



BLUEPLANET
CONSULTING

Creating a Blue Economy for a Blue Planet

PERFORMANCE REVIEW OF THE SOUTH AFRICAN INTERNATIONAL MARITIME INSTITUTE (SAIMI)

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GLOSSARY

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| CEO | Chief Executive Officer |
| CSIR | Council for Scientific and Industrial Research |
| DST | Department of Science and Technology |
| CPUT | Cape Peninsula University of Technology |
| DHET | Department of Higher Education and Training |
| DUT | Durban University of Technology |
| DTI | Department of Trade and Industry |
| DTV | Dedicated Training Vessel |
| FET | Further Education and Training |
| GDP | Gross Domestic Product |
| HRDSCA | Human Resource Development Council of South Africa |
| IOI | International Ocean Institute |
| KZN | KwaZulu-Natal |
| MET | Maritime Education and Training |
| NCP | National Cadetship Programme |
| NRF | National Research Foundation |
| NSF | National Skills Fund |
| METR | Maritime Education, Training and Research |
| NMU | Nelson Mandela University |
| MoA | Memorandum of Agreement |
| MOU | Memorandum of Understanding |
| MP | Marine Protection Services and Ocean Governance |
| PetroSA | Petroleum, Oil and Gas Corporation of South Africa SOC Ltd |
| PSET | Post-School Education and Training |
| RBM | Results Based Management |
| SAIMI | South African International Maritime Institute |
| SAMIC | South African Maritime Industry Conference |
| SAMSA | South African Maritime Safety Authority |
| SC | Steering Committee |
| SETA | Sector Education and Training Authority |
| StatsSA | Statistics South Africa |
| TETA | Transport Sector Education & Training Authority |
| TVET | Technical and Vocational Educational and Training |

EXECUTIVE SUMMARY

Blue Planet Consulting was appointed to conduct an independent review of the South African International Maritime Institute's (SAIMI's) performance. The need for an independent performance review arose from meetings between SAIMI, the Department of Higher Education and Training (DHET) and the National Skills Fund (NSF) to discuss SAIMI's forward planning and possible continuation of funding.

The review involved assessing the performance of SAIMI against its mandates, goals and objectives. Data was collected through reviewing documents and interviewing both internal and external stakeholders. In addition, SAIMI's organisational capacity to fully meet its objectives was assessed, including human and financial resources. Based on the data obtained, a root cause analysis was conducted, and the most important causes of performance challenges were identified.

SAIMI was established as part of the Nelson Mandela University (NMU) in 2014, with a small amount of start-up funding from the South African Maritime Safety Authority (SAMSA) and NMU. This was based on a feasibility study and business plan developed by SAMSA through maritime sector stakeholder engagements. This process provided SAIMI with a broad mandate to coordinate the development of the capacity of the maritime sector to grow and to take advantage of global opportunities for growth. This would include education and skills development, research, advocacy, developing a knowledge base and innovation.

At about the same time, government implemented an 'Operation Phakisa' programme for the Oceans Economy, which resulted in the Department of Higher Education and Training (DHET) being allocated responsibility for coordinating skills working groups with the aim of ensuring that skills supply meets skills demand in the maritime sector over time. Subsequently, SAIMI was awarded a three-year seed-funding allocation from the NSF under DHET. The deliverables associated with the NSF allocation also included focusing on coordinating the Operation Phakisa skills working groups on behalf of DHET and implementing the National Cadetship Programme (NCP) for young seafarers.

Once the DHET funding had been secured, SAIMI was established as an "engagement entity" of NMU with an Advisory Board. A broader Stakeholder Forum is in the process of being put in place.

This review found that SAIMI has a mixed record in terms of its performance. It has successfully managed the five Operation Phakisa Oceans Economy Skills Initiative Working Groups on behalf of DHET and it has managed to get other tertiary institutions involved in the skills working groups. It has also successfully implemented the Cadetship Programme on behalf of the NSF. It has not fully met the targets for numbers of cadets set by the NSF but there are valid reasons for this.

SAIMI and the skills working groups have recently finalised a comprehensive integrated National Maritime Skills Development Plan. SAIMI also collaborated with SAMSA in appointing the Council for Scientific and Industrial Research (CSIR) to develop a Research, Innovation and Knowledge Management Road Map for the South African Maritime Sector. SAIMI has also been supporting planning for the implementation process. The development of these two documents constitute major achievements, and the challenge now is to systematically coordinate their implementation.

It seems that SAIMI is still grappling with how to implement its central objective of coordination of capacity building, education, training, research and innovation to meet industry demand. Several interviewees indicated that SAIMI needs to recruit people with an intimate knowledge of the

maritime industry as well as the ability to work with other stakeholders in order to successfully play this role.

SAIMI has also commissioned several studies for skills development in maritime sub-sectors but is not yet seen to be systematically coordinating their implementation. While the skills planning documents mentioned above were being developed, SAIMI has been engaged in a range of activities related to skills development in various sub-sectors.

The fact that SAIMI's only substantial source of funding to date has been from the NSF appears to have resulted in the organisation focusing more on the key tasks allocated to it in the NSF-NMU Memorandum of Agreement (MOA) than on its broader goals and objectives. Thus, SAIMI has focused more on managing the NCP and facilitating the Operation Phakisa skills development working groups than on building relationships between the maritime industry and education, training and research providers and on becoming sustainable and self-funded.

The NSF funding has been extended to December 2018 and SAIMI has recently applied to the NSF for a further extension of funding to June 2019. SAIMI has not managed to raise significant funding from any of the other possible sources of funding identified in the initial feasibility study and business plans.

One of the interviewees was of the view that SAIMI's inability to obtain funding from industry stakeholders to date has been due to the inability of SAIMI's leadership to develop an adequate value proposition and practical strategies for securing such funding. Several interviewees pointed to weaknesses with the leadership of SAIMI as a cause of it not making enough progress in coordinating capacity building in the maritime sector and becoming financially self-sufficient.

The report identifies three options for the future of SAIMI, i.e. 1) SAIMI continues as an entity within NMU for the immediate future but evolves into a self-sustainable and more independent institute over time; 2) SAIMI is immediately established as an independent institution; and 3) SAIMI is closed down.

SAIMI is still a relatively young institution, and it has had to deliver at the same time as it was being established. Like many new institutions, it has had to deal with several teething problems. It is therefore too soon to say that SAIMI has failed in implementing its full mandate and the third option should be rejected.

Some interviewees raised concerns with the location of SAIMI as an entity within NMU. The main concern was that it is difficult for SAIMI to coordinate other tertiary institutions when it is part of one of them. There was also a concern that NMU's processes are too slow and bureaucratic for an institution such as SAIMI which needs to be agile.

While the option of an independent institute might appear ideal, it is not practical in the short-term from a financial perspective. There is currently no source of sustainable funding for an independent institution on the horizon. However, the option of becoming an independent institute might become more viable in the future if and when SAIMI becomes more financially independent and sustainable.

The first option of SAIMI continuing as an entity within NMU, at least for the foreseeable future, is therefore recommended. To address the concern that there is a tension associated with NMU being both an education provider and the home of the coordinating body, SAIMI would need to implement its coordination role by taking a 'bottom-up' approach to coordination. This will involve facilitating a process where education, training and research institutions collaborate and coordinate with each other, with such coordination being facilitated by SAIMI, rather than being coordinated by SAIMI in a 'top-down' sense. One of the interviewees pointed out that SAIMI is not

the only programme that partners and collaborates with other universities while being based in one university – there are other examples of similar programmes. It is recommended that the composition of the Advisory Board should be reviewed with a view to increasing participation of maritime education, training and research institutions as well as industry organisations in the work of SAIMI. The Stakeholder Forum should also be used for this purpose.

The priority for NMU, in consultation with other stakeholders, including industry, DHET and other education, training and research providers, is to clearly define the mission and mandate of SAIMI. This goes to the heart of its strategy and such clarity would then bring more focus and direction going forward. SAIMI's strategy should be precise and focused. It should be limited to its key objectives, not try to be "everything for everybody", as one interviewee stated, and not contain additional ambitious and vague objectives which dilute the organisation's ability to achieve its main objectives. It should focus on niches where there is a need for it to play a role and avoid duplicating activities already being carried out by other institutions.

A possible lack of DHET or NSF funding for the coordination role of SAIMI in future should not be construed to mean that DHET does not think there is a need for such coordination. One of the DHET interviewees indicated that DHET is trying to get universities and TVET institutions to collaborate with each other. SAIMI should continue to work closely with DHET to ensure that maritime education, training and research is optimally spread across universities and TVET institutions to meet demand, regardless of whether it continues to obtain funding from DHET to play this role.

It is recommended that NMU should apply to the NSF for another multi-year funding allocation, with a re-commitment to make the institute self-sustaining during that period, under new leadership. NMU and SAIMI need to prioritize the development of strategies for SAIMI to diversify its sources of income beyond the NSF. This could include developing subsidy-bearing programmes for maritime teaching, training and/or research as well as consulting assignments.

There are opportunities for NMU to position SAIMI's strategy in the context of its own strategy for developing its Oceans Sciences Campus as a leading maritime education and research centre in Africa. There could be positive spin-offs for the Oceans Sciences Campus by having SAIMI continue with its national coordinating role, regardless of the availability of funding from government in the short-term for this role. Various funding opportunities will arise over time from various sources, not only from DHET and the NSF, and NMU can position SAIMI to take advantage of such opportunities in future.

NMU should find a way of creating positions in SAIMI at salary levels which will attract staff with the required competencies to successfully implement the coordination mandate, who have an intimate knowledge of the maritime industry, and who will be respected by other institutions. SAIMI would be more successful at achieving its coordination objective with a few highly skilled staff than with a larger number of lower skilled staff.

1. Introduction

1.1 Background

Blue Planet Consulting was appointed to conduct an independent review of the South African International Maritime Institute's (SAIMI's) performance. The need for an independent performance review arose from meetings between SAIMI, the Department of Higher Education and Training (DHET) and the National Skills Fund (NSF) to discuss SAIMI's forward planning and possible continuation of funding.

1.2 Project objectives

The terms of reference for the performance review were to:

- Identify an appropriate evaluation framework and provide a motivation for the use of that framework
- Gather data to:
 - examine the objectives of SAIMI and the extent to which these objectives have been met;
 - assess the performance of SAIMI since inception (in terms of efficiency, effectiveness, relevance);
 - identify the factors influencing the performance (internal and external);
 - identify the constraints to performance;
 - identify achievements since its establishment;
 - identify failures or areas of inadequate performance / lack of progress;
 - assess the organizational capacity to fully meet its objectives (human and financial resources, process and programme management, inter-organizational linkages, infrastructure etc.);
 - evaluate the governance structure of the organization in line with the objectives; and
 - identify gaps that need to be addressed.
- Assess the organization's strategy in meeting future goals.
- Propose recommendations to address the gaps.
- Compile a report for consideration by the Board.

2. Approach and methodology

2.1 Evaluation framework

To assess whether SAIMI has achieved its goals and objectives, the first step was to determine what those are. During the inception phase for the performance review, it was found that there have been different interpretations of SAIMI's strategic intent. Thus, one of the aims of the interviews was to obtain confirmation from key stakeholders what the initial reasons for SAIMI's establishment were and how these may have shifted with the different business plans and strategic plans that were compiled since 2014. The reasons for these shifts were also explored.

SAIMI's goals and objectives were also deconstructed using the Results Based Management (RBM) methodology, through which it was possible to determine some gaps in SAIMI's deconstructed logic model. Once SAIMI's planning framework had been properly analyzed, the second step was to assess its performance against its planned outcomes, outputs and activities, highlighting both its achievements and failures/under-performance, and the factors/constraints (internal and external) that are influencing its performance.

The third step was to assess SAIMI's organisational capacity to fully meet its objectives (human and financial resources, process and programme management, inter-organisational linkages, infrastructure etc.) and its governance structure in view of its goals and objectives. To assist with this, the Galbraith and 7S models were used as a frame of reference to see whether there is alignment of the organisational design and capacity to SAIMI's mission/mandate and goals. (Information on the RBM, Galbraith and 7S models are provided in Annexure 1). Based on the data obtained, a root cause analysis was conducted, and the most important causes of challenges were identified. The final step was to make recommendations regarding the future of SAIMI.

2.2 Data collection approach

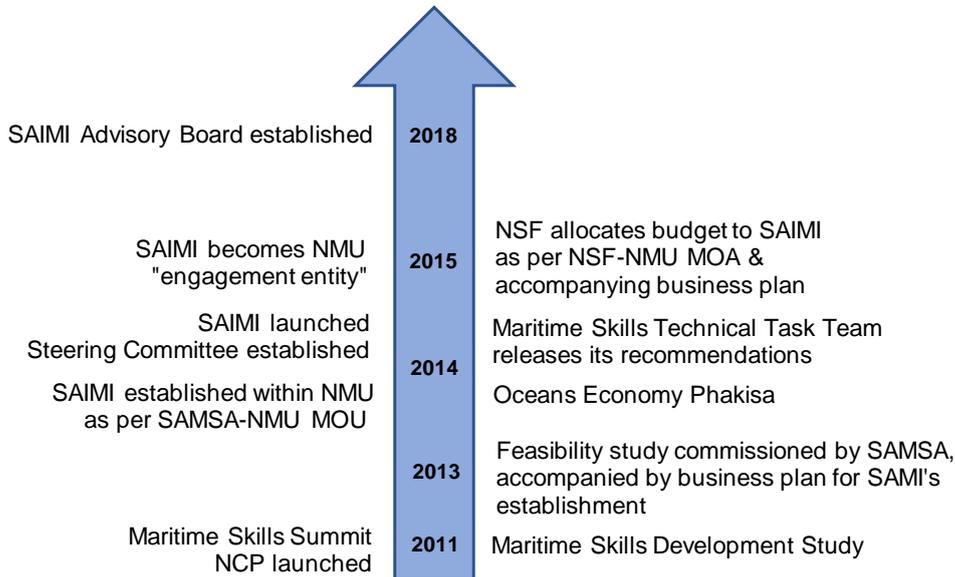
In addition to a document review (see Annexure 2), interviews were conducted with key internal and external stakeholders. The list of people who were interviewed is provided in Annexure 3.

A standard questionnaire was developed for the interviews, with questions informed by the terms of reference and the issues that needed probing in terms of the project inception report. However, the standard questionnaire was only used as a guide and the interviews were open-ended, allowing for detailed exploration of key issues which arose in the course of the interviews.

The findings described in section 4 are based on the document review and the results of the interviews.

3. Background to the establishment of SAIMI

To appreciate SAIMI's current reality, it is important to understand the events that formed and shaped it. These are portrayed and discussed below.



In 2011, the South African Maritime Safety Authority (SAMSAs) conducted a Maritime Skills Development Study which identified a need to build the South African maritime economy through additional quality education and training to address gaps that had been identified. The Skills Development Study defined the maritime sector and identified what is required to build the maritime economy of the country regarding its skills pool.

Subsequently, at the Maritime Skills Summit held in Richards Bay in 2011, it was recommended that the establishment of a Maritime University or Institute should be investigated. Hence, in 2013, SAMSAs in collaboration with DHET conducted a feasibility study on the establishment of a Maritime University or Institute. The feasibility study looked at international models of maritime institutes such as the World Maritime University in Sweden, the Korea Maritime University and the Irish Maritime and Engineering Resource Cluster.

The feasibility study identified the potential for growing the South African maritime economy through a combination of factors, such as addressing legislative and bureaucratic constraints; reviewing port charges; and ensuring the provision of required skills and expertise to support the growing maritime sector.

The feasibility study found that there is a lack of coordination and collaboration between universities providing higher education programmes relevant to maritime sub-sectors. It found that South Africa did not fully meet its requirements in terms of maritime higher education, and that there was strong support for a dedicated Maritime Institute or University to increase the focus on maritime education and to improve coordination to meet the needs of the maritime sector.

The feasibility study found some evidence that the demand for high level specialist studies in the maritime sector exceeds the available supply in South Africa and in Africa. The study recommended several options, one of which was the establishment of an Institute, hosted within

an existing institution, to foster collaboration between institutions and the sharing of high-level knowledge and resources across multiple institutions in the maritime sector.

The study proposed that the Institute should play a coordination and advocacy role and ideally operate from more than one regional centre (possibly at major port cities) to support collaboration, co-operation, infrastructure and equipment sharing – this could possibly be done through cluster co-operation in other centres as a dedicated facility may not be necessary. The recommendation for an advocacy or promotion role was for both the maritime sector as a whole, and for education and research in the sector. The feasibility study therefore developed a concept of a maritime institute that would have a broad mandate to develop capacity in the maritime sector, not just in terms of skills, but also in terms of developing the knowledge of the local maritime sector and its ability to take up opportunities as they arise in the global maritime economy.

It recommended that the focus of the Institute should cover all sub-sectors of the maritime sector with priority focus on shipping and transport, marine resources, operational support services and marine manufacturing and construction. It also recommended that it should cover the full ambit of higher education from diplomas to postgraduate degrees and should also address short courses and professional development. It was recommended that the scope should include education, co-ordination and articulation of maritime education, promotion of maritime education, research and the knowledge base as well as postgraduate studies, professional development and maritime-specific conversion qualifications.

The feasibility study was accompanied by a business plan (Draft Version 2 – 7 Oct 2013) which suggested that a maritime institute be established (at that stage called South African Maritime Institute or SAMI) which would initially focus on:

- Advocacy and co-ordination to promote the maritime sector and increase levels of training and placement of trainees and graduates; and
- Provision of a central facility and regional facilities that can be used for research and training in maritime studies.

The business plan envisaged that, once fully established, SAMI would take on the following additional roles:

- Research and development – both directly and through partner institutions and projects
- Education – through partner institutions
- Training and skills development – through partner institutions.

The need for improved national coordination of the supply of skills to meet industry demand was also identified by the Maritime Skills Technical Task Team of the Human Resource Development Council of South Africa (HRDCSA), chaired by the Deputy President. The Task Team's recommendations were released in 2014.

The establishment of SAIMI was further supported by the Oceans Economy Operation Phakisa which took place in Durban during July and August 2014 and resulted in the production of detailed 'three feet' delivery plans. The Phakisa found that the oceans economy has the potential to contribute up to R177 billion to GDP by 2033 (compared to R54 billion in 2010) and create approximately 1 million jobs (compared to 316 000 in 2010). The Phakisa identified growth areas for the oceans economy, with lead departments in each area, namely:

- Marine Transport and Manufacturing led by the Department of Transport;
- Offshore Oil and Gas Exploration led by the Department of Mineral Resources;

- Aquaculture led by the Department of Agriculture, Forestry and Fisheries;
- Maritime Protection Services and Ocean Governance led by the Department of Environmental Affairs;
- Small Harbours Development led by the Department of Public Works; and
- Coastal and Marine Tourism led by the Department of Tourism.

The Phakisa also identified the need to support the above six focus areas by cross-cutting strategies in the areas of:

- Skills Development and Capacity Building led by DHET; and
- Research, Technology and Innovation led by the Department of Science and Technology.

SAIMI was eventually established as part of Nelson Mandela University (NMU) and was officially launched at the African Maritime Domain conference in Port Elizabeth on 12 November 2014.

As per the Memorandum of Understanding (MOU) between SAMSA and NMU, SAMSA initially provided funding for a Project Coordinator for a six-month period to drive the NMU/SAMSA collaboration and to oversee the establishment of SAIMI (by then “International” was added to SAIMI’s name though its role and functions were not specified in the MOU). Provision was made for a multi-stakeholder steering committee which held its first meeting on 6 November 2014. When Operation Phakisa allocated responsibility to DHET to coordinate its skills development and capacity building working groups, DHET identified the nascent SAIMI located in NMU as an ideal body to assist it with implementing this responsibility.

In March 2015, NMU applied for funding for SAIMI from the National Skills Fund. The application requested start-up funding for SAIMI to:

- *“Facilitate the collaborative relationships and partnerships, and linkages between the education sector and the maritime industry, that are essential for the development of comprehensive, relevant and responsive skills training, education, research and knowledge management initiatives to ensure that the diverse sectors of the maritime economy have access to the skills, innovative technologies and knowledge needed to support growth in the oceans economy.”*
- *“Promote and coordinate maritime education and training, in an effort to strengthen the provision of skills to serve the maritime economy. The institute would act as a catalyst for maritime research, innovation and knowledge generation, and play an advocacy role to support the growth of the maritime sector.”*
- Take over the administration of the National Cadetship Programme (NCP)¹ from SAMSA. SAMSA started the NCP in 2011 as a national intervention to address the country’s sea-

¹ The NCP was formalized with the granting of funding from the DHET for the period 2012 - 2014 and the acquisition by the Department of Environmental Affairs of the Dedicated Training Vessel (DTV) SA Agulhas as the “laboratory” and learning space for the programme. The NCP provides a structured training programme for candidates to obtain their sea-time through agreements with foreign and local shipping companies, enabling them to secure internationally recognized qualifications. The NCP was run through tertiary programmes offered by the Cape Peninsula University of Technology (CPUT) and the Durban University of Technology (DUT), simulator and professional maritime training through private training providers, and experiential learning aboard the DTV SA Agulhas.

faring skills shortage and the inability of graduates to obtain the necessary sea-time to complete their qualifications. SAIMI's role was to take over the administration of the NCP from SAMSA and to house the programme within an entity focused specifically on Maritime Education and Training (MET) with programme delivery by a specialist training provider to be appointed and managed by SAIMI.

- *“Operate as a national asset, as a pivotal support in the development of a national maritime human resource and skills development strategy to give effect to the plans developed in the Operation Phakisa Oceans Economy Labs, and the recommendations made by the Maritime Sector Skills Technical Task Team (MSSTTT) convened by the Human Resource Development Council of South Africa (HRDCSA).”*
- Support and deliver the skills development component of Operation Phakisa.
- Initiate and manage skills development and research projects.
- Draft a national maritime skills development plan.

The funding application was approved and NMU and the NSF entered into a Memorandum of Agreement (MoA) in July 2015. The focus of the MoA was on the NCP and the largest portion of the budget relates to the NCP. The MoA states that NMU *“undertakes to perform its obligations as outlined in the project document (Annexure A)”*, but Annexure A to the MoA only covers the NCP. The MoA did not touch on SAIMI's other roles and functions as described in the NMU application to the NSF, except that the budget made provision for six “support programmes” which included:

- 1) Facilities and equipment
- 2) Stakeholder engagement and policy making
- 3) Advocacy
- 4) Research and innovation
- 5) Education
- 6) Training and skills development

One of the practical reasons for establishing SAIMI within a university rather than as a stand-alone entity was because DHET had no legal mechanism to provide funding to a stand-alone entity – it could only transfer funds to a university.

As part of the process for obtaining funding for SAIMI from the NSF, DHET produced a business plan for the establishment of SAIMI. While some interviewees indicated that they understood that there was a verbal agreement with DHET that the DHET funding would be for at least two three-year cycles, the business plan is clear that the R296 million allocated to SAIMI was meant to be seed/start-up funding for the initial operation of SAIMI until 31 March 2018, at which point it was planned that SAIMI would be sustainable and self-funding. (Section 15 of the business plan states that *“The intention of the project is to build an organisation that is sustainable post this funding cycle by the NSF. Budgets and planning are aimed at achieving self-sustainability for SAIMI post-2018. Achieving sustainability through developing income streams, accessing grants and fund-raising forms a key component of the CEO's job profile”*).

Once the DHET funding had been secured, SAIMI was established as an “engagement entity” of NMU and was approved by the University Council in April 2015. SAIMI is part of the university and is not a separate legal entity.

In 2018, the multi-stakeholder steering committee was converted into an Advisory Board as per NMU's Policy for the Establishment, Operation and Review of Engagement Entities. The Advisory Board held its first meeting on 5 April 2018. The main role of the Advisory Board is to provide advice regarding strategic direction. The Advisory Board does not have governance, fiduciary or management roles and responsibilities like Boards of companies or public entities – its role is advisory only. As an engagement entity of NMU, SAIMI falls under the governance and management processes and structures of NMU. The Board does not appoint the CEO – the CEO is appointed by NMU. The CEO selection committee included representatives of SAMSA, DHET, Nelson Mandela University and Transnet. However, the CEO is ultimately an employee of NMU and is appointed by NMU.

SAIMI has its own budget but is subject to the financial and human resources policies and processes of the University. It is required to submit an annual report to the Council of the University. It also submits quarterly reports to the NSF. SAIMI has a staff member who manages the interface between SAIMI and the corporate services units of the university.

A Stakeholder Forum is in the process of being established – which is a wider body to bring together industry, academia, government for consultation and information-sharing. It is meant to meet twice-yearly.

SAIMI's organogram has not yet been approved and only a limited number of positions have been filled.

4. Findings

4.1 SAIMI's mandate, goals and objectives

4.1.1 Legal status and mandates

SAIMI was not created through legislation and is not a separate legal entity, and therefore does not have any formal statutory mandates. However, its present role and functions have been informed by the 2011 Maritime Skills Summit and subsequent feasibility study and business plan commissioned by SAMSA. The feasibility study and business plan were informed by stakeholder engagements, so it can also be said that they contained mandates from stakeholders in the maritime sector.

SAIMI also has mandates to perform certain tasks in terms of the NSF-NMU MoA and business plan submitted by DHET to the NSF for the funding of SAIMI. The fact that SAIMI's only substantial source of funding to date has been from the NSF appears to have resulted in the organisation focusing more on the key tasks allocated to it in the NSF-NMU MoA than on the broader mandates provided for in the SAMSA feasibility study and SAMSA business plan. Thus, SAIMI has focused more on managing the NCP and facilitating the Operation Phakisa skills development working groups than on building relationships between the maritime industry and education, training and research providers and becoming sustainable and self-funded by 31 March 2018.

4.1.2 Goals and objectives

As will be indicated below, since its establishment SAIMI has been through several formulations of its goals and objectives through strategic planning processes. In some respects, these formulations differ from those in the original mandates.

Drawing on the SAMSA feasibility study and business plan for the funding of SAIMI, the overall goal of SAIMI can be summarized as to build the South African maritime economy through additional quality education and training, research and innovation to address the capacity, education, training and skills gaps.

The main objectives of SAIMI can be summarized as to:

- 1) Promote and coordinate maritime research, innovation, education and training across the maritime sector to meet the sector's future needs.
- 2) Establish a brand for maritime education in South Africa that becomes recognized nationally and internationally.
- 3) Develop a knowledge base through participating institutions.
- 4) Work with partner institutions to develop common programmes and facilitate the sharing of resources and equipment across the sector.
- 5) Playing an advocacy and coordination role between the maritime industry and the education and training sector.

As mentioned earlier, the business plan produced by DHET for NSF funding for SAIMI emphasized the coordination of the Operation Phakisa skills working groups and administration of the National Cadetship Programme.

Applying the Results Based Management methodology, the key intended outcome is for the supply of skills to meet maritime industry demand, as the maritime industry grows as envisaged by

Operation Phakisa. (The SAMSA feasibility study and business plan envisaged a broader outcome of the capacity of the maritime industry being developed to be able to take advantage of global opportunities in order to grow the sector in South Africa.)

The main outputs which are intended to result in this outcome are a maritime sector skills plan and a research, innovation and knowledge management road map. There are activities involved in the development of the plan and road map, and there are a range of activities involved in their implementation. The plan and road map will also include sub-outcomes and sub-outputs. Establishing a brand for maritime education, developing a knowledge base, working with partner institutions, advocacy and managing the National Cadetship Programme are all activities towards achieving the main outputs and outcome.

There were several reasons why SAIMI was called an international institute. The maritime industry is a global industry, with a range of international policies and regulations. There are very few ships registered in South Africa and it is therefore necessary to negotiate maritime work experience and employment opportunities for South Africans on vessels registered in other countries. Seafarer training must be compliant with the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW Convention), and the Merchant Shipping (Safe Manning, Training and Certification) Regulations 2013, as amended (the Regulations). The STCW Convention set the minimum standards for the training and certification through the Seafarers' Training, Certification and Watchkeeping Code (STCW Code). In addition, several other African countries are in the process of developing their maritime sectors, and there is potential for continental collaboration.

The feasibility study noted that all education provision would be provided by partner institutions who would register, train and educate students, undertake research projects and register postgraduate students, obtain capital and operational funding for the development of programmes and employ all lecturers and researchers. *"SAMI itself will at no time deliver individual programmes or award any qualifications. SAMI itself will also not undertake any research projects of its own accord but rather ensure that these projects are undertaken through the partner institutions"* (p 56). SAMI would work with these partner institutions to develop common programmes and facilitate the sharing of resources and equipment across the sector. This sectoral coordinating role is what would differentiate SAMI from other maritime education and research providers in SA.

While the notion of SAIMI being a coordinator of education and training rather than a provider was carried through to the NMU application for funding for SAIMI from the NSF, the funding application introduced the notion that SAIMI would also commission research itself as well as coordinating research through other institutions.

4.1.3 Coordination

"Coordination" can take different forms. It can involve 'top-down' coordination of a range of bodies by a coordinating body. Alternatively, it can involve a range of bodies getting together and deciding to coordinate themselves in a 'bottom-up' approach, perhaps with a facilitating body such as SAIMI to assist with the process. The feasibility study and the DHET business plan to the NSF for the funding of SAIMI did not unpack how the "coordination" objective should be achieved. Without a statutory mandate, SAIMI does not have the authority to coordinate in the 'top-down' sense - the only way it could do this is by making recommendations to the relevant departments such as DHET, which has the statutory authority to coordinate the programmes of universities and TVET institutions.

It may therefore be concluded that SAIMI's "coordination" role must be mainly one of facilitating 'bottom-up' coordination between institutions. For 'bottom-up' coordination to be successful, the stakeholders would need to agree on the need for coordination, take ownership of the coordination process, and provide leadership over the process. This implies that SAIMI should be providing a coordination facilitation service to DHET and other maritime education, training and research institutions, which in turn implies that SAIMI should have some accountability to DHET and to these institutions.

4.1.4 Long-term skills supply and demand planning

As articulated by several interviewees, the mechanistic approach to matching skills supply to projected long-term demand from industry, as articulated in the Operation Phakisa Oceans Economy plan, is controversial. There is an argument that the mechanistic approach does not take account of the fluidity of demand for skills from industries in a market economy. One of the interviewees pointed to the example of the Joint Initiative for Priority Skills Acquisition (JIPSA) programme which was implemented under the Accelerated and Shared Growth Initiative for South Africa (ASIGISA) government policy in the 2000's. JIPSA projections of an increased demand for engineers in the medium to long-term led to increased funding to universities to enable higher numbers of enrolments for engineering degrees. However, 10 years later the South African construction industry is in a deep recession and some graduate engineers are struggling to find work.

This critique of the mechanistic approach does not necessarily mean that there is not a need for coordination of skills supply to meet industrial demand. However, coordination would take a different form under a less mechanistic approach. It would not be singularly focused on producing the numbers of skilled people projected by the long-term demand forecasts. While long-term skills demand forecasts can provide useful terms of reference, the emphasis would be more on information sharing to help institutions to be responsive to changes in demand in the short- and medium-term and facilitating consultation between institutions regarding how demand can best be met. It would probably also focus on more generic education and skills training which can equip graduates to work in a range of sectors.

A further observation is that although the CEO of the Transport Education and Training Authority (TETA) is a member of the SAIMI Advisory board, SAIMI plans are silent about how its sector skills planning function will support and/or complement the sector skills planning mandates of SETAs, including TETA. SETAs' skills planning mandate is legislated via the Skills Development Act No. 97 of 1998 and funded through employers' levies in terms of the Skills Development Levies Act of 1999. A failure to be explicit on this may result in competition and/or duplication of functions with SETAs.

4.1.5 Additional goals and objectives from SAIMI strategic planning processes

SAIMI put in place its first strategic plan in 2017 and updated it on 6 June 2018, inclusive of an implementation/action plan. The June 2018 updated SAIMI strategic plan lists its objectives as:

- Lead, co-ordinate, promote and conduct education, skills and research needs in the maritime sector.
- Stakeholder engagement, locally, regionally and internationally.
- Support professional development in the maritime sector.
- Facilitate African and international maritime education co-operation.
- Through research, understand and support industry needs.

The inclusion of “conduct education, skills and research” in SAIMI’s objectives in the strategic plan is an addition to the original mandates, which indicated that SAIMI would play a coordination role, with the conducting of education and training being carried out by other institutions. Furthermore, it is peculiar that “stakeholder engagement” is listed as an objective, given that stakeholder engagement is a means to an end, not an end unto itself.

The strategic plan identifies three strategic pillars, namely 1) skills development; 2) maritime education and training; and 3) research and innovation which are in line with the recommendations in the feasibility study, except that the feasibility study envisaged that SAIMI would only play a coordinating role, and not a provider role.

The updated SAIMI strategic plan identifies several challenges, including the need to “*consolidate the transition from a Nelson Mandela University Institute to an independent Institute and at the same time develop strong partnerships with other SA Universities*”. However, there was no initial plan in the SAMSA feasibility study for SAIMI to transition to an independent institute. It is not clear where this comes from, although the DHET business plan did state that SAIMI’s aim is to become self-sustaining beyond the initial three years of NSF seed funding.

However, becoming self-sustaining does not necessarily mean becoming independent. The desire to become an independent institute could be due to perceived difficulties with SAIMI forming partnerships with, or coordinating, other maritime training and education institutions when it is part of one university. In fact, the DHET business plan identified this as one of SAIMI’s key risks. Section 13.1 “Inability to secure buy-in / cooperation from other educational institutions” stated that: “*SAIMI’s establishment at NMMU has raised questions amongst other educational institutions, and the perception may well be that it is an NMMU, rather than a national, initiative. Participation to date by other higher education institutions in collective fora such as SAIMI stakeholder engagements and the DHET maritime skills workshop has been noticeably minimal, aside from CPUT and DUT which have a strong interest as they are already actively involved in maritime studies and the NCP*”.

The updated SAIMI strategic plan has a defensive tone: “*The core of SAIMI’s purpose, activities and capabilities are strong, and it is imperative that SAIMI establishes and strengthens its position over the period of this plan and strongly resists any pressure that might diminish its position.*” It is not clear what was behind this defensive stance and what “pressure to diminish its position” the authors were aware of.

The updated SAIMI strategic plan details the following strategic goals & objectives:

Goal 1: Establish SAIMI as national institute recognized nationally and internationally

Objective 1: To partner with other universities, colleges and private training providers.

Objective 2: To be flexible and able to respond quickly to industry needs.

Objective 3: To help South Africa pursue its national interest in growing maritime economic participation.

Objective 4: To build SAIMI’s profile, reputation and visibility.

Goal 2: Ensure SAIMI’s financial sustainability

Objective 1: To ensure SAIMI’s long-term viability beyond the current funding cycle and beyond Operation Phakisa.

Goal 3: Grow SAIMI's world class research that supports innovation and promotes maritime knowledge management

Objective 1: SAIMI develops intellectual capability for the maritime sector.

Objective 2: SAIMI generates original research and acts as a knowledge centre for the maritime sector.

Objective 3: As custodians of the Research, Innovation and Knowledge Management Road Map for the South African Maritime Sector, SAIMI has a relevant, well-functioning, targeted and multidisciplinary research function.

Goal 4: Grow and enhance SAIMI's education and training portfolio and services to the industry

Objective 1: To assist industry in determining their current and future needs.

Objective 2: To be able to meet industry needs.

Goal 5: Support and enable national maritime skills objectives

Objective 1: Provide specialist knowledge and skills development expertise.

Objective 2: To support industry skills needs for economic growth of the blue economy.

The above list of goals and objectives also indicates that there have been some shifts in strategy from what was envisaged in the feasibility study and the DHET business plan to the NSF for the funding of SAIMI. For example, the objective of SAIMI having its own multidisciplinary research function was not in the original mandate documents. Furthermore, some of the goals and objectives are vague, inward focused, or a means to an end rather outcome-oriented objectives (e.g. to be flexible and able to respond quickly to industry needs, to ensure SAIMI's long-term viability beyond the current funding cycle and beyond Operation Phakisa, and to build SAIMI's profile, reputation and visibility).

From the above, it would appear that a decision needs to be made as to whether SAIMI should continue to be a provider of education, skills development and research, in addition to playing its coordination function. If it becomes a provider, then it may be regarded as a competitor by other institutions which might undermine its leadership and coordination role.

The action plan in the 2018 updated SAIMI strategic plan has sections on:

- a) Internal capacity building.
- b) Activities related to entering into partnership agreements and awareness and promotional campaigns for SAIMI.
- c) Ensuring SAIMI's financial sustainability.
- d) SAIMI's own internal research function, based on industry needs (this function was still nascent at the time that the plan was written).
- e) Developing SAIMI's own education and training portfolio and services to industry – including managing and expanding the NCP.
- f) Facilitating capacity building in other maritime education and training institutions.
- g) Facilitating the Operation Phakisa skills working groups.
- h) Developing an integrated Maritime Skills Development Plan aligned to the Maritime Skills Road Map. (This indicates that a skills development plan for the sector was not yet in place at the time the plan was written.)

From the above, it appears that the key objective of coordinating education, training and research in the sector was not as prominent in the 2018 SAIMI strategic plan as it was in the Feasibility Study and DHET business plan to the NSF.

Summary of key findings regarding mandate, goals and objectives

1. SAIMI does not have any statutory mandates.
2. SAIMI's main mandate arising from stakeholder engagements prior to its formation was to develop capacity in the maritime sector, not just in terms of skills, but also in terms of the knowledge of the local maritime sector and its ability to take up opportunities as they arise in the global maritime economy.
3. The mandates associated with the seed-funding which SAIMI received from the NSF were mostly focused on the coordination of the supply of maritime skills to meet demand (through coordinating the Operation Phakisa skills working groups) and coordination of the implementation of the National Cadetship Programme. There is no commitment to long-term funding from DHET for implementing these mandates, at least not in the formal MoA and accompanying documents.
4. Through its own strategic planning processes, SAIMI has added the direct provision of education, skills development and research to its coordination function. There may be a conflict between SAIMI being a maritime education and research provider as well a national coordinator of maritime education and research. The original mandate of coordination is not as prominent in the SAIMI strategic plans as it was in the feasibility study and in the DHET NSF SAIMI business plan.
5. The mechanistic approach to matching skills supply to projected long-term demand in Operation Phakisa is controversial. SAIMI's coordination role should be one of facilitating information sharing and coordination between education, skills development and research institutions, so that they can be responsive to changes in industrial demand.

4.2 SAIMI's successes and challenges

Some of the interviewees expressed views on SAIMI's performance. One of the DHET interviewees indicated that SAIMI has performed very well, has been very capable and responsive and provided assistance to DHET on request. She was also of the view that SAIMI has gained respect in the sector. This view was shared by some of the other interviewees. Some interviewees also indicated that they thought that SAIMI has implemented the cadetship programme very well.

Other interviewees held different views, including that SAIMI:

- lacks strategic leadership;
- does not have the capacity and capability to carry out the tasks allocated to it;
- manages programmes and projects "poorly";
- has encountered challenges in relation to stakeholder mobilisation;
- mixes up the coordination and implementation roles; and
- is in competition with the private sector in some areas, because it focuses too much on projects.

In addition to gauging stakeholders' impressions of SAIMI's performance, its performance must be measured against its objectives. This is done in turn below, using the objectives identified in the previous section.

4.2.1 Objective 1: Coordination of the supply of maritime skills to meet demand

According to SAIMI documentation, the Institute has been engaged in the following activities to meet this objective:

4.2.1.1 *Coordinating the work of the Operation Phakisa Skills Initiative Working Groups on behalf of DHET*

SAIMI received funding from the NSF to carry out this role. These working groups are tasked with identifying challenges and solutions to delivering the skills targets of Operation Phakisa and to support DHET in developing a comprehensive national maritime skills development strategy and implementation plan.

A report to the SAIMI Steering Committee and National Skills Fund dated September 2017 indicates that SAIMI is playing its envisaged role in the five Operation Phakisa Skills Initiative Working Groups. For each Working Group, SAIMI reports on progress with several activities. An interviewee also indicated that SAIMI has managed to get other tertiary institutions involved in the skills working groups.

Work has clearly been underway in the skills working groups, but the process of producing a maritime sector skills plan progressed slowly. Nevertheless, SAIMI recently commissioned Rand International Capital to carry out a study to determine the overall demand for Ocean Economy skills, assuming growth of the sector, and to determine if there is adequate capacity within the skills supply framework to meet this demand. The document, entitled "Oceans Economy Skills Requirement: Employment & Skills Development Assessment for South Africa" (May 2018) has not yet been discussed with stakeholders and is not yet being implemented.

Using a mechanistic approach to skills supply and demand analysis, the Rand International Capital study modeled the oceans economy over the next 20 years to identify projected skills requirements per occupational category and per oceans economy sub-sector. An in-depth analysis of the general skill supply situation was carried out, consisting of an evaluation of Department of Higher Education and Training (DHET) and Statistics South Africa (StatsSA) data, as well as primary research. The study projects a large annual supply deficit of technical skills (technician level) and a small annual supply deficit of professional skills. The report recommends the development of specialised facilities and curricula to address the projected skills shortages, with the involvement of industry stakeholders. It recommends that DHET be engaged with to provide additional skills development capacity in the correct institutions.

It appears that SAIMI has been struggling to work out exactly how it should achieve the key objective of coordinating education, training and research in the sector. This observation is supported by some of the comments in the SAIMI document: "Note for Record of a Meeting Between with DHET" dated April 2018:

- a) *"Data collection to determine status of training and gaps is critical. There is a need to understand the gaps so that these could be addressed. Lobbying is also key in this regard, e.g. SETAs are critical for Work Integrated Learning and support for other training initiatives. Partnerships with SETAs should be strengthened..."* (In the actions/decisions column of this document it states that the action for this comment is that SAIMI will "Consider a model aligning supply and demand for skills.")

- b) *Market demand and industry support is very critical for all training initiatives; a model for ensuring alignment needs to be considered...*
- c) *There is a need to take some of the issues raised as teething problems; the focus should now be on ensuring the effectiveness of the organisation. There is a need to determine what SAIMI can and cannot do. SAIMI has done a lot of work that is commendable but there is a need to ensure more impact in future initiatives."*

These comments indicate that by April 2018, SAIMI was still grappling with how to achieve its central objective of coordination of education and training to meet industry demand.

An August 2018 SAIMI document entitled "Status Report and Forward Planning" lists key activities for SAIMI for 2018 as:

1. Review of SAIMI's first phase of development.
2. Continuing to maintain and grow the National Cadet Programme.
3. Implementation of the Ratings Training Pilot Project with two TVET Colleges.
4. Implementation of training and learnership initiative for boat building in partnership with the NSF and the DTI.
5. Maritime awareness and ratings training project in Northern Cape with DEA.
6. Day Skipper training courses for disadvantaged youth in partnership with sailing academies in Western Cape and KZN.
7. Implementation of the DST/NRF/SAIMI Research Chair in Petroleum Geoscience and Engineering.
8. Artisan training with PetroSA for Oil & Gas sector, and implementation of an artisan mentorship programme.
9. Skills audit for Marine Protection & Governance.
10. Support to International Ocean Institute (IOI) training programme in ocean governance for public officials.
11. Incident Management Systems training for public officials to support Oil & Gas working group.
12. Pursue establishment of Research Chair in Naval Architecture.
13. Continue implementation of the Roadmap for Maritime Research, Innovation and Knowledge Management.
14. Develop plans in response to needs identified in the Aquaculture skills audit.
15. Implement funding for projects to support skills development and business acumen for the small-scale fisheries sector, as well as other projects targeted at fishing skills development.
16. Continue rollout of SAIMI marketing plan, including finalising a corporate video, and website upgrade.
17. Implementation of a Maritime Awareness Campaign.
18. Continue national and international stakeholder engagement and networking in order to grow partnerships that benefit South African maritime learners and establish SAIMI as a nationally and internationally recognised maritime institute.
19. Continue with the programme of workshops and conferences flowing from the outcomes of the South African Maritime Industry Conference (SAMIC) 2017, and plan for SAMIC 2020.
20. Filling of key staff positions.
21. Moving into and equipping new premises at the Ocean Sciences Campus at NMU.

While many of the activities listed above will contribute to the development of skills for the sector, they appear to be somewhat ad hoc, and there is no reference to the overall coordination of supply

to meet demand. Similarly, a SAIMI CEO presentation to the Board dated 7 September 2018 indicates that SAIMI is involved in a range of activities related to skills development for the sector, but the activities seem to be taking place in the absence of an overall plan for coordinating education and research for the sector. There is also very little about coordination with other universities and TVET Colleges in the presentation. One of the interviewees indicated that SAIMI has not managed to coordinate other universities but has established good relationships with some TVETs and has had a good relationship with DHET.

The reason for the lack of focus on the national coordination role may be that SAIMI found such national coordination to be too difficult and complex, and therefore focused on more straight-forward “doing” activities. As described in the previous section on the mandates, goals and objectives of SAIMI, the mechanistic approach to coordinating skills supply to meet projected long-term demand is contentious. In addition, SAIMI does not have the authority to coordinate in a ‘top-down’ fashion, and ‘bottom-up’ coordination requires strategic and diplomatic leadership.

The Financial and Operations Report to the SAIMI Advisory Board & National Skills Fund covering the period 1 April to 24 August 2018 similarly focuses largely on reporting on SAIMI’s internal capacity building and its own activities, and very little on coordination of all education and research providers to meet the needs of industry. Nevertheless, the report does indicate that SAIMI is involved in a wide range of activities in various sub-sectors of the maritime sector, often working with industry organisations.

4.2.1.2 Working with the various sectors of the maritime economy (including aquaculture, oil & gas exploration, boat-building, and environmental protection) to determine their skills needs, and to provide the bridge between industry, government and the education sector to address these

SAIMI has collaborated with DEA and the International Oceans Institute to produce a “Skills Audit and Needs Analysis for the Marine Protection Services and Ocean Governance (MP) Sectors of Operation Phakisa”, dated 31 August 2018. The study aimed to identify critical and scarce skills in the MP sector; to inform the formulation of interventions required to grow the skills base of the sector to meet current and future demands; to identify, prioritize and guide the development of any additional qualifications required for the sector; and to create a baseline against which the impact of interventions can be measured. The report contains a range of recommendations to be implemented by various stakeholders. This report is apparently not yet approved by the relevant skills working group though it has been submitted to the Operation Phakisa Oceans Economy Delivery Unit (DEA).

As part of the work of the Operation Phakisa Aquaculture Skills Working Group, SAIMI also commissioned a “Report on Aquaculture Skills Inventory and Needs Analysis”, dated November 2017, with similar objectives to the MP study. This report also resulted in a range of recommendations to be implemented by various stakeholders. This report has apparently been approved at all levels (including the relevant skills working group and DAFF) and implementation has commenced.

SAIMI has also been working on the development of curricula and qualifications for several maritime skills areas, including for Commercial Diving, Dock Master and Maritime Search and Rescue Mission Co-Ordinator.

In addition, SAIMI has been engaged in advocacy work to unblock obstacles to increasing the supply of skills in South Africa, such as engaging with SAQA to ensure that graduates from the World Maritime University can be accommodated in the South African national qualifications framework

Furthermore, SAIMI hosted the South African Maritime Industry Conference (SAMIC) in 2017.

4.2.1.3 Facilitating the development of the Research, Innovation and Knowledge Management Roadmap for the maritime sector

A booklet published by SAIMI in 2017 states that: *“In partnership with the CSIR, SAIMI facilitated the development of the Maritime Research, Innovation and Knowledge Roadmap for the maritime sector. The implementation phase is underway, with the aim to create industry and academic collaboration opportunities, postgraduate study opportunities, and funding and action plans to enable the creation of research teams in the eight identified priority areas.”*

A comprehensive and ambitious roadmap was produced, as indicated in the SAIMI booklet. The roadmap (p. 45) states that: *“It is therefore important for SAMSA, the main funder of this Maritime Road Map, to find an “owner” for this initiative. This could be SAMSA or SAIMI or another key actor within the South African maritime sector. Subsequently, a stakeholder process needs to be run to make the Maritime Road Map “actionable”. This involves further unpacking each of the actions into actionable sub-items with responsible parties, timelines and budgets linked to them (much like the Phakisa: Oceans Economy planning process was run). Once unpacked, agreed upon and finalised, the actionable items could become cabinet memos, and adopted as a Medium Term Expenditure Framework (MTEF) line item. Implementing the Maritime Road Map will require a coordinated, structured effort by leaders in the maritime sector and the continued support and participation of stakeholders throughout the sector.”*

The fact that the authors of the Road Map were not sure whether SAIMI would be the coordinator of its implementation is an indication that SAIMI has not been able to assert itself in this coordination role, which is part of its mandated objectives from DHET and the initial SAMSA feasibility study and business plan. However, a document produced by the CSIR in July 2017 entitled “Implementation of the Research, Innovation and Knowledge Management Road Map for the South African Maritime Sector: Report on Sector Coordination”, indicates that SAIMI has funded four regional workshops on the implementation of the Road Map. The report includes some suggestions on “priorities and opportunities” (pp. 11 – 12) which includes the statement that there is a need for a “single custodian or a number of key custodians” to drive the implementation of the different elements, even though the Road Map “belongs to the sector as a whole”. It cautions that the Road Map’s objectives “can only be achieved if action is taken”. These statements seem to confirm that SAIMI has not yet become widely recognised for its coordination role. Nevertheless, SAIMI does have an implementation plan for the roadmap.

4.2.1.4 Facilitating collaboration with the relevant sector education and training authorities (SETAs), i.e. in manufacturing and engineering, transport, agriculture, and energy and water, to support maritime education and training initiatives

SAIMI has worked with partners (such as the Department of Trade & Industry, and the Transport Sector Education & Training Authority (TETA)) to initiate, fund and deliver projects directed at skills development that address a specific need – e.g. boat-building/manufacturing skills and learnerships in that industry; supporting development of small businesses in the fishing industry; and sailing and skippers’ training that provides an employment path for disadvantaged youth.

The 2017 SAIMI booklet states that: *“An Industry-Education Skills Partnership initiative is serving as a pilot in the marine manufacturing (ship- and boat-building, and repair) sector. Research*

commissioned by SAIMI identified ways in which employers can collaborate with relevant educational institutions and government to address current skills constraints affecting this sub-sector. The partnership model will be introduced in other sectors as it is refined.”

4.2.1.5 Supporting educational institutions, from secondary school through to colleges to universities, in growing their capacity to deliver maritime education and training

The 2017 SAIMI booklet states that: *“SAIMI is also actively involved in developing the capacity of South African public education institutions to deliver maritime training and support the growth of the maritime sector – from the introduction of maritime subjects in high schools and supporting TVET colleges in becoming centres of maritime artisan training, through to development of degree qualifications at university level and postgraduate research programmes.”*

In practical terms, SAIMI has started to collaborate with the TETA to support maritime high schools. This is currently happening at a small scale, and covers the training of teachers/lecturers, providing technology, equipment, or teaching materials, and supporting development of new programmes. It is also engaged in lecturer development on a small scale with CPUT, DUT, and NMU.

The September 2017 report to the SAIMI Steering Committee and National Skills Fund states that:

“DELIVERABLE 5: Assist in identification and capacity-building of PSET institutions to deliver maritime education, training and research

SAIMI has set aside R2 million for the lecturer subvention programme for 2017. MoUs have been concluded with CPUT and NMU (feedback still awaited from DUT). Payment has been made to CPUT, a transfer to NMU in progress.

A process of identifying requirements (in terms of infrastructure and human resources) needed to advance maritime education at academic institutions and TVETs is in progress.

As part of the expansion of the National Cadet Programme, and Operation Phakisa initiatives to capacitate TVET Institutions to offer Maritime Training, SAIMI will be leading the implementation of Ratings Training at two TVETs.

Initial meeting was held with relevant stakeholders on 7 September, the revised implementation is presently being drafted to ensure maximum impact on the capacitation of TVETs are achieved.

The aim is that the academic programme will commence January 2018.”

The above indicates that, while SAIMI has started to be involved in some practical initiatives to develop PSET institutions to deliver maritime education, training and research, this is not yet been done as part of a comprehensive and holistic plan to coordinate the supply of university and other PSET institutions' education and research to meet the demands of industry, as envisaged in the feasibility study.

4.2.2 Objective 2: Managing the National Cadet Programme

As mentioned earlier, the main portion of the NSF funding which SAIMI received was to manage the NCP, which provides the practical training and experience working at sea which is needed for maritime students to qualify as professional seafarers working on international shipping lines. This includes attracting the right students to the programme and profiling South Africa to global maritime players as a supplier of skilled personnel.

The 2017 SAIMI booklet indicates that the NCP is supporting over 200 aspirant professional mariners. This is less than the target of 360 cadets per year in the March 2015 DHET funding proposal to the NSF. However, interviewees indicated that there are reasons for this, such as the lack of availability of places on ships for practical experience opportunities for cadets.

4.2.3 Objective 3: Advocacy and promotion of the maritime sector

Advocacy and promotion were also included in the tasks for SAIMI to perform with the NSF funding. SAIMI has been involved in, or intends to be involved in, the following activities to meet this objective:

- a) Promoting awareness – from school level through to industry – of South Africa as a maritime nation, the opportunities (e.g. careers, business, investment, research etc.) offered by a sustainable maritime economy, and the impact of human activities on the oceans. This is still in a pilot phase, with some awareness activities and exhibitions having been carried out in the Nelson Mandela Bay area.
- b) Providing research and information resources to the maritime industry and government. There has been limited implementation in this regard to date.
- c) Supporting maritime policy development to provide an enabling legislative environment for the maritime sector. There has also been limited implementation in this regard to date.

Summary of key findings regarding successes and challenges

1. There is a divergence of opinion amongst stakeholders regarding SAIMI's performance.
2. SAIMI has successfully managed the five Operation Phakisa Oceans Economy Skills Initiative Working Groups on behalf of DHET.
3. SAIMI has managed to get other universities involved in the skills working groups.
4. SAIMI has commissioned several studies for skills development in maritime sub-sectors but is not yet perceived to be systematically coordinating their implementation though SAIMI is continuing to do work to this end.
5. SAIMI and the skills working groups have recently finalised a comprehensive integrated National Maritime Skills Development Plan.
6. In collaboration with the CSIR and with funding from SAMSA, a Research, Innovation and Knowledge Management Road Map for the South African Maritime Sector has been finalised.
7. While the above two documents were being developed, SAIMI has been engaged in a range of activities related to skills development in various sub-sectors.
8. SAIMI could be more active, through a "bottom-up" process, to implement its central objective of coordination of capacity building, education, training, research and innovation to meet industry demand.
9. SAIMI has established good relationships with some TVETs and has had a good relationship with DHET.
10. SAIMI has facilitated the development of a skills road map for the offshore oil and gas industry.
11. SAIMI has been piloting collaborative approaches to skills development in various sub-sectors.
12. SAIMI has successfully implemented the Cadetship Programme on behalf of the NSF. It has not fully met the targets for numbers of cadets set by the NSF but there are valid reasons for this.
13. SAIMI has plans to be involved in various activities related to advocacy and promotion of the maritime sector, but to date implementation has been limited in this regard.

4.3 Factors influencing SAIMI's performance (root causes of challenges)

This performance review has identified several root causes of the challenges experienced by SAIMI in achieving some of its objectives. These include a lack of clarity and focus regarding its mandate and objectives; a lack of sustainability of funding; leadership challenges; governance and accountability issues, and challenges with the organizational structure and staffing. Some interviewees also raised concerns regarding the location of SAIMI within a university. These root causes are discussed in turn below.

4.3.1 Lack of clarity and focus regarding mandate and objectives

As described in section 4.1, SAIMI has mandates from various sources. It has mandates from maritime sector stakeholders, as encapsulated in the SAMSA feasibility study and business plan. It also has certain mandates from DHET, linked to funding provided to it by the NSF. While largely aligned, the mandates associated with the DHET funding focus more narrowly on skills development than the mandates from the SAMSA feasibility study and business plan, which envisage a broader role for SAIMI.

In practice, SAIMI has focused on the DHET mandates because the DHET funding is the only substantial funding that it has received. One of the interviewees was of the view that this is a result of a failure of the leadership of SAIMI to develop value propositions to secure funding for it to put in place the capacity required to implement the broader mandate.

The DHET mandates include coordinating the Operation Phakisa skills working groups on behalf of DHET, coordinating the implementation of the cadetship programme, and playing an advocacy and coordination role between the maritime industry and the education and training sector. Through its own strategic planning processes, SAIMI has added the direct provision of education, skills development and research to its coordination function, although it has not yet made much progress in implementing these provider functions.

Some interviewees indicated that there is an inescapable tension between being a direct provider and a coordinator/facilitator/funder. One interviewee indicated that an organisation which attempts to play both roles would have a schizophrenic character which would impair its ability to play both roles in the market place.

The feasibility study, DHET business plan to the NSF for funding, and SAIMI's own strategic planning documents include objectives which are rather ambitious and vague, such as:

- "Establish a brand for maritime education in South Africa that becomes recognized nationally and internationally"
- "Develop a knowledge base through participating institutions"
- "To help South Africa pursue its national interest in growing maritime economic participation"
- "Advocacy to promote the maritime sector"
- "Become a key role-player in developing South Africa's vision for the maritime sector".

Such a range of broadly-defined and very ambitious objectives can be overwhelming, create confusion and dilute the ability of an organisation to achieve its main objectives, especially if the organisation is very small and new. Strong leadership is required to more clearly define the objectives and translate them into a manageable number of strategic activities. This leadership appears to have been lacking.

4.3.2 Funding uncertainty

The initial NSF funding allocation to SAIMI was R296m for the three-year period ending in July 2018, but the NSF has extended this funding to December 2018 (with an additional amount of R15m, bringing the total allocation to date to R311m).

SAIMI recently applied to the NSF for a further time extension of the original funding approval to June 2019 and has obtained approval in this regard. SAIMI is projected to have a positive balance of approximately R40m (of the R311m) at the end of June 2019. It is currently spending approximately R14m per quarter.

Funding for SAIMI was obtained from the NSF on the grounds of it being seed-funding. The DHET application to the NSF for funding for SAIMI (dated 17 March 2015) stated that:

“SAMSA and NMMU have estimated the income generation potential of SAIMI through, for example, contract research and consultancy fees, and membership fees paid by participants, as well as the institute’s ability to attract funding from other agencies such as SETAs in the diverse areas of the maritime economy, other government departments, and international funders such as the African Union, World Maritime University and International Maritime Organization. SAIMI will actively pursue such income-generation opportunities and additional sources of funding so that, by the end of year 3, the institute is in a position to become independent of NSF funding.”

The Business Plan that was submitted with the application stated that (p. 21):

“Achieving sustainability through developing income streams, accessing grants and fund-raising forms a key component of the CEO’s job profile.”

This will be discussed further in the section on leadership below.

The DHET business plan submitted to the NSF as part of the funding application process included income generation estimates of approximately R24 million within three years, towards becoming self-sustaining. The application envisaged fund raising from the following sources:

- a) Membership fees: Industry
- b) Membership fees: Institutions
- c) Short learning programmes
- d) Commissioned research & consultancy fees
- e) Administration fees for facilitation services
- f) NMMU contribution (hosting SAIMI)
- g) Operating grant (SAMSA)

However, in practice SAIMI has not managed to raise significant funding from any of these sources. It is currently only receiving income from the NSF (the original funding and funding for a small boat-building skills project) and the TETA (a small pilot project for able seafarer training with TVET institutions, learning material development, and small business development in the fishing sector). It is still reliant on the original NSF funding for its continued existence.

An argument could be made that, if there is a real need for coordination of the development of the capacity of the maritime industry to grow (including skills and other aspects of capacity) then industry should be willing to fund such coordination. The maritime industry is ageing, and indications are that existing skills supply pipelines will be insufficient to meet the needs of a growing industry with an ageing workforce. In addition, the industry does not appear to have the

capacity to take advantage of global opportunities so that it can grow at the rate envisaged by Operation Phakisa. However, interviewees indicated that one of the challenges experienced with trying to establish links with the maritime industry is that the industry is fragmented and unorganised, and therefore difficult to engage with and difficult to mobilise around shared objectives. One interviewee was of the view that multi-nationals are not really interested in skills development in South Africa (particularly given the global nature of the maritime industry) and that Transnet is only focused on its own in-house skills development. However, other interviewees indicated that there has been good collaboration with Transnet and that some business representatives have participated well in the Advisory Board, which has given them a space to communicate with other stakeholders. As indicated earlier, one of the interviewees was of the view that SAIMI's inability to obtain funding from industry stakeholders to date has been due to the inability of SAIMI's leadership to develop an adequate value proposition for such funding.

One of the DHET interviewees indicated that DHET does not have any voted funds to support SAIMI. DHET has not yet made an approach to National Treasury for funding for SAIMI as an Institute. The interviewee indicated that, in the current fiscal environment, it is unlikely that such an approach would be successful.

One of the interviewees indicated that, while Operation Phakisa was the "flavour of the month" under the previous President, it might not remain so under the new President. Another interviewee indicated that the Operation Phakisa skills working groups for the Oceans Economy "*have gone on and on being working groups but haven't yet developed a skills strategy*", that the working groups have developed a life of their own, and that some of the working group coordinators are saying they should be closed down now. This could mean that there may no longer be a need for DHET to request SAIMI to coordinate the working groups on its behalf and to ensure that SAIMI is funded to do this.

Nevertheless, with or without Operation Phakisa and its skills working groups, a need for coordination of the development of the capacity of the maritime industry, including the supply of skills relative to industry demand, will remain.

4.3.3 Leadership challenges

Several interviewees pointed to weaknesses with the leadership of SAIMI as a cause of it not making enough progress in coordinating capacity building in the maritime sector and becoming financially self-sufficient.

Given its coordinating mandate, SAIMI was established as a lean institution that has good networking capabilities. This was the basis for the selection of the first CEO who had a wealth of experience and international contacts in the sector. As discussed earlier, it was important to internationalise SAIMI because of the global nature of the maritime industry.

However, some interviewees argued that, while the former CEO was strong at working on a global scale, he was lacking in the dynamism and "political wisdom" required to make SAIMI as effective on the local (NMU), national and African scale. This requires the ability to successfully engage with a range of stakeholders, including business, government and other institutions. As indicated earlier, SAIMI does not have the authority to coordinate in a 'top-down' fashion, and 'bottom-up' coordination requires strategic and diplomatic leadership.

Some interviewees argued that the former CEO did not manage the relationship between SAIMI and NMU well, due to his strong wish for SAIMI to be autonomous. One interviewee also indicated that the CEO's management style was not open and that there was a lack of consultation and engagement within the SAIMI team under his leadership.

NMU has recently taken steps to address this issue. It has appointed an interim CEO and plans to recruit a new CEO.

4.3.4 Debate over the location of SAIMI

Some interviewees raised concerns with the location of SAIMI as an 'Engagement Entity' within NMU. The concerns included that it is difficult for SAIMI to coordinate other institutions when it is part of one institution and that NMU's processes are too slow and bureaucratic for an institution such as SAIMI which needs to be agile. A view was also expressed that the advisory nature of the Board did not give SAIMI enough independence.

However, given the lack of sustainability of funding for SAIMI, it is difficult to imagine how DHET or NMU might have established SAIMI differently. It would have been too risky for DHET or NMU to set up SAIMI as an independent agency with a governing board without any certainty regarding funding beyond three years. It would be much easier for NMU to disestablish SAIMI if it is an Engagement Entity within the university than if it is an independent legal entity. Staff could be transferred to other parts of the university and there would not be any complicated issues relating to contractual obligations of a separate legal entity.

One of the DHET interviewees indicated that the financial sustainability of a stand-alone institute would be a problem. If part of a university, it is more likely to be financially sustainable. Another interviewee pointed out that SAIMI is not the only programme that partners and collaborates with other universities while being based in one university – there are other examples of similar programmes.

Some interviewees expressed a view that SAIMI should not be located under DHET, that it should rather be an entity under the Department of Transport (which is responsible for SAMSA). However, SAIMI's focus is on coordinating education, skills development and research, which is DHET's area of responsibility. DHET was allocated responsibility by the Presidency for coordinating the skills development element of Operation Phakisa for the Oceans Economy, and it decided to fund SAIMI as a way of implementing this responsibility. DHET chose NMU as the location of SAIMI because it had a broad scope of expertise in the Oceans Economy. Once SAIMI was in place, DHET was able to ask it to do things on its behalf, such as coordinate and attend all the Operation Phakisa working group meetings and now the Operation Phakisa small harbour meetings. At the time of its establishment, there was no other substantial funding source for SAIMI on the horizon.

4.3.5 Organizational structure, staffing and organisational culture issues

The SAIMI organogram does not reflect a focus on the coordination role. There are four directors, one for research, one for operations, one for strategic projects, and one for government relations. None has a specific focus on stakeholder engagement, coordination and relationship building, though working with (some) stakeholders would be implicit in some of these roles.

Several interviewees expressed a view that SAIMI is lacking in the capacity and capability required to successfully achieve its stakeholder management and coordination objective. They indicated that SAIMI needs to recruit people with an intimate knowledge of the maritime industry. Some interviewees were of the view that it is not possible to adequately capacitate the institution while it is part of a university, due to university salary scales. However, it should be possible for NMU to find a way around this issue. One interviewee indicated that the failure to attract sufficiently skilled staff could have been due to weaknesses with the university's recruitment processes at the time, rather than due to salary levels.

Due to the uncertainty regarding the future funding of SAIMI, NMU had to appoint most of the SAIMI staff on short-term or consulting contracts. This, combined with the leadership challenges mentioned above, has resulted in high staff turnover and vacancy rates and loss of institutional memory.

The lack of certainty about the future and the leadership challenges that the organisation has experienced have also had a negative effect on organisational culture, which one interviewee described as “*laissez-faire*”. Another interviewee commented that “*people do lots of travelling here*”, going to maritime-related conferences and meetings (SAIMI is spending approximately R700 000 per quarter on travel).

An August 2018 SAIMI document titled “Status Report and Forward Planning” states that “*SAIMI has its headquarters at the Oceans Science Campus of the Nelson Mandela University in Port Elizabeth and works nationally with stakeholders in maritime education, industry and government. The intention is to establish a national footprint through a network of regional representation or offices.*” While this notion of establishing regional representation for SAIMI was in the feasibility study, the feasibility study noted that this could be done through cluster cooperation in the regions rather than through the establishment of dedicated offices. The DHET business plan to the NSF for the funding also envisaged “regional maritime centres” but it is not clear whether these were intended to be regional offices of SAIMI or more figurative centres based on clusters of institutions. The establishment of regional offices seems expensive for an organisation whose primary role is coordination, and which has not yet established sustainable sources of funding.

4.3.6 Governance and accountability issues

Internal governance

Some interviewees alleged that there have been “lapses” in governance in SAIMI. Poor employment practices were identified as a concern. It was alleged that there were insufficient checks and balances built into the governance of the organisation and that the individual performance management system was weak.

External governance and accountability and stakeholder engagement

If it is accepted that SAIMI’s coordination role must be ‘bottom-up’ in nature, then as pointed out in section 4.1, SAIMI should be providing a coordination facilitation service to maritime education, training and research institutions. This in turn implies that SAIMI should have some accountability to the institutions. The institutions would need to agree on the need for coordination, take ownership of the coordination process, and provide leadership over the coordination process. The Stakeholder Forum that is in the process of being established would need to play a key role in this regard. The composition of the Advisory Board should also be reviewed with a view to increasing participation of maritime education, training and research institutions as well as industry organisations.

One of the interviewees indicated that the Advisory Board has confused its role, that it has been playing a managerial role rather than an advisory role.

5. Conclusions and recommendations

SAIMI has a mixed record in terms of its performance. It has successfully implemented the National Cadetship Programme and coordinated the Operation Phakisa Oceans Economy skills working groups on behalf of DHET. Albeit after some time, it has successfully facilitated the development of a maritime sector skills plan and funded the development of a road map for research, innovation and knowledge management. It has also participated in, and supported, the implementation process. However, it has not yet shown that it is capable of systematically coordinating the implementation of these plans.

SAIMI is still a relatively young institution, and it has had to deliver at the same time as it was being established. Like many new institutions, it has had to deal with several teething problems. It would therefore not be accurate to state that SAIMI has failed in implementing its full mandate.

The logic model underpinning the establishment of SAIMI is also still valid. The intended outcome - for the capacity of the South African maritime industry to be developed so that it can grow, including for the supply of skills to meet the demands of a growing maritime industry – is still desired. While the main outputs (the plans mentioned above) have been put in place, they are not yet being systematically implemented, though significant progress has been made despite SAIMI's strategic and leadership challenges, funding uncertainty and capacity constraints.

The priority for NMU, in consultation with other stakeholders, including industry, DHET and other education, training and research providers, is to clearly define the mission and mandate of SAIMI. This goes to the heart of its strategy and such clarity would then bring more focus and direction going forward. SAIMI's strategy should be clear, precise and focused. It should be limited to its key objectives, not try to be "everything for everybody", as one interviewee stated, and not contain additional ambitious and vague objectives which dilute the organisation's ability to achieve its main objectives. It should focus on niches where there is a need for it to play a role and avoid duplicating activities already being carried out by other institutions.

A possible lack of DHET or NSF funding for the coordination role of SAIMI in future should not be construed to mean that DHET does not think there is a need for such coordination. One of the DHET interviewees indicated that DHET is trying to get universities and TVET's to collaborate with each other. SAIMI should continue to work closely with DHET to ensure that maritime education, training and research is optimally spread across universities and TVET institutions to meet demand, regardless of whether it continues to obtain funding from DHET to play this role.

There are several options to be considered for the future of SAIMI. These are discussed in turn below.

Option 1: SAIMI continues as an entity within NMU for the immediate future but evolves into a self-sustainable and more independent institute over time

NMU should apply to the NSF for another multi-year funding allocation, with a recommitment to make the institute self-sustaining during that period, under new leadership. DHET and the NSF should consider making a second allocation to SAIMI to give it more time to become self-sustaining. However, the interviews with DHET officials indicated that it is not the role of the NSF to fund an institution such as SAIMI in the long-term. The NSF's mandate is to fund skills programmes, not the national coordination of skills supply to meet demand. While the NSF may allocate further funding to SAIMI to implement the National Cadetship programme, it might decide not to continue to fund SAIMI's national coordination role. The interviews also indicated that DHET does not have a budget item for funding SAIMI's national coordination role and that DHET would

be unlikely to obtain funds for this through the budgeting process in the current constrained fiscal environment.

Therefore, in addition to applying to the NSF for a further multi-year allocation, NMU needs to plan how to diversify its funding streams. This would involve identifying niches where it could offer unique training or research provider roles. These could include developing subsidy-bearing programmes for maritime teaching, training and/or research as well as generating other income through e.g. consulting assignments. As SAIMI makes progress with developing these income streams, it could explore becoming more independent, e.g. becoming a maritime college on its own or linked to an existing tertiary institution such as NMU.

Thus, SAIMI does not necessarily need to choose between its coordination role and a possible role as a provider. To address the concern that there is a tension associated with NMU being both an education provider and the home of the coordinating body, SAIMI would need to implement its coordination role by taking a 'bottom-up' approach to coordination. This will involve facilitating a process where education, training and research institutions collaborate and coordinate with each other, with such coordination being facilitated by SAIMI, rather than being coordinated by SAIMI in a 'top-down' sense. As indicated earlier, one of the interviewees pointed out that SAIMI is not the only national programme that partners and collaborates with other universities while being based in one university. SAIMI would also need to continue to work closely with DHET to achieve the desired level of coordination.

The 'bottom-up' approach to coordination implies that SAIMI should have some accountability to the institutions. The institutions would need to agree on the need for coordination, take ownership of the coordination process, and provide leadership over the coordination process. The Stakeholder Forum that is in the process of being established will need play a key role in this regard. The composition of the Advisory Board should also be reviewed with a view to increasing participation of maritime education, training and research institutions as well as industry organisations. Currently most of the Advisory Board members are from NMU, and consideration should be given to providing for better representation of other institutions on the Board.

As indicated earlier, SAIMI does not have the required authority for top-down coordination and it is therefore more appropriate for it to engage in 'bottom-up' coordination. However, it should be noted that 'bottom-up' coordination has limitations. It requires considerable facilitation skills to succeed and it cannot be used for micro-coordination of the sector.

DHET needs to strengthen its role in providing strategic direction to SAIMI through its representation on the Advisory Board. The DHET representative on the Advisory Board should be capable of carrying out a DHET mandate to provide strategic direction to SAIMI, and not just play a role of giving feedback to the Department.

While SAIMI has been given a mandate by the stakeholders and by DHET to play a national coordination role and is therefore in a sense a 'national body' rather than an 'NMU body', NMU needs to play a stronger role in the formulation of SAIMI's strategy in future, especially if the national coordination mandate is unfunded and has to be subsidised by NMU, at least in the short-term. In this regard, there are opportunities for NMU to position SAIMI's strategy in the context of its own strategy for developing its Oceans Sciences Campus as a leading maritime education and research centre in Africa. There could be positive spin-offs for the Oceans Sciences Campus by having SAIMI continue with its national coordinating role, regardless of the availability of funding from government in the short-term for this role. Various funding opportunities will arise over time from various sources, not only from DHET and the NSF, and NMU can position SAIMI to take advantage of such opportunities in future.

NMU should find a way of creating positions in SAIMI at salary levels which will attract staff with the required competencies to successfully implement the coordination mandate, who have an intimate knowledge of the maritime industry, and who will be respected by other institutions. SAIMI would be more successful at achieving its coordination objective with a few highly skilled staff than with a larger number of lower skilled staff.

Option 1 is the recommended option.

Option 2: SAIMI is immediately established as an independent institution

This option would remove the concern about the location of a coordinating body within one of the tertiary institutions to be coordinated. An independent institution may also be more agile than one which is part of a large university bureaucracy.

While this option might appear ideal, it is not currently practical from a financial perspective. There is currently no source of sustainable funding for an independent institution on the horizon. However, this option may become viable in future, if and when SAIMI becomes more financially independent and sustainable, as explained in the previous option.

Option 3: SAIMI is closed down

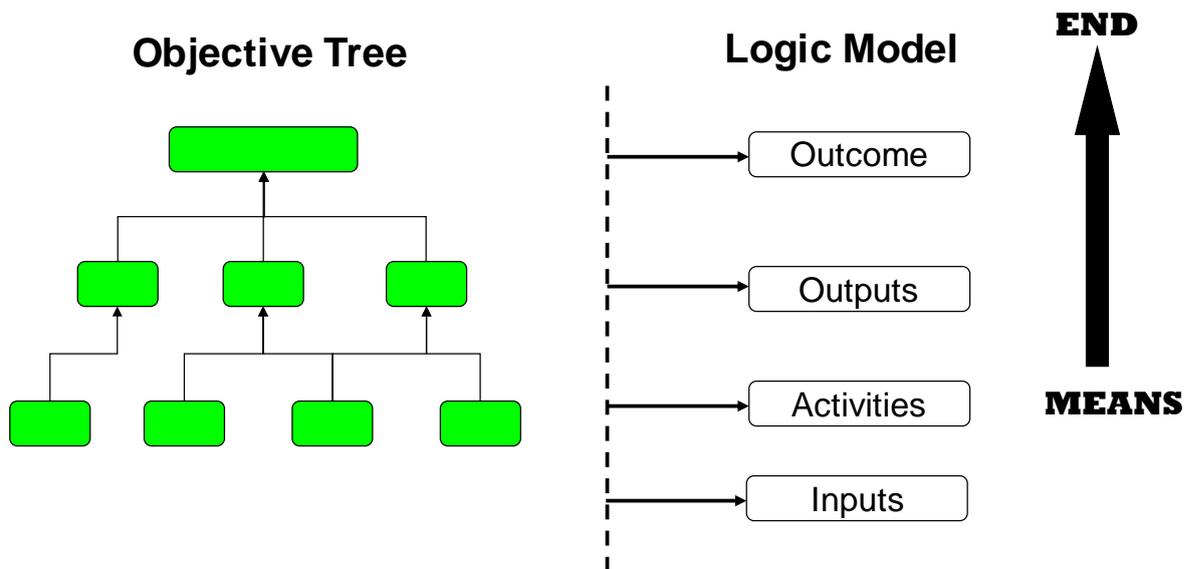
This option might have to be considered eventually if the problem of the lack of sustainable funding is not addressed. It is not recommended because the objectives of SAIMI remain valid and because it would be incorrect to conclude that SAIMI has failed to achieve its objectives.

Summary of recommendations

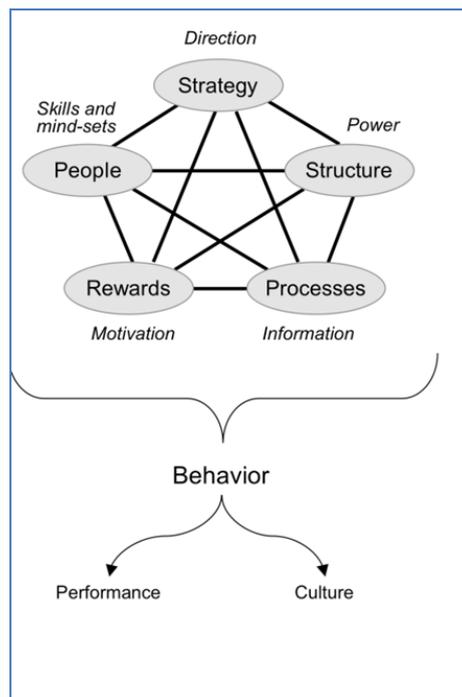
1. At least in the short-term, SAIMI should continue as an entity within NMU.
2. In addition to applying to the NSF for further funding allocations to SAIMI, NMU should also assist SAIMI in planning how to diversify its sources of income. This could include developing subsidy-bearing programmes for teaching, training and/or research. It could also provide consulting services. Once it becomes more financially independent and sustainable, consideration could be made to making SAIMI an independent institute or college, perhaps associated with NMU.
3. NMU, in consultation with the relevant government departments, industry, and other education, training and research providers, should clearly define the objectives of SAIMI. SAIMI's strategy should be clear, precise, and focused. It should be limited to its key objectives and focus on niches where there is a need for it to play a role and avoid duplicating activities already being carried out by other institutions.
4. SAIMI should implement its main task for coordinating capacity development and skills supply to enable industrial growth by taking a 'bottom-up' approach to coordination. This will involve facilitating a process where education, training and research institutions collaborate and coordinate with each other, with such coordination being facilitated by SAIMI, rather than being coordinated by SAIMI in a 'top-down' sense.
5. The Stakeholder Forum that is in the process of being established should be structured in such a way as to enable relevant education, training and research institutions to have influence over SAIMI. Similarly, the composition of the Advisory Board should be reviewed with a view to increasing participation of such institutions, as well as industry and relevant government departments.
6. NMU should find a way of creating appropriate positions in SAIMI at salary levels which will attract staff with the required competencies to successfully implement the coordination mandate. It should also apply for the necessary approvals to make this possible.

Annexure 1: Details of evaluation methodology

Simply put, an RBM logic model shows the ends (outcomes and outputs) that the organization aims to achieve and the means (activities and inputs) required to make this happen, as per the illustration below:



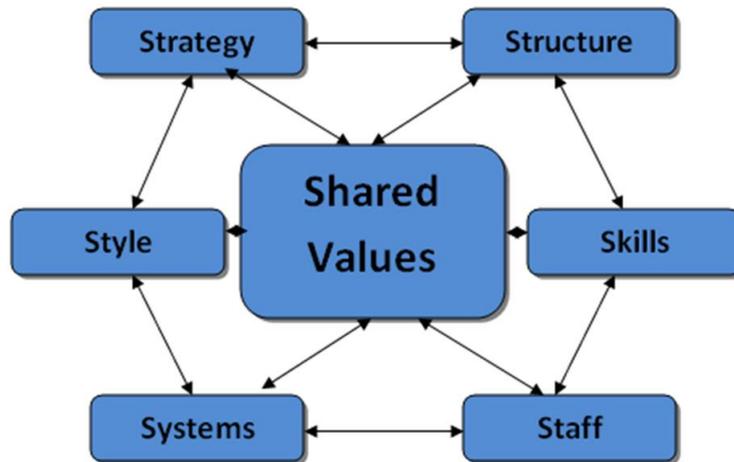
The Galbraith and 7S models are depicted below:



Galbraith's STAR Model

This model focuses broadly on the alignment of structure, process, rewards, and capacity with the strategy of the business, and attention to all of these organisational elements is necessary to reposition and create a more effective organization.

The 7-S model focuses on similar elements:



McKinsey's 7-S Model

The various elements of the 7-S model are the following:

- Strategy:** The top-level plan(s) that sets out the reasons for its existence (as assessed using the RBM approach).
- Structure:** The line of reporting, task allocation, coordination and supervision levels.
- Style:** The overarching style of leadership adopted within the organization.
- Shared Values:** These are the core values of the organization and form the underpinning culture and how the organization behaves and is perceived to behave in the wider context of the community.
- Skills:** The skills and competencies of the employees.
- Systems:** The supporting systems and process of the organization, like information systems, performance management system (organisational and individual) financial reporting, payment systems, resource allocation etc.
- Staff:** The number and types of employees within the organization.

Annexure 2: List of documents reviewed

| Information Category | Document type |
|---|--|
| Contextual | Operation Phakisa docs on Oceans Economy |
| | SAIMI Booklet 2017 |
| | SAIMI Context timeline |
| MoAs/MOUs/Partnership agreements | SAMSA-NMU MOU on establishment of SAIMI, including TOR of original Steering Committee |
| | MoA between NSF & NMU on SAIMI (duration 01/04/2015 – 31/03/2018) |
| NSF Funding Proposals | NATIONAL SKILLS FUND – SAIMI FUNDING PROPOSAL, 4 & 17 March 2015 |
| | Notes of meeting with DHET & NSF held on 26 April 2018 re SAIMI's funding and the independent performance review to be conducted |
| | Notes of meeting with DHET & NSF held on 3 Sep 2018 where more detail is provided of SAIMI's funding and the independent performance review to be conducted |
| Feasibility study | Feasibility and Viability Study on the Establishment of a South African Maritime Institute or University, compiled by Learning Strategies for SAMSA, Final report, 22 Nov 2013 |
| Strategic planning | SAIMI Strategic Plan (2017 – 21) – Working draft prepared by Prof Malek plus comments by Vanessa Davidson |
| | “Cleaned up” version of SAIMI Strategic Plan (2017 – 21) prepared by Vanessa Davidson but apparently not used by Prof Malek |
| | SAIMI Status Report & Forward Planning dd 23 Aug 2018 |
| | SAIMI STRATEGIC PLAN (2017 – 2021): Implementation/ Action Plan |
| Annual reports | SAIMI engagement entity annual report – June 2018 |
| Projects & consultancy work | SAIMI projects register |
| | Consultancy work & time lines |
| Governance | NMU Policy for the Establishment, Operation and Review of Engagement Entities (IRC 405.02) |
| | SAIMI Governance document |
| | NMU Institutional Regulatory Code_NMU statute |
| | NMU Institutional Regulatory Code_NMU rules |
| Business plans | SAIMI – NSF Business Plan, July 2015 |
| | Business Plan for the Establishment of the South African Maritime Institute (SAMI) & South |

| Information Category | Document type |
|---|---|
| | African Maritime Centre (SAMC) compiled by SAMSA, Draft Version 2, 7 Oct 2013 |
| Skills audits/development | Marine manufacturing DU change management process |
| | Maritime Sector Skills Development Report of Sep 2011, SAMSA |
| | OCEANS ECONOMY SKILLS REQUIREMENT EMPLOYMENT & SKILLS DEVELOPMENT ASSESSMENT FOR SOUTH AFRICA conducted by Rand International Capital (Derek Zimmermann) |
| | HRD Council Maritime Sector Skills Technical Task Team report, Advancing Skills Development in the Sector, Nov 2014 |
| | Operation Phakisa skills development roadmap for the Offshore Oil and Gas industry in South Africa, Offshore Oil and Gas Skills Working Group, Dec 2015 |
| | Draft Oil & Gas Implementation Plan for Roadmap, March 2018 |
| | Report on Aquaculture Skills Inventory & Roadmap, Nov 2017 |
| | SKILLS AUDIT AND NEEDS ANALYSIS FOR THE MARINE PROTECTION SERVICES AND OCEAN GOVERNANCE SECTORS OF OPERATION PHAKISA, FINAL REPORT, Aug 2018 plus appendices doc (Not yet endorsed by relevant Working Committee) |
| | Board/SteerCom/NSF reports (Funding & operations) |
| SA Agulhas usage report – Nov 2014 | |
| Report back (PowerPoint & PDF) from regional workshops to SAIMI SteerCom_Sep 2014 | |
| NSF quarterly report from SAIMI_Jan – Mar 2018 | |
| NSF quarterly report from SAIMI_April – June 2018 | |
| NSF quarterly report from SAIMI_Jul – Sep 2018 | |
| Status Report and Forward Planning. Briefing to Nelson Mandela University Vice-Chancellor Prof Sibongile Muthwa. 23 February 2018 | |
| Financial and Operations Report to SAIMI Advisory Board & National Skills Fund 1st April 2018 to 24th August 2018 | |
| Interim Administrator's Report on SAIMI highlights, April – Aug 2018, 7 Sep 2018 | |
| SAIMI Board pack, 2 Sep 2018 | |
| Progress Report to the SAIMI Steering Committee and National Skills Fund for the period 1 September to 20 November 2017 | |
| Progress Report to the SAIMI Steering Committee and National Skills | |

| Information Category | Document type |
|---|---|
| | Fund for the period October-December 2016 |
| | Progress Report – Operation Phakisa Skills Initiative Working Groups and other SAIMI initiatives, 2 Feb 2017 |
| | Progress Report to the SAIMI Steering Committee and National Skills Fund for the period 1 April to 31 August 2017 |
| | Progress Report to the SAIMI Steering Committee and National Skills Fund for the period covered January -March 2017 |
| | Quarterly Report to SAIMI Advisory Board & National Skills Fund for the period Jan – March 2018 |
| | SAIMI Advisory Board Members |
| Organisational/staffing | SAIMI Organisational Chart |
| Maritime policy | Comprehensive Maritime Transport Policy (CMTP) for South Africa, 2017 |
| Maritime research, innovation and knowledge management | <p>Funke, N., Claassen, M., Nortje, K. and Meissner, R. 2016. <i>A Research, Innovation and Knowledge Management Road Map for the South African Maritime Sector: Charting a Course to Maritime Excellence by 2030</i>. CSIR Report No.: CSIR/NRE/WR/ER/2016/0044/A</p> <p>Pretoria: Council for Scientific and Industrial Research.</p> |
| | <p>Funke, N., Nortje, K. and Claassen, M. 2017. <i>Implementation of the Research, Innovation and Knowledge Management Road Map for the South African Maritime Sector: Sector Coordination</i>. CSIR Report: CSIR/NRE/WR/ER/2017/0031/A. Pretoria: Council for Scientific and Industrial Research.</p> |

Annexure 3: List of interviewees

| STAKEHOLDER GROUP | INTERVIEWEE(S) | INTERVIEWER(S) | INTERVIEW DATE |
|---|---|--|-----------------|
| Internal - Board | Professor Sibongile Muthwa (NMU) (Current Vice Chancellor and Chair of the SAIMI Advisory Board) | Mr Dhiresh Ramklass & Dr Sean Phillips | 26 October 2018 |
| | Dr Derrick Swartz (NMU) (Previous Chair of the SAIMI Advisory Board) | Mr Dhiresh Ramklass & Dr Sean Phillips | 19 October 2018 |
| | Mr Sobantu Tilayi (COO: SAMSA) | Messrs Corrie Smit & Jeets Hargovan | 10 October 2018 |
| | Dr Laura Best NMU (Supports the VC in her capacity as SAIMI Advisory Board chairperson) | Mr Dhiresh Ramklass & Dr Sean Phillips | 19 October 2018 |
| Internal Management & professional staff/consultants | Mr Odwa Mtati & Ms Nwabisa Matoti (consultants - group interview) | Dr Sean Phillips & Mr Corrie Smit | 9 October 2018 |
| | Ms Soraya Artman (Director: Operations) | Messrs Corrie Smit & Dhiresh Ramklass | 11 October 2018 |
| | Ms Sam Venter (Consultant) | Messrs Corrie Smit & Dhiresh Ramklass | 11 October 2018 |
| | Prof Malek Pourzanjani (Former CEO) | Mr Corrie Smit | 16 October 2018 |
| | Dr Ossie Franks (SAIMI Interim Administrator) | Messrs Corrie Smit & Dhiresh Ramklass | 11 October 2018 |
| | Ms Hilary Burley (SAIMI Financial Administrator) | Mr Dhiresh Ramklass & Dr Sean Phillips | 19 October 2018 |
| External Government | Ms Jean Skeene (Chief Director: DHET), Ms Miriam Malebo (Director at NSF); and Mr Eliphus Saiko (NSF) | Dr Sean Phillips & Mr Siphon Dayel | 17 October 2018 |

| STAKEHOLDER GROUP | INTERVIEWEE(S) | INTERVIEWER(S) | INTERVIEW DATE |
|-------------------|--|-------------------------------------|-----------------|
| | Dr Engela van Staden (Former manager at DHET) | Dr Bangani Ngeleza & Mr Corrie Smit | 19 October 2018 |
| | Ms Maphefo Anno-Frempong (CEO: TETA) | Messrs Jeets Hargovan & Corrie Smit | 15 October 2018 |
| | Commander Tsietsi Mokhele (Former SAMSA CEO) | Messrs Jeets Hargovan & Corrie Smit | 15 October 2018 |
| | Ms Vanessa Davidson (Industry representative) | Mr Dhiresh Ramklass | 18 October 2018 |