

# **Starting the Conversation on Management of e-Waste in Municipalities in South Africa: Preliminary Survey Results**

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4 September 2015**

# Methodological Approach

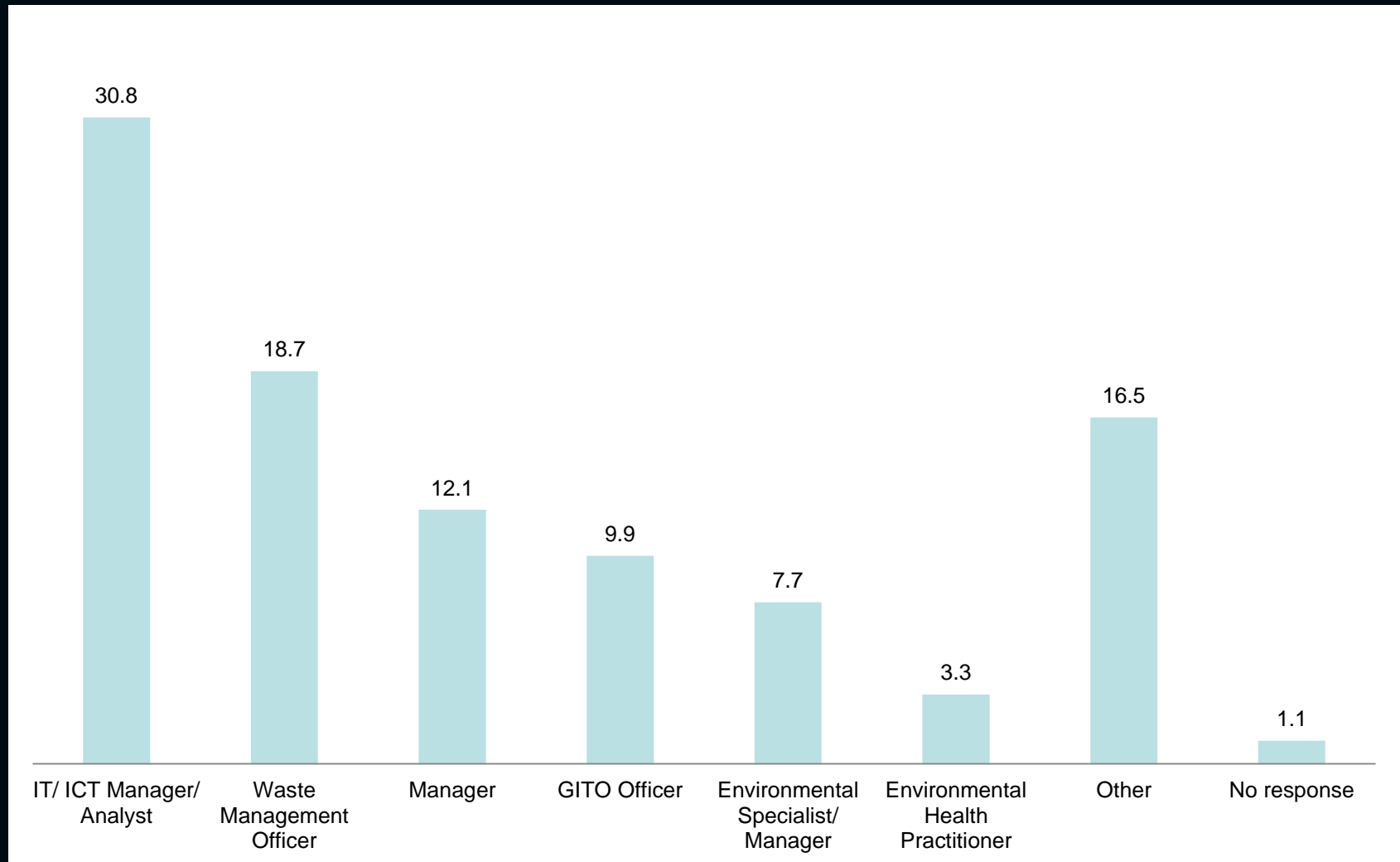
- Development of data collection instruments
  - Desk-top research
- Online surveys
- Case study interviews
  - Cape Town
  - eThekweni/ Durban
  - Johannesburg

# Data analysis: Thematic approach

- Personal profile of respondents
- Profile/ information on the organizations
- Awareness of e-Waste national policies and practices
- Organizations' e-Waste policies and procedures
- Amount of e-Waste generated
- Recommendations for a national policy
- **Awareness of conference**

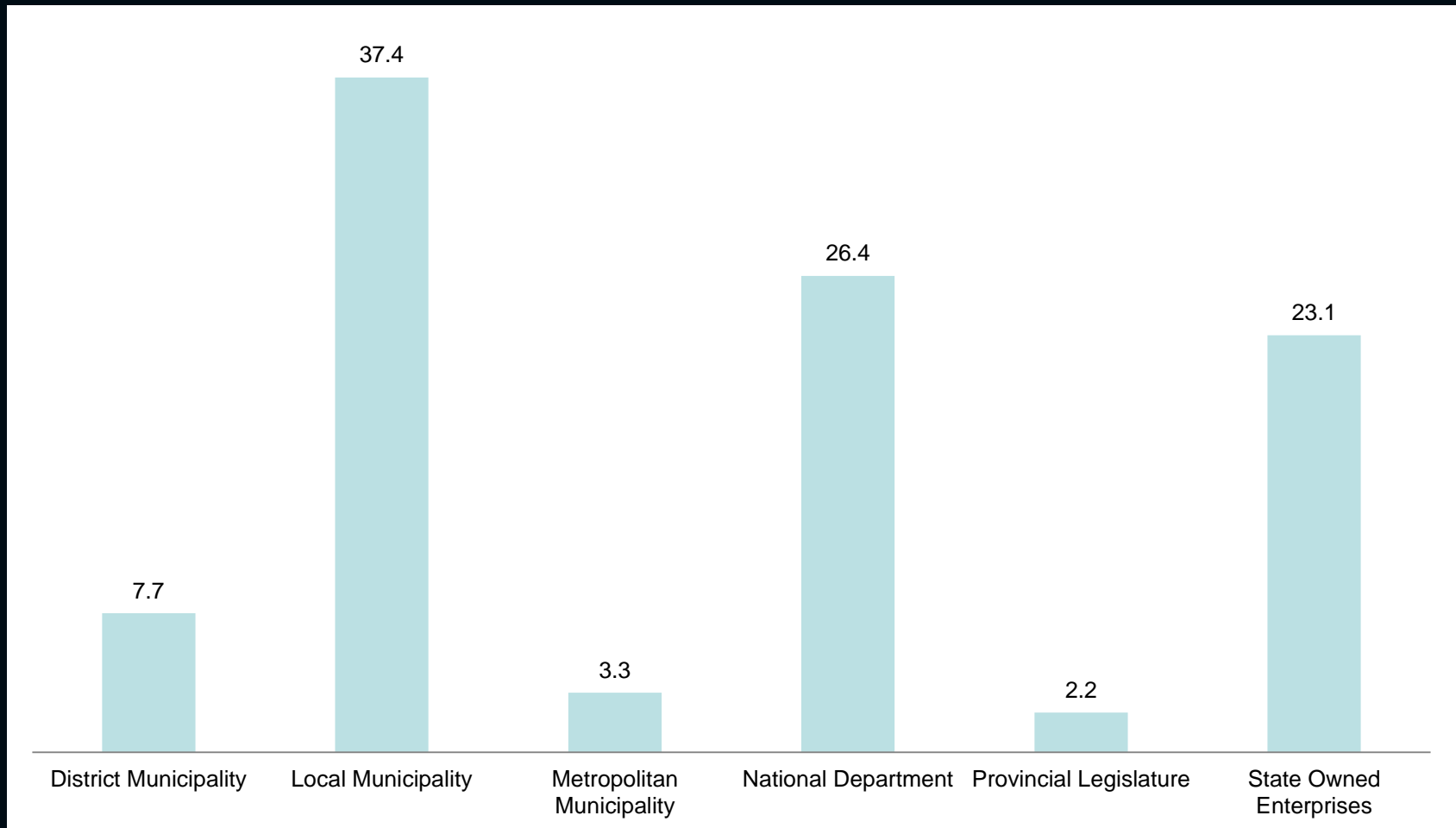
# Personal profile of respondents

# Position of respondent in organization (n=91, in %)

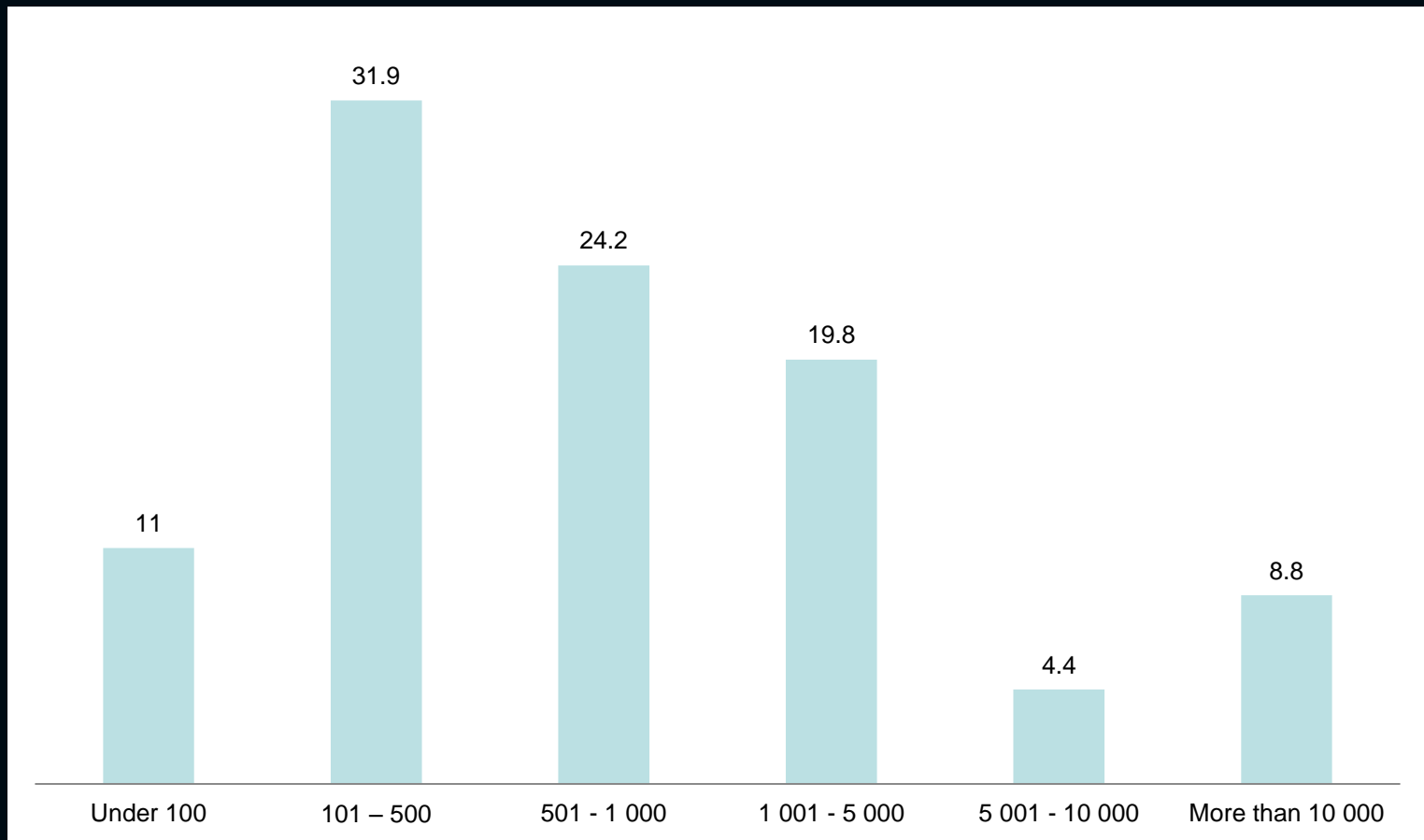


Profile/ information on the  
organization

# Type of organization respondent represents/ works in (n=91, in %)



# Number of persons organization employs on a full-time or permanent basis (n=91, in %)





## Awareness of e-Waste national policies and practices (n=91, in %)

- 37.4% of respondents were aware
- Main policies aware of:
  - National Environmental Management Waste Act 59 of 2008 - NEMWA (16.5%)
  - National Waste Management Strategy (7.7%)
  - National Environmental Management Act (Act 107 of 1998) – NEMA (4.4%)
  - Hazardous Substance Act (5 of 1973) (4.4%)
  - Occupational Health and Safety Act (Act 85 of 1993) - OHSA (3.3%)
  - Environment Conservation Act (Act 73 of 1989) – ECA (3.3%)

# Awareness of government initiatives/ programs that have been put in place regarding e-Waste disposal and management (n=91, in % - yes responses only)

- 25.3% of respondents were aware

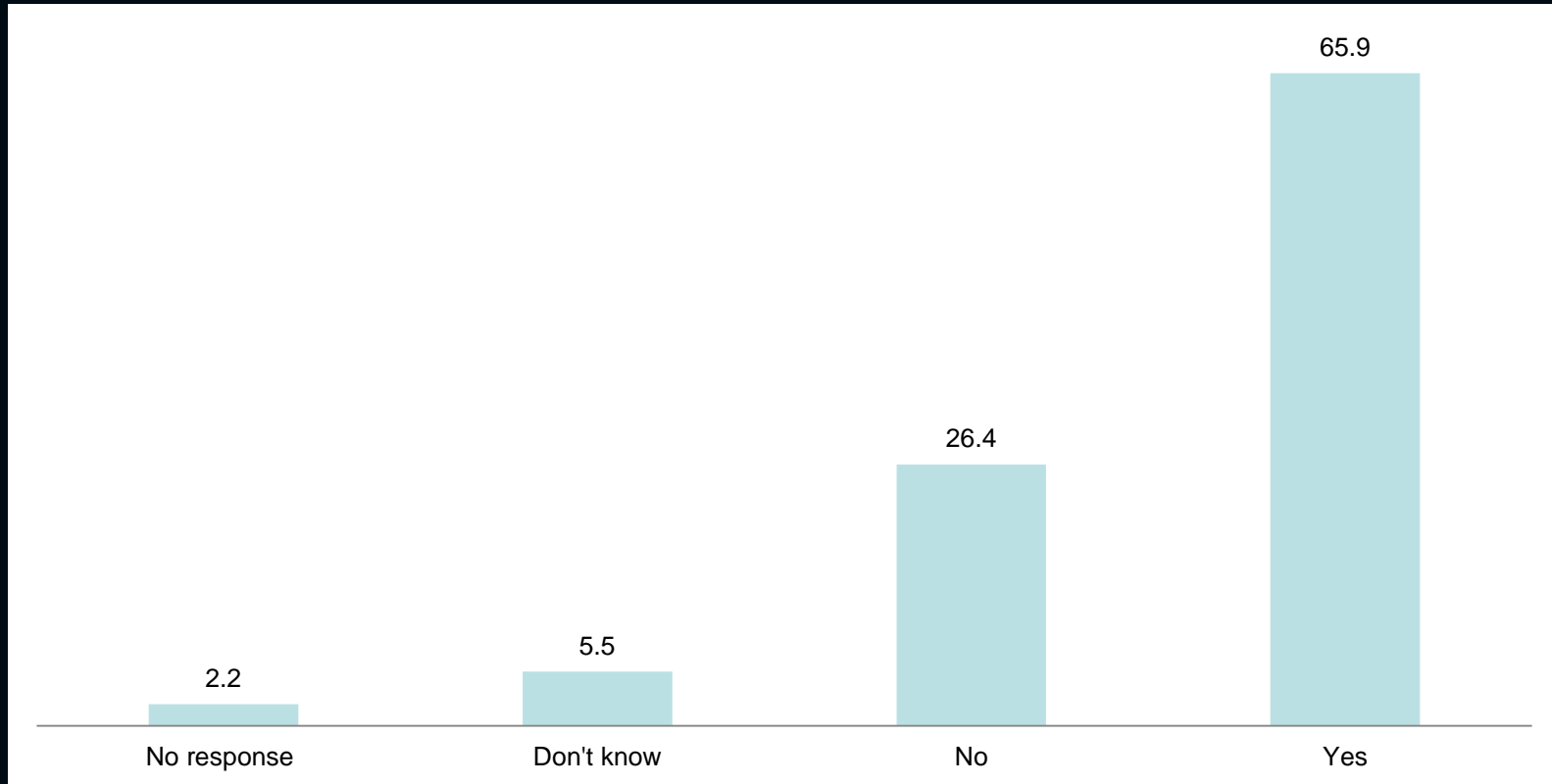
	Frequency	Percent
Recycler responsibility	11	12.1
Supplier take back	10	11.0
Separation of e-Waste from other items of disposal	10	11.0
e-Waste drop off sites	11	12.1
Training programs on e-Waste	5	5.5
Awareness campaigns regarding responsible e-Waste disposal	8	8.8
ISO 14000 (criteria for a certified environmental management plan)	1	1.1
Activism by related stakeholders such as NGOs	1	1.1

## Factors that are contributing to e-Waste growth in South Africa (n=91)

	Frequency	Percent
Rapid growth of ICT in the country	20	22.0
Lack of proper disposal of e-Waste (including recycling and reusing programs)	20	22.0
Lack of laws and regulations regarding the disposal of ICT waste	16	17.6
Lack of laws and regulations regarding the ICT industry	15	16.5
Lack of monitoring and evaluation of the disposal of e-Waste	15	16.5
Lack of forms of incentives/punishment to ensure compliance	14	15.4
Other	5	5.5

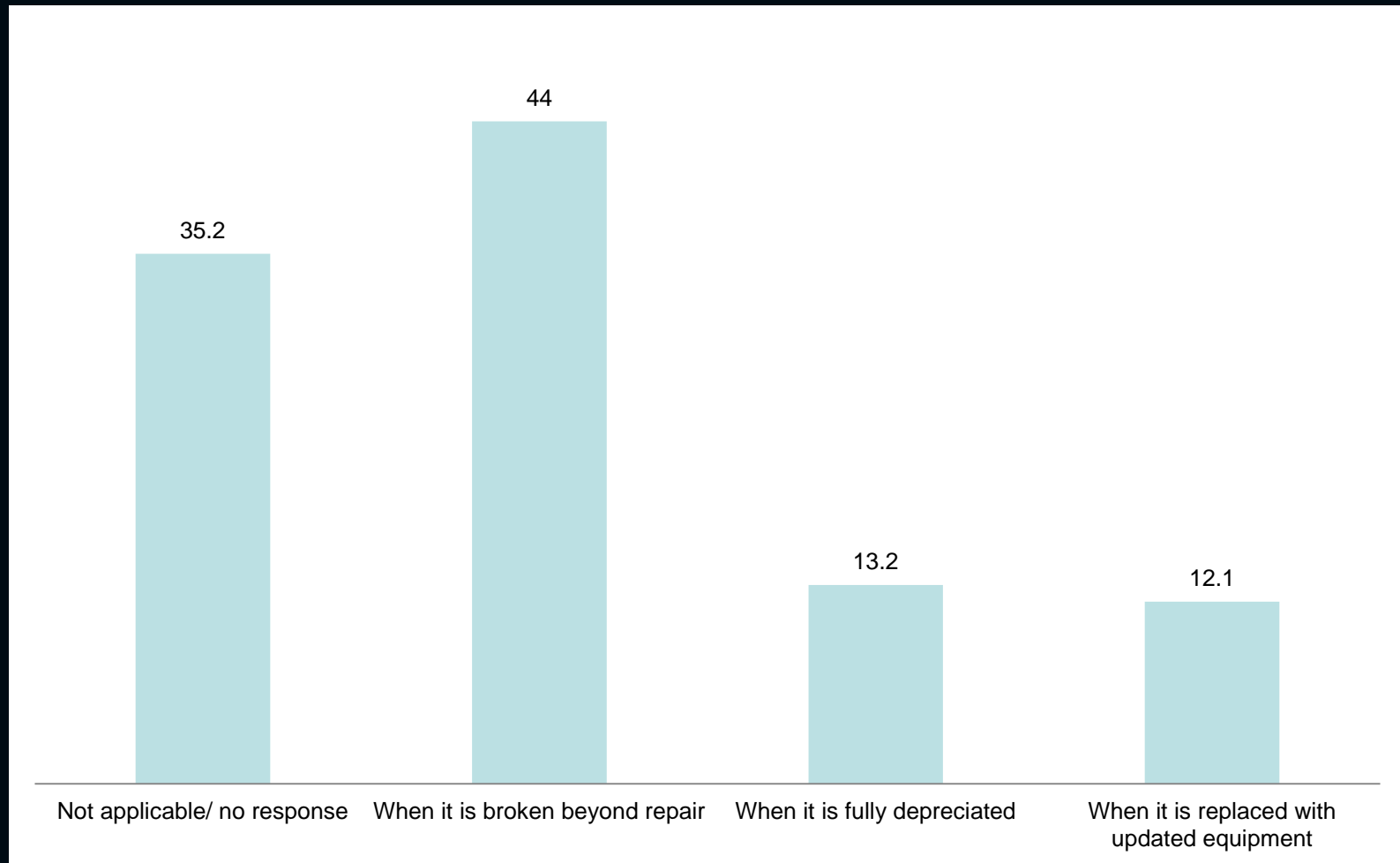
# Organizations' e-Waste policies and procedures

# If organization has a policy on the depreciation of electronic equipment (n=91, in %)



- Most policies in place for less than 3 years (75.5%)
- Written off between 3-5 years (62.7%)

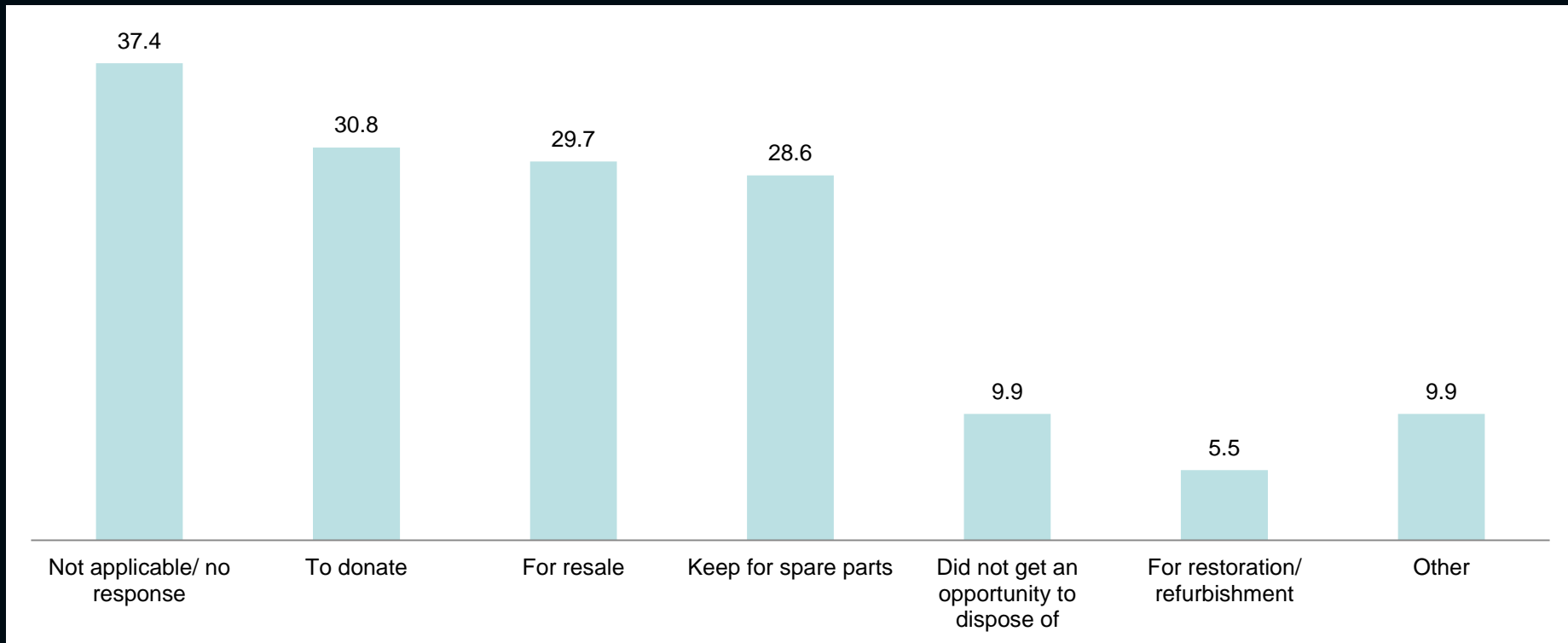
# When organization replaces its electronic and ICT equipment (n=91, in %): Multiple responses



# Practices related to the management and disposal of e-Waste the organization engages in (n=91, in %)

	No response	Never	Sometimes	Always	Don't know
Throw out e-Waste with general waste	62.6	28.6	5.5	1.1	2.2
Throw e-Waste in an open dump	61.5	33.0	2.2	2.2	1.1
Pay a waste removal company to dispose of e-Waste	60.4	23.1	7.7	8.8	-
Pay a specialist e-Waste collector to dispose of waste	59.3	23.1	7.7	8.8	1.1
Sell the e-Waste to recyclers	63.7	19.8	13.2	3.3	-
Auction the e-Waste	53.8	14.3	19.8	12.1	-
Sell the e-Waste to private individuals	60.4	20.9	14.3	4.4	-
Donate the e-Waste	58.2	8.8	26.4	5.5	1.1
Storage of e-Waste	61.5	8.8	24.2	5.5	-
Reuse, wherever possible, within the organisation	58.2	9.9	22.0	9.9	-
Take back to producer/ where purchased from (supplier take back)	62.6	20.9	12.1	1.1	3.3
Burn the e-Waste	94.5	1.1	1.1	2.2	1.1

# Storage of e-Waste (n=91, in %)



- 62.6% store e-Waste
- Stored mostly for less than a year (22%) and 1 – 5 years (28.6%)
- e-Waste mainly stored in a centralized facility (36.3%) and various locations around the offices (18.7%)



# Organizations' written policy regarding the management and disposal of e-Waste (n=91)

- Percentage that has a written policy regarding the management and disposal of e-Waste: **41.8%**
- If written policy regarding the management and disposal of e-Waste is specific to the organization: **38.5%**
- If written policy regarding the management and disposal of e-Waste is in line with the national policy on hazardous waste: **23.1%**
- If written policy regarding the management and disposal of e-Waste is based on an international standards: **14.3%**
- **Strengths and weaknesses of current policies**

# Statistics in relation to the amount of e-Waste generated

## Specific types of electronic equipment on the organization's asset register which is in use (n=91)

Description/ type of electronic equipment	Frequency and percentage of no responses	Frequency and percentage of zero/ none responses	Average number of units	Range of number of units (excluding zero)
Desktop computers	17 (18.7%)	1 (1.1%)	1007.9	3 to 12000
CRT monitors	20 (22%)	5 (5.5%)	848.2	2 to 16159
LCD monitors	67 (73.6%)	2 (2.2%)	1183.1	5 to 17000
Laptops	16 (17.6%)	1 (1.1%)	484.7	5 to 7000
Printers	21 (23.1%)	2 (2.2%)	408	1 to 10000
Copiers	34 (34.7%)	9 (9.9%)	118.7	1 to 5000
IPads/ tablets	31 (34.1%)	12 (13.2%)	98.2	1 to 3000
Cell phones	36 (39.6%)	14 (15.4%)	450.9	1 to 20000

# Specific types of electronic equipment on the organization's asset register which is not in use (n=91)

Description/ type of electronic equipment	Frequency and percentage of no responses	Frequency and percentage of zero/ none responses	Average number of units	Range of number of units (excluding zero)
Desktop computers	33 (36.3%)	11 (12.1%)	173.7	1 to 4000
CRT monitors	34 (37.4%)	17 (18.7%)	149.9	2 to 4000
LCD monitors	64 (70.3%)	15 (16.5%)	46	4 to 1000
Laptops	33 (36.3%)	11 (12.1%)	74.4	1 to 2450
Printers	34 (37.4%)	20 (22%)	33.5	1 to 545
Copiers	44 (48.45)	32 (35.2%)	4.1	1 to 100
IPads/ tablets	47 (51.6%)	34 (37.4%)	14.3	1 to 340
Cell phones	49 (53.8%)	31 (34.1%)	14.8	1 to 350

# Average number of units of specific types of electronic equipment the organization generates each year (n=91)

Description/ type of electronic equipment	Frequency and percentage of no responses	Frequency and percentage of zero/ none responses	Average number of units	Range of number of units (excluding zero)
Desktop computers	32 (35.2%)	4 (4.4%)	244.5	1 to 10000
CRT monitors	36 (39.6%)	12 (13.25)	250.7	1 to 10000
LCD monitors	62 (68.1%)	13 (14.3%)	22.4	1 to 200
Laptops	33 (36.3%)	6 (6.6%)	223.1	1 to 10000
Printers	52 (57.1%)	10 (11%)	244.1	1 to 10000
Copiers	47 (51.6%)	23 (25.3%)	118.8	1 to 5000
IPads/ tablets	52 (57.1%)	30 (33.5)	78	1 to 3000
Cell phones	50 (54.9%)	24 (26.4%)	499	1 to 20000

# Professional estimate of the number of units of specific types of electronic equipment the organization currently has in storage (n=91)

Description/ type of electronic equipment	Frequency and percentage of no responses	Frequency and percentage of zero/ none responses	Average number of units	Range of number of units (excluding zero)
Desktop computers	72 (79.1%)	5 (5.5%)	49.9	2 to 500
CRT monitors	72 (79.1%)	8 (8.8%)	10.8	3 to 100
LCD monitors	79 (86.8%)	6 (6.6%)	57.8	4 to 500
Laptops	74 (81.3%)	6 (6.6%)	14.7	3 to 100
Printers	73 (80.2%)	7 (7.7%)	5.2	2 to 20
Copiers	76 (83.5%)	9 (9.9%)	2	1 to 20
IPads/ tablets	78 (85.7%)	12 (13.2%)	0.1	1 to 1
Cell phones	77. 84.6%)	11 (12.1%)	1.0	3 to 20

# Recommendations for a national policy

- Need for clear regulations, standards and procedures for the management of e-Waste (e-Waste policy and/ or plan)
- Importance of the policy permitting flexibility for departments to develop their own context-specific policies/ procedures while having components that are prescriptive and mandatory (minimum requirements and standards, including compliance)
- Alignment of policies and legislation (including industry plans)
- Focusing on changing consumption patterns and reduce generation of e-Waste
- Cover all types of e-Waste
- Cradle-to-cradle approach
- Focus on circular and green economy (entrepreneurial opportunities, job creation, poverty reduction and sustainability stressed) – models that reconcile growth with environmental prudence and equity
- Supporting resource conserving vs resources businesses – subsidies?
- Consideration of resources
- Stipulate roles of different stakeholders
- Capacity-building, education and training (including community awareness)
- Need for research and innovation, and monitoring and evaluation

**Thank You! Ngiyabonga! Dankie!  
Ngiyathokoza! Ke a leboha! Ke a  
leboga! Siyabonga! Inkomu! Ndo  
livhuwa/Ro livhuwa! Enkosi!**

