AFRICAN COELACANTH ECOSYSTEM PROGRAMME (ACEP) INFRASTRUCTURE LINKED FUNDING INSTRUMENT

KNOWLEDGE FIELDS DEVELOPMENT

Framework Document and Funding Guide

May 2017

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1. FUNDING INSTRUMENT TITLE AND DESCRIPTION

1.1 FUNDING INSTRUMENT TITLE

The African Coelacanth Ecosystem Programme (ACEP) Marine Infrastructure-Linked Funding Instrument.

1.2 FUNDING INSTRUMENT DESCRIPTION

The African Coelacanth Ecosystem Programme (ACEP) consists of four major components:
1. ACEP Open Research Call
2. ACEP Marine Platform Provision
3. ACEP Phuhlisa Transformation Programme
4. ACEP Science Awareness

The ACEP Marine Infrastructure-Linked Funding Instrument promotes marine research along the east and southern coast of South Africa by providing competitive access to:

- ACEP marine platforms:
  - coastal craft fleet and associated equipment,
  - Marine-Remote Imagery Platform (MAR-RIP), and
  - Acoustic Telemetry Array Platform (ATAP);
- sentinel research sites e.g. Algoa Sentinel Site;
- coastal and offshore research arrays e.g. Agulhas System Climate Array (ASCA); and
- joint DST/DEA cruises on the *RV Algoa*;

in conjunction with providing research funding (running costs and bursaries).

The ACEP Open Research Call for 2018–2020 seeks to attract marine research applications that fall within the research framework of ACEP and the Marine and Antarctic Research Strategy (MARS) and in particular the National Marine Research Plan for South Africa 2014+ of the Department of Science and Technology; and that will maximise the use of available equipment not normally available at HEIs, or NRF-recognised research institutions. The ACEP Funding Instrument is specifically designed around infrastructure access. As such, research applications that do not require infrastructure support are advised to apply to other NRF funding instruments.

2. STRATEGIC CONTEXT

ACEP is a flagship programme of the Department of Science and Technology (DST) and the National Research Foundation (NRF). Key partners that provide research infrastructure are the Department of Environmental Affairs (DEA: Oceans and Coasts), South African Institute for Aquatic Biodiversity (SAIAB) and South African Environmental Observation Network (SAEON). ACEP is managed by the South African Institute for Aquatic Biodiversity (SAIAB) which is a National Facility of the NRF.

The African Coelacanth Ecosystem Programme (ACEP) was initiated after the discovery of coelacanths off Sodwana Bay, South Africa, in 2000, and was one of the first multidisciplinary, multi-national research programmes to facilitate extensive ecosystem-based research in the South West Indian Ocean (SWIO). ACEP forms a key instrument in the implementation of the DST-led National Marine and Antarctic Research Strategy plan (MARS). In particular, ACEP aims to address some of the key research objectives outlined in the National Marine Research Plan for South Africa 2014+ with a focus on the east and southern coast of South Africa.

The National Marine Research Plan for South Africa 2014+ serves to link South Africa's comparative geographic and research advantage, regional stewardship and national interest considerations to research themes so as to stimulate systems-scale integration of knowledge and understanding. The importance of South Africa's east and southern coast in terms of the economic wellbeing of the country as well as understanding regional and global environmental and climate systems cannot be stressed enough.

The mandate of the National Research Foundation (NRF) is to support and promote research through funding, human resource development and the provision of the necessary research facilities in order to facilitate the creation of knowledge, innovation and development in all fields of science and technology, including indigenous knowledge and thereby to contribute to the improvement of the quality of life of all the people of the Republic (NRF Act, 1998). In support of its purpose, the *NRF Strategy 2020* aims at two strategic outcomes, namely *a vibrant and globally connected national system of innovation,* and *a representative research and technical workforce* targeting the following four strategic goals:

a) A scientifically literate and engaged society;
b) World-class benchmarking and grant-making systems;
c) An internationally competitive and transformed research system; and
d) Leading-edge research and infrastructure platforms.

ACEP contributes directly to all four strategic goals.

3. OBJECTIVES

3.1 ACEP INFRASTRUCTURE STRUCTURE

ACEP aims to ensure that key marine research infrastructure is made available to research scientists throughout the National System of Innovation (NSI). The DST and other ACEP partners have invested heavily in marine equipment and systems (e.g. ships, coastal craft, ROVs, sentinel sites, coastal arrays etc.) that are not readily available at universities, NGOs and other research entities. ACEP is a specific intervention that ensures that this equipment is optimally used and that researchers throughout the NSI have access. Successful research teams are provided with research platform access, bursaries and running expenses. By design ACEP does not support research proposals that do not intrinsically require research platform access. Research proposals that do not require any of the ACEP research platforms are catered for in other NRF research calls and instruments (e.g. Unrated/Rated Research Call, Thuthuka, Blue Sky, SARChI) as well as research resources within line departments such as DAFF and DEA (O&C).

The 2018–2020 ACEP Call for Proposals will consider applications for access to two discreet sets of research infrastructure:

- **Phakisa Ocean Cruises –** A joint initiative between DST and DEA (O&C) using the *RV Algoa.*
- **ACEP Coastal Platforms –** Coastal craft, remote operated vehicles, remote video platforms, acoustic telemetry platform, sentinel sites, coastal and offshore arrays etc.

Please note that the two components have different research priorities and the Phakisa Ocean Cruises have some additional call and logistical requirements.

3.2 PHAKISA OCEAN CRUISES RESEARCH OBJECTIVES

The Phakisa Oceans Operation was initiated in July 2014 under the auspices of the Presidency in order to fast-track a process of unlocking the economic potential of South Africa's Coast and Ocean for the betterment of the country's citizens. The process identified key industry sectors which will be prioritised to drive future growth in the 'Blue Economy' namely: Oil and Gas, and Aquaculture and Maritime Industries. Potential growth in these sectors, along with the extended continental shelf claim, currently being adjudicated under the United Nations Convention on the Law of the Sea, will require intensive Marine Spatial Planning (MSP). MSP is required to ensure all economic sectors are operated in an environmentally sustainable manner, such that none of the essential environmental goods and services provided by the oceans and coasts are compromised. In South Africa a key component of MSP, and cornerstone of marine ecosystem management, is the Marine Protected Area (MPA) Network.

As part of the Phakisa process, certain strategic initiatives were identified, and marine research that enhances the development of a representative and expanded MPA network was prioritised as one of these strategic initiatives.

The DST and the DEA (Oceans and Coasts) identified ACEP, as a leading multidisciplinary, multi-institutional programme, as one of the key platforms to be used in meeting Operation Phakisa aims.

In a joint initiative between DEA (O&C) and DST, two 30-day cruises on the *RV Algoa* (2018 and 2019) have been made available and this call for proposals invites multi-institutional and multidisciplinary projects in key spatial areas that meet the key research priorities identified by the Phakisa Programme.

Key research areas include:

1. Marine geoscience/geology.
2. Research to test and validate the offshore habitat classifications of the National Biodiversity Assessment.
3. Research to elucidate the key drivers of offshore biodiversity patterns.
4. Research to support finer-scale habitat mapping of fluvial inputs, muds, hard grounds (including cold water corals, deep reefs, submarine canyons and other sensitive habitat types).
5. Research to support understanding of canyon ecology.
6. Research to support understanding of paleo-ecosystems.
7. Research to support identification and mapping of habitat types that could not be included in the national habitat map due to lack of data and poor understanding of habitat requirements. This includes cold water corals, cold seeps, lace corals, bamboo corals and carbonate features.
8. Research to support the understanding of industry impacts on habitats e.g. condition assessments, habitat recovery and resilience. Research into muds, hard grounds and gravel is particularly encouraged.
9. Research to support MPA design including connectivity, transport pathways, dispersal distances and migration pathways.
10. Research to support the refinement of biodiversity targets including habitat and species representation and persistence targets.
11. Research into pelagic biodiversity patterns and ecosystem processes.
12. Research to support line-fish stock assessment and recovery.

Priority spatial areas for research include:

1. Areas offshore of the iSimangaliso Wetland Park, including the area to the south in line with the existing terrestrial World Heritage site boundary (including the Port Durnford reefs).
2. The uThukela Banks area.
3. Area within and adjacent to the proposed expanded Aliwal Shoal MPA.
4. The area in the vicinity of Protea Banks including submarine canyons, deep reefs and other habitats.
5. The area offshore of the southern and northern zones of Amathole MPA.
6. Submarine canyons and hard grounds, including deep cold water coral reefs off Port Elizabeth.
7. Agulhas Front pelagic and abyssal habitats.
8. Agulhas bank deep reefs and hard grounds, including the 45- and 75-mile bank.
9. Agulhas inner shelf muds (30–150 m).

Applications should specifically reference the priority research area and spatial area they wish to address.

As the programme is a collaborative venture with DEA (O&C), there are a number of specific requirements with respect to proposals:

- Research teams need to include a meaningful mix of DEA (O&C) scientists and scientists from other research organisations (NGOs, national facilities, science councils, universities, etc).
- As a key driver in the generation of marine spatial data and multidisciplinary data, proposals must cover as many of the following data layers as possible: oceanography, pelagic biodiversity, and benthic environment. Single-discipline research cruises will not be supported.
- Raw data collected on the cruise must be released to DEA (O&C). There will be an embargo period until 2023 (three years post-call end) on its use by non-research team members.
- Of critical importance is the choice of Cruise Chief Scientist. The proposal must clearly outline who

will be the Chief Scientist on the cruise and what experience they have had in managing multidisciplinary cruises. Applications that do not indicate who the Chief Scientist will be, or outline that the proposed individual has the requisite experience, will not be supported.
- Proposed research budgets should not exceed R 2 000 000 and student support must form a substantive part of the budget.

3.3 ACEP COASTAL PLATFORM RESEARCH OBJECTIVES

Applications to the ACEP Coastal Platforms component of the Open Call must address the priorities outlined in the overall DST Marine and Antarctic Research Strategy (MARS) and in particular the research priorities outlined in the National Marine Research Plan for South Africa 2014+ http://www.saiab.ac.za/uploads/files/marine_research_plan_final_2014_+.pdf Applications that address multidisciplinary questions in the following themes are requested.

Theme 1 – Oceans and marine ecosystems under global change.
Theme 2 – Ecosystems, biodiversity and biodiscovery.
Theme 3 – Coastal and marine resources, society and development.

Applications should make specific reference to the research theme that will be addressed and in particular which knowledge gap, research priority or research question (See National Marine Research Plan 2014+).

As indicated the applications must have the following components:
- They must intrinsically require the use of the ACEP coastal research platforms to be successful.
- They must be multidisciplinary, inter- or transdisciplinary.
- They must be on the east or southern coast of South Africa. Proposals that include research outside of these areas will not be considered.
- Proposed research budgets should not exceed R 2 000 000 and student support must form a substantive part of the budget.

4. RESEARCH PLATFORM DESCRIPTION AND LOGISTICS

4.1 GENERAL

The ACEP call is for multidisciplinary, infrastructure-linked projects and as such only projects that are not possible without platform support will be considered.

The following platforms are available and the applicants must ensure they **specifically indicate** which platforms they wish to apply for in their application. The costs associated with these platforms are borne by the ACEP Management Team and **DO NOT** form part of the PI's grant award.

It is strongly advised that applicants discuss their projects with the relevant platform technicians or instrument scientists in terms of feasibility.

4.2 PHAKISA OCEAN CRUISES RESEARCH PLATFORM AND LOGISTICS

PLATFORM	AREA OF OPERATION & DESCRIPTION	SPECIFIC DETAILS

RV Algoa	**AREA – South African coastal waters**
	
	Cruise 2018 – 30 days max.
	Cruise 2019 – 30 days max.
	
	(Both allocations include steaming time from and back to Cape Town.)
	
	 
		The following should be noted:
		• As the cruise is a collaborative cruise with DEA (O&C), the proposed team must include a meaningful mix of scientists from both DEA (O&C) as well as the broader research community (HEIs, NFs, NGOs etc.).
		• The cruise must be in SA territorial waters.
		• The applicant may request certain time slots in 2018 and 2019; however, these will need to be confirmed with DEA. While every effort will be made by ACEP management, the timing of cruise slots cannot be guaranteed until negotiated with DEA (O&C).
		• The following equipment is available: vessel mounted Acoustic Doppler Current Profiler (ADCP); Conductivity, Temperature, Depth meters (CTD); Simrad scientific echo sounder (120; 200; 38 & 18 kHz), ski-monkey, plankton pump and thermosalinograph (TSG).
		• ACEP can assist in trying to source other specialised equipment providing sufficient lead time is given.
		• Applications for cruise time must demonstrate that all 12 scientific berths will be productively filled. A short description of the role and intended outputs of each researcher is required.
		• The cruise Chief Scientist needs to be specified upfront in the application and must be an individual with experience. Written confirmation of their availability for the cruise will be required should the application be successful.
		• In the event that more than one suitable application is received it is highly unlikely that both cruises will be awarded to the same team. Research programmes should therefore be designed around a single cruise.
		• To discuss the *RV Algoa's* capabilities please feel free to contact the following past users:
		  ○ General Oceanography – Dr Tarron Lamont (DEA O&C) tarron.lamont@gmail.com
		  ○ Marine Biology – Dr Samaai (DEA O&C) toufiek.samaai@gmail.com
		  ○ General – Mr Marcel van Den Berg (DEA O&C) marcel@oceanafrica.com
		
		PIs are advised to discuss logistics and plans with Mr Ryan Palmer (ACEP Open Call Manager) before finalising their submission.

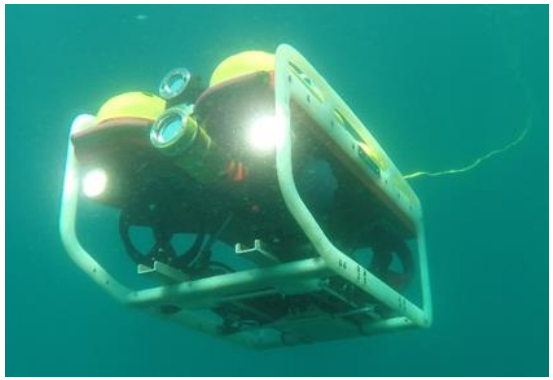
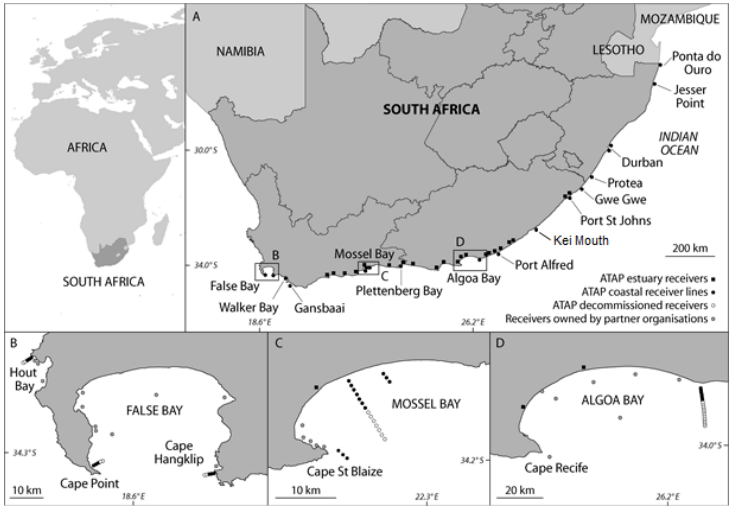
4.3 ACEP COASTAL PLATFORMS

PLATFORM	AREA OF OPERATION & DESCRIPTION	SPECIFIC DETAILS

RV uKwabelana (13 m ski-boat based in Algoa Bay)	**AREA – Port Elizabeth**
	
	Available 2018–2020:
	• 2 days per month (or equivalent) per project in the Algoa Bay region.
	 
	
	uKwabelana will be replaced by a new vessel *RV Jaheel* in 2020
		• *uKwabelana* (13 m Lee cat) is available 2 days per month per project. Work to be undertaken in the SAEON Algoa Bay Sentinel Site or immediate surrounds.
		• The vessel is ideal for 4-hour to 24-hour trips i.e. day trips to 24-hour stations. She is suitable for bay-scale projects. Please note *uKwabelana* is NOT a ship; she has coastal craft capabilities. She is not designed for heavy weather, heavy lifting or trips longer than 24 hours (36 hours max).
		• The following equipment is available on station: Acoustic Doppler Current Profiler (ADCP); Conductivity, Temperature, Depth meters (CTD); Niskin Rosette, ROV (on anchor), bongo nets, plankton pump, SBRUV systems. ACEP can assist in trying to source other specialised equipment provided sufficient lead time is given.
		• To discuss her capabilities please feel free to contact the following past users:
		  ○ Shark tagging – Dr Smale (Bayworld); Dr Dickens (Sharks Board)
		  ○ Diving – Dr Smale (Bayworld)
		  ○ BRUV – Dr Bernard (SAEON)
		  ○ ROV – Mr Palmer (SAIAB)
		  ○ Zooplankton (Plankton pump) – Dr Porri (SAIAB)
		  ○ Plankton – Dr Deyzel (SAEON)
		
		PIs are strongly advised to discuss logistics and plans with Mr Ryan Palmer (ACEP Open Call Manager) r.palmer@saiab.ac.za before finalising their submission.

RV Phakisa (15 m ski-boat)	**Available 2018–2020:**
	• 2 sea days per month per project for 10 months of the year operating from Durban harbour.
	• Two 3-week expedition type trips per year operating from Richards Bay, Durban or East London for dedicated ROV or multi-beam work.
	• Two 14-day periods per year for dedicated multi-beam survey in the Durban or Richards Bay area.
	• One 14-day period per year for dedicated ROV survey in the Durban or Richards Bay area.
		• *RV Phakisa* (15 m Legacy cat) is ideal for up to 2-day trips (36 hours). She is suitable for bay-scale projects. Please note that *RV Phakisa* is NOT a ship; she has coastal craft capabilities.
		• *RV Phakisa* will be based in Durban but will be available to be stationed in Richards Bay for two 3-week periods per year.
		• Capabilities as follows:
		  ○ A-frame and winch for lifting up to 500 kg over the stern.
		  ○ Can carry up to 10 researchers/students.
		  ○ Range of operation: preferably within 50nm of port of operation.
		  ○ Can overnight with up to 4 researchers/students on board.
		  ○ Suitable for multi-beam operations.
		  ○ Suitable for ROV operations (live-boating).
		  ○ Includes skipper and one crew but students and researchers are

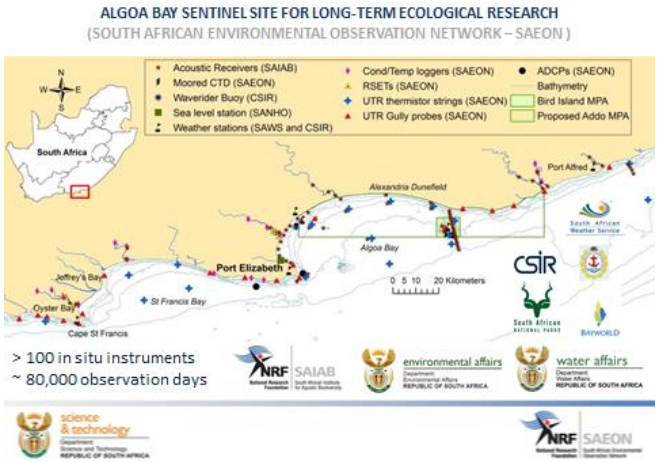
PLATFORM	AREA OF OPERATION & DESCRIPTION	SPECIFIC DETAILS
		required to assist with operations. ○ The following equipment is available: Acoustic Doppler Current Profiler (ADCP); Conductivity, Temperature, Depth meters (CTD); ROV, multi-beam sonar, bongo nets, plankton pump, vertical ring nets, SBRUV. ACEP can assist in trying to source other specialised equipment providing sufficient lead time is given. ○ Applicants are advised to discuss their proposed operations with Mr Nick Riddin (Platform Technician) n.riddin@saiab.ac.za prior to submitting their proposals.
Other Research Vessel	ACEP has allowed a budget of up to R 600 000.	Research can be undertaken off third-party vessels. Please note the following: • The PI needs to establish which vessel they intend to use and establish its daily rate. This needs to be specified in the application. • Please note that this does not cover the rental of research craft which are owned by the research institutions applying for funding. • Contracting of the vessel will be through the PI's organisation. • The PI is to provide all research equipment. • The PI may apply for the use of ACEP equipment, however, this will be subject to availability as equipment is generally linked to ACEP vessels. • The use of ACEP equipment off third-party vessels must be approved by Mr Ryan Palmer.
ROV (Seaeye Falcon)	**Available 2018–2020:** • One 21-day trip per year on *RV Phakisa* operating from Richards Bay or Durban or East London or Algoa Bay. Must apply for boat time on *RV Phakisa*. • 2 trips per month for 6 months of the year operating from *RV uKwabelana* in the Algoa Bay area. • One 14-day slot per year on *RV Phakisa* in the Durban or Richards Bay area. • One 21-day expedition per year operating from a third party vessel. http://saiab.co.za/seaeye-falcon-12177.htm	The SAAB Seaeye Falcon (rated to 300 m) is available for use with a pilot/technician from both ACEP vessels (*uKwabelana, Phakisa* and *Jaheel*) as well as suitable third-party vessels. • ROV work is technically very demanding. The ACEP technical team is perfecting scientific techniques that can be applied in South African conditions, but the work remains challenging. • Includes pilot/technician. Applicants are not permitted to fly unless certified and competent. • Operated off *RV uKwabelana* (on anchor to 100 m) or *RV Phakisa* (live-boat to 250 m) • If ACEP vessels are required, these must be specified and fit into the call conditions, area of operation and time allocation of the vessels. • Can be operated off third-party vessels (minimum 9 m with closed cabin and suitable generator and winch/davit) on anchor. (Please contact Ryan Palmer to discuss technical requirements). • Suitable for video surveys and still photographs. • Limited collections can be conducted.

PLATFORM	AREA OF OPERATION & DESCRIPTION	SPECIFIC DETAILS
		• The applicant must provide at least one deckhand for operations and a team member to assist with photographs and data logging. Any team is **strongly** advised to discuss their proposed operations with Mr Ryan Palmer (ACEP Open Call Manager and ROV pilot) R.palmer@saiab.ac.za prior to submitting their application.
Telemetry Platform	**Available 2018 – 2022:** Access to SAIAB's Acoustic Telemetry Array Platform (ATAP). http://saiab.co.za/atap.htm 	ACEP supports the Acoustic Telemetry Array Platform (ATAP). This research platform gathers acoustic tag detection data from acoustic receivers owned by the Canadian-based Ocean Tracking Network (OTN) project, SAIAB and other platform partners. The nationwide array spanning more than 2 000 km of coastline has monitoring sites in False Bay, Walker Bay, Gansbaai, Mossel Bay, Plettenberg Bay, Algoa Bay, Port Alfred, Kei Mouth, Port St Johns, Gwe Gwe, Durban, Umdloti, Sodwana Bay and Ponta do Oura. Each monitoring site is equipped with several Vemco VR2Ws acoustic receivers and Hobo temperature loggers, making the array ideal for longshore migration monitoring and localised studies at the core monitoring sites. In addition, approximately 20 estuaries and ports are monitored by single receiver deployments. The receiver network will be in place until March 2021 (i.e. current ACEP funding cycle) but the platform is planned to continue indefinitely. Projects that wish to link into this network are encouraged to apply. If required, ACEP will also supply up to six receivers to assist with additional coverage at strategic locations specific to proposed projects. Transmitters should be budgeted for in the project proposal. The following should be noted: • To minimise the risk of equipment loss, ATAP Standard Operating Procedures for the deployment of receivers must be adhered to. • ACEP will not be responsible for the logistics associated with additional receiver deployment. The applicant's own vessel must be used or the application must be linked to the use of and availability (and associated conditions) of the ACEP vessels on offer namely: *Ukwabelana*, *Phakisa* or *Jaheel.*

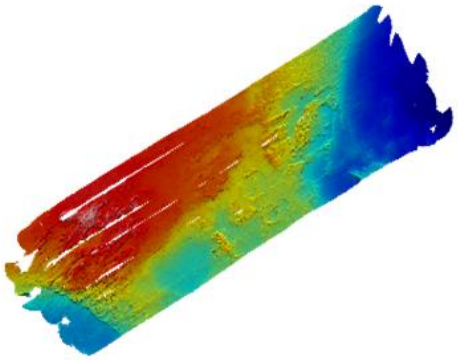
PLATFORM	AREA OF OPERATION & DESCRIPTION	SPECIFIC DETAILS
		• ACEP and ATAP can provide technical advice, expertise and training, if required. • All downloaded data will be stored and managed centrally by ATAP. All participants will be required to register their projects with ATAP and abide by the ATAP collaboration agreement and data management policy. Applicants should contact Dr Paul Cowley (ATAP Manager) to ensure all project plans conform to the objectives of the ATAP and OTN, and to avoid potential site-specific acoustic overloading. P.Cowley@saiab.ac.za

PLATFORM	AREA OF OPERATION & DESCRIPTION	SPECIFIC DETAILS

Underwater Video Platform (stereo BRUVs)	**Available 2018– 2020:**
	• Two 25-day trips per year.
	• Two days per month for use off RV uKwabelana in Algoa Bay area and RV Phakisa in Durban area.
	• Platform includes:
	  ○ 4 Heavy duty SBRUV systems
	  ○ 4 Light duty SBRUV systems
	  ○ 1 Drop camera system
	  ○ 1 Diver Operated Stereo Video system
	  ○ 2 x Field laptops
	• Software licenses:
	  ○ 4 x EventMeasure
	  ○ 2 x TransectMeasure
	• Technician not provided.
	
	Available: mid 2018–2020:
	• 8.5 m rigid inflatable boat with trailer. For video platform use only. Skipper not provided.
	
	Available on RV Algoa cruises:
	• SAEON Ski-monkey camera system.
	
	 
	
		Baited remote underwater stereo-video systems are a new platform used in benthic and fish monitoring and research. Four heavy duty (150 m) and 4 light duty (60 m) SBRUV systems as well as a drop camera system (150 m) and a diver operated stereo video system are available for two 4-week slots per annum (2018–2020). Timing will need to be negotiated with existing programmes.
		
		Software licences for video analysis are available for up to 4 months per year. These include 4 EventMeasure and 2 TransectMeasure licences.
		
		Furthermore an 8.5 m rigid inflatable boat with a trailer will be available from mid-2018 for use with this platform. The PI will be responsible for hiring/appointing a suitable qualified skipper for this vessel.
		
		The following should be noted:
		• To minimise the risk of equipment loss, standard operating procedures for the deployment must be adhered to.
		• To ensure standardisation of data collected with the platform, the Standard Operating Procedures for data management must be adhered to.
		• For use off the applicants own vessel or off the ACEP 8.5 m RIB with the applicants appointed skipper, ACEP will not be responsible for the logistics associated with deployment. A vessel of at least 6 m is required, fitted with a capstan winch and davit arm.
		• Details of the proposed vessel must be provided.
		• To use this platform off an ACEP vessel (*uKwabelana, Phakisa* or *Jaheel*), the applicant must apply for time on the relevant vessel, meeting the conditions, area of operation and time availability of that vessel.
		• Recommended deployment depth max 50 m for discipline entrants and max 150 m for experienced operators.
		• Each project will be assessed according to the risk of equipment loss, taking into consideration researchers' experience, operating depth, sampling location, time of year and vessel specifications.
		
		Any team is **strongly** advised to discuss their proposed operations with Dr Anthony Bernard (ACEP Instrument Scientist) prior to submitting their application. A.bernard@saiab.ac.za

PLATFORM	AREA OF OPERATION & DESCRIPTION	SPECIFIC DETAILS
SAEON Sentinel Site	Access to SAEON Elwandle Node Sentinel Site. 	ACEP supports applications to undertake research in the SAEON Algoa Bay Sentinel Site. The sentinel site includes over 100 *in situ* instruments between Port Alfred and Oyster Bay, measuring temperature and currents as well as salinity (in selected estuaries). Proposals have to demonstrate the need to utilise data from the existing *in-situ* equipment array (ADCP's and Thermister strings). Access to the platform includes: • Access to data from SAEON Sentinel Site Applicants are advised to contact Dr Tommy Bornman to discuss the *in-situ* array and data available. Tommy@saeon.ac.za
Agulhas System Climate Array	Access to ASCA data and time on ASCA cruises. 	The Agulhas System Climate Array (http://asca.dirisa.org/), consisting of seven tall and two shelf moorings with Acoustic Doppler Current Profilers (ADCP), single-point current meters and MicroCats, and five Current- and Pressure-Inverted Echo-Sounders (CPIES), has been established on the east coast of South Africa (34.5° S) to monitor this heat and salt transport. The array was designed to capture the meandering and non-meandering state of the Agulhas Current, with moorings deployed 200 km offshore, with the additional CPIES deployments extending the array to 300 km offshore. The objective of the array is to determine heat, salt and volume transport along the Agulhas Current over time and to determine the regional and coastal impacts of this powerful western boundary current. The data from three snap-shot CTD transects across the mooring line, associated underway ADCP data and the first year of moored instrument data is currently available for the marine science community to make use of. The moored instrument data consists of ADCP currents at 500 m, and depth specific CTD and current measurements along the mooring line to the seafloor (depths were user defined). Access to the data at this stage is still through the ASCA project office hosted at the SAEON Egagasini Node. For more information, access to the data already available or if you would like to become involved with the ASCA project as a student or collaborative researcher, please contact the ASCA Coordinator at tammy@saeon.ac.za.

PLATFORM	AREA OF OPERATION & DESCRIPTION	SPECIFIC DETAILS
DEVELOPMENTAL PLATFORM – MULTI-BEAM SONAR ACEP invested in a multi-beam sonar system in 2016 and at this stage the platform is still at a developmental stage. It is anticipated that the platform will be fully functional with regard to technical support and operations by 2019. The system will be available for operation in 2018 on the condition users are aware of its developmental status. The platform is being developed in conjunction with Professor Andrew Green at UKZN (Greena1@ukzn.ac.za)		

Multi-beam sonar	**Available 2018-2020.**
	
	For use on *RV Phakisa*:
	• Two 14-day surveys in the Durban area. Actual number of sea days is dependent on weather.
	• Two 3-week dedicated expedition operating either from Richards Bay, Durban or East London.
	• Boat time on *RV Phakisa* should be included on the application.
	
	For use of third-party vessel: Up to 30 days per trip. Technician not provided.
	
	 
		• The multi-beam system is available for survey work on *RV Phakisa* in the Durban area for up to 2 days per month, or for two 3-week surveys on *RV Phakisa* in the Richards Bay, Durban or East London or Port Elizabeth area. A technician will be provided for all survey work conducted using *RV Phakisa*.
		• ACEP Technician will be available for data collection. Post collection data processing is to be done by the research team. ACEP suggests including a geoscientist on your team if you wish to conduct multi-beam survey work.
		• System specifications as follows:
		  ○ Seabat 7101
		  ○ DMS 05 motion reference unit
		  ○ Hemisphere antennae
		  ○ Dual stations
		  ○ Hypack Max software
		  ○ Survey to a depth of 300 m
		• Available for use off suitable third-party vessels for up to 30 days per year. Subject to availability around use on ACEP Platforms. ACEP will not provide a technician for work off third-party vessels. The PI will be responsible for hiring a suitably qualified technician.
		
		Any team is **strongly** advised to discuss their proposed operations with Mr Nick Riddin (ACEP *RV Phakisa* skipper and multi-beam operator). N.riddin@saiab.ac.za

5. TECHNICAL SUPPORT

Advanced platforms and instrumentation requires skilled technical support. Technical support is provided for the following platforms:

- Coastal craft (*uKwabelana* and *Phakisa*) – ACEP skipper and deckhand for all trips (mandatory)
- Acoustic Telemetry Array Platform (ATAP) – Deployment training only
- Stereo Baited Remote Underwater Video (SBRUV) – Deployment training only
- Ski-Monkey benthic camera – ACEP operator (mandatory)
- Remote Operated Vehicle (ROV) – ACEP operator (mandatory)

The following technical support is included:

- Training
- Explanation of standard operating protocols
- Deployment training
- Flying (ROV and Ski Monkey only)
- Data retrieval training
- Calibration

The above support requires no formal acknowledgment of the technical specialist other than recognising ACEP in the acknowledgment section of papers. However, should the principal investigator (PI) require the technical specialist to be involved in scientific decision-making rather than solely the deployment of the instrument, then the technical specialist should be regarded as a scientific team member and be recognised appropriately e.g. paper authorship, co-supervision etc. Tasks that are outside technical support and which technical specialists are not obliged to perform without due recognition are:

- Experimental design
- Experimental design modification during cruise
- Statistical design
- Data processing or analysis
- Student supervision
- Paper writing

The inclusion of the technical specialist in the science team is entirely at the **discretion of the PI.** The relationship must be clarified prior to any cruises or equipment deployment.

6. FINANCIAL SUPPORT

ACEP is made possible through contract funding from the DST. The DST will fund a three-year cycle of research funding from 2018–2020.

ACEP normally funds five to six projects to a maximum value of R 2 million per application. Financial requests need to be in line with the requirements of the proposal, and should accurately reflect the anticipated financial requirements of the research work. Excessive budget requests are not well received by the review panel. Applications will be scored according to a scorecard (see **Appendix 1**), and the top-scoring applications will be supported until the available resources (funding and platform availability) are exhausted. ACEP reserves the right to optimise the programme with regards to platform provision and thus successful programmes will require some flexibility. The financial and infrastructure requirements of the top-scoring applications will determine the final number of applications supported. The research budget the ACEP open call programme is approximately R 10 million in total. This amount includes research-related costs and student bursaries, but excludes ACEP Marine Platform running costs.

7. TRANSFORMATION

The need for greater participation of women and black scientists in marine science is of paramount importance. Applicants are required to carefully consider how their proposed programme will contribute to transformation of marine science. Possible contributions include, but are not limited to:

- Special support offered to disadvantaged students.
- Significant involvement of women, black students and researchers.
- Collaboration with Historically Disadvantaged Universities.
- Specialist training offered to postgraduate students

Applicants should take note of the specific section in the online admission form on transformation as well as the scoring in **Appendix 1**.

8. SCIENCE ENGAGEMENT

In January 2015, the Minister of Science and Technology approved the department's 'Science Engagement Strategy' that seeks to create a society that is knowledgeable about science, critically engaged and scientifically literate. The strategy will achieve this intention by pursuing the following four strategic goals:

Goal 1: To popularise science, engineering, technology and innovation as attractive, relevant and accessible in order to enhance scientific literacy and awaken interest in relevant careers.

Goal 2: To develop a critical public that actively engages and participates in the national discourse of science and technology to the benefit of society.

Goal 3: To promote science communication that will enhance science engagement in South Africa.

Goal 4: To profile South African science and technology achievements domestically and internationally, demonstrating their contribution to national development and global science, thereby enhancing its public standing.

ACEP, as a flagship programme of the DST, supports the strategy. Open Call applicants are therefore required to include in their research project planning a carefully considered science engagement component that addresses one or more of the strategic goals itemised above and is integral to the project's outcomes.

Preference will be given to projects whose proposed science engagement activities are integrated into the project planning from its inception and spread throughout the duration of the project. Planned outputs and their potential impact within one or more of the stated goals should be clearly articulated in the proposal.

9. INFORMATION SOURCES

2002 *National Research and Development Strategy*, accessed on 26 March 2013, from http://www.dst.gov.za/index.php/resource-center/strategies-and-reports/174-national-research-a-development-strategy-2002

2013 The Department of Science and Technology. *The ministerial guidelines for improving equity in the distribution of DST/NRF bursaries and fellowships.*

2014 The Department of Science and Technology. *South African Antarctic and Southern Ocean Research Plan (2014-2024)*

2015 The Department of Science and Technology. *The South African Marine and Antarctic Research Strategy*

2015 The National Research Foundation. *The National Research Foundation Strategy 2020* accessed at http://www.nrf.ac.za/sites/default/files/documents/NRF%20Strategy%20Implementation.pdf, ISBN: 978-1-86868-088-7

10 *MODUS OPERANDI*

10.1 CALL FOR PROPOSALS

The African Coelacanth Ecosystem Programme invites applications to an

OPEN CALL

for a three year funding cycle (2018-2020)

All application materials ***must*** be submitted electronically via the NRF Online Submission System at https://nrfsubmission.nrf.ac.za

All applications ***must*** be endorsed by the research office of the principal investigator before submission to the NRF. It is the responsibility of each applicant to familiarise himself / herself with the **internal closing dates** set by their institution in order to meet the NRF closing date.

Incomplete or late submissions *will not* be accepted.

Call opens: 16 May 2017
Call closes: 30 June 2017

Successful applicants will be eligible for funding **for three years (2018–2020)**.

10.2 CONTACT DETAILS

REFER ALL ONLINE TECHNICAL QUERIES TO:	REFER ALL CALL-RELATED QUERIES TO:	REFER RESEARCH PLATFORM QUERIES TO:
SUPPORT DESK **012 481 4202** **Supportdesk@nrf.ac.za**	**LYNN ERASMUS** **012 481 4042** **Lynn@nrf.ac.za**	**RYAN PALMER** **046 603 5000** **072 299 8232** **R.Palmer@saiab.ac.za**

10.3 ELIGIBILITY

Rated and unrated researchers can apply for three years funding and infrastructure support (2018–2020) in this call.

Applicants must be either:

- full-time employees at an NRF-recognised research institution[1] in South Africa

OR

- part-time employees on contract at a NRF-recognised research institution in South Africa, on condition that the appointment is for (at least) the duration of the project applied for in the submission. The length of the contract should be stated on the application form. Salaries must be paid by the research institution and the primary employment of the individual concerned must be at that institution. A contract researcher appointed at a university or university of technology on behalf of a third party to fulfil a very specific function for the latter does not qualify for support

OR

- retired researchers affiliated to an NRF-recognised research institution provided that:
  - they are resident in South Africa;
  - institutional support is evident in the form of an employment contract, office space, administrative support, access to research equipment and space. The institution will have to ensure that a minimum of six months per year are spent at the facility for the purpose of research and research capacity development;
  - the researcher has a research publication track record and must be actively supervising postgraduate students at present.

Students, including PhD candidates and postdoctoral fellows *are NOT eligible to apply* as principal investigators in this call.

10.4 APPLICATION ASSESSMENT

The assessment of applications will be guided by a Panel Assessment Scorecard **(see Appendix 1)**, and scored according to the Proposal Grading **(see Appendix 2)**. Application assessment will occur by way of a three-tiered process:

1. Postal peer review[2] of research proposals.
2. Independent panel review of research proposals.
3. Resource allocation and optimisation.

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*[1] An NRF-recognised research institution is one that meets **all** of the following minimum requirements: An institution that –*

- *conducts basic or applied research;*
- *contributes to the research and development of the country (i.e. the results of this research should be freely available in the public domain);*
- *undertakes research that is for the public good, is of a pre-competitive nature and is for the benefit of the long-term knowledge base of the country;*
- *is involved in the training of postgraduate students;*
- *is committed to human resource capacity development; and*
- *is committed to equity and redress.*

Non NRF-recognised research institutions (e.g. NGOs) involved in research can contact the NRF at supportdesk@nrf.ac.za to ascertain how to apply to become an NRF-recognised research institution, provided they meet the above criteria.

[2] While termed 'postal', the NRF peer review system is electronic.

Applications submitted to the programme will be assessed according to a range of criteria. These criteria include: the track record of the applicant; scientific merit of the application; issues of equity and redress; collaborative efforts; potential impact of the research; and importantly, maximising the use of the research platforms. Funding will be allocated competitively, based on the comments and scores derived from the review process and strategic prioritisation.

10.4.1 Postal peer review

The NRF is aware that the selection of appropriate peer reviewers is the cornerstone of the success of the assessment procedure. For this purpose, applicants are requested to provide the names of between six and ten appropriate peers who would be in a position to provide an objective assessment of the application. Applicants must also indicate and motivate why specific reviewers should preferably not review their applications. Based on this information, as well as extensive consultations and the extraction of experts from the NRF's databases, the NRF will strive to obtain at least two to three quality review reports for each application.

Peer reviewers are requested to determine the scientific merit of the application, focusing on the following criteria:

Scientific novelty

- How well does the application address/engage novel concepts, approaches and methods that challenge existing paradigms and/or develop innovative methodologies and/or processes?
- How clear are the justifications for the choice of theoretical position(s) motivated for in the application?
- Does the application address the key research areas of the call?

Approach and feasibility

- Is the project multidisciplinary in nature?
- Does the application clearly demonstrate a need for the research platforms on offer?
- Are the design, methods and analysis properly developed[3], well integrated and appropriate to the aims of the application?
- How achievable is the work plan within the time frame and available resources?
- How likely is it that the proposed work will be accomplished by the researcher(s) within the stipulated time frames as indicated by:
    - the documented experience and expertise of the participant(s);
    - past progress by the investigators with regard to the work in the application; and
    - preliminary data collected that informed the application?

Student training and integration

- Have the activities of the students been embedded in the work plan?
- Does the proposed research maximise student training?

10.4.2 Panel peer review

A panel comprising independent academics with a broad knowledge of the fields of specialisation covered will assess and rank the applications and make recommendations to the NRF and ACEP Management Team using the multiple criteria scorecard. The panel's grading of scientific feasibility and scientific novelty will be informed by the postal peer-review process.

[3] *It is acknowledged that scientific novelty and properly developed methods can be mutually exclusive and this will be considered.*

10.4.3 Allocation and optimisation

The final allocation process will be undertaken by the NRF and will be governed by the panel ranking and the availability and optimal use of research platforms.

10.5 RULES OF PARTICIPATION

10.5.1 Principal investigator

Only researchers employed at NRF recognised research institutions in South Africa (as defined above) are eligible to apply as principal investigators in this funding instrument.

The principal investigator (i.e., the applicant/PI) must be an active researcher who takes intellectual responsibility for the project, its conception, any strategic decisions required in its pursuit, and the communication of results. The PI must have the capacity to make a serious commitment to the project and cannot assume the role of a supplier of resources for work that will largely be placed in the hands of others. S/he will take responsibility for the management and administration of resources allocated to the grant award. S/he will also take responsibility for timeously meeting all reporting requirements.

A PI ***MAY NOT*** submit a research proposal for their own degree purposes; or on behalf of a student where the student in the main will be carrying out the research. The expectation is that individual student projects will be embedded within a larger research programme or project.

10.5.2 Co-investigators

A co-investigator is an active researcher who provides significant commitment, intellectual input and relevant expertise into the design and implementation of the research application. S/he will be involved in all or at least some well-defined research activities within the scope of the application. South African-based co-investigators are eligible to receive NRF funds from the grant if the team's application is successful.

Please note that postdoctoral fellows, students, technical & support staff DO NOT qualify as co-investigators or collaborators, and should not be listed as such.

10.5.3 Collaborators

These are individuals or groups who are anticipated to make a relatively small, but meaningful contribution to the research endeavours outlined in the application, but who have not actively participated in the research design. They are not considered a part of the core research team, and are not eligible to receive NRF funds from the grant if the team's application is successful.

10.6 TIMELINES

ACEP support will be awarded for a period not exceeding three years **(2018–2020).** Student commitments will be honoured beyond 2020 as long as all NRF grant conditions are fulfilled.

Academic year	Financial year	Nature	Research Platform support
2018	2018/19	Funded	Provided
2019	2019/20	Funded	Provided
2020	2020/21	Funded (last year to enrol students)	Provided
2021	*2021/22*	*Roll-over year.*	*Not provided*
2022	*2022/23*	*Last roll-over year.*	*Not provided*
2023	*2023/24*	*Programme ended – no funds*	*No support*

10.7 SPECIFIC ACEP FUNDING CONDITIONS

ACEP is funded through a rolling, three-year contract with the DST. As ACEP is a research contract it has a number of specific reporting and corporate governance requirements which must be adhered to by the ACEP management team and project PIs. PIs and their teams must take note that, in comparison to some NRF research funding streams, involvement in ACEP requires greater reporting and performance management by the PI.

1. **Platform accessibility**: ACEP enables research platform access however ACEP cannot guarantee platform access. Every effort will be made by the ACEP team to ensure access is provided but factors such as instrument loss, weather, major breakdowns, 3rd party platform provider withdrawal from ACEP may prevent ACEP from meeting all commitments.
2. **Cruise Chief Scientist:** Cruises are very expensive and are taxing on the scientist in charge. ACEP requires Chief Scientists to have had experience in managing cruises and ACEP management reserves the right to request alternatives if the individual indicated in the application does not have the required experience.
3. **Equipment insurance:** The ACEP project does not insure equipment other than that supplied by ACEP. PI's are to ensure that equipment brought into and used as part of the programme is adequately insured and the owner of the asset has given permission for its use. Nor is ACEP liable for any loss or damage to equipment used off its vessels.
4. **Personnel insurance:** ACEP does not cover any form of personnel insurance for participants. Participants will be required to sign indemnities and will need to cover their own death, disability, sickness, and search and rescue insurance.
5. **Data archiving:** It should be noted that the conditions of award will include a clause that indicates that all *RV Algoa* cruise data will be lodged with DEA (Oceans and Coasts). It is the applicant's responsibility to ensure that their institution is aware that all data will be archived at DEA and after an embargoed publishing period (three years after the end of the programme i.e. 2024) will make its way into the public domain under DEA data rules. All other data collected by the project should be lodged with SAEON where it will be subject to similar conditions.
6. **Ethics:** All activities undertaken by the research team will need to meet the required ethics standards of the contracting institution. ACEP management reserves the right to request ethics clearance certification from the PI.
7. **Research permits:** Obtaining research permits is wholly the responsibility of the PI. ACEP management reserves the right to request copies of the permits from the PI. Copies of the research permit will be required for all work off ACEP platforms.
8. **Research outside SA:** In this phase, research is limited to South African waters.
9. **ACEP reporting:** ACEP is an integrated, actively managed flagship programme of the DST. As such, ACEP has specific monthly, quarterly and annual reporting requirements over and above the annual reports required by the NRF. In addition, certain research platforms, such as the ships and ROV, require detailed sailing orders to be developed to ensure maximum benefit is obtained from these expensive platforms. Where possible, the ACEP Management Team tries to streamline this process, but participation in reporting by PIs is obligatory. These reporting requirements include:
    - monthly telephonic updates with the ACEP co-ordinator. The ACEP co-ordinator then puts together a monthly progress report which is distributed to all participants;
    - detailed input into sailing orders;
    - cruise reports by the Chief Scientist produced for all expedition type trips using any of the ACEP marine platforms;
    - standard annual reports to the NRF;
    - detailed input into ACEP Annual reports and promotional publications as required; and
    - one NRF Research Nugget submission during the project.
10. **DST key performance indicators (KPIs):** ACEP is contractually bound to the DST to produce certain deliverables such as:
    - student numbers according to demographic targets;
    - peer reviewed papers;
    - conference proceedings;

- cruise numbers; and
- field trip numbers.

11. **Acknowledgement:** All project outputs (publications, conference, etc.) must formally acknowledge ACEP support. Phakisa Ocean Cruises must acknowledge both ACEP and DEA (O&C).

10.8 MANAGEMENT OF FUNDING INSTRUMENT

The KFD Directorate of the NRF – Research and Innovation Support and Advancement (RISA) manages ACEP and is primarily responsible for:

- strategic oversight and management of the funding instrument;
- conceptualising and developing the funding instrument;
- coordinating and facilitating activities of the funding instrument;
- compiling funding instrument research and evaluation reports;
- stakeholder engagement; and
- ensuring that the funding instruments delivers on its intended goal(s).

The RE Directorate is responsible for managing the adjudication process including:

- sourcing of reviewers both for remote reviews and panels;
- managing the peer review process;
- organising and managing the review panels; and
- providing feedback to unsuccessful applicants.

The GMSA Directorate is responsible for:

- managing the call process, that is,
  - posting the call; and
  - receiving the applications;
- coordinating and facilitating the granting processes;
- managing the granting including the administration of awards;
- administering grant payments; and
- ensuring adherence to conditions of grants.

SAIAB is responsible for:

- provision of the marine research infrastructure offered in the call; and
- provision of technical support.

11. FINANCIALS

11.1 FUNDING MODEL

The grants of this funding instrument are primarily to support research, and the associated (and approved) logistics costs. Careful consideration should be given to the development of associated human resources under the auspices of the NRF standard grant and finance policies. Overall, the ACEP funding instrument is required to expense no less than 30% per annum on human capital development in the form of student bursaries, student activities, and the development of early career researchers. Successful applicants will be sent conditions of grant along with a successful award letter. The money is released upon acceptance of the conditions of grant, both by the applicant and his/her employing institution. These grants are subject to the NRF audit requirements of beneficiary institutions.

11.2 FUNDING CATEGORIES

The PI's research grant award is expected to pay for all running expenses associated with the programme (**Table 11 Part A**, below) excluding certain platform costs which are covered directly by the programme management team (**Table 11 Part B**, below). The PI's research should be justified and commensurate with the planned outputs and number of students trained.

TABLE 11 A – GRANT HOLDER-LINKED RESEARCH AWARD
Can be funded through grant holders award
Student bursaries and bursary top-ups
All travel (inclusive of travel associated with cruises)
All internal research and co-ordination meetings
All subsistence costs and sea-going allowance
All research consumables
All research equipment
All conferences (national or international)
All medical certificates
All additional certification required by students or researchers, e.g. Class IV diving certificates, safety-at-sea certificates.
All permits
All sample analysis
All publication page charges
Cannot be funded through grant holders award
ACEP does not provide funding for the salaries of team members or assistants.
Equipment greater than R 100 000. Requisitions for large equipment items > R 100 000 should be submitted through the NRF's Equipment Programme.
Sabbaticals
TABLE 11 B – FUNDED DIRECTLY BY THE ACEP MANAGEMENT TEAM
RV Algoa – Phakisa cruise costs
Coastal craft costs (*uKwabelana*, *Phakisa* and *Jaheel*): Fuel, skipper
ATAP array maintenance costs
Insurance of ACEP equipment
Calibration of ACEP equipment
Maintenance of ACEP equipment
Provision of multi-beam, Ski-monkey and ROV operators
Training in the use of equipment (BRUV, ATAP)

The application assessment process will consider proposed budget items in terms of cost, risk and reward ratios. Decisions relating to budget items will also be governed by the overall funding instrument funds available for the period. Awards will be made in line with the NRF funding rules and guidelines as outlined in **Section 11.3**.

11.3 FUNDING SUPPORT

The NRF funds ACEP on an ongoing basis, and in line with contractual obligations. NRF-recognised institutions (as defined above) are the primary beneficiaries of this funding instrument.

11.3.1 Grant holder-linked student support (SA-based only)

Grant holder-linked student support will be awarded in accordance with eligibility criteria as detailed in the Ministerial Guidelines for Improving Equity in the Distribution of DST/NRF Bursaries and Fellowships (January 2013).

The equity distribution for these bursaries is targeted at the ratio:

- 80% Black
- 55% Female
- 4% Disabled

The awarding of postdoctoral fellowships will be guided, but not governed, by equity targets. It is important to note that citizen quotas for grant holder-linked Masters and PhD bursaries in ACEP apply and are strictly implemented by GMSA. The citizenship distribution for these bursaries is targeted at the ratio:

- 87% South African (including permanent residents)
- 5% SADC
- 4% rest of the African continent
- 4% non-African

The award of postdoctoral fellowships is not governed by citizenship quotas. However, postdoctoral candidates will only be supported if the programme includes MSc or PhD students as well. If more than one postdoctoral candidate is applied for, a strong motivation is required.

11.3.2 Values of student bursaries and fellowships

• Honours / BTech (Full-time)[4]	R 25 000 p.a	Max 1 year
• Masters degree (Full-time)	R 80 000 p.a	Max 2 years
• Doctoral degree (Full-time)	R 120 000 p.a	Max 3 years
• Postdoctoral (*pro rata* per month)	R 200 000 p.a	Max 2 years

Bursary may be supplemented by the NRF grant holder's running funds up to a maximum value of R 20 000 p.a.

11.3.3 Grant-holder research-related operating costs

Research-related operating costs

Materials and supplies

The NRF **does not** provide financial support for:

- Basic office equipment including computers and consumables. Computer purchases will only be allowed in instances where these are specific requirements for the research itself (e.g. high performance computing). Computer purchases will be allowed if the principal investigator or co-investigator is based at a museum.
- Basic office stationery, photocopying costs, printing costs unless these items form part of the research tools or the principal investigator or co-investigator is based at a museum.
- Journal publication costs, journal subscription costs, book costs unless the principal investigator or co-investigator is based at a museum.
- Telephone, fax and internet costs unless the principal investigator or co-investigator is based at a museum.

Travel and subsistence

- International conference attendance: Generally the NRF restricts this amount to R 50 000 per application per year for a team proposal, i.e. for principal investigators, co-investigators (local only) and local postgraduate students. This amount may be reduced proportionately if there is no team member and/or postgraduate student involvement.
- International visits: These will be considered on a case by case basis. Such visits must be integral to the research plan and strong motivations should accompany these requests. Realistic funding allocations will be based on the requested activities. Both incoming and outgoing visits will be considered against the overall availability of funding.
- Local conference attendance: Generally the NRF restricts expenditure against this item to R 5 000 per person (all costs). Support for local conference attendance could be requested for all listed co-investigators and postgraduate students. The applicant should detail the following in their motivations:

[4] ONLY South African citizens are eligible to apply.

  - The value of attending more than one local conference per annum if so requested.
  - The number of people that should be funded to attend local conferences.
- Local travel: The NRF does not stipulate any rate for mileage as this will depend on the research institutions' rate, which varies per institution. Applicants are requested to provide details of this rate, as well as the estimated distance to be travelled within the given year.
- Local accommodation should not exceed a three-star rating establishment, per night per person.

Research / technical / ad hoc assistants

- This funding instrument does **not provide funding for salaries**.
- Requests for research / technical / ad hoc assistance should be treated with caution. The NRF strongly encourages applicants to engage students to undertake the research rather than employing research consultants. This guideline however does not apply when specific and / or highly specialised research / technical expertise is required. **This should be CLEARLY motivated for in the proposal.**

Research equipment

Requisitions for large equipment items (> R 100 000) should be submitted through the NRF's Equipment Programme.

Funding to cater for disabilities

Additional funding support to cater for disability may be allocated to people with disabilities as specified in the Code of Good Practice on Employment of People with Disabilities as in the Employment Equity Act No 55 of 1998.

11.4 FUNDING INSTRUMENT BUDGET

ACEP is made possible through contract funding from the DST. Various institutions e.g. SAIAB, DEA (O&C) and SAEON provide equipment or platforms at a cost recovery or no costs basis.

11.5 FINANCIAL CONTROL AND REPORTING

Upon receipt of the signed Conditions of Grant letter, the NRF will release the awarded amount for the year. Grant holders will then be required to comply with the standard NRF financial management procedures, including the submission of an Annual Progress Report. These are to be submitted before the end of March of the following year, and are a prerequisite for the release of the subsequent year's funding. Failure to submit the Annual Progress Report will result in the cancellation of the grant award.

12. MONITORING AND EVALUATION OF THE FUNDING INSTRUMENT

The NRF is responsible for monitoring and evaluating ACEP Open Call.

12.1 REPORTING

The funding instrument Director and SAIAB Managing Director are responsible for reporting quarterly on the contribution of ACEP to the KFD Directorate's Key Performance Indicators. In addition, they are responsible for reviewing and reporting to the DST annually on the progress of the funding instrument.

12.2. TIME FRAMES FOR PROGRAMME REVIEW

The ACEP Open Call will be evaluated by an appropriate external reviewer as appointed by the RE Directorate. In consultation with the RE Directorate, KFD will agree to and set time frames for the review in line with existing NRF policies and guidelines.

12.3 BROAD TERMS OF REFERENCE FOR THE PROGRAMME REVIEW

The broad terms of reference for the programme review of the ACEP funding instrument will be determined by the KFD Directorate and SAIAB Managing Director prior to the evaluation taking place, and in accordance with tenets set in the RE Directorate's Guidelines.

12.4 UTILISATION OF PROGRAMME REVIEW FINDINGS AND RECOMMENDATIONS

The results of the evaluation will be used in line with the purposes set in the Terms of Reference for the evaluation, as well as for the improvement and development of the funding instrument.

ACRONYMS

ACEP	African Coelacanth Ecosystem Programme
ADCP	Acoustic Doppler Current Profiler
ASCA	Agulhas System Climate Array
ATAP	Acoustic Telemetry Array Platform
CPIES	Current- and Pressure-Inverted Echo-Sounders
CTD	Conductivity, Temperature, Depth
DEA (O&C)	Department of Environmental Affairs (Oceans and Coasts)
DEA	Department of Environmental Affairs
DST	Department of Science and Technology
GMSA	Grant Management and Systems Administration
HEI	Higher Education Institution
KFD	Knowledge Fields Development
MAR-RIP	Marine-Remote Imagery Platform
MARS	National Marine and Antarctic Research Strategy
MPA	Marine Protected Area
MSP	Marine Spatial Planning
NRF	National Research Foundation
NSI	National System of Innovation
PI	Principal Investigator
RE	Reviews and Evaluation
RIB	Rigid Inflatable Boat
RISA	Research and Innovation Support and Advancement
SAEON	South African Environmental Observation Network
SAIAB	South African Institute for Aquatic Biodiversity
SBRUV	Stereo Baited Remote Underwater Video
SWIO	South West Indian Ocean
TSG	Thermosalinograph

APPENDIX 1: ACEP PANEL ASSESSMENT SCORECARD

Criteria	Sub-Criteria	Details	Score / 4	Weight	Hurdle (Pass/Fail)
Applicant	Past research	The quality and quantity of the applicant's research outputs will be assessed (as listed in the application)		5%	Minimum score of 2 is required
Application	Scientific novelty	How well does the application address/engage novel concepts, approaches and methods that challenge existing paradigms and/or develop innovative methodologies and/or processes? How clear are the justifications for the choice of theoretical position(s) motivated for in the application?		15%	Minimum score of 2 is required
	Scientific approach and feasibility	Are the design, methods and analysis properly developed, well integrated and appropriate to the **aims of the call?** Is the work plan achievable within the time frame and available resources? Is the relevant expertise included?		15%	Minimum score of 2 is required
	Training	Does the application aim to maximise the training of students? Are the activities of the students embedded in the work plan?		15%	Minimum score of 2 is required
	Alignment with programme	Does the application fit within the overall description of the ACEP Coastal programme or Phakisa Ocean Cruises Programme? Does the proposed programme intrinsically require the research platforms on offer through ACEP or could the research aims be achieved through other funding streams?		20%	Minimum score of 3 is required
	Science engagement strategy	Does the application include a well thought out, integrated science engagement strategy		5%	Minimum score of 2 is required
Equity and redress	Of applicant	Disabled = 4; Black female = 4; Young[5] black male = 4; Black male = 3; Young white female = 3; White female = 2; Young white male = 2; White male =1		5%	
	Of Project	What transformation plan or activities does the applicant plan to implement?		5%	Minimum score of 2 is required
Collaboration	Internal and External	The ACEP programme promotes multidisciplinary, interdisciplinary and transdisciplinary approaches across the entire programme. Inter-institutional research is strongly promoted. How well does this application support the above objective? How well does this application embed relevant and appropriate collaborators – at both an international and national level? Are the roles of these collaborators clearly indicated in the application?		10%	Minimum score of 2 is required
Data Management and use	Plans for digital data storage, usage and/or dissemination	Has appropriate consideration been given to digital data storage, usage and/or dissemination beyond the immediate project team?		5%	Minimum score of 3 is required
Totals				**100%**	

[5] Young is 5 years or less post PhD

APPENDIX 2: PROPOSAL GRADING

African Coelacanth Ecosystem Programme		
Score	**Meaning of score**	**Notes**
4	Excellent	Application demonstrates evidence of outstanding performance across all the stated criteria, as determined by the panel and relative to the knowledge field under consideration.
3	Above average	Above average performance across all criteria, as determined by the panel and relative to the knowledge field under consideration.
2	Average	Application demonstrates average performance across all the stated criteria, as determined by the panel and relative to the knowledge field under consideration.
1	Below average	Below average performance across all the criteria, as determined by panel and relative to knowledge field.
0	Poor	There are major shortcomings or flaws within and across the stated criteria.
Context: Proposal grading is done with sensitivity to the context within which each application is submitted. The score of each criterion for each application will be contextualised to accommodate variability in such things as knowledge fields, institutional capacity, etc. Should a criterion not be applicable to a specific application (e.g. plans for digital data storage; collaborations; etc.), the weighting of that specific criteria will be made to equal zero, and the overall score normalised.		