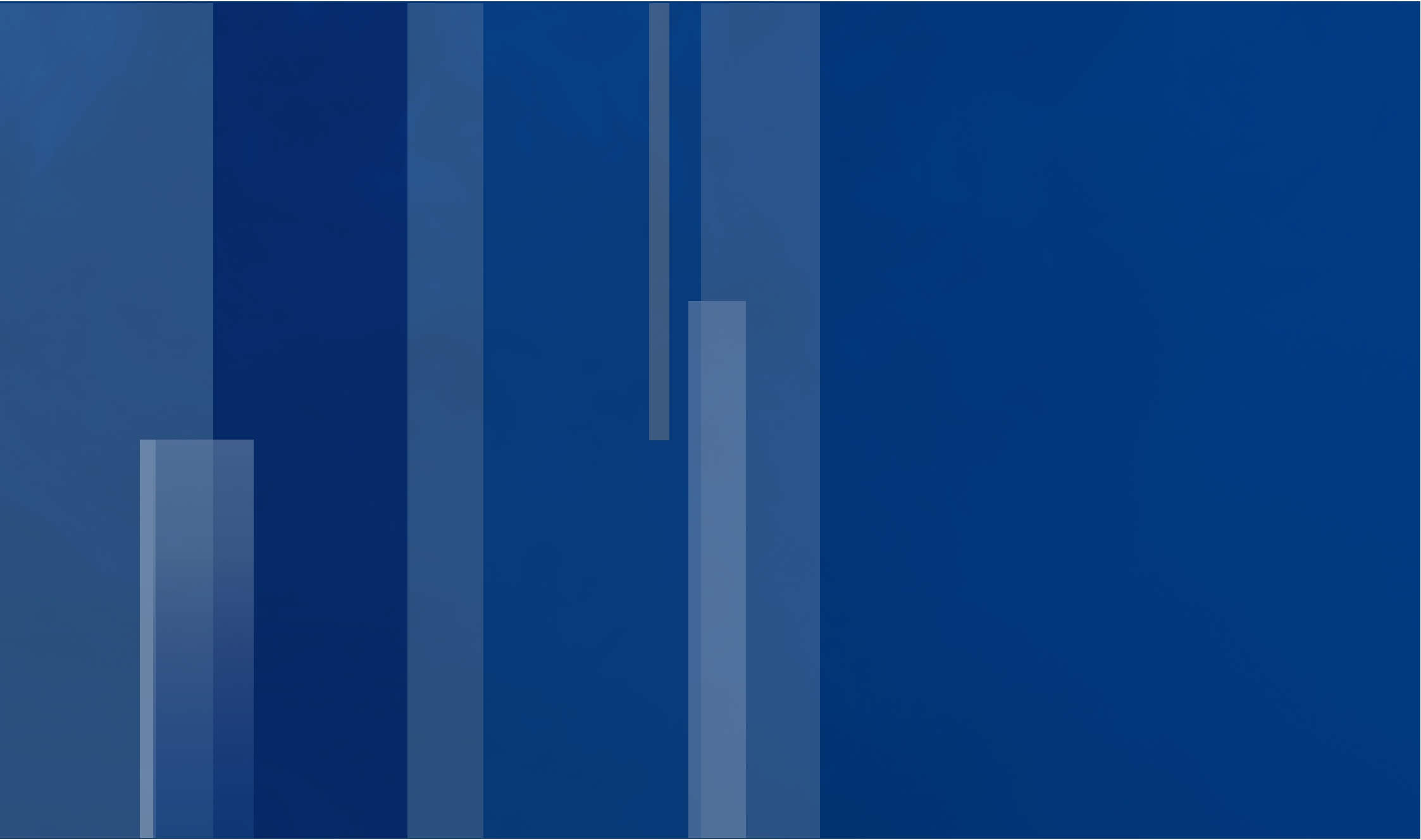# PROFESSIONAL COMPETENCY FRAMEWORK (PCF)

FOR RESEARCH MANAGERS AND ADMINISTRATORS

ABOUT THE PCF

The PCF aims to identify a set of agreed upon key competency areas and the related competencies for research managers and administrators. Furthermore, it aims to unite practitioners and professionals by fostering a mutual understanding of the evolving profession.

The PCF was developed through a consultative process using an action research approach and was formally adopted by the Project Advisory Committee in December 2015. The process of developing the PCF is documented in an article published in the Journal of Research Administration[1].

The PCF identifies nine Key Competency Areas (KCAs) at the administrative, management and leadership level, offering a framework for presenting the underlying comptencies. Noneless, it does not suggest a lack of interconnections among the KCAs.

The PCF additionally identifies transferable (cross-cutting) competencies highlighting those competencies that transcend the boundaries of the KCAs, in general or for a specific level of operation. These soft/interpersonal skills accentuate the reality that research management and administration is a people orientated profession where the development and management of relationships at many different levels are key aspects of the job.

Research management and administration, being such a dynamic and fast changing profession, requires a PCF that remains relevant and accurate through user-feedback and regular revision.

Please send your input to sarima@sarima.co.za.

USE OF THE PCF

- Develop training programmes and curricula for professional development.
- Raise awareness of the research management and administration profession's scope and competence requirements.
- Explore philosophical principles underpinning research management and administration more broadly and better inform organisational development interventions and organisational ethos.
- Assist with job analysis, writing job descriptions and specifications, setting performance standards, and planning individual career growth and succession.
- Benchmark human resource gaps.
- Identify individual professional development goals.

When applying for professional recognition through the International Professional Recognition Council (IPRC), applicants are required, as part of the application process, to conduct a competence self-assessment using the PCF (https://iprcouncil.com/).

---

[1]   C Williamson, K Dyason, J Jackson-Malete (2020). Scaling up Professionalization of Research Management in Southern Africa, Journal of Research Administration, 51(1), 46-72. .

2

KCA	High-level description
1	Organise, structure, manage, monitor and review a research support function
2	Facilitate and support the development, implementation, monitoring and evaluation of research policy and strategy across the competency areas
3	Support postgraduate student and researcher development across the research pipeline within different organisational settings
4	Facilitate and manage national, regional, international partnerships and collaborations to advance research including with research organisations, funders, industry, government and society
5	Identify and disseminate funding opportunities; develop and implement funding optimisation strategies; support the writing of funding proposals, including alignment with stakeholder requirements, budgeting and costing and review; coordination of approvals and submissions (usually associated with pre-award activities)
6	Promote, foster and support research ethics and integrity, compliance and responsible research conduct
7	Research contracts negotiation and management; research financial management; funder/sponsor engagement and liaison; research project management (usually associated with post-award activities)
8	Develop research data management plans and support systems; databases and information systems; research data management; reporting
9	Dissemination and communication of research; knowledge transfer; business development; measuring and demonstrating research impact

HIGH-LEVEL SUMMARY
OF THE PCF'S KEY COMPETENCY AREAS (KCA'S)

TABLE OF CONTENTS

4

TRANSFERABLE (CROSS-CUTTING) COMPETENCIES ACROSS ALL THREE LEVELS OF WORK

✔ **Interactive communication** (listening to others, clearly conveying information and ideas through different media to individuals or groups in a manner that is engaging, foster open communication

✔ **Negotiation** (effectively exploring alternatives and positions to reach outcomes that gain the support and acceptance of all parties)

✔ **Conflict resolution** (using a variety of approaches to manage and resolve concerns, disagreement, and conflict, facilitate the prevention, management and/or resolution of conflicts)

✔ **Management/stewardship of resources** (demonstrates accountability, discretion and sound judgement in managing organisational resources for research)

✔ **Personal effectiveness** (maintaining effective behaviour in challenging situations having the resilience to bounce back in the face of setbacks; demonstrating a strong desire to advance, recognising personal strengths and gaps and engaging in ongoing development, self-motivated, honesty and integrity in professional conduct)

✔ **Researcher focus/ stewardship approach** (strong commitment to responds to and anticipates needs of researchers, striving to ensure satisfaction with the delivery of services and support and developing and sustaining productive relationships).

✔ **Organisational awareness** (awareness of organisation's research goals, understanding the organisation's formal and informal systems, maintains cross-functional focus and uses the most appropriate channels to communicate within and between departments/divisions/units, awareness of organisational relationships and external influences).

✔ **Accuracy and attention to detail** (thoroughness in accomplishing tasks, monitors and checks work or information and plans and organises time and resources efficiently)

✔ **Value diversity** (appreciate and leverage capabilities, insights and expertise in an inter/multi/trans-disciplinary manner, values and incorporates contributions, demonstrates respect for opinions and ideas of others)

✔ **Plan and organise** (ability to effectively plan and organise to achieve goals, sets priorities, allocate time and resources to achieve maximum productivity)

✔ **Adaptable** (maintaining effectiveness when experiencing major changes in the work environment; adjusting effectively to work within new work structures, systems, processes, requirements, or cultures)

✔ **Team work and collaboration** (fostering team work, working toward solutions which generally benefit all involved parties, developing and using collaborative relationships to facilitate the accomplishment of goals)

✔ **Leverage technology** (seeks out ways to employ technology to optimise organisational and individual research performance)

✔ **Nurture innovation** (applies original thinking to job responsibilities to improve processes, methods, systems, or services)

TRANSFERABLE (CROSS-CUTTING) COMPETENCIES AT ADMINISTRATIVE/ OPERATIONAL LEVEL

- ☑ **Data gathering and analysis** (knowledge of appropriate data collection policy and procedures, filing systems, data management systems, and programs; ability to compile, assimilate, organise, and store research related information.

- ☑ **Project/programme administration** (facilitating, reporting and analysing projects under supervision of a manager)

- ☑ **Follow-up** (communicating time frames, get feedback, ensure that deadlines are met)

6

TRANSFERABLE (CROSS-CUTTING) COMPETENCIES AT **MANAGEMENT LEVEL**

☑ **Facilitate change** (encouraging others to seek opportunities for different and innovative approaches to addressing problems and opportunities, facilitating the implementation and acceptance of change within the workplace)

☑ **Build teams** (using appropriate methods and a flexible interpersonal style to help build a cohesive team, facilitating the completion of team goals, identifying opportunities and taking action to build strategic relationships within and external to the organisation)

☑ **Project management** (ability to provide oversight for project(s) and all related activities including quality assurance, manage facilities, equipment, supplies and related resources, set tasks and activities associated with an intended outcome and timeline)

☑ **Training and development** (promote continuous development of own and others' skills, identifies skill areas to be developed and translates them into measurable goals, for self and others, providing guidance and feedback to assist development of others)

☑ **Management acumen** (effectively manage people, resources, and risk, utilises and manages people, technology, legal and other resources to achieve outcomes, identifies current and future resource needs based on organisational research goals, priorities, competing resource needs across initiatives, and budget realities)

TRANSFERABLE (CROSS-CUTTING) COMPETENCIES AT LEADERSHIP/ STRATEGIC LEVEL

✓ **Navigate the research environment** (be aware of and act in accordance with research related regulations, demonstrate diplomacy and political astuteness, assess situations and optimise actions within the context).

✓ **Influence and gain commitment** (using appropriate interpersonal styles and techniques to gain acceptance of ideas or plans or getting others to commit to goal, asserts own ideas and persuades others, gaining support and commitment from others; mobilises people to take action, using creative approaches to motivate others to meet research goals).

✓ **Strategic decision making** (translating vision into an action plan and measurable results, accomplish a goal or vision after developing alternatives based on logical assumptions, facts, available resources, constraints, and organisational values)

✓ **Develop people and manage talent** (planning and supporting the development of individuals' skills and abilities so that they can fulfil current or future job/role responsibilities more effectively, focuses on analysing areas for improvement and enhancing areas of strength to assist others in reaching their full potential, creates a continuous learning and development environment)

✓ **Motivate and inspire others** (motivate others to achieve organisational research goals, act as a role model, inspires others' commitment to their work and organisational excellence)

✓ **Partner and network** (seeking strategic alliances, maintaining working relationships and/or networks to further the organization's research goals, strengthening relationships within teams and recognizing and cultivating strategic linkages between groups)

✓ **Vision, strategic thinking and innovation** (questioning conventional approaches, using intuition, experimenting and developing fresh perspectives to resolve challenges with innovative solutions or services, improving performance by employing forward thinking and doing new things, developing and inspiring commitment to a vision of success; supporting, promoting and ensuring alignment with organisation's research mission and values)

✓ **Act as ambassador for the organisation** (creating a good first impression, commanding attention and respect, showing an air of confidence, keeping the organisation's research vision and values at the forefront of decision-making and action)

8

KEY COMPETENCY AREA 1

ORGANISATION AND DELIVERY OF A RESEARCH MANAGEMENT SERVICE

Organise, structure, manage, monitor and review a research support function

Sub-Area: Organising, structuring and managing the research management function		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Locate sector practices and policies • Understand the research process • Plan and organise • Work in a team • Network within the organisation	• Translate sector practices and policies • Interpret the requirements and conditions for research development and support • Facilitate a research management service that are aligned with organisational needs and strategy and formulating strategies for development and growth of the research management service • Contribute to an organisational culture where research management service is respected and valued • Manage teams • Persuasive communication • Identify and develop talent within the research management function • Build networks and relationships (including building networks in the intra-organisational context between the research management service and departments/units where the research is performed and with other support functions)	• Design evidence-based strategies for the research management service • Create an organisational culture where research management service is respected and valued • Resource the research management service • Establish focus (aligns staff and other resources consistent with the organisational research vision and objectives) • Mentor research management staff (helps others to acquire awareness, confidence and resources necessary to fulfil their potential • Creates an environment where staff consistently push to improve team performance and productivity

Sub-Area: Organising, structuring and managing the research management function		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
	• Report on research development within the context of organisational strategic frameworks as well as the larger context of local, regional and global trends • Identify and implement new technologies, techniques and working methods	

Sub-Area: Monitor and review a research management function		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Gather information from a variety of sources • Identify connections and patterns in information/data	• Identify and formulate key performance indicators for the research management service • Benchmark the research management service • Interpret management information that measures performance of a research management service against the organisational research strategy • Interpret complex sets of information, identify gaps and work and engage consciously with assumptions	• Monitor the external environment and respond effectively • Formulate research management service standards

KEY COMPETENCY AREA 2

RESEARCH PLANNING, STRATEGY AND POLICY DEVELOPMENT

Facilitate and support the development, implementation, monitoring and evaluation of research policy and strategy across the competency areas

Sub-Area: Facilitate and support the development and implementation of research policy and strategy		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Understand the research process • Contribute to team efforts in a proactive manner • Familiar with the project management cycle • Collect and examine (mine) data for research management intelligence • Apply organisational research management governance • Administration of research incentives, benchmarks and initiatives	• Demonstrate knowledge of the full research cycle • Interpret and translate policy for research management • Apply knowledge of the full programme and project management cycle (including operational plans and implementation, budgeting for strategy implementation and monitoring, evaluation and reporting back into improving and enhancing the project management cycle) • Plan for differentiated stakeholder groups (thematic and sectoral) • Identify best practice for policy, legislative, strategic and sectoral frameworks • Interpret, translate and adapt research management governance • Convince organisational stakeholder of strategic objective and invite action • Apply and manage research incentives, benchmarks and initiatives	• Translate requirements for the full research cycle • Scan the environment to assess the impact of trends in the research environment • Interpret and translate policy in the research and innovation sector • Respond to differentiated thematic and sectoral stakeholder interests • Develop strategies and policies to maximise the organisation's research portfolio and its ability to exploit research outcomes • Foster a public and international profile of organisational research • Exercise influence on agenda setting for policy development (national, perhaps regional and international)

Sub-Area: Facilitate and support the development and implementation of research policy and strategy		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
	• Demonstrate knowledge of systems and processes within the research and innovation value chain • Contribute to planning for and oversight of research facilities and infrastructure	• Make strategic decisions within research planning, strategy and policy • Initiate research incentives, benchmarks and initiatives

Sub-Area: Monitoring and evaluation of research policy and strategy		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Aligns with desired outcome of organisational research strategy • Operate processes and systems to collect data for monitoring and evaluation • Familiar with bibliometrics and other evaluation measures	• Manage quality assurance and benchmarking • Apply knowledge of the full programme and project management cycle (include operational plans and implementation, budgeting for strategy implementation and review) • Interpret data, including metrics for research management intelligence • Monitor progress towards goal achievements, and acts decisively as required • Develop processes or systems for the collection of data for monitoring and evaluation • Demonstrate knowledge of and apply bibliometrics and other impact measures	• Identify and assess risks and ensure mitigation/proactive approaches • Interpret and lead for the full programme and project management cycle • Lead on quality assurance and benchmarking • Assess the impact of external factors on research policy and strategy and lead on the organisational response • Decide on appropriate action based on research management intelligence and impact measures

KEY COMPETENCY AREA 3

RESEARCHER DEVELOPMENT

Support postgraduate student and researcher development across the research pipeline within different organisational settings

LEVEL 1: Administrative/Operational	LEVEL 2: Management	LEVEL 3: Leadership/Strategic
• Understand the career stages of researchers	• Demonstrate knowledge of the full research cycle	• Provide strategic guidance for researcher development
• Establish rapport and build differentiated/ stratified relationships	• Appraise and develop researcher development policies and strategies including (inculcating organisational strategic research priorities into researcher development strategies and developing incentive models)	• Lead organisational researcher development strategies and set targets for researcher development
• Operate induction programmes, placement and other Human Resource processes for researcher development		• Build strategic networks and relationships to achieve objectives for researcher development
• Operate postgraduate systems, processes and procedures	• Develop frameworks to support researchers at different levels of their research careers	• Ensure alignment of researcher development strategies within the wider organisational mandate and benchmark with national and international frameworks
• Structure administrative system for researcher development	• Manage induction programmes, placement and other Human Resource processes within researcher development	
• Guide individuals, at different stages, to navigate the organisational processes	• Scan the environment and capitalise on innovative partnerships for researcher development	• Gain commitment for researcher development strategies, goals, policies and procedures
• Understand research-related databases and/ or search systems and on-line/e-platforms for researcher development	• Benchmark researcher development initiatives and practices and adapt policies and implementation to national, regional and global trends for best practice	• Interpret organisational systems and manage information systems related to researcher development
	• Translate researcher development strategies to organisational strategies (e.g. recruitment of post-graduate/ post-doctoral candidates; stewardship of mutual prospects/ relationships for researcher development)	• Articulate the impact of researcher development strategies and successes

LEVEL 1: Administrative/Operational	LEVEL 2: Management	LEVEL 3: Leadership/Strategic
• Contribute towards sourcing and communication of researcher development opportunities • Collect and collate information on early; midcareer and established career opportunities and relevant requirements. • Administration of researcher development funding opportunities and programmes • Familiar with the full research cycle • Familiar with processes and requirements related to legal/ compliance frameworks in relation to researcher development • Contribute to individual and organisational awareness of the researcher development pipeline (post-graduate, early-;mid-career and established researchers)	• Demonstrate insight in respect of the complexity and diversity of stakeholders related to researcher development (including intelligence and stakeholder mapping, knowledge of opportunities and relevant policies and legislation) • Understand researcher development needs at stratified stages of the cycle and researchers' careers • Mentor for researcher development • Contribute to research culture and advocating around aligned researcher development cultures including researchers being part of strategic networks • Ensure individual and organisational awareness of the researcher development pipeline (post-graduate, early-; midcareer and established researchers) • Manage postgraduate student systems, processes and procedures • Manage the development and delivery of professional development and training to ensure that researchers are equipped for their roles • Monitor and evaluate the impact of researcher development initiatives	• Assess the impact of researcher development • Assure quality of provision and support for postgraduate students

KEY COMPETENCY AREA 4

PARTNERSHIPS AND COLLABORATION

Facilitate and manage national, regional, international partnerships and collaborations to advance research including with research organisations, funders, industry, government and society

LEVEL 1: Administrative/Operational	LEVEL 2: Management	LEVEL 3: Leadership/Strategic
• Familiar with the key stakeholders of the organisation • Familiar with the focus of organisational research teams • Foster existing partnerships and collaborations • Obtain cooperation from others • Recognise the diversity of viewpoints • Represent own area of expertise within the organisation • Operate processes and systems to record partnerships and collaborations	• Identify, facilitate and manage sustainable partnerships and collaborations to advance organisational research priorities • Design strategies and systems for cross-disciplinary, cross-sector and/or cross-organisational collaboration (inclusive of inter-, multiand trans-disciplinarity) • Interpret national, regional and organisational research priorities • Understand legal frameworks and legislation related to research • Understand the relationships between the organization and its stakeholders • Match key stakeholder interests with organisational research interests • Communicate (verbal and written) with diverse stakeholder groups using relevant language • Formulate a partnership value proposition based on organisational research strengths • Understand IP and contractual aspects in partnerships and collaborations • Understand the diversity in partnerships and collaborations • Collaborate with senior management regarding strategy direction for partnerships and collaboration	• Analyse trends in the research environment and create partnership and collaboration opportunities • Create/build and expand networks and partnership opportunities to achieve strategic research goals • Resource partnerships and collaborations • Communicate strategically with partners and collaborators • Negotiate to achieve mutually agreeable outcomes in partnerships and collaborations • Oversee partnerships and collaborations • Consider (balance) complex and diverse stakeholder relationships in the interests of the organisational strategy • Approve and/or sign off on different forms of agreements/ memoranda/declarations and contracts with partners

RESEARCH FUNDING

Identify and disseminate funding opportunities; develop and implement funding optimisation strategies; support the writing of funding proposals, including alignment with stakeholder requirements, budgeting and costing and review; coordination of approvals and submissions (usually associated with pre-award activities)

Sub-Area: Identify and disseminate research funding opportunities and optimise research funding strategies		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Collect and communicate funding opportunities	• Understand the complexity and diversity of stakeholders within research funding	• Align organisational research mission and priorities with funding mobilisation opportunities
• Understand research related databases/ systems and/or search systems and on-line/e-platforms within funding mobilisation	• Understand the national and global research funding landscape and how it relates to the organisational research priorities	• Understand the core business and strategies of major research funders
• Understand organisational strategic research strengths, niches and priorities in relation to funding mobilisation	• Translate legal frameworks for funding mobilisation	• Lead organisational funding mobilisation/research funding strategies
• Train researchers on funding opportunities (including guidelines, requirements and best practice)	• Facilitate opportunities for researchers to participate in strategic panels and funding mobilisation networks	• Build strategic networks and relationships to achieve funding mobilisation strategies
• Clarify researchers' objectives for seeking and proposing funding mobilisation and advising on alignment to resource mobilisation criteria	• Develop and appraise funding mobilisation policies, strategies, processes and procedures	• Ensure the fit of research funding mobilisation within the wider organisational mandate as well as national and international frameworks

KEY COMPETENCY AREA 5

KEY COMPETENCY AREA 5

Sub-Area: Identify and disseminate research funding opportunities and optimise research funding strategies		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Familiar with the full research cycle • Support individual and organisational awareness of the funding mobilisation pipeline (pre-positioning, positioning, proposing/submitting, award stages)	• Identify and manage strategic partnerships for research funding mobilisation • Understand the full research cycle • Anticipate funding needs at differentiated stages of the researcher development pipeline • Ensure individual and organisational awareness of the funding mobilisation pipeline (pre-positioning, positioning, proposing/submitting, award stages) • Facilitate cross-disciplinary, cross-sector and/or crossorganisational collaboration for funding mobilisation • Analyse, synthesise, interpret and use management information for research funding optimisation • Benchmark funding mobilisation best practices • Manage internal funding processes and awards to optimise external funding mobilisation • Optimise income through cost recovery and administrative costs	• Secure and maintain a balanced and diversified funding portfolio in order to secure strategic, sustainable and predictable organisational funding inclusive of third stream income • Monitor research funding trends and intelligence • Design financial and other incentives/research income allocation models to promote excellence and delivery against strategies • Endorse and articulate the impact of funding mobilisation on organisational successes and strategies

KEY COMPETENCY AREA 5

Sub-Area: Developing, approving and submitting research funding proposals		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Advise on compliant narrative and budget proposal components • Contribute to and conduct training and development programmes for grant proposal writing • Understand intellectual property rights and its management within the organisation at a basic level • Develop templates/exemplar text to facilitate consistency in approach in common areas of grant proposals • Understand the project management cycle: from pre-award to post-award stages • Facilitate discussions on grant formulation and writing skills • Support the development and submission of compliant grant proposals • Collect and collate data in respect of prospective, current and past research funding opportunities, relationships, requirements and best practices • Operate research funding mobilisation and project/ programme tracking systems	• Advise on narrative, budget compliance and collaborations in grant proposals • Strategic science communication • Develop and manage training and development programmes for grant proposal writing • Understand intellectual property rights and its management within the organisation • Translate legal and regulatory frameworks for research funding mobilisation • Negotiate and manage relationships (organisational and external) for research funding mobilisation • Manage the development and submission of compliant grant proposals • Manage finances and audit requirements (due diligence, procurement, cost accounting, budgeting, full and shared-cost models, organisational policies and cost rates; audit preparation and compliance) • Manage data bases and repository of reference material concerning funding applications and promoting data-bases and repository to stakeholders	• Lead strategic and large research funding mobilisation projects/programmes • Select, coordinate and mobilise organisational staff to respond to large, prestigious funding calls • Articulate research funding mobilisation strategies, goals, policies and procedures in relation to organisational strategies • Set standards and targets for grant proposal submissions • Ensure the fit of funded research within the wider organisational mandates as well as national and international frameworks

KEY COMPETENCY AREA 6

RESEARCH ETHICS AND INTEGRITY

Promote, foster and support research ethics and integrity, compliance and responsible research conduct

LEVEL 1: Administrative/Operational	LEVEL 2: Management	LEVEL 3: Leadership/Strategic
• Understand the full research cycle • Familiar with philosophies of research ethics and integrity • Judge acceptable norms of integrity • Administration of research ethics, processes, procedures, systems and records • Support institutional review boards/ethics committees • Support forums for research dissemination and feedback to communities • Administration of research integrity processes and compliance • Operate electronic database and information system	• Demonstrate knowledge of the full research cycle • Understand legal frameworks and compliance for research ethics and compliance including the registration of research ethics committees • Oversee the formulation of ethical principles and an organisational code of conduct • Oversee research compliance • Contribute to the development of research ethics and integrity policy and procedures • Oversee institutional review board/ethics committee functioning • Identify and interpret trends for ethics and research • Understand global bioethics challenges and the implementation of policies and procedures to address the challenges	• Interpret international codes and practices in research integrity • Keep oversight of research ethics and governance processes and systems • Set the tone for the organisational culture of research ethics and integrity • Ensure organisational and societal learning • Make decisions on research ethics and integrity considering issues from all relevant perspectives • Foster and implement codes of conduct and integrity in research • Lead organisational specialist committees dealing with research compliance, misconduct and breaches of research integrity • Institutionalise policies and procedures to ensure international codes and practices in research ethics and integrity

LEVEL 1: Administrative/Operational	LEVEL 2: Management	LEVEL 3: Leadership/Strategic
• Familiar with legal frameworks and compliance for research ethics and integrity • Operate education and training for research ethics and integrity	• Participate in investigations/allegations of research misconduct • Establish systems for management and administration of ethics • Understand ethical requirements in research • Assess the likelihood of a course of action leading to a breach of ethics and plan courses of action • Advise researchers and research management staff on research ethics and integrity • Develop forums for research dissemination and feedback to communities • Understand legal frameworks and compliance for research ethics • Foster a sense of ethics and service in the organisational research community • Establish education and training opportunities for ethics and integrity • Understand IP rights and organisational structures to support protection of IP	

KEY COMPETENCY AREA 6

KEY COMPETENCY AREA 7

MANAGING FUNDED RESEARCH

Research contracts negotiation and management; research financial management; funder/sponsor engagement and liaison; research project management (usually associated with post-award activities)

Sub-Area: Research contracts negotiation and management		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Familiar with insurance and acceptable liabilities • Administration of research contracts • Administration of systems and processes for research contract management • Administration of procurement processes and entry-level contracting • Operate data-bases and repositories on funded research • Develop templates/exemplar text to facilitate consistency in approach in common areas of reporting on funded research	• Understand insurance and acceptable liabilities in research contracts • Understand types of contracts, clauses and implications • Understand intellectual property rights and its management within the organisation • Monitor and track legal and regulatory frameworks and practices relevant to research contracting • Interpret organisational and partner strategic position and requirements • Develop and manage procurement-to-post-contracting systems and processes • Develop and manage training for research financial and project management • Encourage awareness of the funded research cycle including awards, relationship-building, contracting, implementation and closure stages • Use technology for research grants management and oversight • Manage knowledge for funded research • Manage statutory requirements (taxes, IP, environmental etc.) for funded research projects	• Consider (balance) complex and diverse stakeholder relationships in the interests of the organisational strategy • Resolve conflict and manage relationships in research funding agreements • Guide and align organisational research objectives with those of funding partners • Oversee research funding agreements • Maintain a balanced and diversified funding portfolio to secure strategic and sustainable research funding • Mobilise organisational staff to manage large, prestigious funded projects to attract repeat funding

KEY COMPETENCY AREA 7

Sub-Area: Research contracts negotiation and management		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
	• Monitor the organisational portfolio of funded research to identify shifts in funder/partnership types and to assess risks • Manage risk assessment and mitigation for funded research partnerships • Benchmark and share good practice in the management of funded research	

Sub-Area: Research financial and project management		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Understand the full funded project management cycle: from pre-award to post-award stages • Familiar with the full research cycle • Operate financial systems, processes and procedures • Advise on post-award administration of research grants • Support training on post-award management of research grants • Collect and collate data on funded research	• Benchmark and implement good research financial and project management practices • Understand exchange rate implications for projects/programmes funded from international sources • Understand the full project/programme management cycle • Formulate and manage policies, procedures and practices for managing funded research • Build and maintain relationships: funding partners, research partners, organisational stakeholders • Co-develop and manage project finance systems and processes: post-award	• Oversee the risk assessment and management framework for funded research • Articulate and reward key performance indicators/metrics for managing funded research • Lead organisational policies and strategies for management of funded research and strategic stakeholder networking and relationships to achieve the strategies • Approve resource allocations for funded research including recruit/extend staff appointments; largescale material and equipment; other research infrastructure • Assess strategies/programmes and project management needs for high-value multi-partner high risk projects • Develop and oversee policies, structures and processes to manage complex, multi-party, multi-product research funded contracts and/or programmes/projects

KEY COMPETENCY AREA 8

RESEARCH DATA AND RESEARCH INFORMATION MANAGEMENT

Develop research data management plans and support systems; databases and information systems; research data management; reporting

LEVEL 1: Administrative/Operational	LEVEL 2: Management	LEVEL 3: Leadership/Strategic
• Operate management information systems • Familiar with data processes and practices • Administration of systems and data for audit purposes • Understanding of research information and its application at a basic level • Understand research-related databases, search systems and on-line/e-platforms across the spectrum of research management for complex research/organisational needs • Collect, verify and examine (mine) data • Support awareness-raising and training for research data and information management	• Analytical and adaptive technological skills including data mining and manipulation, statistical analysis, knowledge of visualisation tools, knowledge of intellectual property of databases and software packages, basic IT system knowledge, interpreting and understanding research information • Evaluate current and new management information systems including benchmarking • Monitor systems and processes for accuracy of data • Manage research related databases; search systems and online/ e-platforms across spectrum of research management • Ensure understanding of management information needs by all organisational systems owners • Manage specialised equipment that generate/leverage large electronic datasets	• Lead on and make strategic decisions based on management information • Oversee research-related databases, search systems and on-line/e-platforms across the spectrum of research management for complex research/organisational needs • Govern integration of research data and information management systems with other organisational systems and information • Modify organisational strategy to adapt to changes in the wider research data and information management environment • Build and ensure a culture of data and accountability • Ensure the transformation of data for strategic and higher level operational metrics

LEVEL 1: Administrative/Operational	LEVEL 2: Management	LEVEL 3: Leadership/Strategic
• Operate data-bases and -repositories • Assist with all forms of electronic requirements for research • Contribute to the interpretation of data for research and stakeholder purposes • Understand ethical and integrity issues related to research data and information management • Support individual and organisational awareness of research data and research information • Familiar with legal and regulatory frameworks for research data and information management • Provide management assistance with electronic requirements in research	• Collaborate with ICT specialists and business analysts and other expertise and oversee data and information management for research • Contribute to consultations and policy development for research data and information management • Contribute to research data and information management strategies, processes and procedures • Manage compliance of research data and information including understanding of relevant policies and legislation • Ensure individual and organisational awareness of research data and information management • Manage data bases and repositories • Facilitate researchers/stakeholder relationships for the benefit of research data and information management • Provide management assistance with electronic requirements in research • Manage the interpretation and translation of data for research and stakeholder purposes • Apply bibliometric and scientometric tools and techniques	• Use, and encourage the use, of management information system(s) to make sound, evidencebased decisions that feed into effective organisational policy and strategy • Provide strategic contributions to report commentaries - analysis, forecasts etc. • Lead research data and information management strategies and strategic stakeholder networking and relationships to achieve the strategies • Build strong relationships between various research support services and other professional services • Ensure the fit of research data and information management within the wider organisational mandate as well as national and international frameworks • Understand and interpret indicators for organisational research success • Apply bibliometric and scientometric tools and techniques

KEY COMPETENCY AREA 8

KEY COMPETENCY AREA 9

RESEARCH UPTAKE, UTILISATION AND IMPACT

Dissemination and communication of research; knowledge transfer; business development; measuring and demonstrating research impact

Sub-Area: Dissemination and communication of research		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Arrange seminars, workshops, training and other events for dissemination of research results • Use technology to support science dissemination and communication • Capture, store, retrieve and disseminate research outcomes and impact • Support opportunities for research dissemination and public engagement • Support training for dissemination and public engagement • Familiar with dissemination approaches and tools including Open Access, social media etc	• Communicate research and its outcomes and impact to various stakeholder groups using appropriate approaches and tools • Create opportunities for research dissemination and public engagement including opportunities for researchers to engage with policy makers • Contribute to policies and strategies related to research uptake, utilisation and impact • Facilitate and encourage networking and partnerships with external and internal stakeholders for science communication and public engagement • Mentor on dissemination/public engagement for researchers at all career stages • Ensure compliance in science communication and public engagement • Understand and interpret the implications of publishing approaches (e.g. open access) and licensing options (e.g. creative commons)	• Lead on policies and strategies related to research uptake, utilisation and impact • Design and implement processes and systems for effective knowledge information dissemination • Position organisational research in socio-learning spaces • Build bridges between the organisation, funders, policy makers and society in general • Ensure that researchers and other staff are trained in effective dissemination and science communication

Sub-Area: Knowledge transfer, including technology transfer and uptake, and business development		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Familiar with organisational priorities for technology transfer • Contribute to identify research proposals and current research projects that have outputs that could potentially be commercialised • Contribute to identify useful IP in research outputs • Collaborate with and support other research and knowledge transfer professionals across the organisation • Understand the funding landscape across the research and innovation value chain • Understand intellectual property and its management at a basic level • Familiar with knowledge transfer approaches • Understand organisational structures and processes for knowledge transfer • Familiar with contracts (e.g. due diligence)	• Develop incentive for research uptake • Facilitate networks between researchers and different stakeholder groups including policy makers, industry, communities • Interpret relevant policy and strategies • Understand organisational priorities for technology transfer • Understand intellectual property rights and its management • Understand regulatory frameworks related to intellectual property and commercialisation • Formulate strategies for needs based research • Facilitate collaboration/engagement with organisational structures and processes for knowledge transfer • Supporting training for knowledge transfer • Build partnerships for implementation of research results • Understand business development strategies • Understand contracts • Support strategic partnerships for research uptake and utilisation	• Negotiate complex agreements with counterparts in external organisations • Maintain and strengthen existing relationships with strategic partners to increase the impact of organisational inventions in society • Devise organisational structures and processes for knowledge transfer • Ensure training of staff on knowledge management • Lead on policies and strategies related to research uptake, utilisation and impact • Analyse and interpret business development strategies • Build strategic partnerships for effective research uptake, utilisation and impact

KEY COMPETENCY AREA 9

KEY COMPETENCY AREA 9

Sub-Area: Monitor and measure impact of research		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
• Understand the organisational objectives for research outcome/impact	• Contribute to the formulation of organisational objectives for research outcome/impact	• Make key decisions for strategic research impact
• Support processes to collate and publish research outputs	• Monitor progress towards goal achievements, and acts decisively when progress is stalling	• Review the impact of research related strategies
• Administration of research output processes and systems	• Develop processes to support the collation and publication of research outputs	• Develop systems to continuously monitor the quality of work outputs and processes
• Support strategies to increase research uptake, utilisation and impact	• Develop research output processes and systems	• Resource strategies to increase research uptake, utilisation and impact
• Familiar with bibliometrics and other impact measures	• Formulate strategies to increase research uptake, utilisation and impact	• Make decisions based on bibliometrics and other impact measures
• Support networking with external and internal stakeholders	• Apply bibliometrics and other impact measures and interpret the data	• Lead the formulation of strategies to increase research uptake
	• Maintain an overview of research outputs and monitor organisational impact and performance	
	• Identify the relevance of research to society	
	• Collaborate with multiple disciplines and cross-functional teams	

Sub-Area: Monitor and measure impact of research		
LEVEL 1: Administrative/Operational	**LEVEL 2: Management**	**LEVEL 3: Leadership/Strategic**
	• Understand the levels of evaluations, purposes of research evaluation, key methods of research evaluation including evaluative bibliometric • Understand the challenges of bibliometric data sources and the use of evaluative bibliomentics within a particular context • Understand approaches to measurement of social impact of research including theories of social impact assessment, analytical frameworks, challenges in the interpretation of impact assessment data	

KEY COMPETENCY AREA 9

NOTES

SARIMA

PostNet Suite 310
Private Bag X25,
Lynnwood Ridge
Pretoria, 0040

t | 00 27 (0) 21 813 6467
e | sarima@sarima.co.za
w | www.sarima.co.za