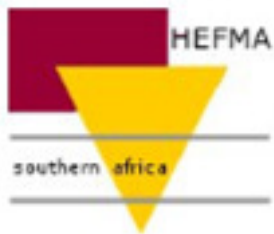
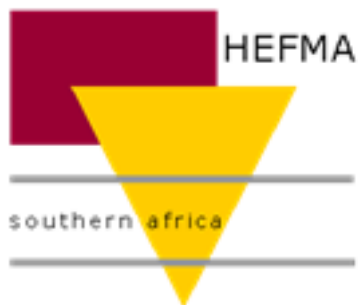


# HEFMA

## Benchmark Report



**2013**



Higher Education Facilities Management Association of Southern Africa

Dear HEFMA Colleagues

## 2013 Benchmark Report

Herewith the 2013 HEFMA Benchmark report, the eighth report of its kind to be published for the benefit of all HEFMA members, colleagues and interested parties. For this edition 4 institutions returned their surveys in time for report by the due date. I thus extend a warm word of thanks to the four 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 given the poor participation of the member institutions and it was decided to maintain the focus on the original 5 operational areas. These areas are based on the valuable TEFMA benchmark report and cover;

- building maintenance,
- grounds maintenance,
- cleaning and waste management,
- energy and
- security.

This has been the lowest sample submitted in the history of HEFMA benchmarking. 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,

Peter Byne  
**Executive Member: Information Services**  
**HEFMA**  
October 2014

**2013 HEFMA Benchmark Report**

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**Publisher:** HEFMA: Higher Education Facilities Management Association (Southern Africa)

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(2014)

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## Alphabetical List of Participating HEFMA Institutions (4)

University of Cape Town  
University of Johannesburg  
University of Kw aZulu Natal  
University of Pretoria

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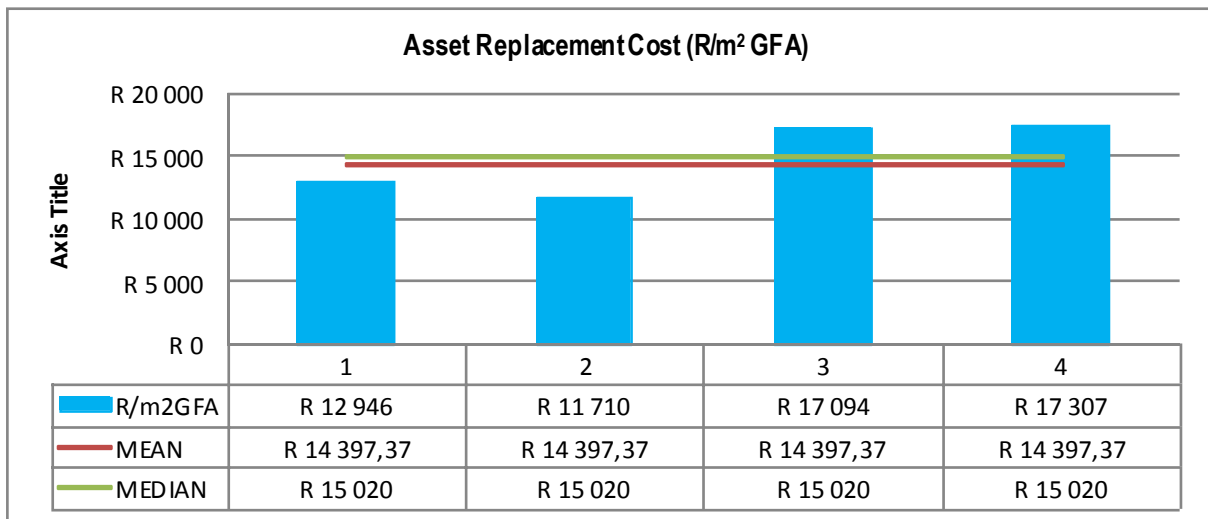
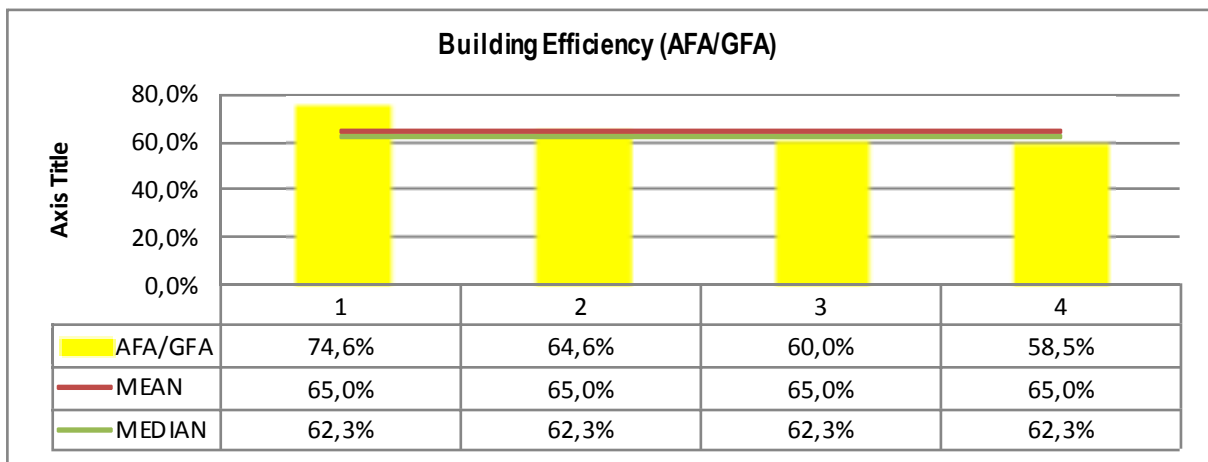
### General Notes and Qualifications:

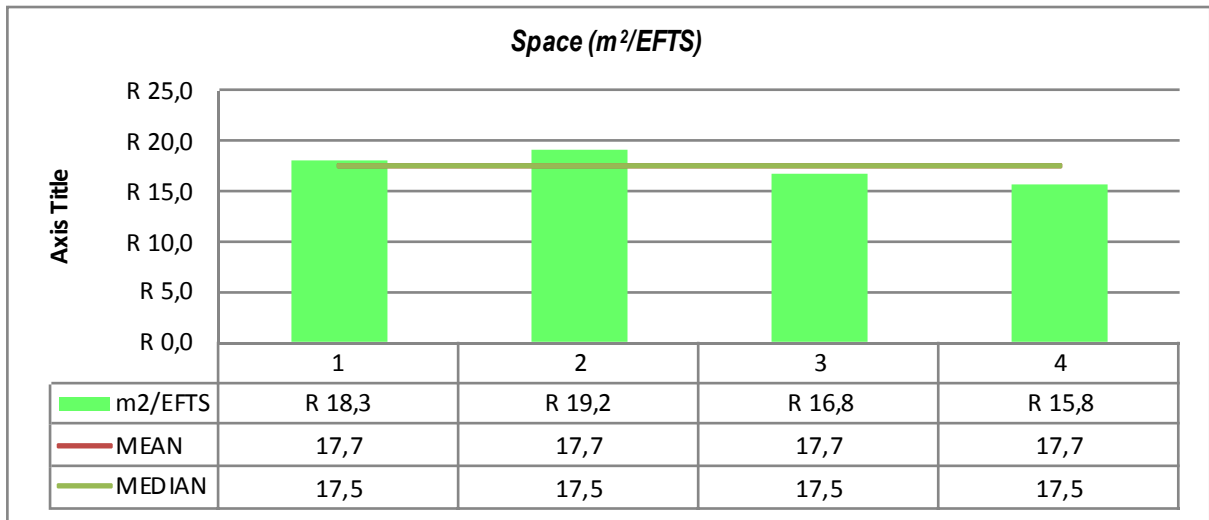
**Schedule of respondents.** Your institutional representative has been issued with a “*Cheat Sheet*” that identifies survey participants, the names of which have been excluded from the main body of the report for confidentiality reasons.

**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.

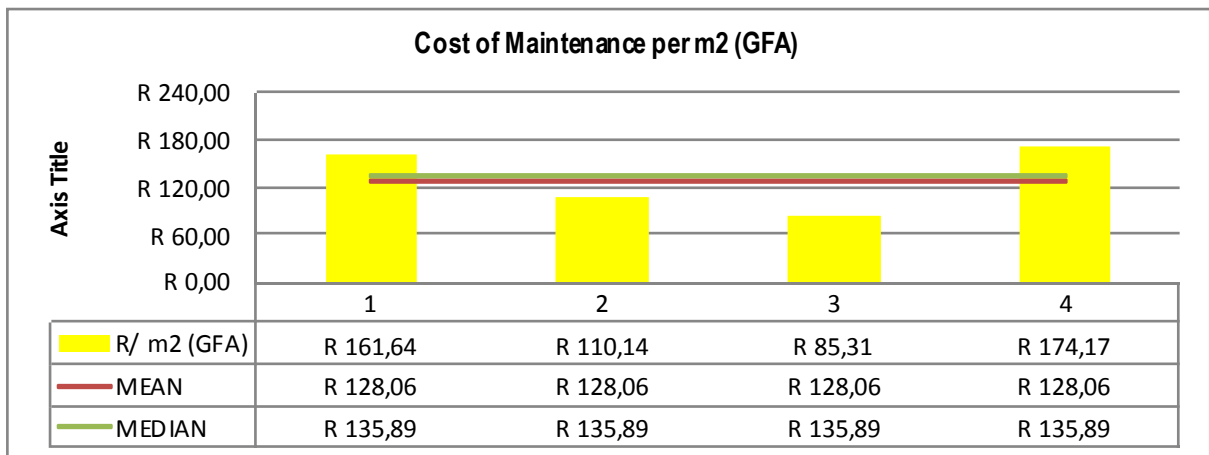
**Survey Errors and Improvements.** As the HEFMA benchmark survey is in its early years some inconsistencies in the way participants interpret the survey definitions and collect and compile data is expected. If you find any errors in this report, or wish to submit suggestions for improving future surveys, please contact Peter Byne at [peter.byne@uct.ac.za](mailto:peter.byne@uct.ac.za)

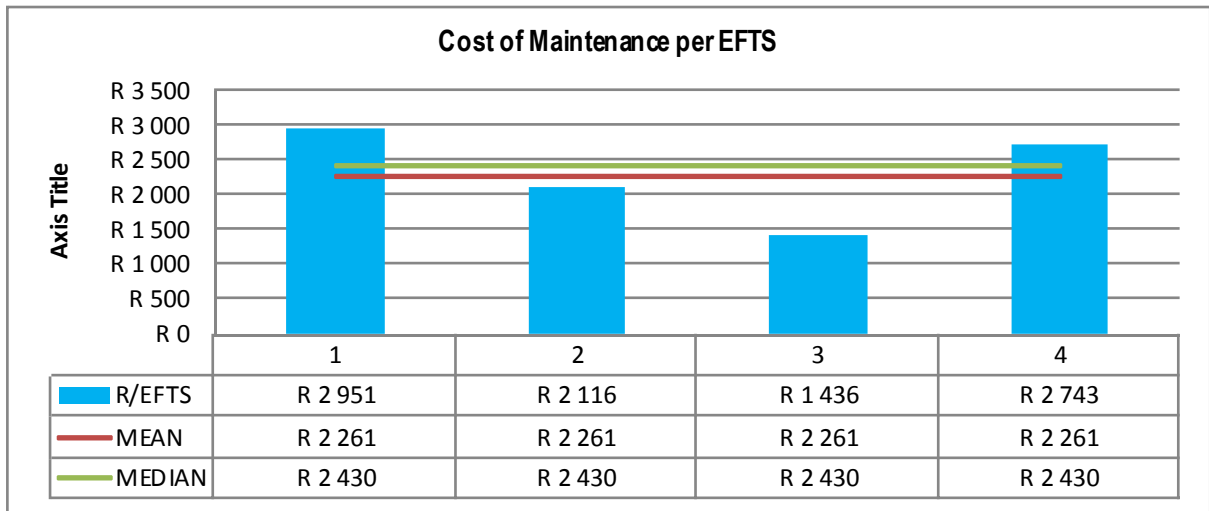
Institution	General Statistical Data							
	Residences Included/Excluded	Gross Floor Area Total Campus (GFA)	Assignable Floor Area Total Campus (AFA)	AFA/GFA	ARV Buildings	Replacement Cost of Buildings	Total EFTS	GFA per EFTS
	2	3	4	5	6	7	8	9
	Type	m <sup>2</sup> GFA	m <sup>2</sup> AFA	%	R	R/m <sup>2</sup> GFA	No.	m <sup>2</sup> /EFTS
1	Included	619 605	461 916	74.6%	R 8 021 381 010	R 12 946	33 934	18.3
2	included	716 837	463 216	64.6%	R 8 394 351 156	R 11 710	37 314	19.2
3	Included	616 872	370 105	60.0%	R 10 544 634 348	R 17 094	36 656	16.8
4	Excluded	399 393	233 684	58.5%	R 6 912 419 105	R 17 307	25 358	15.8
Mean		2 352 707	1 528 921	65.0%	R 33 872 785 619	R 14 397	133 262	17.7
Median				62.3%		R 15 020		17.5



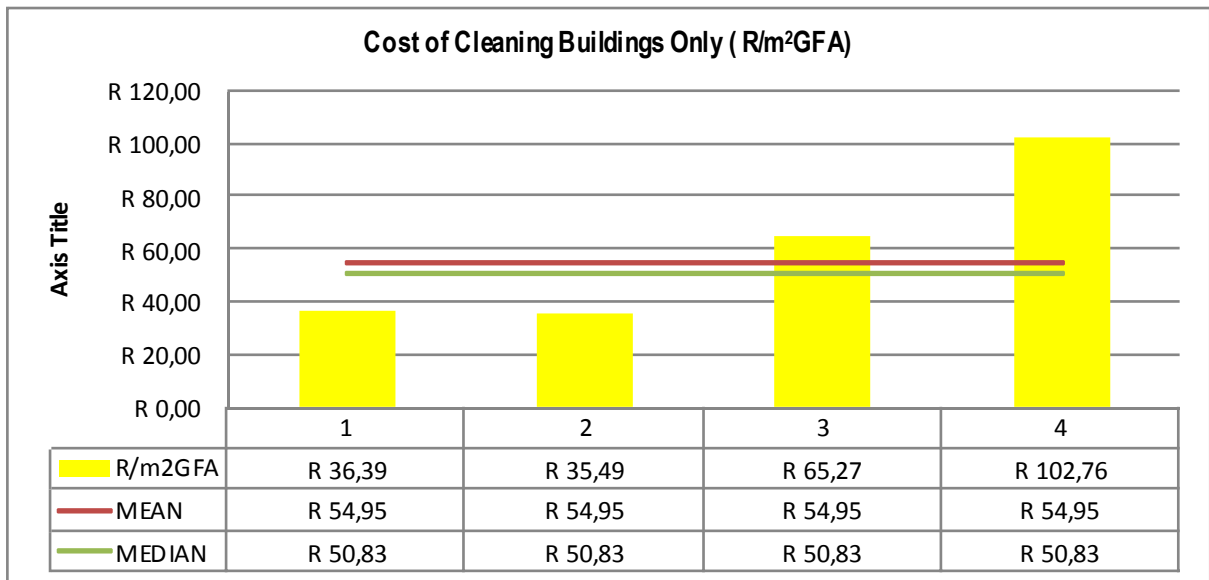


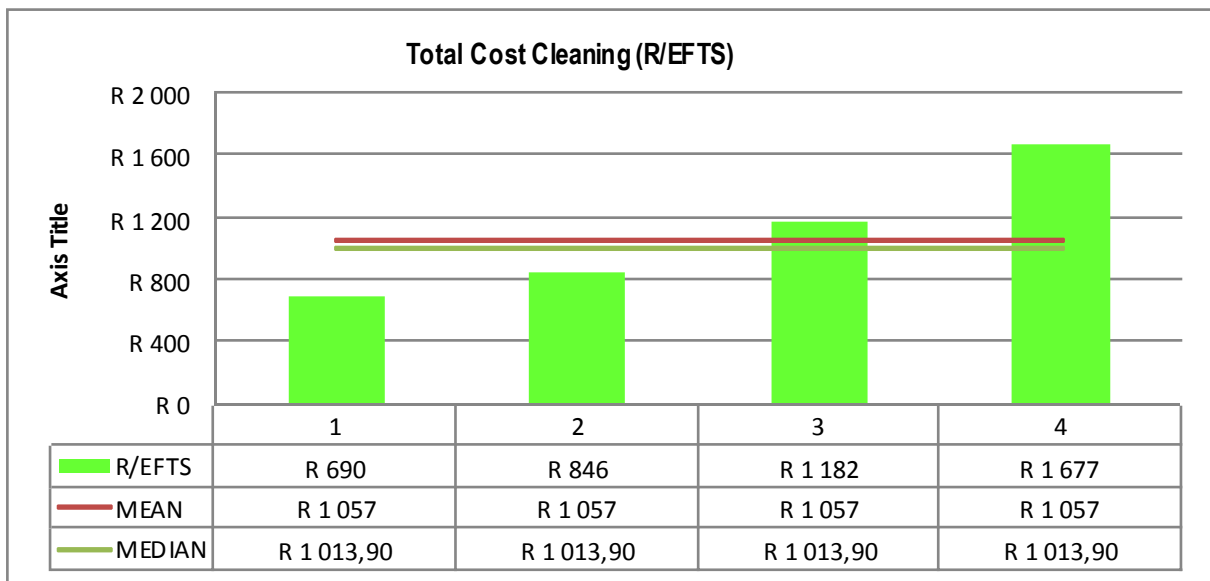
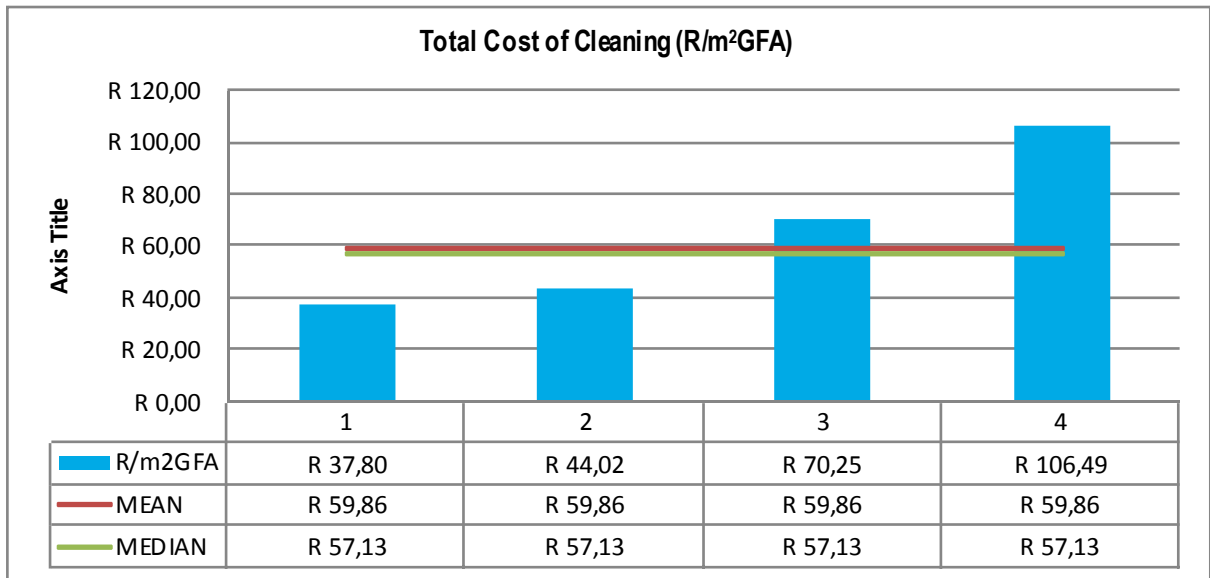
Institution	Maintenance								
	Preventive & Corrective Expenditure								
	Admin & Prof Staff Salaries	Trade Staff Wages	Total Staff Salaries/Wages	Materials & Contracts	Maintenance Projects on Capital Budget	Total Maintenance Expenditure	Area Maintained from Central Funds	Cost of Maintenance per m <sup>2</sup> (GFA)	Cost of Maintenance per EFTS
	10	11	12	13	14	15	16	17	18
R	R	R	R	R	R	m <sup>2</sup> GFA	R/m <sup>2</sup> GFA	R/EFTS	
1	R 16 418 011	R 9 724 041	R 26 142 052	R 74 011 736	R 0	R 100 153 788	619 605	R 161,64	R 2 951
2	R 7 873 196	R 6 185 755	R 14 058 951	R 51 377 213	R 13 518 025	R 78 954 189	716 837	R 110,14	R 2 116
3	R 2 275 592	R 16 818 000	R 19 093 592	R 4 842 508	R 28 687 000	R 52 623 100	616 872	R 85,31	R 1 436
4	R 4 569 715	R 3 564 663	R 8 134 378	R 40 265 012	R 21 164 880	R 69 564 270	399 393	R 174,17	R 2 743
Mean	R 31 136 514	R 36 292 459	R 67 428 973	R 170 496 469	R 63 369 905	R 301 295 347	2 352 707	R 128,06	R 2 261
Median								R 135,89	R 2 430





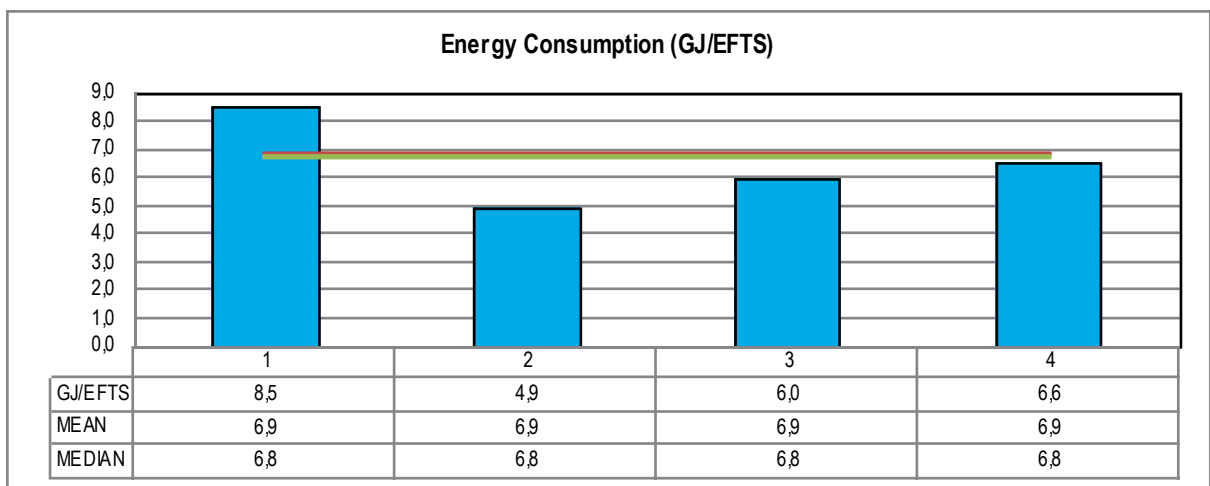
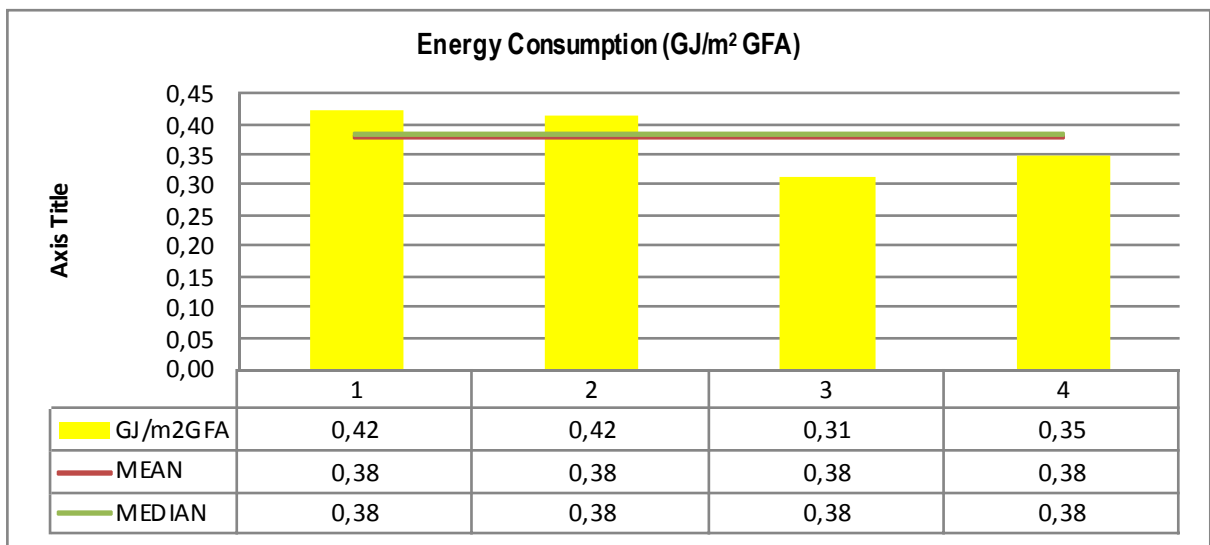
Institution	Cleaning & Waste Management Services									
	In-house Wages & On-costs	Cleaning Materials	Cleaning Contracts			Total Cleaning Expenditure	Area Cleaned	Cost of Cleaning Buildings	Total Cost Cleaning R/GFA	Total Cost Cleaning R/EFTS
			Building	Non-Building						
				Gen Waste	Contaminated					
19	20	21	22	23	24	25	26	27	28	
R	R	R	R	R	R	m <sup>2</sup> GFA	R/m <sup>2</sup> GFA	R/m <sup>2</sup> GFA	R/EFTS	
1	R 6 414 568	R 4 384 760	R 11 748 664	R 874 868	R 0	R 23 422 860	619 605	R 36,39	R 37,80	R 690
2	R 2 465 377	R 3 538 049	R 19 435 338	R 3 856 990	R 2 259 308	R 31 555 062	716 837	R 35,49	R 44,02	R 846
3	R 11 668 830	R 2 725 100	R 25 870 216	R 2 512 818	R 555 298	R 43 332 262	616 872	R 65,27	R 70,25	R 1 182
4	R 1 113 738	R 2 252 239	R 37 675 917	R 1 489 667	R 0	R 42 531 561	399 393	R 102,76	R 106,49	R 1 677
Mean	R 21 662 513	R 12 900 148	R 94 730 135	R 8 734 343	R 2 814 606	R 140 841 745	2 352 707	R 54,95	R 59,86	R 1 057
Median								R 50,83	R 57,13	R 1 013,90

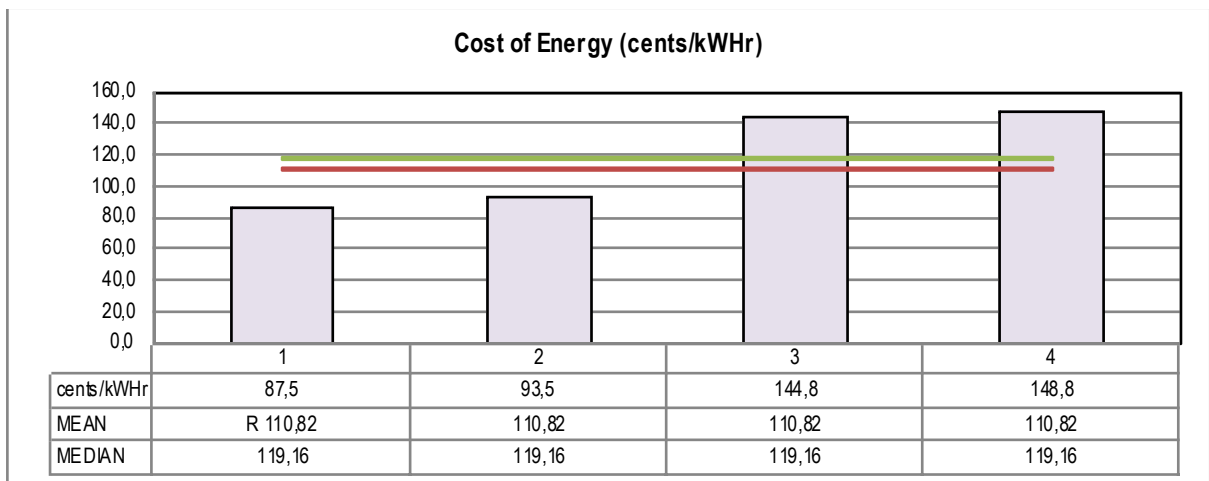
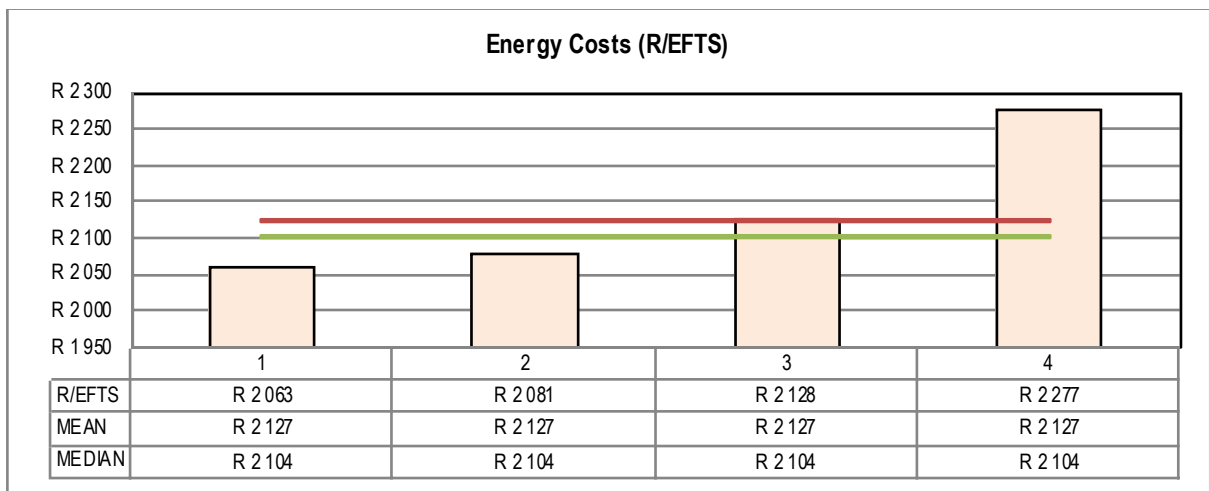
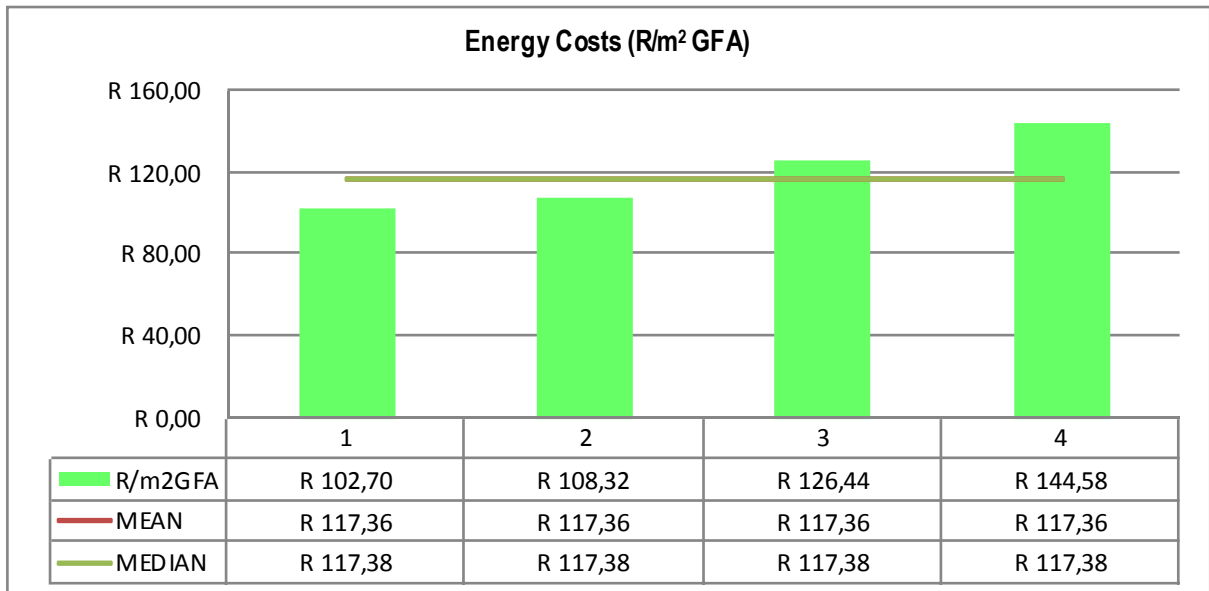




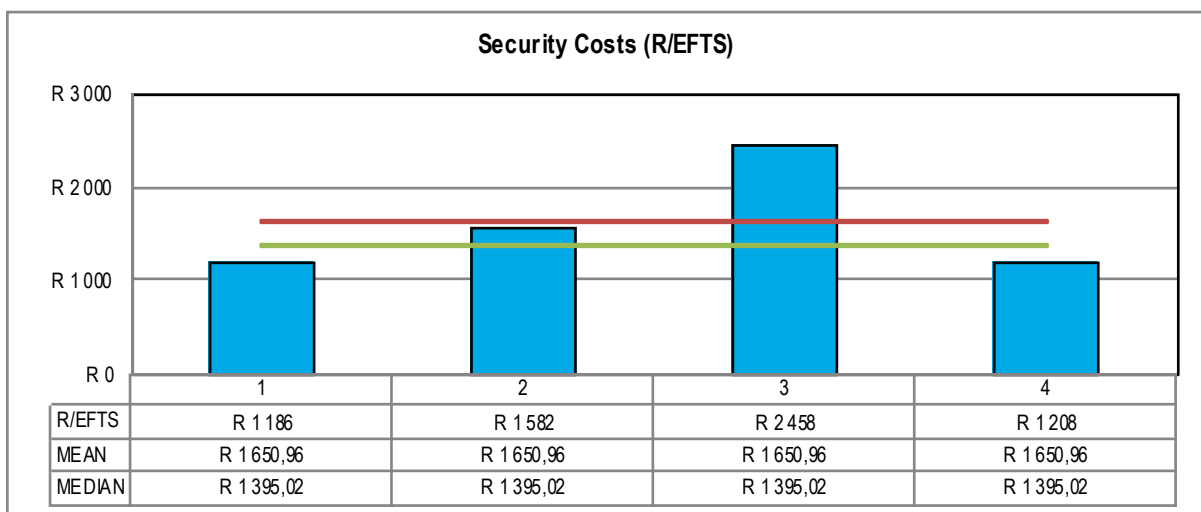
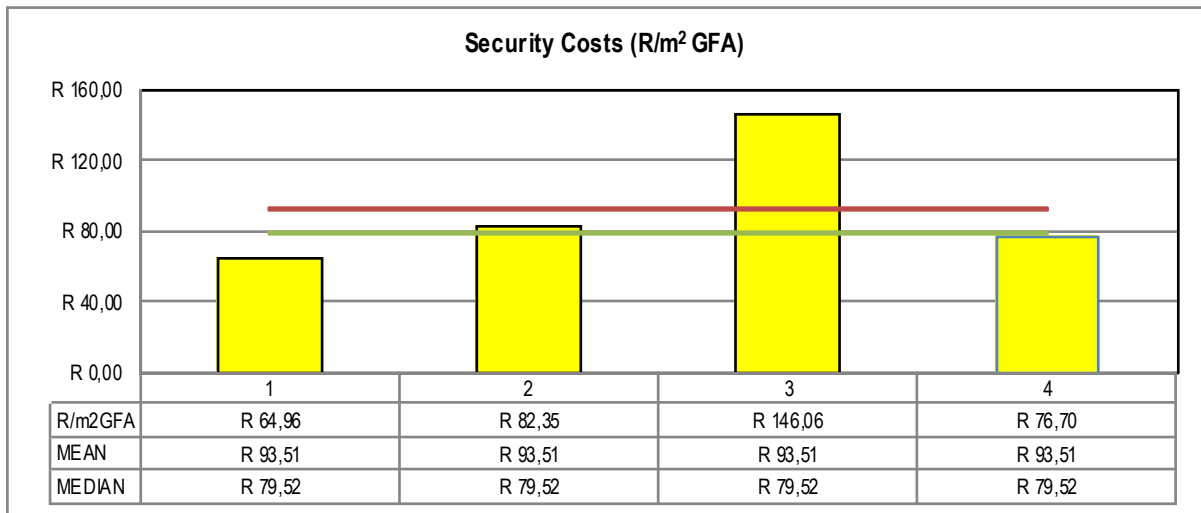


Institution	Energy Consumption/Expenditure							
	Annual Consumption in Gigajoules	Annual Cost of Energy Purchased	Total GFA services with energy	Energy Consumption per m <sup>2</sup>	Energy Consumption per EFTS	Energy Cost per m <sup>2</sup> (GFA)	Energy Cost per EFTS	Average Cost per kWh
	29	30	31	32	33	34	35	36
	GJ	R	m <sup>2</sup> GFA	GJ/m <sup>2</sup> GFA	GJ/EFTS	R/m <sup>2</sup> GFA	R/EFTS	cents/kWh
1	288 000	R 70 000 000	681 566	0.42	8.5	R 102.70	R 2 063	87.5
2	299 064	R 77 645 691	716 837	0.42	8.0	R 108.32	R 2 081	93.5
3	193 861	R 78 000 000	616 872	0.31	5.3	R 126.44	R 2 128	144.8
4	139 677	R 57 745 402	399 393	0.35	5.5	R 144.58	R 2 277	148.8
Mean	920 602	R 283 391 093	2 414 668	0.38	6.9	R 117.36	R 2 127	110.8
Median				0.38	6.8	R 117.38	R 2 104.38	119.16

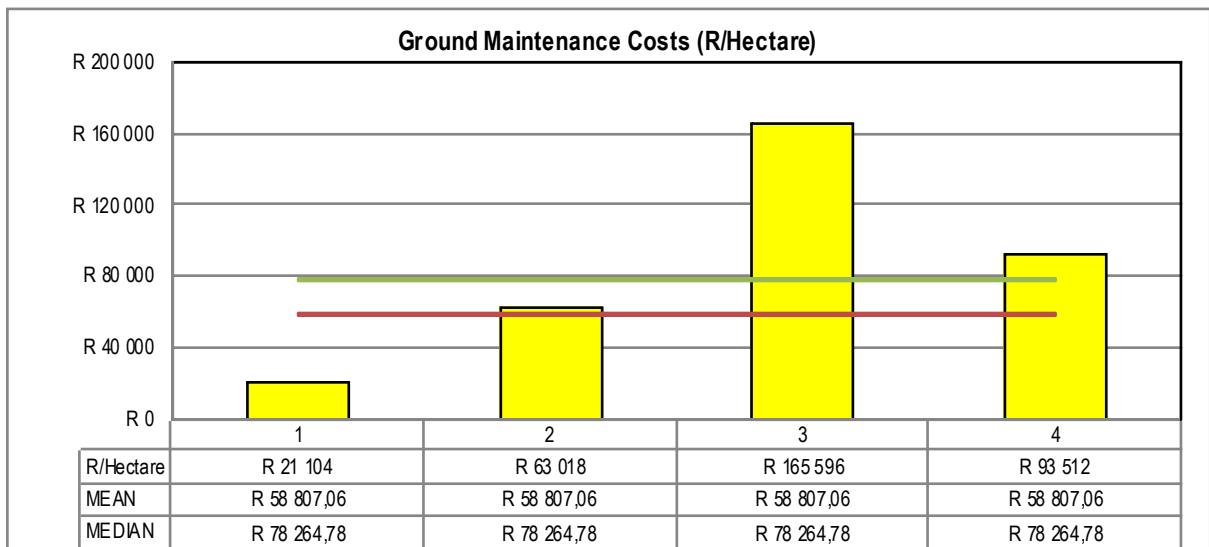




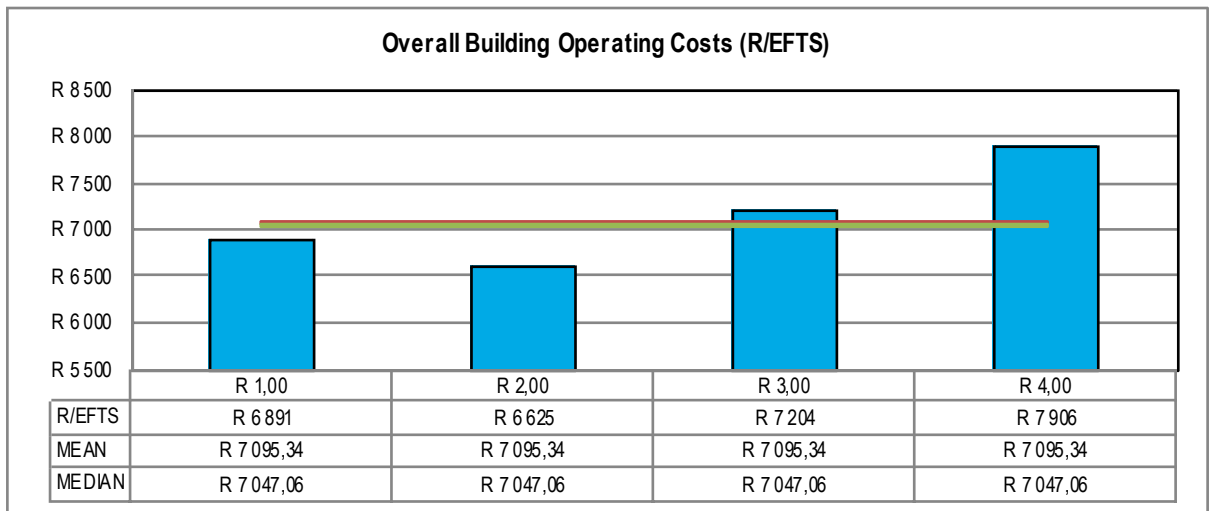
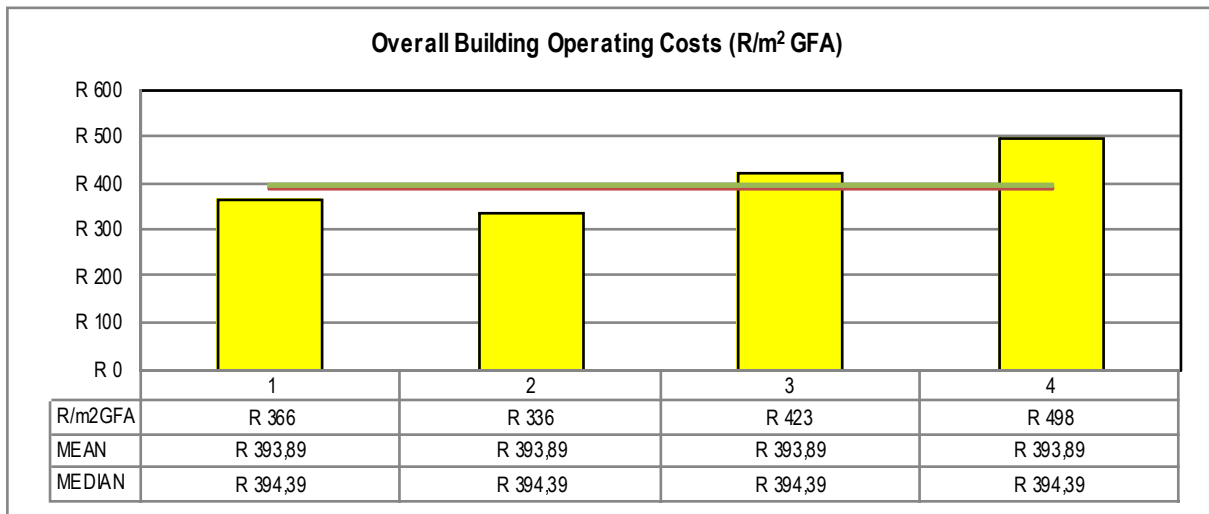
Institution	Security						
	Security Staff Salaries/Wages	Expenditure on Security Contracts	Other Security Costs	Total Security Expenditure	GFA under Security Patrol	Cost of Security per m <sup>2</sup> (GFA)	Cost of Security per EFTS
	37	38	39	40	41	42	43
	R	R	R	R	m <sup>2</sup> GFA	R/m <sup>2</sup> GFA	R/EFTS
1	R 20 586 095	R 16 011 408	R 3 650 380	<b>R 40 247 883</b>	619 605	<b>R 64.96</b>	<b>R 1 186</b>
2	R 19 452 876	R 39 498 243	R 81 261	<b>R 59 032 380</b>	716 837	<b>R 82.35</b>	<b>R 1 582</b>
3	R 48 904 958	R 35 968 981	R 5 224 359	<b>R 90 098 298</b>	616 872	<b>R 146.06</b>	<b>R 2 458</b>
4	R 822 060	R 28 785 172	R 1 024 900	<b>R 30 632 132</b>	399 393	<b>R 76.70</b>	<b>R 1 208</b>
Mean	R 89 765 989	R 120 263 804	R 9 980 900	<b>R 220 010 693</b>	2 352 707	<b>R 93.51</b>	<b>R 1 651</b>
Median						<b>R 79.52</b>	<b>R 1 395.02</b>

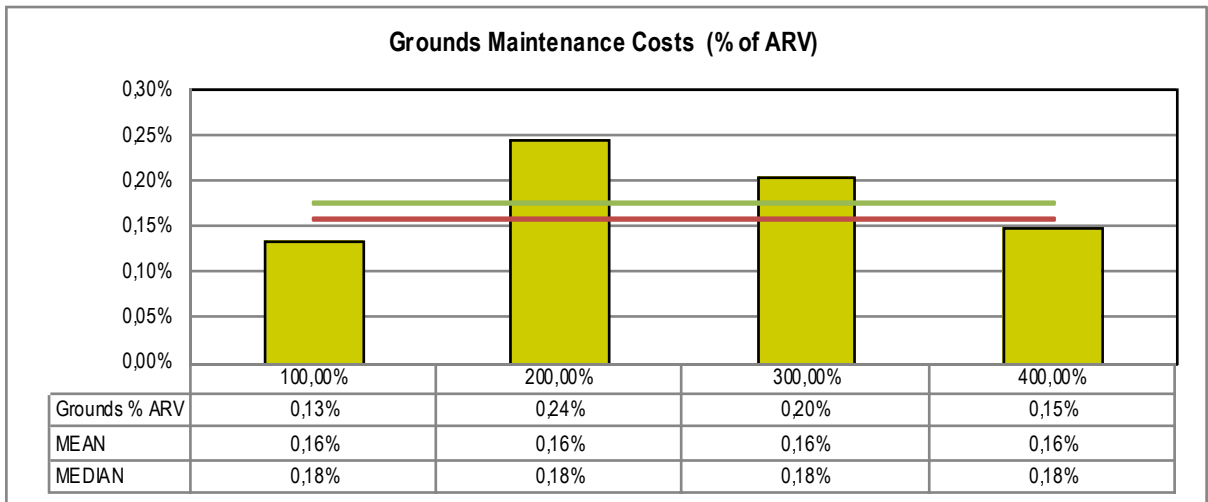
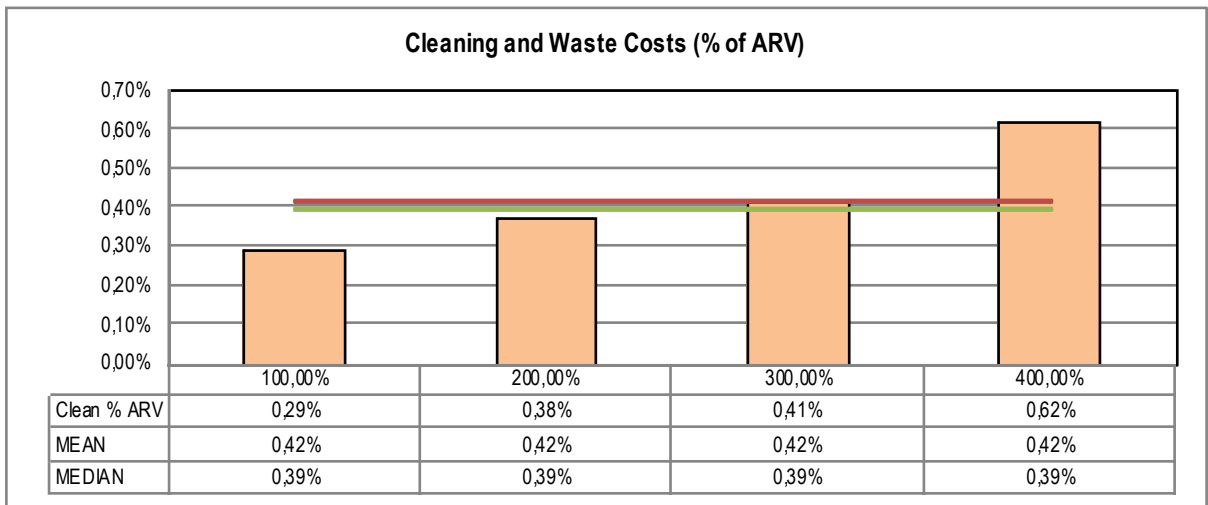
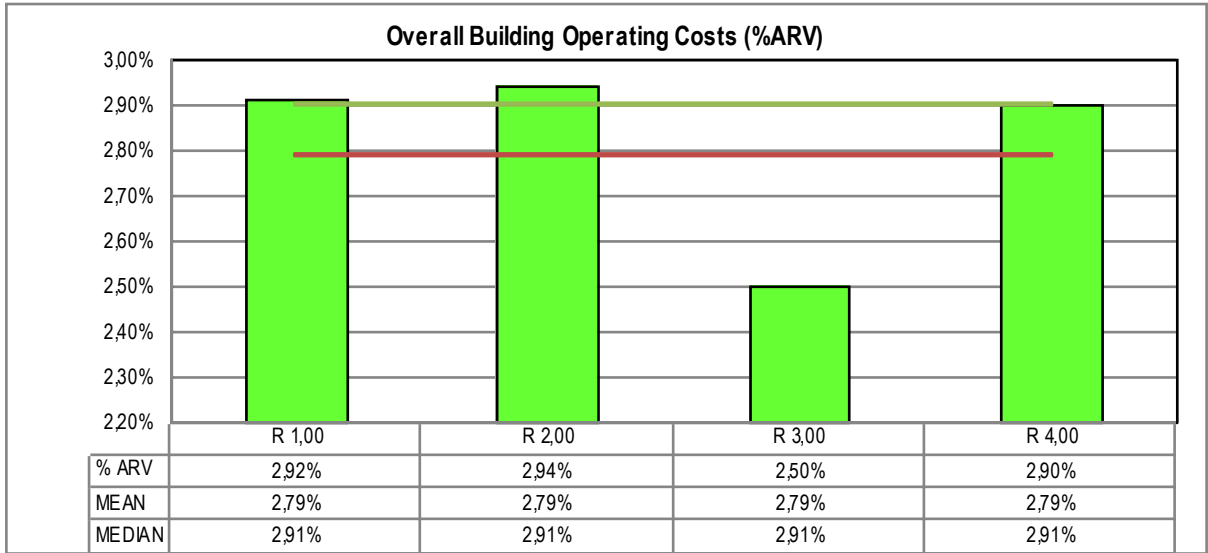


Institution	Grounds Maintenance				
	Staff Salaries/Wages	Materials & Contracts	Total Grounds Maintenance Expenditure	Hectares maintained from Central Funds	Maintenance Expenditure per Hectare
	44	45	46	47	48
	R	R	R	Ha	R/Hectare
1	R 5 015 119	R 5 578 909	R 10 594 028	502	R 21 104
2	R 2 332 753	R 18 148 000	R 20 480 753	325	R 63 018
3	R 17 658 059	R 3 703 883	R 21 361 942	129	R 165 596
4	R 822 782	R 9 370 010	R 10 192 792	109	R 93 512
Mean	R 25 828 713	R 36 800 802	R 62 629 515	1 065	R 58 807
Median					R 78 264,78

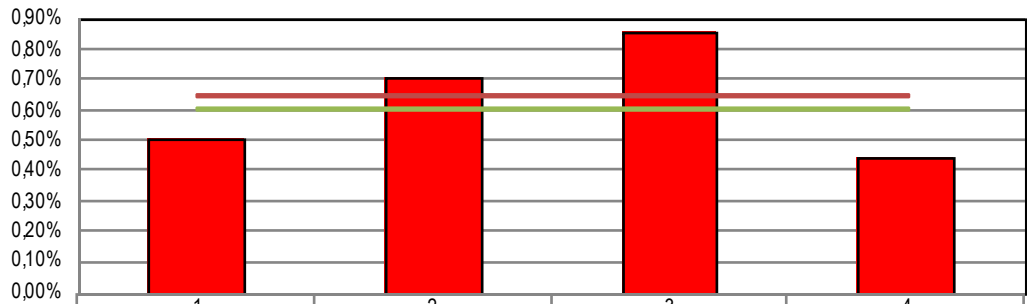


Institution	Building Operating Costs			Overall Operating Factors (% of ARV)					
	Total Operating Costs (Maint, Cleaning, Security & Energy)	Building Operating Costs per m <sup>2</sup> (GFA)	Building Operating Costs per EFTS	Building Operating Costs as % of ARV	Maintenance as % of ARV	Cleaning and Waste as % of ARV	Grounds Maintenance as % of ARV	Security as % of ARV	Energy as % of ARV
	49	50	51	52	53	54	55	56	57
	R	R/m <sup>2</sup> GFA	R/EFTS	% ARV	% ARV	% ARV	% ARV	% ARV	% ARV
1	R 233 824 531	R 366	R 6 891	2.92%	1.25%	0.29%	0.13%	0.50%	0.87%
2	R 247 187 322	R 336	R 6 625	2.94%	0.94%	0.38%	0.24%	0.70%	0.92%
3	R 264 053 660	R 423	R 7 204	2.50%	0.50%	0.41%	0.20%	0.85%	0.74%
4	R 200 473 365	R 498	R 7 906	2.90%	1.01%	0.62%	0.15%	0.44%	0.84%
Mean	R 945 538 878	R 394	R 7 095	2.79%	0.89%	0.42%	0.16%	0.65%	0.84%
Median		R 394.39	R 7 047.06	2.91%	0.97%	0.39%	0.18%	0.60%	0.85%



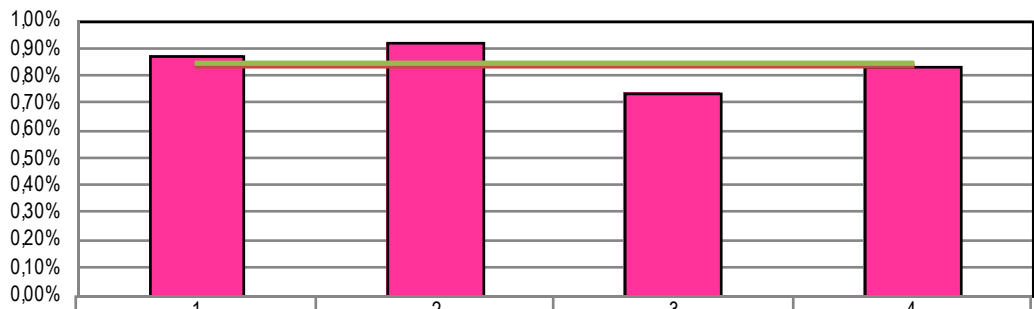


### Security Costs (% of ARV)



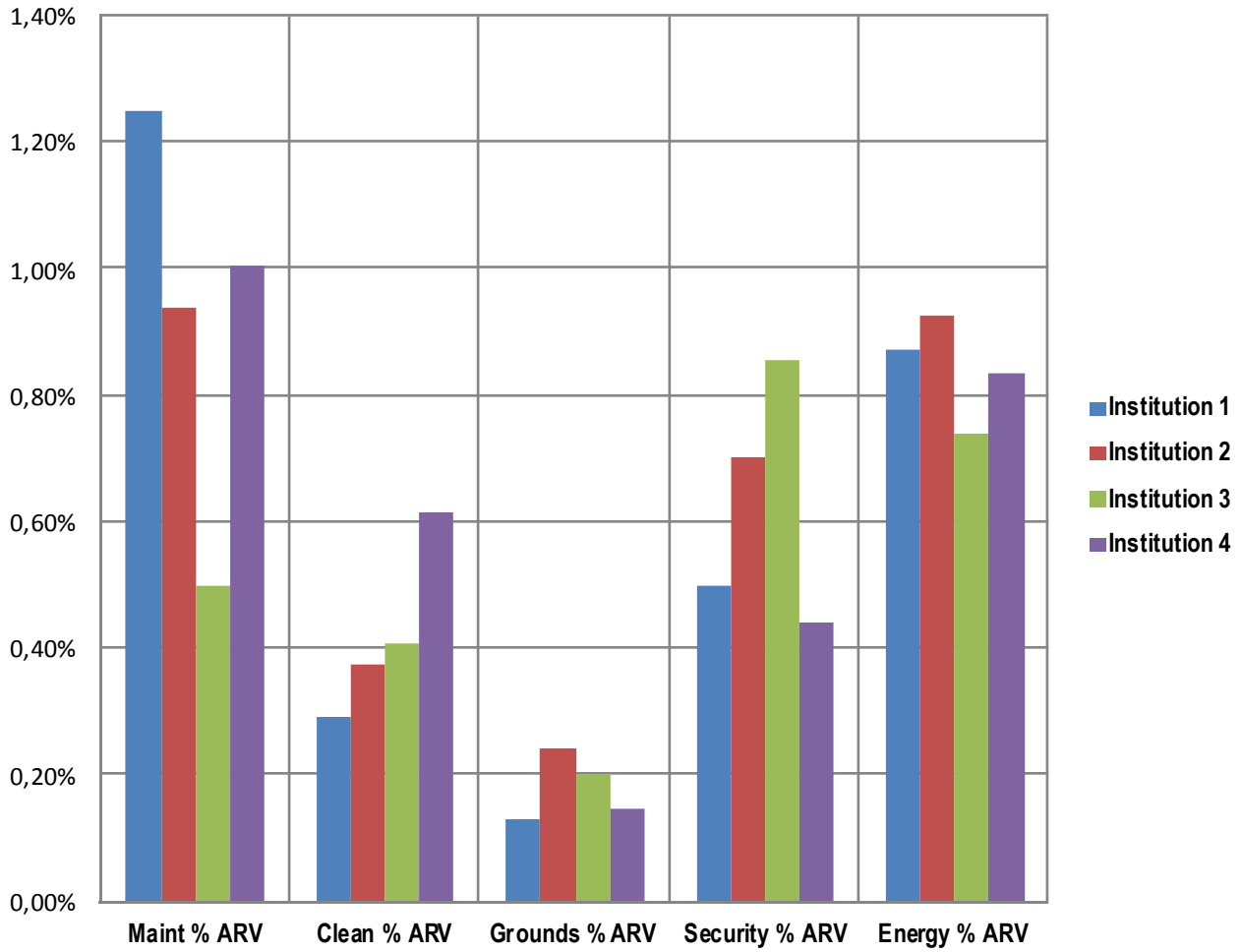
	1	2	3	4
Security as % of ARV	0.50%	0.70%	0.85%	0.44%
MEAN	0.65%	0.65%	0.65%	0.65%
MEDIAN	0.60%	0.60%	0.60%	0.60%

### Energy Costs (% of ARV)



	1	2	3	4
Energy as % of ARV	0.87%	0.92%	0.74%	0.84%
MEAN	0.84%	0.84%	0.84%	0.84%
MEDIAN	0.85%	0.85%	0.85%	0.85%

**Building Costs as a % of ARV Institutional Comparison**





## 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).                  |

- 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.