

Sony Product Stewardship

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Sony announced Global Environmental Goals “Road to ZERO”

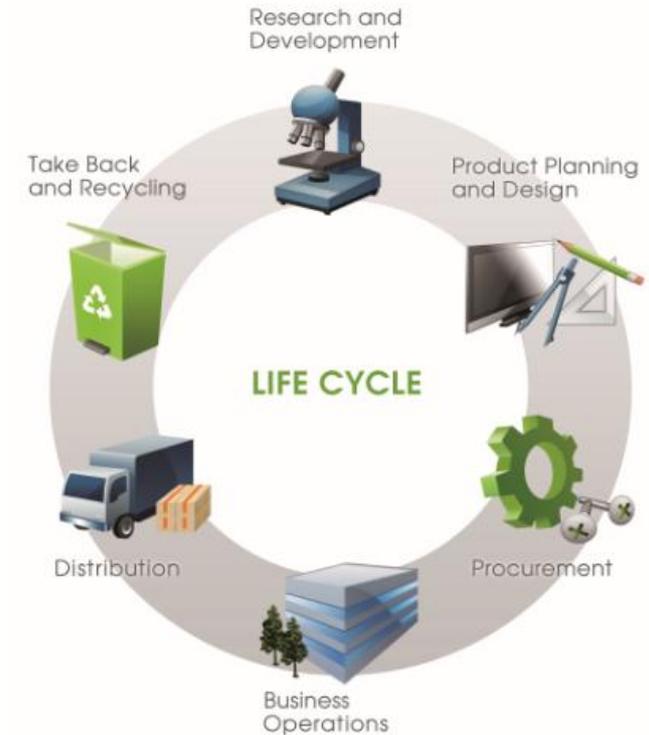
Road to Zero: Sony’s long-term commitment to have zero net impact on the environment



Road to Zero Sony’s Global Environmental Plan

In order to reach our goal of a zero environmental footprint by 2050, our next major step consists of setting a number of targets towards 2015.

Road to Zero Timeline



[Approach]

Throughout the product life cycle

Mid-range environmental targets for 2015



Procurement – Supply chain management

- **Supply Chain Chemical management “Sony Green Partner”**

- 10 + years operating the supplier certification program

- **Phase out and reduction of the use of certain chemicals**

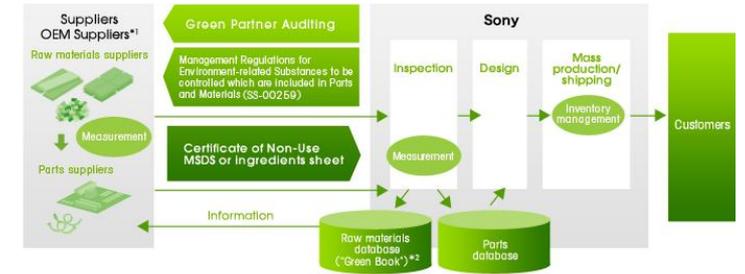
- Use of BFR and PVC have been eliminated from mobile products (casing, main PWB, wring)
- Developed mercury free silver oxide and alkaline-manganese oxide button cell batteries

- **Responsible Sourcing**

- Sony Supplier Code of Conduct, Conflict Minerals policy and management
- Paper and printed materials environmental policy

- **Footprint disclosure**

- Ranked top among Japanese companies for Carbon Disclosure Project in 2012





Design for Environment - Products

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- **Energy Efficient technologies**

- All 2013 TV models are LED and are Energy Star qualified
 - Local dimming / dynamic edge dimming, Scene Optimized Energy Saving technologies for selected models
- Home Theater Systems: Award-winning magnetic fluid speakers - BDV-N790W
- Xperia™ : Award-winning White Magic technology – Xperia™ P
- VAIO® laptops and all-in-one computers are Energy Star qualified and most are EPEAT® registered

- **Use of recycled plastics and Resource conservation**

- Award winning Sony Recycled Plastics, SoRPlas, 99% recycled plastic: DSC-HX30/HX20, NEX-F3, HDR-TD20V and others
- Closed loop recycling of CD/DVD plastics in bottom cover components of selected TV models
- Noise canceling headphones - elimination of cord-mounted control box: XBA-NC85D
- Reduction of packaging materials



You



Green Operations



LEED Gold certified Sony Electronics
Headquarter Building

- **EPA Green Power Partner – Renewable Energy**
 - San Diego office: 100% on renewable energy
 - Renewable energy accounts for over 30% of SEL sites energy consumption

- **All Sony major facilities ISO 14001 certified globally**

- **Set of mid-term targets for FY2015**
 - 30% GHG reduction goal by FY2015 from FY2000
 - Global reporting and third party data verification for accountability

- **WWF Climate Savers partner**

- **Sustainability Employee engagement**

- **Hybrid Green Fleet**





Transportation and Distribution

- **Distribution GHG Emission Reduction**

- EPA Smart Way partner for product distributions
 - Tracking of GHG emission from product distribution
 - 8% reduction target for FY2015 from Fy2008



- Optimization of distribution using Transportation Management System
- Modal shift – Maximize the use of boat and rail shipments

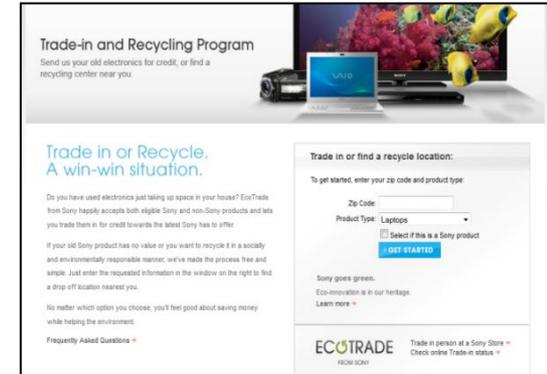
- **Reduction of wastes from distributions**

- Use of reusable container
- Packaging waste reduction



Product Trade in & Take Back Recycling Program

- **We make it, we take it – Convenient recycling for customers**
 - Pound for pound long term goal: 72%
 - 280 million lbs collected to-date
- **Easy to navigate website for options - Trade in program for credits**
 - www.sony.com/ecotrade
 - Drop off center locator
- **Responsible recycling with third party certified process**
- **EPA's Sustainable Material Management Electronics Challenge**
- **More than e-waste - Community**
 - Collects books from the public for South Africa Mobile Library Project



Sustainable Materials Management

Electronics Challenge



CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW


**South Africa
 Mobile Library Project**

- Bringing books to children in remote areas -

Books to boost education in South Africa
 Sony group donates books to the Free State Department of Education, South Africa to further stock their mobile libraries, through its partnership with SAPESI (South Africa Primary Education Support Initiative).

eWaste Management – Global Issues

Improper disposal in developing countries

Significant global resource potential

High priority for consumer electronics industry, but challenging

- Electronics products are widely distributed
- Collection depends on consumer behavior
 - Consumers own these devices until they dispose of them

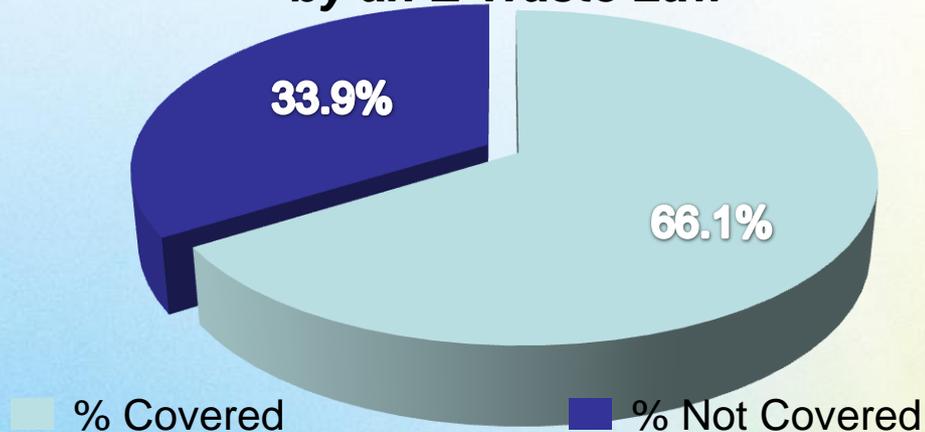
Voluntary and mandatory approaches

25 State Laws Through 2011

- 2003: California
- 2004: Maine
- 2005: Maryland
- 2006: Washington
- 2007: Connecticut, Minnesota, Oregon, Texas, North Carolina

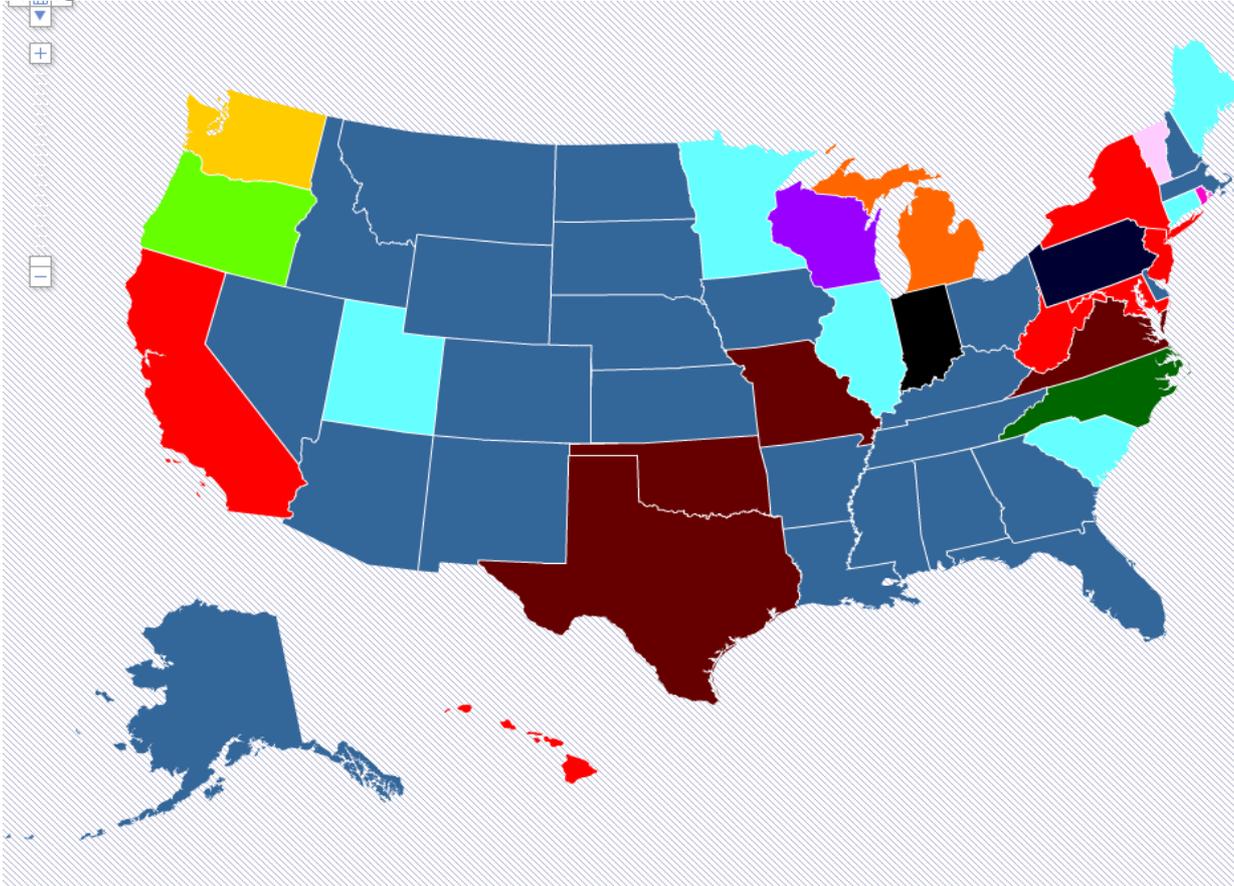
- 2008: New Jersey, Oklahoma, Virginia, W. Virginia, Missouri, Hawaii, Rhode Island, Illinois, Michigan
- 2009: Indiana, Wisconsin
- 2010: Vermont, South Carolina, New York, Pennsylvania
- 2011: Utah
- 2012: none

**Percentage of Population Covered
by an E-Waste Law**



**Source: National Center for Electronics Recycling
(www.electronicrecycling.org)**

Patchwork of Electronics EPR regulations in US



Variables

- Product Scope
 - Typical: TVs, desktops, laptops, monitors, and printers.
- Customer scope
 - Households +
- Targets
 - Typical: prior year sales
- Financing mechanism
 - #1 problem. EPR creates unfairness in the market
- Reports and due dates
- Fiscal years
- Penalties
 - Typical: “do not sell list”
- Product design benefits
 - Zero

WEEE Principles:

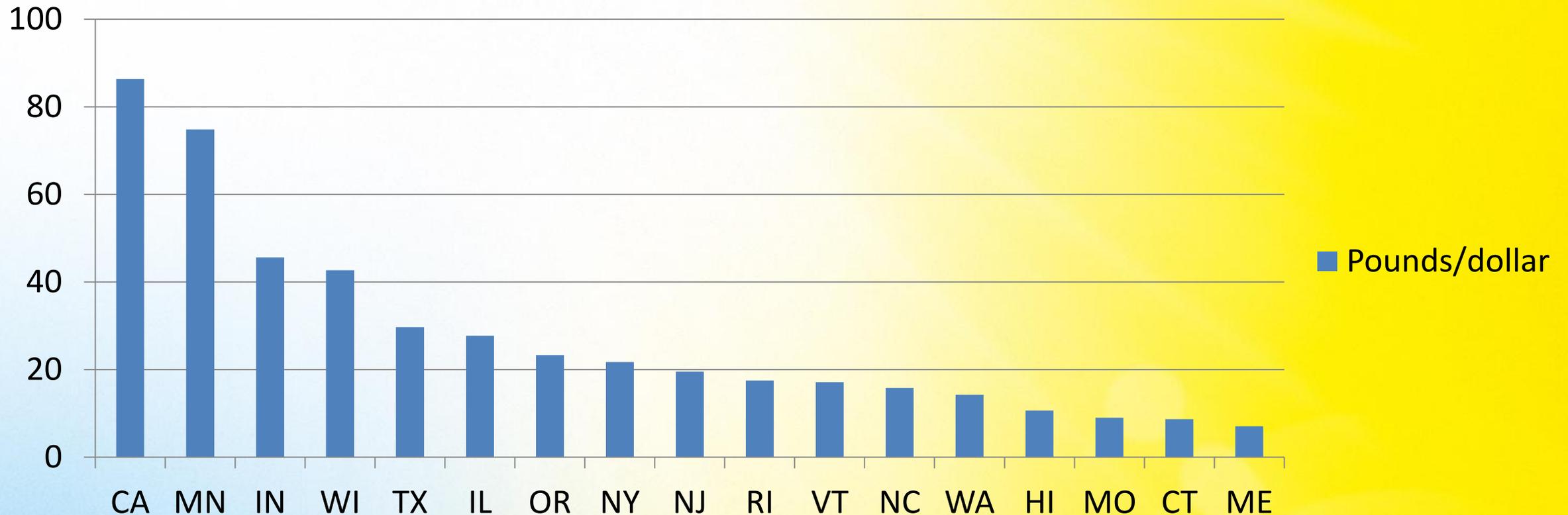
- Producers should finance collection from collection facilities
- The responsibility for the financing of the management of historical waste should be shared by all existing producers in collective financing schemes to which all producers, existing on the market when the costs occur, contribute proportionately.

USA is only Country to ignore these basic concepts

Disparity of Costs

State	Cost/pound-sold	Consumer Cost/TV (avg TV: 40lb)	Pounds e-waste per capita	Pounds per dollar
CA	\$0.125	\$5.00	10.8	86.4
HI	\$0.24	\$9.60	2.55	10.65
IL	\$0.09	\$3.60	2.49	27.7
NY	\$0.23	\$9.20	5.0	21.7
MN	\$0.08	\$3.20	5.99	74.8
WA	\$0.44	\$17.60	6.27	14.25
WI	\$0.16	\$6.40	6.83	42.7
ME	\$0.74	\$29.60	5.22	7.05

Ranking State Performance



CA: Only state with visible fee at point of purchase.

ME, CT, VT, WA, CA: State run programs

OR, NY, RI: Strict "convenience" requirements

Sony EPA Sustainable Materials Report 2011

Total amount collected	38,875,631
Total amount collected from "direct customer service channels"	8,773,741
Total amount collected from "indirect customer service channels" (EPR)	30,101,200
Total amount refurbished product sold	4,782,986
Total amount product scrap recycled	3,347,666
Total amount of accessories collected	603,027
Total amount accessories recycled	463,717
total amount recycled	34,091,955
Total amount recycled by state-run programs (WA, CT, ME, VT)	4,932,700
<i>% Certified Recyclers</i>	86%
<i>% State-controlled EPR programs. Certification status unknown</i>	14%
<i>Total amount Sony-brand recycled in CA</i>	28,400,000
Grand total	67,275,631
Pound for Pound progress	72%

The Big Picture

A national approach is critical

- Variation in state mandates is a problem
 - Cost, synergies prevented
 - Winners and losers based on rules
- Recycling should be viewed as a component of a company's business model
 - Green design should be rewarded
- A national operational model is what is needed

An industry-led approach is the ideal

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