![HSRC - Human Sciences Research Council logo]

TRAINING MANUAL

THE CHANGING ROLE OF THE UNIVERSITY IN INCLUSIVE INNOVATION IN SOUTH AFRICA: COMPARING THE ROLE OF PUBLIC RESEARCH INSTITUTES

CONTACT:

GLENDA KRUSS   **021 466 8086**

RUSHIL RANCHOD   **021 466 8092**

MARIETTE VISSER   **012 302 2939**

HOW TO USE THIS MANUAL

The manual consists of five sections.

Section A – Background to the study: provides a summary of key aspects of the study that you need to know.

Section B – The electronic capturing tool: provides a detailed breakdown of the electronic interview by linking this with the electronic capturing tool. It provides a visual of each capturing TAB (or sheet), an explanation of what is on the TAB as well as tips on ways in which the information can be gathered.

Section C – Glossary

Section D – Email letter sent to scientists: provides the text of an email letter sent to scientists at MRC, the first science council with which you will begin the survey. An adaptation of this letter will be used at the other science councils.

Section E – Copy of the consent form: provides the text of the consent form for conducting the telephonic interviews with individual scientists. The consent form accompanied the letter which informed the scientists of the imminent survey.

SECTION A: BACKGROUND TO THE STUDY

The broad aim of this project is to 'map' the ways in which scientists extend their knowledge through research and/or service/outreach to the benefit of a wide range of external partners.

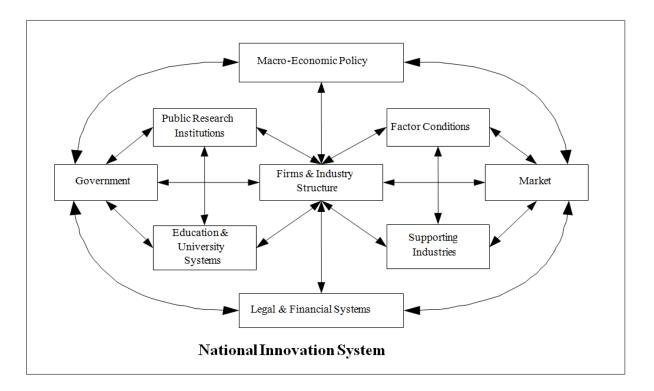**Why is the study important?**

The research will contribute to addressing two national priorities articulated in the Medium Term Strategic Framework (MTSF). First, mapping current practice in a range of institutions and country contexts can inform conceptually and empirically the concern that higher education should contribute to the economic and social wellbeing of the country and the wider global community.

Second, insights based on the study of current practice can be used to inform future practice in the public science system that can "build on the range of strategies and support programmes already supporting innovation in firms and R&D in the private and public sectors" and "accelerate socio-economic development by increasing access to, uptake and usage (of science and technological innovation and development) through partnerships with business and civil society (MTSF:36.5 pp15-16).

In short, a stronger conceptual and empirical research base can provide fresh insights to bridge the policy disjuncture, to fill a gap in the policy literature and add value to shift debate, inform policy and promote new practice.

How will a focus on public research institutes contribute to this task?

The figure below provides one way of representing the public science system (left hand side of the diagram) in relation to the industrial system (right hand side of diagram) in a national system of innovation (Von Tunzelmann 2007). The public science system consists of public research institutes, together with education and the university system, interacting with both government, and with firms and the industry structure. Collaboration and alignment between universities and science councils is critical to strengthen immature national systems of innovation in developing countries (Mazzoleni 2008).

National Innovation System

Research Questions

One critical research question relates to the degree of alignment, collaboration and complementarity between universities and science councils, in the public science system.

Research questions that will be addressed, include:

- What are the scales and forms of interaction between scientists and external partners in diverse disciplinary fields?
- What are the scales and forms of interaction between scientists and external partners in different research institutions?
- What are the outcomes, benefits and risks of these forms of interaction?

The range of activities described is likely to range widely, from new forms of participatory or technology development networks that require close and direct engagement, to those that are widely diffused, like being a 'public intellectual'.

We have decided that for this study, engaged activities MUST involve the scientists' specific field of research – it must be directly related to the scientists' specific job. So, if I am a professor in the law faculty, and I volunteer to teach in my local Sunday school every week, or I serve on a school governing body, that is NOT an engaged activity. Anybody could play such a role, they do not have to be a scientist to do so. But if I serve on a legal aid team to offer expert counsel for free, then that is an engaged service, as it depends entirely on my professional knowledge field.

It is important to understand that the activities differ in different knowledge fields/departments/units. So, scientists in the health sciences may be involved with communities in clinics or designing new health interventions, while those in education may be involved in school and teacher development, or those in science research programmes or units may be doing research on environmental issues or to develop drought resistant plants, and those in the arts may be involved in terms of designs and exhibitions and so on. We will ask scientists whether they are involved in a very wide range of activities in order to cover all these options, and not all will apply to an individual in their specific field.

Activities may involve research – for example, software development projects to support HIV/Aids treatment via cell phones, or research to support policy formulation in local government or research to commercialise indigenous knowledge. Or they may involve service/outreach – for example, expert advice to support community campaigns. And of course, they could involve all of these in an intersecting way.

There are a very wide range of 'external partners' with which scientists may engage – from different levels of government to firms to communities to social organisations – and we will be assessing engagement with any or all of these.

Such engagement may benefit the research councils through publications or through enhancing reputations, but it should also benefit the external partner in some way, whether directly or indirectly.

There are also many obstacles and constraints on such engaged activity, some within the research institutes – for example, lack of funding or policy incentives - and some outside – for example, the difficulties of working with the expectations of communities and other partners.

The survey will map patterns of scientist activity across each of these dimensions.

The sample

We have selected three research institutes to participate in the study, each one representing a different institutional type (see Table below for the list).

Research institutes	Scientists/Researchers	70% target sample
MRC	639	448
CSIR	1 545	1 082
ARC	866	607
TOTAL	3 050	2 137

To make sense of different patterns of interaction in different research institutes, and in different knowledge fields, we need to interview a large proportion of scientists. Hence, we will use the ENTIRE staff population as our sample, and we aim to achieve a 60-70% response rate.

It will be important to interview ALL scientists, and not only those who think that they are involved in some form of engaged activity. Those scientists, who say that they are not at all involved with external partners, will be asked to respond to a question (question 8) on the reasons why they are NOT involved.

Ethical issues

We have gone through a process to ensure that the project complies with research ethics regulations at the HSRC. Ethics clearance has been obtained from the HSRC Research Ethics Committee and endorsed by the MRC Ethics Committee. The Executive Management Council (EMC) of the MRC has given permission to access the staff contact database – which is where we got each scientists' telephone number and details from.

We are trying to work in such a way that the project is conducted in collaboration with each science council, and so that it can be of direct benefit to their strategic work on community engagement and their responsiveness to social and economic needs.

Prior to your call, each research institute will send out an email from a senior leader (for example, at MRC, the Executive Manager and Project Coordinator of the Strategic Research Initiatives unit have sent out the email). The email explains the study, it asks scientists to participate, and it includes a full consent form for information – consent to participate will be verbal and is included in the CATI instrument.

The project is funded by the Department of Science and Technology. It will feed into national debates on community engagement in higher education.

The interview

We have designed and piloted a Computer Aided Telephonic Interviewing instrument on a MS Access database. Details of each scientist at the research institute will be pre-loaded.

The interview is designed to take no more than 15 minutes of a scientist's time, and if they indicate they are not involved in community engagement or social responsiveness, then it should take three or four minutes.

The script is integrated into the CATI tool, and you will record responses on the tool as you proceed.

Note that you will be interviewing scientists and often very senior professors, and it is important to conduct the interview in a confident and professional manner.

Scientists are likely to ask difficult questions and comment on why their work does not fit within the categories. Please make notes of all such comments, and answer as best you can. Based on the pilot, the most likely answer is that we are dealing with scientists/researchers in a wide range of fields and all the items are not likely to apply to each individual.

If there are any questions you cannot answer, you should refer to the project leader, Glenda Kruss (021- 466 8086).
The quality of the telephones is important for clarity of the interview and in order to complete it within 15 minutes.

Another possible problem with clarity may arise from different dialects of English, and this is an issue that the project manager should address.

There is no 'best' time of day to call, but mid-day and early afternoon seem good, and after 4pm for about an hour has been fruitful.

SECTION B: The electronic capturing tool

Searching the database (Tab 1)

Each scientist in the database has a unique number, a name, telephone number and email address. This first tab allows you to search for a specific person, or to proceed to the introduction tab (***Go to Introduction***).

Note the instructions to interviewers are in GREY. Script to be followed in the interview is in BLUE. The field names are in GREEN.

Please log all calls in the logbook as discussed, for purposes of follow up, monitoring, and quality control.

You need to work out a way to keep track of the record number you are currently working with, at all times, so that any mistakes can be rectified.

THE ROLE OF PUBLIC RESEARCH INSTITUTES IN INCLUSIVE INNOVATION IN SOUTH AFRICA

| Search | First Call | Right Person | Introduction | Question1 | Question2 | Question3 | Question4 | Question5 | Question6 | Question7 | Question8 | Demographics |

Date of interview:

Interviewer:

Phone Number: 0219380480

Add_phone1:

Add_phone2:

MRC

Unique ID: mrc0245

Personnel number: 62075

Hello, am I talking to: DOCTOR MOTLALEPULA MATSABISA

in INDIGENOUS KNOWLEDGE SYSTEMS LEAD PROGRA - MEDICINA

[This is important as you want to make sure you are talking to the right person in the correct unit or centre.]

[If not right person, thank the person and ask:] **Do you perhaps know _____ and on what number I can call him/her?**

[IF YES: Obtain correct contact details and amend your list; IF NO: THANK him/her for taking the call BEFORE closing the conversation in a polite, respectful manner and update the 'call comment'.]

CallComment:

[If IT IS THE RIGHT PERSON: Proceed as follows:] Go to Right Person

Introducing yourself and ascertaining that you have the right person (TAB 2: First call)

You should practice this introduction and make sure you are totally familiar with it, so that when you call scientists, you can introduce yourself and your topic in a CONVERSATIONAL and confident tone.

Top block:

- You will use the telephone numbers provided to get hold of the scientists.
- Please add any additional numbers if you are referred to a different number for the scientist.
- The *Call Comment* block should be used to note any changes or incorrect numbers.

Main block:

- If no-one answers the phone, go on to the next scientist in the dataset, and note it in the logbook.
- Use the script as provided in **BLUE** – you will soon learn this off by heart.
- Check that you are talking to the right person.
- Add your name to introduce yourself.
- If someone else answers the phone, try to establish a way to call the designated scientist (for example, a secretary – ask when is the best time to call the person, and what number to use; or if someone has moved office, try to get their new number; if the scientist is on sabbatical or any other leave, please note in the *Call Comment* box).
- If you reach the person you called, move on to next tab (Click on *Go to right person* button).

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| Search | First Call | **Right Person** | Introduction | Question1 | Question2 | Question3 | Question4 | Question5 | Question6 | Question7 | Question8 | Demographics |

My name is _____ and I work for the HSRC (Human Sciences Research Council). We were given your phone number by the MRC Executive Management.

You should have received an email and information letter from Dr Niresh Bhagwandin, asking scientists to participate in a study of social responsiveness.

[PAUSE: and establish the situation regarding the e-mail. If respondent has for some reason NOT received the email:]

1. *Offer to re-send the email (request/confirm e-mail address) AND*   motlalepula.matsabisa@mrc.ac.za
2. *Enquire when you can call again to make an appointment for a telephonic interview.*
3. *Thank the respondent before ending the conversation*
4. *Enter the outcome in the LOGSHEET and update the 'call comment' field*
5. *Ask your administrator to send the email to respondent immediately after terminating the call*

CallComment:

[Go to Introduction]

Introducing the project to the RIGHT PERSON: (Tab 3)

Use the script in BLUE, in a conversational tone.

The scientists have all been sent an email (see Sections D and E and be familiar with the names of the senior managers in the research institute who sent it out on our behalf, and what it says).

So an easy way to start is to refer to the email.

They may also wonder how we got their number, so we explain that we got it from the Human Resources Department of their council and that it was approved by the Executive Management Committee (EMC). Note we have numbers of ALL scientists and not a sample, so everyone will be called.

If the person DID NOT receive the email or does not know what you are talking about,
- o offer to resend the email and follow the procedure in GREY.
- o complete the *Call Comment* box to make notes on what you have done and what action needs to be taken to follow up

If the person DID receive the email, go to *Introduction* (Tab 4).

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| Search | First Call | Right Person | **Introduction** | Question1 | Question2 | Question3 | Question4 | Question5 | Question6 | Question7 | Question8 | Demographics |

We are working together with the Executive Director Strategic Initiatives on a research project whereby we are trying to map the ways in which scientists extend their knowledge to the direct benefit of external partners (for example, communities, individuals, NGO's or government departments).

The results of this study will be used to inform strategies to promote engaged research at MRC, by the NRF and by the Department of Science and Technology. I would like to ask for about 15 minutes of your time to participate in the study, now or at a later time or date that is convenient to you.

[IF RESPONDENT AGREES, PROCEED TO SECTION ON CONSENT ... and do the interview right away as discussed].

[IF RESPONDENT AGREES, BUT CAN DO IT AT ANOTHER TIME:]

1. *Arrange a date and time for the telephonic interview with the respondent*
2. *Thank the respondent before ending the conversation*
3. *Enter the outcome in the LOGSHEET and update the 'call comment'.*

CallComment: [   ]

[IF THE RESPONDENT REFUSES BECAUSE THEY DO NOT ENGAGE OR SEE THE SURVEY AS RELEVANT TO THEIR WORK, ASK:]

We are trying to interview ALL scientists. If you feel that the survey is not relevant to your scientific work, would you mind giving three minutes to answer a few questions on the reasons why?   *[Go to Consent then Question 8.]*

[CONSENT OF RESPONDENT:]

The full consent form was circulated for your information. For formality:
1. Please understand that your participation is voluntary,
2. Your answers remain confidential and   [▼]
3. The interview will take about 15 minutes.

Can I confirm that you are a [*DIRECTOR*] in [*INDIGENOUS KNOWLEDGE SYSTEMS LEAD PROGi*] ?

[Go to question 8]

[Go to question 1]

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Introduction and consent: Tab 4

- Use the script as provided in **BLUE**.
- Here, you are explaining what the project is about and how the results will be used.
- You then ask them formally to participate in the interview.

- If the scientist AGREES to an interview immediately:
    - Go through the verbal consent item
    - click YES on the pull-down tab
    - Proceed to Question 1 by clicking the tab button

- If the scientist AGREES to an interview at a more convenient time:
    - Follow the instructions in GREY
    - Arrange a time for an interview
    - Record in the *Call Comment* the action for follow up
    - Record in the logbook

- If the scientist REFUSES to participate:
    - Go on to the BLUE script that explains why their input is important and ask them to participate simply by providing reasons why they do not engage for about three minutes
    - If they agree to this:
    - Go through items 1 and 2 of consent
    - Proceed to *Question 8* by clicking the tab button

It is critical that you try to convince these scientists to participate in terms of Question 8 at least. This is where your skill as an interviewer comes in. Stress that we are trying to understand the experience and views of ALL scientists, not only those who think community engagement/social responsiveness is important.

- If the scientist ABSOLUTELY refuses to do anything:
    - Thank them politely for their time
    - Note the refusal and any reasons offered in the *Call Comment* section

Consent:
- Remember that the full consent form was sent out for information, with an email inviting them to participate
- Select **YES** if they agree to participate, whether in full or Q 8 only
- Give them the contact number of a member of the project team if they need further clarification, or anything else they wish to discuss

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| Search | First Call | Right Person | Introduction | **Question1** | Question2 | Question3 | Question4 | Question5 | Question6 | Question7 | Question8 | Demographics |

I am going to ask you 6 questions focused on the ways in which your own research work is extended to the mutual benefit of external partners over the last two years. Each question will have a number of options that cover the experience of different research areas, and they may not all apply to your own field.

1. The first question will focus on the type of external partners with whom you engage. I will read a list of partners and I would like you to rate EACH of them on the same scale (where 1= not at all, 2 = in isolated instances, 3 = on a moderate scale and 4 = on a wide scale).

To what extent do you engage through your research with any of these external social partners?

1	Local government agencies	▾	16	Political organizations	▾
2	Provincial government departments or agencies	▾	17	Religious organizations	▾
3	National government departments	▾	18	Large South African firms	▾
4	Clinics and health centers	▾	19	Small, medium and micro enterprises	▾
5	Schools	▾	20	Multi-national companies	▾
6	National regulatory and advisory agencies (eg NACI, CHE)	▾	21	Small-scale farmers (non-commercial)	▾
7	Individuals and households	▾	22	Commercial farmers	▾
8	A specific local community	▾	23	Sectoral organisations (eg Business SA, Meat packers association)	▾
9	Welfare agencies (eg Child Welfare)	▾	24	South African universities	▾
10	Non-governmental agencies (NGOs)	▾	25	International universities	▾
11	Development agencies (eg DBSA)	▾	26	South Arican science councils	▾
12	Trade unions	▾	27	International science councils	▾
13	Civic associations	▾	28	Hospitals	▾
14	Community organizations	▾	29	Funding agencies	▾
15	Social movements (eg Treatment Action Campaign)	▾	30a	Other	▾
			30b	Specify	

Thank you, we are done with the first question. We now move to the second one.

Go to question 2

Question 1 to 6

It is important that you are familiar with the items in each question. Make sure you understand the difference between the items during the training, and if not, ask your project manager or call the project leader BEFORE you start interviewing.

If there are queries while you are interviewing, use the glossary as well as you can, and note the concern in the *Call Comments* block. You may then call the project leader for future reference.

Top block:

The script helps you to introduce how the instrument works, and so that the scientist can know how far you are. There are six questions, and each has about 20 options (Q1 is the longest set).

The scientist should rate EACH option on a scale of 1-4, as explained. Q1 to Q5 have the same scale, from 'not at all' to 'on a wide scale'.

Q6 has a different scale, from 'not important' to 'very important', so watch out for that.

It is tricky to keep the question and the scale in one's head at the same time, so you may need to repeat the scale at some point while going through the list of items for that question.

The items

IGNORE the numbers in the left hand column, they are for data analysis purposes only. Go through each item, and type the scientists' rating of 1-4 in

the block as you proceed.

At the end, ask if there are any other social partners/types of relationship/etc. that you have not mentioned, if yes, please type into the box 'Specify'.

Then signal that the question is complete, and you are moving to the next one. Move by clicking the button provided.

Q1 : Do you understand what is meant by each type of **external partner**? Examples are a good way of explaining and they are included in brackets, but you do not need to read out the example to each scientist you interview. The examples are there to assist you as the interviewer.

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| Search | First Call | Right Person | Introduction | Question1 | Question2 | Question3 | Question4 | Question5 | Question6 | Question7 | Question8 | Demographics |

2. The second question is about the types of relationships that you have with these external partners. I will provide a list of possible relationships (some of which may not be applicable to your discipline) and I would like you to rate them on a scale of 1-4 (again, where 1= not at all and 4=on a wide scale).

To what extent does your research involve these types of relationship that directly benefit external partners?

1	Education of post-graduate students so that they are socially responsive	▼
2	Voluntary outreach programmes	▼
3	Collaborative curriculum design	▼
4	Continuing education or professional development	▼
5	Customised training and short courses	▼
6	Policy research, analysis and advice	▼
7	Expert testimony	▼
8	Clinical services and patient or client care	▼
9	Design and testing of new interventions or protocols	▼
10	Design, prototyping and testing of new technologies	▼
11	Monitoring, evaluation and needs assessment	▼
12	Research consultancy	▼
13	Technology transfer	▼
14	Contract research	▼
15	Collaborative R&D projects	▼
16	Community-based research projects	▼
17	Participatory research networks	▼
18	Joint commercialization of a new product	▼
19a	Other	▼
19b	Specify	

Thank you, we now move to the third question.

[Go to question 3]

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| Search | First Call | Right Person | Introduction | Question1 | Question2 | Question3 | Question4 | Question5 | Question6 | Question7 | Question8 | Demographics |

3. The third question is about the channels though which you convey information to external partners. Again, I will provide a list of different types of channels, not all of which will apply to you, and I would like you to rate each one on the same scale of 1-4 (where 1= not at all and 4= on a wide scale).

To what extent have you used each of the following channels of information to transfer your knowledge to external partners?

#	Channel	
1	Public conferences, seminars or workshops	▼
2	Informal information exchange	▼
3	Radio, television or newspapers	▼
4	Popular publications	▼
5	Interactive websites	▼
6	Social networking sites eg. Facebook, twitter, etc.	▼
7	Post-graduate students	▼
8	Reports and policy briefings	▼
9	Oral or written testimony or advice	▼
10	Training and capacity development or workshops	▼
11	Demonstration projects or units	▼
12	Research contracts and commissions	▼
13	Technology incubators or innovation hubs	▼
14	Intervention programmes	▼
15	Software development or adaptation for social uses	▼
16	Participatory or action research projects	▼
17	Cross-disciplinary networks with social partners	▼
18	Technology development and application networks	▼
19	Patent applications and registration	▼
20	Spin-off firms (commercial or not for profit)	▼
21a	Other	▼
21b	Specify	

Thanks.

Go to question 4

THE ROLE OF PUBLIC RESEARCH INSTITUTES IN INCLUSIVE INNOVATION IN SOUTH AFRICA

Search	First Call	Right Person	Introduction	Question1	Question2	Question3	Question4	Question5	Question6	Question7	Question8	Demographics

4. Now we focus on the types of outputs that emerged as a result of your engagement with external partners. I will read you a list of possible outputs and I would like you to rate them on the same scale (1= not at all and 4= on a wide scale).

To what extent has your engagement with external partners had the following outputs?

1	Post-graduates with relevant skills and values	▾
2	Academic publications	▾
3	Dissertations	▾
4	Reports, policy documents and popular publications	▾
5	Cultural artefacts	▾
6	Scientific collaboration	▾
7	Spin-off companies	▾
8	Community infrastructure and facilities	▾
9	New or improved products eg. Drug discovery	▾
10	New or improved processes eg. Treatment protocols	▾
11	Scientific discoveries	▾
12a	Other	▾
12b	Specify	

Thank you, we are done with the fourth question.

Go to question 5

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| Search | First Call | Right Person | Introduction | Question1 | Question2 | Question3 | Question4 | **Question5** | Question6 | Question7 | Question8 | Demographics |

5. The fifth question is about the benefits that emerged from your engagement with the external partners. Again I am going to give you a list of possible benefits or outcomes and I would like you to rate them on a scale of 1- 4 (1= not at all and 4= on a wide scale).

To what extent has your scientific engagement had the following outcomes or benefits?

1	Public awareness and advocacy	▼
2	Improved pst-graduate teaching and learning	▼
3	Community-based campaigns	▼
4	Policy interventions	▼
5	Intervention plans and guidelines	▼
6	Training and skills development	▼
7	Community employment generation	▼
8	Firm employment generation	▼
9	Firm productivity and competitiveness	▼
10	Novel uses of technology	▼
11	Improved quality of life for individuals and communities	▼
12	Regional development	▼
13	Community empowerment and agency	▼
14	Incorporation of indigenous knowledge	▼
15	Participatory research processes	▼
16	Relevant research focus and new research projects	▼
17	Scientific and institutional reputation	▼
18	Theoretical and methodological development in a scientific field	▼
19	Cross-disciplinary knowledge production to deal with multi-faceted social problems	▼
20a	Other	▼
20b	Specify	

Thank you, we are done with the benefits and outcomes.

[Go to question 6]

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| Search | First Call | Right Person | Introduction | Question1 | Question2 | Question3 | Question4 | Question5 | **Question6** | Question7 | Question8 | Demographics |

6. Now we focus on the challenges and obstacles that you may face when engaging with external partners. I will list possible obstacles and challenges and I would like you to rate them. The scale changes this time, where 1= not important, 2 = slightly important, 3 = moderately important and 4 = very important.

In your experience, how important are the following obstacles and challenges to your scientific engagement with external partners?

1	Limited financial resources for competing institutional priorities	▼
2	Lack of clear institutional policy and structures to promote scientific engagement or social responsiveness	▼
3	Institutional administration and bureaucracy does not support scientific engagement with external partners	▼
4	Competing priorities on time	▼
5	Too few research staff	▼
6	Institutional recognition systems do not reward engagement activities sufficiently	▼
7	Risks of involvement in engagement with external partners	▼
8	Tensions between traditional and new scientific paradigms and methodologies	▼
9	Sustainable external funding	▼
10	Negotiating access and establishing a dialogue with external partners	▼
11	Unequal power relations and capabilities in relation to external partners	▼
12	Legal problems	▼
13	Lack of mutual knowledge about partners' needs and priorities	▼
14a	Other	▼
14b	Specify	

Thank you, we are done with question 6.

Go to question 7

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| Search | First Call | Right Person | Introduction | Question1 | Question2 | Question3 | Question4 | Question5 | Question6 | Question7 | Question8 | Demographics |

7. Finally, can you describe the best example of your research or outreach projects that engaged with external partners over the last two years?

Thank you for your time and insights, and best wishes with your future endeavors!

Go to demographics

QUESTION 7

Here, you ask for examples of their engaged activities. Ask the scientist to describe the project(s), and try to get as much detail as possible:
- who were the partners
- what was the focus
- what were the outcomes
- is it ongoing

Type in as much detail as you can while the person is speaking.

Thank the scientist for their time and click the '*Go to demographics'* button to go to the last tab of the survey.

Finally, thank the scientists for their time and click on the '**Go to next record'** button to move to the next record on the database.

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| Search | First Call | Right Person | Introduction | Question1 | Question2 | Question3 | Question4 | Question5 | Question6 | Question7 | Question8 | Demographics |

8. There are many reasons why researchers do not engage with external partners. Please indicate how important each of the following is in relation to your own experience (where 1 = not important, 2 = slightly important, 3 = moderately important and 4 = very important).

1	Engagement is not appropriate given the nature of my scientific field or discipline	▼
2	Engagement is not central to my scientific role	▼
3	Pressures of research on my time are too great	▼
4	My unit or centre does not promote engagement	▼
5	Lack of clarity on the concept of community engagement or social responsiveness in my institution	▼
6	Institutional recognition systems do not reward engagement activities sufficiently	▼
7	Limited financial resources are available	▼
8	Institutional administration systems do not support engagement	▼
9	Lack of clear institutional policy on engagement	▼
10	Lack of clear institutional structures to promote engagement activities	▼
11	Lack of recognition of engagement as a valid type of scholarship in my institution	▼
12	Differences between science council and partner priorities and needs are too great	▼
13	Lack of partners' knowledge about research activities and priorities in science councils	▼
14a	Other	▼
14b	Specify	

Go to
demographics

Question 8

This question operates in the same way as the others: explain what we are asking, explain the scale and rate each item 1 to 4 where 1 is 'not important' and 4 is 'very important' (as in Q6).

Remember that this is a person who is not keen to participate, so take extra care to move smartly and carefully through the items. Make sure you are very familiar with the items, as some of them are quite long and 'wordy'.

Please emphasize the **OTHER** option and note any contributions. Note any other comments in the **CALL COMMENT** block on the Introduction sheet.

Demographics TAB

This tab investigates the scientist's demographic information. Some of the fields are pre-populated. Remember this is sensitive information and one needs to handle it with care.

SECTION C: GLOSSARY

Channels of information

The 'mechanisms' or means by which information, knowledge or technology is exchanged between a research institution and their social partners. It could take many forms – people, events, legal agreements or organizational forms. For example, if a firm contracts a research council to conduct research for them, the channel of their interaction is a 'contract'. Or if students are sent to do projects that support community campaigns, the channel of the interaction is 'student expertise'. Or if the scientist work with a community, a science council, and a local government agency on a research and development project, the channel is a 'cross-disciplinary network'.

Collaborative curriculum design

Where an external social partner works directly with the scientist or researcher to develop new curricula or teaching methods or programmes.

Comprehensive university

This is a new institutional type created in South Africa after 2004, through the merger of a university and a technikon. They are primarily teaching universities but conduct research, most often but not solely, applied and strategic research.

Commercialisation

Research and development activities may result in a product or process that can be exploited for commercial gain. There are also instances of the establishment of 'non-profit' companies where communities or organisations are the beneficiaries.

Community

This is a very contested term, with many meanings that could refer to a shared location, a shared interest, a shared activity. We generally use it in this study to refer to a shared location, and use the term external partners for the other meanings.

Community engagement

This is a highly controversial term adopted in South Africa to encourage institutions to fulfill their mission of service or outreach, by using their research to the benefit of communities, often the local community in which the institution is situated, and often in relation to poor and disadvantaged communities.

Cooperative learning

This is a historical kind of programme based in the former technikons, whereby students were required to spend a period of time on experiential learning based in a firm or institution as a compulsory part of their course and the award of a qualification – a kind of internship linked to an occupational or professional development programme (for example, engineering technologist, food safety technician, industrial designer). It is now also known as **work-integrated learning** in the new universities of technology.

External partners

The study uses this term to cover any kind of external partner, whether private or public sector. It covers firms (and you will see items on different categories of firms), government (and you will see different levels of government) and civic or social organisations (a wide range, and a key focus of the project).

Networks

This is an informal form of organisation whereby partners collaborate to share the specific skills, expertise or resources of each other, to mutual benefit.

Obstacles and challenges

In the course of engaging with external partners, scientists or researchers have to go outside their normal sets of activities and comfort zones, and the ways in which the institutions' departments or units are organised and run. So they may experience many challenges and obstacles that make it difficult or constrain these new kinds of activities.

Outputs

These refer to a measurable result of engagement, such as the number of publications or the number of new products.

Outcomes and benefits

These refer to the results of engagement that are more diffuse and not easily measured, but relate to their longer term impact on each partner or society in general.

Participatory research networks

These networks involve the external partners and the scientists in jointly designing a research project, and jointly analysing and interpreting the results, to mutual benefit.

Popular publications

Articles that have been written from research projects for wide public dissemination, in an easy to read format. For example, pamphlets, booklets or policy briefs.

Research expertise

This is a key term in the study, whereby we are trying to emphasise that the activities reported on should be *directly related to the core work of a scientist* – research and outreach/service. Scientists should not report on activities they conduct as citizens, which anybody could conduct whether they are a scientist or not, and that is not related to their research expertise. For example, a law lecturer serving on her child's school governing body or an engineering professor chairing a church council.

Research institutes

These institutes are well-established and have prioritised their research mission alongside their outreach, based on a strong research capability and expertise.

Social responsiveness

This is an approach that has been encouraged nationally and that some institutions have adopted to describe and promote their engaged activities. It is a more comprehensive and all-encompassing term than community engagement, and may include engagement with public and private sectors.

Student voluntary outreach programmes

This is when students do voluntary work in communities. They may or may not be related to the course they are studying, but they will not be assessed as part of the course requirements. Examples are working for student welfare organisations, or volunteering in legal aid clinics.

Technology incubators or innovation hubs

These are centres that provide expertise (technical, research, legal, financial, organisational) to support the design and development and commercialisation of new technologies or innovations.

Technology transfer

This is when a new technology is developed by scientists and then applied or used by a firm or a community.

SECTION D: EMAIL LETTER SENT TO SCIENTISTS (MRC)

16 November 2012

Dear colleagues

EMC has accepted an invitation from the Human Sciences Research Council (HSRC) to participate in a survey of social responsiveness. The project, led by Dr Glenda Kruss of the HSRC aims to map the ways in which scientists extend their knowledge through research, teaching or service to the direct benefit of external social partners. Dr Kruss presented the aims and objectives of the study to the Unit Director's Forum meeting on 10 October 2012.

The research is funded by the Department of Science and Technology, to inform the "fifth grand challenge" identified in their ten-year strategic plan, namely, the human and social dynamics of innovation.

There has been much debate globally and in South Africa over the past decade about how science councils could become more responsive to social and economic needs.

Some scientists view interaction with industry or communities or local government as inimical to their traditional scientific activity and the future of knowledge production. There are those scientists who engage with external partners only indirectly, through their contribution to knowledge generation and transmission. For other scientists, in some fields responsiveness has meant direct research linkages with industry or with community groups, and in others, community engagement in relation to social or health development, or perhaps support to policy makers at different levels. These trends differ between science councils, and within institutions, between scientists in distinct areas.

The survey will thus ask individual scientists to reflect on their scientific activities over the past two years in terms of who are the external social partners with whom they engage directly – if at all. What are the most common types of relationships and channels of interaction? The survey will also ask scientists to reflect on the typical outcomes and benefits, and the obstacles to interaction with external social partners.

A workshop will be designed to present the main patterns of interaction to MRC scientific staff. This will provide an opportunity for wider institutional debate on social responsiveness, based on an understanding of current scientific practice. Aggregated survey results could be used by the EMC to inform strategic planning at MRC.

For the survey which would commence on **21 January 2013**, we would need to determine the practices of a large proportion of scientific staff, randomly selected. For this purpose, a telephonic survey will be conducted, during office hours, and each interview should last not more than 15 minutes. I am mindful of the demands on your time, but your participation in the survey will ultimately help inform the national funding framework for the years to come.

Ethics clearance has been obtained from the HSRC Research Ethics Committee and endorsed by the MRC Ethics Committee. I attach a consent form that explains more fully the potential benefits and risks of participation in the project.

For any further queries, please do not hesitate to contact the project leader, Dr Glenda Kruss, of the Education, Science and Skills Development research programme at the HSRC (details in the attached consent form).

I hope that you will be willing to give 15 minutes of your time to share your thoughts and experience, when one of the HSRC researchers calls you.

Sincerely

Dr Niresh Bhagwandin

Executive Manager: Strategic Research Initiatives

SECTION E: CONSENT FORM

To conduct telephonic interviews with individual scientists

Hello, I am Glenda Kruss. I am from the Human Sciences Research Council, a national research organization.

The HSRC is asking MRC researchers to participate in a study of science council's interaction with social partners, whether communities, firms, government or other organisations. We hope to learn more about the contribution of science councils to building a national system of innovation, which we hope will benefit your institution and possibly other institutions and communities in the future.

We have chosen to focus on three science councils with distinct focus areas that have many potential cases of interaction, which is why we have selected MRC.

Please understand that you are not obliged to take part in this study and the choice whether to participate is yours alone. However, we would really appreciate it if you do share your thoughts and experiences with us. If you choose not to take part, you will not be affected in any way. If you agree to participate, you may stop the interviewer at any time and tell him or her that you do not want to continue, and you will NOT be prejudiced in ANY way.

If you do agree to take part in this study, please note that there will be no direct benefit to you, but the MRC may benefit in terms of its strategic planning.

We will be recording your name on the interview schedule, but it will not be linked to the answers you give in any way. Only the researchers will have access to the unlinked information.

The telephonic interview is designed to last 15 minutes. We will ask you to reflect on your scientific activities over the past two years in terms of who are the social partners with whom you engage directly – if at all. What are the most common types of relationships and channels of interaction? The survey will also ask you to reflect on the typical outcomes and benefits, and the obstacles to interaction with external social partners.

The HSRC would like to inform your institution of the aggregated trends and what this means for scientists at the MRC. The contact point at the MRC is Dr Niresh Bhagwandin, Executive Manager: Strategic Research Initiatives. I, together with members of the project team have been working with Dr Bhagwandin to ensure that all the administrative and legal requirements are in place. I also addressed the MRC Unit Director's Forum on 10 October 2012 on the aims and objectives of the project.

The study has been approved by the HSRC Research Ethics Committee, and by the MRC Ethics Committee.

If you are harmed or have any concerns

If you feel that you have been harmed in any way by participating in this study, please call the HSRC's toll free ethics hotline 0800 212 123 or the REC Administrator at the Human Sciences Research Council, Khutso Sithole, at the Human Sciences Research Council on 012 302 2009.

CONSENT

I hereby agree to participate in research regarding science council interaction. I understand that I am participating voluntarily and without being forced in any way to do so. I also understand that I can stop this interview at any point should I not want to continue and that this decision will not in any way affect me negatively.

I understand that this is a research project whose purpose is not necessarily to benefit me personally.

I have received the telephone number of a person to contact should I need to speak about any issues which may arise in this interview.

I understand that my answers will remain confidential.

I understand that feedback will be given to my institution on the results of the completed research.

…………………………..
Signature of participant   Date:…………………..

If you need more information about the project, please call the project leader, Dr. Glenda Kruss on 021 466 8086.