

1 February 2006

NATIONAL CAMPAIGN TO PROMOTE THE ENGINEERING PROFESSION

1. Background

South Africa faces unprecedented growth, and infrastructure development activities of a magnitude last seen in the late sixties and seventies. Although growth phases are cyclic, the much extended infrastructure planned will also require an extended workforce in the future to operate and maintain the new assets, and further, restore many neglected assets to full function.

Economic growth implies expansion but requires capacity to deliver, including "critical skills" such as engineering. The decline in development since the seventies has resulted in an aging workforce and inadequate entrants into the engineering profession. Sector Skills Plans from the Construction; Chemical; Energy; Manufacturing; Engineering and Related Services; Transport; Mining and Minerals economic sectors, show that huge gaps exist in skills available and skills required by their respective sectors. These plans in particular highlight a shortage across a range of engineering skills varying from artisans to inspectors, testers, technicians, technologist and engineers.

Additional pressures arise from the need to correct imbalances in terms of race and gender by increasing the number of black as well as women engineering practitioners.

2. Description of the Engenius Campaign

It is clear that a joint national intervention is required to ensure a sufficient pool of qualified engineering practitioners is available to the engineering related economic sectors. This should include promoting the profession, recruiting new entrants to the profession and supporting existing learners and young practitioners.

To date only a handful of organisations have been actively involved in promoting the engineering profession. It was for this reason that the South African Institution of Civil Engineering (SAICE) and the Engineering Council of South Africa (ECSA), a statutory body responsible for registering practitioners, together with its strategic partners developed the concept of a national engineering career guidance campaign.

This campaign aims to unite organisations involved in career guidance with key interested parties such as National Departments, SETAs, and Professional Institutes under one umbrella body. The result would be a coordinated effort, impacting on the whole country and endorsed by all affected parties.

The campaign will be recognised by the Engenius logo, which would form part of the national marketing campaign.

3. Objectives of the Engenius Campaign

The main objectives of this national campaign are to:

- Promote the engineering profession at High Schools and Further Education and Training Colleges in order to increase the number of learners (especially girls and black learners) to enter the engineering profession.
- Unite organisations involved in engineering career guidance under the Engenius Campaign.

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+ Endorsed by: The Department of Education . The Engineering Council of South Africa . South African Institution of Civil Engineering .
South African Association of Consulting Engineers

3.1 Visit High Schools

Many institutions in the field have expressed concern about the poor flow of matriculants into engineering careers. Few schools carry out comprehensive career guidance programmes any longer, which means that learners are not aware of the opportunities in the various fields. In the figure below, it can be seen that white learners are predominantly advised by their parents, family and role models in their circles. Further stratifying the data it is found that in privileged schools private career guidance offers direction and a supply of career brochures.

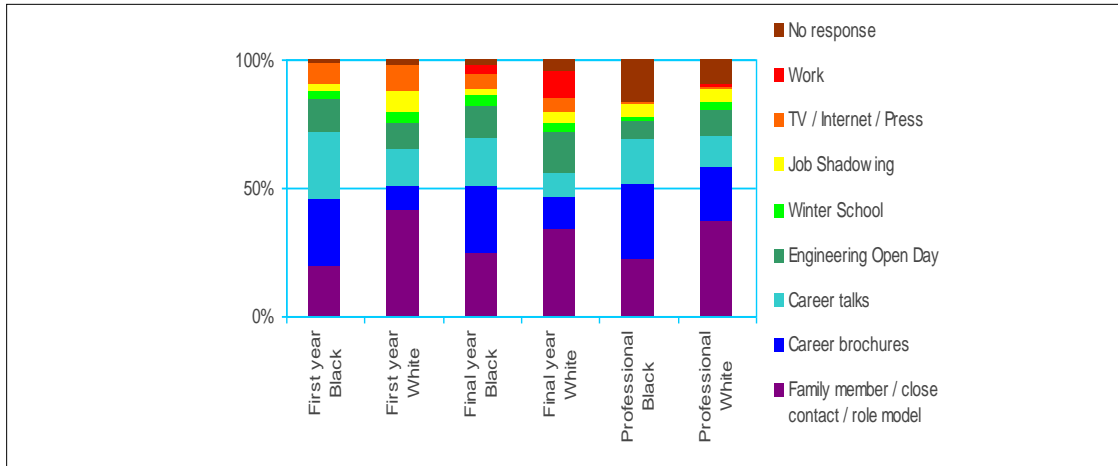


Figure 1 : Source of career guidance information – first and final year civil engineering students, and professionals in practice, October 2004

Source: Number and Needs

Previously disadvantaged learners, however, have neither of these privileges as few of their parents are engineers, architects or qualified artisans, and the opportunities to learn about these careers at their schools are limited. As such, their main sources of information are from career talks, open days and the brochures handed out at these events. Unfortunately only a limited number of schools are able to attend such events. It therefore appears that the most effective way to target learners with potential is to visit all schools which achieve success in mathematics and science.

These schools would include:

- Four hundred Dinaledi Schools (identified by the Department of Education) - Refer to Appendix A.
- The one hundred and twenty Independent High Schools.
- Two hundred and eighty Technical High Schools, previous Model C Schools, and FET Colleges.

The campaign plans to attract a pool of young people (from artisans to engineering professionals) by visiting schools, carrying out career guidance presentations and leaving branded products. Many young professionals have expressed the desire to visit schools and share their enthusiasm for their chosen careers with learners. Industry has confirmed that it would be happy to make these enthusiasts available for a few days a year to carry out presentations, free of charge, provided that any accommodation or excessive travel expenses are covered.

It is envisaged that young people will visit some 400 schools across nine provinces per annum to:

- Make presentations which will cover engineering career opportunities and requirements across the different economic sectors e.g. professionals, artisans, support personnel and specialised occupations.
- Introduce the **Engenius** website with its wealth of information on e.g. careers, FET Colleges, HE Institutions, bursaries, mentors, interesting projects and amazing women in engineering.
- Invite the schools to contact the campaign as required.
- Recognise achievements in mathematics and science through **Engenius** T-shirts and bursaries.
- Hand an **Engenius** ruler with information on the campaign and website to every learner attending the presentation.
- Leave **Engenius** posters.
- Introduce the amazing interactive **Engenius** game and leave the school with a copy.

3.2 Unite organisations involved in engineering career guidance

Another objective is to unite existing engineering career guidance organisations under one umbrella campaign and coordinate activities. Targeted organisations, listed in Appendix B and C, will be invited to join the campaign with the key benefits including:

- Endorsement from the strategic partners which encourages business to support these organizations.
- Use of the logo to link their activities to the **Engenius** campaign.
- Exposure on the **Engenius** website e.g. product listings, publications and activities.
- Opportunity to network with other **Engenius** Campaign participants.
- Free listing in the **Engenius** directory of programmes.
- Use of the **Engenius** website and database of schools and career related information.
- Use of coordinated visiting schedules, events calendars and programmes.
- Access to research e.g. relating to needs, gaps, impact.
- Access to engineering ambassadors (young presenters), **Engenius** Game, **Engenius** Assessment, brochures, T-shirts, rulers and posters.
- Recognition of achievements.
- Links to bursaries and learnerships.
- Links to information on other Built Environment Professions.
- Access to articles/programmes in the media.

4. Deliverables of the **Engenius** Campaign

The objectives will be achieved through the following deliverables:

- Develop a brand and a marketing strategy for the campaign.
- Unite stakeholders who share the objective of the campaign.
- Obtain endorsement (including financial support) from stakeholders - refer to Appendix B.
- Invite all organisations involved in promoting the engineering profession to join the campaign - refer to Appendix C.
- Support organisations involved in promoting the engineering profession.
- Develop a website to merge information from all organisations and stakeholders and coordinate all visits and activities.
- Visit schools, make presentations and distribute products.
- Develop, duplicate and distribute products including **Engenius** interactive computer game, **Engenius** assessments, T-shirts, rulers, posters, brochures, presentations.
- Research numbers and needs and areas of impact.
- Recognise and appraise outstanding performance of engineering practitioners.

5. Beneficiaries of the **Engenius** Campaign

A range of stakeholders would benefit from the campaign including:

- 160 000 p a learners at the schools targeted
- Career guidance organisations including Science Centres etc
- National and Provincial Departments (e.g. Education, Science and Technology, Public Works, Local Government, Water Affairs and Forestry, Transport, Housing, Labour)
- SETAs
- Engineering Voluntary Associations
- FET Colleges
- Universities of Technology
- Universities
- The engineering profession
- The public

APPENDIX A: Dinaledi Schools

EASTERN CAPE

NO.	SCHOOL	National EMIS No
1	BADI SENIOR SECONDARY SCHOOL	200300008
2	BISHO HIGH SCHOOL	200200044
3	BIZANA SENIOR SEC SCHOOL	200400042
4	BREIDBACH SENIOR SECONDARY SCHOOL	200200058
5	BULELANI SENIOR SECONDARY SCHOOL	200600076
6	BYLETTS SENIOR SECONDARY SCHOOL	200200072
7	CANGCI COMPREHENSIVE TECHNICAL HIGH SCHOOL	200501456
8	CHIEF DUMILE SENIOR SECONDARY SCHOOL	200501404
9	CHIEF HENRY BOKLENI SENIOR SECONDARY SCHOOL	200500010
10	CLYDESDALE SENIOR SECONDARY SCHOOL	200501353
11	COLOSA SENIOR SECONDARY SCHOOL	200300051
12	DALIBASO SENIOR SECONDARY SCHOOL	200400102
13	DOUGLAS MBOPA SENIOR SECONDARY SCHOOL	200100177
14	DZ DUMZWENI SENIOR SECONDARY SCHOOL	200400096
15	ENGWAQA SENIOR SECONDARY SCHOOL	200500204
16	FUNDA HIGH SCHOOL	200600206
17	HECTOR PETERSON HIGH SCHOOL	200200240
18	HILLBROW SENIOR SECONDARY SCHOOL	200501358
19	HOLY CROSS SENIOR SECONDARY SCHOOL	200400272
20	ITHEMBELIHLE SENIOR SECONDARY SCHOOL	200100344
21	J S SKENJANA SENIOR SECONDARY SCHOOL	200300153
22	KHWEZI LOMSO COMPREHENSIVE SCHOOL	200100384
23	KWAKOMANI COMPREHENSIVE SCHOOL	200601065
24	LAWSON BROWN SENIOR SECONDARY SCHOOL	200100449
25	LEHANA SENIOR SECONDARY SCHOOL	200501358
26	MARIA LOUW HIGH SCHOOL	200600441
27	MARIAZELL HIGH SCHOOL	200500582
28	MASIPHATHISANE SENIOR SECONDARY SCHOOL	200100498
29	MGEZWA SENIOR SEC FONDARY SCHOOL	200500664
30	MILTON MBEKELA SENIOR SECONDARY SCHOOL	200400603
31	MOLLY BLACKBURN SENIOR SECONDARY SCHOOL	200100525
32	MOUNT FRERE SENIOR SECONDARY SCHOOL	200500787
33	NCUNCUZO COMBINED SCHOOL	200600552
34	NDABANKULU SENIOR SECONDARY SCHOOL	200400714
35	NDZONDELELO SENIOR SECONDARY SCHOOL	200600561
36	NONGEKE SENIOR SECONDARY SCHOOL	200500935
37	NTAFUFU SENIOR SECONDARY SCHOOL	600200730
38	NTSONKOTHA SENIOR SECONDARY SCHOOL	200600642
39	NTUKAYI SENIOR SECONDARY SCHOOL	200500985
40	NYANGA SENIOR SECONDARY SCHOOL	200400893
41	NYATHELA SENIOR SECONDARY SCHOOL	200500957
42	PALMERTON HIGH SCHOOL	200501006
43	RICHARD VARHA SENIOR SECONDARY SCHOOL	200401340
44	SANDI SENIOR SECONDARY SCHOOL	200400977
45	SIDINANE SENIOR SECONDARY SCHOOL	200200748
46	ST CUTHBERT'S SENIOR SECONDARY SCHOOL	200401028
47	ST JAMES SENIOR SECONDARY SCHOOL	200600987
48	ST JOHN'S COLLEGE	200401288
49	ST THOMAS SENIOR SECONDARY SCHOOL	200100745
50	THOLANG SENIOR SECONDARY SCHOOL	200501203
51	TLOKWENG SENIOR SECONDARY SCHOOL	200600849
52	TSOMO SENIOR SECONDARY SCHOOL	200300612

53	UMTATA HIGH SCHOOL	200401089
NO.	SCHOOL	National EMIS No
54	UMTATA TECHNICAL COLLEGE	200501098
55	VULI VALLEY SENIOR SECONDARY SCHOOL	200300646
56	VULINDLELA COMPREHENSIVE TECHNICAL HIGH SCHOOL	200501282
57	VULINDLELA SENIOR SECONDARY SCHOOL	200300647
58	ZAMUKULUNGISA SENIOR SECONDARY SCHOOL	200501315
59	ZIBOKWANA SENIOR SECONDARY SCHOOL	200501322
60	ZINGISA COMPREHENSIVE SCHOOL	200401304
TOTAL: 60		

FREE STATE

NO.	SCHOOL	National EMIS No
1	BREBNER HIGH SCHOOL	440304255
2	DR REGINALD CINGO COMPREHENSIVE SECONDARY SCHOOL	442506199
3	IKETSETSENG COMPREHENSIVE SECONDARY SCHOOL	443611134
4	ITHABISENG SECONDARY SCHOOL	443701081
5	KAHOBOTJHA-SAK'UBUSHA SECONDARY SCHOOL	443611280
6	KGOLATHUTO SECONDARY SCHOOL	445109011
7	KGORATHUTO SECONDARY SCHOOL	440602053
8	KHELENG SECONDARY SCHOOL	441912110
9	LEKGARIETSE SECONDARY SCHOOL	444712127
10	LEPHOLA SECONDARY SCHOOL	444712040
11	LERATO-UTHANDO COMPREHENSIVE SECONDARY SCHOOL	441705201
12	LERE- LA- THUTO SECONDARY SCHOOL	445203100
13	LESEDING TECHNICAL SECONDARY SCHOOL	444712044
14	MAMELLANG- THUTO HIGH SCHOOL	440506227
15	MAMPOI HIGH SCHOOL	445109001
16	NAVALSIG HIGH SCHOOL	440304208
17	NTSU SECONDARY SCHOOL	440101171
18	PELE-YA-PELE SECONDARY SCHOOL	443611162
19	PHOFUNG SECONDARY SCHOOL	445105152
20	R. T.MOKGOPA HIGH SCHOOL	443907305
21	SASAMALA SECONDARY SCHOOL	441705106
22	SETJHABA-SE-MAKETSE COMBINED SCHOOL	440602083
23	ST. BERNARD'S HIGH SCHOOL	440303187
24	TETO HIGH SCHOOL	444712033
25	THAHAMESO SECONDARY SCHOOL	445109008
26	THALABODIBA SECONDARY SCHOOL	445109004
27	THE BEACON SECONDARY SCHOOL	445101260
28	TLHORONG SECONDARY SCHOOL	445109029
29	TROMPSBURG SECONDARY SCHOOL	444103230
30	WELKOM HIGH SCHOOL	444712083
TOTAL 30		

GAUTENG

NO.	SCHOOL	National EMIS No
1	AHA THUTO SECONDARY SCHOOL	700330696
2	AMOGELANG SECONDARY SCHOOL	700340507
3	ASSSER MALOKA SECONDARY SCHOOL	700350561
4	BADIRILE SECONDARY SCHOOL	700270603
5	BEVERLY HILLS SECONDARY	700320937
6	BOKGONI TECHNICAL SECONDARY SCHOOL	700231555
7	BOTEBO-TSEBO SCONDARY SCHOOL	700320358
8	BUHLEBEMFUNDO SECONDARY SCHOOL	700310938
9	CULTURA SENIOR SECONDARY SCHOOL	700210062
10	DINWIDDIE HIGH SCHOOL	700160317
11	EMSHUKANTAMBO SECONDARY SCHOOL	700121301
12	EQINISWENI SECONDARY SCHOOL	700260760
13	ESOKWAZI SECONDARY SCHOOL	700320515
14	FONS LUMINIS SECONDARY SCHOOL	700140525
15	FORTE SECONDARY SCHOOL	700251405
16	GATANG SECONDARY SCHOOL	700220657
17	GENERAL SMUTS HIGH SCHOOL	700330126
18	HILLVIEW HIGH SCHOOL	700230300
19	HOER TEGNIESE SKOOL LANGLAAGTE	700130559
20	HULWAZI SECONDARY SCHOOL	700311100
21	INQAYIZIVELE SECONDARY SCHOOL	700260877
22	JABULANI TECHNICAL SECONDARY SCHOOL	700121442
23	JE MALEPE SECONDARY SCHOOL	700311142
24	JOHN ORR TECHNICAL HIGH SCHOOL	700110510
25	KGOMOTSO SECONDARY SCHOOL	700240770
26	KHUTLO-THARO SECONDARY SCHOOL	700320713
27	KWADEDANGENDLALE SECONDARY SCHOOL	700110510
28	LANDULWAZI COMPREHENSIVE SCHOOL	700340810
29	LEHLABILE SECONDARY SCHOOL	700220749
30	LESHATA SECONDARY SCHOOL	700330969
31	LETSIBOGO SECONDARY SCHOOL	700140715
32	MADIBA SECONDARY SCHOOL	700110205
33	MAKHOSINI COMBINED SECONDARY SCHOOL	700240929
34	MANDISA SHICEKA SECONDARY SCHOOL	700252262
35	MIDRAND PARALLEL MEDIUM SCHOOL	700150987
36	MINERVA HIGH SCHOOL	700152264
37	MOHLOI SECONDARY SCHOOL	700331071
38	MOLETSANE SECONDARY SCHOOL	700121574
39	MOM SEBONE SECONDARY SCHOOL	700350918
40	MONDEOR HIGH SCHOOL	700120840
41	MOSUPATSELA SECONDARY SCHOOL	700251736
42	NIGEL SECONDARY SCHOOL	700350033
43	NORKEM PARK HIGH SCHOOL	700260471
44	NORTHVIEW HIGH SCHOOL	700151050
45	PHAHAMA SECONDARY SCHOOL	700270991
46	PHATENG SECONDARY SCHOOL	700220962
47	PHUMLANI SECONDARY SCHOOL	700341099
48	PRETORIA TECHNICAL HIGH SCHOOL	700231340
49	PRINCESS HIGH SCHOOL	700250951
50	QEDILIZWE SECONDARRY SCHOOL	700321307
51	QUEENS HIGH SCHOOL	700131326
52	RAPHELA SECONDARY SCHOOL	700331215

NO.	SCHOOL	National EMIS No
53	RAUCAL SECONDARY SCHOOL	700132811
54	REASOMA SECONDARY SCHOOL	700111203
55	REITUMETSE SECONDARY SCHOOL	700241174
56	RESIDENTIA SECONDARY SCHOOL	700321380
57	RONDEBULT SECONDARY SCHOOL	700162016
58	RUTASETJHABA SECONDARY SCHOOL	700321398
59	SOSHANGUVE SECONDARY SCHOOL	700241307
60	SOSHANGUVE TECHNICAL CENTRE	700241315
61	SUNCREST HIGH SCHOOL	700330654
62	SUNWARD PARK HIGH SCHOOL	700161521
63	THUTO- KE-MAATLA COMPREHENSIVE SCHOOL	700261362
64	THUTO-LESEDI SECONDARY SCHOOL	700162073
65	TSWASONGU SECONDARY SCHOOL	700271148
66	UMQHELE SECONDARY SCHOOL	700261420
67	VUWANI SECONDARY SCHOOL	700111450
68	WAVERELY GIRLS HIGH SCHOOL	700151910
69	WILLOWMORE HIGH SCHOOL	700310847
70	ZITIKENI SECONDARY SCHOOL	700261479
TOTAL 70		

KWAZULU NATAL

NO.	SCHOOL	National EMIS No
1	AMAZULU HIGH SCHOOL	500103045
2	BETHAMOYA HIGH SCHOOL	500107744
3	BIZIMALI SECONDARY SCHOOL	500110371
4	BRETENWOOD HIGH SCHOOL	500112295
5	BUHLEBEMFUNDO HIGH SCHOOL	500179080
6	BUHLEBETHU HIGH SCHOOL	500113257
7	BUHLEBOMZINYATHI SECONDARY SCHOOL	500113368
8	CARL MALCOMESS HIGH SCHOOL	500114475
9	CLAIRWOOD SECECONDARY SCHOOL	500116846
10	DEDANGIFUNDE HIGH SCHOOL	500120620
11	DINGEKA SECONDARY SCHOOL	500121397
12	DLANGEZWA HIGH SCHOOL	500121989
13	DRAKENSBERG COMPREHENSIVE SCHOOL	500123395
14	DURBAN GIRLS HIGH SCHOOL	500125245
15	EMBIZWENI HIGH SCHOOL	500132016
16	ESHOWE HIGH SCHOOL	500139823
17	GAMALAKHE HIGH SCHOOL	500146853
18	GUDU HIGH SCHOOL	500152477
19	GUGULESIZWE HIGH SCHOOL	500152514
20	HLALANATHI HIGH SCHOOL	500156103
21	HOPE SECONDARY SCHOOL	500158434
22	IKUSASALETHU SECONDARY SCHOOL	500160099
23	IKUSASELIHLE SECONDARY SCHOOL	500181818
24	IMPOQABULUNGU SECONDARY SCHOOL	500161283
25	ISIFISOSETHU HIGH SCHOOL	500167758
26	KHANYANJALO HIGH SCHOOL	500173530
27	KHULA HIGH SCHOOL	500174973
28	KING CETSHWAYO SECONDARY SCHOOL	500175898
29	KWA-MGAGA HIGH SCHOOL	500181152
30	LITTLE FLOWER SECONDARY SCHOOL	500187183
31	MANDLENKOSI HIGH SCHOOL	500196285
32	MASIBUMBANE HIGH SCHOOL	500200836
33	MASIJABULE SECONDARY SCHOOL	500200947
34	MATHUNJWA SECONDARY SCHOOL	500201946
35	MAZWENDODA SECONDARY SCHOOL	500203389
36	MBONWA SECONDARY SCHOOL	500204832
37	MDUKU SECONDARY SCHOOL	500206497
38	MGAZI HIGH SCHOOL	500209272
39	MLOKOTHTWA HIGH SCHOOL	500212787
40	MSHWESHWE HIGH SCHOOL	500218559
41	MTWALUME HIGH SCHOOL	500220335
42	NOMATHIYA TECHNICAL HIGH SCHOOL	500234617
43	OGWINI COMP TECH	500243053
44	OKUMHLOPE SECONDARY SCHOOL	500243571
45	OSIZWENI HIGH SCHOOL	500244903
46	OUR LADY OF THE ROSARY SECONDARY SCHOOL	500245347
47	PHENDUKANI SECONDARY SCHOOL	500248307
48	PHUMULANI HIGH SCHOOL	500249935
49	PIETERMARITZBURG GIRLS HIGH SCHOOL	500250342
50	PINETOWN GIRLS HIGH SCHOOL	500250490
51	QQQISIZWE HIGH SCHOOL	500253894
52	SACRED HEART SECONDARY SCHOOL	500257185

NO.	SCHOOL	National EMIS No
53	SIBUSISIWE COMPREHENSIVE TECHNICAL SCHOOL	500263662
54	SIPHAPHEME SECONDARY SCHOOL	500267140
55	SIPHOSABADLETSHE HIGH SCHOOL	500267732
56	SITHENGILE SECONDARY SCHOOL	500269915
57	SITHOKOZILE SECONDARY SCHOOL	500268879
58	SIYAMUKELA HIGH SCHOOL	500269915
59	THATHUNYAWO SECONDARY SCHOOL	500280793
60	THEMBALENTSHA HIGH SCHOOL	500281383
61	THOLOKUHLE HIGH SCHOOL	500282791
62	THUBELIHLE HIGH SCHOOL	500283346
63	TISAND TECHNICAL HIGH SCHOOL	500284049
64	UMLAZI COMTECH SCHOOL	500288267
65	VRYHEID COMPREHENSIVE SCHOOL	500292707
66	VUKUZAKHE HIGH SCHOOL	500293299
67	WELABASHA SECONDARY SCHOOL	500295149
68	ZAMAZULU SECONDARY SCHOOL	500298479
69	ZWELIBANZI HIGH SCHOOL	500301883
70	ZWELONKE HIGH SCHOOL	500802105
TOTAL 70		

LIMPOPO

NO.	SCHOOL	National EMIS No
1	AZWFARI SECONDARY SCHOOL	930351203
2	BAKENGBERG SECONDARY SCHOOL	921142454
3	BANKUNA HIGH SCHOOL	915530020
4	BOPEDI BAPEDI HIGH SCHOOL	924640064
5	CAPRICORN HIGH SCHOOL	904220101
6	DENDRON SECONDARY SCHOOL	904210395
7	DEREK KOBE SECONDARY SCHOOL	923260109
8	FLORAPARK COMPREHENSIVE HIGH SCHOOL	922223292
9	GIYANE HIGH SCHOOL	916410164
10	GLEN COWIE SECONDARY SCHOOL	924643377
11	HARRY OPPENHEIMER AGRICULTURAL SCHOOL	906250195
12	HLOMANI HIGH SCHOOL	914440257
13	HLUVUKA HIGH SCHOOL	912520078
14	HUDSON NTSANWISI HIGH SCHOOL	915530105
15	KGATI-YA-MOSHATE SENIOR SECONDARY SCHOOL	921120478
16	KUTAMA HIGH SCHOOL	928332301
17	LEHLASEDI HIGH SCHOOL	927440370
18	LEMANA HIGH SCHOOL	912111542
19	LEOLE SECONDARY SCHOOL	916412064
20	MADIKWENG SENIOR SECONDARY SCHOOL	922210524
21	MAKGOKA SECONDARY SCHOOL	923240457
22	MANELEDZI SECONDARY SCHOOL	928332264
23	MATSHUMANE SECONDARY SCHOOL	924641517
24	MATSHWARA SECONDARY SCHOOL	921110570
25	MBILWI SECONDARY SCHOOL	930351395
26	MOTLALAOHLE SECONDARY SCHOOL	919340333
27	MOTSE MARIA HIGH SCHOOL	904221067
28	MPHAPHULI HIGH SCHOOL	930351401
29	MUGENA SECONDARY SCHOOL	914430854
30	NDENGEZA HIGH SCHOOL	916410737
31	NGWANAMALA SECONDARY SCHOOL	925610162
32	NGWANA-MOHUBE SENIOR SECONDARY SCHOOL	923260994
33	NNGWENI HIGH SCHOOL	928330886
34	NWAMAVIMBI SECONDARY SCHOOL	912520252
35	NYUMBANI SECONDARY SCHOOL	916420529
36	PAX SPECIAL SCHOOL	904221241
37	PHEGELELO SECONDARY SCHOOL	908110860
38	RAMATAU SECONDARY SCHOOL	926540386
39	RETI SECONDARY SCHOOL	927431520
40	ROTTERDAM SECONDARY SCHOOL	912520710
41	SEBALAMAKGOLO SCHOOL	913420673
42	SEFOLOKO SECONDARY SCHOOL	919340432
43	ST BRENDANS SCHOOL	919341169
44	TAXILA SECONDARY SCHOOL	904251846
45	THENGWE SENIOR SECONDARY SCHOOL	929311434
46	THOHOYANDOU SECONDARY SCHOOL	930350064
47	TSHEBELA HIGH SCHOOL	923241511
48	TSHITWA SECONDARY SCHOOL	931520337
49	TSHIVASE HIGH SCHOOL	930351531
50	WATERBERG HIGH SCHOOL	906121549
TOTAL 50		

MPUMALANGA

NO.	SCHOOL	National EMIS No
1	ALLENDALE SECONDARY SCHOOL	800005132
2	BONGINSIMBI SECONDARY SCHOOL	800001412
3	EKANGALA COMPREHENSIVE SCHOOL	800003186
4	EMPUCUKWENI SECONDARY SCHOOL	800003616
5	HIGHVELD PARK HIGH SCHOOL	800005116
6	HLOMANI SECONDARY SCHOOL	800005421
7	INKOMAZI SECONDARY SCHOOL	800006411
8	ITHAFA SECONDARY SCHOOL	800006809
9	KHUTSALANI SECONDARY SCHOOL	800008607
10	KIRIYATSWANE SECONDARY SCHOOL	800007997
11	KWAMHLANGA SECONDARY SCHOOL	800008730
12	KWANDEBELE SCIENCE COMBINED SCHOOL	800008771
13	LOWVELD HIGH SCHOOL	800010736
14	MAHUSHE SECONDARY SCHOOL	800011734
15	MJOKWANE SECONDARY SCHOOL	800023192
16	NDLELA SECONDARY SCHOOL	800016469
17	NDZUNDZA-MABHOKO SECONDARY SCHOOL	800016535
18	OSIZWENI SECONDARY SCHOOL	800012617
19	PHILLIP NDI MANDE SECONDARY SCHOOL	800018283
20	RAMATSHAGALALA SECONDARY SCHOOL	800019067
21	RAMOSHIDI TECHNICAL & COMMERCIAL HIGH SCHOOL	800019117
22	SAKHILE-THOBELANI SECONDARY SCHOOL	800023192
23	SITINTILE SECONDARY SCHOOL	800021410
24	SOFUNDA SECONDARY SCHOOL	800021923
25	SOZAMA SECONDARY SCHOOL	800022228
26	ST JOSEFS SECONDARY SCHOOL	800022327
27	TAKHENI SECONDARY SCHOOL	800022681
28	THOMAS NHLABATHI SECONDARY SCHOOL	800023275
29	WITBANK HIGH SCHOOL	800025478
30	ZACHEUS MALAZA SECONDARY SCHOOL	800025726
TOTAL 30		

NORTH WEST

NO.	SCHOOL	National EMIS No
1	ALFRED MAUBANE HIGH SCHOOL	600100022
2	ARE-FADIMEHENG SECONDARY SCHOOL	600100026
3	BAROLONG HIGH SCHOOL	600100083
4	BATSWANA COMMERCIAL SECONDARY SCHOOL	600100101
5	BOITHAOPO HIGH SCHOOL	600100152
6	BOITSEANAPE TECHNICAL HIGH SCHOOL	600100155
7	BOITSHOKO HIGH SCHOOL	600100160
8	ELE TSA SECONDARY SCHOOL	600100353
9	GALALETSANG SECONDARY SCHOOL	600100397
10	GAOPALELWE SECONDARY SCHOOL	600100413
11	GRENVILLE HIGH SCHOOL	600100472
13	H F TLOU HIGH SCHOOL	600100497
14	HANS KEKANA HIGH SCHOOL	600100484
15	HEBRON TECHNICAL AND COMMERCIAL HIGH SCHOOL	600101448
16	HERMAN THEBE HIGH SCHOOL	600100495
17	J M NTSIME HIGH SCHOOL	600100599
18	KGAMANYANE HIGH SCHOOL	600100673
19	KGOMOTSO HIGH SCHOOL	600100690
20	LETSATSING HIGH SCHOOL	600100898
21	MICHA-KGASI SECONDARY SCHOOL	600101200
22	MILNER HIGH SCHOOL	600101203
23	MMABATHO HIGH SCHOOL	600102207
24	MOTSWEDI HIGH SCHOOL	600101458
25	NTEBOGANG HIGH SCHOOL	600101528
26	P.H. MOEKETSI AGRICULTURAL SCHOOL	600101590
27	POTCHEFSTROOM BOYS HIGH SCHOOL	600101672
28	PRESIDENT MANGOPE TECHNICAL HIGH SCHOOL	600101681
29	RAMOTSHERE HIGH SCHOOL	600101742
30	REGOLOTSWE HIGH SCHOOL	600101801
31	REKGARATLHILE HIGH SCHOOL	600101821
32	SEKETE HIGH SCHOOL	600101933
33	SETSWAKGOSING HIGH SCHOOL	600101980
34	ST ANNE'S HIGH SCHOOL	600102017
35	TLHABANE TECHNICAL AND COMMERCIAL HIGH SCHOOL	600102153
36	TSHEBEDISANO SECONDARY SCHOOL	600102216
37	TSOGO SECONDARY SCHOOL	600102264
38	TSWELELOPELE HIGH SCHOOL	600102271
39	VAAL REEFS THCHNICAL HIGH SCHOOL	600102295
40	VUYANIMAWETHU SECONDARY SCHOOL	600102324
TOTAL 40		

NORTHERN CAPE

NO.	SCHOOL	National EMIS No
1	HOERSKOOL CARLTON VAN HEERDEN	302043401
2	HOERSKOOL S A VAN WYK	300032402
3	HOERSKOOL SAUL DAMON	300042403
4	HOERSKOOL SUTHERLAND	302033303
5	HOERSKOOL WESLAAN	302011302
6	KIMBERLEY GIRLS HIGH SCHOOL	300011403
7	MOGOMOTSI HIGH SCHOOL	302017404
8	MONWABISI HIGH SCHOOL	300021403
9	VUYOLWETHU HIGH SCHOOL	302012404
10	WILLIAM PESCOD HIGH SCHOOL	302014403
TOTAL 10		

WESTERN CAPE

NO.	SCHOOL	National EMIS No
1	ATLANTIS SECONDARY SCHOOL	132473316
2	BELGRAVIA SECONDARY SCHOOL	105483362
3	BREEDERIVIER SECONDARY SCHOOL	130333352
4	BULUMKO SECONDARY SCHOOL	106041121
5	CAPE ACADEMY FOR MST	105483613
6	COSAT	102310219
7	DESDMOND MPIOLO TUTU SECONDARY SCHOOL	130042202
8	FEZEKA SECONDARY SCHOOL	106042201
9	GARLANDALE SECONDARY SCHOOL	105483435
10	GRASSY PARK SECONDARY SCHOOL	105313408
11	HAROLD CRESSY HIGH SCHOOL	103313378
12	HARRY GWALA SECONDARY SCHOOL	103323918
13	HEATHFIELD HIGH SCHOOL	105313467
14	HOTTENTOTS HOLLAND HIGH SCHOOL	110310242
15	KASSELSVEI SENIOR SECONDARY SCHOOL	101323586
16	KENSINGTON SECONDARY SCHOOL	102042218
17	KLEIN NEDERBURG SECONDARY SCHOOL	108473367
18	KWAMFUNDO SECONDARY SCHOOL	106323128
19	LANGEBERG SECONDARY SCHOOL	128333026
20	LIVINGSTONE HIGH SCHOOL	105313343
21	LUHLAZA HIGH SCHOOL	106041101
22	MALIBU SECONDARY SCHOOL	107323802
23	MANYANO HIGH SCHOOL	106373435
24	MATTHEW GONIWE MEMORIAL HIGH SCHOOL	106041102
25	MONDALE HIGH SCHOOL	106493368
26	MUIZENBERG HIGH SCHOOL	104310265
27	NEW ORLEANS SECONDARY SCHOOL	108473375
28	OSCAR MPETHA HIGH SCHOOL	106042203
29	PERCY MDLALA HIGH SCHOOL	119041315
30	RAVENSMEAD SECONDARY SCHOOL	101323624
31	RHODES HIGH SCHOOL	105310284
32	ROCKLANDS SECONDARY SCHOOL	106493384
33	RYLANDS HIGH SCHOOL	105062458
34	SAO BRAS SECONDARY SCHOOL	120353353
35	SAREPTA SECONDARY SCHOOL	107323748
36	SINETHEMBA SECONDARY SCHOOL	106041230
37	SOPHUMELELA SECONDARY SCHOOL	106007098
38	THANDOKHULU SECONDARY SCHOOL	105044120
39	VREDENDAL SECONDARY SCHOOL	138473421
40	WESBANK SECONDARY SCHOOL	123470686
TOTAL 40		

APPENDIX A (2): INDEPENDENT SCHOOLS

National EMIS No	Province	Name	Township / Suburb
103000801	WC	BOSTON HOUSE COLLEGE.	CAPE TOWN
103000809	WC	HOLY CROSS CONVENT (MAITLAND)	MAITLAND
103007278	WC	ABBOTT'S COLLEGE, MILNERTON	Keurboom Road
103007511	WC	Y2K COLLEGE	CAPE TOWN
105000798	WC	ABBOTT'S COLLEGE.	CLAREMONT
105000816	WC	PROGRESS COLLEGE.	ROSEBANK
105000817	WC	DAMELIN COLLEGE	RONDEBOSCH
105005201	WC	HEADSTART COLLEGE	SALT RIVER
105007063	WC	DARUL ISLAM ISLAMIC HS.	GREENHAVEN
105007066	WC	CEDAR HOUSE SCHOOL	KENILWORTH
105007080	WC	CAMBRIDGE COLLEGE	LANSDOWNE
105007209	WC	HERITAGE COLLEGE	CLAREMONT
105007213	WC	SIMON ESTES MUSIC HS.	LANSDOWNE
105007273	WC	BAYSIDE CHRISTIAN HS	Penzance Estate
106003396	WC	MITCHELL'S PLAIN ISLAMIC HS.	Eastridge
110000838	WC	HELDERBERG HIGH SCHOOL.	SOMERSET WEST
110007510	WC	SOMERSET WEST PRIVATE SCHOOL	SOMERSET WEST
111007200	WC	MADRASATUR RAJAA STRAND HS	STRAND
120007429	WC	OCEAN RIDGE PRIVATE SCHOOL	Heiderand
200100794	EC	ST DOMINICS HIGH (INDEPENDENT)	MIRAMAR
200100916	EC	ST ANDREW'S COLLEGE	Unknown
200100918	EC	THE HILL COLLEGE	CENTRAL
200100944	EC	GADRA FS SCHOOL	Unknown
200100954	EC	ETHEMBENI ENRICHMENT CENTRE	NORTH END
200201004	EC	ALTHORPE COLLEGE	Unknown
200201017	EC	GONUBIE CHRISTIAN HIGH SCHOOL	NOMGWADLA LOCATION
200201035	EC	EAST LONDON SCIENCE COLLEGE	Unknown
200201056	EC	KNOWTECH HIGH SCHOOL	Unknown
200401303	EC	KHANYISA SS SCHOOL	Unknown
200401409	EC	STRATEGIE HIGH SCHOOL	Unknown
200500505	EC	MADZIKANE COMMERCIAL AND TECHNICAL COLLEGE	MZINTO LOCATION
200501465	EC	RIVERSIDE PRIMARY SCHOOL	Unknown
300014402	NC	St Boniface High School	Galeshewe
300023404	NC	Noupoort Christian College	Unknown
300034401	NC	St. Anna Sekondêre Privaatskool	Matjieskloof
440303127	FS	CALCULUS BLOEMFONTEIN S/S	EAST END
440303237	FS	CASTLEBRIDGE I/S	WILGEHOF
440304265	FS	HEADSTART HIGH	HAMILTON
440304267	FS	FAME COLLEGE	NOORDHOEK
441705204	FS	NEW HORIZON COLLEGE S/S	HARRISMITH
444712085	FS	ST DOMINIC'S COLLEGE S/S	WELKOM
500015007	KZ	EDENDALE ISLAMIC	NEAR CLINIC CAFE
500103267	KZ	THE KING'S WAY EDU	BISLEY
500114330	KZ	CAMBRIDGE COLLEGE	135 SMITH STREET
500114515	KZ	CRAWFORD COLLEGE DURBAN	AND CONVENT CLOSE
500125097	KZ	DURBAN DAY PRIVATE S	DURBAN
500126984	KZ	CHRISTIAN HIGH SCHOOL	DURBAN

500139305	KZ	EPWORTH	SCOTTSVILLE
500146261	KZ	FUTURA H	BEREA
500155696	KZ	HILTON COLLEGE	HILTON
500161801	KZ	INANDA SEMINARY S	NORTH COAST WEST
500172494	KZ	KEARSNEY COLLEGE	BOTHA'S HILL
500199430	KZ	MARIANHILL S PRIVATE INDEPENDENT	ABBOTT FRANCIS ROAD
500199763	KZ	MARITZBURG COACHING S	PIETERMARITZBURG
500210826	KZ	MICHAELHOUSE	BALGOWAN
500274133	KZ	RACING AND EQUESTER	SUMMERVELD
500274947	KZ	ST ANNE'S DIOCESAN COLLEGE	HILTON
500275761	KZ	ST JAMES COLLEGE	PROVINCIAL HOUSE
500284604	KZ	TREVERTON COLLEGE	MOOI RIVER
500305361	KZ	GRATTON COLLEGE	GROUNDS
500305398	KZ	MARION H	PIETERMARITZBURG
500312021	KZ	MSUNDUZI FINISHING	PIETERMARITZBURG
500318237	KZ	HOPE STUDY PROJECT	PIETERMARITZBURG
500318792	KZ	NOMASWAZI H	CLELAND
500325968	KZ	MARITZBURG MUSLIM SCHOOL(GIRLS)	PIETERMARITZBURG
500327783	KZ	LADYSMITH COLLEGE : APEX MATRIC	LADYSMITH
500335220	KZ	GRACE COLLEGE (Hilton)	HILTON
500340030	KZ	PHOENIX MUSLIM SCHOOL	STONEBRIDGE
500342287	KZ	EAGLE CHRISTIAN CO	OLD MTUBATUBA RD
500342361	KZ	OXFORD INTERNATIONAL HIGH	HARDING
500342398	KZ	JOHN WESLEY	ESHOWE
600100348	NW	Educators High School	c/o Parkst
600101866	NW	Rustenburg Opvoedk Koll	Burger Street
600102020	NW	St Conrad's College	Flamwood
600104041	NW	North West Renaissance Academy	Klerksdorp
600104077	NW	Klerksdorp Girls High	Klerksdorp
600104079	NW	International School for South Africa	Libertas
600104089	NW	Al Huda Private School	Manzil Park
600104090	NW	Selly Park Secondary	Unknown
600104099	NW	St Michael's School	Golfview
600104260	NW	Mayflower Educational College	Ikageng Centre
700122309	GT	HORIZON INTERNATIONAL HIGH SCHOOL	TURFFONTEIN
700132225	GT	EXCELSIOR HIGH	Unknown
700132951	GT	SIR ISAAC NEWTON HIGH SCHOOL	Unknown
700133033	GT	ST MATTHEWS PRIVATE SECONDARY SCHOOL (KLIPTOWN)	ROCKVILLE
700133561	GT	HILLVIEW HIGH PRIVATE SCHOOL	BEDFORDVIEW
700133686	GT	INSTITUTE SUNSHINE ACRES SECONDARY SCHOOL	8TH MEDICAL CENTRE
700133694	GT	ST PAUL'S HIGH	BLUEHILLS
700133959	GT	QHAKAZA-ORT SCHOOL OF SECONDARY & TECHNICAL	PUBLICRCHACE PLACE
700140566	GT	IMMACULATA SECONDARY	DIEPKLOOF
700150698	GT	KING DAVID HIGH SCHOOL (VICTORY PARK)	VICTORY PARK
700151993	GT	ALEXANDRA COMMERCIAL HIGH SCHOOL	ALEXANDRA
700152579	GT	NEST PHUTHING SECONDARY SCHOOL	DIEPSLOOT
700152859	GT	DAMELIN COLLEGE HIGH SCHOOL - RANDBURG	Unknown
700161828	GT	INSTITUTE STATUS ACRES SECONDARY SCHOOL	GERMISTON
700211581	GT	PROMAT SECONDARY PRIVATE SCHOOL	CULLINAN ROAD
700220756	GT	LOMPEC SECONDARY SCHOOL	MAMELODI EAST

700231589	GT	CITICOL SECONDARY SCHOOL	Unknown
700231621	GT	ED-U-COLLEGE SECONDARY SCHOOL	PRETORIA
700231761	GT	HOLY TRINITY HIGH SCHOOL (CATHOLIC SEC.)	ATTERIDGEVILLE
700232264	GT	TARGET HIGH SCHOOL	PRETORIA
700252031	GT	TULIP SECONDARY SCHOOL	Unknown
700260810	GT	SPARTAN HIGH SCHOOL	SPARTAN
700311225	GT	LEE RAND HIGH SCHOOL	Unknown
700331181	GT	QOQA SECONDARY SCHOOL	ORANGE FARMS
700331968	GT	ISIKHUMBUZO SECONDARY SCHOOL	ORANGE FARM
700331976	GT	TSHEPISO SECONDARY SCHOOL	ORANGE FARM
700331992	GT	SIYAPHAMBILI SECONDARY SCHOOL	ORANGE FARM
700340364	GT	SEDAVEN HIGH SCHOOL	DIST. HEIDELBERG
700359001	GT	JAMESON HIGH SCHOOL	DERSLEY PARK
902332424	LP	NEHEMIAH CHRISTIAN PRIVATE	MESSINA
904220828	LP	MERIDIAN COLLEGE	LADINE
904221304	LP	NORTHERN ACADEMY SECONDARY	PIETERSBURG
906122002	LP	ST. MORGAN ENGLISH MEDIUM SECONDARY	Unknown
911361668	LP	OKANI COMMERCIAL	MALAMULELE TOWNSHIP
915531485	LP	STANFORD COLLEGE	Unknown
916412064	LP	KHANYISA EDUCATION CENTRE	Unknown
921123067	LP	SEDIBENG PRIVATE HIGH SCHOOL	Unknown
922223503	LP	NORTHERN MUSLIM	Unknown
922225622	LP	PRENORA PREPARATORY SCHOOL	SESHEGO
922250157	LP	DAWANA COMMERCIAL HIGH	NTSIMA
923242477	LP	MOLLWANA COMMERCIAL HIGH	MONYWANENG VILLAGE
924652142	LP	ST. MARY'S SECONDARY	GROBLERSDAL
925610247	LP	HLABIRWA COMMERCIAL	EERSTERECHT FARM
930350040	LP	TSHIKEVHA CHRISTIAN SECONDARY	THOHOYANDOU
930351816	LP	ALMIGHTY LEARNING CENTRE	SITE NUMBER 1212

APPENDIX B: Stakeholders

The campaign would seek to carry the endorsement of the following organisations:

Association of Mine Managers of South Africa
Association of Mine Resident Engineers
Blue IQ
Clinical Engineering Association of South Africa
CSIR
Department of Education
Department of Labour
Department of Public Works
Department of Science and Technology
Department of Water Affairs and Forestry
Department of Provincial and Local Government
Department of Transport
Department of Housing
Engineering Council of SA
IEEE (EAB)
Independent Lifts Inspectors Association of SA
Independent Schools
Institute of Lighting Engineers of Southern Africa
Institute of Professional Engineering Technologists
Institute of Refractories Engineers
Institution of Certificated Mechanical & Electrical Engineers, A
Institution of Municipal Engineering of Southern Africa
Manufacturing, Engineering and Related Services Education and Training Authority
Mine Metallurgical Managers' Association of South Africa
Mining Qualifications Authority
National Science and Technology Forum/SETAG
National Research Foundation
Construction Education and Training Authority
Chemical Industries Education and Training Authority
Energy Education and Training Authority
South African Academy of Engineering
South African Association of Consulting Engineers
South African Black Technical & Allied Careers Organization
South African Colliery Engineers' Association
South African Colliery Managers' Association
South African Institute of Agricultural Engineers
South African Institute of Draughtsmen
South African Institute of Electrical Engineers
South African Institute of Electrical Technician Engineers
Southern African Institute of Industrial Engineers
South African Institute of Marine Engineers & Naval Architects
South African Institute of Measurement and Control
South African Institute of Mining and Metallurgy
South African Institute of Non-Destructive Testing
South African Institute of Refrigeration and Air-conditioning
South African Institute of Welding
South African Institution of Chemical Engineers
South African Institution of Civil Engineering
South African Institution of Mechanical Engineering
South African Road Federation
South African Society for Professional Engineers
Suid-Afrikaanse Akademie vir Wetenskap en Kuns: Ingenieursafdeling

The Chamber of Engineering Technology
The Royal Aeronautical Society of South Africa
The South African Irrigation Institute
The Water Research Commission
The Water Institute of Southern Africa
Universities
Universities of Technology

APPENDIX C: Participating Organisation

The following existing projects have been identified for approach to join the campaign:

Atteridgeville Educational Centre
Beyond2000 Publication
Boitjhorisong Resource Centre
Career Clinic
Career Wise
CHIETA Programme
Chris v Rensburg Publications
Cradle Reberio Observatory
Dinaledi Schools (DoE)
Youth into Civil Eng Initiative
Edu-Skills
Eskom Expo for Young Scientists
Eskom Secondary School Mathematics and Science Project
Giyani Science Centre
Gold Reef City Exploratory
Hip2B² magazine (Shuttleworth Foundation and Atoll Media)
Johannesburg Planetarium
LoveLife (S'camto)
Maths Centre
MiniMag
MTN Science Centre – Cape Town
MTN Science Centre - Gateway, Durban
Museum of Science and Technology
National S&T Programme for Young Women
National Science Olympiad
National Technology Olympiad (SAIME)
Science Week
NECSA Science Clubs
Pan African Mathematics Olympiad
Physics Department Science Centre
Port Elizabeth Museum Complex
Protec
Proverto Study Guides
Rainbow Publication
SAICE Career Guidance
SAIMM Career Guidance
SAFCEC Project
Sangari F1 Team in Schools (CAD/CAM Design Challenge) – GED, NWDE
Sasol SciFest
Sci Bono Discovery Centre
Sci Bridge
Science Emasondosondo
Science for Rural Communities
Sciensation
SciTech
See Science
Smart Young Minds
Space Week
Space and Aviation Challenge 2005 (UP)
Teachers Forum
Techno Expo
Ten Years of Democracy Project
The Discovery Centre

Thuthuka Project, SAICA
Transport Research Facilities Centre (TRAC SA) – SA National Roads Agency SANRAL
Tsebo Koloing
Ulwazi Partnership
Unizul Science Centre
Young Professionals Forum (SAACE)
Youth Foundation 2010 (DPW)