



**Department of Science and Technology**



**Human Sciences Research Council**

**SOUTH AFRICAN SURVEY OF  
RESEARCH AND EXPERIMENTAL DEVELOPMENT INPUTS**

**2005/2006**

**CODES**  
**(RF & SEO Codes)**

**(Government, Science Councils, Non-Profit Organisations  
and Higher Education)**

**Acknowledgements:**

These Codes have been compiled with reference to the  
Organisation for Economic Cooperation and Development (OECD) Frascati Manual and the  
South Africa Department of Trade and Industry (DTI) version 5 SIC Codes.

## APPENDIX A: RESEARCH FIELD (RF) CLASSIFICATIONS

Please choose the RF classification which most appropriately describes the scientific discipline or field of research you are practising.

DIVISION 1	NATURAL SCIENCES, TECHNOLOGY AND ENGINEERING	
CATEGORY	GROUP	
<b><i>Mathematical Sciences</i></b>	RF10101 RF10102 RF10103 RF10199	Pure mathematics Applied mathematics Statistics Other mathematical sciences not classified elsewhere
<b><i>Physical Sciences</i></b>	RF10201 RF10202 RF10203 RF10204 RF10205 RF10299	Astronomical sciences Theoretical and condensed matter physics Atomic, molecular, nuclear, particle and plasma physics Acoustic and optical physics Solid State physics Other physical sciences not classified elsewhere
<b><i>Chemical Sciences</i></b>	RF10301 RF10302 RF10303 RF10304 RF10305 RF10399	Physical chemistry (including theoretical and structural) Inorganic chemistry Organic chemistry Analytical chemistry Speciality Chemicals Other chemical sciences not classified elsewhere
<b><i>Earth Sciences</i></b>	RF10401 RF10402 RF10403 RF10404 RF10405 RF10406 RF10499	Geology Geophysics Geochemistry Oceanography Hydrology Atmospheric sciences Other earth sciences not classified elsewhere
<b><i>Information, Computer &amp; Communication Technologies</i></b>	RF10501 RF10502 RF10503 RF10504 RF10505 RF10506 RF10599	Information systems Hardware Software Current information technology Communication Security system Other information, computer & communication technologies not elsewhere classified
<b><i>Applied Sciences and Technologies</i></b>	RF10601 RF10602 RF10603 RF10604 RF10605 RF10606 RF10607 RF10608 RF10699	Aerospace technologies and engineering Manufacturing and process technologies and engineering Nuclear technology Educational technology Resource-based industry Energy Industry Industrial design Water technology Other applied sciences and technologies not elsewhere classified
<b><i>Engineering Sciences</i></b>	RF10701 RF10702 RF10703 RF10704 RF10705 RF10706 RF10707 RF10708 RF10709	Mechanical and industrial engineering Chemical engineering Mining and mineral processing Civil engineering Electrical and electronic engineering Agriculture Engineering Food Engineering Environmental Engineering Nuclear engineering and radiation technology

	RF10710 RF10711 RF10799	Mechanisation and design engineering Maritime Technology Other engineering sciences not elsewhere classified
<b><i>Biological Sciences</i></b>	RF10801 RF10802 RF10803 RF10804 RF10805 RF10806 RF10807 RF10808 RF10899	Biochemistry Genetics and molecular biology Microbiology Botany Zoology Ecology Genetic engineering Biotechnology Other biological sciences not elsewhere classified
<b><i>Agricultural Sciences</i></b>	RF10901 RF10902 RF10903 RF10904 RF10905 RF10906 RF10907 RF10908 RF10909 RF10910 RF10999	Soil and water sciences Crop and pasture production (including rice) Horticulture (including plantation and fruit crops) Animal production Veterinary sciences Forestry sciences Fisheries sciences Food and nutrition development Aquaculture Plant physiology Other agricultural sciences not elsewhere classified
<b><i>Medical and Health Sciences</i></b>	RF11001 RF11002 RF11003 RF11004 RF11005 RF11006 RF11007 RF11008 RF11009 RF11010 RF11011 RF11012 RF11099	Immunology Medical biochemistry and clinical chemistry Medical microbiology Pharmacology Physiology Neurosciences Clinical sciences Public health, environmental & occupational health & safety research Nutrition (public health research) Health services research (including bioethics) Health care system, industries and technologies. Pharmaceutical industry Other medical and health services not elsewhere classified
<b><i>Environmental Sciences</i></b>	RF11101 RF11102 RF11103 RF11104 RF11199	Environmental studies Environment technology/industry Environmental issues and assessment Environmental management and bioremediation Other environmental science not elsewhere classified
<b><i>Material Sciences</i></b>	RF11201 RF11202 RF11203 RF11204 RF11299	Electronic materials Functional materials Polymeric materials New materials and technologies Other material science not elsewhere classified
<b><i>Marine Sciences</i></b>	RF11301 RF11302 RF11303 RF11304 RF11399	Marine biology Algae biotechnology Fishing technology Marine chemistry Other marine sciences not elsewhere classified

DIVISION 2	SOCIAL SCIENCES AND HUMANITIES	
CATEGORY	GROUP	
<i>Social Sciences</i>	RF20101 RF20102 RF20103 RF20104 RF20105 RF20106 RF20107 RF20108 RF20109 RF20110 RF20111 RF20112 RF20113 RF20114 RF20115 RF20116 RF20117 RF20118 RF20119 RF20199	Accounting Economics Management studies Political sciences and public policy Architecture and habitat Sociology Archaeology and history Geography Population studies Law Psychology Education Media and communications studies Finance Anthropology Transportation studies Emerging issues Technology management Tourism Other social sciences not elsewhere classified
<i>Humanities</i>	RF20201 RF20202 RF20203 RF20204 RF20205 RF20206 RF20207 RF20299	Languages and literature Historical and civilisation studies Philosophy Arts and culture Religious studies Dances Music Other humanities not elsewhere classified

## APPENDIX B: SOCIO-ECONOMIC OBJECTIVE (SEO) CLASSIFICATIONS

Please choose the SEO classification that most appropriately describes the sector of the national economy that will be the main beneficiary of your R&D.

<b>DIVISION 1</b>	<b>DEFENCE</b>	
<b>CATEGORY</b>	<b>GROUP</b>	
<i>Defence</i>	S10101	Defence
	S10102	Defence Equipment
	S10199	Other defence not elsewhere classified

<b>DIVISION 2</b>	<b>ECONOMIC DEVELOPMENT</b>	
<b>CATEGORY</b>	<b>GROUP</b>	
<i>Plant Production And Plant Primary Products</i>	S20101	Field crops
	S20102	Plantation crops
	S20103	Horticultural crops
	S20104	Forestry
	S20105	Primary products from plants
	S20106	By-product utilisation
	S20199	Other plant production and plant primary products not elsewhere classified.
<i>Animal Production and Animal Primary Products</i>	S20201	Livestock
	S20202	Pasture, browse and fodder crops
	S20203	Fisheries products
	S20204	Primary & by-products from animals
	S20299	Other animal production and animal primary products not elsewhere classified
<i>Mineral resources (excluding energy)</i>	S20301	Exploration
	S20302	Primary mining and extraction processes
	S20304	First stage treatment of ores and minerals
	S20399	Other mineral resources (excluding energy) not elsewhere classified
<i>Energy resources</i>	S20401	Exploration
	S20402	Mining and extraction
	S20403	Preparation and supply of energy source materials
	S20404	Non-conventional energy resources
	S20405	Nuclear Energy
	S20499	Other energy resources not elsewhere classified
<i>Energy supply</i>	S20501	Energy transformation
	S20502	Renewable energy
	S20503	Energy distribution
	S20504	Conservation and efficiency
	S20505	Energy Issues
	S20599	Other energy supply not elsewhere classified

<b>Manufacturing</b>	S20601	Processed food products and beverages
	S20602	Fibre processing and textiles, footwear and leather products
	S20603	Wood, wood products and paper
	S20604	Human pharmaceutical products
	S20605	Veterinary pharmaceutical products
	S20606	Agricultural chemicals
	S20607	Industrial chemicals and related products
	S20608	Basic metal products (including smelting)
	S20609	Industrial mineral products
	S20610	Fabricated metal products
	S20611	Transport equipment
	S20612	Computer hardware and electronic equipment
	S20613	Communication equipment
	S20614	Instrumentation
	S20615	Machinery and equipment
	S20616	Latex product industry
	S20617	Established manufacturing practices supporting technologies
	S20618	Materials performance and processes/ analysis
	S20619	Milling and process materials
	S20620	Synthesis and design of fine and speciality chemicals
	S20699	Other manufactured products not elsewhere classified
<b>Construction</b>	S20701	Planning
	S20702	Design
	S20703	Construction processes
	S20704	Building management and services
	S20799	Other construction not elsewhere classified
<b>Transport</b>	S20801	Ground transport
	S20802	Water transport
	S20803	Air & space transport
	S20899	Other transport not elsewhere classified
<b>Information and Communication Services</b>	S20901	Computer software and services
	S20902	Information services (including library)
	S20903	Communication services
	S20999	Other Information and communication services not elsewhere classified
<b>Commercial Services</b>	S21001	Electricity, gas and water services and utilities
	S21002	Waste management and recycling
	S21003	Wholesale and retail trade
	S21004	Finance, property and business services
	S21005	Tourism
	S21099	Other commercial services not elsewhere classified
<b>Economic Framework</b>	S21101	Macroeconomics issue
	S21102	Microeconomics issues
	S21103	International trade issues
	S21104	Management and productivity issues
	S21105	Measurement standards and calibration services
	S21106	Commercialisation
	S21107	Socio-economic development
	S21108	Economic development and environment
	S21109	Human resource management
	S21199	Other economic issues not elsewhere classified
<b>Natural Resources</b>	S21201	Soil resources
	S21202	Water resources
	S21203	Biodiversity
	S21204	Bioactive product
	S21205	Industrial raw materials
	S21006	Mineral resource
	S21299	Other natural resources not elsewhere classified

<b>DIVISION 3</b>	<b>SOCIETY</b>	
<b>CATEGORY</b>	<b>GROUP</b>	
<b><i>Health</i></b>	S30101 S30102 S30103 S30199	Clinical (organs, diseases and conditions) Public health Health and support services Other health not elsewhere classified
<b><i>Education and Training</i></b>	S30201 S30202 S30203 S30204 S30205 S30206 S30207 S30208 S30209 S30299	Early childhood and primary education Secondary education Tertiary education Technical and further education Special education Computer base teaching and learning Education policy Teaching Educational administration Other education and training not elsewhere classified
<b><i>Social Development and Community Services</i></b>	S30301 S30302 S30303 S30304 S30305 S30306 S30307 S30399	Community services Public services Art, sport and recreation International relations Ethical issues Nation building Urban issues Other social development and community services not elsewhere classified

<b>DIVISION 4</b>	<b>ENVIRONMENT</b>	
<b>CATEGORY</b>	<b>GROUP</b>	
<b><i>Environmental Knowledge</i></b>	S40101 S40102 S40103 S40104 S40105 S40106 S40107 S40199	Climate and atmosphere Ocean Water Land Nature conservation Social environment River Other environmental knowledge not elsewhere classified
<b><i>Environmental Aspects of Development</i></b>	S40201 S40202 S40203 S40204 S40205 S40206 S40207 S40208 S40209 S40210 S40211 S40299	Plant production and plant primary products (including forestry) Animal production and animal primary products (including fishing) Mineral resources (excluding energy) Energy resources Energy supply Manufacturing Construction Transport Information and communication services Commercial services Environmental economic framework Other environment aspect of development not elsewhere classified
<b><i>Environmental Management &amp; Other Aspects</i></b>	S40301 S40302 S40399	Environmental management Waste management and recycling Other environmental aspects not elsewhere classified

DIVISION 5	ADVANCEMENT OF KNOWLEDGE	
CATEGORY	GROUP	
<i>Natural Sciences, Technologies and Engineering</i>	S50101	Mathematical sciences
	S50102	Physical sciences
	S50103	Chemical sciences
	S50104	Earth sciences
	S50105	Information, computer and communication technologies
	S50106	Applied sciences and technologies
	S50107	Engineering sciences
	S50108	Biological sciences
	S50109	Agricultural sciences
	S50110	Medical and health sciences
	S50111	Multimedia
	S50199	Other natural science, technologies and engineering not elsewhere classified
<i>Social Sciences and Humanities</i>	S50201	Social sciences
	S50202	Humanities
	S50203	Cyberlaw
	S50299	Other social sciences and humanities not elsewhere classified