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Programme:

Communities of Practice

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Framework & Funding Guide for Communities of Practice

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1. INTRODUCTION

1.1. CONTEXTUAL BACKGROUND

The country's ability to tackle social challenges is contingent upon the extent to which science and technology play a pivotal role in that process. This sentiment is also echoed by the National Development Plan, stating that, "the extent to which developing economies emerge as economic powerhouses depends on the ability to grasp and apply insights from science and technology and use them creatively", (NDP, 2011; 71). It is then to the advantage of a country to involve established researchers from a range of disciplines in the challenge of responding to development issues such as, *inter alia*, poverty, health and education. South Africa, as a developing country, is at an advantage of having existing expertise from a broad range of research fields, in the form of the South African Research Chairs Initiative (SARChI) and Centres of Excellence (CoEs) funding instruments. This wealth of expertise is seen as an opportunity to translate high level expertise and knowledge into tangible action plans and actionable policies through the Community of Practice (CoP) forums. Ultimately, the intent is to provide evidence based solutions to societal challenges facing South Africa. *The role of CoPs is not just to fund research, but to use its resources and influence to nurture cultures, connect institutions and create opportunities and platforms that span boundaries.*

The South African government is focused on the implementation of the National Development Plan ¹in order to tackle societal challenges facing the country today. Economic inequality, still visibly along racial lines, continues to manifest itself in South Africa. Despite vigorous interventions in various forms, structural poverty has continued to increase. In addition, despite a plethora of state-driven corrective policies and programmes – social spending on welfare, education and health; integrated development plans at all tiers of government; land reform and housing provision – social cohesion remains elusive, undergirded by the spatial segregation of the

¹ Applicants must consult the List of Medium Term Strategic Framework 2014-2019 Outcomes and Sub-outcomes as a guide to the critical areas and outcomes that the NDP wants to achieve

apartheid past. The impact of the HIV/AIDS pandemic, the increase in the number of people living with HIV/AIDS and the resurgence of tuberculosis are some of the features of ‘ a strained system’ at various levels. Poor schooling and education and inadequate teacher training, especially in rural South Africa, are of concern. Environmental degradation, biodiversity loss and effects of climate change, both natural and human-induced, are huge challenges to be urgently faced within the next years, if an effective turnaround is to be seen. Food security, water, sanitation, energy, telecommunications, and advanced manufacturing all require sustained, innovative, knowledge-based interventions to bolster the knowledge economy in a growth-driven emergent market such as South Africa. Notwithstanding the significant progress made by the South government in areas such as access to education, research infrastructure and health care; much more can still be done. There is an urgent need for societal engagement at various levels.

Communities of Practice thus, provide a vehicle to enable the implementation of integrated trans-disciplinary and multi-disciplinary solutions to address the above-mentioned challenges and to ultimately bring change to the lives of South Africans through evidence based research findings. The envisaged aim of communities of practice is to provide research driven innovative solutions that will inform and guide policy development as well as translate research outputs into tangible outcomes with social and/or economic impact.

1.2. DEFINITION OF COMMUNITIES OF PRACTICE

The need for knowledge based approaches to South Africa’s societal challenges, building robust systems of innovation and entrepreneurial capacity call for a coordinated and focused approach that promote knowledge creation, that can help underpin policies and practices supporting human development in key areas for South Africa. It is in particular, important to organize these approaches to tackle South Africa’s challenges in a practical manner. Communities of practice are the means to which these collective measures will be achieved. Communities of Practice are defined as Research Chair-led alliances, in which established researchers collaborate to produce solution-oriented research findings with an intention to translate research outputs into tangible outcomes and influence policy development and implementation through communication of the necessary research findings.

1.3. POLICY ALIGNMENT OF COMMUNITIES OF PRACTICE

To ensure that CoPs respond to priorities, they need to be strategically aligned to the Medium Term Strategic Framework 2014-2019 Outcomes and Sub-outcomes of the National Development Plan (NDP) and at least one Sustainable Development Goals (SDG) or the Department of Science and Technology’s (DST’s) Grand Challenges as shown below. Importantly, CoPs must be strategically aligned to government policies by focusing research on, but not limited to the following themes:

Table 1: International and National Priority Areas to which the CoP must align

| SDGs | MTSF Priority outcomes ² | DST’s Grand Challenges |
|--|---|--------------------------------|
| <u>Goal 1: No Poverty</u> | | |
| <u>Goal 2: Zero Hunger</u> | Vibrant, equitable and sustainable rural communities contributing towards food security for all | Bio-economy: Agriculture |
| <u>Goal 3: Good Health and Well-being</u> | A long and healthy life for all South Africans | Bio-economy: Health Innovation |
| <u>Goal 4: Quality Education</u> | Quality basic education | |
| <u>Goal 5: Gender Equality</u> | | |
| <u>Goal 6: Clean Water and Sanitation</u> | | |
| <u>Goal 7: Affordable and Clean Energy</u> | | Energy Security |
| <u>Goal 8: Decent Work and Economic Growth</u> | Decent employment through inclusive growth | |

² Please read relevant documents on the full list and explanation of the MTSF Outcomes and Sub-outcomes

| | | |
|---|---|---------------------------------------|
| <u>Goal 9: Industry, Innovation and Infrastructure</u> | An efficient, competitive and responsive economic infrastructure network | Bio-economy: Industry and Environment |
| <u>Goal 10: Reduced Inequality</u> | A skilled and capable workforce to support an inclusive growth path | |
| <u>Goal 11: Sustainable Cities and Communities</u> | Sustainable human settlements and improved quality of household life | |
| <u>Goal 12: Responsible Consumption and Production</u> | | |
| <u>Goal 13: Climate Action</u> | Protect and enhance our environmental assets and natural resources | Global Climate Change |
| <u>Goal 14: Life Below Water</u> | | |
| <u>Goal 15: Life on Land</u> | | |
| <u>Goal 16: Peace and Justice Strong Institutions</u> | A diverse, socially cohesive society with a common national identity | Human and Social Dynamics |
| <u>Goal 17: Partnerships to achieve the Goal</u> | Create a better South Africa and contribute to a better Africa and a better world | |

The NRF, to date, has awarded and supports the following CoPs³:

1. DST/NRF Community of Practice in the Use of fibre-rich Biomass in the Remediation of Degraded Land hosted by the University of Cape Town. The aim of the CoP is to determine whether fibre- rich biomass, including bamboo,

³ The NRF will not fund CoPs that are proposing to do research in the same research fields as the listed CoPs.

can be used to remediate degraded land in a way that is economically feasible, leading to enhanced economic complexity, the establishment of a bamboo micro-industry, higher value-add in output and job creation.

2. DST/NRF Community of Practice in Evaluation of Malaria Control Interventions hosted by University of Pretoria focuses on Malaria elimination with the aim to critically evaluate malaria control interventions to guide the South African Malaria Elimination Strategy. The CoP combines the expertise of five SARChI Research Chairs to provide novel small molecules able to block human-to-mosquito malaria transmission and thereby contribute to the global pipeline of drug leads aimed at malaria elimination.
3. DST/NRF Community of Practice in Marine Spatial Planning for Algoa Bay hosted by Rhodes University. This CoP harnesses the collective expertise of senior researchers in the Eastern Cape region within the broad field of Marine Science, to develop a regional Marine Spatial Planning (MSP) for Algoa Bay. The project aims to develop a local-scale case MSP plan for Algoa Bay that will inform the development of Marine Area Plans for the four larger areas that will be consolidated into the National MSP.
4. DST/NRF Community of Practice in Functional Biodiversity: Using Biodiversity Assessments as a form of Social Learning hosted by University of KwaZulu Natal. It aims to foster a community of biodiversity practitioners from both government agencies and the university who meet regularly to assess biodiversity in places where such assessment is needed for conservation planning.
5. DST/NRF Community of Practice in Developing Indicators for Innovation and Inclusive Industrialization hosted by the University of Johannesburg. This Community of Practice (CoP) aims to explore South Africa's aspiration to advance towards a knowledge economy in such a way that guides concrete policy decisions, especially in the ambit of innovation and industrial policy. Specifically, it aims to strengthen the capacity of national authorities to analyse and understand innovation-led inclusive industrialization, and to design appropriate strategies and policies.
6. DST-NRF Mandela Initiative Community of Practice: 'Strategies to Overcome Poverty and Inequality in South Africa' hosted by University of Cape Town.

This CoP takes a multi-disciplinary approach to researching poverty in South Africa with an aim to reduce inequality.

7. DST/NRF Community of Practice in Mathematics Education and Numeracy. This CoP consists of four Research and Development Research Chairs who do research on Mathematics and Numeracy. The aim is to influence policy makers within basic education to in order to improve pass rates in mathematics.

2. MISSION AND OBJECTIVES OF THE COMMUNITY OF PRACTICE

2.1. MISSION STATEMENT OF THE COMMUNITY OF PRACTICE

To establish and nurture Research Chair-led alliances within the National System of Innovation in order to produce solution orientated research findings and to promote evidence-based analysis and inform policy.

2.2. AIM AND OBJECTIVES OF THE COMMUNITY OF PRACTICES

The overall aim of CoPs is to conduct solution-orientated ⁴ research on socio-economic challenges and to communicate the research findings in given forums to various stakeholders; government officials, practitioners, policy makers, academics and civil society, with an intent to provide solutions that can mitigate social and economic challenges faced by the South Africa.

This aim has the following subsidiary objectives:

1. To form strategic partnerships within the local and international research community, with the aim of producing solution oriented scientific research findings.
2. To make research meaningful to society by translating research findings into actionable policy activities. It is envisaged that this new knowledge will afford South Africa a competitive edge internationally and contribute towards growing the economy of the country and improving the quality of life of South Africans.

⁴ CoPs must not work on new areas of research but instead add on existing knowledge and expertise in order to find solutions.

3. To conduct evidenced-based research with an intent of influencing policy implementation.

3. GUIDING PRINCIPLES AND OUTCOMES FOR THE COMMUNITY OF PRACTICE

3.1. GUIDING PRINCIPLES OF THE COMMUNITY OF PRACTICE

The CoP must be constituted and guided by the following principles.

1. Research Chairs must voluntarily group themselves to align accordingly to priority areas of research and must produce a joint proposal to bid for funding to the National Research Foundation (NRF).
2. Each CoP must be led by an incumbent of the SARChI funding instrument and can include other established researchers. It is envisaged that over time, each CoP will comprise of at least two Research Chairs, at least a CoE director/principal researchers and at least two researchers from previously disadvantaged institutions including universities of technology.
3. Funds will be awarded to CoPs willing to conduct multidisciplinary research that seek to find solutions to social and economic issues focussed in at least one of the themes mentioned above.
4. Funded CoPs are expected to present solution focused findings in a biannual forum to various stakeholders; government officials, practitioners, policy makers, academics and civil society
5. Access to other intra- and inter - organizational CoP networks.
6. Each CoP is expected to have an information portal which will store and manage all the intellectual capital and research activities of the network. The long-term objective is to establish an Information Portal as the premiere online knowledge Portal of information, resources, discussion, and interaction about strategically allied research on social matters in South Africa
7. Each CoP is expected to supervise and support at least two South African post-graduate ⁵students.

⁵ Only Honours and Masters students will be supported fully. PhD candidates only qualify for top up bursaries.

3.2. SPECIFIC OUTCOMES OF THE COMMUNITY OF PRACTICE

The expected outcomes of the CoP:

1. Each CoP must ensure provision of customised solutions and/or tools to specific challenges in society in order to make policy recommendations.
2. Promote collaborative research by increasing the number of co-published articles in high impact journals, and by sharing of best practices in various fora with other intra- and inter - organizational CoP networks.
3. Make available the expertise of the network to stakeholders for specific consultancy assignments.
4. A comprehensive report of the CoP workshop detailing recommended development trajectories for the government from the discussions of the proceedings of the two day workshops. It is envisaged that the report can be turned into a discussion document or a policy brief.
5. CoP members must meet at least once per year to have group discussions on their research. The purpose of these meetings is to have peer-to-peer reflective discussions on the various research taken up by the Research Chairs.
6. Building research capacity by increasing the number of post-graduates by supervising and supporting students.

4. OPERATIONAL PRINCIPLES

4.1. FUNDING MODELS AND FUNDING SOURCES

Seed funding for each CoP will be provided by the DST through the NRF. CoPs must submit a budget with a breakdown of each member's proposed budget. This will inform the NRF how much will be awarded to each CoP. The NRF will fund up to seven (7) million Rands in seed funding over a period of two years. Each funding cycle is two years, where funds will be dispersed equally over 2 years. That is, half of the funds will be transferred in the first year. The rest of the funds will be given in the second year of the cycle. The NRF will fund CoPs for a maximum of two cycles, that is, up to a total of four (4) years depending on satisfactory performance. CoPs are expected to leverage funding for sustainability. Possible sources of funding include:

1. Governmental funding
2. Foundations
3. Private sector funding
4. Development funding
5. International funds

4.2. EVALUATION AND KEY PERFORMANCE INDICATORS

The CoP will be required to submit an Annual Performance Report (APR) and will be evaluated at the end of the funding cycle. Key performance indicators are aligned to the expected outcomes of the CoP, including

1. To what degree has the CoP provided customised solutions to development challenges in a given research area.
2. The extent to which the CoP network has promoted collaborative research that has resulted in co-published articles in high impact journals.
3. The degree to which the CoP network has assisted stakeholders to access policy expertise in their given research area.
4. To what extent has the CoP promoted opportunities to share best practices in policy and development?
5. To what degree has the CoP been able to leverage funds to sustain itself beyond the funding cycle?

5. SELECTION CRITERIA FOR AWARDING COMMUNITIES OF PRACTICE

The following criteria will be applied when reviewing a CoP application:

| Criteria | Weight |
|--|--------|
| The proposal's alignment to the National Development Plan ⁶ | 25% |

⁶ Consult the List of Medium Term Strategic Framework 2014-2019 Outcomes and Sub-outcomes

| | |
|---|-----|
| Multi-disciplinary and trans-disciplinary of the CoP: The CoP must be diverse and cut across disciplines. | 20% |
| Leverage funding pipeline: Must stipulate the entities that they will approach for funding and the probability of receiving funds. This criterion speaks to sustainability. | 15% |
| Anticipated outputs: Students, patents, peer-reviewed journal articles, policy briefs. | 15% |
| Anticipated impact: What gap will the research fill and anticipated impact. And a plan on how to encourage solution orientated findings/ or dissemination of findings plan. | 20% |
| Proposed Budget | 5% |

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7. NRF CONTACT PERSONS

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