

HEFMA BENCHMARK REPORT



2016

Dear HEFMA Colleagues

2016 Benchmark Report

Herewith the 2016 HEFMA Benchmark report, the 9th report of its kind to be published for the benefit of all HEFMA members, colleagues and interested parties. For this edition 6 institutions returned their surveys in time for report by the due date. I thus extend a warm word of thanks to the six institutions who managed to find the time and effort to complete the survey questionnaire.

Once again the HEFMA Executive decided not to expand the criteria, consideration given to the Insourcing Wave of 2015/2016, best to maintain the focus on the original 6 operational areas. These areas are based on the valuable TEFMA benchmark report and cover;

- Building operating costs
- building maintenance (preventative and Corrective costs),
- grounds maintenance,
- cleaning and waste management,
- energy and
- security

There have been 6 Institutional responses for the 2015 HEFMA benchmarking exercise. It remains, however, the intention of the HEFMA Executive to grow the report in excess of 75% participation. This will only be achieved with the full support of member institutions.

Regards,

Ms Venessa Ranjit
Executive Member: Information Services
HEFMA
October 2016

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(2016)

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List of Participating HEFMA Institutions (6)

University of South Africa

University of Pretoria

University of Stellenbosch

Tshwane University of Technology

University of Witwatersrand

University of Johannesburg

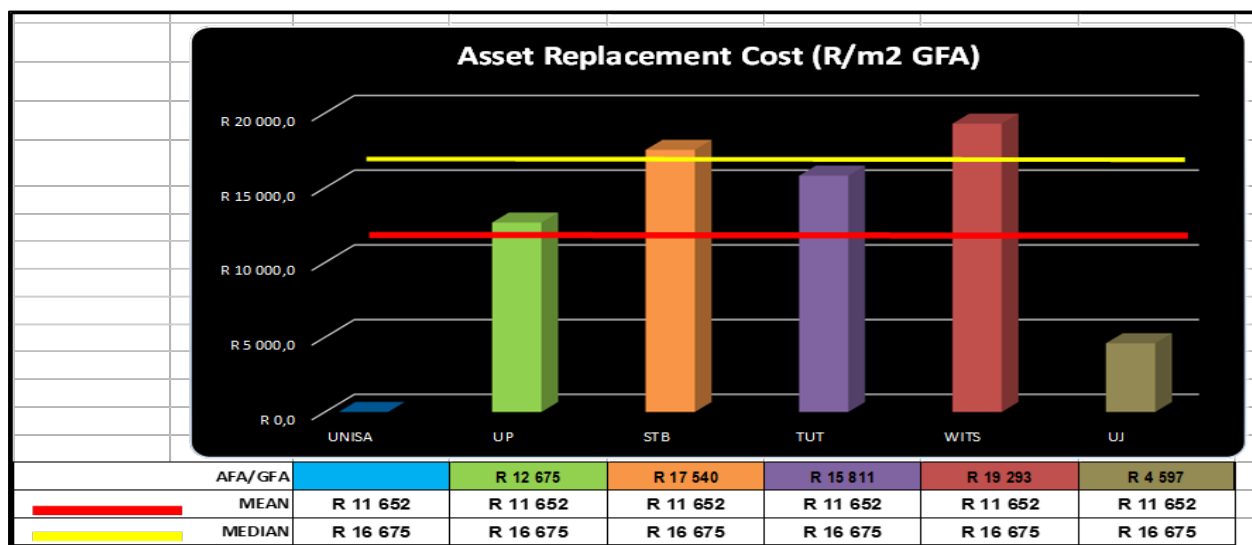
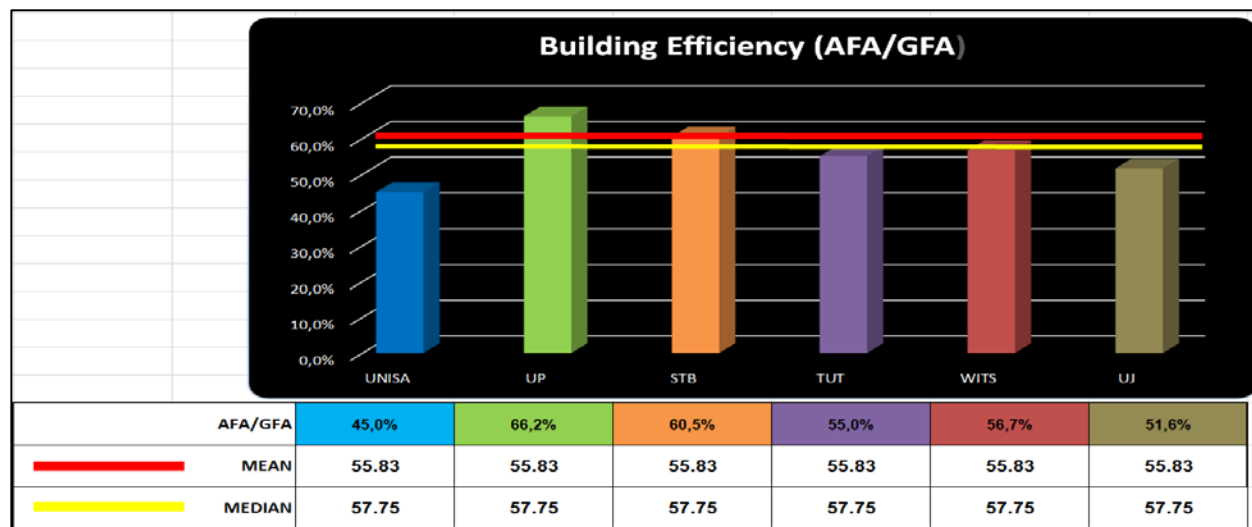
General Notes and Qualifications:

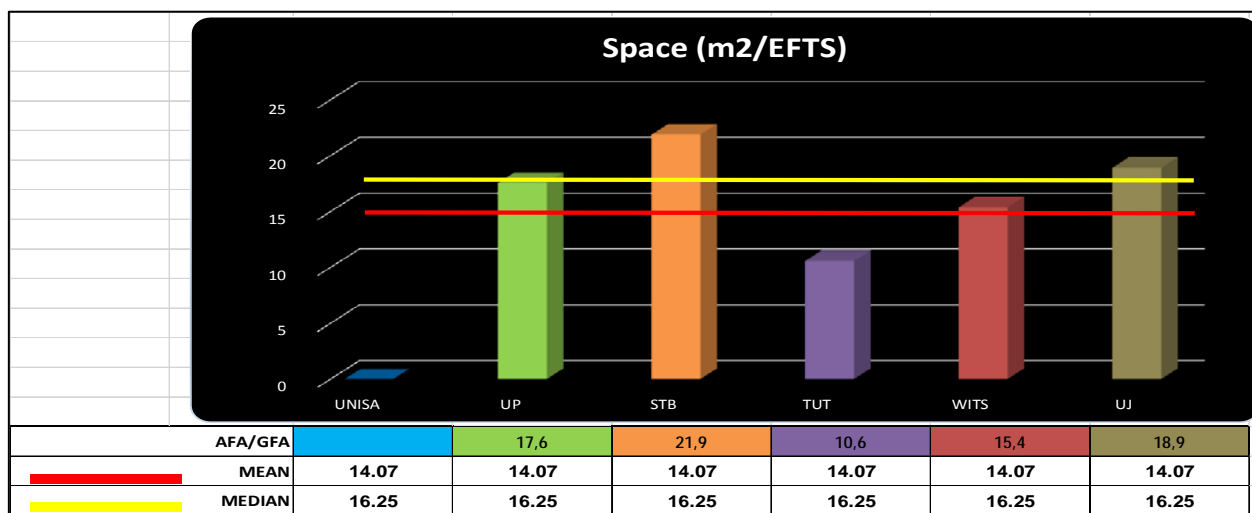
Schedule of respondents. Your institutional representative has been issued with a "*Cheat Sheet*" that identifies survey participants, the names of which have been excluded from the main body of the report for confidentiality reasons.

Survey Guidelines. Guidelines and definitions for completing the survey are provided on pages 9/10. Note that additional explanatory notes were embedded into the actual 2013 survey questionnaire/spreadsheet.

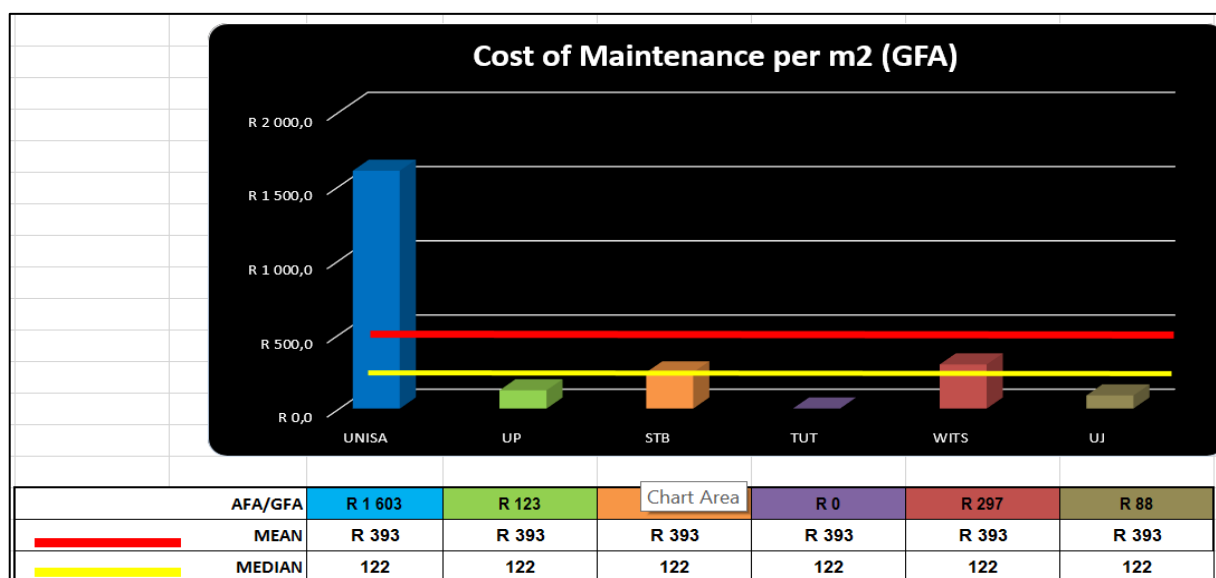
Survey Errors and Improvements. As the HEFMA benchmark survey is in its early years some inconsistencies in the way participants interpret the survey definitions and collect and compile data is expected. If you find any errors in this report, or wish to submit suggestions for improving future surveys, please contact Venessa Ranjit at ranjitv@tut.ac.za.

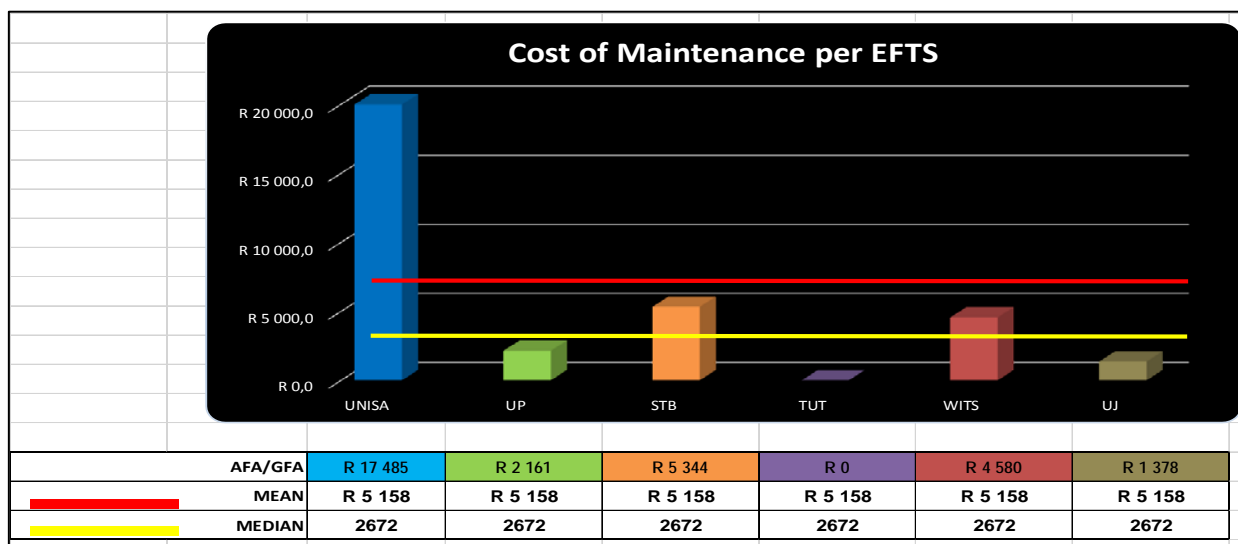
GENERAL STATISTICAL DATA								
Name of Institution	Campus	Gross Floor Area Buildings (GFA)	Assignable Floor Area Buildings (AFA)	AFA/GFA	Asset Replacement Value Buildings (ARV)	Replacement cost of Buildings R/m ² buildings	Total Equivalent Full-time Students (EFTS)	GFA provided per EFTS
		m ² GFA	m ² AFA	%	R	R/m ² GFA	No.	m ² / EFTS
UNISA	Aggregate of all Campuses	552 854	248 786	45,0%		R 0		
UP	Aggregate of all Campuses	734 616	486 145	66,2%	R 9 310 944 094	R 12 675	41 794	17,6
STELLENBOSCH UNIVERSITY	Aggregate of all Campuses	508 490	307 673	60,5%	R 8 918 955 913	R 17 540	23 203	21,9
TUT	Aggregate of all Campuses	451 620	248 391	55,0%	R 7 140 386 995	R 15 811	42 602	10,6
University of the Witwatersrand	Aggregate of all Campuses	519 353	294 359	56,7%	R 10 020 000 600	R 19 293	33 718	15,4
UJ	Aggregate of all Campuses	749 922	387 117	51,6%	R 3 447 157 132	R 4 597	39 590	18,9
MEAN				55,8%	R 6 472 907 456	R 11 653	30 151	14,1
MEDIAN				57,75%		R16675.50		16.25



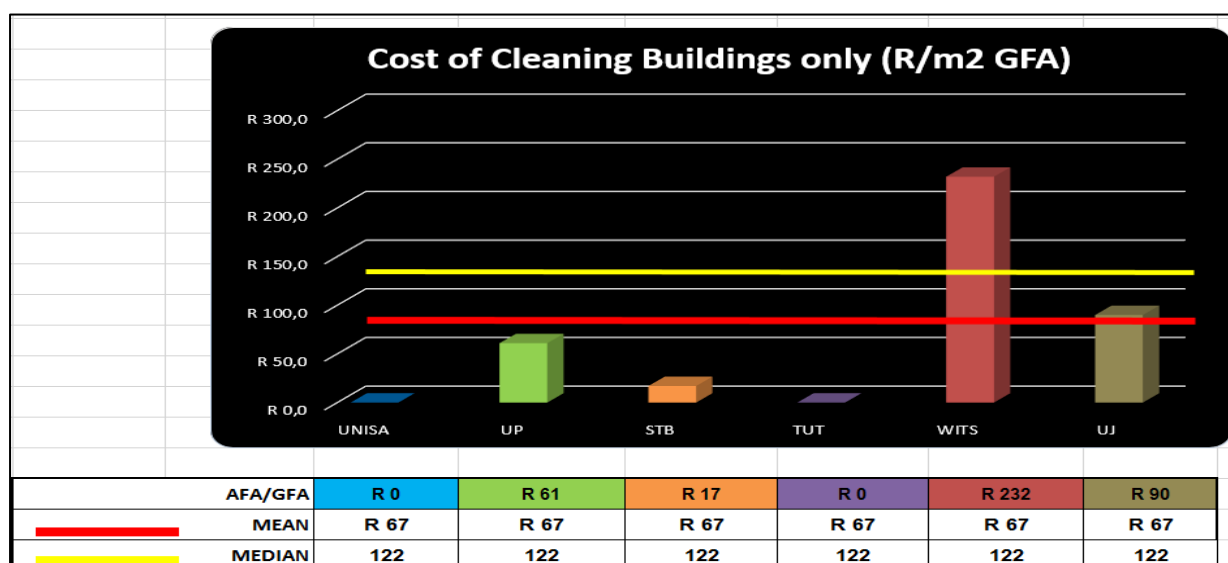


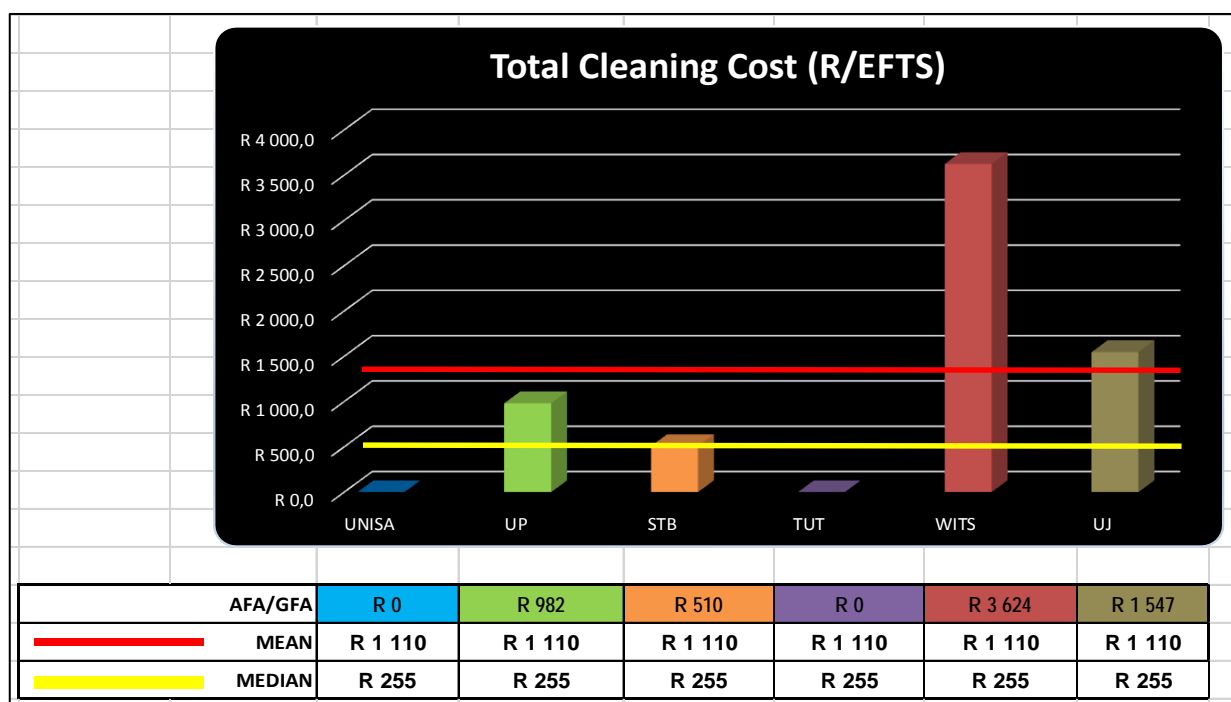
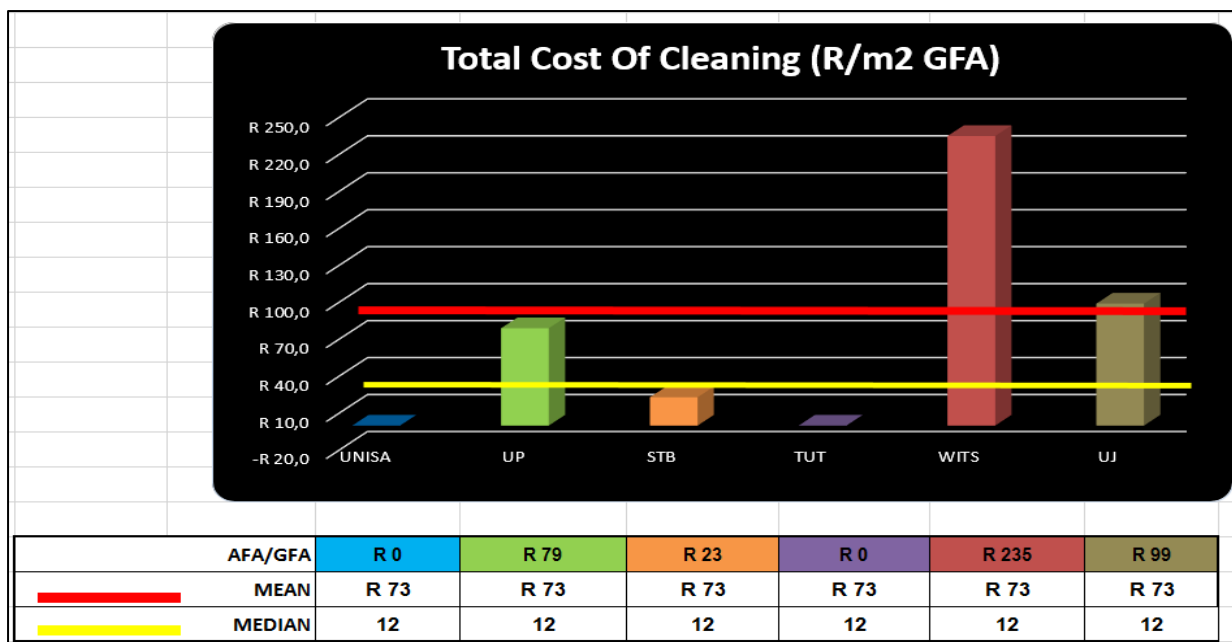
MAINTENANCE (Preventive and Corrective Costs)									
Name of Institution	Total Staff Salaries and Wages	Trade staff wages	Total staff salaries and wages	Materials and Contracts	Cost of maintenance projects on capital budget	Total Maintenance Expenditure	Area Maintained from Central Funds	Cost of Maintenance per m ² GFA	Cost of Maintenance per EFTS
	R	R	R	R	R	R	m ² GFA	R/m ² GFA	R/EFTS
UNISA	R 42 954 472	R 7 580 201	50 534 673	R 315 126 906	R 4 888 738	R 370 550 317	231 219	R 1 603	R 17 485
UP	R 9 963 228	R 4 770 200	14 733 428	R 57 353 229	R 18 215 000	R 90 301 657	734 616	R 123	R 2 161
STELLENBOSCH UNIVERSITY	R 14 175 129	N/A	14 175 129	R 109 812 675	R 0	R 123 987 804	508 490	R 244	R 5 344
TUT	R 76 183 599	R 11 316 646	87 500 245	R 477 097 680	N/A	R 564 597 925	N/A	N/A	N/A
University of the Witwatersrand	R 25 516 302	N/A	25 516 302	R 111 621 665	R 17 300 000	R 154 437 967	519 353	R 297	R 4 580
UJ	R 2 457 539	R 18 164 403	20 621 942	R 5 229 909	R 28 687 000	R 54 538 851	616 872	R 88	R 1 378
MEAN	28 541 711	6 971 908	35 513 619	R 179 373 677	R 11 515 123	R 226 402 420	435 092	393	R 5 158
MEDIAN								122	R 2 672



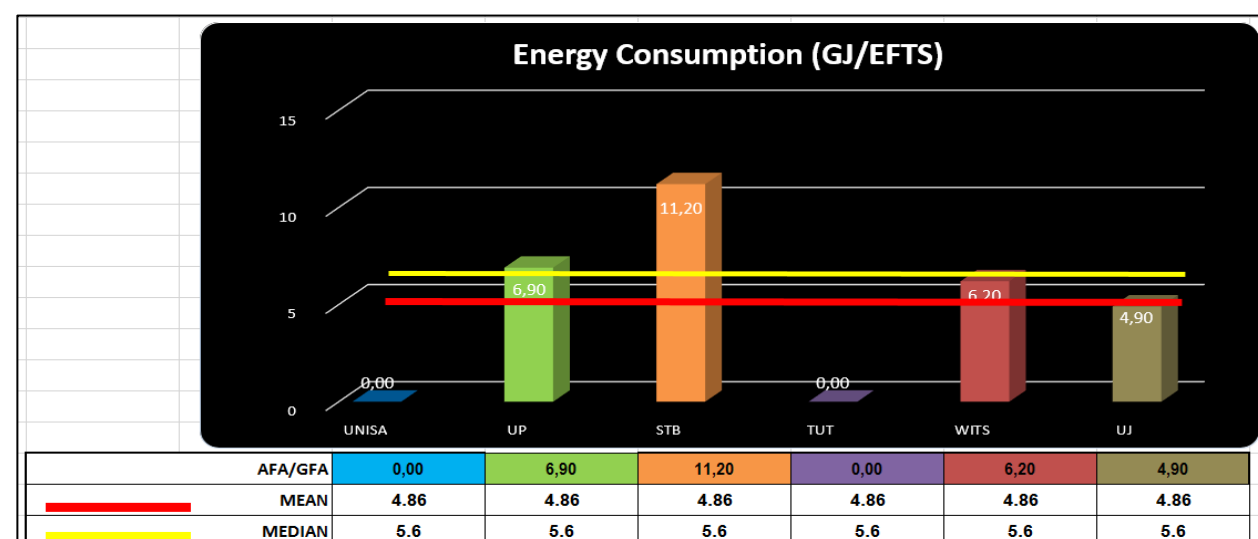
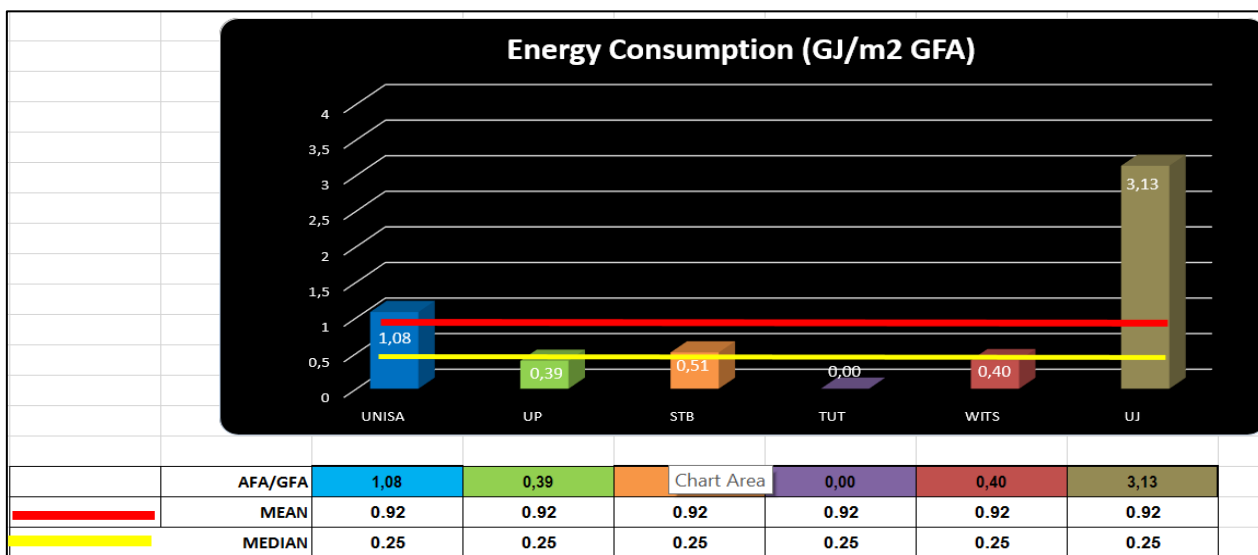


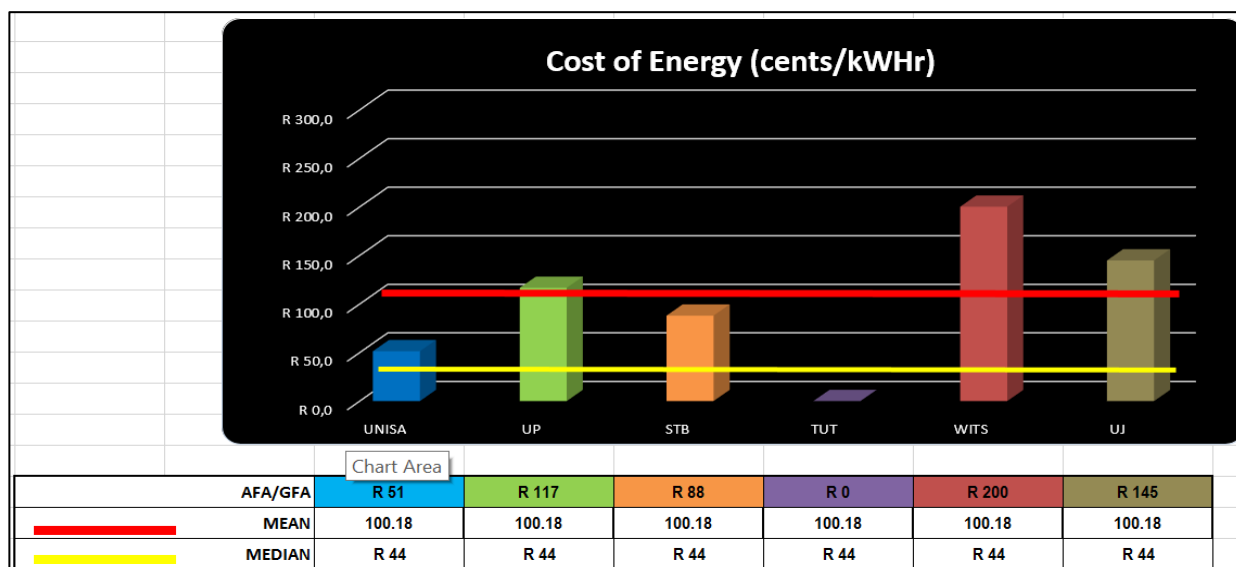
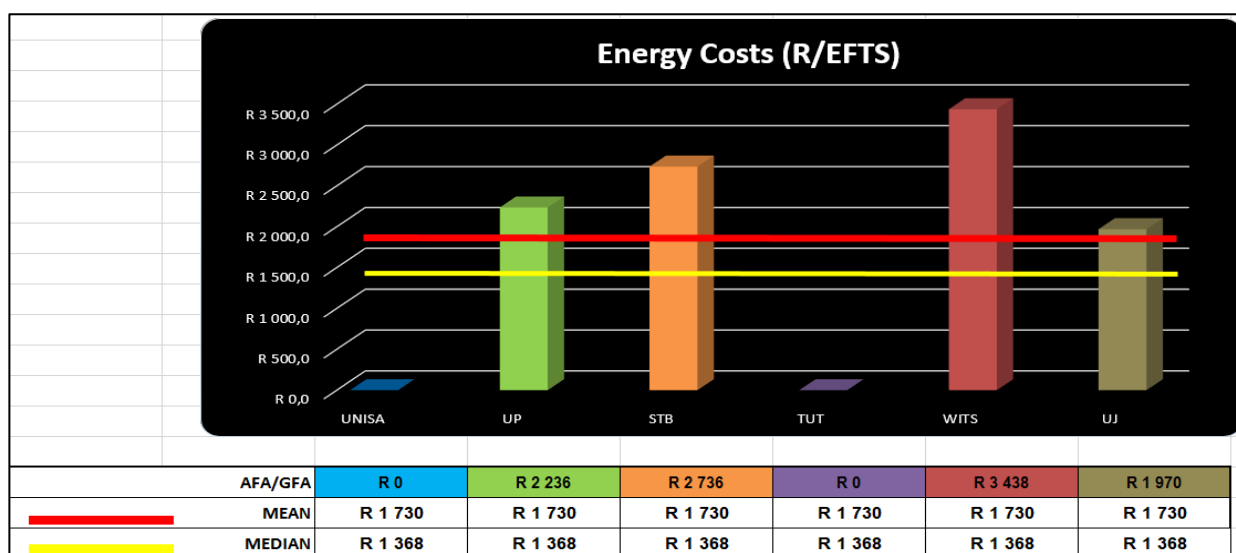
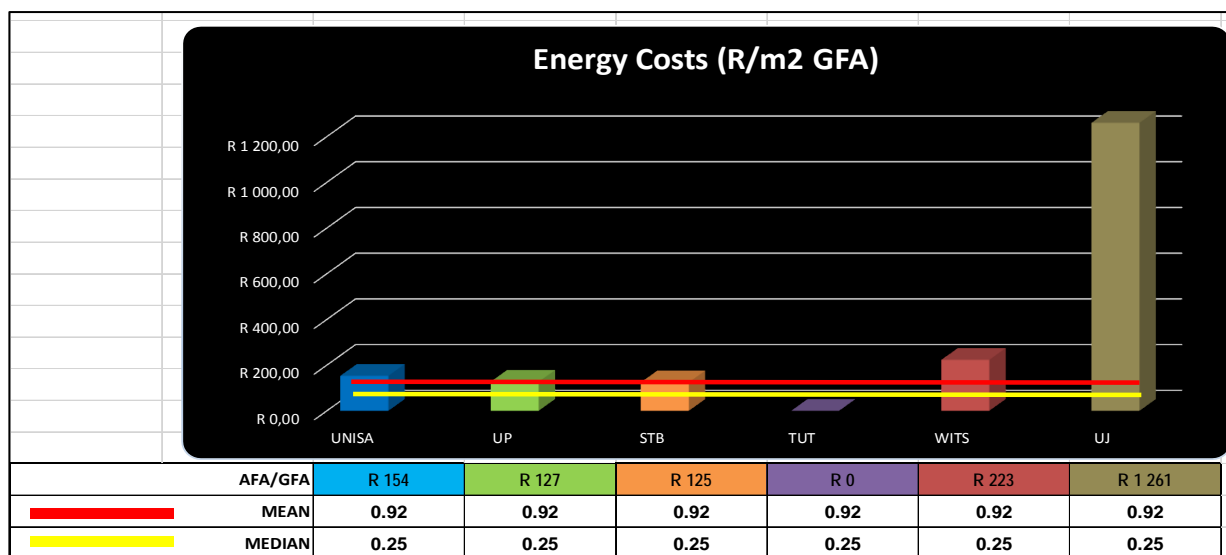
CLEANING AND WASTE MANAGEMENT SERVICES										
Name of Institution	Total Staff Salaries and Wages	Cleaning Materials	Cleaning Contracts Buildings	General Waste Removal	Contaminated Waste Removal	Total Cleaning Expenditure	Area Cleaned from Central Funds	Cost of Cleaning Buildings	Total Cleaning Cost R/GFA	Total Cleaning Cost R/EFTS
	R	R	R	R	R	R	m ² GFA	R/m ² GFA	R/EFTS	R / EFTS
UNISA	R 4 896 958	R 0	R 0	R 0	R 0	4 896 958	0	0	0	0
UP	R 3 732 081	R 3 620 310	R 24 124 921	R 7 803 379	R 1 751 494	41 032 185	516 193	61	79	982
STELLENBOSCH UNIVERSITY	R 1 006 456	R 2 429 578	R 3 083 124	R 3 265 775	R 2 056 654	11 841 587	508 490	17	23	510
TUT	R 10 471 848	R 6 623 041	R 46 513 115	N/A	N/A	63 608 004	N/A	N/A	N/A	N/A
University of the Witwatersrand	R 40 971 991	R 20 718 837	R 58 131 109	R 1 819 572	R 545 872	122 187 381	519 353	232	235	3 624
UJ	R 14 289 795	R 3 605 219	R 37 125 891	R 5 835 145	R 408 889	61 264 939	616 872	90	99	1 547
MEAN	11 746 177	6 166 164	28 163 026	R 3 120 645	R 793 818	R 50 805 176	360 151	67	R 73	R 1 110
MEDIAN								122	R 12	R 255



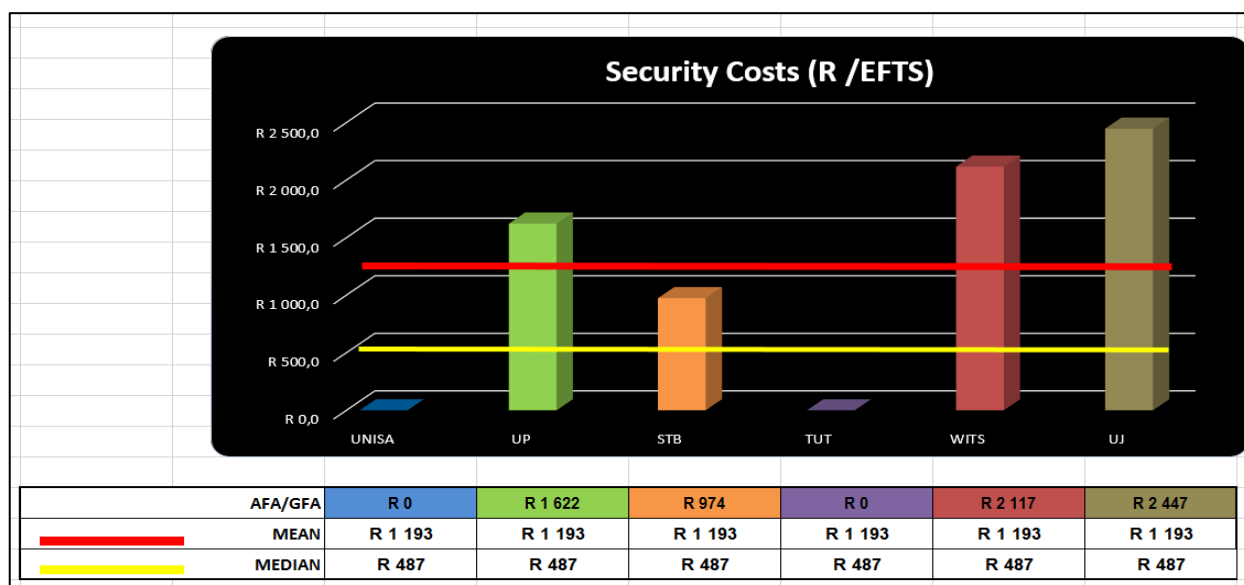
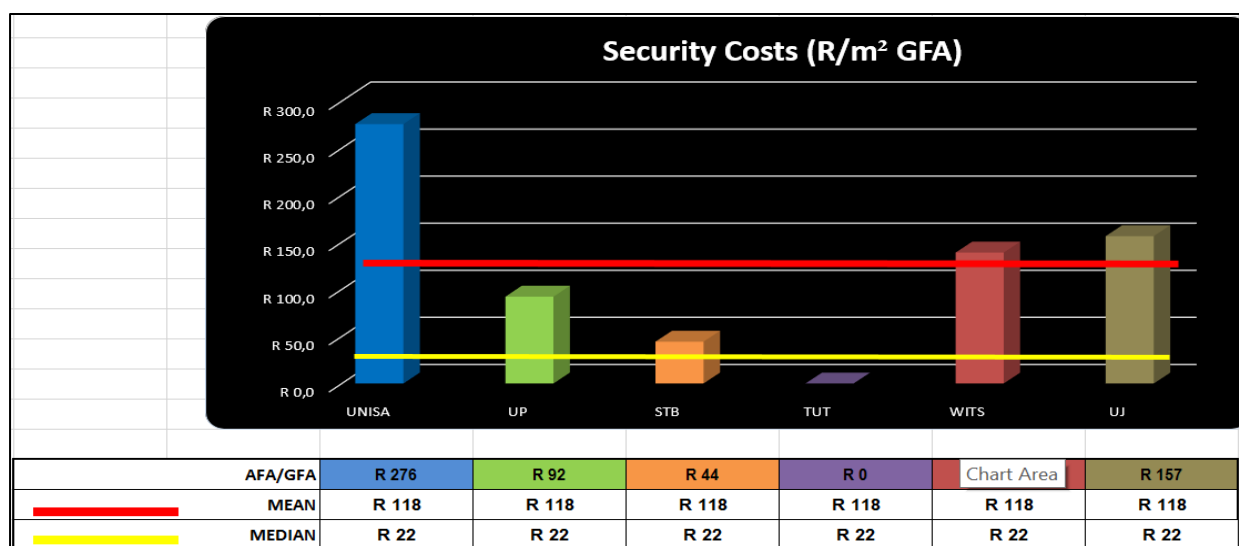


ENERGY								
Name of Institution	Annual Consumption in Gigajoules	Annual Cost of Energy Purchased	Total GFA Served with Energy	Energy Consumption per m ²	Energy Consumption per EFTS	Energy Costs per m ² (GFA)	Energy Costs per EFTS	Average Costs per kWhr
	GJ	R	m ² GFA	GJ/m ² GFA	GJ/EFTS	R/m ² GFA	R/EFTS	cents/kWhr
UNISA	559 720	R 79 807 570	519 353	1,08	0,0	R 153,67	R 0	R 51
UP	288 412	R 93 454 878	734 616	0,39	6,9	R 127,22	R 2 236	R 117
STELLENBOSCH UNIVERSITY	259 560	R 63 480 038	508 490	0,51	11,2	R 124,84	R 2 736	R 88
TUT	N/A	N/A	N/a	0,00	0,0	R 0,00	R 0	R 0
University of the Witwatersrand	208 423	R 115 937 132	519 353	0,40	6,2	R 223,23	R 3 438	R 200
UJ	193 861	R 78 000 000	61 872	3,13	4,9	R 1 260,67	R 1 970	R 145
MEAN	251 662	R 71 779 936	390 614	0.92	4.86	314.93	R 1 730	100.18
MEDIAN				0.25	5.6	62.42	1368	R 44

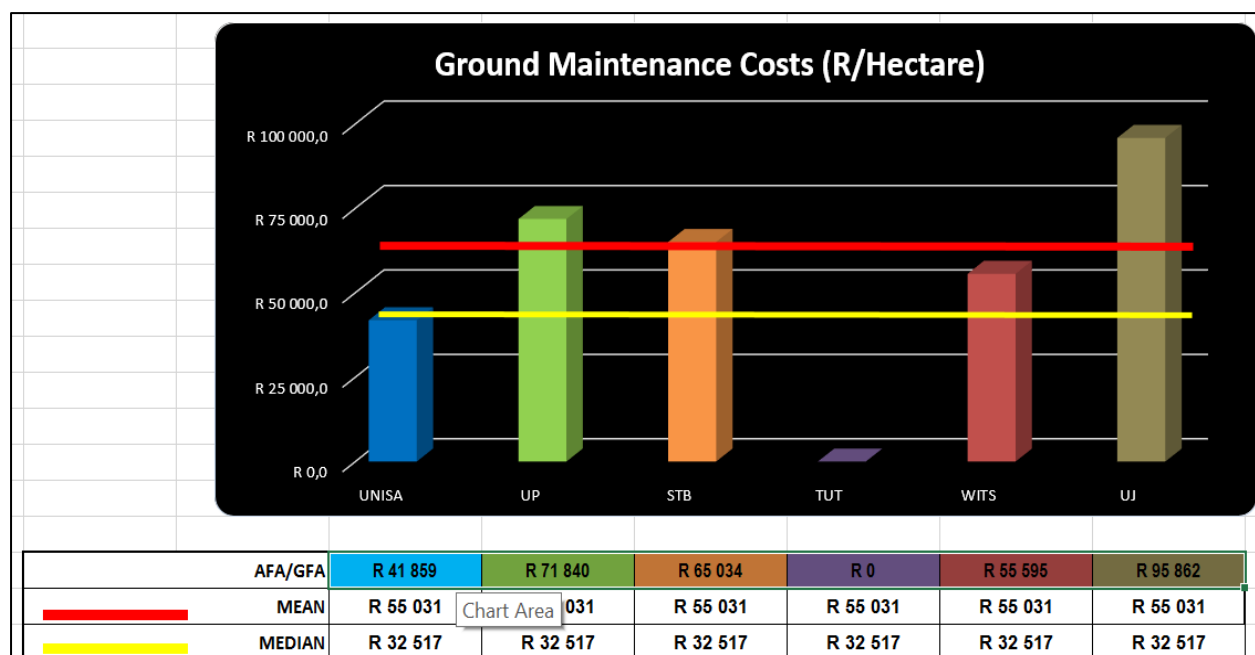




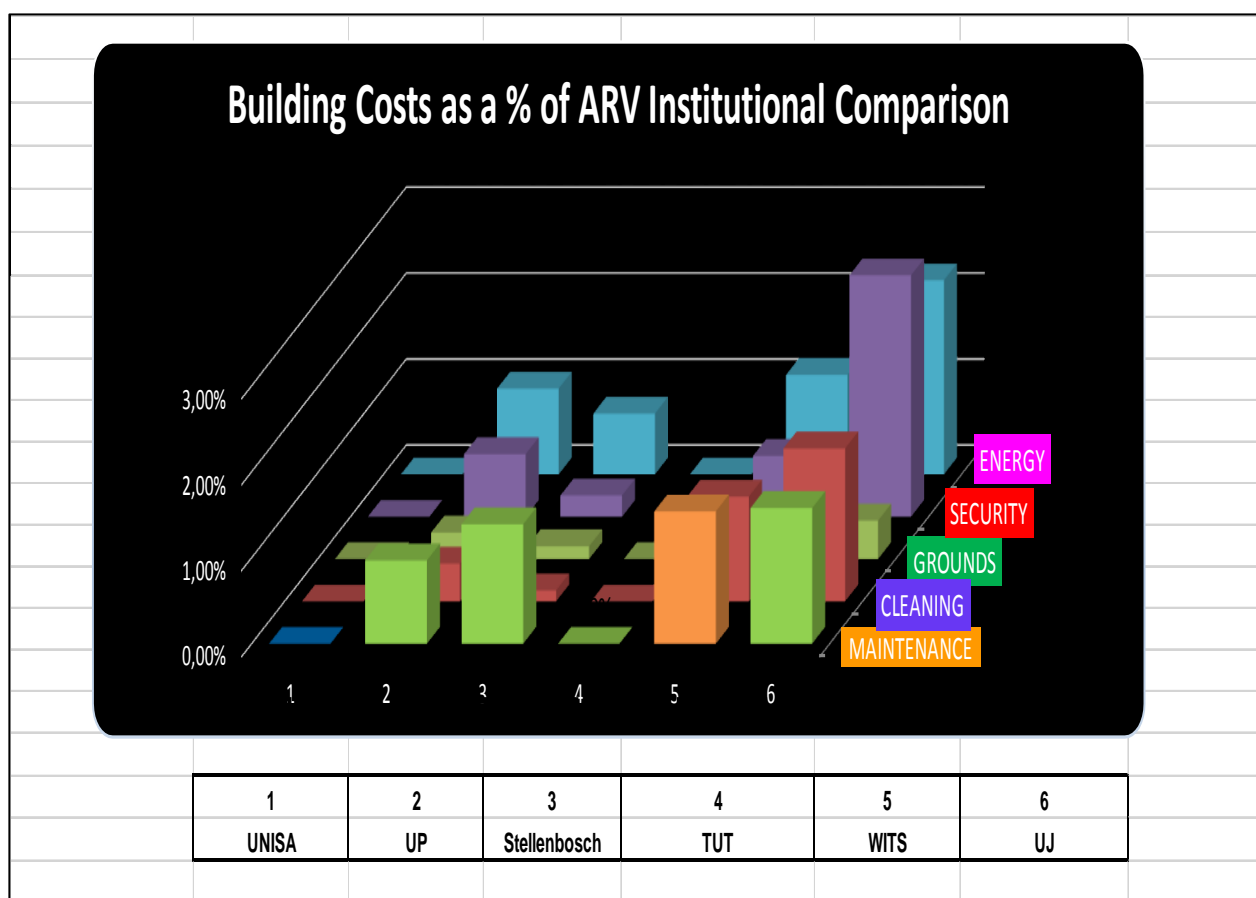
SECURITY							
Name of Institution	Total Staff Salaries and Wages	Expenditure on Security Contracts	Other Security Costs	Total Security Expenditure	GFA Under Security Patrol	Cost of Security per m2 GFA	Cost of Security per EFTS
	R	R	R	R	m ² GFA	R/m ² GFA	R/EFTS
UNISA	R 39 562 874	R 71 594 973	R 6 512 609	R 117 670 456	427 021	R 276	R 0
UP	R 21 894 552	R 45 834 394	R 52 060	R 67 781 006	734 616	R 92	R 1 622
STELLENBOSCH UNIVERSITY	R 14 453 936	R 8 135 597	R 0	R 22 589 533	508 490	R 44	R 974
TUT	R 31 454 325	R 87 430 674	R 1 640 939	R 120 525 938	N/A	R 0	R 0
University of the Witwatersrand	R 43 109 995	R 25 374 452	R 2 902 866	R 71 387 313	513 353	R 139	R 2 117
UJ	R 52 817 355	R 38 846 499	R 5 224 359	R 96 888 213	618 872	R 157	R 2 447
MEAN	R 33 882 172	R 46 202 764	R 2 722 138	R 82 807 074	467 058	R 118	R 1 193
MEDIAN						22	487



GROUNDS MAINTENANCE					
Name of Institution	Total Staff Salaries and Wages	Materials and Contracts	Total Grounds Maintenance Expenditure	Hectares Maintained from Central Funds	Maintenance Expenditure per Hectare
	R	R	R	Hectares	R
UNISA	R 1 131 440	R 6 863 572	R 7 995 012	191	R 41 859
UP	R 3 177 725	R 25 845 522	R 29 023 247	404	R 71 840
STELLENBOSCH UNIVERSITY	R 2 325 316	R 10 681 489	R 13 006 805	200	R 65 034
TUT	R 2 150 477	R 15 314 861	R 17 465 338	N/A	N/A
University of the Witwatersrand	R 6 563 832	R 4 555 134	R 11 118 966	200	R 55 595
UJ	R 11 117 918	R 4 507 571	R 15 625 489	163	R 95 862
MEAN	R 4 411 118	R 11 294 691	R 15 705 809	193	R 55 031
MEDIAN					32517



BUILDING OPERATING COSTS									
Name of Institution	Total Operating Costs	Operating Costs per m ² (GFA)	Operating Costs per EFTS	Building Costs as % of ARV	Maintenance Costs as % of ARV	Cleaning & Waste as % of ARV	Grounds Maintenance as % of ARV	Security as % of ARV	Energy as % of ARV
	R	R/m ² GFA	R/EFTS	% ARV	% ARV	% ARV	% ARV	% ARV	% ARV
UNISA	R 210 369 996	R 0	0	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
UP	R 321 592 973	R 403	7 695	3,45%	0,97%	0,44%	0,31%	0,73%	1,00%
STELLENBOSCH UNIVERSITY	R 234 905 567	R 430	10 124	2,63%	1,39%	0,13%	0,15%	0,25%	0,71%
TUT	R 391 218 571	R 0	0	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%
University of the Witwatersrand	R 475 068 759	R 891	14 089	4,74%	1,54%	1,22%	0,11%	0,71%	1,16%
UJ	R 306 316 539	R 1 595	7 737	8,89%	1,58%	1,78%	0,45%	2,81%	2,26%
									5,13%
MEAN	323 245 400	553	R 6 607	3,29%	0,91%	0,60%	0,51%	0,75%	0,86%
MEDIAN		71.66	R 1 687	0,44%	0,23%	0,02%	0,03%	0,04%	0,12%



Guidelines for completing the 2013 HEFMA benchmark survey

Welcome to the 2013 HEFMA Benchmark Survey. This survey has been adapted for South African higher education institutions, and is the same version as used for the 2006 survey. Once again, please fill in only the green cells on each tab of the spreadsheet. Depending on your screen size, you may be required to scroll through the tabs at the bottom of the spreadsheet. Totals are calculated in the yellow cells and carried forward to the front page to show your institution's total building operating costs.

General Instructions:

1. All Higher Education Institutions in South Africa submit an annual HEMIS survey. In this benchmark survey, you are required to use the **HEMIS definitions** as indicated. This will ensure that all participating institutions use the same definitions for calculations. The HEMIS definitions are applicable to **GFA, AFA, ARV** and **EFTS**.
2. Only fill in the **green** cells. **Yellow** cells are calculated by the computer. **Blue** cells are the RSA 2006 figures (averages or totals) to provide you with an order of magnitude to use as a reference, but participants are advised to consider the escalation since the last survey.
3. You may include or exclude student housing (residences) from your figures, as long as you do it consistently. If you include residences in your GFA, you must also include it in your AFA and ARV, as well as in the relevant data fields associated with providing services to student housing. Thus if you maintain your residences but don't clean them, include the residences in your GFA for Maintenance, but exclude it in your GFA for Cleaning and Waste Removal.
4. Start on the tab "**General Statistical Data**" and work your way through all the tabs. Ensure that you fill in values in all six tabs. While there are only 27 fields to complete, participants are advised to delegate to their sub-ordinates or colleagues responsible for the various areas, thus reducing the size of the task.
5. Save this spreadsheet as **YourUniversityBenchmark.xls**. When you are done, please email this spreadsheet with your results back to **andre.theys@uct.ac.za**. All questionnaires must be submitted back before **5 October 2011**. On completion of the survey and analysis, the final report (in PDF format), will be distributed electronically to all HEFMA members. If all participants submit the completed questionnaires by the due date then it is hoped to have the analysis and final report available during the running of the annual 2011 conference.
6. As before, the name of your institution will not be revealed to other participants, unless you give your explicit permission. The HEFMA Executive thanks those institutions who have indicated their participation.

Guidelines for each column

Column Guideline

General Statistical Data

- | | |
|---|--|
| 1 | The name of your institution e.g. University of Pretoria |
| 2 | Indicate whether these figures represent the aggregate of all your campuses (preferably) or name of separate campus. If not aggregate, please fill in a survey per campus. |
| 3 | The all inclusive total floor area of all floors measured over the outer walls of the building. Includes all assignable and non-assignable areas. |
| 4 | AFA = GFA - non-assignable floor area (NFA): NFA includes mechanical floor areas, custodial floor areas, circulation floor areas etc |
| 5 | Calculated field. Do not fill in. |
| 6 | The total cost to erect a similar building at today's cost. Includes building cost, professional fees, municipal costs and fixed equipment. |
| 7 | Calculated field. Do not fill in. |
| 8 | Use the standard HEMIS definition for Equivalent Full-time Students. Only include contact students and exclude distance students. |
| 9 | Calculated field. Do not fill in. |

Maintenance (Corrective and Preventative)

- | | |
|----|---|
| 10 | Include costs of professional and administrative staff directly and indirectly involved in the maintenance operation. Where a staff member spends only part of his or her time on maintenance activities, please estimate & apportion their time and costs accordingly. Include a provision for FM management overhead. |
| 11 | Include all costs associated with maintenance trades staff working on maintenance activities only. Where maintenance staff also performs "new work", this portion should be excluded from the maintenance costs reported. |
| 12 | Calculated field. Do not fill in. |
| 13 | Include the costs of materials (e.g. paint, timber, hardware, lamps, plumbing supplies, etc) used by your maintenance staff on preventive and corrective maintenance activities plus payments made to external service providers (e.g. air-conditioning, lift, electrical, plumbing contractors, etc). |

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- 14 Spent on maintenance projects from capital budget. Exclude budgets spent on new work.
- 15 Calculated field. Do not fill in.
- 16 Cannot exceed the GFA in Col 3.
- 17 Calculated field. Do not fill in.
- 18 Calculated field. Do not fill in.

Cleaning and Waste Management Services

- 19 Include costs of professional and administrative staff directly and indirectly involved in the cleaning and waste management operations. Where a staff member spends only part of his or her time on these activities, please estimate & apportion their time and costs accordingly. Include a provision for FM management overhead.
- 20 Include the costs of cleaning materials used by your cleaning staff on all cleaning related activities plus materials provided to external service providers.
- 21 Payments made to external service providers.
- 22 The total cost of general waste removal, either internally or by waste removal contractor.
- 23 The total cost of contaminated waste removal, either internally or by waste removal contractor. Include pathological and chemical waste removal.
- 24 Calculated field. Do not fill in.
- 25 Cannot exceed the GFA in Col 3.
- 26 Calculated field. Do not fill in.
- 27 Calculated field. Do not fill in.
- 28 Calculated field. Do not fill in.

Energy

- 29 The total annual energy consumption of your Institution that relates to the GFA in column 43. Only include by facilities that are included in GFA in column 43, where $GJ = (kWhrs \times 3600) / (1 \times 10^6)$, i.e. 1 kWhr = 0.0036 GJ
- 30 The total annual cost of energy purchased by your institution that relates to the GFA in column. Only include cost to facilities that are included in GFA in column 43.
- 31 Ensure GFA figure is consistent with definitions provided in Columns 41 and 42. Cannot exceed the GFA in Col 3.
- 32 Calculated field. Do not fill in.
- 33 Calculated field. Do not fill in.
- 34 Calculated field. Do not fill in.
- 35 Calculated field. Do not fill in.
- 36 Calculated field. Do not fill in.

Security

- 37 Include costs of professional and administrative staff directly and indirectly involved in the security operation. Where a staff member spends only part of his or her time on security activities, please estimate & apportion their time and costs accordingly. Include a provision for FM management overhead.
- 38 Indicate whether this figures represent the aggregate of all your campuses (preferably) or name of separate campus
- 39 Payments made to external service providers.
- 40 Calculated field. Do not fill in.
- 41 Only use the Gross Floor Area of the buildings patrolled, not the area of all grounds patrolled. This figure cannot exceed the GFA in Col 3.
- 42 Calculated field. Do not fill in.
- 43 Calculated field. Do not fill in.

Grounds Maintenance

- 44 Include costs of professional and administrative staff directly and indirectly involved in the grounds maintenance operation. Where a staff member spends only part of his or her time on maintenance activities, please estimate & apportion their time and costs accordingly. Include a provision for FM management overhead.
- 45 Include the costs of materials used by your grounds maintenance staff on these activities plus payments made to external service providers.
- 46 Calculated field. Do not fill in.
- 47 Effective area of grounds maintained with these funds. This may include the area of your landscaped gardens and sports fields if applicable.
- 48 Calculated field. Do not fill in.

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