



## **SCIENCE GRANTING COUNCIL INITIATIVE**

### **Objective 1 : Building Sustainable Research Management in Science Granting Councils in Sub-Saharan Africa. (SRMinSGC)**

## **CAPACITY BUILDING NEEDS ASSESSMENT SURVEY**

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## EXECUTIVE SUMMARY

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The Needs Assessment Survey has been conducted in the period July to December 2016. Every Science Granting Council has participated. The survey process has been conducted by way of a questionnaire compiled by the CREST research team in consultation with partners and with input from the SGC Co-ordinators. Each SGC, at their request, has conducted an internal process of needs identification, the results of which have been the raw data from which the report has been compiled. The survey has been conducted digitally, with communication between the research team and respondents, where necessary, being undertaken by email, phone and Skype.

The data has been validated by each SGC. With the benefit of more knowledge about the training to be offered some SGCs have adjusted their data to better represent the final number of nominations and detailed needs by competence or knowledge area.

The survey process has confirmed the preliminary assessment made by the CREST team earlier in 2016, and in a prior study conducted in 2014, that the SGCs vary in size, maturity, mandate and resources. These differences are reflected in the SGCs training needs identification.

The SGCs were requested to identify staff and to nominate them for training in different knowledge areas. The total current number of nominees is one hundred and ninety one (191).

The gender representation is 42% female/58% male. This profile is somewhat mirrored in the gender representation by SGC, though there are SGCs that have nominated only males. No SGC has nominated only females.

The aggregated datasets provided by each SGC cover three main topic areas: assessment of current competencies that are important and assessment of desired competencies on thirteen factors; and assessment of important knowledge areas for capacity building and training across twenty seven areas. SGCs were requested to identify additional competencies that are currently useful and additional competencies and knowledge areas that would be desirable for staff to acquire.

The survey results reveal that there is a strong positive correlation between the competencies that are currently important and those that are identified as desirable for the SGCs improved organizational efficiency and effectiveness.

The analysis of the demand for and relative importance of knowledge areas revealed that all knowledge areas identified in the survey are relevant and applicable. Highest demand for training courses was over 90% while lowest demand was over 50%.

The average number of persons nominated for each course is around 100 persons per course.

The analysis of the demand by individuals for all twenty seven knowledge areas reveals that there training needs for which there is high demand when ranked by comparative importance<sup>1</sup>, for example *Risk Managements at SGCs* and *Research Impact Assessment* but *The History of Science Policy in Africa* is ranked as least important.

However, when the SGCs were requested to identify the three top priority areas, by SGC, analysis of the aggregated responses reveal that none of the above are rated as the most important areas for knowledge

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<sup>1</sup> Table: Ranking of Knowledge Areas

acquisition, and a different set of priorities are identified. Four areas are rated by three or more SGCs as their highest priority areas.

- a. Research impact assessment: assessing the impact of research projects
- b. Advanced training in M&E and performance management
- c. Basic and advanced training in research management
- d. (Basic and ) advanced training in grants management.

The SGCs were asked to identify their favoured delivery modes from a list of nine options. The aggregated results display a preference for the certificated delivery methods, namely the post-graduate level certificate in Research Management offered by CREST, University of Stellenbosch and the experiential and prior learning recognition certificate offer by African Research and Innovation Management Associations. A collegial learning mode is preferred with learning events taking place in-house and regionally. Learning among and between the SGCs is favoured. The preference for webinars is low.

The interim findings outlined above suggest that close attention should be given in the next phase of the project to designing the detail of the training programme and the curriculum. A simple mechanistic choice of ranked priority areas as these have emerged from the needs assessment study assumes that the current list of twenty seven priority knowledge areas are clearly demarcated and independent of each other. However a better way of assessing the list of knowledge areas and competencies is to “cluster’ the topics with different degrees of overlap and gradations of complexity between them.

The next step in Phase 1 should involve a systematic process of unpacking the contents of each knowledge area in order to then identify the ways in which clusters of topics could be reconfigured to provide content that is customized for the SGCs. The articulation of the contents should determine the differences between “basic” and “advanced” courses and should consider how the SGCs’ input with respect to additional desired competences and additional knowledge areas can be incorporated.

## CONTEXT

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In 2015 CREST undertook a preliminary needs assessment of the capacity building needs of African Science Granting Councils (SGCs). The results presented at a meeting in Germany in 2015 showed a range of characteristics; varying legal identities and governance frameworks varying from independent to being a department within a government ministry or national council, varying organizational structures revealing that the staffing numbers vary from less than five to more than fifty. A prominent feature of the context in which the SGCs operate is inadequate funding availability. Management of the research system of their country is severely constrained by lack of funds to support projects that will result in peer-reviewed academic papers, or more importantly for the SGCs, project evidence that provides results and innovations that contribute to national development goals.

Phase 1 of the SGCI Initiative Capacity Building Needs Analysis commenced in July 2016 with a call to all SGCs for core organizational documentation to supplement CREST's 2015 preliminary assessment. The documentation confirmed the 2015 assessment but there are some changes; for example Kenya has now passed into law the establishment of the the Kenyan National Research Foundation as a separate legal entity from the National Science and Technology Council. Similarly, Ethiopia has now established a National Research Foundation with a dedicated staff complement, but within the Ministry of Science and Technology. The Tanzanian SGC, though mature and the largest in current staff numbers, is hiring a new cohort of staff who will require basic training. In short, there are wide variations in capacity, maturity and mandate between the SGCs that are expected to be illustrated in differing capacity strengthening needs.

# METHODOLOGY AND PROCESS

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The purpose of the survey is to ascertain what the training and capacity-building needs are of key staff at the science granting councils in African countries. The information supplied by each SGC has provided a detailed view of their needs, of the needs across the SGC sector, and a fairly detailed view of the types of training and delivery modes most in demand.

The needs assessment questionnaire design process has been iterative. The first draft of the Needs Assessment Survey was circulated to implementing partners at the beginning of August, ahead of the SGC meeting in Kigali in mid-August. A CREST representative was present at the Kigali meeting. At the Kigali event there was consultation with the SGCs in two short plenary sessions and the SGC delegates had the opportunity to study the questionnaire overnight. As a result of SGC input in the second plenary session the modus operandi for collecting the data was altered from individual responses to the questionnaire administered online by CREST, to an organizational response administered internally within each SGC. It was deemed that aggregated data per SGC would be sufficiently detailed to provide for analysis, by SGC and across the SGCs. The SGCs also requested that the questionnaire should be translated into French and Portuguese for SGCs in Francophone and Lusophone countries.

While revising the questionnaire, further input with regard to the selection of the competency and knowledge areas, the desired delivery modes, and elaboration of gender data requirements was given by the implementing partners and incorporated. The revised questionnaire was circulated to the implementing partners for further comment and the agreed questionnaire was then translated. The Needs Assessment Survey was emailed to each SGC (Head of Research Council, Senior Co-ordinator and Deputy Co-ordinator on 15<sup>th</sup> September, with a return date of 28<sup>th</sup> September. During the week of 28<sup>th</sup> September those SGCs that had not yet responded were given until Friday 30<sup>th</sup> September (with a final deadline of Monday 3<sup>rd</sup> October). The first draft of the findings were compiled without the data of three of the SGCs. At the meeting of SGC Co-ordinators in Johannesburg in October a detailed presentation and commentary on the results was given to the SGC Co-ordinators by Professor Johann Mouton.

During the Johannesburg meeting several of the SGCs requested amendments to their submissions and those SGCs that had not yet submitted undertook to do so on their return to their offices, where they could engage their colleagues in consultation. It was recommended that the data is to be validated by each SGC, and in this final report is updated in the light of their deeper understanding of how their SGC needs.

The data-gathering was undertaken by each SGC's Co-ordinators in consultation with their SGC CEO and their SGC Human Resources division. While voluntary, many of the SGCs evidently interviewed staff and have created individualised training plans. Some SGCs submitted individuals' plans, all of which provide very detailed information for the survey, while being a basis for the SGCs to monitor the implementation of their human resources training by setting baseline and enhanced competency and knowledge outcomes.

In order to establish priority areas for training in this programme, the SGCs were asked to identify and rate the desired competency and knowledge areas that would be most likely to increase organizational capacity. The survey identified 13 competency areas (with a further 10 areas newly identified by the SGCs) and 27 knowledge areas (with a further 1 newly identified by the SGCs).

The information in this report is aggregated in order to establish the demand for courses, the prioritization of course delivery and the favoured delivery methods. The detailed data by SGC is also presented.



# SGC PROFILES – NUMBERS NOMINATED – BY COUNTRY

## Number of staff nominated for training

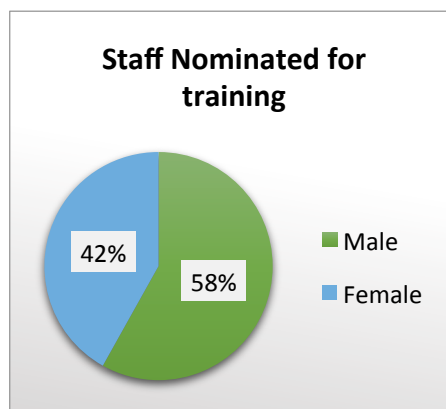
The number of staff members identified for training varies widely across the SGCs, varying from less than ten to thirty. One hundred and ninety-one persons have been nominated to participate in the capacity-building programme.

### GENDER PROFILE

Of the 191 persons eighty are female and one hundred and eleven are male. The aggregated gender data across all SGCs shown in the chart below showing a ratio of 42% to 58% is somewhat indicative of the ratios within each SGC.

The data is linked to post descriptions. Information was not elicited to identify the relative seniority of individuals' posts, by gender.

Country	Total	Male	Female
Botswana	5	5	0
Burkina Faso	9	7	2
Cote d'Ivoire	6	3	3
Ethiopia	15	10	5
Ghana	18	11	7
Kenya	3	1	2
Malawi	11	10	1
Mozambique	13	7	6
Namibia	10	5	5
Rwanda	11	3	8
Senegal	6	2	4
Tanzania	21	11	10
Uganda	22	16	6
Zambia	30	14	16
Zimbabwe	11	6	5
<b>Total</b>	<b>191</b>	<b>111</b>	<b>80</b>



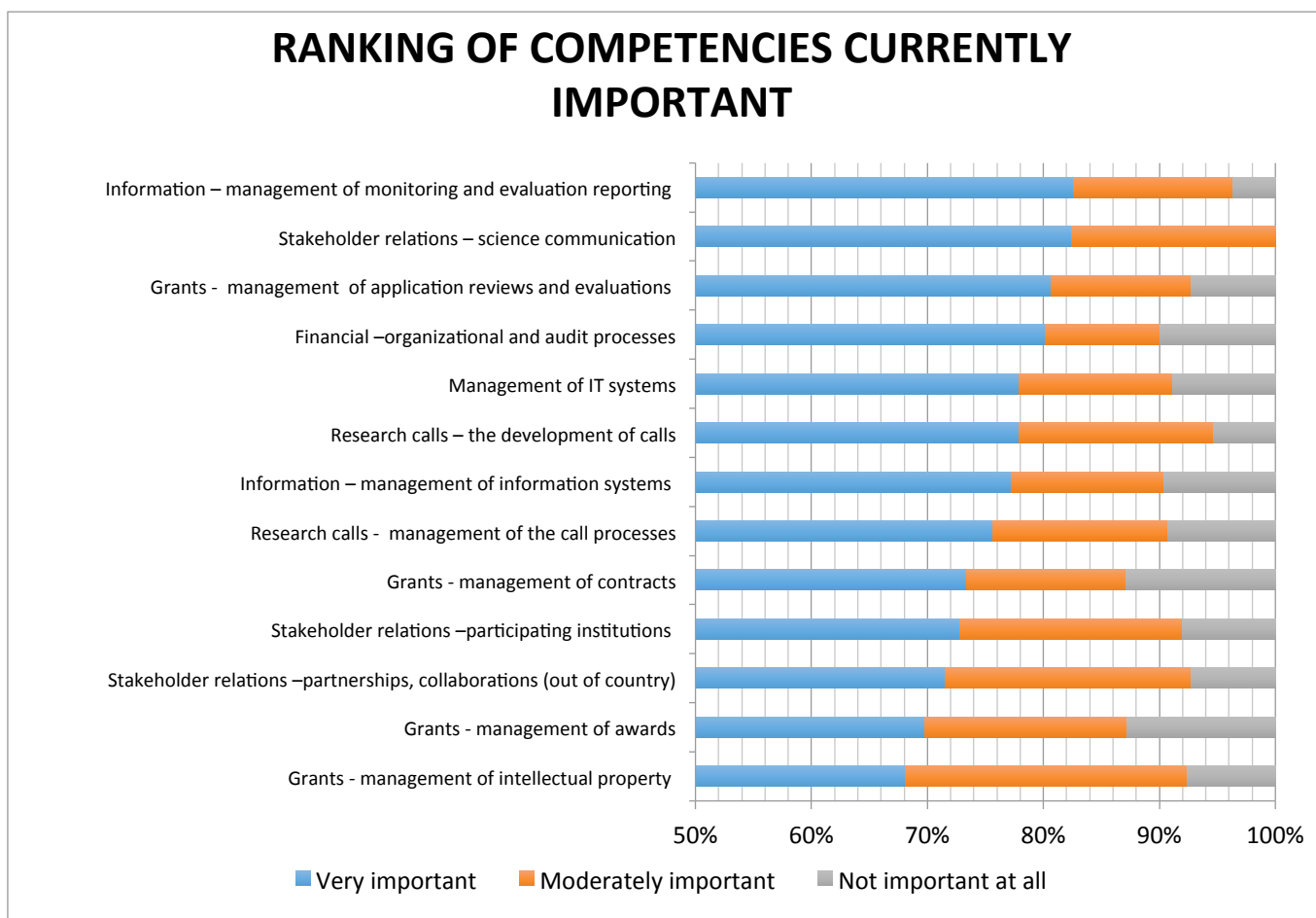
# CURRENT COMPETENCIES

## RANKING OF COMPETENCIES CURRENTLY IMPORTANT

Each SGC needs evaluations team undertook an internal review of the current competencies that their staff have and need.

The aggregated responses show that all thirteen competencies are rated important with the most important – *information – management of monitoring and evaluation reporting* - rated at 80% and the least important Grants – *management of contracts* is ranked at 68%.

When ranked by the combined Important and Moderately Important responses, all thirteen competencies rate at between 100% and 86%.



## NUMBER OF STAFF REPORTING COMPETENCIES THAT ARE IMPORTANT FOR THEIR CURRENT POSITION

The responses indicate that the results capture a significant range of competencies needed by the SGC staff nominated for training. The numbers below are derived from responses reporting the competence as Important or Moderately Important. The response does not capture the level of detail that would reveal whether the competencies are linked directly to posts that require particular professional or specialist skills. The job descriptions submitted provide a view that many staff have a science qualification, and have moved into managerial positions.

The results indicate that currently staff feel most competent about two areas of managing stakeholder relations, with participating institutions in country and partnerships and collaborations out of country, but interestingly least competent about another area of stakeholder relations, science communication and public awareness.

CURRENT COMPETENCIES	NUMBER OF STAFF REPORTING COMPETENT
Stakeholder relations –participating institutions (in country)	138
Stakeholder relations –partnerships, collaborations (out of country)	134
Information – management of monitoring and evaluation reporting (progress reports, research performance, publications and uptake.	128
Grants - management of contracts/conditions of grants/other grant agreements	126
Grants - management of application reviews and evaluations including screening, appointment of panels/evaluation processes/ appeals processes	124
Research calls - management of the call processes (including budgets)	123
Grants - management of intellectual property rights and licensing.	120
Stakeholder relations –participating institutions (in country)	117
Grants - management of awards, payments and expenditures.	115
Information – management of information systems (grant calls, awards, reviews, closeouts and archiving)	112
Financial –organizational and audit processes	108
Information – technical management of IT systems and infrastructure	98
Stakeholder relations – science communication, public awareness	36

These are the aggregated responses across all SGCs. N= 191

## LISTING OF ADDITIONAL CURRENT COMPETENCY AREAS

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SGCS were asked to identify additional current competencies that are core to the outputs of their SGC. The list is interesting because it identifies expertise and competencies that can possibly be incorporated into knowledge area content, if not already in the curriculum.

<b>OTHER CURRENT COMPETENCIES IDENTIFIED BY SGCS</b>
Assessment of research ethics
Economic impact assessment
Gender mainstreaming in R&D
Technology transfer, spinoffs and entrepreneurship
Cleaner production technologies
Development of STI indicators
Website development and management
Database management
Knowledge translation and open access
Open research data
Copyright and licensing
Proposal writing
Équité dans le recherche
Approche genre
Sélection des axes prioritaires de recherche
STI indicator development
Research prioritisation
Ranking of researchers

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## COMPETENCIES CURRENTLY IMPORTANT TO STAFF – COUNTRY RATINGS BY SGC

This set of detailed data illustrates the importance attributed to each of the thirteen competency areas, by each country SGC.

### RESEARCH CALLS – THE DEVELOPMENT OF CALLS/CLUSTERS OF CALLS

COUNTRY	Very important	Moderately important	Not important at all
BOTSWANA	1	1	0
BURKINA FASO	2	1	6
COTE D'VOIRE	3	3	0
ETHIOPIA	15	0	0
GHANA	5	0	0
KENYA	3	0	0
MALAWI	5	3	0
MOZAMBIQUE	10	3	0
NAMIBIA	7	0	0
RWANDA	3	3	0
SENEGAL	6	0	0
TANZANIA	12	0	0
UGANDA	3	7	0
ZAMBIA	15	0	0
ZIMBABWE	11	0	0
<b>TOTAL</b>	<b>101</b>	<b>21</b>	<b>6</b>

### RESEARCH CALLS - MANAGEMENT OF THE CALL PROCESSES (INCLUDING BUDGETS)

COUNTRY	Very important	Moderately important	Not important at all
BOTSWANA	2	1	0
BURKINA FASO	2	0	6
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	6	0	0
KENYA	3	0	0
MALAWI	5	4	0
MOZAMBIQUE	6	2	5
NAMIBIA	7	0	
RWANDA	3	4	0
SENEGAL	6	0	0
TANZANIA	12	0	0
UGANDA	5	9	0
ZAMBIA	3	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>92</b>	<b>20</b>	<b>11</b>

**GRANTS - MANAGEMENT OF APPLICATION REVIEWS AND EVALUATIONS INCLUDING SCREENING, APPOINTMENT OF PANELS/EVALUATION PROCESSES/ APPEALS PROCESSES**

COUNTRY	Very important	Moderately important	Not important at all
BOTSWANA	1	1	0
BURKINA FASO	2	1	6
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	5	0	0
KENYA	3	0	0
MALAWI	9	2	0
MOZAMBIQUE	6	4	3
NAMIBIA	7	0	0
RWANDA	3	3	0
SENEGAL	4	2	0
TANZANIA	20	0	0
UGANDA	4	3	0
ZAMBIA	3	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>99</b>	<b>16</b>	<b>9</b>

**GRANTS - MANAGEMENT OF CONTRACTS/CONDITIONS OF GRANTS/OTHER GRANT AGREEMENTS**

COUNTRY	Very important	Moderately important	Not important at all
BOTSWANA	2	1	0
BURKINA FASO	1	4	4
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	5	0	0
KENYA	3	0	0
MALAWI	6	4	0
MOZAMBIQUE	6	0	7
NAMIBIA	7	0	0
RWANDA	4	2	0
SENEGAL	6	0	5
TANZANIA	10	0	0
UGANDA	4	7	0
ZAMBIA	6	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>92</b>	<b>18</b>	<b>16</b>

## GRANTS - MANAGEMENT OF INTELLECTUAL PROPERTY RIGHTS AND LICENSING

COUNTRY	Very important	Moderately important	Not important at all
BOTSWANA	2	1	1
BURKINA FASO	1	0	8
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	5	0	0
KENYA	3	0	0
MALAWI	5	4	0
MOZAMBIQUE	6	7	0
NAMIBIA	7	0	0
RWANDA	4	2	0
SENEGAL	3	3	0
TANZANIA	10	0	0
UGANDA	4	8	0
ZAMBIA	4	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>86</b>	<b>25</b>	<b>9</b>

## GRANTS - MANAGEMENT OF AWARDS, PAYMENTS AND EXPENDITURES

COUNTRY	Very important	Moderately important	Not important at all
BOTSWANA	1	1	1
BURKINA FASO	1	2	6
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	4	0	0
KENYA	3	0	0
MALAWI	6	2	0
MOZAMBIQUE	3	0	10
NAMBIA	7	0	0
RWANDA	4	2	0
SENEGAL	4	0	0
TANZANIA	10	0	0
UGANDA	3	7	0
ZAMBIA	6	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>84</b>	<b>14</b>	<b>17</b>

**INFORMATION – MANAGEMENT OF INFORMATION SYSTEMS (GRANT CALLS, AWARDS, REVIEWS, CLOSEOUTS AND ARCHIVING)**

<b>COUNTRY</b>	<b>Very important</b>	<b>Moderately important</b>	<b>Not important at all</b>
BOTSWANA	4	1	0
BURKINA FASO	1	2	5
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	5	0	0
KENYA	3	0	0
MALAWI	6	3	0
MOZAMBIQUE	8	0	5
NAMIBIA	8	0	0
RWANDA	1	2	0
SENEGAL	5	0	1
TANZANIA	8	0	0
UGANDA	6	7	0
ZAMBIA	2	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>86</b>	<b>15</b>	<b>11</b>

**INFORMATION – MANAGEMENT OF MONITORING AND EVALUATION REPORTING (PROGRESS REPORTS, RESEARCH PERFORMANCE, PUBLICATIONS AND UPTAKE)**

<b>COUNTRY</b>	<b>Very important</b>	<b>Moderately important</b>	<b>Not important at all</b>
BOTSWANA	3	0	0
BURKINA FASO	4	1	4
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	5	0	0
KENYA	3	0	0
MALAWI	8	2	0
MOZAMBIQUE	9	3	0
NAMIBIA	8	0	0
RWANDA	3	2	0
SENEGAL	5	0	1
TANZANIA	15	0	0
UGANDA	6	11	0
ZAMBIA	6	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>104</b>	<b>19</b>	<b>5</b>



## INFORMATION – TECHNICAL MANAGEMENT OF IT SYSTEMS AND INFRASTRUCTURE

COUNTRY	Very important	Moderately important	Not important at all
BOTSWANA	1	0	0
BURKINA FASO	3	1	6
COTE D'VOIRE	4	2	0
ETHIOPIA	15	0	0
GHANA	2	0	0
KENYA	3	0	0
MALAWI	3	5	0
MOZAMBIQUE	9	3	0
NAMIBIA	8	0	0
RWANDA	0	2	0
SENEGAL	3	0	3
TANZANIA	4	0	0
UGANDA	3	5	0
ZAMBIA	2	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>73</b>	<b>16</b>	<b>9</b>

## FINANCIAL – ORGANIZATIONAL AND AUDIT PROCESSES

COUNTRY	Very important	Moderately important	Not important at all
BOTSWANA	1	0	0
BURKINA FASO	3	0	6
COTE D'VOIRE	0	6	0
ETHIOPIA	15	0	0
GHANA	4	0	0
KENYA	3	0	0
MALAWI	2	5	0
MOZAMBIQUE	7	0	6
NAMIBIA	2	0	0
RWANDA	5	2	0
SENEGAL	4	0	0
TANZANIA	10	0	0
UGANDA	7	3	0
ZAMBIA	6	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>80</b>	<b>16</b>	<b>12</b>

## STAKEHOLDER RELATIONS –PARTNERSHIPS, COLLABORATIONS (OUT OF COUNTRY)

COUNTRY	Very important	Moderately important	Not important at all
BOTSWANA	1	2	1
BURKINA FASO	1	3	5
COTE D'VOIRE	3	3	0
ETHIOPIA	15	0	0
GHANA	12	0	0
KENYA	1	6	0
MALAWI	8	2	0
MOZAMBIQUE	9	0	4
NAMIBIA	7	0	0
RWANDA	2	2	0
SENEGAL	4	2	0
TANZANIA	12	0	0
UGANDA	3	11	0
ZAMBIA	4	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>93</b>	<b>31</b>	<b>10</b>

## STAKEHOLDER RELATIONS –PARTICIPATING INSTITUTIONS (IN COUNTRY)

COUNTRY	Very important	Moderately important	Not important at all
BOTSWANA	1	3	0
BURKINA FASO	2	2	4
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	3	1	0
KENYA	1	6	0
MALAWI	7	2	0
MOZAMBIQUE	8	0	5
NAMIBIA	7	0	
RWANDA	3	2	0
SENEGAL	4	0	2
TANZANIA	10	0	0
UGANDA	5	8	0
ZAMBIA	20	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>103</b>	<b>24</b>	<b>11</b>

## STAKEHOLDER RELATIONS – SCIENCE COMMUNICATION, PUBLIC AWARENESS

COUNTRY	Very important	Moderately important	Not important at all
BOTSWANA	2	2	0
BURKINA FASO	3	2	0
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	5	0	0
KENYA	3	0	0
MALAWI	9	0	0
MOZAMBIQUE	9	4	0
NAMIBIA	7	0	
RWANDA	2	2	0
SENEGAL	4	2	0
TANZANIA	10	0	0
UGANDA	5	10	0
ZAMBIA	4	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>95</b>	<b>22</b>	<b>0</b>

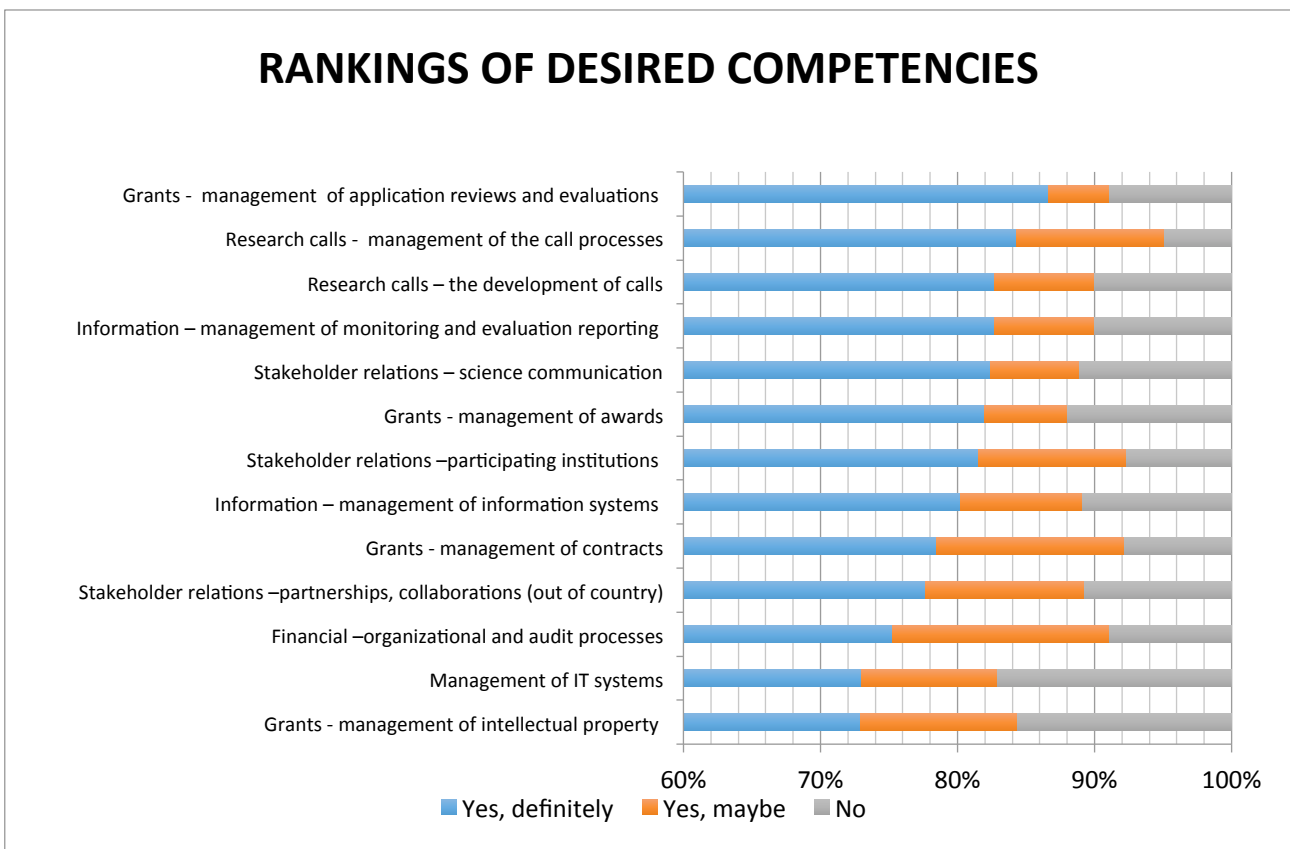
# DESIRED COMPETENCIES

Each SGC team was requested to evaluate the importance of training being offered to improve the competency levels of staff in order to improve organizational performance.

The aggregated responses in the graph below show that all thirteen competencies were rated Important with the most important – *Grants – management of application reviews and evaluations* rated at 86% and the least important - *Grants – management of intellectual property* at 73%.

When ranked by the combined ‘Important and Moderately Important’ responses all thirteen competencies rate at between 95% and 83%, indicating a strong desire for training to strengthen these competencies.

## RANKING OF DESIRED COMPETENCIES



## NUMBER OF STAFF NOMINATED FOR DESIRED COMPETENCIES

The responses indicate that the results capture a significant range of competencies needed by the SGC staff nominated for training. The response does not capture the level of detail that would reveal whether the competencies are linked directly to posts that require particular professional or specialist skills. The job descriptions submitted provide a view that many staff have a science qualification, and have moved into management.

The number of staff nominated for training in each desired competency is high ranging between 130 for the competency deemed to most desired 'stakeholder relations – participating institutions (in country)' and 96 (just under half the respondents) for whom management of intellectual property is desired. The numbers below are derived from responses reporting that the competence is 'Important or Moderately Important'.

<b>DESIRED COMPETENCIES</b>	<b>NUMBER OF STAFF</b>
<b>Stakeholder relations –participating institutions (in country)</b>	130
<b>Grants - management of application reviews and evaluations</b>	112
<b>Stakeholder relations –partnerships, collaborations (out of country)</b>	112
<b>Management of IT systems</b>	111
<b>Information – management of monitoring and evaluation reporting</b>	110
<b>Research calls – the development of calls</b>	110
<b>Stakeholder relations – science communication</b>	108
<b>Research calls - management of the call processes</b>	102
<b>Grants - management of contracts</b>	102
<b>Information – management of information systems</b>	101
<b>Financial –organizational and audit processes</b>	101
<b>Grants - management of awards</b>	100
<b>Grants - management of intellectual property</b>	96

Aggregated responses n = 191

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## DESIRED COMPETENCIES – COUNTRY RATINGS BY SGC

SGCs rated the importance of having additional training and knowledge to improve performance using each of the thirteen competencies.

This set of detailed data illustrates the importance attributed to each competency area, by country.

### RESEARCH CALLS – THE DEVELOPMENT OF CALLS/CLUSTERS OF CALLS

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	1	0	1
BURKINA FASO	4	2	3
COTE D'VOIRE	3	3	0
ETHIOPIA	15	0	0
GHANA	5	0	0
KENYA	3	0	0
MALAWI	6	3	0
MOZAMBIQUE	6	0	7
NAMIBIA	3	0	0
SENEGAL	6	0	0
TANZANIA	10	0	0
UGANDA	3	0	0
ZAMBIA	15	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>91</b>	<b>8</b>	<b>11</b>

### RESEARCH CALLS - MANAGEMENT OF THE CALL PROCESSES (INCLUDING BUDGETS)

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	1	0	1
BURKINA FASO	6	1	2
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	6	0	0
KENYA	3	0	0
MALAWI	6	4	0
MOZAMBIQUE	5	6	2
NAMIBIA	3	0	0
SENEGAL	6	0	0
TANZANIA	10	0	0
UGANDA	5	0	0
ZAMBIA	3	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>86</b>	<b>11</b>	<b>5</b>

**GRANTS - MANAGEMENT OF APPLICATION REVIEWS AND EVALUATIONS INCLUDING SCREENING, APPOINTMENT OF PANELS/EVALUATION PROCESSES/ APPEALS PROCESSES**

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	1	0	1
BURKINA FASO	6	1	2
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	3	0	0
KENYA	3	0	0
MALAWI	8	2	0
MOZAMBIQUE	4	2	7
NAMIBIA	3	0	0
SENEGAL	6	0	0
TANZANIA	12	0	0
UGANDA	4	0	0
ZAMBIA	15	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>97</b>	<b>5</b>	<b>10</b>

**GRANTS - MANAGEMENT OF CONTRACTS/CONDITIONS OF GRANTS/OTHER GRANT AGREEMENTS**

COUNTRY	Yes, definitely	Yes, maybe	No
BURKINA FASO	1	1	0
BURKINA FASO	4	3	2
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	4	0	0
KENYA	3	0	0
MALAWI	6	4	0
MOZAMBIQUE	3	4	6
NAMIBIA	3	0	0
SENEGAL	5	2	0
TANZANIA	8	0	0
UGANDA	5	0	0
ZAMBIA	6	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>80</b>	<b>14</b>	<b>8</b>

## GRANTS - MANAGEMENT OF INTELLECTUAL PROPERTY RIGHTS AND LICENSING

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	0	2	0
BURKINA FASO	3	2	4
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	5	0	0
KENYA	3	0	0
MALAWI	4	5	0
MOZAMBIQUE	2	2	9
NAMIBIA	5	0	0
SENEGAL	4	0	2
TANZANIA	4	0	0
UGANDA	4	0	0
ZAMBIA	4	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>70</b>	<b>11</b>	<b>15</b>

## GRANTS - MANAGEMENT OF AWARDS, PAYMENTS AND EXPENDITURES

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	1	1	0
BURKINA FASO	2	2	5
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	4	0	0
KENYA	3	0	0
MALAWI	7	2	0
MOZAMBIQUE	8	0	5
NAMIBIA	5	0	0
SENEGAL	3	1	2
TANZANIA	8	0	0
UGANDA	3	0	0
ZAMBIA	6	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>82</b>	<b>6</b>	<b>12</b>



**INFORMATION – MANAGEMENT OF INFORMATION SYSTEMS (GRANT CALLS, AWARDS, REVIEWS, CLOSEOUTS AND ARCHIVING)**

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	1	0	1
BURKINA FASO	4	2	3
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	5	0	0
KENYA	3	0	0
MALAWI	7	3	0
MOZAMBIQUE	4	2	7
NAMIBIA	3	0	0
SENEGAL	4	2	0
TANZANIA	8	0	0
UGANDA	4	0	0
ZAMBIA	6	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>81</b>	<b>9</b>	<b>11</b>

**INFORMATION – MANAGEMENT OF MONITORING AND EVALUATION REPORTING (PROGRESS REPORTS, RESEARCH PERFORMANCE, PUBLICATIONS AND UPTAKE)**

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	1	1	0
BURKINA FASO	4	2	3
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	6	0	0
KENYA	3	0	0
MALAWI	8	2	0
MOZAMBIQUE	4	2	7
NAMIBIA	5	0	0
SENEGAL	3	1	1
TANZANIA	12	0	0
UGANDA	7	0	0
ZAMBIA	6	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>91</b>	<b>8</b>	<b>11</b>

## INFORMATION – TECHNICAL MANAGEMENT OF IT SYSTEMS AND INFRASTRUCTURE

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	0	0	2
BURKINA FASO	2	1	6
COTE D'VOIRE	2	4	0
ETHIOPIA	15	0	0
GHANA	2	0	0
KENYA	3	0	0
MALAWI	5	4	0
MOZAMBIQUE	2	4	7
NAMIBIA	6	0	0
SENEGAL	1	1	4
TANZANIA	4	0	0
UGANDA	3	0	0
ZAMBIA	2	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>58</b>	<b>14</b>	<b>19</b>

## FINANCIAL –ORGANIZATIONAL AND AUDIT PROCESSES

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	1	1	0
BURKINA FASO	2	3	4
COTE D'VOIRE	6	6	0
ETHIOPIA	15	0	0
GHANA	4	0	0
KENYA	3	0	0
MALAWI	3	4	0
MOZAMBIQUE	9	0	5
NAMIBIA	2	1	0
SENEGAL	6	0	0
TANZANIA	7	0	0
UGANDA	7	0	0
ZAMBIA	6	1	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>76</b>	<b>16</b>	<b>9</b>

## STAKEHOLDER RELATIONS –PARTNERSHIPS, COLLABORATIONS (OUT OF COUNTRY)

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	0	1	1
BURKINA FASO	5	2	2
COTE D'VOIRE	3	3	0
ETHIOPIA	15	0	0
GHANA	12	0	0
KENYA	3	0	0
MALAWI	8	2	0
MOZAMBIQUE	4	0	9
NAMIBIA	5	1	0
SENEGAL	2	4	0
TANZANIA	12	0	0
UGANDA	3	0	0
ZAMBIA	4	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>87</b>	<b>13</b>	<b>12</b>

## STAKEHOLDER RELATIONS –PARTICIPATING INSTITUTIONS (IN COUNTRY)

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	0	1	1
BURKINA FASO	5	2	2
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	3	1	0
KENYA	3	0	0
MALAWI	7	3	0
MOZAMBIQUE	4	2	7
NAMIBIA	5	1	0
SENEGAL	2	4	0
TANZANIA	10	0	0
UGANDA	5	0	0
ZAMBIA	30	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>106</b>	<b>14</b>	<b>10</b>

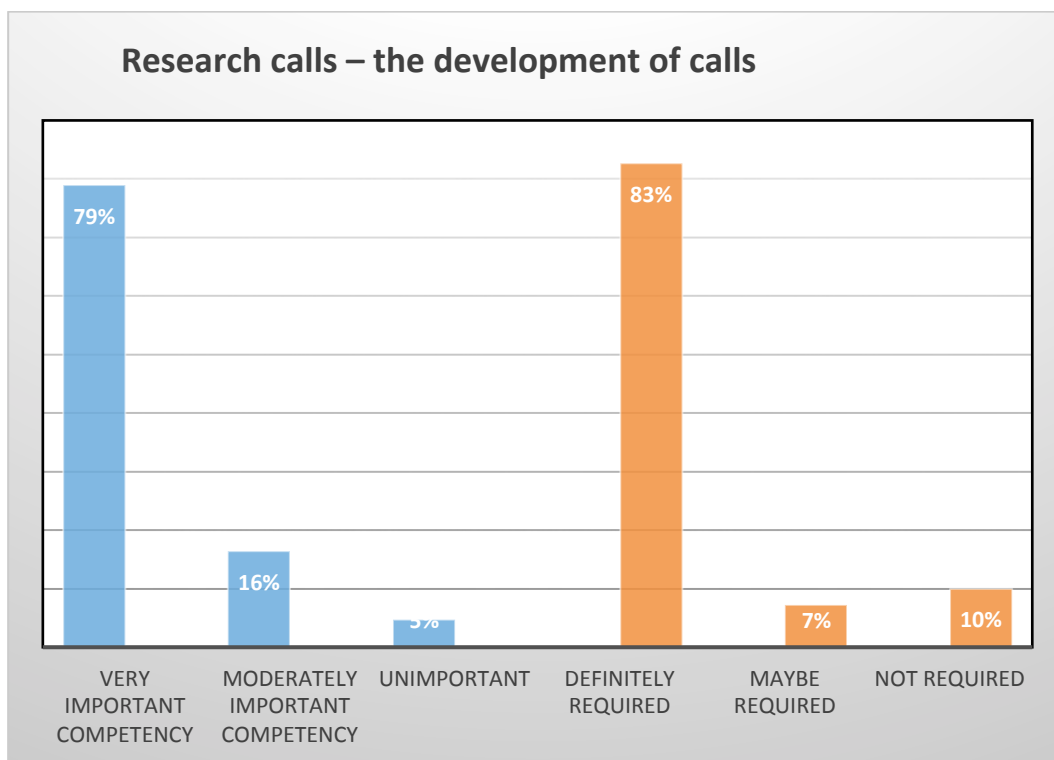
## STAKEHOLDER RELATIONS – SCIENCE COMMUNICATION, PUBLIC AWARENESS

COUNTRY	Yes, definitely	Yes, maybe	No
BOTSWANA	0	1	1
BURKINA FASO	5	1	3
COTE D'VOIRE	6	0	0
ETHIOPIA	15	0	0
GHANA	5	0	0
KENYA	3	0	0
MALAWI	7	2	2
MOZAMBIQUE	7	0	6
NAMIBIA	5	1	0
SENEGAL	4	2	0
TANZANIA	12	0	0
UGANDA	5	0	0
ZAMBIA	4	0	0
ZIMBABWE	11	0	0
<b>Total</b>	<b>89</b>	<b>7</b>	<b>12</b>

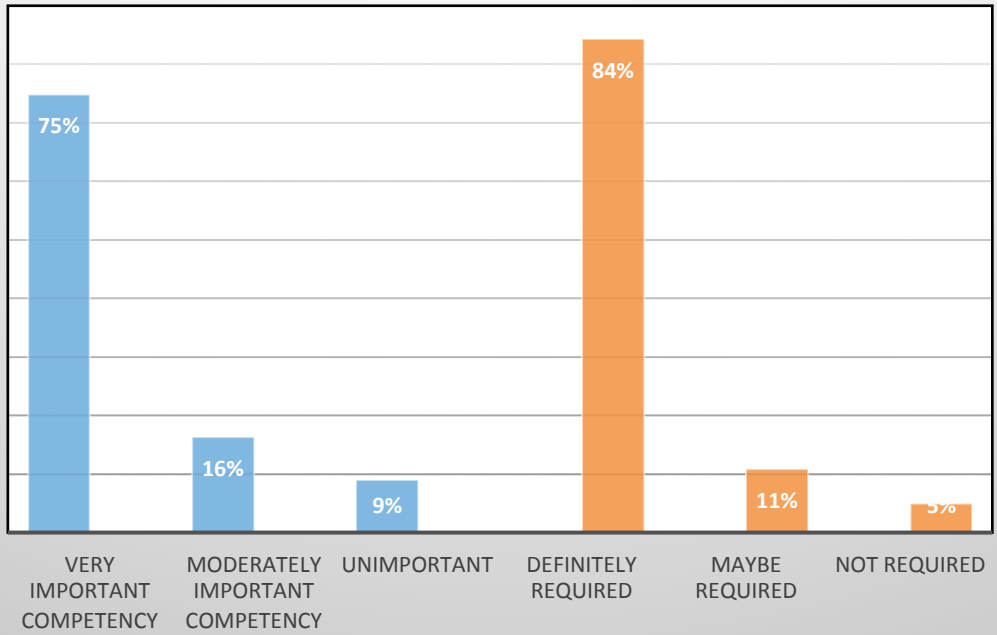
# COMPARISON BETWEEN CURRENT AND DESIRED COMPETENCIES

Comparison between competencies that are rated as currently important for staff and competencies rated as required for staff development.

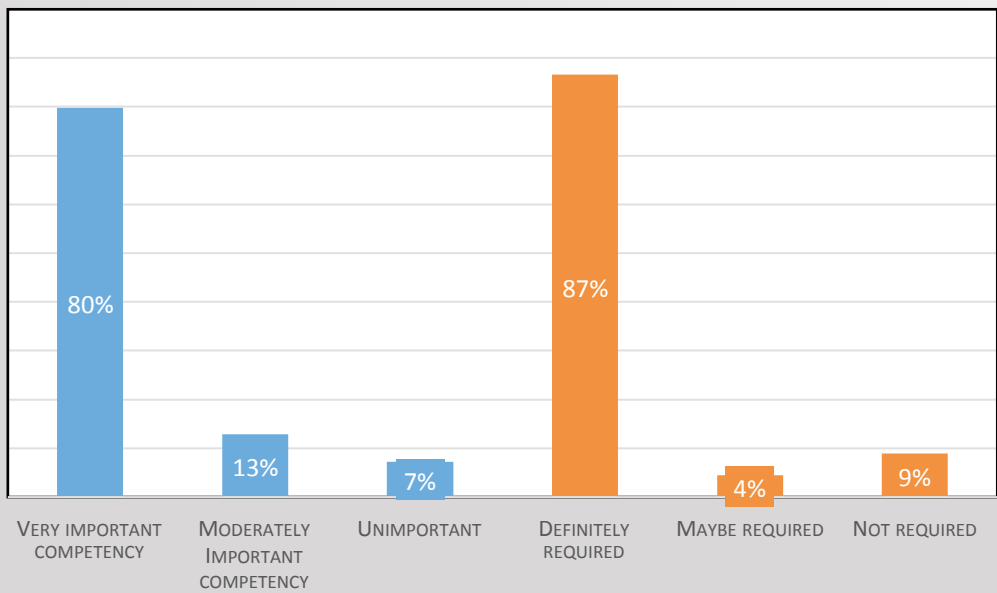
This series of graphs illustrates the strong positive correlation between what are currently important competencies and those competencies that the SGCs have assessed and identified as important for future stronger organisational performance.



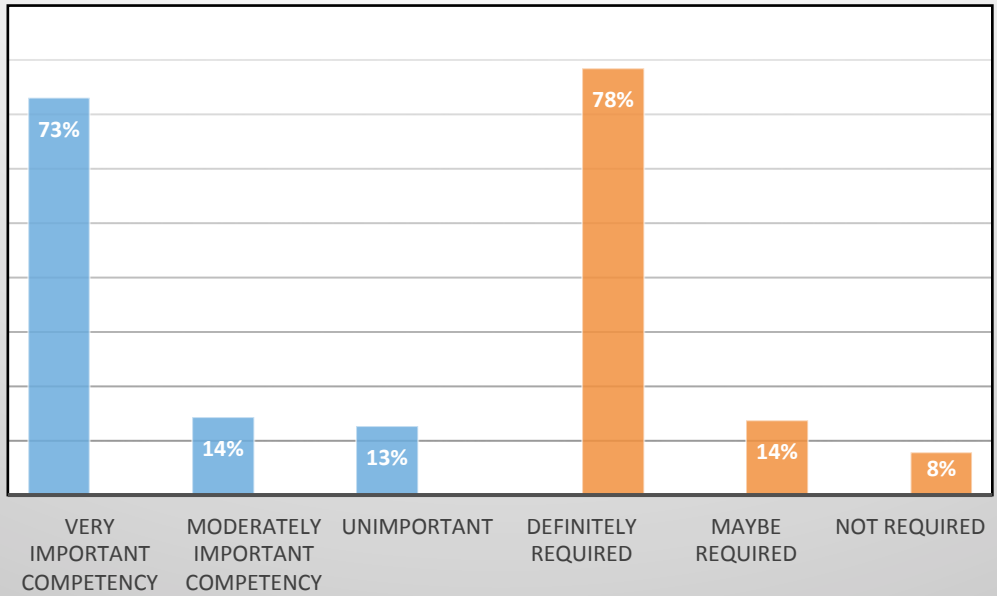
### Research calls - management of the call processes



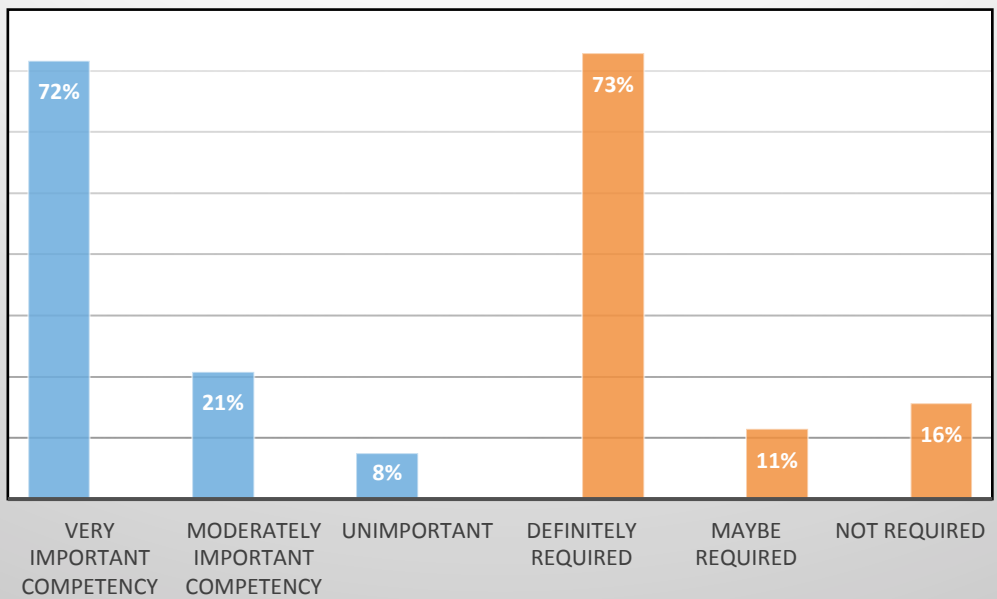
### Grants - management of application reviews and evaluations



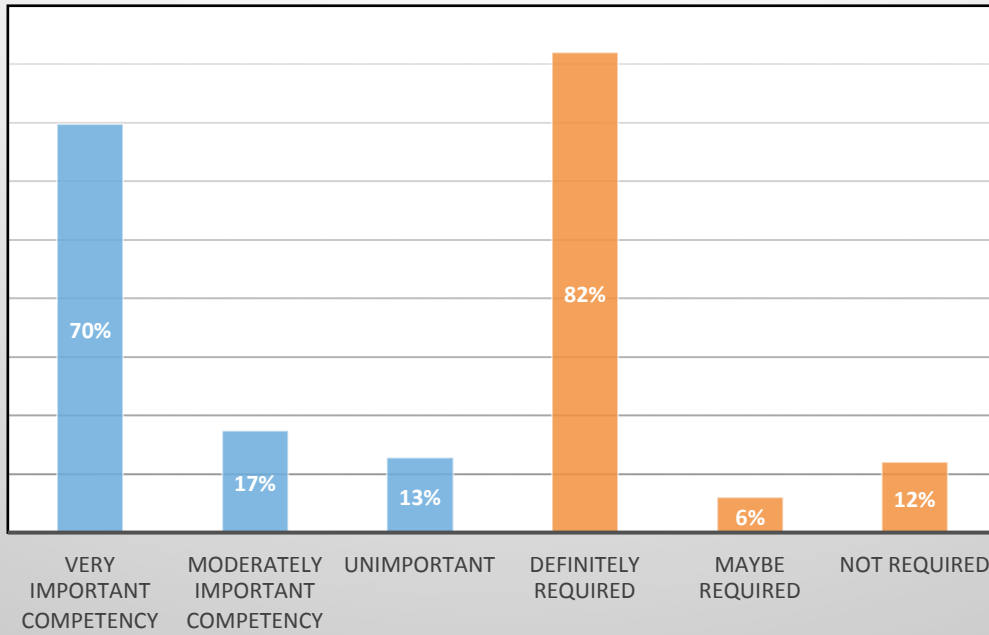
### Grants - management of contracts



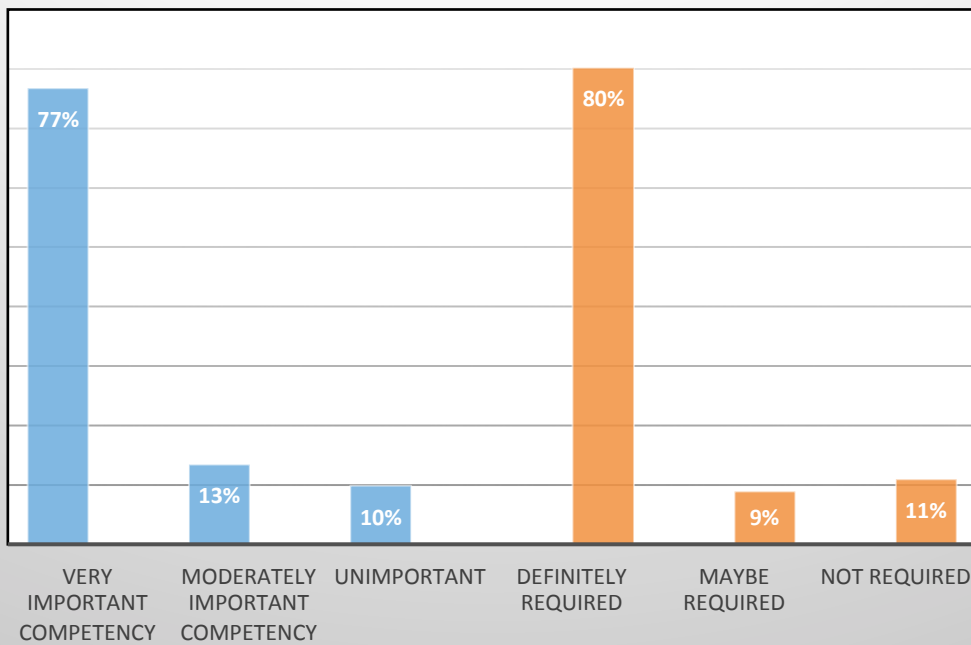
### Grants - management of intellectual property



### Grants - management of awards

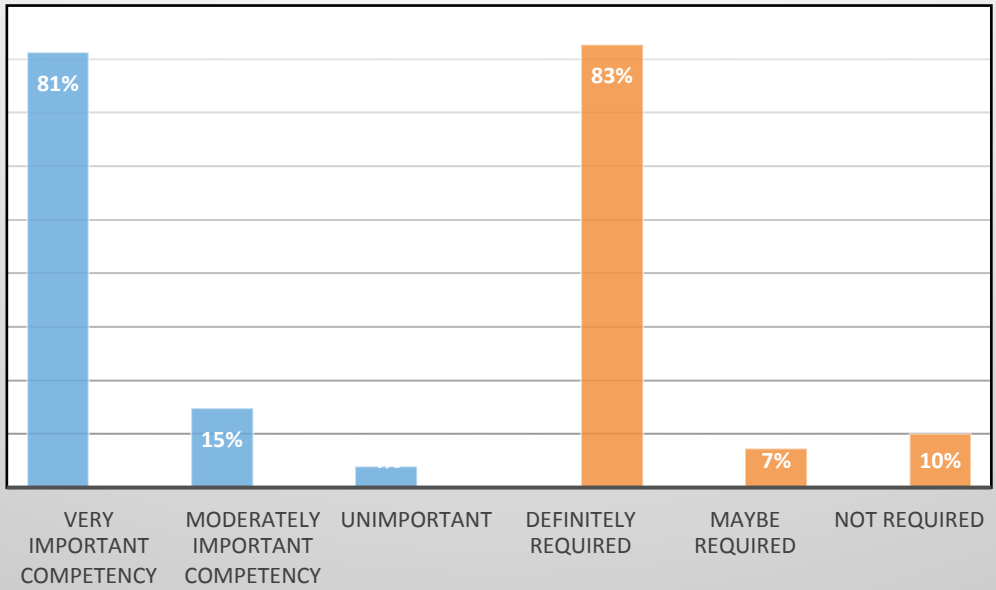


### Information – management of information systems

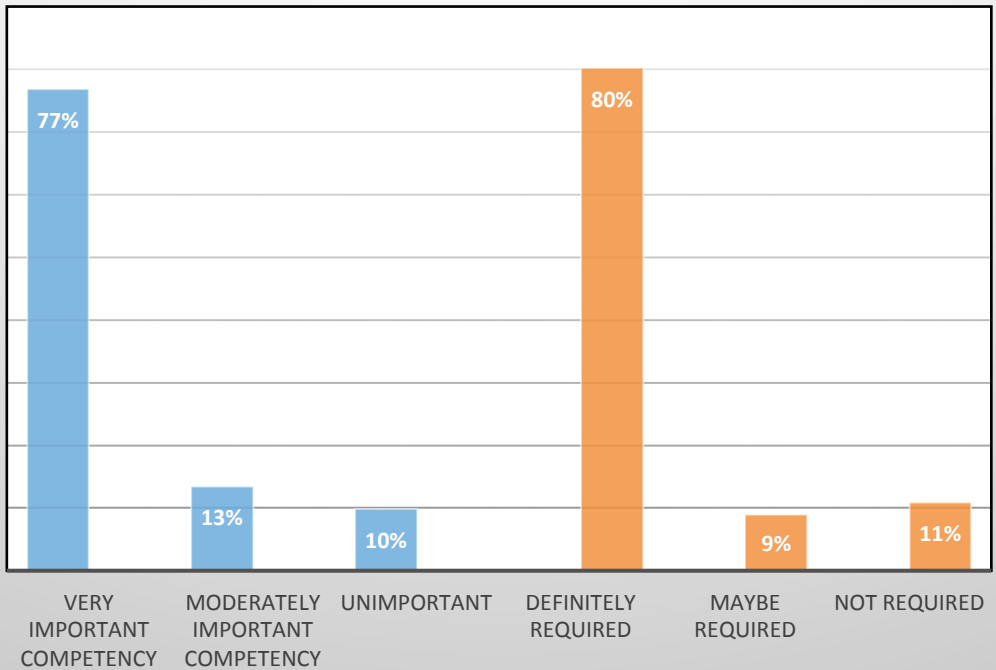




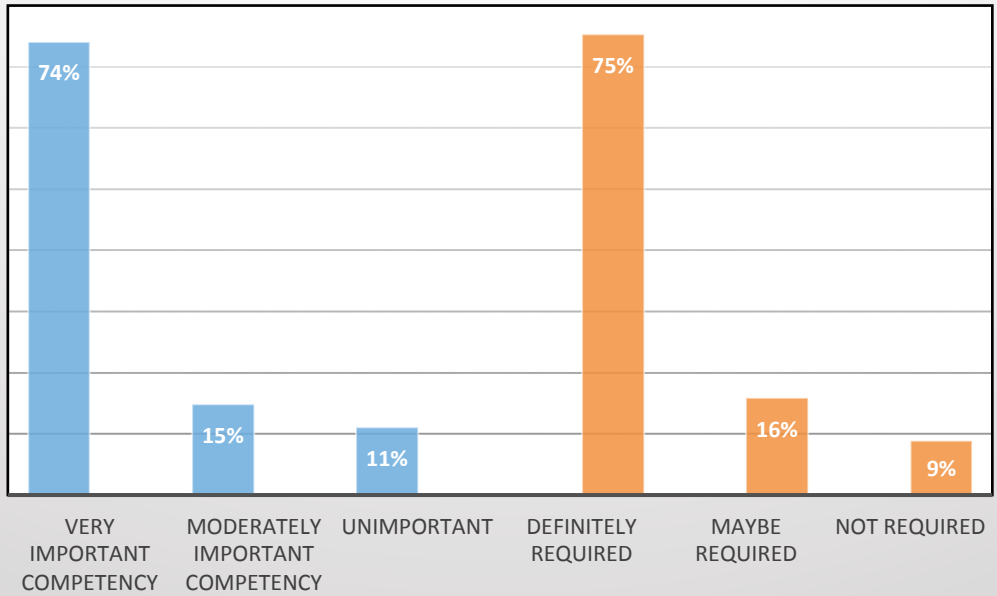
### Information – management of monitoring and evaluation reporting



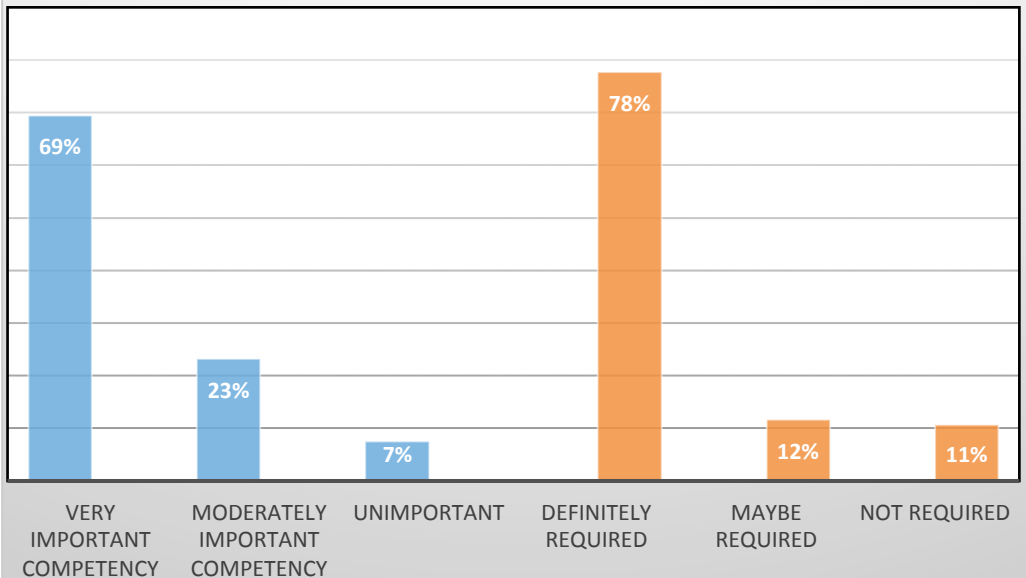
### Information – management of information systems



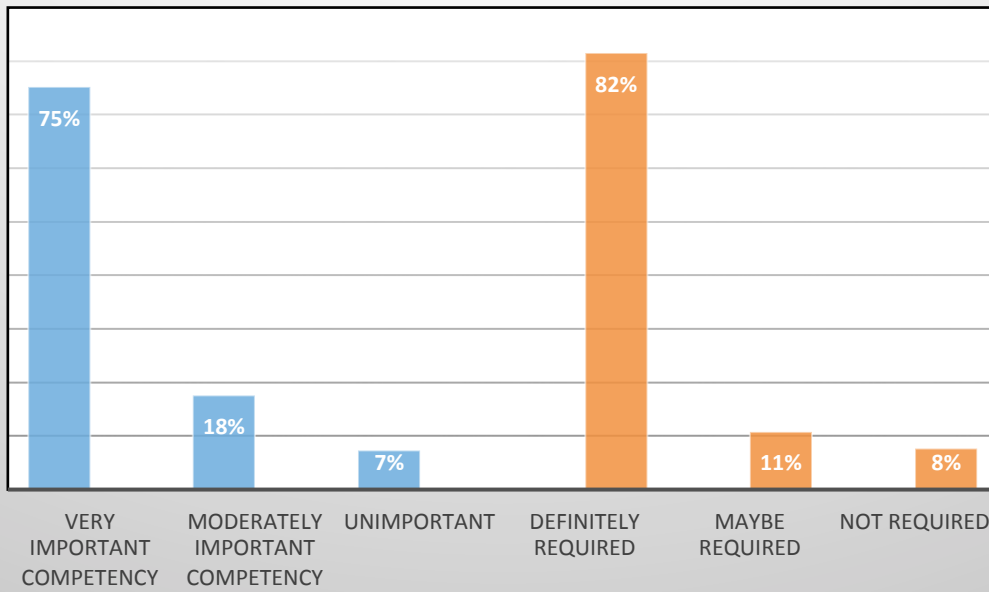
### Financial –organizational and audit processes



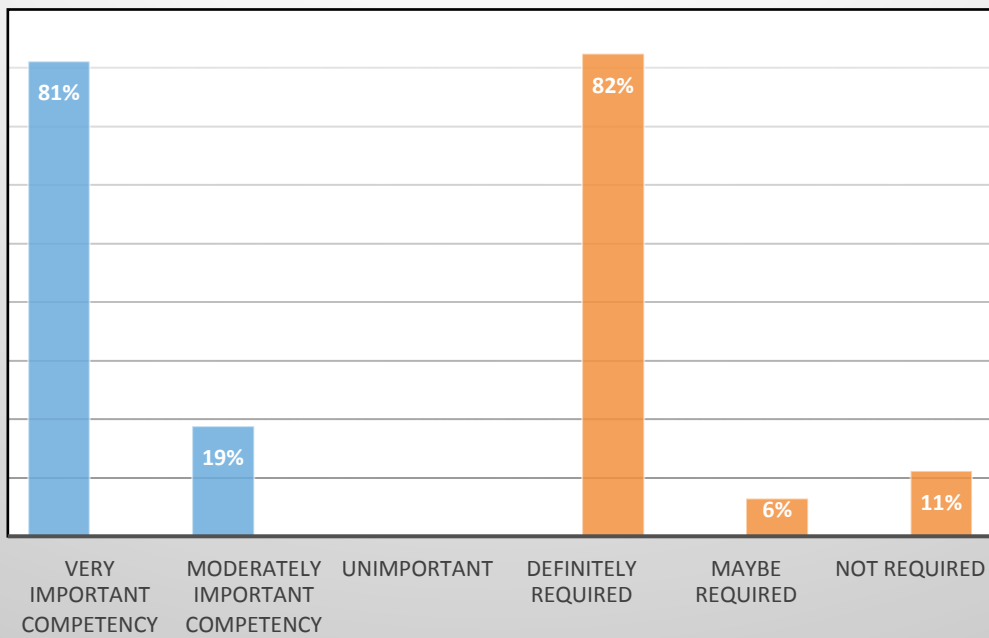
### Stakeholder relations –partnerships, collaborations (out of country)



### Stakeholder relations –participating institutions (in country)



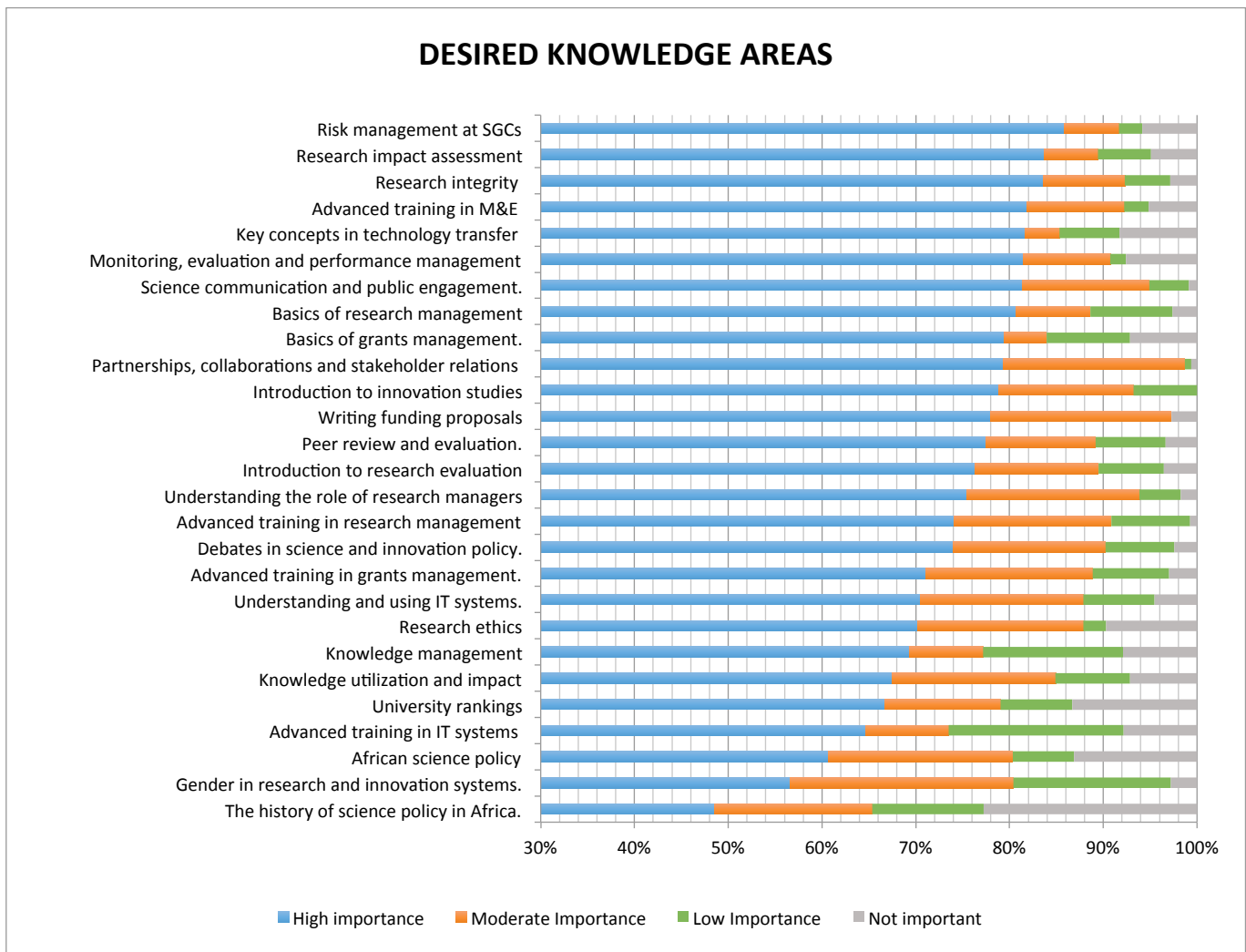
### Stakeholder relations – science communication



# DESIRED KNOWLEDGE AREAS

## RANKING OF KNOWLEDGE AREAS

There is a wide spread in the knowledge areas rated as highly important, ranging from *Risk Management at SGCs* and *Research Impact Assessment* to *The History of Science Policy in Africa*. *Gender in Research and Innovation Systems* is low in the rankings but is still in demand by more than 50% of the respondents. *Partnerships, Collaborations and Public Engagement* is ranked 10<sup>th</sup> of the 27 areas and is rated as highly important or moderately important by all but 2% of respondents for that knowledge area.



## NUMBER OF RESPONSES IN EACH KNOWLEDGE AREA AND IMPORTANCE OF EACH KNOWLEDGE AREAS

The SGCs were requested to assess the importance of each knowledge area, for each of the persons nominated. The results therefore illustrate a fine-grained picture of training needs, if training in all knowledge areas were to be provided.

The demand for training is high with all but seven areas showing that over a hundred persons have been nominated to attend training in each of the knowledge areas (when consolidating the numbers for High importance and Moderate Importance).

Note that there appears to be a demand for training in *Gender in Research and Innovation Systems* from 115 of the 143 respondents .

DESIRED KNOWLEDGE AREAS	NUMBER OF STAFF RESPONDING	NUMBER OF STAFF FOR WHOM IMPORTANT OR MODERATELY IMPORTANT
Partnerships, collaborations and stakeholder relations	155	153
Gender in research and innovation systems	143	115
Advanced training in grants management	135	120
Understanding and using IT systems	132	116
Advanced training in research management	131	119
Knowledge utilization and impact	126	107
Research ethics	124	109
Debates in science and innovation policy	123	111
Research impact assessment	123	110
African science policy	122	98
Peer review and evaluation	120	107
Risk management at SGCs	120	110
Monitoring, evaluation and performance management	119	108
Introduction to innovation studies	118	110
Science communication and public engagement	118	112
Advanced training in M&E	116	107
Basics of research management	114	101
Introduction to research evaluation	114	102
Knowledge management	114	88
Understanding the role of research managers	114	107
Basics of grants management.	112	94
Key concepts in technology transfer	109	93
Writing funding proposals	109	106
University rankings	105	83
Research integrity	104	96
Advanced training in IT systems	102	75
The history of science policy in Africa	101	66

N= 191

## Demand for Knowledge Areas identified by SGC

When analyzed by SGCs' organizational needs, in contrast to assessment of individual needs, a different ranking emerges.

Demand is established for fifteen of the twenty seven areas knowledge areas and there is most demand for five knowledge areas. The highest demand is clustered around the areas of research management, grants management and research project impact assessment. The demand for knowledge acquisition is clustered around general organizational improvement.

There is no demand by SGCs for acquisition of knowledge in the area of understanding of *Gender in Research and Innovation Systems*, even though this area ranked well when the data is analyzed by the percentage of individual responses. Other areas for which there is no demand cluster around knowledge areas that are useful for the understanding of science and technology systems.

Knowledge Area	Ranking of KA
Research impact assessment: assessing the impact of research projects.	7
Advanced training in M&E and performance management (framework design).	6
Advanced training in research management	5
Basics of grants management.	5
Advanced training in grants management.	5
Basics of research management	4
Understanding the nature and processes of peer review and evaluation.	2
Risk management at SGCs.	2
Managing partnerships, collaborations and stakeholder relations (in country and out of country).	2
Writing funding proposals.	2
Understanding and using IT systems.	1
Advanced training in IT systems (design).	1
Knowledge utilization and impact: How to optimize the uptake and impact of research findings.	1
Introduction to the domain of research ethics (ethical codes, informed consent, confidentiality of research, the rights of minorities and children and animals in research).	1
Introduction to monitoring, evaluation and performance management (indicators).	0
Introduction to research evaluation and research assessment methodologies.	0
Understanding gender in research and innovation systems.	0
Understanding the role of research managers at research performing institutions and at SGCs.	0
Knowledge management: scholarly publishing, open access and open science.	0
Science communication and public engagement.	0
The history of science and science policy in Africa.	0
The African science policy landscape	0
Current debates in science and innovation policy.	0
Introduction to the field of innovation studies and innovation indicators and understanding concepts such as the "national system of innovation".	0
Introduction to the domain of research integrity (plagiarism, fabrication of data, predatory publishing, ghost authorship, etc.).	0
Introduction to key concepts in technology transfer (licensing, patents, spin-offs) and commercialization of IP.	0
Understanding how university rankings work	0

## TOP PRIORITY KNOWLEDGE AREAS IDENTIFIED BY SGCS

The SGCS were requested to identify the top three priority knowledge acquisition areas in order to establish the highest priorities in the circumstance where the range of training courses may have to be restricted. The identification of priorities can also be a guide to the prioritization of the order of delivery of the training.

### Ranking of Priority Knowledge Areas when restricted to choice of Three Top Priority Areas

Top 3 Desired Knowledge Areas	Number of SGCS rating KA as one of three highest priorities
Research impact assessment: assessing the impact of research projects.	7
Advanced training in M&E and performance management (framework design).	6
Advanced training in research management	5
Basics of grants management.	5
Advanced training in grants management.	5
Basics of research management	4
Understanding the nature and processes of peer review and evaluation.	2
Risk management at SGCS.	2
Managing partnerships, collaborations and stakeholder relations (in country and out of country).	2
Writing funding proposals.	2
Understanding and using IT systems.	1
Advanced training in IT systems (design).	1
Knowledge utilization and impact: How to optimize the uptake and impact of research findings.	1
Introduction to the domain of research ethics (ethical codes, informed consent, confidentiality of research, the rights of minorities and children and animals in research).	1

### LISTING OF ADDITIONAL KNOWLEDGE AREAS THAT ARE CORE TO DEVELOPMENT OF STAFF MEMBERS

SGCS were requested to identify any additional knowledge areas that are important for their organizational performance. The descriptions provide more detail for content that can be incorporated into the appropriate knowledge areas, eg. *'Mobilization of funding from external sources'* can be incorporated into *'writing funding proposals'*.

OTHER DESIRED KNOWLEDGE AREAS
Health and Environment Safeguards
Mobilisation of Funding from External Funders
Research Council strategy in resource limited setting
Research uptake and utilisation (entrepreneurs and industry) skills
Research uptake and utilisation (policy makers and funders)

## KNOWLEDGE AREAS IN WHICH THE STAFF IN THE SGC SHOULD RECEIVE TRAINING – COUNTRY RATINGS

It has been recognized that the SGCs have different mandates, which require different knowledge areas and differing spread of knowledge areas, different depth of knowledge in specific areas, in order to improve organizational performance. It has also been recognized that some of the SGCs are comparatively mature and stable with need for advanced training is comparatively few areas, (eg Uganda) others are mature and engaged in organizational redevelopment requiring a cohort to acquire basic competency in a broad range of knowledge areas (eg Tanzania) while others are still in the process of gaining legal status and have very limited grant funding to manage (eg Ghana), and yet others have very recently gained legal status (eg Kenya and Ethiopia), have significant responsibility to perform well immediately, and require both basic and advanced level training in the core knowledge cluster areas.

One knowledge area to which particular importance is attributed is that of Managing Partnerships, Collaboration and Stakeholder Relations (in country, out of Country). Five SGCs rate this as highly important for the staff nominated, and none rating it as anything but highly important.

The SGCs were requested to rate the importance of each of the twenty four knowledge areas taking into account the current level of knowledge in the area, the roles of the persons nominated to benefit from the training and the desired level of knowledge in the area.

### BASICS OF RESEARCH MANAGEMENT

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	5	2	0	0
BURKINA FASO	2	3	4	0
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	4	0	0	0
KENYA	0	0	0	3
MALAWI	9	0	0	0
MOZAMBIQUE	10	3	0	0
NAMIBIA	10	0	0	0
RWANDA	3	1	0	0
SENEGAL	6	0	0	0
TANZANIA	8	0	0	0
UGANDA	0	0	6	0
ZAMBIA	3	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>92</b>	<b>9</b>	<b>10</b>	<b>3</b>



## ADVANCED TRAINING IN RESEARCH MANAGEMENT

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	3	4	2	0
BURKINA FASO	6	0	2	1
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	3	0	0	0
KENYA	3	0	0	0
MALAWI	10	0	0	0
MOZAMBIQUE	6	2	5	0
NAMIBIA	10	0	0	0
RWANDA	3	0	0	0
SENEGAL	3	1	2	0
TANZANIA	12	0	0	0
UGANDA	0	14	0	0
ZAMBIA	6	1	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>97</b>	<b>22</b>	<b>11</b>	<b>1</b>

## BASICS OF GRANTS MANAGEMENT

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	5	1	1	0
BURKINA FASO	3	0	4	2
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	0	0	0	0
KENYA	0	0	0	3
MALAWI	8	0	0	0
MOZAMBIQUE	6	4	3	0
NAMIBIA	10	0	0	0
RWANDA	3	0	0	0
SENEGAL	4	0	2	0
TANZANIA	12	0	0	0
UGANDA	0	0	0	3
ZAMBIA	6	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>89</b>	<b>5</b>	<b>10</b>	<b>8</b>

## ADVANCED TRAINING IN GRANTS MANAGEMENT

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	3	3	3	0
BURKINA FASO	4	2	1	2
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	5	0	0	0
KENYA	3	0	0	0
MALAWI	7	0	0	0
MOZAMBIQUE	6	0	7	0
NAMIBIA	10	0	0	0
RWANDA	1	1	0	0
SENEGAL	2	2	0	2
TANZANIA	8	16	0	0
UGANDA	9	0	0	0
ZAMBIA	6	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>96</b>	<b>24</b>	<b>11</b>	<b>4</b>

## UNDERSTANDING AND USING IT SYSTEMS

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	2	5	1	1
BURKINA FASO	1	1	4	3
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	4	0	0	0
KENYA	3	0	0	0
MALAWI	7	3	0	0
MOZAMBIQUE	6	7	0	0
NAMIBIA	10	0	0	0
RWANDA	2	3	0	0
SENEGAL	2	2	0	2
TANZANIA	8	0	0	0
UGANDA	0	0	5	0
ZAMBIA	4	2	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>81</b>	<b>23</b>	<b>10</b>	<b>6</b>

## ADVANCED TRAINING IN IT SYSTEMS (DESIGN)

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	1	1	5	2
BURKINA FASO	2	3	3	1
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	0	3	0	0
KENYA	3	0	0	0
MALAWI	6	2	0	0
MOZAMBIQUE	3	0	10	0
NAMIBIA	10	0	0	0
RWANDA	2	0	0	0
SENEGAL	2	0	1	0
TANZANIA	3	0	0	4
UGANDA	0	0	0	1
ZAMBIA	2	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>66</b>	<b>9</b>	<b>19</b>	<b>8</b>

## UNDERSTANDING THE NATURE AND PROCESSES OF PEER REVIEW AND EVALUATION

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	3	2	2	0
BOTSWANA	5	0	0	0
BURKINA FASO	5	2	2	0
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
KENYA	3	0	0	0
MALAWI	9	0	0	0
MOZAMBIQUE	8	0	5	0
NAMIBIA	10	0	0	0
RWANDA	4	1	0	0
SENEGAL	3	0	0	4
TANZANIA	9	0	0	0
UGANDA	0	9	0	0
ZAMBIA	2	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>93</b>	<b>14</b>	<b>9</b>	<b>4</b>

## INTRODUCTION TO MONITORING, EVALUATION AND PERFORMANCE MANAGEMENT (INDICATORS)

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	3	2	2	0
BURKINA FASO	6	2	0	1
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	6	0	0	0
KENYA	3	0	0	0
MALAWI	7	0	0	0
MOZAMBIQUE	9	3	0	0
NAMIBIA	10	0	0	0
RWANDA	3	3	0	0
SENEGAL	3	1	0	2
TANZANIA	9	0	0	0
UGANDA	0	0	0	6
ZAMBIA	6	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>97</b>	<b>11</b>	<b>2</b>	<b>9</b>

## ADVANCED TRAINING IN M&E AND PERFORMANCE MANAGEMENT (FRAMEWORK DESIGN)

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	2	4	3	0
BURKINA FASO	8	1	0	0
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	5	0	0	0
KENYA	3	0	0	0
MALAWI	6	0	0	0
MOZAMBIQUE	9	3	0	0
NAMIBIA	10	0	0	0
RWANDA	2	3	0	0
SENEGAL	2	1	0	3
TANZANIA	10	0	0	0
UGANDA	0	0	0	3
ZAMBIA	6	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>95</b>	<b>12</b>	<b>3</b>	<b>6</b>

## INTRODUCTION TO RESEARCH EVALUATION AND RESEARCH ASSESSMENT METHODOLOGIES

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	3	3	1	0
BURKINA FASO	4	4	1	0
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	4	0	0	0
KENYA	3	6	0	0
MALAWI	7	0	0	0
MOZAMBIQUE	7	0	6	0
NAMIBIA	10	0	0	0
RWANDA	3	2	0	0
SENEGAL	2	0	0	4
TANZANIA	9	0	0	0
UGANDA	0	0	0	0
ZAMBIA	3	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>87</b>	<b>15</b>	<b>8</b>	<b>4</b>

## RESEARCH IMPACT ASSESSMENT: ASSESSING THE IMPACT OF RESEARCH PROJECTS

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	2	3	2	0
BURKINA FASO	5	0	1	3
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	6	0	0	0
KENYA	3	0	0	0
MALAWI	8	0	0	0
MOZAMBIQUE	9	0	4	0
NAMIBIA	10	0	0	0
RWANDA	3	3	0	0
SENEGAL	2	1	0	3
TANZANIA	12	0	0	0
UGANDA	7	0	0	0
ZAMBIA	4	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>103</b>	<b>7</b>	<b>7</b>	<b>6</b>

## UNDERSTANDING GENDER IN RESEARCH AND INNOVATION SYSTEMS

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	5	1	1	0
BURKINA FASO	2	2	4	1
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	5	0	0	0
KENYA	0	0	0	3
MALAWI	8	0	0	0
MOZAMBIQUE	8	0	5	0
NAMIBIA	0	10	0	0
RWANDA	4	2	0	0
SENEGAL	2	1	3	0
TANZANIA	12	16	0	0
UGANDA	0	0	11	0
ZAMBIA	3	2	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>81</b>	<b>34</b>	<b>24</b>	<b>4</b>

## UNDERSTANDING THE ROLE OF RESEARCH MANAGERS AT RESEARCH PERFORMING INSTITUTIONS AND AT SGCS

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	4	2	1	0
BURKINA FASO	2	3	2	2
COTE D'VOIRE	6	0	0	0
ETHIOPIA	0	0	0	0
GHANA	2	0	0	0
KENYA	15	0	0	0
MALAWI	7	0	0	0
MOZAMBIQUE	9	4	0	0
NAMIBIA	10	0	0	0
RWANDA	2	4	0	0
SENEGAL	3	1	2	0
TANZANIA	12	0	0	0
UGANDA	0	7	0	0
ZAMBIA	3	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>86</b>	<b>21</b>	<b>5</b>	<b>2</b>

## KNOWLEDGE MANAGEMENT: SCHOLARLY PUBLISHING, OPEN ACCESS AND OPEN SCIENCE

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	3	3	1	0
BURKINA FASO	0	0	0	9
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	0	3	0	0
KENYA	3	0	0	0
MALAWI	7	0	0	0
MOZAMBIQUE	7	0	6	0
NAMIBIA	10	0	0	0
RWANDA	1	2	0	0
SENEGAL	1	1	4	0
TANZANIA	12	0	0	0
UGANDA	0	0	6	0
ZAMBIA	3	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>79</b>	<b>9</b>	<b>17</b>	<b>9</b>

## KNOWLEDGE UTILIZATION AND IMPACT: HOW TO OPTIMIZE THE UPTAKE AND IMPACT OF RESEARCH FINDINGS.

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	2	3	2	0
BURKINA FASO	0	0	0	9
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	0	4	0	0
KENYA	3	0	0	0
MALAWI	8	0	0	0
MOZAMBIQUE	7	0	6	0
NAMIBIA	10	0	0	0
RWANDA	3	0	0	0
SENEGAL	3	1	2	0
TANZANIA	12	0	0	0
UGANDA	0	14	0	0
ZAMBIA	5	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>85</b>	<b>22</b>	<b>10</b>	<b>9</b>

## SCIENCE COMMUNICATION AND PUBLIC ENGAGEMENT

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	2	2	2	1
BURKINA FASO	2	0	0	0
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	6	0	0	0
KENYA	3	0	0	0
MALAWI	9	0	0	0
MOZAMBIQUE	9	4	0	0
NAMIBIA	10	0	0	0
RWANDA	4	7	0	0
SENEGAL	3	0	3	0
TANZANIA	12	0	0	0
UGANDA	0	3	0	0
ZAMBIA	4	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>96</b>	<b>16</b>	<b>5</b>	<b>1</b>

## RISK MANAGEMENT AT SGCS

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	4	2	1	0
BURKINA FASO	8	1	0	0
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	3	0	0	0
KENYA	3	0	0	0
MALAWI	8	0	0	0
MOZAMBIQUE	9	4	0	0
NAMIBIA	10	0	0	0
RWANDA	4	0	0	0
SENEGAL	4	0	2	0
TANZANIA	12	0	0	0
UGANDA	0	0	0	7
ZAMBIA	6	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>103</b>	<b>7</b>	<b>3</b>	<b>7</b>



## THE HISTORY OF SCIENCE AND SCIENCE POLICY IN AFRICA

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	0	0	0	5
BURKINA FASO	0	0	0	9
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	0	0	4	0
KENYA	1	0	0	6
MALAWI	6	0	1	0
MOZAMBIQUE	6	0	7	0
NAMIBIA	0	10	0	0
RWANDA	1	5	0	0
SENEGAL	1	2	0	3
TANZANIA	0	0	0	0
UGANDA	0	0	0	0
ZAMBIA	2	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>49</b>	<b>17</b>	<b>12</b>	<b>23</b>

## THE AFRICAN SCIENCE POLICY LANDSCAPE

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	0	1	0	4
BURKINA FASO	0	0	0	9
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	6	0	0	0
KENYA	1	6	0	0
MALAWI	7	0	1	0
MOZAMBIQUE	6	0	7	0
NAMIBIA	10	0	0	0
RWANDA	1	6	0	0
SENEGAL	1	2	0	3
TANZANIA	8	0	0	0
UGANDA	0	9	0	0
ZAMBIA	2	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>74</b>	<b>24</b>	<b>8</b>	<b>16</b>

## CURRENT DEBATES IN SCIENCE AND INNOVATION POLICY

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	5	1	1	0
BURKINA FASO	6	3	0	0
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	6	0	0	0
KENYA	3	0	0	0
MALAWI	6	0	1	0
MOZAMBIQUE	6	0	7	0
NAMIBIA	10	0	0	0
RWANDA	2	6	0	0
SENEGAL	2	1	0	3
TANZANIA	9	0	0	0
UGANDA	0	9	0	0
ZAMBIA	4	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>91</b>	<b>20</b>	<b>9</b>	<b>3</b>

## INTRODUCTION TO THE FIELD OF INNOVATION STUDIES AND INNOVATION INDICATORS AND UNDERSTANDING CONCEPTS SUCH AS THE “NATIONAL SYSTEM OF INNOVATION”

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	3	3	1	0
BURKINA FASO	8	1	0	0
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	5	0	0	0
KENYA	3	0	0	0
MALAWI	7	0	0	0
MOZAMBIQUE	6	0	7	0
NAMIBIA	10	0	0	0
RWANDA	3	3	0	0
SENEGAL	1	5	0	0
TANZANIA	10	0	0	0
UGANDA	0	5	0	0
ZAMBIA	5	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>93</b>	<b>17</b>	<b>8</b>	<b>0</b>

**INTRODUCTION TO THE DOMAIN OF RESEARCH INTEGRITY (PLAGIARISM, FABRICATION OF DATA, PREDATORY PUBLISHING, GHOST AUTHORSHIP, ETC.)**

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	5	2	0	0
BURKINA FASO	5	0	4	0
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	4	0	0	0
KENYA	3	0	0	0
MALAWI	6	0	0	0
MOZAMBIQUE	7	0	0	0
NAMIBIA	10	0	0	0
RWANDA	4	2	0	0
SENEGAL	1	1	1	3
TANZANIA	10	0	0	0
UGANDA	0	0	0	0
ZAMBIA	0	4	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>87</b>	<b>9</b>	<b>5</b>	<b>3</b>

**MANAGING PARTNERSHIPS, COLLABORATIONS AND STAKEHOLDER RELATIONS (IN COUNTRY AND OUT OF COUNTRY)**

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	4	2	1	0
BURKINA FASO	5	3	0	1
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	15	0	0	0
KENYA	3	0	0	0
MALAWI	6	0	0	0
MOZAMBIQUE	4	9	0	0
NAMIBIA	0	10	0	0
RWANDA	4	2	0	0
SENEGAL	2	4	0	0
TANZANIA	12	0	0	0
UGANDA	6	0	0	0
ZAMBIA	30	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>123</b>	<b>30</b>	<b>1</b>	<b>1</b>

**INTRODUCTION TO THE DOMAIN OF RESEARCH ETHICS (ETHICAL CODES, INFORMED CONSENT, CONFIDENTIALITY OF RESEARCH, THE RIGHTS OF MINORITIES AND CHILDREN AND ANIMALS IN RESEARCH)**

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	4	3	0	0
BURKINA FASO	4	0	3	2
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	7	0	0	0
KENYA	3	0	0	0
MALAWI	8	0	0	0
MOZAMBIQUE	0	6	0	7
NAMIBIA	10	0	0	0
RWANDA	3	2	0	0
SENEGAL	2	1	0	3
TANZANIA	10	0	0	0
UGANDA	0	10	0	0
ZAMBIA	4	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>87</b>	<b>22</b>	<b>3</b>	<b>12</b>

**INTRODUCTION TO KEY CONCEPTS IN TECHNOLOGY TRANSFER (LICENSING, PATENTS, SPIN-OFFS) AND COMMERCIALIZATION OF IP**

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	4	3	0	0
BURKINA FASO	3	0	0	6
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	4	0	0	0
KENYA	3	0	0	0
MALAWI	5	0	1	0
MOZAMBIQUE	7	0	6	0
NAMIBIA	8	0	0	0
RWANDA	3	1	0	0
SENEGAL	2	0	0	3
TANZANIA	10	0	0	0
UGANDA	0	0	0	0
ZAMBIA	8	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>89</b>	<b>4</b>	<b>7</b>	<b>9</b>

## WRITING FUNDING PROPOSALS

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	7	0	0	0
BURKINA FASO	4	3	0	2
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	4	0	0	0
KENYA	3	0	0	0
MALAWI	6	1	0	0
MOZAMBIQUE	7	6	0	0
NAMIBIA	0	10	0	0
RWANDA	2	0	0	0
SENEGAL	4	1	0	1
TANZANIA	10	0	0	0
UGANDA	0	0	0	0
ZAMBIA	6	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>85</b>	<b>21</b>	<b>0</b>	<b>3</b>

## UNDERSTANDING HOW UNIVERSITY RANKINGS WORK

Country	High importance	Moderate Importance	Low Importance	Not important
BOTSWANA	4	3	1	0
BURKINA FASO	3	0	0	6
COTE D'VOIRE	6	0	0	0
ETHIOPIA	15	0	0	0
GHANA	0	0	0	0
KENYA	3	0	0	0
MALAWI	0	1	0	0
MOZAMBIQUE	8	0	7	0
NAMIBIA	10	0	0	0
RWANDA	3	8	0	0
SENEGAL	2	1	0	3
TANZANIA	0	0	0	0
UGANDA	0	0	0	5
ZAMBIA	5	0	0	0
ZIMBABWE	11	0	0	0
<b>Total</b>	<b>70</b>	<b>13</b>	<b>8</b>	<b>14</b>

# PREFERRED MODES OF DELIVERY

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It is important that delivery of training over the next two years is geared to the needs of the SGCs, the demands on their time to undertake the different training, and particularly the time and cost of being off-site for training. It has been recommended by the funders that delivery should be on site, or offered regionally in order to optimize time and cost.

The SGCs identified the delivery modes that will result in internationally recognized certificated training. The academic certificate accredited by the University of Stellenbosch requires scholars to have a least a first degree. The certificate offered by a Research Management Association recognizes prior and experiential learning as well as academic credentials.

The aggregated results reveal that formal certification modes is more compelling for SGCs with eleven of the fifteen SGCs indicating the two certification modes as most important. Certificated short course delivered online are an acceptable learning mode.

Of the non-certificated modes of delivery, collegial learning is favoured for practical workshops where other SGCs including the National Research Foundation, a non-participant SGC but a funder, can offer networking and practical learning opportunities. An In-house offering (which may be offered regionally) is also favored. Learning from international SGCs (not African) is less favored, and webinars are least favored.

Type of Delivery Mode	Number of SGCs rating DM as very important by SGC
<b>Certified Research Manager</b> (workshops and work experiences resulting in a certification from a Research Management Association)	11
<b>Academic Certificate in Research Management</b> (accredited by University of Stellenbosch, 6 short courses delivered online and 1-week block of time at Stellenbosch)	11
<b>Practical training workshops</b> (with other SGCs for networking and learning opportunities)	10
<b>Learning visits</b> (to NRF and other SGCs in Africa)	9
<b>Practical training workshops</b> (in-house only)	8
<b>Short courses</b> (delivered online)	7
<b>Learning visits</b> (to International SGCs)	6
<b>Conferences on research management</b> (regional / international)	6
<b>Webinars</b>	2

# WHAT HAVE WE LEARNED FROM THE STUDY

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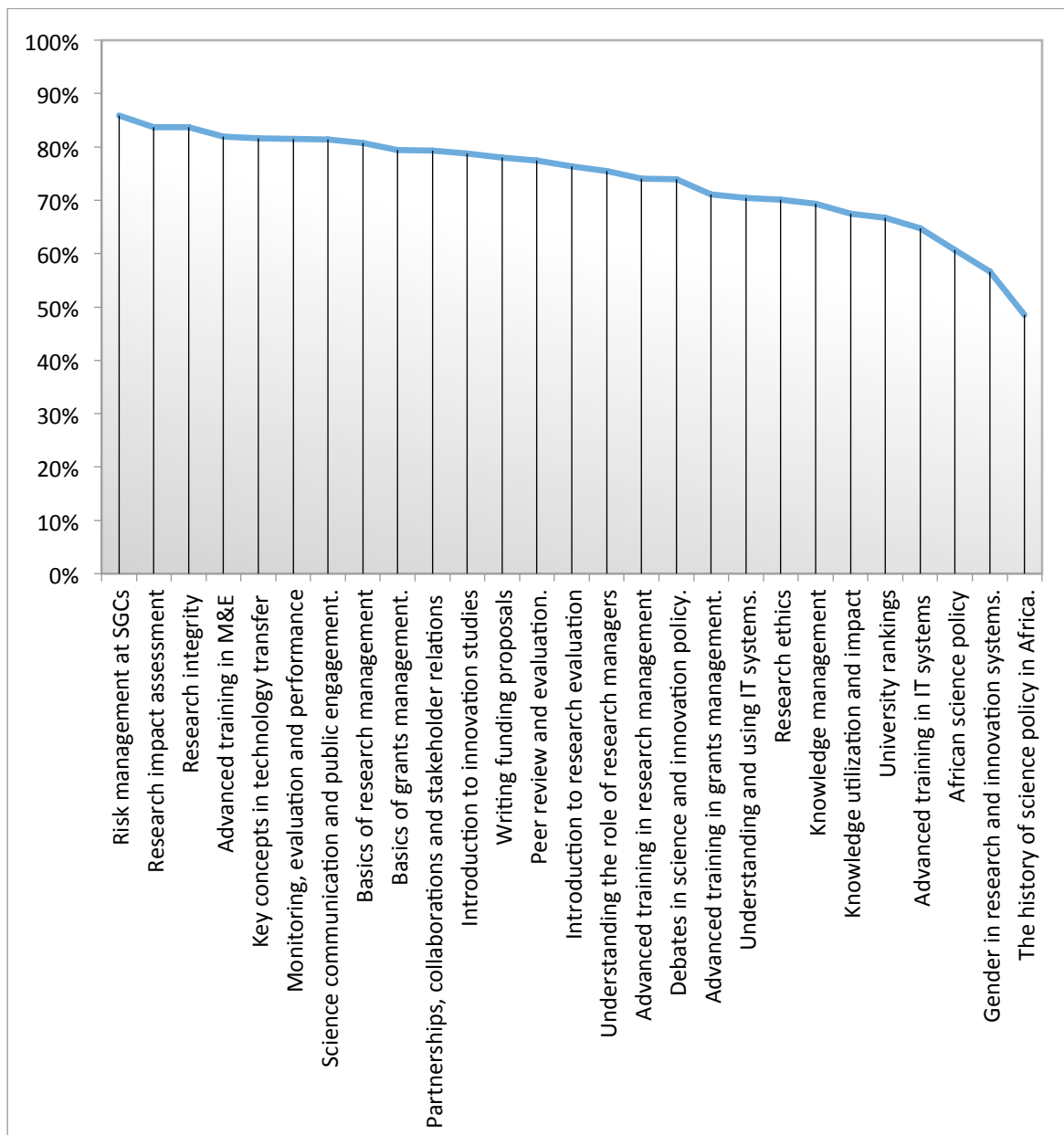
## FINDINGS

1. There is clear evidence of the demand for general research management capacity building that will improve individual and organizational performance across all SGCs.

One “indicator” of this is the fact that 191 individuals are nominated by the fifteen SGCs to receive some aspects of training, according to their individual needs.

2. The list of thirteen current competencies that was provided evoked High Importance ratings (the proportions of High Importance ratings ranging from 68% to 82%).
3. The same list of 13 competencies was also rated to be very desirable as far as training is concerned with the proportions of Definitely Required ratings in a tight range from 72% to 86%
4. SGCs were asked to rate the importance of receiving training on a list of twenty seven Knowledge Areas. The rankings when analysed by the percentage of total responses for each area reveal the highest ranked areas to be *Risk management at SGCs* and *Research Impact Assessment* which are rated to be of Very High Importance at 86% and 84% *Partnerships, collaborations and Stakeholder Relations* is rated to be of Very High Importance by 79%, and is ranked 10<sup>th</sup>.
5. The lowest ranked area (*History of science policy in Africa*) was rated by 61% to be of High importance. But as the line graph below shows, twenty one of the twenty seven knowledge areas were rated at more than 70% to be of High Importance. Only six areas received less than 70% High Importance ratings: *History of science policy in Africa, University rankings, Gender in research and innovation systems, African Science Policy and Advanced training in IT systems*.

**DESIRED KNOWLEDGE AREAS IN DESCENDING ORDER - rated by High Importance only**



6. The spread of ratings as High Importance and Moderately Important when grouped reveals that the desire for training when assessed by individuals' needs shows some interesting outlier demands.

- a. *Writing Funding Proposals* and *Partnerships, collaborations and stakeholder relations* are the most desired course offerings. Discussion in the Johannesburg workshop revealed that initiating and responding to calls and requests for funding proposals is an important aspect of many of the SGCs. Most SGCs do not receive an adequate (and in some cases, no)



allocation from the national budget and so funds have to be motivated for within bi- and multi-lateral agreements and from international funding agencies and philanthropic organizations.

- b. *Advanced Training in IT systems* is the least desired course offering, but examination of the raw data shows that the number of individuals nominated is also low.
7. Given the discrepancy in ranking between desire for courses when ranked all by 27 courses on offer and when restricted to only three highest priority areas for SGCs as organisations we believe the results must be interpreted more widely. A simple focus on these four high priority areas may lead to a simplistic picture of the diverse needs of the SGCs when they undertake a fine-grained assessment of the individuals' training requirements. We would argue that a number of the "lower" ranked priority areas are in fact quite closely related to these four top priority areas. Some examples:
  - a. ~~The next highest ranked priority is~~ "*Understanding the nature and processes of peer review and evaluation*". This is a theme that can easily be seen as a subtopic of either "*Grants management*" or "*Research management*".
  - b. Two other priority areas that appear in the top 10 are: "*Introduction To Research Evaluation And Research Assessment Methodologies*" and "*Understanding The Nature And Processes Of Peer Review And Evaluation*". These two areas are taught at CREST in conjunction with the second highest ranked priority area: *Research impact assessment*.
8. As far as the preferred mode of delivery is concerned, two main findings are clear:
  - a. There is a clear preference for a form of accredited training programme (whether it be through the Stellenbosch University certificate programme or another accredited programme);
  - b. There is also clear preference for modes of delivery that are not too intrusive as far as the normal routines of the SGC's are concerned. This is evidenced by the fact that two of the modes of delivery that appear in the top 5 are of short duration (Practical training workshops).
  - c. It is obvious, but still important to emphasize, that the preferred modes of delivery are not mutually exclusive. The challenge will be to get the optimal mix of quality (accredited course), cost-efficiency (online and in-house) accessibility and suitability (location and size of groups) and effectiveness (practical training and collegial learning).

## RECOMMENDATIONS

The findings outlined above suggest that close attention should be given in the next phase of the project to designing the training programme and detailing the curriculum. A simple mechanistic choice of ranked priority areas as these have emerged from the needs assessment study will not do as it assumes that the current list of twenty seven priority knowledge areas are clearly demarcated and independent of each other. The best way to look at the list of knowledge areas is to rather view the areas as "clusters of topics" with different degrees of overlap and also gradations of complexity between them. Practically it implies at least the following:

- a. That the next step should involve a systematic process of unpacking the contents of each knowledge area in order to identify the main clusters of topics;
- b. That the process of unpacking should also involve articulating clearly the differences between "basic" and "advanced" courses.
- c. That the input of the SGCs with respect to additional Desired Competencies and additional required Knowledge Areas should be considered when 'clustering' topics.

- d. That the practicalities of delivering training should be mapped onto the preferred modes of delivery and the design of the curriculum and choice of course content should also be mapped to the most appropriate and effective delivery modes.
- e. That careful consideration should be given to the fact that there have been more or less 100 persons nominated to benefit from training in each of the knowledge areas. The size of groups should be factored in when the most effective mode of delivery for particular types of learning is chosen.

# SECTION 2 - APPENDIX

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## NEEDS ASSESSMENT SURVEY INSTRUMENT

### Section 1 of 7

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This survey is part of SGC Initiative - **Objective 1 – Strengthening Research Management in Science Granting Councils in Sub-Saharan Africa**. The aim of the survey is for the SGCs to ascertain what the training and capacity building needs are of key staff at the science granting councils in African countries. We ask that the responses are carefully considered in terms of your SGC's staff development needs over the next 2-3 years.

On the basis of the consolidated responses that will be an important element of the validation and planning meeting in October in consultation with SGC representatives, and within the bounds of the programme intervention, the training offering will be – as much as possible – customized to the specific needs of the staff in each SGC. The more specific and considered your responses, the more we will be able to put together a programme that will be of direct benefit to the SGC and the careers and personal development of your staff. Depending on the responses, some of the topics identified may also be addressed through one or two day learning forums, rather than formal training courses or practical workshops.

Please use Section 3 of 7 and Section 4 of 7 to conduct individual appraisals.

Please use Section 1 of 7, Section 2 of 7, Section 3A of 7, Section 4A of 7, Section 5 of 7, Section 6 of 7 and Section 7 of 7 to provide the SGC's aggregated responses and return these 7 forms to CREST.

If you have any queries about the needs assessment study, you are welcome to contact me directly at [jm6@sun.ac.za](mailto:jm6@sun.ac.za), or contact the senior researcher, Ms. Diana Coates at [diana@sun.ac.za](mailto:diana@sun.ac.za)

In order to assist with planning we ask that the overall summary is filled in as accurately as possible. Please compile the summary report and return your SGC's response to Diana Coates at [diana@sun.ac.za](mailto:diana@sun.ac.za) on or before Wednesday the 28<sup>th</sup> September 2016

I want to thank you in advance for your time in completing this survey.

Prof Johann Mouton

Director: CREST

### Name of Science Granting Council

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- 1) Details of the person appointed to complete the Survey on behalf of the Science Granting Council  
a. Title (circle the correct title(s) or specify)

Mr. Mrs. Ms. Dr. Prof. Other (specify)

- b. Full Name

First Name	
Last Name	

- c. What is your current position/job title in the organization (e.g. Director: Planning or Programme Officer: Life Sciences) in addition to being your SGC's appointed Co-coordinator?

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- d. A short description of your main responsibilities and duties in your current position

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- f. A list of your degrees/diplomas and qualifications relevant to carry out your responsibilities and duties

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## Section 2 of 7

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**PLEASE COMPLETE SECTION 2 OF 7 AND SECTION 3 OF 7 FOR EACH STAFF MEMBER WHO HAS BEEN IDENTIFIED TO BENEFIT FROM THE SGCI TRAINING INTERVENTION. The completed form, will we hope, be useful for the SGC's internal records, and will provide the basic information for Section 3A of 7 to be filled in.**

- a. What is the person's current position/job title in the organization (e.g. Director: Planning or Programme Officer: Life Sciences, or IT Manager, etc.)?

- b. A short description of the main responsibilities and duties in the position

- c. A list of the degrees/diplomas and qualifications relevant to carry out the current responsibilities and duties.



Information – technical management of IT systems and infrastructure								
Financial –organizational and audit processes								
Stakeholder relations –partnerships, collaborations (out of country)								
Stakeholder relations –participating institutions (in country)								
Stakeholder relations – science communication, public awareness								

If necessary, describe any additional competency areas that are core to the role of the staff member (and which have not been listed above)

Topic	Very important		Moderately important		Not important at all		Not applicable	
	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>
Topic 1								
Topic 2								
Topic 3								

**Name of Science Granting Council**

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**SGC CURRENT IMPORTANT COMPETENCIES - AGGREGATED TABLE**

Please indicate the **TOTAL NUMBER** of staff who will be nominated to benefit from the SGCI training. (Individual staff members may be nominated to participate in several courses – what is required here is the number of individuals in the total SGC staff complement that will be nominated for training).

TOTAL NUMBER	M	F

Please aggregate the number of persons, by competency, and rate how important each competency is for the SGC, (e.g. Research calls Very important M4/F4; moderately important M2F5; not important M1/F0; not applicable M5/F6)

Topic	Very important		Moderately important		Not important at all		Not applicable	
	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>
Research calls – the development of calls/clusters of calls								
Research calls - management of the call processes (including budgets)								



Grants - management of application reviews and evaluations including screening, appointment of panels/evaluation processes/ appeals processes								
Grants - management of contracts/conditions of grants/other grant agreements								
Grants - management of intellectual property rights and licensing.								
Grants - management of awards, payments and expenditures.								
Information – management of information systems (grant calls, awards, reviews, closeouts and archiving)								
Information – management of monitoring and evaluation reporting (progress reports, research performance, publications and uptake.								
Information – technical management of IT systems and infrastructure								
Financial –organizational and audit processes								
Stakeholder relations –partnerships, collaborations (out of country)								
Stakeholder relations –participating institutions (in country)								
Stakeholder relations – science communication, public awareness								

*If necessary, in the table above, describe any additional competency areas that have been identified to be core to the role of staff members in the SGC (and which have not been listed above).*

**Name of Science Granting Council**

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**Position/Job Title** \_\_\_\_\_

**Competencies which the SGC would like this Position/Job Title to acquire**

*(This section is to be completed for each relevant staff member). The completed form, will we hope, be useful for the SGC’s internal records, and will provide the basic information for Section 4A of 7, 5 of 7 and 6 of 7 to be filled in.*

Topic	Yes, definitely		Yes, maybe		No	
	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>
Research calls – the development of calls/clusters of calls						
Research calls - management of the call processes (including budgets)						
Grants - management of application reviews and evaluations including screening, appointment of panels/evaluation processes/appeals processes						
Grants - management of contracts/conditions of grants/other grant agreements						
Grants - management of intellectual property rights and licensing						
Grants - management of awards, payments and expenditures						

Information – management of information systems (grant calls, awards, reviews, closeouts and archiving)						
Information – management of monitoring and evaluation reporting ( progress reports, research performance, publications and uptake,						
Information – technical management of IT systems and infrastructure						
Financial –organizational and audit processes						
Stakeholder relations –partnerships, collaborations (out of country)						
Stakeholder relations –participating institutions (in country)						
Stakeholder relations – science communication, public awareness						

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**Section 4A of 7**

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**Name of Science Granting Council**

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**SGC DESIRED IMPORTANT COMPETENCIES - AGGREGATED TABLE**

Please count the number of male or female staff members that should acquire the competency areas listed below which would improve their effectiveness in their job and write the number in the space provided. Add additional competency areas as necessary.

Topic	Yes, definitely		Yes, maybe		No	
	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>
Research calls – the development of calls/clusters of calls						
Research calls - management of the call processes (including budgets)						
Grants - management of application reviews and evaluations including screening, appointment of panels/evaluation processes/ appeals processes						
Grants - management of contracts/conditions of grants/other grant agreements						
Grants - management of intellectual property rights and licensing						
Grants - management of awards, payments and expenditures						
Information – management of information systems (grant calls, awards, reviews, closeouts and archiving)						
Information – management of monitoring and evaluation reporting ( progress reports, research performance, publications and uptake,						
Information – technical management of IT systems and						

infrastructure						
Financial –organizational and audit processes						
Stakeholder relations –partnerships, collaborations (out of country)						
Stakeholder relations –participating institutions (in country)						
Stakeholder relations – science communication, public awareness						

**Name of Science Granting Council**

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**SGC DESIRED IMPORTANT KNOWLEDGE AREAS - AGGREGATED TABLE**

**Knowledge Areas In which the staff in the SGC should receive training and/or related experiential learning**

Please select (as many as you would like from the list below) those knowledge areas in which staff members in the SGC (according to gender) should be trained under the SGCI initiative.

Include the number of staff, under the specific rating scale, to indicate the importance for these staff member to receive the specific training in the next two or three years.

	Topic	Very high importance		Moderate importance		Low importance		Not important	
		<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>	<i>F</i>
1	Basics of research management								
2	Advanced training in research management								
3	Basics of grants management.								
4	Advanced training in grants management.								
5	Understanding and using IT systems.								
6	Advanced training in IT systems (design).								

7	Understanding the nature and processes of peer review and evaluation.									
8	Introduction to monitoring, evaluation and performance management (indicators).									
9	Advanced training in M&E and performance management (framework design).									
10	Introduction to research evaluation and research assessment methodologies.									
11	Research impact assessment: assessing the impact of research projects.									
12	Understanding gender in research and innovation systems.									
13	Understanding the role of research managers at research performing institutions and at SGCs.									
14	Knowledge management: scholarly publishing, open access and open science.									
15	Knowledge utilization and impact: How to optimize the uptake and impact of research findings.									
16	Science communication and public engagement.									
17	Risk management at SGCs.									
18	The history of science and science policy in Africa.									
19	The African science policy landscape									
20	Current debates in science and innovation policy.									
21	Introduction to the field of innovation studies and innovation indicators and understanding concepts such as the “national system of innovation”.									

22	Introduction to the domain of research integrity (plagiarism, fabrication of data, predatory publishing, ghost authorship, etc.).								
23	Managing partnerships, collaborations and stakeholder relations (in country and out of country).								
24	Introduction to the domain of research ethics (ethical codes, informed consent, confidentiality of research, the rights of minorities and children and animals in research).								
25	Introduction to key concepts in technology transfer (licensing, patents, spin-offs) and commercialization of IP.								
26	Writing funding proposals.								
27	Understanding how university rankings work.								

Given the resources in the programme, the during the validation/planning meeting the priorities will be identified so as to address those needs that are rated to be of very high importance early in the training programme



**Name of Science Granting Council**

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**Top THREE Priority Knowledge Areas in which the staff in the SGC should receive training and related experiential learning**

We anticipate that a large number of areas will have been identified, across the SGCs. However, we also need to get a more articulated sense of the real priority and urgent areas. We would like therefore, to have your SGC select the THREE priority areas from the list below that are rated as the most urgent and highest priority areas. If these are not listed, please add them at the end.

Please indicate the number of male and female staff members in each priority category.

	Topic	Very high importance		Moderate importance		Low importance		Not important	
		M	F	M	F	M	F	M	F
1	Basics of research management								
2	Advanced training in research management								
3	Basics of grants management.								
4	Advanced training in grants management.								
5	Understanding and using IT systems.								
6	Advanced training in IT systems (design).								
7	Understanding the nature and processes of peer review and evaluation.								

8	Introduction to monitoring, evaluation and performance management (indicators).								
9	Advanced training in M&E and performance management (framework design).								
10	Introduction to research evaluation and research assessment methodologies.								
11	Research impact assessment: assessing the impact of research projects.								
12	Understanding gender in research and innovation systems.								
13	Understanding the role of research managers at research performing institutions and at SGCs.								
14	Knowledge management: scholarly publishing, open access and open science.								
15	Knowledge utilization and impact: How to optimize the uptake and impact of research findings.								
16	Science communication and public engagement.								
17	Risk management at SGCs.								
18	The history of science and science policy in Africa.								
§9	The African science policy landscape								
20	Current debates in science and innovation policy.								
21	Introduction to the field of innovation studies and innovation indicators and understanding concepts such as the “national system of innovation”.								
22	Introduction to the domain of research integrity (plagiarism, fabrication of data, predatory publishing, ghost authorship, etc.).								

23	Managing partnerships, collaborations and stakeholder relations (in country and out of country).								
24	Introduction to the domain of research ethics (ethical codes, informed consent, confidentiality of research, the rights of minorities and children and animals in research).								
25	Introduction to key concepts in technology transfer (licensing, patents, spin-offs) and commercialization of IP.								
26	Writing funding proposals.								
27	Understanding how university rankings work.								

## Name of Science Granting Council

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## Preferred modes for Capacity Development

There are several capacity development modes planned for Objective 1.

Please rank each of the following modes indicated below according to the importance for your SGC; the aggregated responses from all SGCs will provide the information to choose develop the appropriate formats for the overall project.

Mode	Very high importance	Moderate importance	Low importance	Not important
<b>Practical training workshops</b> (in-house only)				
<b>Practical training workshops</b> (with other SGCs for networking and learning opportunities)				
<b>Certified Research Manager</b> (workshops and work experiences resulting in a certification from a Research Management Association)				
<b>Short courses</b> (delivered online)				
<b>Webinars</b>				
<b>Academic Certificate in Research Management</b> (accredited by University of Stellenbosch, 6 short courses delivered online and 1-week block of time at Stellenbosch)				
<b>Learning visits</b> (to NRF and other SGCs in Africa)				
<b>Learning visits</b> (to International SGCs)				

<b>Conferences on research management</b> (regional / international)				

Finally, please record, on behalf of the SGC to add any other comments that you would like to make about the training or professional development needs in the SGCI - Objective 1.