



PATREC

Planning and Transport Research Centre (PATREC)

ANNUAL BUSINESS PLAN

2018

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1 INTRODUCTION

1.1 Background

According to the new Collaborative Agreement executed on 8 December 2016, annual business plans will be presented to the Board at the last meeting of each calendar year for approval and will direct business for the following year. They should include a description of the program of research to be undertaken by PATREC during that year, a budget for that year, planned targets for agreed financial and non-financial key performance indicators, and any update of the Strategic Plan for that year.

Annual business plans are prepared in the context of the prevailing strategic plan which are revised every three years. The current strategic plan is valid for the three year period 2017-2019 and was approved by the Board on 20 April 2017. Any interim strategic updates are included as part of the annually prepared business plans.

1.2 Purpose

The purpose of this Business Plan 2018 is to:

- update the strategic drivers impacting on PATREC's research plan for 2018;
- outline the process followed in arriving at the research plan for 2018;
- present the research focus in the form of project concepts under consideration within the ambit of agreed research focus areas;
- provide a working budget for 2018; and
- set key performance indicator targets.

1.3 Business Plan 2017 - Achievements

All key outputs planned as part of the 2017 business plan were achieved which sets a good basis for the 2018 business plan:

- Completion of five core projects which commenced in late 2016 with final Technical Reports published and further stages with additional funding proposed if appropriate;
- Completion of the ARC LIEF project;
- Undertake RAC projects;
- Approval and commencement of Freight and Network Planning projects in alignment with iMOVE with freight industry funding secured;
- ARC Linkage/other research grant proposals submitted;
- PATREC Book, Planning Boomtown and Beyond, launched; and
- PATREC Research Forum held.

2 STRATEGIC DRIVERS - UPDATE

2.1 New Labour Government's Infrastructure Priorities

2.1.1 Westport

To ensure the State's future trade needs are met, well-planned port facilities are essential. To this end, on 12 September 2017, the Hon. Rita Saffioti, Minister for Transport; Planning and Lands announced the formation of the Westport Taskforce to oversee the development of Westport: Port and Environs Strategy - a long-range vision for Perth and the surrounding regions' freight, trade, logistics and defence needs. The

Westport: Port and Environs Strategy will provide guidance to the Government on the planning, development and growth of the Port of Fremantle at the Inner and Outer harbours, the required rail and road networks, and the potential for the Port of Bunbury to contribute to the handling of the growing trade task. The strategy will aim to answer many of the key policy questions driving discussion on the need for future port infrastructure and will also look at the opportunities for the State's tourism and defence industries. It will consider issues that extend beyond the port such as landside logistics, land use synergies and the environment.

Source: <https://www.transport.wa.gov.au/projects/westport-port-and-environs-strategy.asp>

The strategy is planned to be completed within a two year timeframe and provides the opportunity for PATREC to contribute informing research into the process. For this research to be incorporated, however, it will need to be progressed quickly. The Director has been invited to be part of the Westport Taskforce Reference Group which will provide further opportunity for PATREC to influence the strategy.

2.1.2 METRONET

METRONET is WA Labor government's flagship long term public transport "blueprint to connect our suburbs, reduce road congestion and meet Perth's future planning needs". The job-creating project will see transport investment as a vehicle for positive land-use planning.

METRONET will ensure that consideration of land-use outcomes is embedded in the design of new infrastructure to lay the groundwork for vibrant new communities.

Source: <http://www.pta.wa.gov.au/projects/current-projects/metronet>

The METRONET program offers an opportunity for PATREC to converge and apply previously undertaken research (Projects 1-4) with a focus on optimisation of patronage and achieving land use intensity and mix objectives at stations.

2.2 Participation in Commonwealth Grant Funding Programs

2.2.1 iMOVE Cooperative Research Centre (CRC)

In response to an out-of-session paper dated 6 June 2017, all Board members approved PATREC's participation in the iMOVE CRC, committing a cash contribution of \$150,000 per annum of PATREC subscriptions (notionally \$90,000 from MRWA and \$60,000 from DOT), cognisant that Participation and Project Funding will flow through PATREC. The UWA contributed 70K/annum funding and ECU also contributed (50K/annum) primarily in the area of cybersecurity.

The iMOVE CRC was officially launched on 21 September 2017 with the Commonwealth Funding Agreement and Participation Agreement (including PATREC partners), executed. Arrangements have been put in place internally within PATREC as well. Although a variation to the payment schedule of the PATREC Collaborative Research Agreement was not required as subscription funding to PATREC remains the same, a variation agreement was required to ensure that DOT and MRWA were not liable for payment twice ie. to both PATREC and the iMOVE CRC and also to enable payment of the contributions to the iMOVE CRC by UWA as PATREC host, on behalf of the DOT and MRWA. This was necessitated because DOT and MRWA have been required by the iMOVE CRC to each individually sign the iMOVE Participants Agreement as "industry" participants (as well as UWA and ECU as research participants). In addition, provision is made in the variation to acknowledge that DOT and MRWA will act in the best interests of PATREC in relation to the iMOVE CRC.

The approved PATREC Strategic Plan 2017-2019 (pg 17) recognised the potential of the iMOVE CRC, if successful, to contribute to the realisation of research in focus areas 3 (Integrated freight system optimisation) and 4 (Emerging technology and network optimisation and intelligence). In accordance with

this, PATREC’s participation in iMOVE will be strongly focussed on developing freight and ITS research capability and policy outcomes and Project Agreements in these two areas are underway with anticipated January 2018 start.

2.2.2 Smart Cities and Suburbs Program – Round 1: RailSmart Wanneroo

On 30 June 2017, in partnership with the City of Wanneroo, the Department of Transport and Edith Cowan University, a funding application for \$1 million over two years was submitted to the Smart Cities and Suburbs Program.

On Monday 13 November 2017, The Hon Mathias Corman, Senator and Minister for Finance announced the successful six projects of which RailSmart Wanneroo was one, with official confirmation received on Friday 17 November. The project must be completed by 31 June 2019.

The project objectives are:

- a. To harness, apply, calibrate and embed Planning Support Tools with supporting data to catalyse the process of attracting strategic employment opportunities to key transport nodes to meet stretching targets and creating more local work opportunities, reducing the need to travel.
- b. To employ, test, calibrate and embed Planning Support Tools with supporting data to promote and monitor travel behaviour choice and change in communities to more sustainable travel modes, in particular increasing levels of public transport patronage through a suite of services including last-mile accessibility improvements.

Funding commitments from each project partner are:

Funding Partner	Total Cash Funding Commitment Over Two Years
City of Wanneroo	\$200,000
Department of Transport	\$100,000
The University of Western Australia	\$160,000
Edith Cowan University	\$40,000
TOTAL Partner Funding	\$500,000
Commonwealth grant funding	\$500,000
TOTAL PROJECT FUNDING	\$1,000,000

3 RESEARCH PLANNING PROCESS

In accordance with the annual project selection process formalised in the Strategic Plan 2017-2018 (Table 8), the process for the selection of 2018 projects was agreed by the PATREC Research Advisory Committee (PRAC) on 27 July 2017 (Table 1). This process is only scheduled to be completed by 19 April 2018 and therefore this business plan is based on progress made to Task 6: Proposal prioritisation, according to selection criteria, and Board recommendation.

Table 1: PATREC Selection Process for 2018 Projects

Tasks	Oversight and Decisions	Indicative Date
1 Meeting to plan the Research Needs Workshop and nominate PRAC Chair stand-in.	Director, PRAC	24 August 2017
2 Confirm and consolidate research needs ¹ through joint workshop with government and research partners, and call for proposals, with government contacts.	Director	Workshop: 21 September 2017 Call for proposals: 29 September 2017
3 Researchers collaborate with government partners to prepare short research proposals. ²	Director	Proposal submission deadline: 27 October 2017
4 Proposal consolidation and circulation to PRAC with the agenda.	Director	PRAC Agenda Item: 2 November 2017
5 Proposal prioritisation, according to selection criteria ³ , and Board recommendation.	PRAC	PRAC Agenda Item: 9 November 2017
6 Approve recommended project proposals.	Board	Board Agenda Item: 30 November 2017
7 Researchers prepare detailed draft Project Plans and budgets and assemble project teams.	Steering Committees	14 February 2018
8 Researchers incorporate Steering Committee inputs and submit final plans.	Director	15 March 2018
9 Circulate to PRAC with the agenda.	Director	PRAC Agenda Item: 22 March 2018
10 Recommend Project Plans for approval.	PRAC	PRAC Agenda Item: 29 March 2018
11 Approve recommended Project Plans and budgets.	Board	Board Agenda Item: 19 April 2018
12 Contracting and project start-up		

1 Research needs can arise from Projects 1-5 ie next stages, iMOVE-related, new (eg wifi on trains) which are aligned with strategic plan. Continuous process so some projects already under development, eg iMOVE.

2 To ensure dialogue to agree research questions, deliverables, collaboration/participants, interconnections and scope outline.

3 The selection criteria to be applied in the case of both solicited and unsolicited projects are as follows:

- Alignment with the Strategic Plan
- Policy relevance
- Fit with the current portfolio of PATREC activities
- Contribution to PATREC KPIs
- Level of co-contribution from funding sources (either PATREC partner or external), including grants
- End-user pull
- Steering Committee endorsement
- Balance of researcher and of end-user engagements, commensurate with their respective inputs
- No duplication of research or what has already been done within agencies

4 RESEARCH AREAS FOR FOCUS IN 2018

A Research Needs workshop was held on 21 September 2017 with key government and research stakeholders, culminated in the agreement to focus on the research areas in 2018 as indicated below:

1. Integrated land use and transport futures and smarter travel decisions to achieve land use (infill, densities, mix use, local employment) and public transport patronage (11% patronage aspirational

target) outcomes - Metronet focussed, including but not limited to building onto and converging, current projects:

- Understanding the relationships between station typology and patronage, to identify and quantify land use drivers and actions (density and mix) to be applied to a range of station types, to increase patronage
 - Understanding social-psychological motivators and attitudes to changing travel behaviour
 - Appraisal and evaluation of the effectiveness of travel demand management instruments
 - Integration and accessibility of SmartRider and other big data analysis to support/inform above
2. Integrated freight system optimisation – outer harbour (Westport) focussed
- Intermodal System for Perth to support the planning of landside logistics infrastructure and systems for the proposed new container berth in the Outer Harbour
 - Definition of an inland port structural model
 - Technological initiatives to streamline commercial structures of containerised freight supply chains
 - Options for governance of key intermodal facilities
 - Future trends in global logistics management
 - Predictions of freight movement
 - Impacts of technology change
 - GPS truck activity tracking - pilot
 - Apply and extend BITRE's pilot methodology in a specific short-haul urban environment
3. Emerging technology and network optimisation and intelligence
- Non-route-based area optimisation of network productivity
 - prototype that applies MFDs to guide network operations at a subregional level
 - shift from the conventional route-focused operations to a network-wide gating strategy
 - Data-driven empirical models for short-term traffic prediction
 - empirical models to predict short-term traffic flow characteristics for both individual road links and broader regions
 - complements MFD approach (mathematical) to inform network operations in real-time
 - Simulate the impact of Connected and Autonomous Vehicles
 - identify impacts to the operation and strategic planning of Perth's road network due to the introduction of AVs and CAVs
 - scenario based impacts on transport and land use

5 RESEARCH PROJECT CONCEPTS

5.1.1 Call for Expressions of Interest from Researchers

An invitation to submit an expression of interest to become involved in conducting a project in accordance within one of the research areas of focus, was sent to researchers at partner universities on 4 October 2017. As a first step, researchers were asked to provide a one-page expression of interest (EOI) in the form of a short project proposal/concept for consideration and prioritisation by the PATREC Research Advisory Committee and agreement by the Board, to be followed by detailed project proposal development for agreed projects in the first quarter of 2018.

Further guidance was provided to researchers in relation to project opportunities (numbers relate to section 4 above):

- In relation to 2 and 3, project planning is already further advanced as part of iMOVE CRC projects but additional project ideas, extensions will be considered.
- In relation to 1, current projects are currently in final stages of completion and will be presented at a Research Forum at the beginning of November with technical report released on website available as input to detailed project plan development.
- Projects which are linked to grant funding applications, comprise teams across at least two participating universities and have been informed by discussions with government partners, will be favourably considered.

6 RESEARCH PROJECT PRIORITIES

The PRAC reviewed the EOI received and provided recommendations to the Board (Table 2).

There are essentially three types of recommendation to the Board:

1. That the Board **support** the project proceeding to the detailed plan preparation stage to be conducted with engagement of project Steering Committee to be advised by PRAC.
2. That the PRAC recommendation to the Board is pending confirmation of utility of the project through further engagement with relevant agency officials to be advised by PRAC government members.
3. That the project is not something the government sees as a high priority therefore **not supported** for PATREC core fund investment. However, the project may be of interest to other external (to PATREC) parties who should be approached to gauge level of interest and funding potential.

Table 2: Summary of PRAC recommendations regarding 2018 project priorities

Project concept/short proposal	PRAC recommendation
(1a) Scenario Analysis for Future Travel Challenges: Selected Case Studies of Station Precincts (Doina Olaru, Rachel Cardell-Oliver, Brett Smith, Chao Sun, Sharon Biermann, Tristan Reed, Courtney Babb)	Support. Proceed to detailed plan preparation stage with SC to be advised by PRAC.
1(b) Travel Behaviour from Origin and Destination Travel Patterns Matrix (S Zaung Nau and Mohammed Quaddus)	Support. Proceed to detailed plan preparation stage with SC to be advised by PRAC.
(2) Cycling Access to Stations (Courtney Babb, Parisa Izadpanahi, Xin Liu and Giles Thomson)	Support. Proceed to detailed plan preparation stage with SC to be advised by PRAC.
(5) Urban logistics infrastructure system options for Perth incorporating a new container port terminal (iMOVE Freight project, Tim Hoffman lead)	Support. Endorse finalisation of draft proposal, circulation to SC and submission to iMOVE by end Nov 2017.
(10) Evidence based decision support systems for network operations and strategic planning (iMOVE ITS project, Chao Sun lead)	Support. Endorse finalisation of draft iMOVE proposals, circulation to SC and submission to iMOVE by end Nov 2017. Involve DOT in 3(b).
(3) New Data Collection Methods for Travel Behaviour (Teresa Harms, Doina Olaru, Brett Smith, Yuchao Sun et al.)	Decision pending agency motivation of utility.
(4) Location, Land Value, and Support for Transport Infrastructure Funding in New Corridors (Doina Olaru, Brett Smith, John Taplin et al.)	Decision pending outcome of discussion with Andrew Wilkinson and/or Glenn Finn and also involving DoP.
(6) Integrate measures of land use and planning controls to estimate transport network impedance to last-mile delivery (Ferry Fie et al, ECU)	Decision pending outcome of discussion with Craig W team
(9) Land use and freight impacts of new port (Sam McLeod and Carey Curtis, Curtin)	Decision Pending subject to outcome of discussion with Westport team and tightening of focus.
(7) The Sharing Economy and Its Impact on Freight Transport (Craig Standing et al, ECU)	Not something the government sees a high priority in playing a role in therefore not supported for

	PATREC core fund investment. Approach Fremantle Port to gauge interest and co-investment.
(8) Cross-docking or direct-shipping? (Reza Mavi et al, ECU)	Not something the government sees a high priority in playing a role in therefore not supported for PATREC core fund investment. Approach port, transport operators, container terminals to gauge interest and co-investment.

Project support from the PRAC is conditional, subject to:

1. Board support, following recommendations from the last PRAC meeting,
2. Supported projects being scoped to provide details for acceptance between partners (both research and government), including scope, outputs, timing and budget
3. Subsequent formal Board approval, including individual project budget allocation in the context of PATREC’s research program funding.

It is clear that the number of potential projects indicated for support far exceed the (remaining, after iMOVE)) available core funding budget (\$70K) and that additional funding is necessary for any substantial research in these areas to be undertaken. Options for project funding are included in Section 8.2 (Budget).

7 EXTERNAL RESEARCH PROJECTS

External projects are those where no core funds are used.

7.4.1 Smart Cities and Suburbs: RailSmart Wanneroo

On 17 November 2017, official confirmation was received that this \$1 million over two years funding application, was successful.

Purpose

Aligning strongly with the program priority area of Smart Planning and Design which seeks to build more adaptable and resilient cities through improved land use, strategic planning and governance, this project aims to assemble, adapt and apply a suite of innovative, evidence-based Planning Support Tools utilising smart city data integrated from multiple sources to better enable local government, in co-development with the community, to maximise the opportunities generated by significant transport infrastructure investment for the achievement of desired land use and transport outcomes for the short and longer term benefit of communities in fast-growing, outer metropolitan areas.

Integrating and analysing data from multiple sources and sensor networks, this suite of Planning Support Tools will provide more sophisticated information and capabilities for evaluation and monitoring of the development impacts of alternative land use and transport planning solutions to support decision making and improve governance at particularly local and state level.

This project will not exist in a vacuum and will build onto previous and current initiatives and projects which have developed planning tools, knowledge and community engagement mechanisms. Planning Support Tools, already developed primarily to support state-level land use and transport planning tasks will now be innovatively adapted, extended and applied for primarily local-level planning purposes with the linkages between state and local levels also given attention, providing tools not previously used by the local government organisation, delivering outcomes not previously realised by the City of Wanneroo and deploying tools supported by multiple data sources rather than relying only traditional data sources.

The project will further build on the “Connect Wanneroo” community advocacy campaign as the mechanism to ensure the project addresses community needs and has the support of the community.

Connect Wanneroo was first community-led campaign established to aggregate the collective voice of the local community in the call for the extension of the northern passenger rail line from Butler to Yanchep.

Further, the purpose of this project is not simply to apply existing planning support tools on a once-off basis to a new level of planning, with new outcomes for local government and using new data sources. The aim is to embed the tools and supporting data as part of a continuous business process within the City of Wanneroo. In addition, the learning from the application of the tools in Wanneroo will be captured to enable roll-out to other local government areas.

Key Outputs

- Suite of integrated RailSmart Planning Support Tools and associated data repositories:
 - Enhanced Employment Self-sufficiency Tool to enable targeting and monitoring of employment types in relation to travel patterns.
 - Activity Centre Node-place Analysis and Activation Tool to test the impact of alternative station design scenarios.
 - Dynamic Accessibility Planning Tool to evaluate impacts of land use changes on access to workers and work using travel time data.
 - A Rapid Appraisal Model to support economic benefit and cost assessments for proposed travel demand initiatives and last mile solutions.
- Open, integrated planning support digital ICT platform which will:
 - store and integrate digital data sources in order to support data-driven, evidence-based planning models;
 - provide access to open data sources and integrate knowledge discovery modules for generating new knowledge from the data, and
 - communicate through a dashboard to visualise historic and real time activity, outputs of the tools and analysis of travel behaviour databases.

Key participants

Table 3: Core collaborating project participants

Sector	Organisation	Participants
Lead Applicant and University partner	Planning and Transport Research Centre (PATREC) at The University of Western Australia	Prof Sharon Biermann Assoc. Prof Rachel Cardell-Oliver Dr Brett Smith Assoc. Prof Doina Olaru Dr Kirsten Martinus Dr Chao Sun Adj. Research Fellow Gary McCarney
Local Government partner	City of Wanneroo	Dr Ian Martinus, Manager Advocacy & Economic Development Janet Takarangi, Advocacy & Relationships Officer Economic Development Officer Senior Project Planner ICT Business Systems
State Government partner	Department of Transport	Mr Brett Hughes Ms Sue Hellyer Mr Liam Heitson
Other university partners	Edith Cowan University	Prof Craig Standing (Centre for Innovative Practice, School of Business and Law) Assoc Prof Ferry Jie (School of Business and Law) Dr Susan Standing (Research Assistant)

	Curtin University	Dr Simon Moncrieff (Spatial Sciences) Tristan Reed (Research Assistant)
Private Sector partners	To be confirmed after award	To be confirmed after award

The core team will be supplemented by specialist contractors in the following areas:

- Digital platform design and development
- GIS capability
- Crowdsourcing mapping to reinvigorate Connect Wanneroo engagement process
- Change management to ensure technology activation and embedding

7.4.3 RAC Project

Following a process of project development for “Pulse of Perth” during 2017, and formalising arrangements for the use of SmartRider data for this purpose, at least one project with the RAC is expected.

8 BUDGET 2018

8.1 Budget 2018

This budget has been prepared on the basis of:

- The Board decision on 20 April 2017 (ITEM 9), that
 - “these are very difficult budget times and PATREC should continue to explore funding on a project-by-project basis with partners and other external grants, rather than increasing partner subscriptions”; and
 - “as long as PATREC proposed research projects to address identified government issues, focussed on the provision of evidence for benefits realisation, there should not be a problem in attracting additional project-level funding from government agencies”;
- Priority research projects identified for support by the PRAC (Table 2);
- PATREC’s participation in the iMOVE CRC (10 years); and
- PATREC’s success in being awarded a Smart Cities and Suburbs grant (2 years, ending 31 June 2019).

The implications on income for the 2018 budget are that:

- no change in subscriptions is assumed for 2018;
- core funding available for research projects is notionally \$220K of government sponsorship (PATREC office expenses are funded by the \$180K university sponsorship and \$20K of the government sponsorship). With \$150K of government sponsorship allocated to iMOVE, only \$70K/annum remains to be allocate to other core funded research projects; and
- additional funds (to 70K) from PATREC partners (and others) are required in order to fund priority research projects (Table 2) and to supplement iMOVE projects to address all identified priorities adequately.

Other than the PATREC office, research project expenditure will be directly in relation to project income and all research co-ordination and management costs, including 0.6 FTE of the Director, 1.0 FTE of the PATREC Postdoc Research Officer (Chao Sun), and any other co-ordination role will need to be recovered directly from research projects.

Two scenarios are presented in Table 4. Scenario 1 assumes additional project-level funding from government partners and others, which has not yet been secured as project proposal are still under development. Scenario 2 assumes no additional funding other than that committed by external sources and government partners as part of iMOVE and the Smart Cities and Suburbs projects.

Table 4: Budget 2018 under alternative scenarios

Income and Expenditure 2018	Budget Scenario 1#	Budget Scenario 2*	Explanatory Notes
INCOME			
WA Government Grants	240,000	240,000	
Universities Sponsorship	180,000	180,000	
iMOVE Commonwealth	75,000	75,000	
iMOVE UWA	70,000	70,000	
iMOVE ECU	5,000	5,000	
iMOVE additional gov/industry	200,000	0	Excludes RAC iMOVE budget - 50K plus 25K CW but need 25K research to balance model
Smart Cities and Suburbs	600,000	600,000	End date 30 June 2019: 60:40 split between financial years
Other Grants & Contracts	120,000	0	Additional contribution to new projects (projects 1-4 continued etc)
Accrued Interest	10,000	10,000	
Total Income	1,500,000	1,180,000	
EXPENDITURE			
PATREC OFFICE	200,000	200,000	Covered by Uni 180K sponsorship plus 20K from gov subscription
Director (0.4)	88,000	88,000	
Administrative Officer (0.8)	76,000	76,000	
General Office Costs	12,000	12,000	Includes non-project travel, communication, events etc
Board Chair Stipend	24,000	24,000	
RESEARCH PROJECTS	1,290,000	970,000	Includes Dir. (0.6), postdoc (C Sun), infrastructure charges, project travel
<i>iMOVE</i>	<i>500,000</i>	<i>300,000</i>	ITS - 240K plus Freight - 260K (with extra funds); OR 150+75+75+300K (with no extra funds)
<i>Smart Cities and Suburbs</i>	<i>600,000</i>	<i>600,000</i>	Will be 400K in 2019 (project end date 30 June 2019)
<i>Other - Projects 1-4 continued etc</i>	<i>190,000</i>	<i>70,000</i>	240K gov grant less 20K for office less iMOVE 150K (=70K) plus extra grant 120K
Total Expenditure	1,490,000	1,170,000	
YTD BALANCE	10,000	10,000	
Balance Brought Forward 2017	26,848	26,848	
CLOSING BALANCE	36,848	36,848	

#Scenario 1: Including additional project-level funding from government partners - not yet secured

*Scenario 2: Includes only committed funding from external sources and government partners

As part of Scenario 1, the committed and assumed additional (to subscription) funding from existing PATREC partners is summarised in Table 5.

Table 5: Committed and assumed funding, additional to subscription funding for Budget Scenario 1

	iMOVE - committed	iMOVE - not secured	Smart Cities committed	Other - 1-5 continued etc - unsecured	TOTAL
MR		100,000			100,000
DOT		50,000	50,000	20,000	120,000
WAPC				50,000	50,000
UWA	70,000		80,000		150,000
Curtin					0
ECU		5,000	20,000		25,000
<i>Other</i>		<i>50,000</i>	<i>100,000</i>	<i>50,000</i>	<i>200,000</i>
Total			250,000	120,000	370,000

8.2 Key Performance Indicator Targets 2018

In accordance with the PATREC Review, performance indicators have been considerably reduced to essential academic and policy impact indicators with focus on outputs and outcomes rather than inputs.

Table6: Key Performance Indicator Targets 2018

Performance Indicator	Target 2017	Achieved 2017 (forecast)	Target 2018
<i>Academic Performance Indicators</i>			
Number of journal papers published	3	7	7
Number of peer-reviewed book chapters published	0	0	0
Number of peer-reviewed conference papers published in proceedings	7	14	8
Number of peer-reviewed books published	1	0	0
Number of top-up sponsored PhD graduated	1	0	0
Value (\$) of [direct] external research funding secured (through PATREC account) *includes iMOVE	\$400K*	\$60K	\$1,070K (Sc 1) \$759K (Sc 2)
Value (\$) of [indirect] external research funding secured (through individual partner university account)	\$0	\$23K	\$0
<i>Policy Impact Performance Indicators</i>			
Number of high impact, policy-informing projects/ sub-projects completed (2 year projects)	5	6	3
Number of substantive Technical Reports/Working Papers published	5	6	3
Number of PATREC Perspectives published on PATREC website	3	5	2
Number of presentations at PATREC and other connection events	5	15	10
Number of connection events arranged and held	5	4	4
Number of short courses, unit contributions presented	2	0	1
<i>Stakeholder (academic and policy) satisfaction indicator (qualitative)</i>	80%	79%	85%