

# PC on Trade and Industry: NMISA Q 4 Report

Ndwakhulu Mukhufhi  
05 August 2015



# Highlights for the Quarter

## 99% Overall Performance against annual targets

- NMISA met 21 of the 23 Target
- 90% and 97% performance against the two unmet targets

## Evidential Breath Analyser Progress

- NMISA with NRCS, the WC Government and the Breathalyser Manufacturer Draeger Germany
- TO prepare for the pilot project to re-introduce the Breathalyser for drunk driving

## Role in SADC MET strengthened

- Recent SADC SQAM held in Kinshasa
- Discussions included plans for next year
  - TBT ANNEX to SADC protocol on Trade
  - SADC Industrial Policy Framework (IDPF)
- Work Programme for NMISA to support associate of CGPM in SADC approved (Budget R 1,5 m, PTB funded)

## NMISA and Nuclear industry

- Workshop on Quality in Radiation Therapy hosted by NMISA (radiation oncologists, radiation therapists and physicist from public and private Hospitals)
- Designation of iThemba LABS for high energy Neutrons finalised with BIPM (Following MoU between NMISA and iThemba LABS)
- Ethiopia

# NMISA Recapitalisation Project

- Accommodation Project On Track against timelines
  - Needs analysis completed
  - Options Analysis being considered
  - International benchmarking by TA delayed but on track
- NMS (Equipment) Upgrade Project
  - Equipment upgrade on track in line with budget
  - X-Ray Photoelectron Spectroscopy tender finalised in Q4 for R 15,5 M

# Progress Against Ministerial Priorities

## NMISA Recapitalisation Project

- Accommodation Project On Track against timelines
  - Needs analysis completed
  - Options Analysis being considered
  - International benchmarking by TA delayed but on track
- NMS (Equipment) Upgrade Project
  - Equipment upgrade on track in line with budget
  - X-Ray Photoelectron Spectroscope tender finalised in Q4 for R 15,5 M

# Progress Against Ministerial Priorities

## IPAP: Green and Energy Saving Industries Air Quality

- Improvement of NMS for Hydrogen Sulphide in Nitrogen
- Development of Purified Reference Gas Mixtures containing Benzene, Toluene, Ethylbenzene and Xylenes (BTEXs) in Nitrogen
- Development of National Measurement Standard for Nitrogen Dioxide in Nitrogen. New equipment commissioned in line with the Recap Project

# Progress Against Ministerial Priorities

## IPAP: Green and Energy Saving Industries Safeguarding Food and Environment

- Reference measurement conducted
  - Presence of Pesticides including their metabolites in blood
  - Perfluorinated contaminants in water, eggs and sediments for the Orange-Sengu River
  - Polycyclic aromatic hydrocarbons (PAHs) in fish, bird eggs and sediment, (with North-West University for the South African Water Research Commission)
- Proficiency Testing Schemes to Laboratories for Organochlorides

# Progress Against Ministerial Priorities

## IPAP: Green and Energy Saving Industries Energy Efficient Lighting

- **Methods and Specifications for the Accurate Measurement of Light Emitting Diodes**
  - The NMISA has designed and demonstrated proof of concept for a facility to measure photometric properties of LEDs. This facility is being refined and tested. A calibration service for LED products will be provided in the near future
- Proficiency Testing Schemes to Laboratories for Organochlorides

# Progress Against Ministerial Priorities

## IPAP: Green and Energy Saving Industries Accurate Electricity Billing

- **Improvement of AC-DC Transfer Difference Calibration and Measurement Capability**
  - SANS 474 (NRS 057) that all electrical energy meters be calibrated at an accredited calibration laboratory.
- Proficiency Testing Schemes to Laboratories for Organochlorides



# Progress Against Ministerial Priorities

## IPAP: Business Process Services & Cutting edge ICT & Telecoms

- **Testing the Performance of Telecommunication Networks**
  - An Improved National Measurement Standard for Fibre Optic Power
  - a new traceability link was established to the national measurement standards for spectral responsivity at telecommunication wavelengths

# Progress Against Ministerial Priorities

## IPAP: Support to SMMEs

- The NMISA participated in the SME Expo and Trade Show organized by the National Small Business Chamber (NSBC) held at the Gallagher Estate Conference Centre, in Johannesburg on 12 March 2015.
- The New NMISA SMME video was also screened



# Summary of Performance: Achievement on Core Business Targets

Number of Gazetted national measurement standards , *52 standards have been maintained*

Number of Calibration and Measurement capabilities (CMCs) published in the KCDB. *416 have been published.*

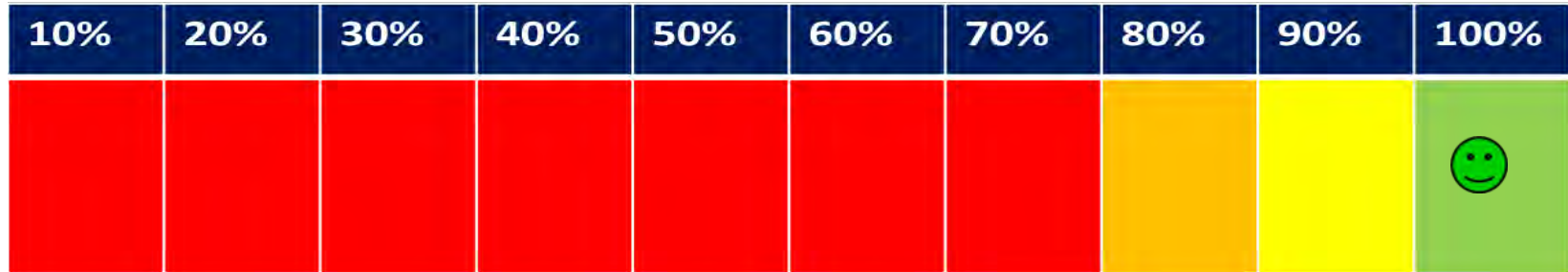
Number of presentations given at conferences and workshops on the improvement and development of measurements and measurement standards. *The annual target is 40 and 71 has been achieved year to date*

Percentage of complaints from customer satisfaction survey per total jobs  
Number of industry and/or regional metrologists trained in accurate measurement. *This remains below 5%*



## Strategic Objective 1:

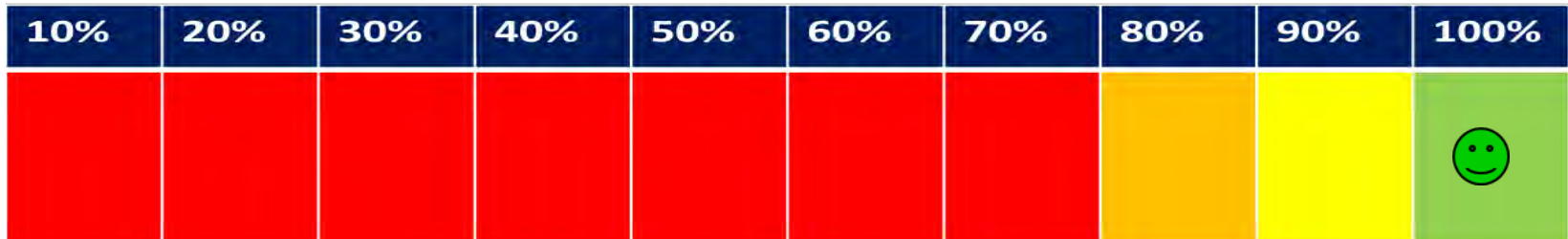
Provide for the national measurement units by maintaining the SI units, units outside the SI and equivalents of units



Indicator	Annual Target	Annual Actual
Annual report to the dti on national measurement units	Review of schedule	Schedule prepared



## Strategic Objective 2: Maintain the Schedule of National Measurement Standards




Indicator	Annual Target	Annual Actual
Number of Gazetted national measurement standards	52	52



# Strategic Objective 3:

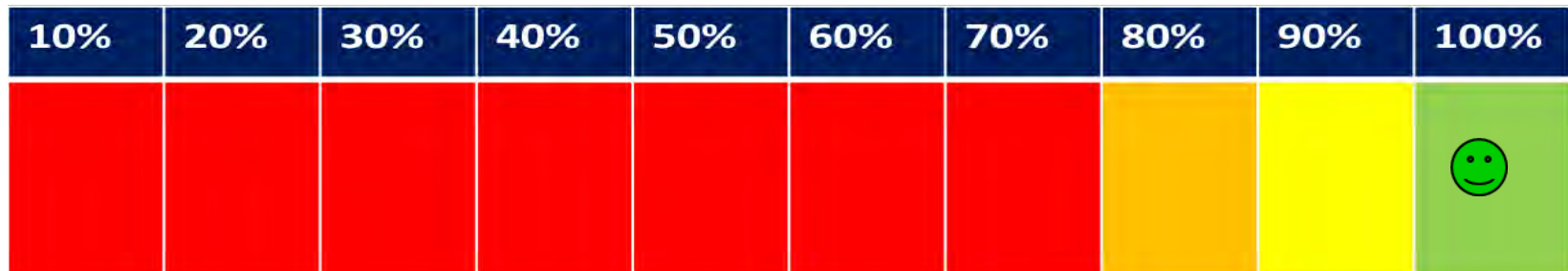
Keep, maintain and develop measurement systems for bringing national measurement standards and reference methods into being

10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
									
Indicator					Annual Target			Annual Actual	
Number of improved and new national measurement standards and secondary standards, reference materials and methods					13			13	



## Strategic Objective 4:


To ensure internationally recognised and comparable national measurement standards and units by participating in the Metre Convention, CIPM MRA and AFRIMETS activities

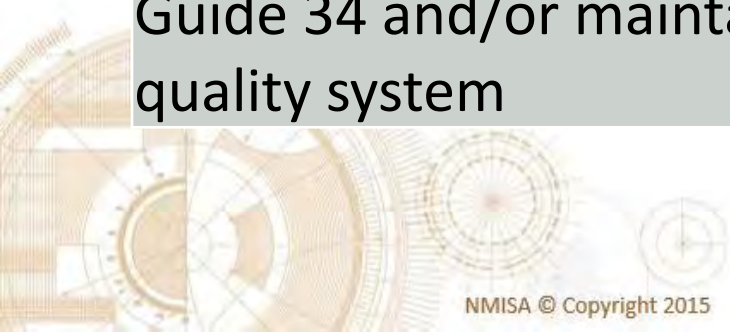


Indicator	Annual Target	Annual Actual
Number of memberships of international committee for weights and measurements of CIPM and CC's	10	10

## Strategic Objective 5:

Establish confidence in the accuracy of the national measurement standards by suitable and documented quality and management system


10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
									
Indicator						Annual Target		Annual Actual	
Number of accredited laboratories accredited to ISO 17025 or ISO Guide 34 and/or maintained quality system						19		19	





## Strategic Objective 6:

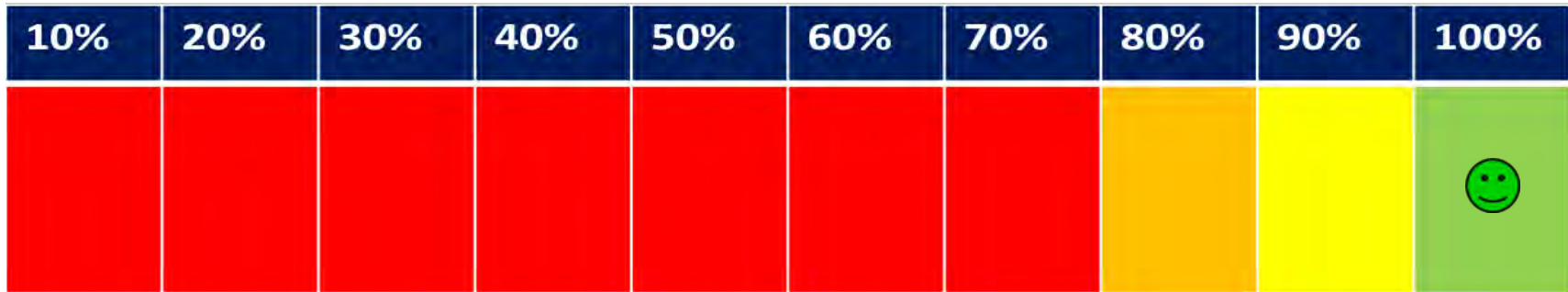
To maintain the calibration and measurement capability (CMC) claims in KCDB as evidence of South Africa's measurement capability

10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
										
Indicator							Annual Target	Annual Actual		
Number of Calibration and Measurement capabilities (CMCs) published in the KCDB							411	411		



## Strategic Objective 7:

Recapitalise and modernise the NMISA to ensure that the national measurement standards support international trade, health, environmental and safety requirements




Indicator	Annual Target	Annual Actual
Percentage of budget spent	50%	65%



## Strategic Objective 8:

As the foundation of the South African measurement system provide technical measurement expertise and support for public policy objectives, accreditation, standardisation and regulatory affairs

10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	
										
Indicator						Annual Target	Annual Actual			
Membership of SANS and ISO committees, NRCS regulatory bodies, and SANAS STCs						34	42			



## Strategic Objective 8:

As the foundation of the South African measurement system provide technical measurement expertise and support for public policy objectives, accreditation, standardisation and regulatory affairs

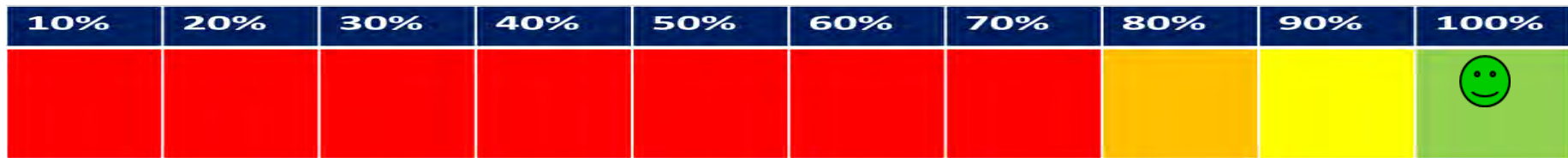


Indicator	Annual Target	Annual Actual
Number of refereed and/or peer-reviewed publications, articles, application or technical notes on the development or improvement of measurements and measurement standards in journals and conference proceedings	20	22

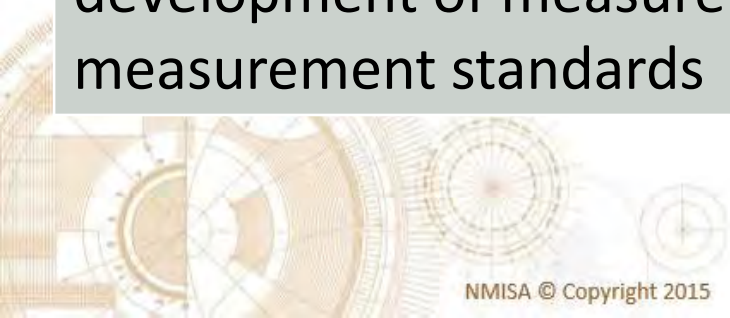


## Strategic Objective 8:

As the foundation of the South African measurement system provide technical measurement expertise and support for public policy objectives, accreditation, standardisation and regulatory affairs

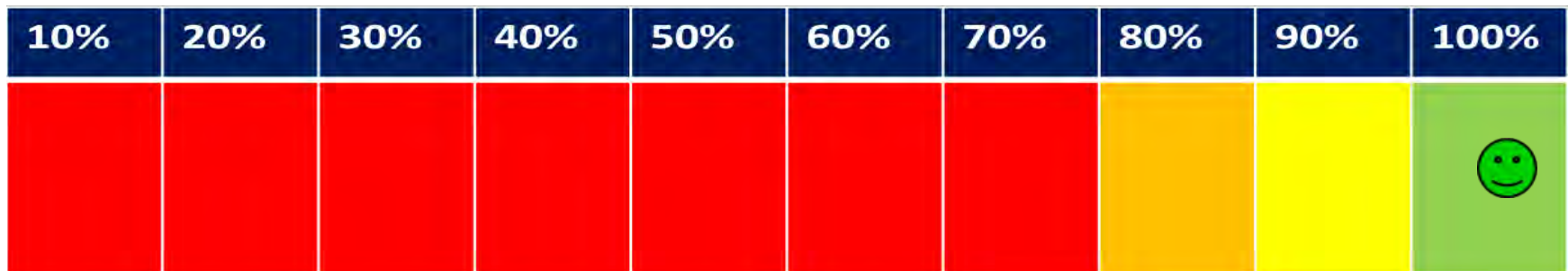


Indicator	Annual Target	Annual Actual
Number of presentations given at conferences and workshops on the improvement and development of measurements and measurement standards	40	87



# Strategic Objective 9:

To maintain and ensure continued expertise and establish the necessary skills according to internationally acceptable standards



Indicator	Annual Target	Annual Actual
Number of staff with post graduate qualifications	41	45

# Strategic Objective 9:

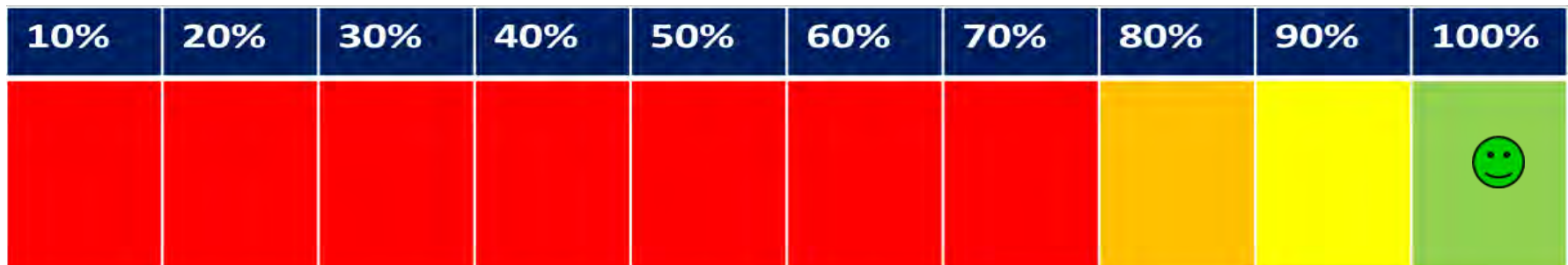
To maintain and ensure continued expertise and establish the necessary skills according to internationally acceptable standards

10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
								☹️	
Indicator							Annual Target	Annual Actual	
Number of Post-graduate and undergraduate bursars							10	9	

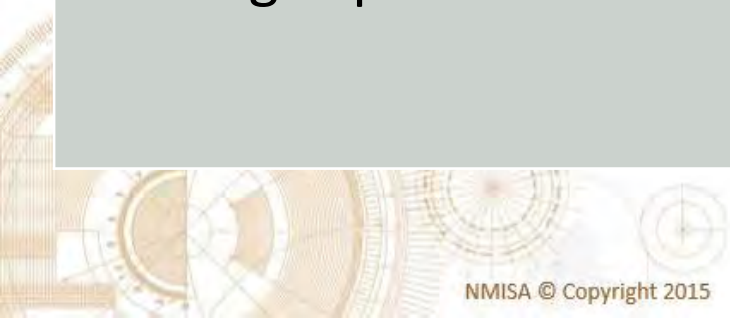


# Strategic Objective 9:

To maintain and ensure continued expertise and establish the necessary skills according to internationally acceptable standards



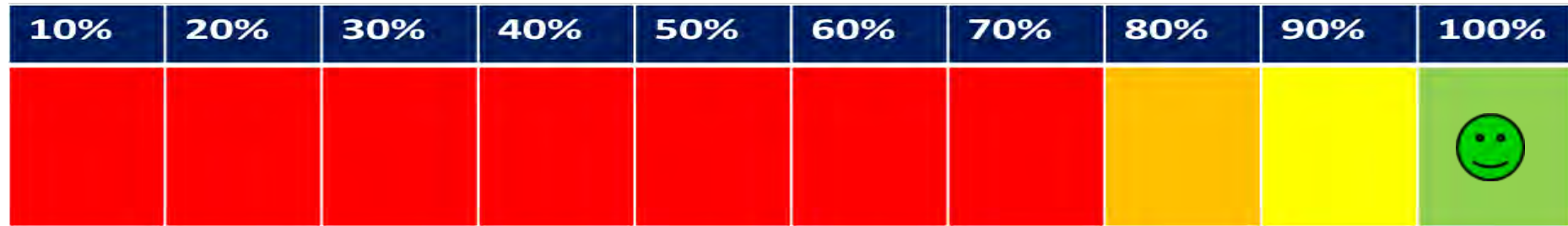
Indicator	Annual Target	Annual Actual
Training expenditure as a % of personnel cost	2%	3%





# Strategic Objective 9:

To maintain and ensure continued expertise and establish the necessary skills according to internationally acceptable standards

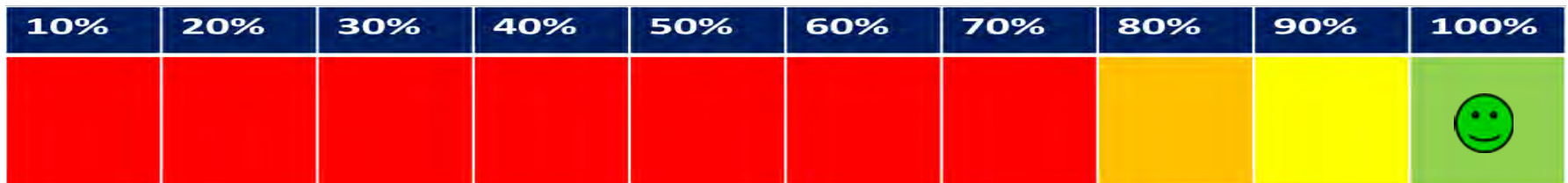


Indicator	Annual Target	Annual Actual
Number of Interns and in-service trainees hosted	7	22



## Strategic Objective 9:

To maintain and ensure continued expertise and establish the necessary skills according to internationally acceptable standards

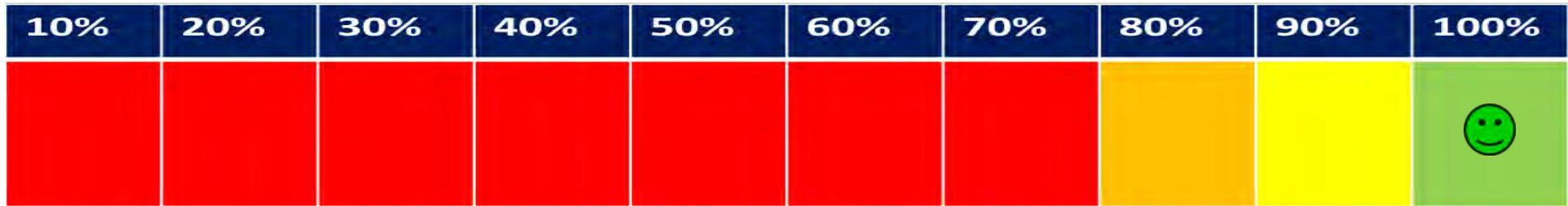


Indicator	Annual Target	Annual Actual
Percentage of funded vacancies	10%	12%



## Strategic Objective 10:

Disseminate traceability, measurement expertise and services to South African public and private enterprises by means of calibration, measurement or analysis, certified reference materials

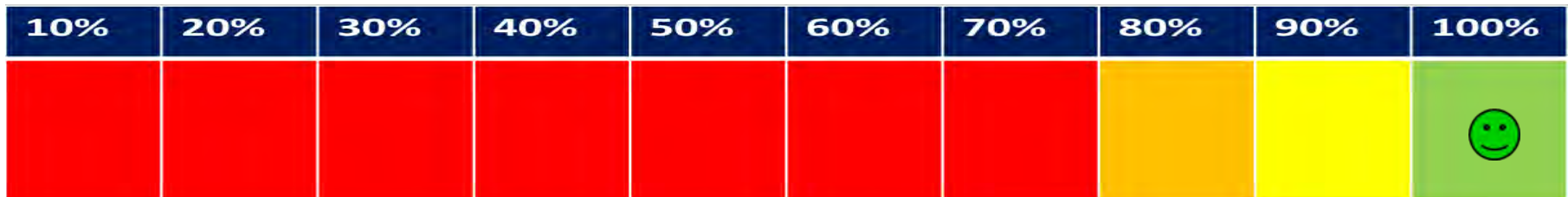


Indicator	Annual Target	Annual Actual
Income generated from dissemination activities	8667	9159



# Strategic Objective 10:

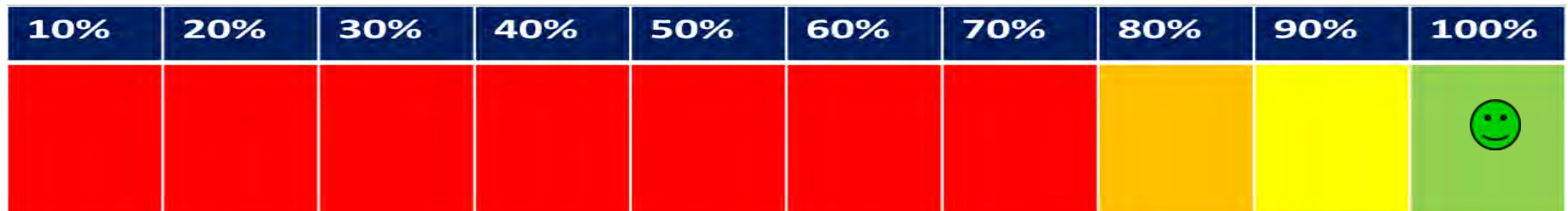
Disseminate traceability, measurement expertise and services to South African public and private enterprises by means of calibrations, measurement or analysis, certified reference materials



Indicator	Annual Target	Annual Actual
Percentage of complaints from customer satisfaction survey per total jobs	≤ 5%	1%

# Strategic Objective 11:

## Provide appropriate technology and skills transfer to the South African industry, especially to SMEs

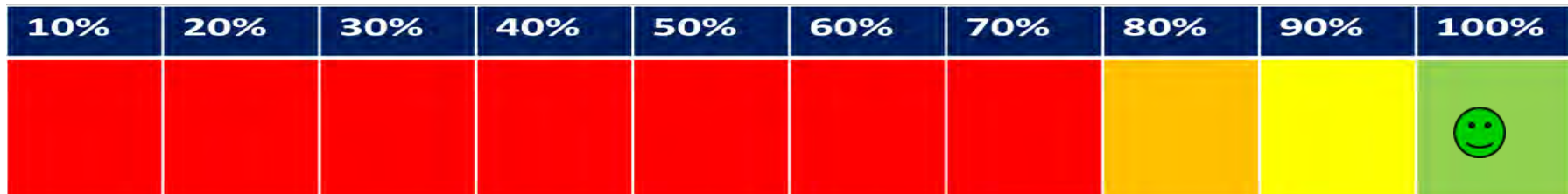


Indicator	Annual Target	Annual Actual
Number of industry and/or regional metrologists trained in accurate measurement	51	66



## Strategic Objective 11:

Provide appropriate technology and skills transfer to the South African industry, especially to SMEs




Indicator	Annual Target	Annual Actual
Number of courses presented to industry	13	22



## Strategic Objective 12:

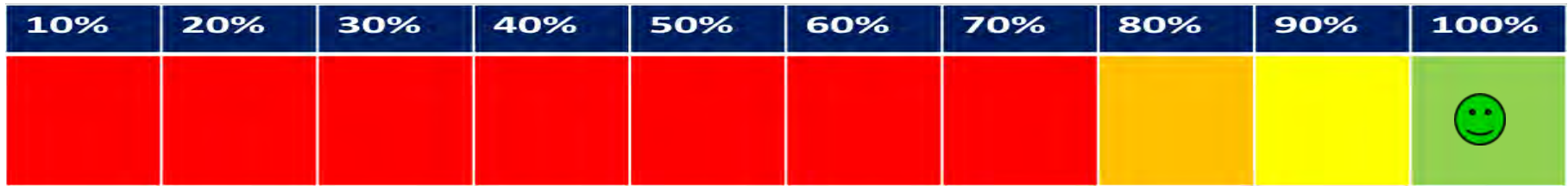
Comply to government directives, the PFMA, treasury regulations and regulatory issues in terms of Government regulations

10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
									
Indicator							Annual Target	Annual Actual	
Actual expenditure to revenue received							98%	98%	



# Strategic Objective 12:

Comply to government directives, the PFMA, treasury regulations and regulatory issues in terms of Government regulations



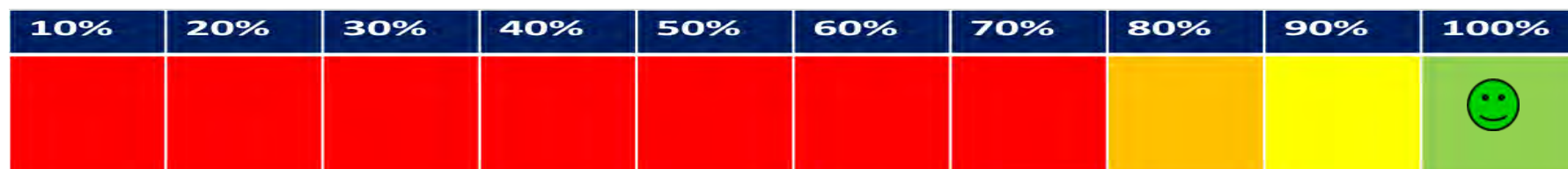
Indicator	Annual Target	Annual Actual
Percentage of total budget spent on CAPEX	20%	34%





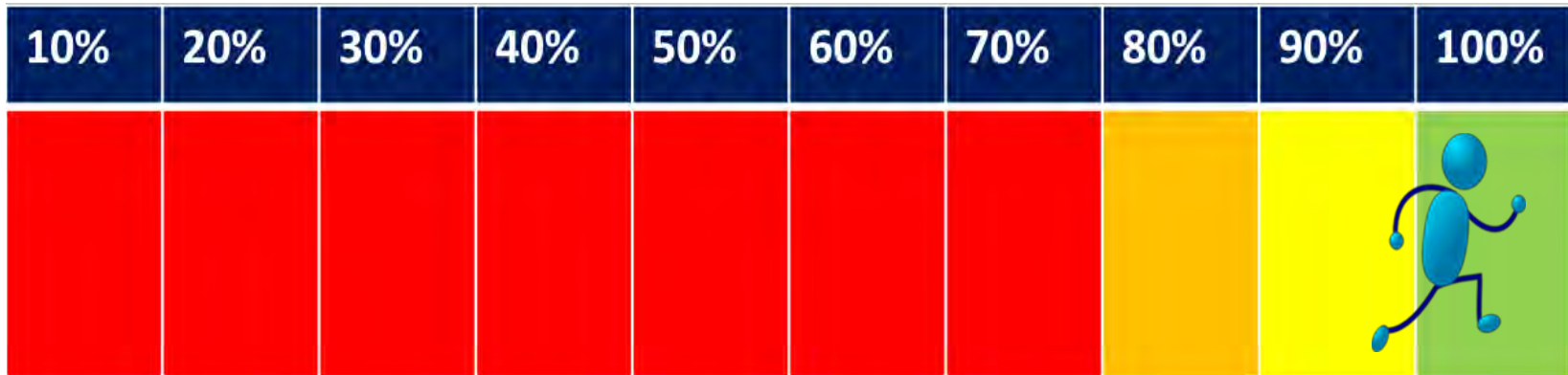
## Strategic Objective 12:

Comply to government directives, the PFMA, treasury regulations and regulatory issues in terms of Government regulations



Indicator	Annual Target	Annual Actual
Completed Annual Audit Plan and follow-up audits as approved by Audit and Risk Committee	10	10

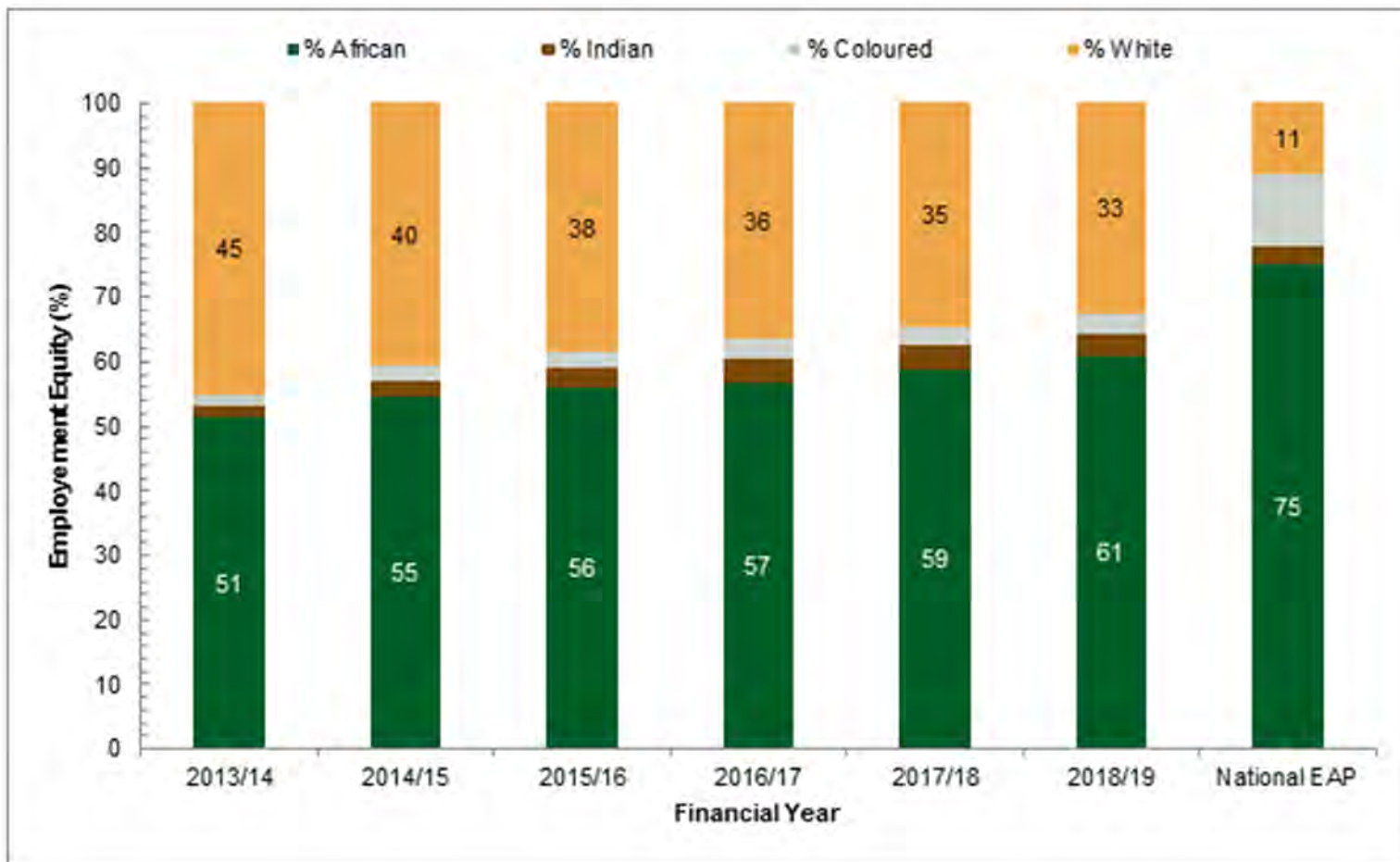
# Overall Annual Achievement



***99% Annual Achievement***

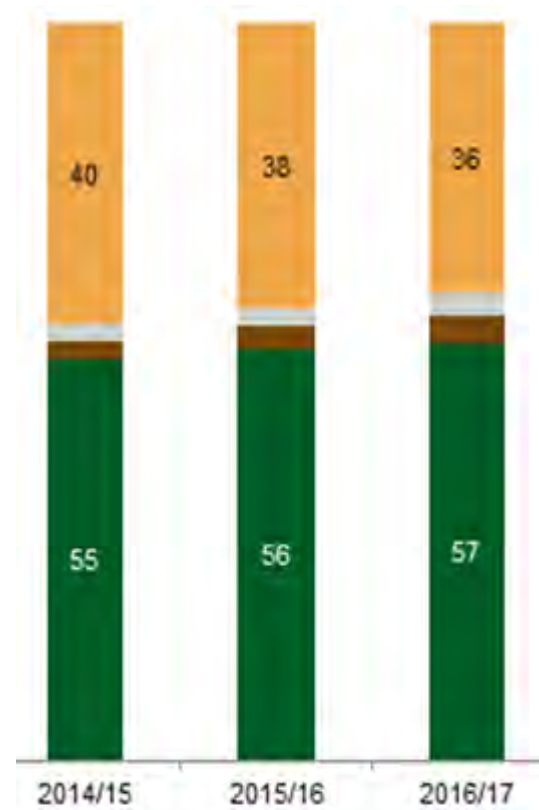


## HUMAN RESOURCES (EE TARGETS FOR 2014/15 )



## HUMAN RESOURCES (EE PROFILE YEAR TO DATE)

W	47	34%
A	81	58%
C	5	4%
I	2	1%
FN	5	4%
	140	100%



## HUMAN RESOURCES (RECRUITMENT YEAR TO DATE)

In an effort to prepare the organisation for performance, rigorous recruitment has been done in the financial year

African	37	82%
Coloured	3	7%
Indian	0	0%
White	4	9%
FN	1	2%
	45	100%

Female	20	44%
Male	25	56%

## HUMAN RESOURCES (VACANCY RATE)

Funded Vacancies = 59

Vacancies filled to date = 43

Vacancies not filled to date = 16



# Financial Performance: Revenue vs Budget

Description of item	Budget for the quarter R'000	Actual revenue for the quarter R'000	Variance for the quarter R'000	% Variance	Year to date Budget R'000	YTD Actual revenue R'000	YTD Variance R'000	Annual budget R'000	Year-end Forecast R'000	Year-end Variance R'000
Transfer from DTI	50 641	50 641	-	-	202 564	202 564	-	202 564	202 564	-
Rendering of services	2 167	2 304	(137)	(6%)	8 667	9 803	(1 136)	8 667	8 667	-
Interest income	787	2 455	(1 668)	(212%)	3 146	8 319	(5 173)	3 146	3 146	-
Other income	-	28	(28)	(100%)	-	633	(633)	-	-	-
<b>Total</b>	<b>53 595</b>	<b>55 428</b>	<b>(1 833)</b>	<b>(3%)</b>	<b>214 377</b>	<b>221 319</b>	<b>(6 942)</b>	<b>214 377</b>	<b>214 377</b>	<b>-</b>

# Financial Performance: Expenditure vs Budget

Description of item	Budget for the quarter R'000	Actual expenditure for the quarter R'000	Variance for the quarter R'000	% Variance	Year to date Budget R'000	YTD Actual expenditure R'000	YTD Variance R'000	Annual budget R'000	Year-end Forecast R'000	Year-end Variance R'000
Compensation of employees	(16 225)	(17 003)	778	(5%)	(64 900)	(58 445)	(6 455)	(64 900)	(64 900)	-
Operating expenses	(34 472)	(14 841)	(19 631)	57%	(137 887)	(40 592)	(97 295)	(137 887)	(137 887)	-
Depreciation / Amortisation	(2 404)	(3 035)	631	(26%)	(9 617)	(11 589)	1 972	(9 617)	(9 617)	-
Repairs and maintenance	(473)	(828)	355	(75%)	(1 893)	(3 381)	1 488	(1 893)	(1 893)	-
Contracted services	(13)	(30)	17	(131%)	(50)	(98)	48	(50)	(50)	-
Foreign exchange loss	(8)	(6)	(2)	25%	(30)	(28)	(2)	(30)	(30)	-
<b>Total</b>	<b>(53 595)</b>	<b>(28 620)</b>	<b>(24 975)</b>	<b>47%</b>	<b>(214 377)</b>	<b>(107 010)</b>	<b>(107 367)</b>	<b>(214 377)</b>	<b>(214 377)</b>	<b>-</b>



# Statement of Financial Position as at 31 March 2015

	31 March 2015	31 March 2014
	R	R
<b>Assets</b>		
<b>Current Assets</b>	193 421 637	98 668 724
Receivables from exchange transactions	2 487 821	3 576 759
Other receivables from non-exchange transactions	25 385	38 417
Inventories	359 186	0
Cash and cash equivalents	190 549 245	95 053 548
<b>Non-Current Assets</b>	92 863 454	76 881 981
Property, plant and equipment	91 732 377	76 006 928
Intangible assets	525 658	428 315
Rental deposit	605 419	446 738
<b>Total Assets</b>	286 285 091	175 550 705
<b>Net Assets and Liabilities</b>		
<b>Net Assets</b>		
Accumulated surplus	274 079 528	167 069 114
<b>Current Liabilities</b>	12 205 563	8 481 591
Payables from exchange transactions	9 942 768	6 495 985
Other payables from non-exchange transactions	2 262 795	1 985 606
<b>Non-Current Liabilities</b>		
<b>Total Liabilities</b>	12 205 563	8 481 591
<b>Total Net Assets and Liabilities</b>	286 285 091	175 550 705

# Cash Flow for the period ended 31 March 2015

	31 March 2015	31 March 2014
	R	R
<b>Cash flows from operating activities</b>		
Receipts	221 319 355	158 992 563
Rendering of services	9 803 389	9 034 325
Transfer	202 564 000	145 942 000
Other income	632 791	265 457
Interest income	8 319 175	3 750 781
Payments	(98 252 449)	(86 526 003)
Employee related costs	(58 445 270)	(52 118 227)
Suppliers	(39 807 179)	(34 407 776)
<b>Net cash flows from operating activities</b>	123 066 906	72 466 560
<b>Cash flows from investing activities</b>		
Purchase of property, plant and equipment	(26 736 042)	(16 628 824)
Purchase of other intangible assets	(676 018)	(80 150)
Proceeds from sale of assets	(468)	48 526
Purchase of rental deposit	(158 681)	
<b>Net cash flows from investing activities</b>	(27 571 209)	(16 660 448)
<b>Net increase/(decrease) in cash and cash equivalents</b>	95 495 697	55 806 112
<b>Cash and cash equivalents at the beginning of the year</b>	95 053 548	39 247 436
<b>Cash and cash equivalents at the end of the year</b>	190 549 245	95 053 548

# Periodic Table of the Elements

© www.elementsdatabase.com

1 H																	2 He
3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne
11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
55 Cs	56 Ba	57 La	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
87 Fr	88 Ra	89 Ac	104 Unq	105 Unp	106 Unh	107 Uns	108 Uno	109 Une	110 Unn								

- hydrogen
- poor metals
- alkali metals
- nonmetals
- alkali earth metals
- noble gases
- transition metals
- rare earth metals

58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu
90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr

Thank you



# 'We Measure What Matters'

# Thank You

# Questions?

