.

CAT Ltd has now established a permanent fencing training facility available for future training courses at Heath Road.





Partnership with Aboriginal Carbon Fund to develop a nationally recognised Certificate II course in Carbon Farming

During the year, the Aboriginal Carbon Fund (AbCF) and the CAT Ltd training team established a partnership to design, develop and then implement a nationally accredited (Certificate II) in Carbon Farming course under the CAT Ltd RTO. No such formal qualification currently exists. The aim is to provide a nationally recognised skill and knowledge in the basics of Carbon Farming techniques, and the determination of core benefits, to the employees of Indigenous Ranger programs across Australia.

The Aboriginal Carbon Fund (AbCF) is a not-for-profit company based in Alice Springs that helps Traditional Owners make money from their land through the market for carbon credits.

Aboriginal rangers employ traditional burning of savannah on pastoral leases during the cooler, wetter months in May and June to generate carbon credits they can then sell. The greenhouse gases released in the burn, are tracked and analysed through computer monitoring. The difference when compared to the unmanaged raging wildfires of the dry season, is then turned into the carbon credit through the mechanism of the Clean Energy Regulator, which in turn can be traded in the carbon market generating income for Traditional Owners.



How we fare

2016 Awards



Clean Energy Councils Community Engagement Award 2016

Winner

Manymak Energy Efficiency Project, Consortium NT



AEEA Excellence in Environment Award 2016

Winner

Manymak Energy Efficiency Project, Consortium NT



Bankisa Sustainable and Resilient Communities Award 2016

Winner

Manymak Energy Efficiency Project, Consortium NT



NAIDOC Caring for Country Award 2016

Winner

Manymak Energy Efficiency Project, Consortium NT



NT Department of Trade and Innovation Industry Innovation Award 2016

Winner

CAT Ltd Mobile Phone Hotspots



Tropical North Queensland Innovation Award 2016

Winner

Indigenous Innovation Award – The Water App

How we fare

Ekistica Pty Ltd

Company report for 2016-17

The 2016-17 financial year was another successful one for Ekistica, seeing both significant growth and the delivery of solid financial returns, supported by further development and consolidation of the company's internal processes and forward strategy.

Growth: Ekistica now employs over twenty staff providing advisory, design engineering and project delivery services for clients that include state and national government agencies, utilities, commercial companies, private fund management firms, community organisations and multilateral development agencies and banks, working on projects across regional and remote Australia and the Asia-Pacific region. This is a doubling of the workforce within 18 months and a significant and positive increase in company capability, with the team now incorporating a diverse and integrated set of skills that position it well within a market of ever-increasing investment in regional and remote infrastructure in both Australia and the broader region.

Financial returns: End of year results showed the company made a profit well in excess of its targets, allowing the payment of a fully franked dividend of \$120,000 to CAT Ltd while also building internal cash reserves to support our ambitious growth.

Over the year, Ekistica continued to successfully deliver a range of projects in both established and new sectors, and initiated many more, with a full order book moving into 2017-18.



How we fare

Projects completed by Ekistica:

- Waterloo Wind Farm stage 2: directorial and Owner's engineering services for the development of a \$40M, six turbine (19.8 MW) expansion to the Waterloo Wind Farm in South Australia.
- Darwin Airport PV: design, engineering and project management of a 1.5MW expansion to the 4MWp solar PV system at Darwin International Airport.
- Geoscience Australia ViaSat antenna installation: project management on behalf of CAT Ltd, of the installation of a relocated 9m dish and upgrading of existing 9m dish at the Geoscience Australia facility in Alice Springs.
- Horizon Power advisory services: provision of program development and community engagement support and advisory services for Horizon Power's Essential Services Business Models programme for remote indigenous communities in Western Australia.
- Solar integration technical study: techno-economic feasibility assessment of utility-scale solar PV in the Solomon Islands for the World Bank.
- Stoney Gap Wind Farm: due diligence and project development works for the greenfield Stoney Gap Wind Farm in South Australia.
- Fiji micro-projects programme: construction and procurement services supporting the Pacific Community (SPC's) implementation of this EU-funded programme, with a focus on activities associated with the improvement and rehabilitation of WASH facilities in remote schools affected by tropical cyclone Winston.

How we fare



New and continuing Ekistica projects:

- Kiribati WATSAN project – provision of construction and procurement services to the Pacific Community (SPC) in support of the Kiriwatsan (water supply and sanitation) II Project in Kitibati.
- ARENA Knowledge Share Program: delivery of the Australian Renewable Energy Agency's Regional Australian Renewables (RAR) Knowledge Sharing and Data Handling program.
- NT Government Remote Housing Program: project management services for the NT Remote Housing Program on behalf of the NTG Department of Infrastructure Planning and Logistics; 8 contracts managed since September 2016 in four remote indigenous communities.
- Cambodia solar PV development planning: contract with the Asian Development Bank providing advice and technical assistance on policy, programme and project development of utility solar PV in Cambodia; and provision of technical support for the development of the country's first solar park.
- Ross River Solar Farm: Owner's engineer, project management and equity due diligence on the largest Solar Farm in Australia – 148MW in North Queensland.
- ARENA Handbook: preparation of a handbook exploring the business models for Hybrid Power Generation for Australian Off-grid Mines, for use by the resources industry.
- Community WiFi project: project management services for the Department of Prime Minister and Cabinet supporting

the upgrade of remote community phones to the Sky Muster network and provision of public WiFi hotspots in over 70 indigenous communities across remote Australia.

- Desert Knowledge Australia Solar Centre: ongoing centre management and development including project management of a bespoke ~40kW system by the National University of Singapore's Solar Energy Research Institute of Singapore.
- ARENA and Clean Energy Finance Corporation advisory work: Strategic advisory and due diligence on a range of projects.

The end of the 2016-17 period brought Ekistica to its ten-year anniversary: a significant achievement for a specialist commercial firm based in Alice Springs and owned by a not-for-profit indigenous controlled organization. Having established an impressive record of successful projects, satisfied clients and year-on-year growth, it was decided to use this anniversary to rebrand the company to more deliberately reflect who Ekistica is and what it does - to more clearly differentiate Ekistica as the experts in developing solutions to the complex challenges of remote area infrastructure development. This process delivered a revamped marketing strategy supported by a new logo and website and suite of new marketing collateral as well as significant refinement of the company's vision, mission and value proposition to the market.

How we fare

Ekistica rebranding

Regional and remote Australia's leading advisory and technical consultancy firm, CAT Projects, announced on June 14, 2017 that the company will henceforth be trading as Ekistica.

Managing Director, Lyndon Frearson said of the change, "Having reached our ten-year milestone with a swag of successful projects and satisfied clients, year-on-year growth, a great and growing team and ever-increasing investment in regional and remote infrastructure, we believed it was appropriate to rebrand the company to more deliberately reflect who we are and what we do."

The company was established in 2007 as the commercial services arm of the Centre for Appropriate Technology Ltd. Since then, the company has successfully delivered projects for clients that include state and national governments, intergovernmental agencies, power utilities, community service organisations, and large commercial and private investment

firms across a range of domestic and international markets. Amongst these have been a number of ground-breaking, highly-awarded projects that challenged the status quo, such as the development of Australia's first utility-scale solar PPA, and electrification programs in South Asia and the Pacific.

"Many of our more prominent projects are in the renewable energy sector," said Mr Frearson, "but our underlying approach is what has allowed us to be innovative and successful across a broader range of infrastructure and technology projects."

Dr Bruce Walker AM, chair of Ekistica's board of directors, said, "We're very excited about our new company name and identity; Ekistica references the science of human settlement and speaks very clearly to our values of people, place and technology and the need to consider each of these elements in all the work our team does."

"Changing our name allows us to more clearly differentiate ourselves as the experts in developing solutions to the complex

challenges of remote area infrastructure development. We are still owned by the Centre for Appropriate Technology Ltd and our staff have not changed, but as Ekistica, we can more clearly communicate our strength as an independent, innovative provider of advisory, engineering design and project delivery services."

"Our vision," says Mr Frearson, "is a world where location is not a barrier to good technical outcomes; where the appropriation of technology enables people, communities and businesses to reach their full potential."

For more information about Ekistica, please visit:

www.ekistica.com.au

Ekistica

Statement of profit or loss and other comprehensive income

	Consolidated		Parent	
	2017	2016	2017	2016
	\$	\$	\$	\$
Sales revenue	4,286,609	4,417,929	2,743,533	2,781,793
Other	4,048,230	2,833,158	2,705,726	2,458,778
Total income	8,334,839	7,251,087	5,449,259	5,240,571
Employee benefits expenses	4,914,658	4,593,060	3,118,613	3,449,607
Depreciation and amortisation expenses	308,666	288,331	283,784	287,171
Other expenses	3,150,596	3,008,573	2,411,857	2,320,037
Income tax expenses	128,225	36,633	-	-
Total expenditure	8,502,145	7,926,597	5,814,254	6,056,815
Surplus/(deficit) for the year	(167,306)	(675,510)	(364,995)	(816,244)

Statement of financial position

	Consolidated		Parent	
	2017	2016	2017	2016
	\$	\$	\$	\$
Current assets cash, investments, receivables, other	6,303,888	7,026,812	4,541,271	6,035,277
Non current assets property, plant and equipment	10,554,758	10,616,458	10,547,568	10,670,071
Other assets	86,407	65,695	-	-
Total assets	16,945,053	17,708,965	15,088,839	16,705,348
Current liabilities creditors, accruals, provisions, other	3,239,356	3,771,570	2,212,054	3,290,201
Non current liabilities provision for long service leave	42,738	215,132	19,248	192,615
Other liabilities	108,002	-	-	-
Total liabilities	3,390,096	3,986,702	2,231,302	3,482,816
Net assets	13,554,957	13,722,263	12,857,537	13,222,532
Equity				
Accumulated funds	2,166,621	2,333,927	1,469,201	1,834,196
Reserves	11,388,336	11,388,336	11,388,336	11,388,336
Total equity	13,554,957	13,722,263	12,857,537	13,222,532

Notes to the financial report

1 Basis of Preparation

The financial statements are general purpose financial statements that have been prepared in accordance with the Australian Accounting Standards and the *Australian Charities and Not-for-profits Commission Act 2012*.

2 Summary of Significant Accounting Policies

(a) Income Tax

The Company is exempt from income tax under Division 50 of the Income Tax Assessment Act 1997.

The controlled entity is subject to income tax.

Current income tax expense charged to the profit or loss is the tax payable on taxable income calculated using applicable income tax rates enacted, or substantially enacted, as at the end of the reporting year. Current tax liabilities (assets) are therefore measured at the amounts expected to be paid to (recovered from) the relevant taxation authority.

(b) Revenue and other income

Revenue is recognised when the amount of the revenue can be measured reliably, it is probable that economic benefits associated with the transaction will flow to the Group and specific criteria relating to the type of revenue as noted below, has been satisfied.

Revenue is measured at the fair value of the consideration received or receivable and is presented net of returns, discounts and rebates.

All revenue is stated net of the amount of goods and services tax (GST).

Sale of goods

Revenue is recognised on transfer of goods to the customer as this is deemed to be the point in time when risks and rewards are transferred and there is no longer any ownership or effective control over the goods.

Grant revenue

Grant revenue is recognised in the statement of profit or loss and other comprehensive income when the entity obtains

control of the grant, it is probable that the economic benefits gained from the grant will flow to the entity and the amount of the grant can be measured reliably.

When grant revenue is received whereby the entity incurs an obligation to deliver economic value directly back to the contributor, this is considered a reciprocal transaction and the grant revenue is recognised in the statement of financial position as a liability until the service has been delivered to the contributor, otherwise the grant is recognised as income on receipt.

Centre for Appropriate Technology Ltd and Controlled Entity receives non-reciprocal contributions of assets from the government and other parties for zero or a nominal value. These assets are recognised at fair value on the date of acquisition in the statement of financial position, with a corresponding amount of income recognised in the statement of profit or loss and other comprehensive income.

Interest revenue

Interest is recognised using the effective interest method.

Rendering of services

Revenue in relation to rendering of services is recognised depending on whether the outcome of the services can be estimated reliably. If the outcome can be estimated reliably then the stage of completion of the services is used to determine the appropriate level of revenue to be recognised in the period.

If the outcome cannot be reliably estimated then revenue is recognised to the extent of expenses recognised that are recoverable.

Other income

Other income is recognised on an accruals basis when the Group is entitled to it.

(c) Goods and services tax (GST)

Revenue, expenses and assets are recognised net of the amount of goods and services tax (GST), except where the amount of GST incurred is not recoverable from the Australian Taxation Office (ATO).

Receivables and payable are stated inclusive of GST.

The net amount of GST recoverable from, or payable to, the ATO is included as part of receivables or payables in the statement of financial position.

Cash flows in the statement of cash flows are included on a gross basis and the GST component of cash flows arising from investing and financing activities which is recoverable from, or payable to, the taxation authority is classified as operating cash flows.

(d) Property, plant and equipment

Each class of property, plant and equipment is carried at cost or fair value less, where applicable, any accumulated depreciation and impairment.

Depreciation

Property, plant and equipment, excluding freehold land, is depreciated on a straight-line basis over the assets useful life to the Group, commencing when the asset is ready for use.

(e) Impairment of non-financial assets

At the end of each reporting period the Group determines whether there is an evidence of an impairment indicator for non-financial assets.

Where an indicator exists and regardless for goodwill, indefinite life intangible assets and intangible assets not yet available for use, the recoverable amount of the asset is estimated.

(f) Cash and cash equivalents

Cash and cash equivalents comprises cash on hand, demand deposits and short-term investments which are readily convertible to known amounts of cash and which are subject to an insignificant risk of change in value.

(g) Employee benefits

Provision is made for the Group's liability for employee benefits arising from services rendered by employees to the end of the reporting period. Employee benefits that are expected to be wholly settled within one year have been measured at the amounts expected to be paid when the liability is settled.

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