

APPLICATION FORM: NMMU ENGAGEMENT EXCELLENCE AWARDS

(CONSULT THE NMMU ENGAGEMENT EXCELLENCE AWARDS POLICY AND READ THE APPLICATION FORM BEFORE COMPLETING THE TEMPLATE IN ORDER AVOID A DUPLICATION OF INFORMATION.)
COMPLETE THIS FORM IN TYPESCRIPT. PROVIDE ONLY THE INFORMATION REQUESTED.

SECTION A: Application category		
<ul style="list-style-type: none"> Indicate with an X in the appropriate box the award you are applying for. Your application will only be considered for the award you have applied for 	<input type="checkbox"/> Engagement Excellence Award – Science, Technology and Engineering <input type="checkbox"/> Engagement Excellence Award – Social Sciences and Humanities <input checked="" type="checkbox"/> <u>Engagement Excellence Team Award</u> <input type="checkbox"/> Engagement Excellence Project Award – Science, Technology and Engineering <input type="checkbox"/> Engagement Excellence Project Award – Social Sciences and Humanities <input type="checkbox"/> Emerging Engagement Excellence Awards <i>(note that Professors and Associate Professors are not eligible for this category)</i>	
Surname of Applicant/Team Leader	Adams	
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Employment position held at NMMU	CMR Director & Professor – Botany Department	
Faculty	Science	
Department	Institute for Coastal and Marine Research (CMR)	
Division	N/A	
Immediate line-manager	CMR – DVC Prof Andrew Leitch Botany – Acting HOD Dr Phumelele Gama	
Eligibility: Are you permanently employed and/or on a long term (3 years or more) fixed contract? (indicate with an X)	Permanent X	Fixed term contract
If this is an application for one of the Engagement Excellence Project Awards, provide a brief title and description of the project (250 words maximum)	Not applicable.	
If this is an application for either the Excellence	Not applicable.	

Awards or the Emerging Award, provide a brief description of your engagement activities and initiatives (250 words maximum)

If this is an application for the Engagement Excellence Team Award, provide

- the names of all staff members and students participating
- the nature of their involvement
- a brief description of the team's engagement initiatives and activities (250 words maximum)

Staff:

In 2016, the CMR staff consisted of the Director (Dr Anton McLachlan), Deputy Director (Prof Ronel Nel), Head of the Research Diving Unit (RDU, Mr Anton Cloete) and the Secretary (Mrs Denise Scheepers). Prof Janine Adams took over as Director in 2017 with Mrs Bernadette Snow as Deputy Director.

The Director is assisted by a Management Committee, and for 2016, the following staff members were part of this committee: Dr McLachlan (Director, Chair), Prof Nel (Deputy Director), Prof Azwinndini Muronga (Dean of Science), Prof Eileen Campbell (DoS Environmental Sciences), Dr Shaun Deyzel, Dr Paul-Pierre Steyn, Dr Linda Harris (CMR Research Theme Coordinators), Dr Tommy Bomman (SAEON), Dr Malcolm Smale (BCRE), Mrs Bernadette Snow (representing other Faculties) and Mr Cloete (RDU).

In addition, 36 NMMU staff members from 14 NMMU Departments in six Faculties were CMR members. Four DST/NRF Research Chairs also fell under the CMR: Prof Renzo Perissinotto (Shallow Water Ecosystems), Prof Amanda Lombard (Marine Spatial Planning), Prof Patrick Vrancken (Law of the Sea) and Prof Mike Roberts (Oceanography and Food Security). The CMR's membership also consisted of 24 Research Associates linked to various NMMU Departments, and seven entities outside of NMMU (SAEON, SAIAB, SANBI, BCRE, CSIR, SANParks and DEA: Oceans and Coasts).

Students:

14 Post-doctoral, 46 Doctoral and 40 Masters students.

Description:

The CMR aims to be a leading marine sciences institute that strives for excellence in multidisciplinary research, building capacity and advancing our understanding of the coastal and marine environment, to serve the needs of South Africa, the continent and beyond.

Our Institute engages through Community Interaction, Service and Outreach by ensuring its research reaches the public in the form of public events, lectures, outreach programmes, debates and training sessions.

Engagement through teaching and learning takes place through lecturing undergraduate students, as well as the training and mentoring of post-graduate students, arranging workshops, hosting short learning programs and developing new qualifications when necessary (e.g. Masters course in Marine Spatial Planning).

Training and capacity building also takes place through our Research Dive Unit that offered four diver training courses and operated on 104 dive days in 2016.

Research and Scholarship is a strong area of engagement for the CMR as interdisciplinary research is the core on which other activities are based. Research provides a scientific basis for management strategies that optimise maintenance of biodiversity and sustainable use of resources; and contributes to the education on matters pertaining to the coast and ocean.

CMR produced 70 journal articles and 12 research reports in 2016. Strong collaborations with seven entities external to NMMU strengthened research opportunities and allowed for sharing of specialised equipment. Engagement with a diversity of stakeholders allows the CMR to communicate its research on many platforms.

Internal engagements have led to collaborations between 14 NMMU Departments from 6 Faculties. Students can now become involved in projects that consider a large scope of topics due to shared knowledge.

Engagements in all these categories ensures that the CMR makes a significant contribution to the role of NMMU as an engaged University.

Are your Engagement activities/projects/initiatives registered on the Engagement Management Information System (E-MIS) on SharePoint?

If not, please ensure that they are before you submit this application. Applications that are not registered and updated on the E-MIS will not be considered for Awards.

The most recent date on E-MIS for each project update (achieved when 'submit' is clicked) must be in 2015.

Provide the exact titles (as featured on the E-MIS) for all of the Engagement activities/projects/initiatives with which you are involved.

Visit

<http://caec.nmmu.ac.za/Engagement-Information-and-Development/Engagement-Management-Information-System>

Titles:

1. Not registered as there are too many and projects should be registered by individuals. The CMR can encourage this

SECTION B: Engagement categories

- You are required to describe and report in detail on a minimum of two engagement categories (these are 1, 2, 3 and 4 below) in order to be considered for an award.
- If you or your team are involved in three or four of the engagement categories, report in detail on all of these categories.
- Applications that describe and can provide evidence of engagement activities across all four categories are encouraged.
- Refer to section 5 of the attached Engagement Excellence Awards policy which provides a guideline on the specific activities you should report on under each of the categories you have chosen.

Report on your:

1. Engagement through Community Interaction, Service and Outreach:

This occurred through public talks, workshops, events and social media.

Prof Nadine Strydom and Dr Gavin Rishworth (Claude Leon Foundation post-doctoral fellow) published popular articles in the following magazines during 2016: *Ski-Boat*, *Tight Lines*, *Leisure Boating* and *Science Today*. This communicated the state of South African fisheries, coastal angling and living stromatolites along the Eastern Cape coast with the public. Furthermore, the *Marine Apex Predator Research Unit* (MAPRU), SARCHI Chair: *Marine Spatial Planning*, *Plett Hope Spot*, *Garden Route Biosphere Reserve* and *Southern African Bryde's Whale Project* Facebook pages were active to communicate CMR research on social media platforms.

A number of CMR members were also involved in various academic engagement projects during 2016. These include the following:

- Dr Lorien Pichegru organized the launch of Algoa Bay as the *Bottlenose Dolphin Capital of the World* in April 2016. During this public event, Prof Strydom delivered a presentation on estuaries in crisis. Dr Pichegru also initiated the *PE Dolphin Carnival* in collaboration with Nelson Mandela Bay Tourism in October 2016. A number of outreach events and public talks at Bayworld (as part of the Algoa Bay Hope Spot Initiative) were arranged by Dr Pichegru as well.
- Prof Lombard delivered a presentation at a debate: *South Africa's Marine Protected Area Expansion Strategy: MPAs – do we need them?* held at Two Oceans Aquarium in Cape Town in August 2016.
- Dr Greg Hofmeyr (Bayworld Centre for Research and Education - BCRE) facilitated a training exercise at Bayworld on live cetacean stranding responses on 2 December 2016. This was arranged by staff from DEA: Oceans and Coasts.
- A series of public lectures were presented by the following CMR members: Dr Eckart Schuman (Sustainable Seas Trust and Estuary Care); Prof Perissinotto (JLB & MM Smith Memorial Lecture); and Prof Lombard (Ocean Stewards Offshore Marine Science Session).

Report on your:

2. Engagement through Teaching and Learning:

CMR members were involved in lecturing undergraduate modules and running practical sessions, as well as supervising and mentoring post-graduate students and post-doctoral fellows. Research is integrated in undergraduate teaching and learning such as the Marine Biology modules.

Six masters and four doctoral CMR students, all supervised by CMR academics, completed their research-based degrees during 2016, and graduated in the April 2017 graduation ceremonies.

A workshop on coastal water quality was organized by Prof Adams from 17-18 March in Port Elizabeth, during National Water Week. This workshop brought together 40 specialists and students to allow for debate and interaction on the presentation and interpretation of water quality data for estuaries and coasts. In collaboration with the DEA: Oceans & Coasts, Prof Adams also offered a short learning programme on Estuary Management. This was held in Port Elizabeth from 5-7 December 2016.

Prof Vrancken presented an IOI-SA Ocean Governance Training Course, as well as a course that forms part of the NMMU Global Studies Programme.

The CMR hosted the annual short learning programme *Marine Biology of South Africa* (BIO373). This is an extra credit bearing module offered annually to 7-17 students from College of Benedict and St John's University (Minneapolis, USA), arranged through the NMMU International Office. Prof Nel and Ms Karien Bezuidenhout (PhD student) presented this course during 2016.

In collaboration with Dr Will Fowlds (Amakhala Private Game Reserve), Dr Stephanie Plön presented three courses in June 2016 as part of the *Introduction to Marine Mammal Biology: Vets Go Wild* worldwide experience programme.

Prof Nel and other CMR members are also in the process of developing a new qualification and curriculum for an interdisciplinary programme for a *Master of Coastal and Marine Spatial Planning*.

Report on your:

3. Engagement through Profession/Discipline-Based Service Provision:

During 2016, the Research Diving Unit (RDU) signed MoUs with various external parties that require diving support. Some of these service agreements were with Aurecon, Lidomix and Zwembezi. The RDU was also available to assist with research diving requirements for student and research projects.

A major CMR activity is consultancy, either through private consulting, contract research or institutional contract consulting. Various CMR members offer their expertise through consulting services in one or more of these three categories.

Report on your:

4. Engagement through Research and Scholarship:

The CMR's activities can broadly be grouped according to three research themes:

1. Living Resources and Food Security
2. Biodiversity and Conservation
3. Global Change

During 2016, each research theme hosted a workshop, attended by a representative group of 30-50 CMR members, and invited academics and external stakeholders (22 July, Old Cash Store; 29 September, Grass Roof Restaurant; 25 November, La Cigale respectively). These consisted of presentations by key speakers (CMR members and guest speakers) and an open discussion where the focus areas were scrutinised in terms of their objectives, goals, strategies and research gaps. Workshop reports were prepared where key decisions and recommendations were put forward and recorded for consideration for future research.

The CMR co-hosted a national workshop on *International Laboratory for Ocean Sciences and Education in and For Africa* (ILOSA). This event was coordinated through collaborations between the CMR (NMMU) and Ma-Re (UCT) and ICEMSA, and was hosted at Pine Lodge, Port Elizabeth, from 21-22 November 2016. These proceedings provided opportunities for the CMR to showcase the research being conducted by its members, for shortcomings to be identified and for collaborations to be established with external parties.

The Science Faculty approved the establishment of the *Marine Apex Predator Research Unit* (MAPRU) during 2016. This Unit, under the leadership of Dr Pierre Pistorius, falls within the CMR and is a very active research group that consisted of eight staff, contract and research associates, 6 post-doctoral fellows and 15 post-graduate students during 2016. It conducts research on marine top predators (seabirds, seals, sharks, cetaceans) particularly in relation to global change, conservation and sustainable resource management. Learning opportunities and training of post-graduate students in various aspects involving marine top predators is provided. Public interest in marine biodiversity and conservation is stimulated by becoming involved in various forms of engagement by using charismatic predator species.

The CMR has strong links with various research entities. These entities include: SAEON, SAIAB, SANBI, BCRC, CSIR, SANParks and DEA: Oceans and Coasts. These links allow collaboration on various research projects, and allows for the exchange of knowledge and expertise for short- and long-term environmental monitoring programmes, management advice, and student supervision and training.

Prof Adams, Prof Guy Bate and Dr Taryn Riddin edited a special issue (Volume 107) of *South African Journal of Botany* on the *Ecology and Biodiversity of Estuaries*. This volume appeared in November 2016 and contained 22 original scientific articles.

Dr Plön initiated and helped form a consortium for the conservation of Indian Ocean humpback dolphins *Sousa plumbea* in South African Waters (SouSA Project).

CMR members (students included) attended a number of international (20) and national conferences and workshops (17), where their research was shared with the scientific community during 2016.

The RDU supports marine research and other related academic programs by providing access to diving and boating training, equipment, logistic support and expertise. During 2016, a total of four diver training courses were offered: two Class 4 Commercial diver training courses; one Class 5 Scientific diver training course; and one Class 4 Supervisor training course. The RDU had 104 operational dive days, consisting of multiple dives per dive day, during 2016.

The CMR also built strong international collaborations with the University of Gothenburg (Sweden), the University of Southampton (UK), the Norway HOME Learning Masters Programme and the Nansen-Tutu Centre (Norway-Cape Town). These collaborations allow for staff and student exchanges and sharing research knowledge.

The CMR has many examples of research informing policy and conservation management; members have been engaged for many years with the public and government departments and thus there are a number of examples of best practice in the field of engagement.

SECTION C: Descriptions

1. Describe the impact your Engagement activities have made on stakeholders/beneficiaries/communities and provide details on how these activities are acknowledged/recognized by:	
1.1. External communities/stakeholders/beneficiaries: (not staff and students of NMMU)	<p>Through public events, the community at large is exposed to many very interesting, serious and real scientific, environmental and socio-economic issues. Such public engagement initiatives and projects inform the layman of these problems in a way that is easy to understand.</p> <p>Details on how CMR engagement activities involve external communities, stakeholders and beneficiaries are elaborated upon in Section B 1, 2, 3 and 4. CMR activities are acknowledged/recognised by public attendance at events, newspaper and other articles written, and by members of the public turning to CMR members for advice or information on coastal and marine systems. Membership requests for active participation, or for receiving news on CMR activities, were received.</p>

<p>1.2. Internal communities/stakeholders/beneficiaries: (staff and students of NMMU)</p>	<p>One of the core focus areas of the CMR is to promote interdisciplinary and cross-faculty marine research. This can only be done when marine research is not restricted to the Science Faculty. As of 2016, some activities from six NMMU Faculties formed part of the CMR. These Faculties are: Science; Business and Economic Science. Engineering, the Built Environment and Information Technology; Health Sciences; Arts and Law. This opens up many collaboration opportunities for research projects, reporting, co-authorship on papers and administrative and technical support. Students can now become involved in projects that consider a large scope of topics due to shared knowledge amongst NMMU academics, so their field of expertise is broadened after graduation. A total of 100 post-graduate students formed part of the CMR during 2016, and through CMR members and activities, these students were mentored and assisted in developing their research careers.</p> <p>Details on how CMR engagement activities involve internal NMMU staff and students are elaborated upon in Section B 1, 2, 3 and 4. The CMR received many requests from NMMU staff from various disciplines and final year undergraduate and post-graduate students to become members to actively participate in CMR activities, or to receive CMR news.</p>
<p>2. Describe how your Engagement activities contribute towards faculty/department/entity engagement goals and objectives. (Refer to your Department/Faculty/Entity's strategic plan here)</p>	

CMR's objectives are to:

- *provide a forum to enhance collaboration among academics, researchers and professionals, and build interdisciplinary teams of critical mass to address complex issues.* This is done through CMR members seeking active collaborations with both internal NMMU Departments and external parties and research entities that are interested in marine research. Where necessary, Task Teams are compiled to address large projects or complex issues, where expertise can be shared.
- *create a strong brand and market this collective expertise to develop partnerships and source funding in key areas.* The CMR is keeping its website up to date, but is also becoming increasingly involved in various new projects and research briefs, whilst building on existing projects. Since its re-establishment, the CMR is focusing on creating a strong image, and this is achieved through new engagements, hosting public events and becoming more active through advertising, branding and information sharing through a collection of booklets and media articles. During 2016, a glossy A5 booklet was created to communicate the CMR's vision, mission, values, objectives, activities, thematic areas, membership and governance to attract stakeholders. An A5 information booklet for CMR members was also made available. A glossy report on 2016 activities is planned for 2017.
- *provide community service through professional consulting, service on external boards and committees, and broader outreach.* The RDU is involved in consulting, and various CMR members act as consultants when requested. Many CMR members are editors or associate editors of scientific journals, trustees or environmental organisations and serve on boards and committees related to environmental management (Section B 3 and Section C 4.1).
- *host meetings, regional, national and international, and other activities of wide interest to showcase expertise and achievements.* The CMR aims to have at least one workshop for each one of its three Research Themes each year. This was achieved in 2016 (Section B 4). Furthermore, the CMR becomes involved in other workshops and conferences where possible (ILOSAs in 2016, and involvement with SAMSS in 2017). Some CMR members are very involved in arranging public lectures and events. Dr Pichegru in particular worked closely with the NMB Metro during 2016 to gain public interest in bottlenose dolphins through a series of events and lectures (Section B 1 for details on this and other activities to showcase expertise).
- *be the first point of contact for marine issues at NMMU and communicate, on behalf of the membership, with the external community and top management.* All CMR members are requested to make their affiliation to the CMR known, and the CMR is listed as an affiliation on reports and scientific publications. Each year, the CMR compiles an annual research report that captures all the research activities that CMR members were involved in. The Advisory Board reviews this document, and the CMR submits this to Senate at Council. Further communication is achieved through distributing information booklets and through the website.

3. Describe how your Engagement activities contribute towards the achievement of the NMMU Vision 2020 Engagement Strategic Goals and Objectives. (Refer to the attached NMMU Engagement Strategic Goals and Objectives)

Since 2016, the CMR has been a University-wide Institute outside of the Science Faculty. This decision has allowed the CMR to become involved in many marine and coastal issues that do not relate to science only, but that take people, projects, and issues from many different fields into consideration. This has resulted in the CMR becoming more responsive and engaged in all aspects related to coastal and marine issues (scientific, social, economic and legal aspects). Through research being done by members with such a wide range of expertise, the CMR can participate in the NMMU's 2020 vision of contributing to a sustainable future – both for the environment and for communities. The CMR continues to build upon previous collaborations, but opportunities

for new collaborations are sought. These collaborations ensure mutually beneficial partnerships, such as with universities internationally (University of Gothenburg, University of Southampton), and local government, management and research authorities and entities (SAEON, SAIAB, SANBI, BCRE, CSIR, SANParks, DEA: Oceans and Coasts). CMR members ensure that scholarship will be invigorated by being involved with undergraduate and postgraduate lecturing and training, by hosting research workshops and training exercises, through arranging public events and lectures, the publication of popular articles in magazines and by participating in public debates. Whilst teaching and student training will always be a priority, there is a drive to involve external stakeholders in CMR activities to ensure that research is communicated on all platforms. Since its re-establishment, the CMR has aspired to transfer, apply and share its knowledge and resources with the NMMU and external community through a series of workshops, information booklets and website.

In terms of NMMU Strategic Goals and Objectives, the CMR is contributing as follows:

- *Goal 1: Promote and sustain the recognition of engagement as a scholarly activity at NMMU.* This is clearly illustrated in Section B, where CMR activities fall into all four engagement categories. The CMR does recognise efforts by members by offering Strategic Initiatives Funding (through the DVC: R&E) for selected projects. CMR members are also requested to formally capture their research outputs in the annual report that is communicated with NMMU top management. It is also expected that all research-related activities are formally recorded, as per Departmental or other requirements. All CMR activities are communicated to internal and external stakeholders, and the public is involved sufficiently through lectures and other activities.
- *Goal 2: Respond to societal needs in line with the institutional engagement focus areas.* The CMR has identified its core focus areas, as stipulated in C 2 and captured in the information booklets. Opportunities for engagement and collaboration are constantly sought and acted upon when presented.
- *Goal 3: Promote the integration of engagement, research, innovation and teaching and learning.* The benefits of integration are understood and, as specified in Section B, CMR activities fall into all four engagement categories. There is a smooth flow of knowledge from research to teaching, learning and engagement.
- *Goal 4: Promote engagement for the public good.* CMR's activities allow for much public participation, information sharing and exchange (Section B 1, 2, 4). CMR members and staff see the value in involving the public in their research, especially where charismatic species and ecosystems are involved. Social awareness and responsible citizenship is promoted through various websites, Facebook pages and Twitter feeds.
- *Goal 5: Develop and sustain mutually beneficial local, regional and international partnerships that contribute to a sustainable future.* This has been achieved by the CMR (Section C 7.2a and 7.2b).

4. Describe how your Engagement activities contribute towards: (Refer to any relevant media coverage, representation on boards or committees, scholarly publications, conference presentations etc.)

4.1 Addressing the needs of society and various external communities served by NMMU:

The coastal environment is under immense pressure to provide for the ever-increasing population. It is the responsibility of scientists to ensure that all marine resources are utilized and managed in a sustainable manner and conserved accordingly. Massive environmental problems (climate change, subsequent sea level rise, shifts in populations coastal vulnerability and impacts) are continually being monitored and researched by CMR members and guidance is given to managing government authorities through written reports. However, communities cannot be independent from the ocean. Social scientists and economists are involved in ensuring that coastal people do not have access to their resources denied to them, and also ensure that South Africa's economy does not suffer from the over-exploitation of marine resources. These complex issues involve many people that have different views regarding the ocean and its resources, and the CMR is addressing this situation

by ensuring cross-disciplinary research and collaboration to ensure that such issues are addressed from all perspectives.

The CMR was well represented at many international and national conferences and workshops, where knowledge and important research projects were shared with the greater scientific community. See Section C 6 for details.

CMR members served on the following boards/committees/Task Teams:

Boards/Committees

- Dr Pichegru: South African Marine Rehabilitation and Education Centre Trustee (SAMREC); WESSA Committee Member; African Marine Waste Action Network Advisory Panel; African Seabird Group; World Seabird Union; Society for Conservation Biology.
- Dr Pistorius: Scientific Committee on Antarctic Research (SCAR); African Seabird Group; African Penguin Working Group; Society for Marine Mammalogy; Zoological Society of Southern Africa.
- Dr Stephanie Plön: Advisory Committee for Aquatic Noise Conference.
- Prof Adams: Water Institute of South Africa (WISA); South African Society of Aquatic Scientists; Estuarine Coastal Shelf Sciences Association (ECSA); Royal Society of South Africa: Eastern Cape Council Representative; South African Society of Aquatic Sciences (President);
- Prof Lombard: Marine Section of the Society for Conservation Biology; Marine Welfare Science Committee (Chair); Department of Environmental Affairs Ethics Committee; Elephant Specialist Advisory Group.
- Prof Nel: Advisory Committee to the Indian Ocean South East Africa Sea Turtle MoU under the Convention of Migratory Species; Western Indian Ocean of the IUCN Marine Turtle Specialist Group (Regional Co-Vice Chair); National Committee for the Scientific Committee for Oceanic Research (SCOR); NMMU Faculty of Science Teaching and Learning Committee.
- Prof Strydom: Coastal and Estuarine Research Federation; American Fisheries Society – Early Life History Section.
- Prof Tris Wooldridge: Estuaries Working Group for the C.A.P.E. Regional Estuarine Management Programme; SASMIA project evaluator; SAEON Elwandle Node Steering Committee.
- Prof Vrancken: Panel of Experts of the South African Maritime Safety Authority (SAMSA); Steering Committee of PecsadOLUS; Abidjan Convention Panel of Experts; Executive Committee of the South African International Maritime Institute.

Editorial

- Dr Pichegru: Associate Editor: Ibis.
- Dr Pistorius: Editorial Advisory Board: African Journal of Marine Science. Editorial Board: International Scholarly Research Notices.
- Prof Adams: Associate Editor: Wetlands; South African Journal of Botany, Water SA.
- Prof Lombard: Editorial Board: Conservation Letters.
- Prof Strydom: Associate Editor: *Estuaries and Coasts*

4.2 Profiling and promoting the NMMU as an engaged university:

When the CMR was initially formed in the 1980's, its membership consisted of only a few staff members and post-graduate students in the Science Faculty. In 2016, the CMR's membership consisted of people from 14 NMMU Departments in six Faculties, and external stakeholders from seven separate research and government entities. With this increase in membership from various disciplines, comes many opportunities for engagement and collaboration. The CMR takes advantage of such opportunities when they present themselves, and thus contributes strongly towards profiling and promoting NMMU as an engaged university.

5. Describe how you have successfully integrated engagement into the Teaching and Learning and Research functions of the university. (Refer to sections 5.1, 5.2 and 5.3 of the Engagement Excellence Awards Policy as a guideline)

Engagement through Profession/Discipline-Based Service Provision (Section B 3)

Many CMR members serve as editors, or on the editorial boards, for various national and international journals. Members also serve on various management and government committees and councils, as well as serve on peer review panels, specifically for publications and student examinations. (Section C 4.1). The CMR is an Institute outside of the Science Faculty, and its management therefore serves as academic members in NMMU Departments, as well as in elected or appointed capacities for the CMR. Members contribute to the core functions of the CMR by ensuring that the CMR is a leading marine sciences institute that aims towards sustainability, by striving for excellence in interdisciplinary research and training, and by promoting especially the three NMMU values related to respect for the natural environment, diversity and excellence. The CMR developed various marketing tools during 2016 in an attempt to grow the CMR's reputation (Section C 2). Some CMR members serve on various NMMU Task Teams (Section C 4.1). Consulting services are also made available to internal and external stakeholders.

Engagement through Teaching and Learning (Section B 2)

The CMR focuses mainly on post-graduate student mentorship and training. These students are guided in the scientific method, and their research projects allows them to gain experience in desktop work, as well as in experimental, field work and project design. The RDU gives opportunities for service learning and work integrated learning. Furthermore, through links with external stakeholders, job opportunities and internships are advertised. Where necessary, CMR members are involved in designing new curriculums with stakeholders and collaborators (such as with the Master of Coastal and Marine Spatial Planning Programme), and CMR academic members from different Departments co-supervise students with CMR members from associated entities. Undergraduate and Honours modules that are lectured by CMR members are continually redesigned to ensure that the subjects taught remain relevant. Various short learning programmes are offered by CMR members each year (Section B 2).

Engagement through Research and Scholarship (Section B 4)

CMR members and their students are involved in projects that have implications for environmental management, conservation and policy making. The CMR and RDU are often approached to do baseline data collection, monitoring and consultation for various government and other projects.

6. Provide details of scholarly outputs/contributions made to a body of knowledge as a result of your engagement activities. (Refer to publications, new teaching programmes, technical reports, conference proceedings, etc.)

- 18 International conference presentations from 20 international conferences and workshops attended.
- 30 National conference presentations from 17 national conferences attended.
- 63 ISI & IBSS Journal articles published.
- 7 DoE Articles published.
- 1 Book published.
- 1 Book chapter published.
- 12 Research reports compiled.
- 6 outputs in the form of popular articles in magazines, Facebook pages and TV interviews.
- A series of public events and lectures: Algoa Bay Hope Spot events and lectures; Sustainable Seas Trust and Estuary Care lecture; JLB & MM Smith Memorial lecture; Ocean Stewards Offshore Marine Science Session lecture.
- Short Learning Programmes, Workshops and Courses: BIO373; National Estuary Water Quality Workshop, ILOSA Workshop; 3 x CMR Research Theme workshops; IOI-SA Ocean Governance Training Course; International Law and Ocean Governance Programme; Master of Coastal and Marine Spatial Planning Programme.
- Bayworld cetacean stranding exercise.

- 24 Additional publications (IUCN Red Lists).

CMR members work on the following ecosystems/research groups: Estuaries (Eastern Cape; KwaZulu Natal); Sandy Beaches (Eastern Cape; KwaZulu Natal; Mozambique); islands (Algoa Bay; sub-Antarctic region; extending in Mozambique and Namibia); fish ecology (Eastern Cape); turtles (Mozambique); cetaceans (Indian and Atlantic Oceans); Agulhas research (Western Indian Ocean; Algoa Bay); Resource Utilisation and Management (Eastern Cape); Ocean Current Energy; Coastal Palaeoecology (Agulhas Plain); Shallow Water Ecosystems (Eastern Cape, KwaZulu Natal; Western Cape); Marine Spatial Planning; Law of the Sea; Food Security and Oceanography (Western Indian Ocean).

7. Describe the important role performed by you or the team in:

7.1 The leadership and management of the engagement activities and initiatives:


The CMR's members are mainly academic staff and research associates involved in research and student training and development. However, there is a strong drive for all CMR members to be involved in activities other than their usual academic responsibilities (Section B). Many projects that CMR members are working on, encompass animal species or ecosystems that attract public attention. This allows for many opportunities to include the public through engagement activities. The CMR's roles is to make such opportunities available, to encourage participation by members, advertise events, to facilitate the arrangement of events and initiatives, and to provide administrative support.

7.2 The level and extent of partnerships/collaborations/networks/linkages formed internally and externally:

<p>a. Internally (<i>inter-departmental, faculty and interdisciplinary</i>):</p>	<p>During 2016, after the re-establishment of the CMR as an Institute outside of the Science Faculty, much work was done to broaden the fields of research for the CMR, and to include NMMU Departments that can contribute to the CMR's knowledge in all things related to the marine environment. Below is an example of the collaborations and the type of work that is being done through the CMR in the various NMMU Faculties:</p> <ol style="list-style-type: none"> 1. Arts: Blue Economy. 2. Business & Economic Sciences: marine socio-ecological systems and resource economics. 3. Engineering, the Built Environment and Information Technology: coastal infrastructure and engineering. 4. Health Sciences: diver occupational health and safety, emergency services diver training. 5. Law: maritime governance. 6. Science: scientific research.
<p>b. Externally (<i>at local, national and international level</i>):</p>	<p>The CMR has built relationships with various research and government entities, both locally and nationally. CMR members work on projects and ecosystems that span the entire country and abroad, and such collaborations are therefore essential. Many staff working for these entities are associated with the CMR, either through being associate CMR members or Research Associates listed under NMMU Departments that fall under the CMR. Many post-graduate students are being co-supervised by such CMR members, and their projects therefore fall under the umbrella of the CMR and are supported with funding and administration.</p> <p>Internationally, CMR members have built relationships with researchers in many countries. Funding for projects often come from overseas parties. A vast number</p>

of CMR members study remote ecosystems or systems abroad, and collaborations exist at host institutions. Furthermore, the CMR is working towards developing student and staff exchanges. In 2016, such programmes existed with the University of Gothenburg (Sweden) and University of Southampton (UK).

SECTION D: Signature

Applicant Signature		Date	19 May 2017
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SECTION E: FOR OFFICE USE

(Administered by the Centre for Academic Engagement and Collaboration and the NMMU Engagement Committee)

Resolution regarding application from Awards Committee:	
Feedback to applicant:	

SECTION F: Portfolio of Evidence

Attach any relevant documents as a portfolio of evidence to support your application. **Limit this portfolio of evidence to a maximum of 20 pages.** This can include photographs, promotional material, commendations from stakeholders/beneficiaries etc., publication references, (extracts from) annual or project reports to funders/sponsors etc., or any other relevant materials that may serve as evidence.

List of supporting documents submitted along with this application as addendums:

Please ensure that the documentary evidence below is clearly cross-referenced with the relevant section and number in the application template, for example Section B1 or Section C4.

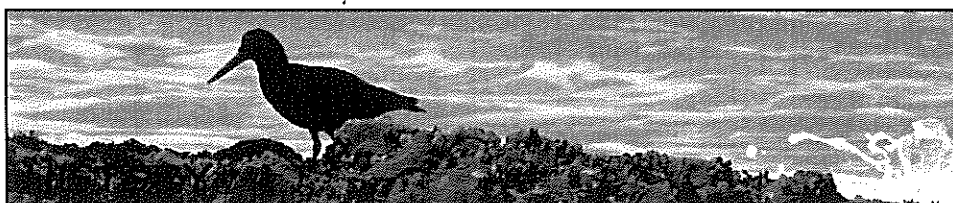
1. CMR A5 Glossy Booklet (Section C 2)
2. Powerpoint highlighting CMR activities

Institute for Coastal and Marine Research (CMR)

Director: Prof Janine Adams



© Gavin Rishworth

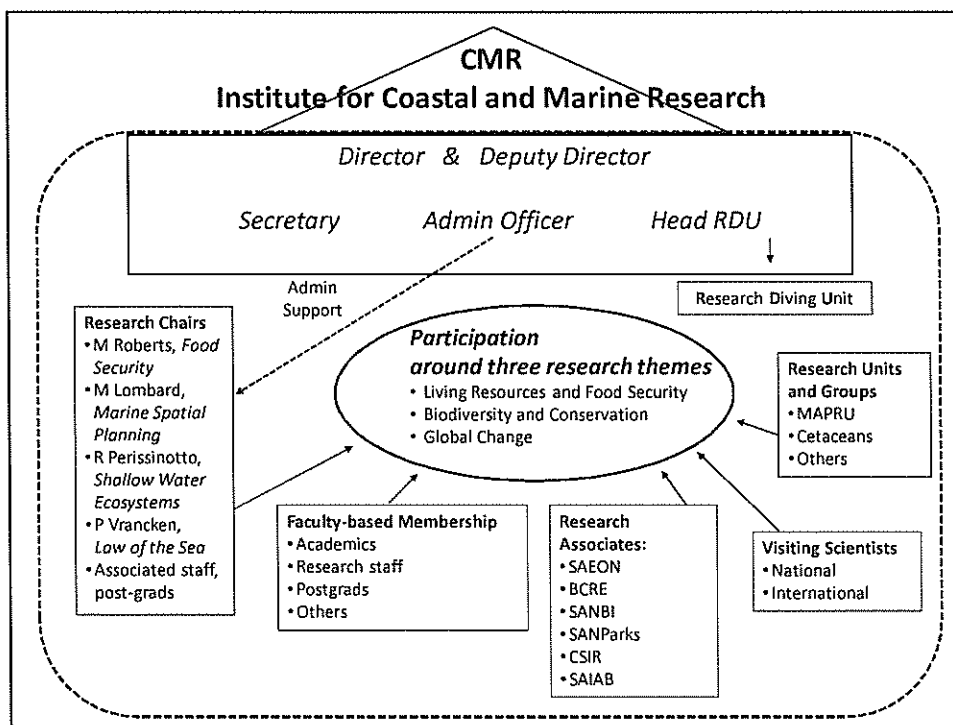
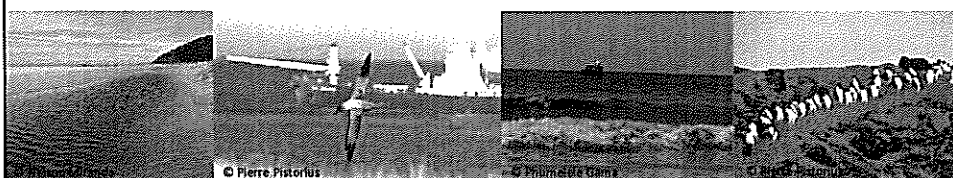


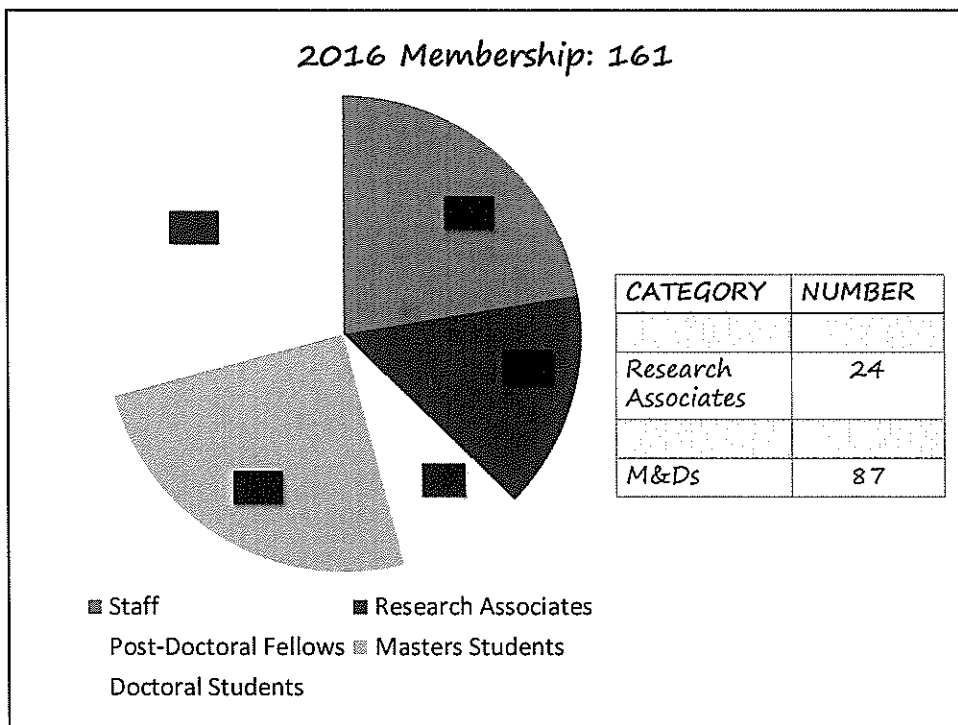
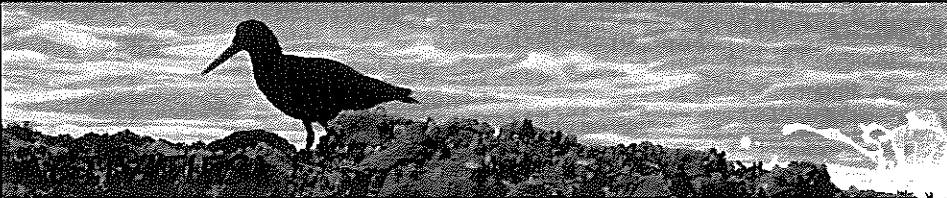
- ◆ 40 years of coastal research - UPE in the early 70's
- ◆ Institute for Coastal Research established 1983
 - Funded by DEA, later SAB, environmental consulting
- ◆ Establishment of CMR - university-wide, reporting to the DVC: R&E



Vision

Be a leading *marine sciences institute*,
 conducting cutting-edge research,
 building capacity and advancing our understanding of the
 coastal & marine environment,
 to serve the needs of South Africa, the continent and
 beyond in a sustainable manner.



Research

- ◆ Interdisciplinary research
- ◆ *Research Diving Unit*

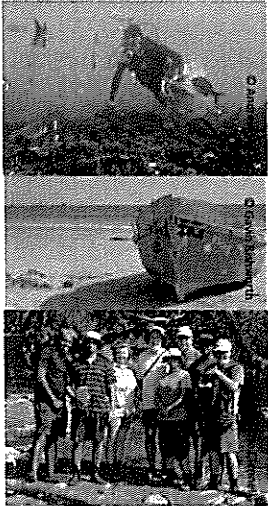
Training

Research-based training - post-grads

- Short courses: diving, estuary management, MPA

Consulting

CMR houses broad *expertise* which can provide community service as commercial consultancies





Global Change

Monitoring and understanding *change*, both anthropogenic and natural, and how this impacts coastal and marine systems and human communities dependent on them.



Living Resources and Food Security

Studying and developing coastal and marine living *resources* which are, or can be, utilised as food sources, with the emphasis on sustainability.



Biodiversity and Conservation

Broadly relating to understanding, protecting and managing coastal and marine *ecosystems*, both for conservation and sustainable human use.



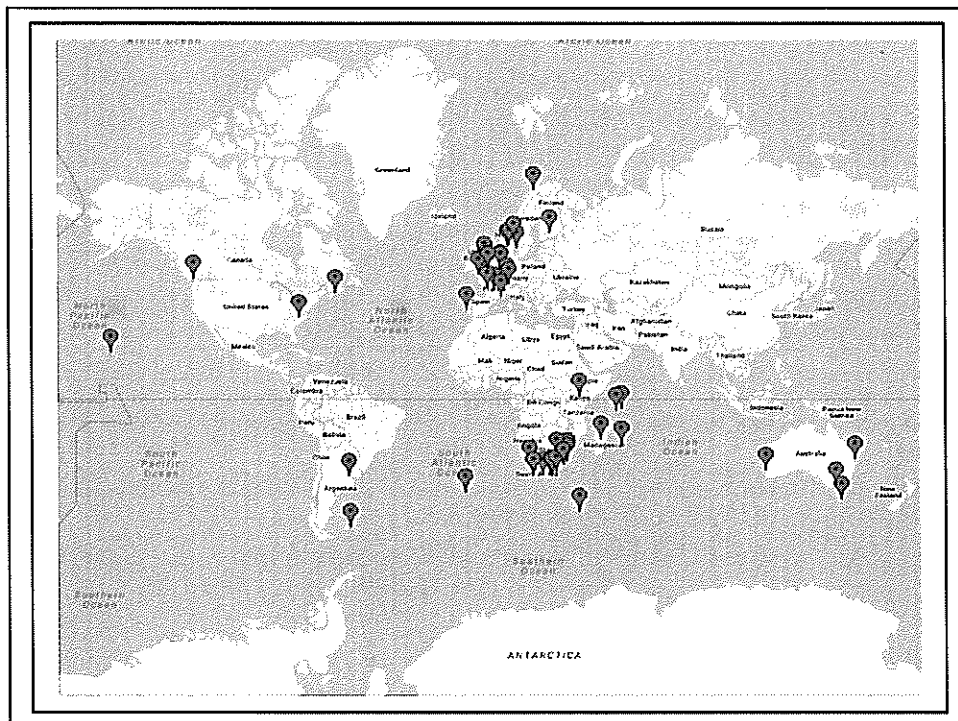
Numerous external partners both *national* and *international*

National

Close linkages with SAEON, Bayworld/BCRE, SAIAB, DEA: Oceans & Coasts, SANParks, SAIMI, CSIR, Ezemvelo-KZN Wildlife, isiMangaliso wetland park

International

Links exist with institutions in Norway, France, Sweden, UK (Southampton, Plymouth – research and a 2nd Year Ocean studies group).



Policy / Public Awareness

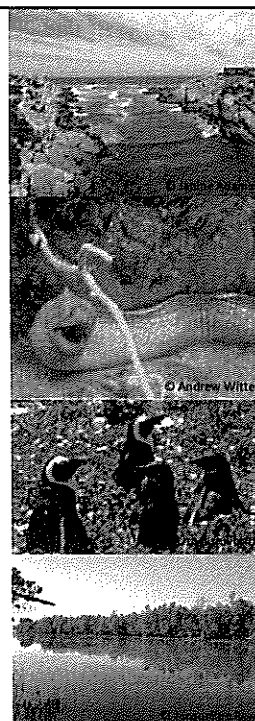
- ◆ Civil society and marine spatial planning
- ◆ Draft MSP Bill, and the 21 proposed new marine protected areas
- ◆ Estuary Management Plans

- ◆ Input to IUCN red list of species

- ◆ Identification of Ecologically or Biologically Significant Areas (in the Benguela Current region)

Government

Part-time students: DEA, DWS, SANBI, DAFF





- ◆ *Local government* : Nelson Mandela Metro, Kouga, eThekweni
- ◆ *Provincial government* : DEDEA, Western Cape
- ◆ *National government* : DEA, DW&S, DAFF
- ◆ *International* : Ramsar, Nairobi and Abidjan Conventions
- ◆ *Conservation authorities*: SANParks, CapeNature, Eastern Cape Parks, Ezemvelo KZN Wildlife
- ◆ *Public, Learners*

Department of Environmental Affairs : Oceans & Coasts

- ◆ Coastal management
- ◆ *Integrated Coastal Management Act*

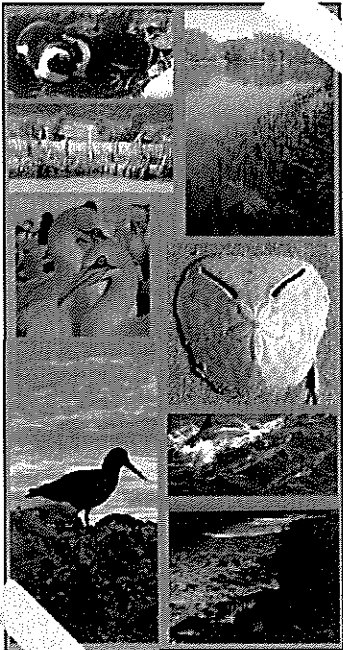
Department of Environmental Affairs : SANBI

- ◆ Conservation & biodiversity protection plans
- ◆ National Biodiversity Act

Department of Water & Sanitation

- ◆ Ecological water requirements of estuaries
- ◆ National Water Act







*Institute for Coastal and
Marine Research
Symposium*

Date: 20 April 2017
Venue: NMMU South Campus Senate Chamber
Time: 08:30 – 16:00

Objective: Showcase the impact of CMR research across various disciplines and faculties

Themes to Discuss:

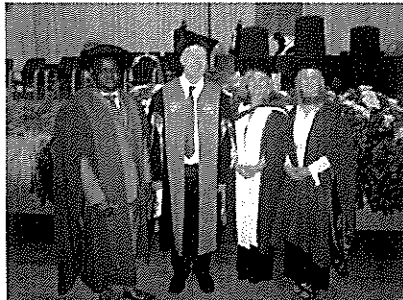
- * Global Change
- * Living Resources & Food Security
- * Biodiversity & Conservation



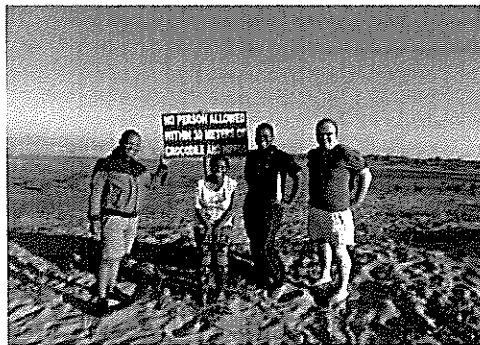
- ◆ Three sessions
 - ◆ **23 presentations**
 - ◆ Four research chairs presenting
 - ◆ **SRU, Paleoscience, four Faculties**
- ◆ Participants: DEDEA, CDC, Business Chamber, Press, Nelson Mandela Metro, DAFF, SAEON, Transnet, SST



BENEFITS OF ENGAGEMENT

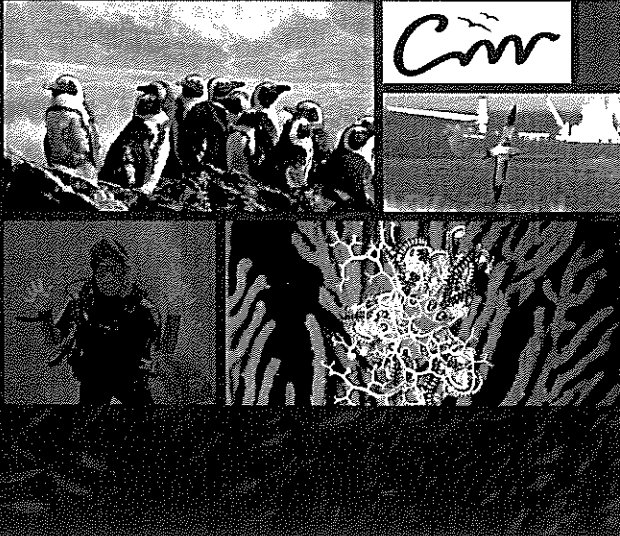


- ◆ Relevant teaching, learning & research
- ◆ Capacity building
- ◆ New knowledge & transfer of knowledge
- ◆ Student interaction with variety of stakeholders & multi-disciplinary teams
- ◆ Quality students
- ◆ Networks



Thank You

INSTITUTE FOR COASTAL & MARINE RESEARCH (CMR)



CMR



INTRODUCTION

The tradition of coastal and marine research at NMMU goes back a long way to UPE in the early 70's. This grew from a few postgraduate students to staff from several disciplines by the early 80's. First initiated as the Institute for Coastal Research (ICR) at UPE 1983, collaborative interdisciplinary work on the coast and ocean is therefore already three decades old at NMMU.

NMMU made a strategic decision in 2013 to develop a strong marine and maritime institutional theme. This was expounded as the University's signature tune in the University's Maritime and Marine Sciences Strategy for 2016-2020. It resulted in the establishment by the Faculty of Science of the Institute for Coastal and Marine Research (CMR), which was approved by Senate and Council in 2014.

CMR has been elevated in 2016 to a university-wide institution reporting directly to the Deputy Vice-Chancellor Research & Engagement. The Institute now spans six faculties and includes members from seven entities external to the University. With its pending move to the University's new Marine Campus, it will play a vital role in supporting the University's drive for excellence in maritime and marine sciences. The Institute has recently redefined its vision, mission and objectives.

VISION

CMR aims to be a leading marine sciences institute, conducting cutting-edge research, building capacity and advancing our understanding of the coastal and marine environment, to serve the needs of South Africa, the continent and beyond in a sustainable manner.

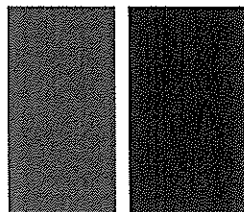
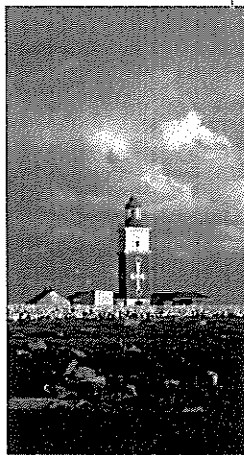
MISSION

CMR strives for excellence in interdisciplinary research and training relating to coastal and marine environments. This will advance scientific knowledge and the NMMU institutional research themes; provide a scientific basis for management strategies that optimise maintenance of biodiversity and sustainable use of resources; and contribute to the education of the community at large in matters pertaining to the coast and ocean.

VALUES

The activities of the Institute will promote the six values of NMMU, with special emphasis on the following three:

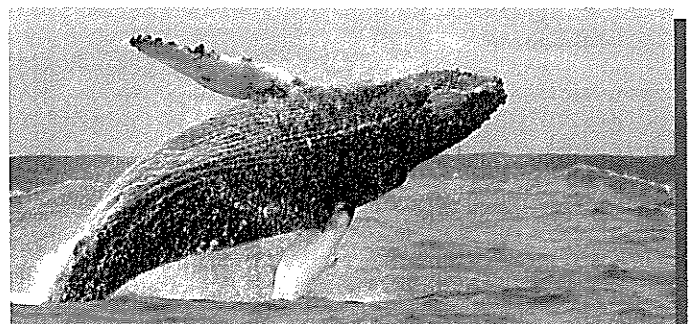
- ▶ respect for the natural environment and adherence to the principle of sustainability
- ▶ inclusion of staff and students from previously disadvantaged backgrounds to promote diversity
- ▶ emphasis on excellence in all aspects of research, training and outreach



OBJECTIVES

The CMR is a key element in the NMMU vision of providing leadership in generating knowledge, innovation, education and skills development relating to coastal and marine environments. In addressing this, CMR's objectives are to:

- ▶ provide a forum to enhance collaboration among academics, researchers and professionals, and build interdisciplinary teams of critical mass to address complex issues
- ▶ create a strong brand and market this collective expertise to develop partnerships and source funding in key areas
- ▶ build capacity in knowledge and skills through research-based postgraduate training and short courses
- ▶ provide community service through professional consulting, service on external boards and committees, and broader outreach
- ▶ provide infrastructure support for research, especially relating to diving, boating and specialised marine equipment
- ▶ host meetings, regional, national and international, and other activities of wide interest to showcase expertise and achievements
- ▶ be the first point of contact for marine issues at NMMU and communicate, on behalf of the membership, with the external community and top management



INSTITUTE ACTIVITIES

A wide range of activities fall under the ambit of the Institute. These may be broadly classified as research, training and consulting, which may overlap.

Research: Research, particularly interdisciplinary research, is the primary activity of the Institute and it forms the core on which other activities are based. Members address fundamental and applied problems through research. This is grouped under three broad thematic areas which are listed on the next page.

Coastal and marine research involves a considerable amount of field work and depends heavily on field equipment, not only vehicles and boats, but also a variety of instruments and sampling gear. Most of this is housed in entities such as academic departments and SAEON. However, CNR houses the central facility for diving. A major activity of the Institute, managed through the *Research Diving Unit*, is boating and diving.

Training: Members provide *research-based training* through masters and doctoral programmes based in participating academic departments. The Institute offers short courses to train divers and can offer courses on other topics on demand. The Institute encourages programmes that have an interdisciplinary connection.

Consultancy: The Institute embraces a broad and unique spectrum of expertise relevant to coastal and marine issues through its members who are drawn from varied disciplines. This pool of expertise, the broadest in the region, is used to provide community service in the form of commercial consultancies on issues in the coastal zone and marine environment, such as environmental impact assessments, site inspections, specialist reports, etc.

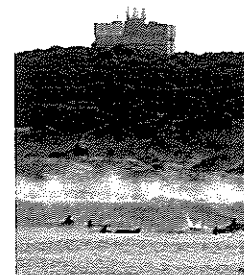
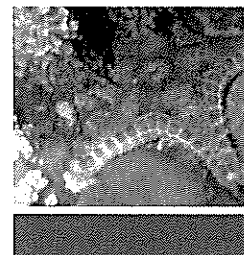
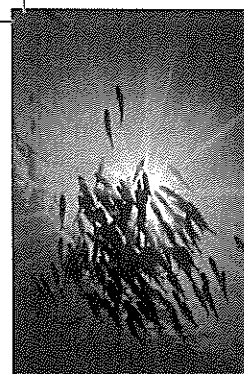
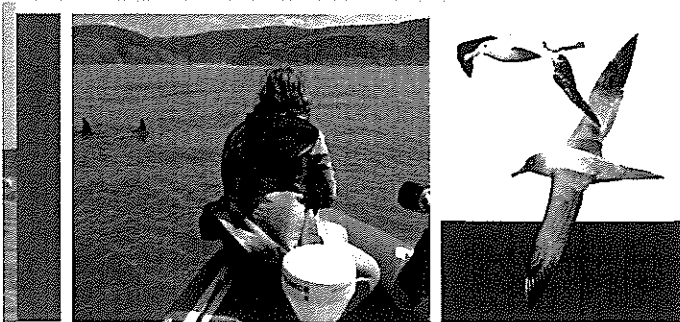
THEMATIC AREAS

The wide range of coastal and marine research, consulting, public engagement and capacity building activities undertaken under the auspices of CNR can be grouped under three broad themes. These themes are not rigid compartments and some projects may span more than one theme. Research under these thematic areas contributes to decision support to coastal and marine managers.

Global change: This covers a range of projects aimed at monitoring and understanding change, both anthropogenic and natural, and how this impacts coastal and marine systems and human communities dependent on them. It includes monitoring climate change through physical and biological processes, its drivers and implications; pollution monitoring; biodiversity loss; building socio-ecological resilience in light of global changes; understanding risks and vulnerabilities due to environmental change.

Living resources and food security: This covers projects studying and developing coastal and marine living resources which are, or can be, utilised as food sources, with the emphasis on sustainability. It includes all aspects of sustainable utilization of living resources; fisheries and aquaculture; resource economics; legislation and policy; poverty alleviation; sustainable development; governance; common property resource management; adaptive management.

Biodiversity and conservation: This covers a wide range of projects broadly relating to understanding, protecting and managing coastal and marine ecosystems, both for conservation and for sustainable human use. It includes conserving environments, ecosystem processes and biodiversity; marine spatial planning; sustainable tourism; legislation and policy; coastal engineering; sand mining and use of other non-living resources and their economic implications; sustainable livelihoods.



MEMBERSHIP

Academics, researchers, professionals and postgraduate students from all faculties at NMMU with interests in coastal and marine issues are members of CNR. This includes research chairs and research associates. Members of affiliated and collaborating institutions (such as SAEON, Bayworld/BCRE and SAIB) who are formally associated with NMMU are also included. The Institute has more than 50 members drawn from the staff of five faculties at NMMU, and research associates from SAEON, BCRE and other entities, and more than 70 masters and doctoral students.

GOVERNANCE

The Director, assisted by the Deputy Director, provides overall vision and leadership and assumes responsibility for the activities of the Institute. The Director is assisted by a Management Committee, representative of the wider membership, who guide the running of the Institute. The Director, on behalf of the Management Committee, reports to the DVC: R&E who chairs an Advisory Board, including external stakeholders. The Advisory Board screens CNR annual reports and advises on overall direction and strategy.

STAFF

Director:	Prof Jarine Adams
Deputy Director:	Mrs Bernadette Snow
Secretary:	Mrs Denise Scheepers
Research Assistant:	Mrs Liza Rishworth
Head Research Diving Unit:	Mr Anton Cloete

DVC R&E

Advisory Board

Director

Management Committee

Representative of all stakeholders

Research Diving Unit

Research Groups

Staff and postgraduate students and external partners with interest in coastal & marine issues, operating as groups, units and individuals under the three thematic areas.

CONTACT DETAILS

Secretary: Denise Scheepers
Research Assistant: Liza Rishworth
Institute for Coastal & Marine Research

Office 120G21, Ground floor, Building 12 (Biology Building),
South Campus, HMMU, PO Box 77000, PORT ELIZABETH,
6013 Tel: +27 (0) 41 504 2852 / 4703

<http://cmr.nmmu.ac.za/>