INCENTIVIZING “GREENER” ELECTRONICS

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Overview

- How can we make it easier for purchasers to identify and select environmentally preferable electronics?
- How can we make purchasers' choice of 'greener' products impact the design and management of electronics
- How can standards and ratings drive innovation and competition around continuous environmental improvement?
- How can we develop global incentives that respect local needs?
- What does the EPEAT story suggest about all of these?

What is EPEAT?

The **definitive global registry** for greener electronics.

Developed and advised by all **stakeholder groups**

Managed by US **nonprofit** organization

Designed **to help everyone** who purchases electronics evaluate,compare and select products that **reduce environmental impact**

Contains **3,000+** products from **50+** manufacturers in 42 Countries, including Brasil

What products does EPEAT cover?

Currently: PCs/Displays Desktops, laptops/notebooks, workstations, thin clients and displays

Imaging Equipment – copiers, printers

Coming in March: Televisions

Up next: Servers and mobile devices

How are products rated in EPEAT?

- Leadership Baseline + Incentives for higher performance
  - Products must meet all **required** criteria to qualify for EPEAT (23 – 33 criteria).
  - Products are rated Bronze, Silver or Gold based on how many **optional** criteria they meet (26-29 criteria).

Green

Greener

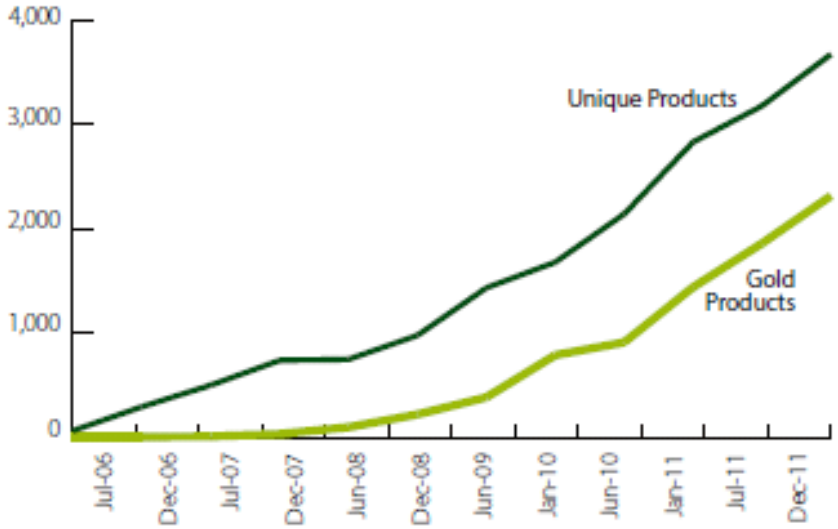
Greenest

Environmental Performance Criteria in EPEAT Standards

	Computers (2009)		Imaging (2012)		Televisions (2012)	
	Required	Optional	Required	Optional	Required	Optional
Environmentally Sensitive Materials	**3**	**8**	**4**	**7**	**3**	**9**
Materials Selection	**3**	**3**	**4**	**3**	**3**	**3**
Design for End of Life	**6**	**5**	**7**	**2**	**5**	**6**
Product Longevity/Life Cycle Extension	**2**	**2**	**2**	**1**	**3**	**0**
Energy Conservation	**1**	**3**	**2**	**4**	**1**	**4**
End of Life Management	**2**	**1**	**2**	**2**	**2**	**2**
Corp Performance	**3**	**2**	**2**	**3**	**2**	**3**
Packaging	**3**	**4**	**5**	**2**	**5**	**2**
Consumables	**-**	**-**	**4**	**2**	**-**	**-**
Indoor Air Quality	**-**	**-**	**1**	**0**	**-**	**-**
Total # Criteria	**23 Required**	**28 Optional**	**33 Required**	**26 Optional**	**24 Required**	**29 Optional**
	51 Total		**59 Total**		**53 Total**	

EPEAT Global Growth 2006-2011

FIGURE 2: EPEAT Growth 2006-2011 – By Unique Products and Gold Products

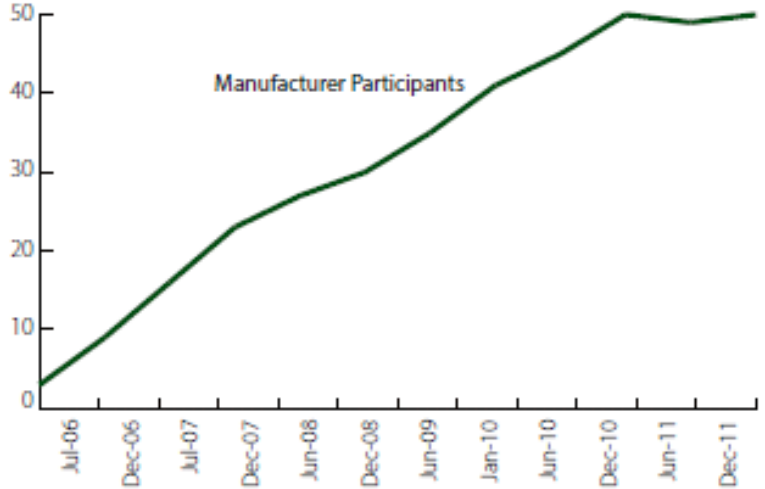


60 to 3000+ product registrations

0 to ~2000 Gold products

3 to 50+ Manufacturers

FIGURE 3: EPEAT Growth Since Inception – Manufacturer Participation



Representative Purchaser Users

- **National Governments or Govt Agencies** US, Canada, Australia, France, Poland, New Zealand, Singapore, Brazil, Costa Rica (Scotland)
- **States/Provinces** CA, CO, MA, ME, MI, MN, NY, OH, OR, PA, VT, WA, WI; Provinces of BC, NS, ON, QU; Warwickshire County (UK), Minas Gerais (Brazil), WSCA and US Communities govt purchasing collaboratives
- **Cities** San Francisco, Phoenix, San Jose, Vancouver, Seattle, Portland OR, LA County, Culver City CA, Keene NH, Leeds, UK
- **Enterprise** Catholic Healthcare West, Charles Schwab, Deutsche Bank, Fairmount Hotels, Ford Motor Company, HDR, HSBC, Kaiser Permanente, KPMG, Marriott International, McKesson, Microsoft, NBC-Universal, Nike, Saint Gobain, Societe Generale
- **Colleges/Universities** Of 300+ universities and colleges, 200+ used EPEAT in their electronics purchasing; 70 purchased only EPEAT

EPEAT in Brazil

- Strong participation since 2007 – government purchasing
- 667 registered PC/Display products

Arquimedes Automacao e Informatica Ltda	10
Daten Tecnologia Ltda	26
Hewlett-Packard	265
Ilhaservice Servicos de Informatica Ltda.	2
Itautec S.A. - Grupo Itautec	89
Lenovo	164
Login Informatica	4
MMD-Monitors & Displays Taiwan Ltd.	3
Oracle America Inc.	3
Positivo Informática S.A.	66
Semp Toshiba Informatica Ltda.	4
Toshiba	12
TPV Technology Limited	16
ZMAX Industria Comercio L	

Key elements of success

‘Green’ Purchasing Standards, Ratings

Must conform with scientific insights, but also:

- Not unduly restrict products or suppliers
- Provide empirical criteria/measurements that can be evaluated
- Harmonize with other standards as possible to facilitate manufacturer compliance

Best Case Green Purchasing Initiatives/ Standards

- Drive leadership, innovation beyond regulatory compliance
- Create possibilities/pressure for continuous improvement
- Provide aspirational/directional goals
- Build on practical insights of stakeholders regarding capacity to meet requirements now and in future

Progressive Approach

- Required baseline which addresses all aspects of the product lifecycle – “floor”
  - Lessens tradeoffs between environmental impacts – e.g. increased recyclability vs. shorter product life; reduced toxicity vs. loss of energy efficiency
- Beyond baseline, enable flexible approaches to improved environmental performance
  - Allows suppliers/researchers/engineers multiple paths to pursue promising approaches
  - Avoids committing to “one size fits all” approach
  - Leads to multifaceted progress

Credibility

- Ongoing third party verification of manufacturer claims
  - Rules of the road embodied in published public standard
  - Adequate and ongoing oversight and audits
  - Any non-conformances found are published
- Diverse stakeholder involvement in development and management
- Careful measures to prevent conflict of interest
  - Auditors are independent contractors
  - Final judgment on all conformance/nonconformance decisions by an independent panel blind to identity of product/company

Openness

- Purchasing system should be free and open
- Manufacturer fees should incentivize registration, not present barriers
- Tiered standards allow smaller companies to register at lower levels, move up as they have the capacity
- Diversity of support, registration options
  - Multiple registering organizations to accommodate differences of geography, language, approach

Competition

- Highly dynamic and competitive market
- Enable efficient, timely registration/certification
- Encourage competition, innovation not rubber stamp a single solution or attribute
- Make competition visible
  - Central database displays all registered products, enables head to head comparison, search
  - All verification failures published on website – competition to NOT be found wanting

Harmonization - consistent market rewards

- Continuing innovation toward more sustainable product design and delivery requires market incentives
- Aggregating purchaser demand can send a clear signal and drive change
- EPEAT provides a consistent ‘funnel’ to deliver rewards to greener products across geographies and markets
- Support services – warranty, spare parts, End of Life – create local country involvement and business
- Smaller companies can compete with global firms on environmental basis (yes it’s challenging)

Challenge of ongoing relevance

- Must keep pace with the rapid, dynamic nature of electronics sector
- Can only verify to what is in the standard – so new designs, technologies may escape review for a time
  - Tiers – to avoid immediate obsolescence
  - Regular updating of standards
  - Innovation criteria concept

Market Integration

- Model purchasing language, purchaser assistance and outreach
- EPEAT Channel Partners program supports resellers to provide green electronics solutions to their customers
- EPEAT ratings data provided to e-commerce websites so purchasers can see at point of sale
- EPEAT working with N.A. retail sector (Staples, Office Depot, Best Buy) to develop in-store presentation


Questions/
Challenges

Challenges

- Visibility into the complex supply chain – most manufacturers are unable to answer many questions about materials, processes - EPR has not resolved this issue
- Design for Global EOL: Capacity very variable – how to design products for multiple EOL scenarios (“4R”)
- Smaller, more ‘disposable’ products – how to address long life and reparability
- Need for expanded lifecycle evaluation of design and EOL approaches to evaluate weighting, directional goals

Going forward – practical needs

- Need for standards models that
  - Renew regularly without stakeholder burnout
  - Incentivize innovation in an open-ended way
  - Address the business model of planned obsolescence and ever-increasing consumption
  - Raise consumer awareness of the impacts of electronics and alternative approaches

Contact Information

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