



e-waste management : the view of hp

E-Waste management forum – Cairo -- Feb 9&10 2009



Hervé Guilcher

Mgr, environmental programs, EMEA

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Agenda

- about hp's approach to Environment
- the reality about IT e-waste footprint ...
- lessons from hp's experience
- recommendations

BusinessWeek

Imagine a world

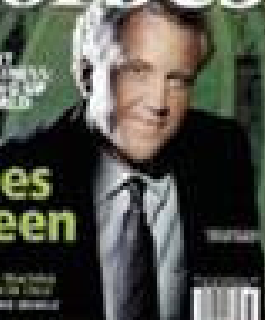
In which socially responsible and eco-friendly practices actually boost a company's bottom line. It's better than you think. [www.businessweek.com](#)



PLUS
Chrysler
E8-2 gets
a makeover

Forbes

GE Goes Green



Newsweek

The Greenhouse Effect

Danger: More Hot Summers Ahead



2ND-QTR SIZZLE
PROFITS AT 900
COMPANIES [\(p. 34\)](#)

PAYING FOR COLLEGE
BEWARE OF THOSE
HIGH \$29 FEES [\(p. 50\)](#)

TERRORISM WHAT
COMPANIES STILL
NEED TO DO [\(p. 20\)](#)

BusinessWeek

ISSUE # 1, 2007

[www.businessweek.com](#)

GLOBAL WARMING

Why Business Is Taking It So Seriously

BY JOHN CAREY [\(p. 60\)](#)

The Economist

Make your New Year's
resolutions that
count: environmental
action is a meaningful challenge
being money-wise



The greening of America

SPECIAL REPORT GLOBAL WARMING

TIME

BE WORRIED. BE VERY WORRIED.



How do you know when you've reached the tipping point? How do you know when you've reached the point of no return? How do you know when you've reached the point of no return? How do you know when you've reached the point of no return?

INSIDE THE STEROID PIPELINE STING
How the FDA, Congress, and the courts are cracking down on the steroid pipeline

Sports Illustrated



SPORTS AND GLOBAL WARMING As the Planet Changes

TIME

How to Win The War On Global Warming

Newsweek

make green pay

GREEN GUIDE

Green Made Simple

VANITY FAIR

GREEN 2007

Love your mother (earth)

the world today: businesses do care



80% of our customers evaluate environmental practices as part of purchasing

55% give preferred status to vendors who address environmental issues

70% of companies underestimate their cost of disposing of electronics

Costs to power and cool data centers will rise 70% by 2010 (IDC)

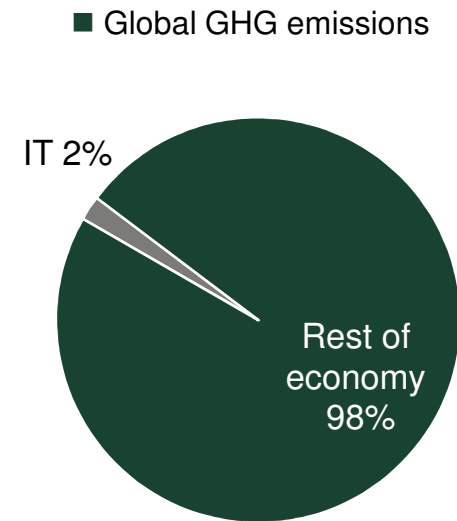
380% – ROI for implementing Blades/thin-clients in a major retail bank

60-80% – Proposed EU commitments to CO2 reductions by 2050

“With 5-6°C warming – which is a real possibility for the next century – existing models that include the risk of abrupt and large-scale climate change estimate an average 5-10% loss in global GDP” (Stern Report)

IT power spend growing 4X faster than IT equipment spend (IDC)

Within 3 years 50% of existing datacenters will be out of space, or will have inadequate power & cooling equipment (Gartner)



hp's environmental approach

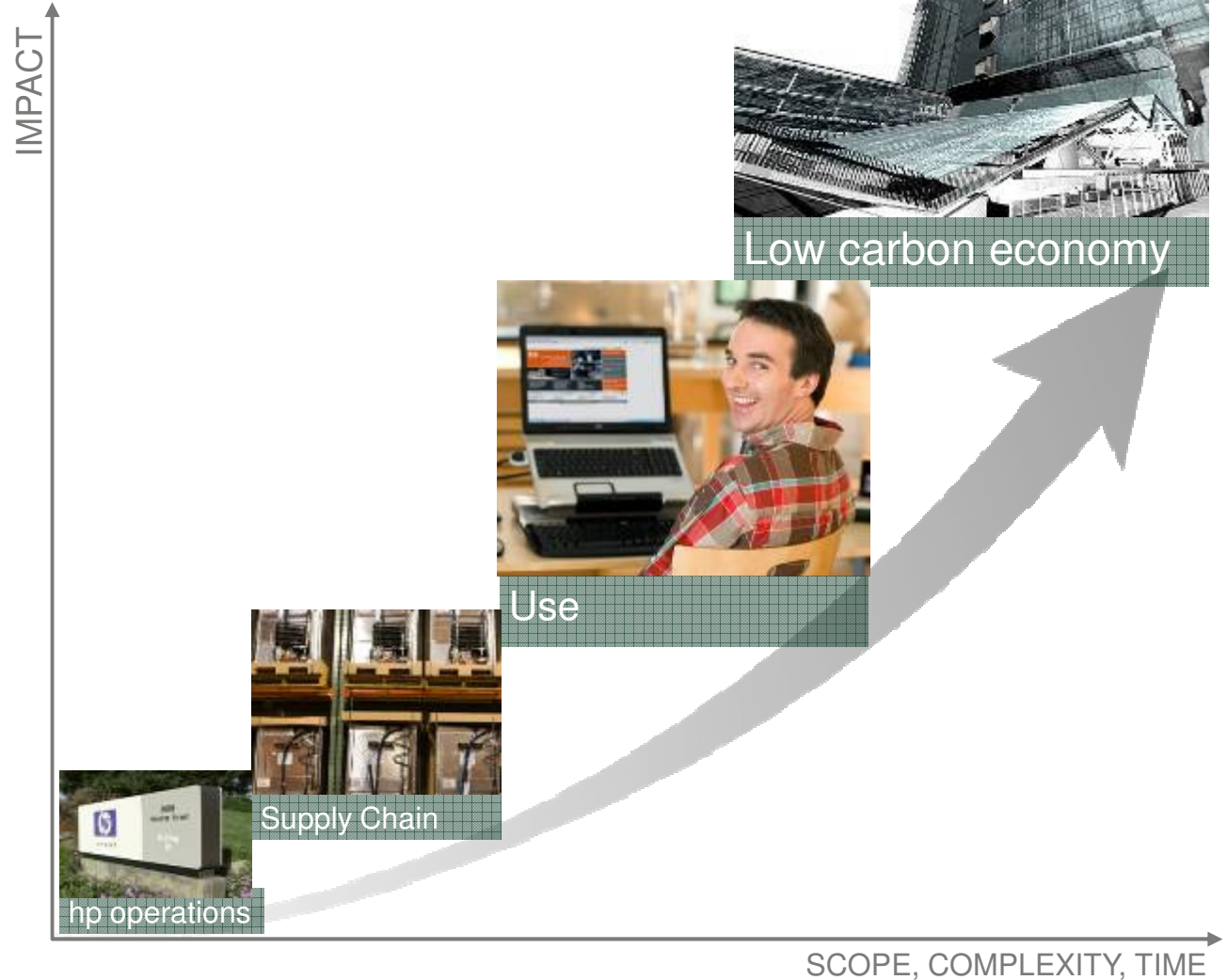


Business drivers:

- Cost reduction
- Customer opportunity
- Productivity
- Environmental stewardship

How?

- Walk the talk
- Make it simple
- Exercise our influence
- Innovate



Designing for the environment



Energy & Climate



Product Reuse & Recycling



Supply chain responsibility



Material resources



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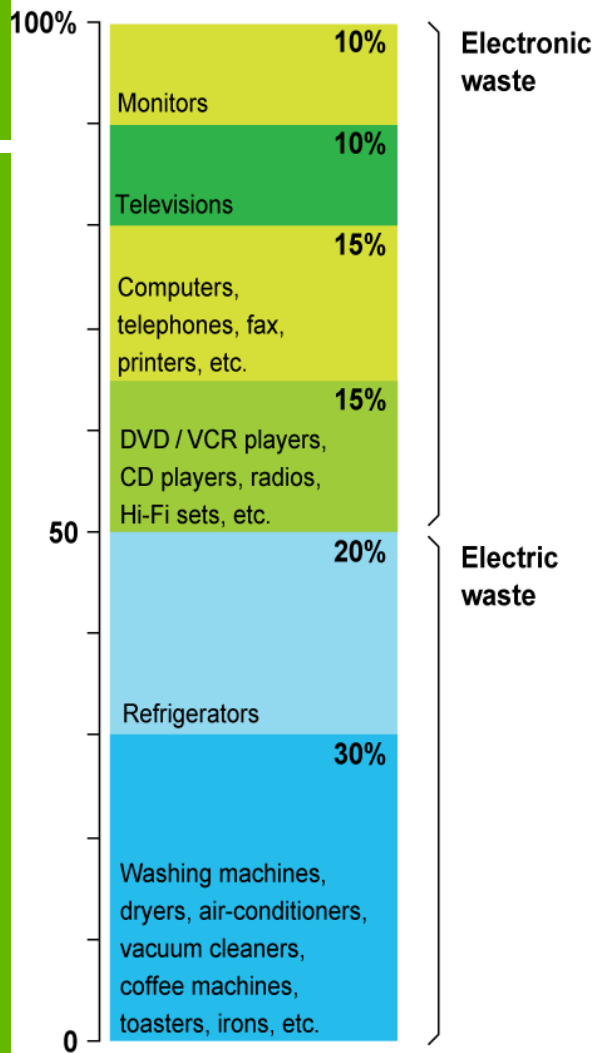
What kind of products come to mind first when talking about e-waste ?



IT equipment

....

What is e-waste?



Additional categories: lighting equipment (fluorescent tubes); toys, sports and recreational equipment; electric and electronic tools (drills, sewing machines, lawn mowers, etc); surveillance and control equipment; medical instruments; automatic ticket machines.

Source : EMPA Swiss Federal Laboratories for Materials Testing and Research (definition according to the European Union WEEE Directive).

Reality is ...

IT is ~ 20% of the total e-waste (in tons):
fridges, TVs, light bulbs, ... contain
toxics



e-waste impacts health & the environment...



... only IF not recycled properly



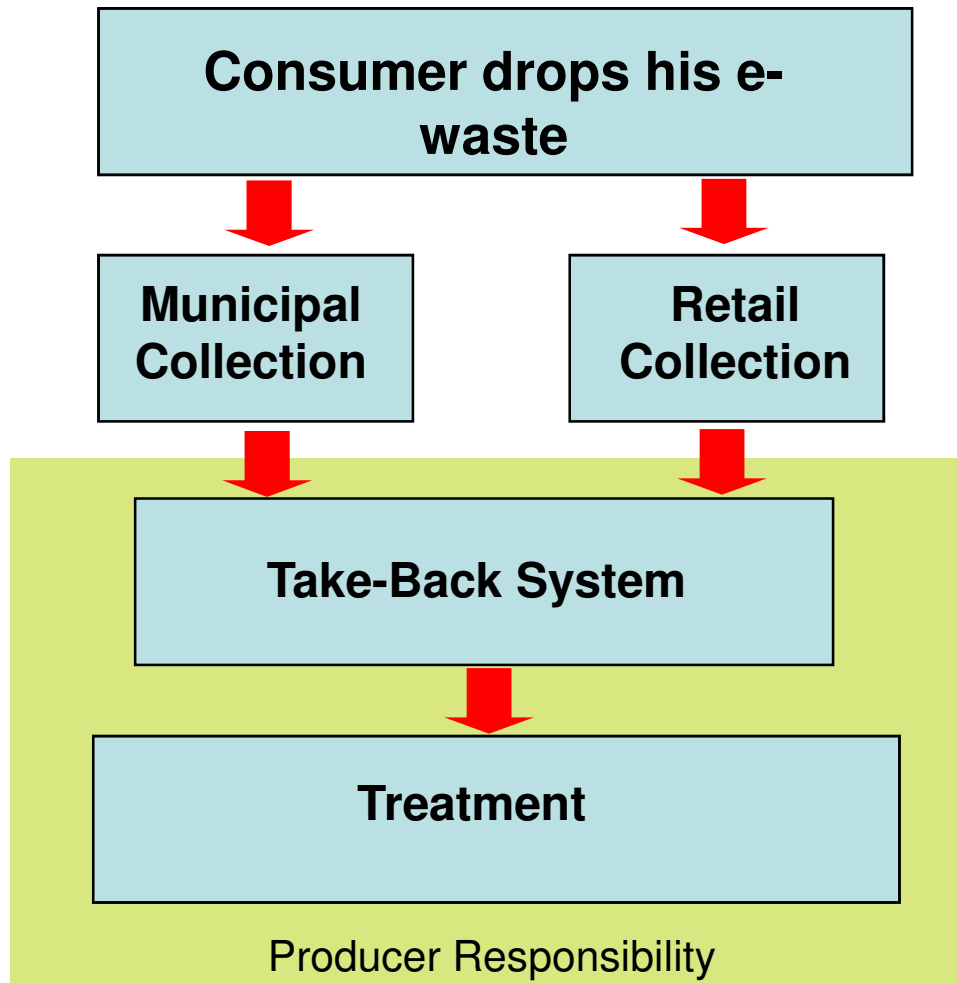
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Two lessons from WEEE...

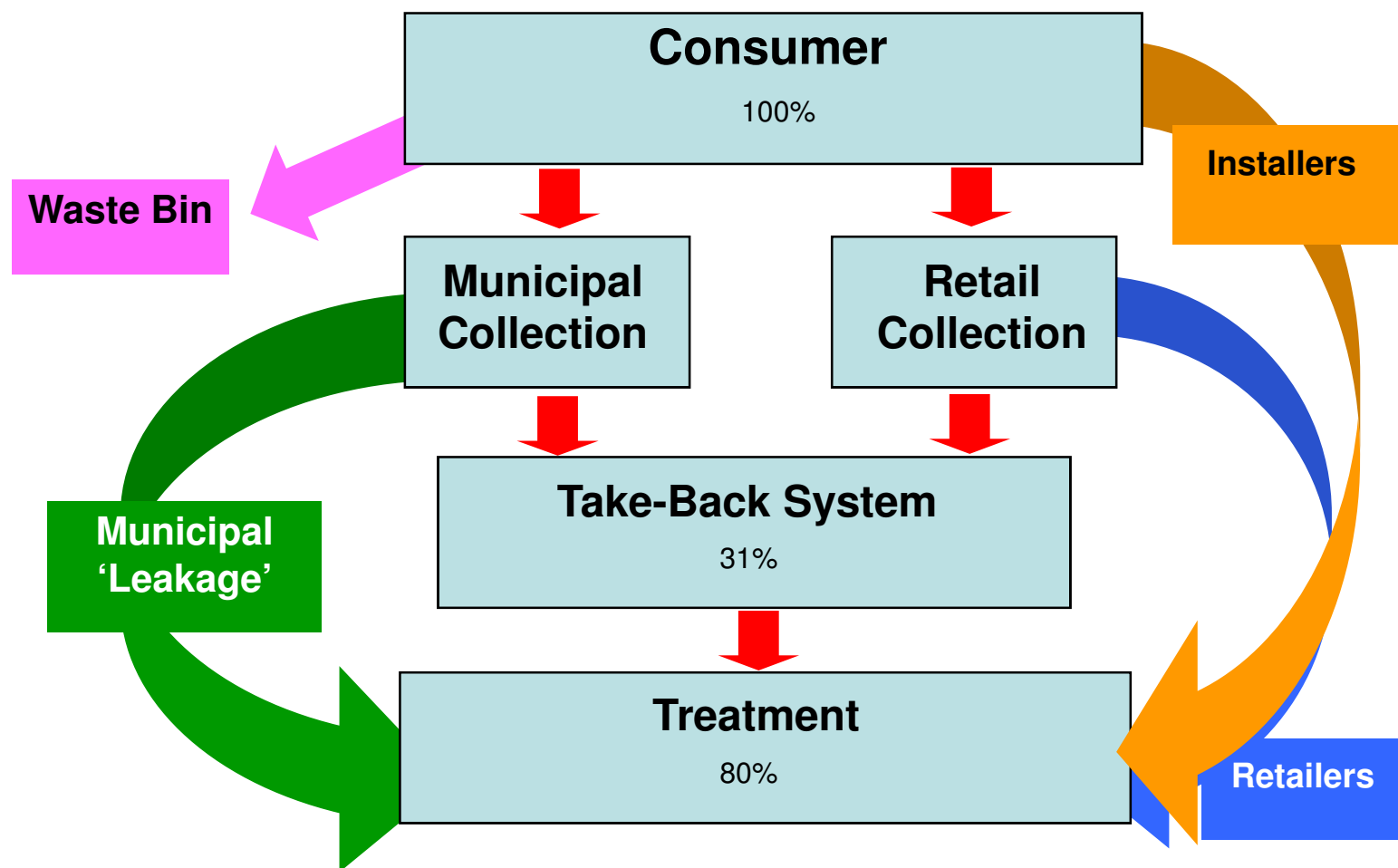
EU directive on Waste Electrical & Electronic Equipment



Put into force Aug '05, based on 'producer responsibility' principle



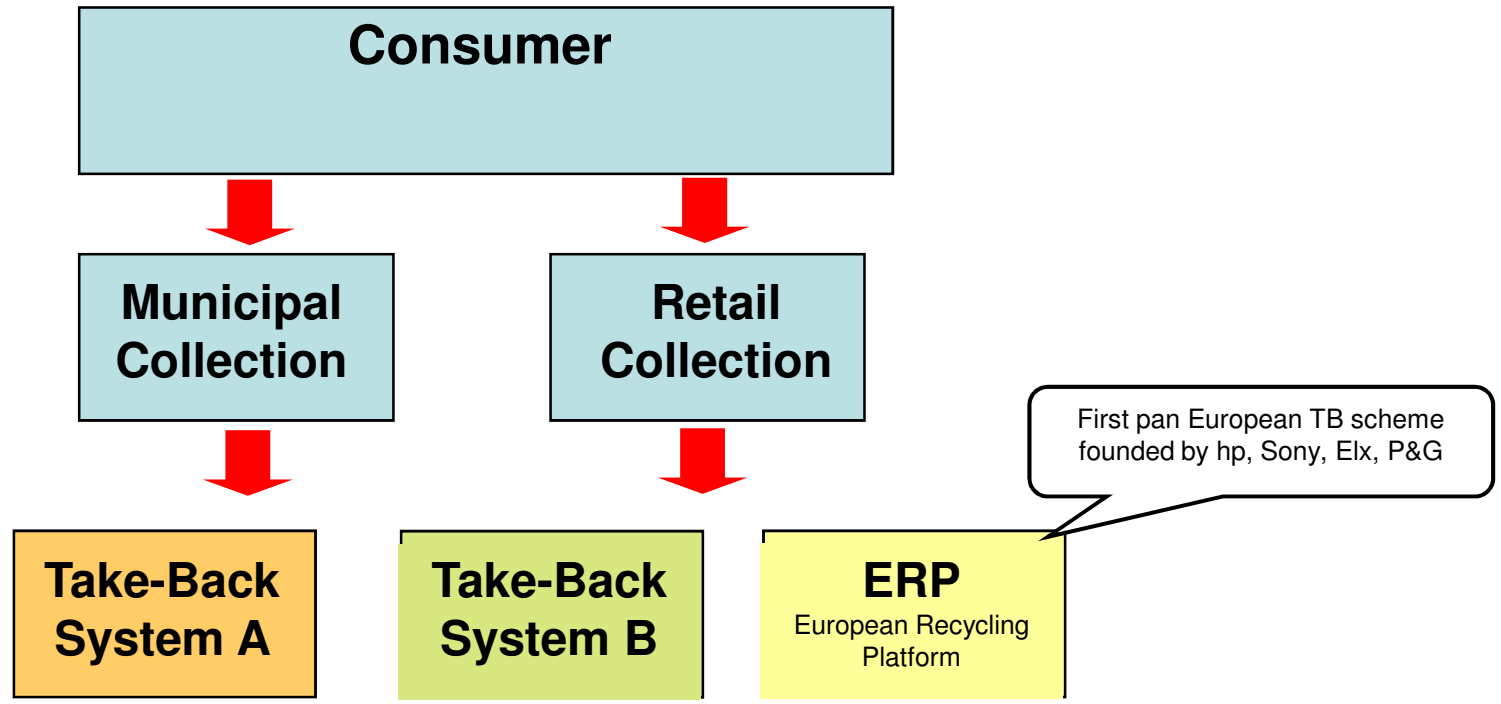
Lesson #1: collection routes are complex ...



... key is that minimum treatment requirements are met

Lesson #2: do not constrain market forces

competition w/o jeopardizing quality is the key



Perchard report 2007 (cost per unit put on market)

WEEE fees per product sold	Cooling	Washing Machine	Blender	Notebook	DVD player	CRT Monitor
Average Monopoly	16.96€	8.11€	0.93€	2.26€	2.69€	6.30€
Average Competition	10.36€	1.66€	0.66€	0.43€	0.56€	3.88€

Learnings from 'e-waste in Africa'



a collaboration model



invent





Hewlett-Packard, EMPA and the Global Digital Solidarity Fund (DSF) join forces to improve e-Waste management in Africa

e-Waste management in



At a Glance

Partners

- **Hewlett Packard Corporation (HP)** – World Leading IT Company
- **EMPA** – Swiss Materials Science & Technology Research Institute
- **Global Digital Solidarity Fund (DSF)** – International Financial Organization for Digital Solidarity

The facts: electronic and electrical waste impacts public health and the environment

As African countries join the global information society the volume of ICT equipment in these markets grows.

The United Nations Environment Program (UNEP) estimates that up to 50 millions tones of electronic waste is generated annually worldwide. As it reaches the end of its life cycle, it is important to arrange for recycling and safe disposal of the equipment.

The solution: Assess the current situation and improve the management of e-waste in Africa in order to generate jobs in the informal recycling sector

This program will provide answers to e-waste management within the context of each country. First, by assessing the current conditions for electronic recycling in communities in Kenya, Morocco, Senegal, South Africa and Tunisia, and second, by testing methods and practices that will help make recycling of electronic equipment safer. The project also aims to explore how additional local jobs can be created in this sector.

Experiences from China and India show that e-waste recycling is mostly done in the informal sector and provides jobs for people that have difficulty accessing formal employment. This is why the partners involved are committed to working with the informal sector with the aim to boost the employment opportunities it offers.

Setting up consumer e-waste in RSA



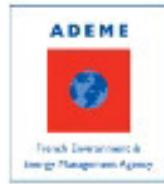
- collaborating with Govt & local industry to develop a waste management system which will enable citizens to recycle their home PCs and printers (and more...)
- MOU signed with [e-WASA](#), RSA's new e-waste association
 - describing how industry and other organisations can work together to promote electronics recycling from citizens



Results & Recommendations



- Country research projects completed for Morocco, Kenya and Senegal
- A successful recycling Pilot Project run in Cape Town, South Africa
 - job & business revenue creation in ‘live’ conditions
 - replicated in 2 other cities
- Conference in Oct 08 leading to the e-waste ‘Durban Declaration’
- Recommendations:
 - Establish a policy and a solid legal framework
 - Review the needs in infrastructure re: volume of e-waste
 - Increase advocacy & awareness
- Next steps
 - Feasibility study phase 2
 - Launch Phase 2 → including Arabic region
→ from research to action



The Entrepreneur's Guide to Computer Recycling

Coordinated by Benoit VARIN

VOLUME 1

Basics for starting up a computer recycling business in emerging markets



with the support of :



Next step: Volume 2

- a technical guide
- published in April/May 2009
- using examples & experience from the pilot recycling facility sponsored by hp in Cape Town

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recommendations to address e-waste

Industry needs Governements & Consultants to drive ...

- Increase of advocacy and awareness
- Development of a legal Framework with simple rules and clear responsibilities which
 - focuses on impact to health and the environement
 - fits with the local conditions and local economy (i.e informal sector)
 - enables competition between ‘systems’
 - does not restrict X-border shipments of e-waste (or fractions)
 - and enforces the rules of the game
- Support for the development of recycling infrastucture
 - jobs and business opportunities are at stake
 - while caring for health and the environement

e-waste is a serious issue & opportunity
we are willing to cooperate !

