



Department of Science and Technology



Human Sciences Research Council

## SOUTH AFRICAN SURVEY OF RESEARCH & DEVELOPMENT INPUTS GOVERNMENT DEPARTMENTS/INSTITUTIONS/UNITS : 2001/2002

Survey No. <

### PURPOSE OF SURVEY

The purpose of this survey is to collect information on the status of R&D effort and activities in South Africa. This information is invaluable for the development of policy and programmes in support of research and development activities in the country. The principal users of the information will be businesses, government, higher education and advisors to government, researchers, and national, regional and international research and technology organisations.

### SURVEY ENDORSEMENT

This survey is undertaken by the Human Sciences Research Council (HSRC) on behalf of the Department of Science and Technology (DST). We kindly request your co-operation by completing and returning this form to us by the due date indicated below.

### CONFIDENTIALITY

All information gathered by this survey will be held in the strictest confidence. Under no circumstances will either the HSRC or DST or any organisation associated with this survey publish, release, or disclose any information on, or identifiable with, individual companies, business units or R&D units.

### DUE DATE

Please complete and return this form to us electronically to [RDSurvey@HSRC.ac.za](mailto:RDSurvey@HSRC.ac.za) no later than **31 January 2003**.

### HELP AVAILABLE

We have enclosed a User Guide in this pack to assist you in providing the necessary information, and we request that you refer to it before and during the completion of the form. If you have any additional problems in completing this form and/or in meeting the due date, please do not hesitate to contact the following survey managers for assistance:

Name	Contact Number	E-mail
Iona Gutuza	021-467 5225	<a href="mailto:igutuza@hsrc.ac.za">igutuza@hsrc.ac.za</a>
Call Centre	021-467 5200	<a href="mailto:RDSurvey@HSRC.ac.za">RDSurvey@HSRC.ac.za</a>
Hilton Trollip	021-467 4991	<a href="mailto:htrollip@hsrc.ac.za">htrollip@hsrc.ac.za</a>

Michael Kahn

Executive Director: Knowledge Management  
Human Sciences Research Council

Person completing this form and whom we should contact if any queries arise regarding this form:

Name		
Designation		
Signature		Date

Tel:	( )
Fax:	( )
Cell:	
E-mail	

WE THANK YOU FOR YOUR CO-OPERATION

## IMPORTANT NOTES *(Please read before proceeding)*

- This survey requires some degree of effort on your part. Kindly ensure all information provided is as accurate as possible. If exact figures are not available please provide carefully considered estimates.
- Survey data will enable benchmarking of R&D within South Africa and/or comparisons internationally. This is vital to ensuring that South Africa remains both competitive in the development of new products & services, and proficient in the advancement of knowledge.
- The consolidated information that you gather will be of value to your own department/institution/unit. At a later stage we will feedback aggregated information that should assist you in benchmarking your own department/institution/unit.
- Compulsory reporting and mandatory sample auditing of this information will soon be necessary given that this survey will become part of Official Statistics. We trust that you will consider the submission of this questionnaire as preparation for the regular submission of this information in the future.

## WHAT IS IN THIS QUESTIONNAIRE?

- This survey follows the approach of the Organisation for Economic Co-operation and Development (OECD) and is a standardised survey to measure **INPUTS into the R&D system ONLY**. In no way does this survey attempt to measure the outputs/results/success of R&D.
- Should you wish to provide information on outputs please do so at the end of this form in the space for comments (**PART 7**).
- This survey asks for information on:  
**FINANCIAL INPUTS** i.e. expenditure on R&D (as defined).  
**HUMAN RESOURCE INPUTS** i.e. personnel headcount and time spent on R&D (as defined).
- The questionnaire is organised as follows:  
**PART 1:** General department/institution/unit information. Please complete whether or not your department/institution/unit does R&D.  
**PART 2:** In-house R&D expenditure.  
**PART 3:** R&D outsourced / contracted out within South Africa.  
**PART 4:** R&D outsourced / contracted out outside South Africa.  
**PART 5:** R&D Personnel (in-house only).  
**PART 6:** R&D Personnel turnover.

## KEY DEFINITIONS AND CONVENTIONS

- Please report all expenditure items in this survey **exclusive of Value Added Tax (excl. VAT)**.
- Please round all monetary values to **thousands of Rands (R'000)**.
- The financial year for this survey for the government and science council sectors is defined as the year starting 1 April 2001 and ending on 31 March 2002. However, please report on the **most recent complete financial year** for which your department/institution/unit has data. Please indicate the start and end of your financial year in the appropriate section, and report figures for that year.

- Figures reported should relate to **expenditure incurred** during the financial year, whether paid or not, and to income earned during the year, whether received or not.

This survey provides guides in text boxes to assist in defining important concepts and terms. The items listed under **Including** and **Excluding** in text boxes should not be taken as a complete list of items to be included or excluded. Please refer to the User Guide if necessary and/or contact a survey manager.

## WHAT IS R&D?

### Definitions

This survey follows the approach of the Organisation for Economic Co-operation and Development (OECD), which defines Research and Experimental Development (R&D) as creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of humanity, culture and society, and the use of this stock of knowledge to devise new applications.

The basic criterion for distinguishing R&D from related activities is the presence in R&D of an appreciable element of novelty and the resolution of scientific and/or technological uncertainty, i.e. when the solution to a problem is not readily apparent to someone familiar with the basic stock of commonly used knowledge and techniques in the area concerned.

### What is business R&D?

- The R&D performed by businesses is generally investigative work that is of actual or potential use in the development of new or enhanced materials, products, devices, processes or services.
- R&D directed towards duplicating work already developed by others should only be included if the knowledge or technology required for development is not available to this department/institution/unit.

### What does R&D include and exclude?

- **R&D includes – but is not limited to:**
- Design, construction and operation of prototypes where the main objective is technical testing or to make further improvements.
- Construction and operation of pilot plants not operated or intended to be operated as commercial units.
- Research and development of new computer software or substantial modifications to existing computer software. This includes developments which lead to technological or scientific advances in:
  - theoretical computer sciences;
  - operating systems e.g. improvement in resource or interface management, a truly new operating system or the conversion of an operating system to a **significantly** different hardware environment;
  - programming languages e.g. new languages, **significant** extension of an existing language or a new or a **significantly** different language translator;
  - applications, if a **significant** technological step forward is achieved.
- “Feedback R&D” directed at solving problems occurring beyond the original R&D phase, for example technical problems arising during initial production runs.
- Research work in the biological, physical and social sciences, and the humanities.
- Social science research includes economic, cultural, educational, psychological and sociological research.

### Where does R&D End?

R&D ends when the work is no longer experimental and pre-production begins.

If the primary objective is to make further technical improvements on the product or process, then the work falls within the definition of R&D.

If, however, the product, process or approach is substantially set and the primary objective is to develop markets, to do pre-production planning, or to get a production or control system working smoothly, then the work is no longer considered R&D.

### R&D excludes:

(except where used primarily for the support of, or as part of, R&D projects):

- Scientific and technical information services.
- Policy related studies, management studies, efficiency studies.
- Consumer surveys, advertising, market research.
- Routine quality control and testing.
- Pre-production activities such as demonstration of commercial viability, tooling up and trial production runs.
- Prospecting, exploring or drilling for minerals, petroleum or natural gas.
- Cosmetic modifications or style changes to existing products.
- General purpose or routine data collection.
- Routine computer programming, systems maintenance or software application.
- Operations research and mathematical or statistical analysis.
- Commercial, legal and administrative aspects of patenting, copyrighting or licensing activities.
- Activities associated with standards compliance.
- Specialised routine medical care, for example routine pathology services.

**NB! Please also refer to the User Guide enclosed with this questionnaire.**

**PART 1: GENERAL DEPARTMENT/INSTITUTION/UNIT INFORMATION**  
**(On all activities, not exclusively R&D)**

1. Name of department/institution/unit

2. Name of parent department or institution (if applicable)

3. Please describe the principal activities from which your department/institution/unit derives its **main income** (e.g. polymer research, vaccine development, computer programming services, etc.).

Activities	Department/institution/ unit Income Obtained (%)

4. Please indicate the total number of employees working for your department/institution/unit for the financial year 2001/2002. If necessary, give your best estimate.

5. Please indicate the start and end dates for the financial year (Day/Month/Year) for which you are reporting in this survey.

Start	End
/ /	/ /

6. Please state the gross operating budget for the department/institution/unit for the financial year 2001/2002 (including sales generated even if not yet paid for).

**R'000 (excluding VAT)**

## PART 2: IN-HOUSE R&D EXPENDITURE

**NB: R&D projects funded by this department/institution/unit but performed by others should not be reported here but in PARTS 3 & 4 under outsourced/contracted out R&D.**

**Note**

- This part of the form seeks details of R&D performed by this department/institution/unit on its own behalf or on behalf of others.

**Including:**

- R&D performed as a participant in any unincorporated joint venture.
- R&D projects performed on contract for other legal entities (such as other businesses).

**Excluding:**

- R&D projects funded by this department/institution/unit but carried out by other organisations/legal entities using their own premises.
- Provision of specialised services for the R&D projects of other organisations/legal entities.

7. Did this department/institution/unit perform any R&D during the financial year 2001/2002?

Yes

☐

**Please answer Question 8 and onwards.**

No

☐

**Please proceed to Question 15 on Page Error! Bookmark not defined. and onwards.**

8. Please complete the headcount, average % time spent on R&D and average labour cost per person in terms of the three categories of personnel involved in R&D for the financial year 2001/2002.

- Please report for **all** personnel, whether South African or non-South African, i.e. the totals below must correlate with the totals for Question 22 & Question 23 (South African & non-South African) combined.
- If your enterprise has actual labour costs spent on R&D during 2001/2002 in a readily accessible form, then it is not necessary to fill in the table below. Instead the figure can be reported directly in Question 10.
- Please refer to the **User Guide** for definitions of personnel categories.

Personnel Categories	Number of persons involved in R&D (A)	Average % time spent on R&D activities in 2001/2002 (B)	Average labour cost per person in 2001/2002 (C)	Calculated labour cost of R&D (AxBxC/100)
Researchers (South African)				
Researchers (non-South African)				
Technicians (South African)				
Technicians (non-South African)				
Other personnel (South African)				
Other personnel (non-South African)				
<b>TOTAL LABOUR COST OF R&amp;D (Please carry forward to Question 9.)</b>				

9. How much did your department/institution/unit spend on R&D during the financial year 2001/2002 according to the categories below?

### CAPITAL EXPENDITURE ON IN-HOUSE R&D

- Capital expenses must be reported in full in the year of purchase (i.e. capital expenses should not be amortised or depreciated).
- If the asset has been/will be used for more than one activity, include only an estimate of the portion used for R&D.

#### Including:

- Expenditure on fixed assets used in the R&D projects of this department/institution/unit.
- Acquisition of databases and software (incl. fees) expected to be used for more than one year.

#### Excluding:

- Repairs and maintenance.
- Depreciation provisions.
- Proceeds from the sale of R&D assets.

		R'000 (excluding VAT)					
Vehicles, plant, machinery and equipment	A						
Land; buildings and other structures	B						

### LABOUR COSTS ON IN-HOUSE R&D

- If the costs have been incurred for more than one activity, include only an estimate of the portion used for R&D.
- Where applicable this figure is to be carried forward from Question 8.

		R'000 (excluding VAT)					
Labour Costs	C						

### OTHER CURRENT EXPENDITURE ON IN-HOUSE R&D

#### Including:

- Materials, fuels and other inputs.
- Rent, leasing and hiring expenses.
- Repair and maintenance expenses.
- Payments to outside organisations for use of specialised testing facilities.
- Payments to outside organisations for analytical work, engineering or other specialised services in support of R&D projects performed by this department/institution/unit.
- Commission/consultant expenses for research projects carried out by you.
- Other R&D expenses.

#### Excluding:

- Contract R&D expenses where the research project is performed elsewhere by others on behalf of this department/institution/unit.
- Payments for purchases of technical know-how.
- Payments for patent searches.
- Depreciation provisions.

		R'000 (excluding VAT)					
Other Current Expenditure	D						

		R'000 (excluding VAT)					
TOTAL IN-HOUSE R&D EXPENDITURE (A + B + C + D)							

10. Please specify the percentage of total R&D expenditure (reported in Question 9) which was directed towards the following types of R&D activities. (Please refer to the User Guide for definitions and examples.)

#### Pure Basic Research

- Experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without a specific application in view.
- Work carried out without looking for long-term economic or social benefits other than the advancement of knowledge.
- The analysis of properties, structures, and relationships with a view to formulating and testing hypotheses, theories or laws.
- The results of basic research are not generally sold but are usually published in scientific journals or circulated amongst interested colleagues.
- Humanities R&D would normally involve this type of research.

Percentage		

#### Strategic Basic Research

- Basic research directed into specific broad areas in expectation of useful discoveries.
- Basic research providing the broad base of knowledge necessary for the solution of recognised practical problems

Percentage		

#### Applied Research

- Original investigation undertaken to ...
  - acquire new knowledge with a specific aim or application in view;
  - determine the possible uses for the findings of basic research;
  - determine new methods or ways of achieving specific and pre-determined objectives.
- The results of applied research are intended primarily to be valid for a single or limited number of products, operations, methods, or systems.
- Applied research develops ideas into operational form.
- The knowledge or information derived from it is often patented but may also be kept secret.

Percentage		

#### Experimental Development

- Systematic work using existing knowledge gained from research and/or practical experience for the purpose of creating new or improved materials, products, processes or services.

Percentage		

<b>TOTAL</b>	<b>1</b>	<b>0</b>	<b>0</b>
--------------	----------	----------	----------

11. Please state the location where your department/institution/unit expenditure on R&D activities occurred for 2001/2002 and the percentage of the total amount spent (the total amount being the figure reported in Question 9).

	%
<b>TOTAL % INSIDE SOUTH AFRICA</b>	
<b>made up of...</b>	
Eastern Cape	
Free State	
Gauteng	
KwaZulu-Natal	
Limpopo	
Mpumalanga	
Northern Cape	
North-West	
Western Cape	
	<b>100</b>

	%
<b>TOTAL % OUTSIDE SOUTH AFRICA</b>	
<b>made up of...</b>	
SADC Countries: <i>(please specify)</i>	
Other African Countries: <i>(please specify)</i>	
Elsewhere: <i>(please specify)</i>	
	<b>100</b>

12. Please provide a breakdown of in-house R&D expenditure for 2001/2002 (reported in Question 9) according to the following **sources of funding**.

- Sources should be the original sources providing funds.
- Funds received from other intermediary sources which are funded from several sources should be reported under "Other South African sources".
- Funds received from intermediary sources which are funded from government sources should be reported under "Government".

**Including:**

- Funding from grants, contracts, commissions, donations, etc.

**Excluding:**

- The value of taxation concessions for R&D.

<b>Business</b>	<b>R'000 (excluding VAT)</b>					
Locally based business						
Foreign based business						

**Government**

Incentive and Support Programmes ( <i>SPII, PII, THRIP, Innovation Fund, etc.</i> )						
Other Government funds						

**Science Councils (CSIR, Mintek, MRC, ARC, CGS, SABS, HSRC, NRF, AISA)**

--	--	--	--	--	--	--

**Universities/Technikons/Colleges**

--	--	--	--	--	--	--

**Private non-profit organisations**

--	--	--	--	--	--	--

**Donations and bequests from private individuals**

--	--	--	--	--	--	--

**Other South African sources (please specify)**


**Other International sources (please specify)**


	<b>R'000 (excluding VAT)</b>					
<b>TOTAL SOURCES OF FUNDING FOR IN-HOUSE R&amp;D</b>						

(to agree with Question 9)



13. Please classify your R&D activities according to the most appropriate **Research Fields (RF)** code (please refer to User Guide) and indicate the percentage of R&D expenditure associated with each of these.

- The RF Codes are based on recognised academic disciplines and emerging area of study.
- More than one RF code may be provided, together with an associated percentage split.
- The classification of R&D using RF codes is a generally accepted convention internationally.

RF Codes					
RF					
RF					
RF					
RF					
RF					
RF					
RF					

Percentage		

RF Codes						Percentage		
RF								
RF								
RF								
RF								
RF								
RF								
RF								
TOTAL						1	0	0

14. Please classify your R&D expenditure according to the most appropriate group code of **Socio-Economic Objective (SEO)** (Please refer to User Guide) and indicate the associated percentage split.

- The SEO classification provides an indication of the sector of the national economy which will be the main beneficiary of the R&D you are practising
- More than one SEO code may be provided, together with an associated percentage split.
- The classification of R&D using SEO codes is a generally accepted convention internationally.

SEO Codes					
SEO					
SEO					
SEO					
SEO					
SEO					
SEO					
SEO					

Percentage		

SEO Codes						Percentage		
SEO								
SEO								
SEO								
SEO								
SEO								
SEO								
SEO								
TOTAL						1	0	0

15. Please indicate the **R&D amounts (in R'000 excl. VAT)** that you **spent in-house** for the financial year 2000/2001 and the amount you **estimate spending in-house** for the financial year 2002/2003.

In-House R&D (Report in R'000 excluding VAT)		
2000/2001 (estimate/actual)	2001/2002	2002/2003 (estimate)

**PART 3: R&D OUTSOURCED / CONTRACTED OUT WITHIN SOUTH AFRICA**  
(Excluding all *in-house* R&D expenditure)

16. For the financial year 2001/2002 did your department/institution/unit fund other businesses/organisations in South Africa to perform R&D work on its behalf?

Yes ☐ Please answer Question 17 and onwards.  
No ☐ Please proceed to Question 19.

17. Please classify your outsourced R&D by Research Field (refer to User Guide) and indicate the % expenditure associated with each field. (Please ensure that the total = 100%.)

RF Codes						Percentage		RF Codes						Percentage	
RF								RF							
RF								RF							
RF								RF							

18. Please state the amount spent on outsourced R&D according to the following entities/sectors.

Outsourced to:	R'000 (excluding VAT)					
Universities/Technikons/Colleges						
Research Institutes (incl. non-profit)						
Science Councils						
Private Companies						
Consultants/Individuals						
Others (please specify):						
<b>TOTAL</b>						

**PART 4: R&D OUTSOURCED OUTSIDE SOUTH AFRICA IN 2001/2002**

19. For the financial year 2001/2002 did your department/institution/unit fund other businesses/organisations outside South Africa to perform R&D work on its behalf?

Yes ☐ Please answer Question 20 and onwards.  
No ☐ Please proceed to Question 22.

20. Please classify your outsourced R&D according to the most appropriate Research Field (refer to User Guide).

RF Codes						Percentage		RF Codes						Percentage	
RF								RF							
RF								RF							
RF								RF							

21. State the amount spent on outsourced R&D according to the following entities/sectors.

Outsourced to:	R'000 (excluding VAT)					
Universities/Technikons/Colleges						
Research Institutes (incl. non-profit)						
Private Companies						
Consultants/Individuals						
Others (please specify):						
<b>TOTAL</b>						

**PART 5: R&D PERSONNEL (IN-HOUSE ONLY)**

- Please report for all personnel for whom this department/institution/unit pays payroll tax.
- The group classification in the tables below accords with the principles of employment equity legislation.

The following notes should be used to determine the allocation of personnel:

**Researchers**

- Personnel working on the conception and/or creation of new knowledge/products.
- Executives and directors involved in the planning or management of scientific and technical aspects of R&D projects.

**Excluding**

- Managers and directors concerned primarily with budgets and human resources, rather than project content.

**Technicians directly supporting R&D**

- Persons doing technical tasks in support of R&D, normally under the direction and supervision of a researcher.
- Typical activities include preparation for experiments, taking records, preparation of charts and graphs and coding data.

**Other personnel directly supporting R&D**

- Skilled and unskilled artisans.
- Secretarial, administrative and clerical personnel working on, or directly associated with, R&D activity.
- Executives and directors concerned primarily with budgets and human resources, rather than project content.
- Personnel working in, or supporting, library and information services.

22. Please report headcount and % time spent on R&D for **South African personnel** involved in R&D for the financial year 2001/2002 according to the categories below. This includes personnel born in South Africa, naturalised citizens and those with South African residency status.

**Headcount of South African Personnel**

Qualifications and Personnel Categories	African		Indian		Coloured		White		TOTAL		% time on R&D	
	M	F	M	F	M	F	M	F	M	F	M	F

**Researchers**

Doctoral degree or equivalent												
Masters degree or equivalent												
Honours/Bachelors degree or equivalent												
Diplomas and Higher Diplomas												
Non-degree/Non-formal qualifications												
<b>TOTAL HEADCOUNT AND % TIME SPENT ON R&amp;D</b>												

**Technicians directly supporting R&D**

All degree qualifications												
Higher Diplomas												
Diplomas												
Other qualifications (incl. Non-formal)												
<b>TOTAL HEADCOUNT AND % TIME SPENT ON R&amp;D</b>												

**Other personnel directly supporting R&D**

All degree qualifications												
Diploma/Secondary qualifications												
Other qualifications (incl. Non-formal)												
<b>TOTAL HEADCOUNT AND % TIME SPENT ON R&amp;D</b>												

23. Please report headcount and % time spent on R&D for **Non-South African personnel** involved in R&D for the financial year 2001/2002 according to the categories below. This includes personnel with visa status and/or permanent and temporary work permits.

### Headcount of Non-South African Personnel

Qualifications and Personnel Categories	African Countries		Europe (incl. UK)		Oceania (Australia, NZ, etc.)		North America (USA, Canada)		Elsewhere (Asia, etc.)		TOTAL		% time on R&D	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F

#### Researchers

Doctoral degree or equivalent														
Masters degree or equivalent														
Honours/Bachelors degree or equivalent														
Diplomas and Higher Diplomas														
Non-degree/Non-formal qualifications														
<b>TOTAL HEADCOUNT AND % TIME SPENT ON R&amp;D</b>														

#### Technicians directly supporting R&D

All degree qualifications														
Technical qualifications (Higher Diplomas)														
Diplomas														
Other qualifications (incl. Non-formal)														
<b>TOTAL HEADCOUNT AND % TIME SPENT ON R&amp;D</b>														

#### Other personnel directly supporting R&D

All degree qualifications														
Diploma/Secondary qualifications														
Other qualifications (incl. Non-formal)														
<b>TOTAL HEADCOUNT AND % TIME SPENT ON R&amp;D</b>														

24. Please provide headcount of **all R&D personnel** according to the categories below. The total personnel for South Africans must be equal to that in Question 22, while the total personnel for Non-South Africans must equal that in Question 23.

R&D Personnel Categories	Age Categories						TOTAL
	< 25	25-34	35-44	45-54	55-64	> 64	

#### South African R&D Personnel

Researchers							
Technicians directly supporting R&D							
Other personnel directly supporting R&D							

#### Non-South African R&D Personnel

Researchers							
Technicians directly supporting R&D							
Other personnel directly supporting R&D							

**PART 6: R&D PERSONNEL TURNOVER**

- Please provide data for hiring and departure only for the financial year 2001/2002.
- The reference for Questions 25 and 26 is the total personnel reported in PART 5 (Question 22 – Question 23).

25. Please indicate the turnover (headcount) of your **South African R&D** personnel in terms of staff appointed and staff who departed the financial year 2001/2002.

<b>South African R&amp;D Personnel</b>		
<b>Researchers</b>	<b>New Staff</b>	<b>Staff Who Departed</b>
Doctoral degree		
Masters degree or equivalent		
Honours/Bachelors degree or equivalent		
Diplomas and Higher Diplomas		
Non-degree/Non-formal qualifications		
<b>Technicians directly supporting R&amp;D</b>		
All degree qualifications		
Higher Diplomas		
Diplomas		
Other qualifications (incl. Non-formal)		
<b>Other staff directly supporting R&amp;D</b>		
All degree qualifications		
Diplomas/Secondary qualifications		
Other qualifications (incl. Non-formal)		
<b>TOTAL FOR ALL ABOVE CATEGORIES</b>		

26. Please indicate the turnover (headcount) of your **Non-South African R&D** personnel in terms of staff appointed and staff who departed in the financial year 2001/2002.

<b>Non-South African R&amp;D Personnel</b>		
<b>Researchers</b>	<b>New Staff</b>	<b>Staff Who Departed</b>
Doctoral degree		
Masters degree or equivalent		
Honours/Bachelors degree or equivalent		
Diplomas and Higher Diplomas		
Non-degree/Non-formal qualifications		
<b>Technicians directly supporting R&amp;D</b>		
All degree qualifications		
Higher Diplomas		
Diplomas		
Other qualifications (incl. Non-formal)		
<b>Other staff directly supporting R&amp;D</b>		
All degree qualifications		
Diplomas/Secondary qualifications		
Other qualifications (incl. Non-formal)		
<b>TOTAL FOR ALL ABOVE CATEGORIES</b>		

27. Please indicate the destinations for **Staff Who Departed** during the financial year 2001/2002 as reported in the totals in Question 25 and Question 26.

Reasons for R&D Staff Departure									
Staff	Death / Medical Boarding	Retirement from Labour-force	Internal Movement to non-R&D Work	Movement to other R&D positions in SA	Movement to other R&D positions outside SA	Movement to non-R&D positions in SA	Movement to non-R&D positions outside SA	Other / Unknown	TOTAL
<b>South African R&amp;D Personnel</b>									
African									
Indian									
Coloured									
White									
<b>TOTAL FOR ALL ABOVE CATEGORIES (to correspond with question 25)</b>									

Non-South African R&D Personnel									
African countries									
Europe (incl. UK)									
Oceania (Australia, NZ, etc.)									
North America (USA, Canada)									
Elsewhere (Asia, etc.)									
<b>TOTAL FOR ALL ABOVE CATEGORIES (to correspond with question 26)</b>									

28. Was the shortage/deficiency of skills within your R&D personnel a **significant concern/issue** for your department/institution/unit during the financial year 2001/2002?

No

☐

Yes

☐

Please answer 29.

29. Please rate the measures used to address these shortages/deficiencies of R&D skills.

- Please indicate if the measure was not used, or the appropriate number for its importance (rating). (Mark box with X.)
- Measures that were used should be rated as follows: **1 - LEAST IMPORTANT; 5 - VERY IMPORTANT.**

Measures to Accommodate R&D Skill Shortages/Deficiencies	Not used	Rating				
		1 - LEAST IMPORTANT			VERY IMPORTANT - 5	
In-house Training	0	1	2	3	4	5
Internal Recruitment	0	1	2	3	4	5
Out-Sourced Training	0	1	2	3	4	5
Out-Sourced R&D	0	1	2	3	4	5
South African Recruitment	0	1	2	3	4	5
African Continent Recruitment	0	1	2	3	4	5
International Recruitment	0	1	2	3	4	5
Other (please specify):		1	2	3	4	5
		1	2	3	4	5

THANK YOU FOR YOUR TIME & EFFORT. IT IS SINCERELY APPRECIATED.

Please return the completed form to the IISRC electronically to  
RDSurvey@hsr.ac.za

**PART 7: Any comments you would like to make on the survey or information supplied?**

