NAMAS IN THE WASTE SECTOR: CHALLENGES AND OPPORTUNITIES

Mariel Vilella Casaus
Zero Waste Europe/GAIA

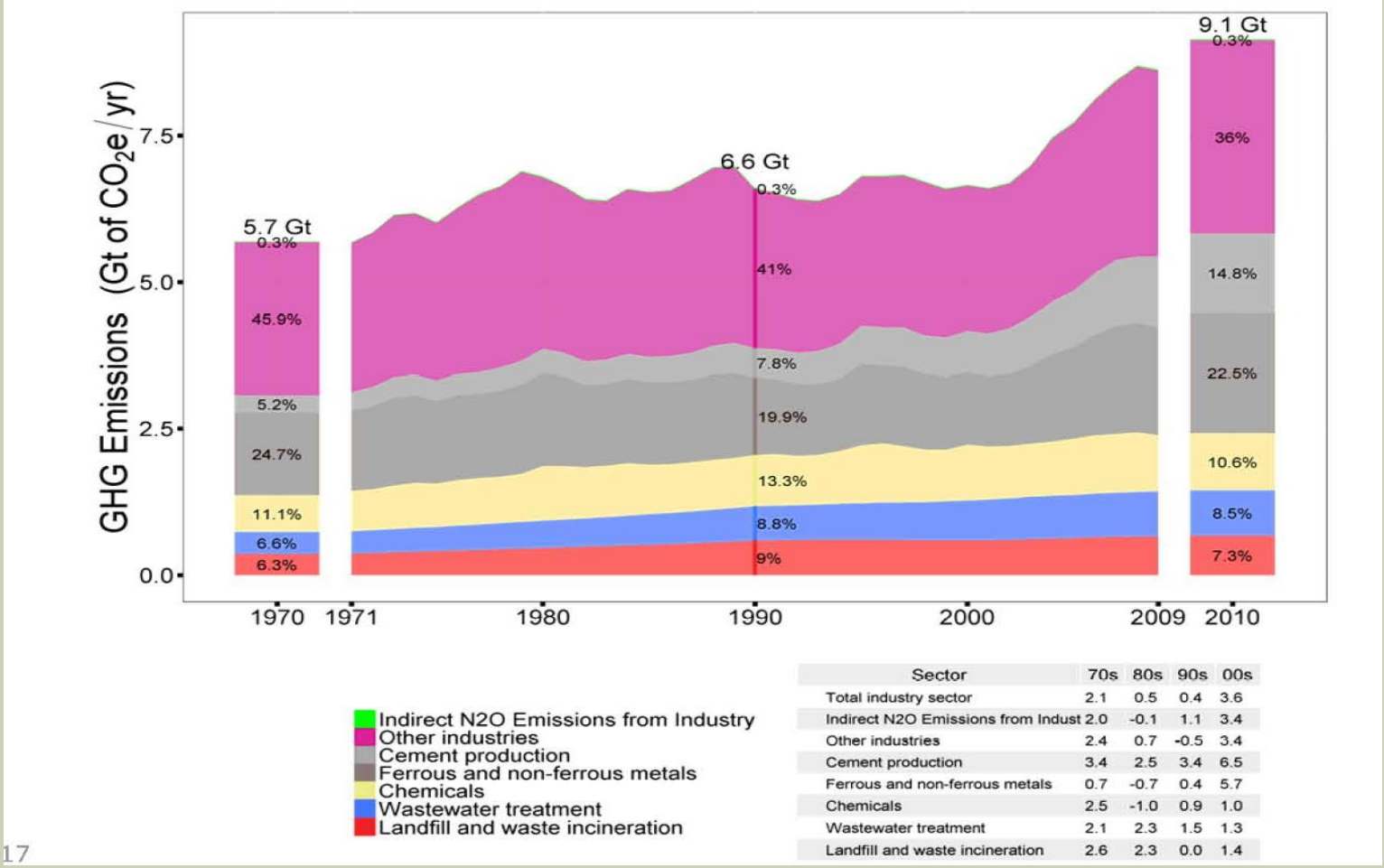
UNFCCC Climate Change Conference
Bonn, 10th June 2015

WASTE IS A MIRROR OF WHAT IS WRONG WITH TODAY‘S CONSUMER SOCIETY

THE TRANFORMATIONAL POTENTIAL OF THE WASTE SECTOR

By changing the way we deal with waste, we also change society.

THE CONTRIBUTION OF WASTE SECTOR TO CLIMATE CHANGE



Sector	70s	80s	90s	00s
Total industry sector	2.1	0.5	0.4	3.6
Indirect N2O Emissions from Indust	2.0	-0.1	1.1	3.4
Other industries	2.4	0.7	-0.5	3.4
Cement production	3.4	2.5	3.4	6.5
Ferrous and non-ferrous metals	0.7	-0.7	0.4	5.7
Chemicals	2.5	-1.0	0.9	1.0
Wastewater treatment	2.1	2.3	1.5	1.3
Landfill and waste incineration	2.6	2.3	0.0	1.4

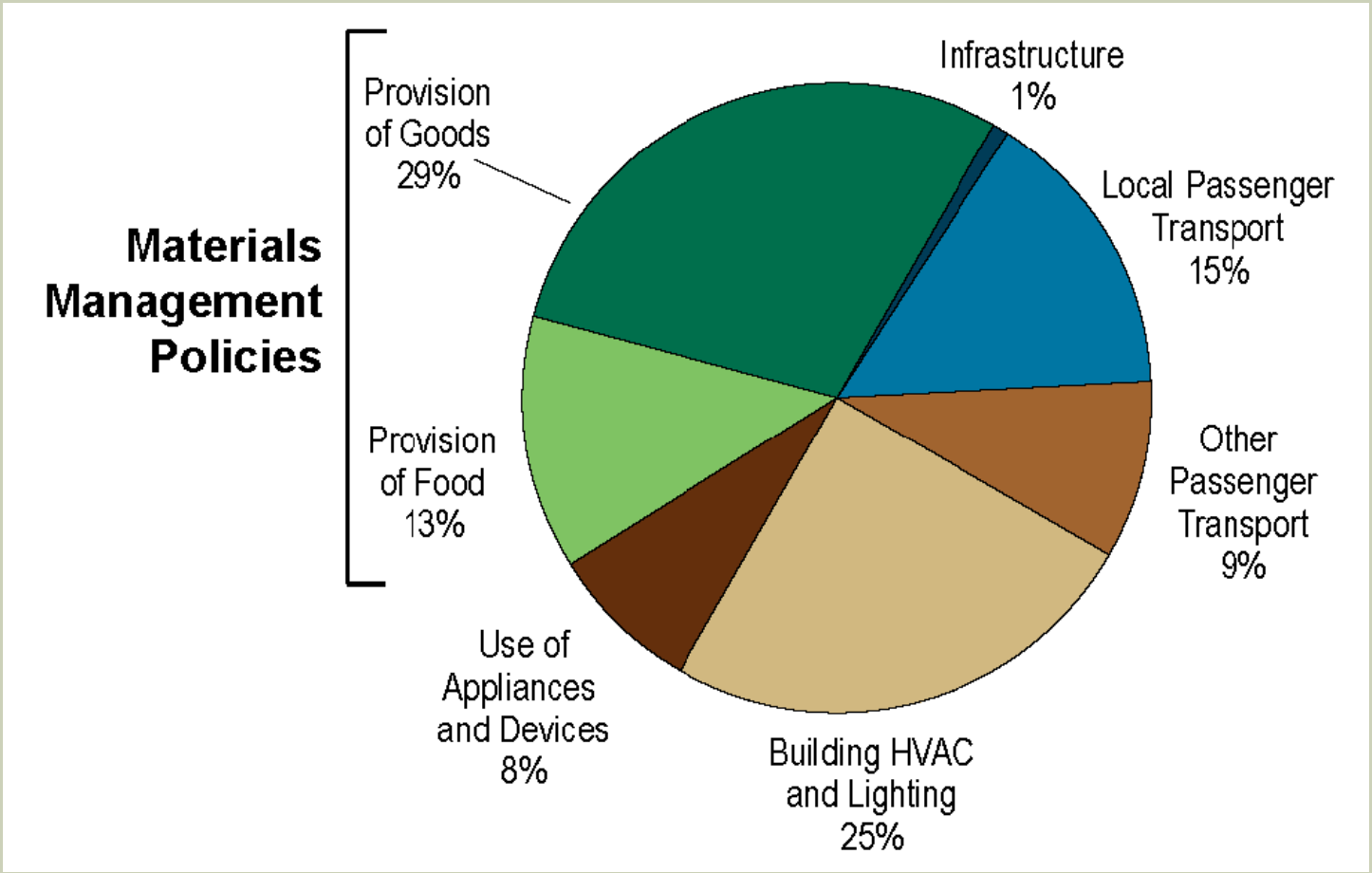
IPCC Report, AR5, Chapter 10, p. 10

ACCOUNTABILITY OF GHG EMISSIONS IN WASTE SECTOR

Municipal Waste Dump or Landfill

Incinerator of municipal solid waste

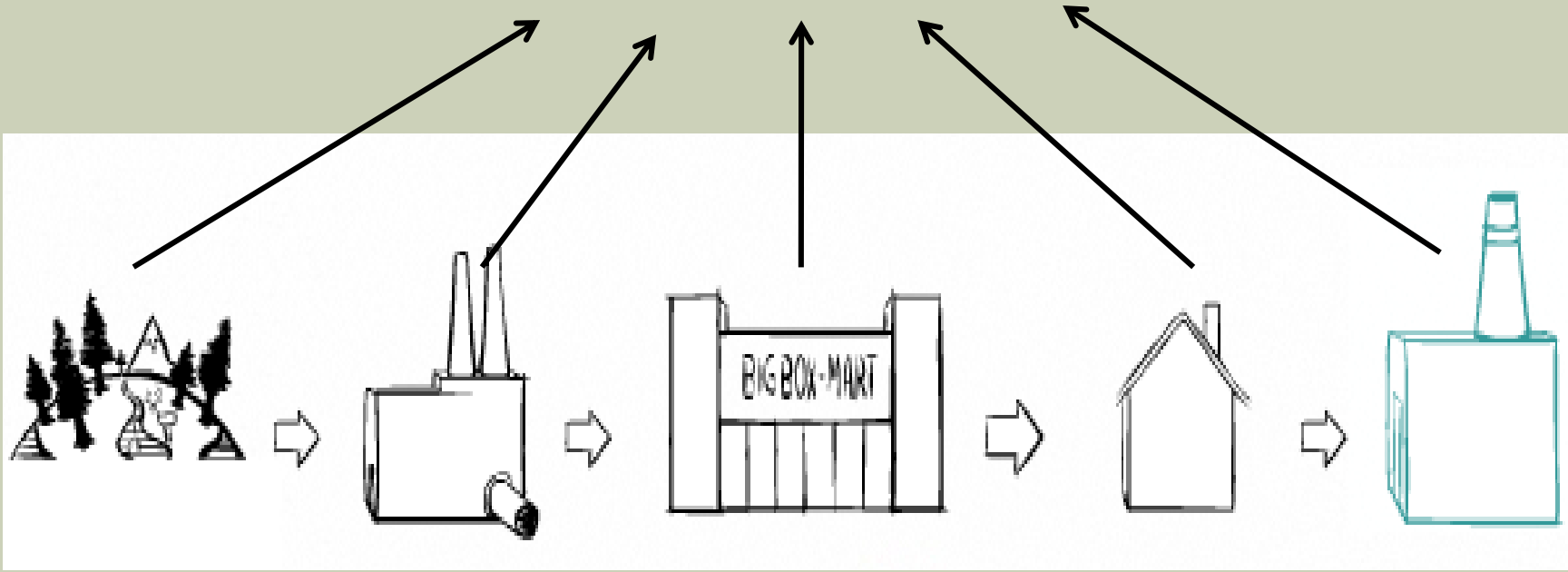
GHG FROM A LIFE CYCLE PERSPECTIVE



Source: Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices. U.S. Environmental Protection Agency Office of Solid Waste and Emergency Response. September 2009

GHG EMISSIONS FROM "STUFF"

42% greenhouse gas emissions

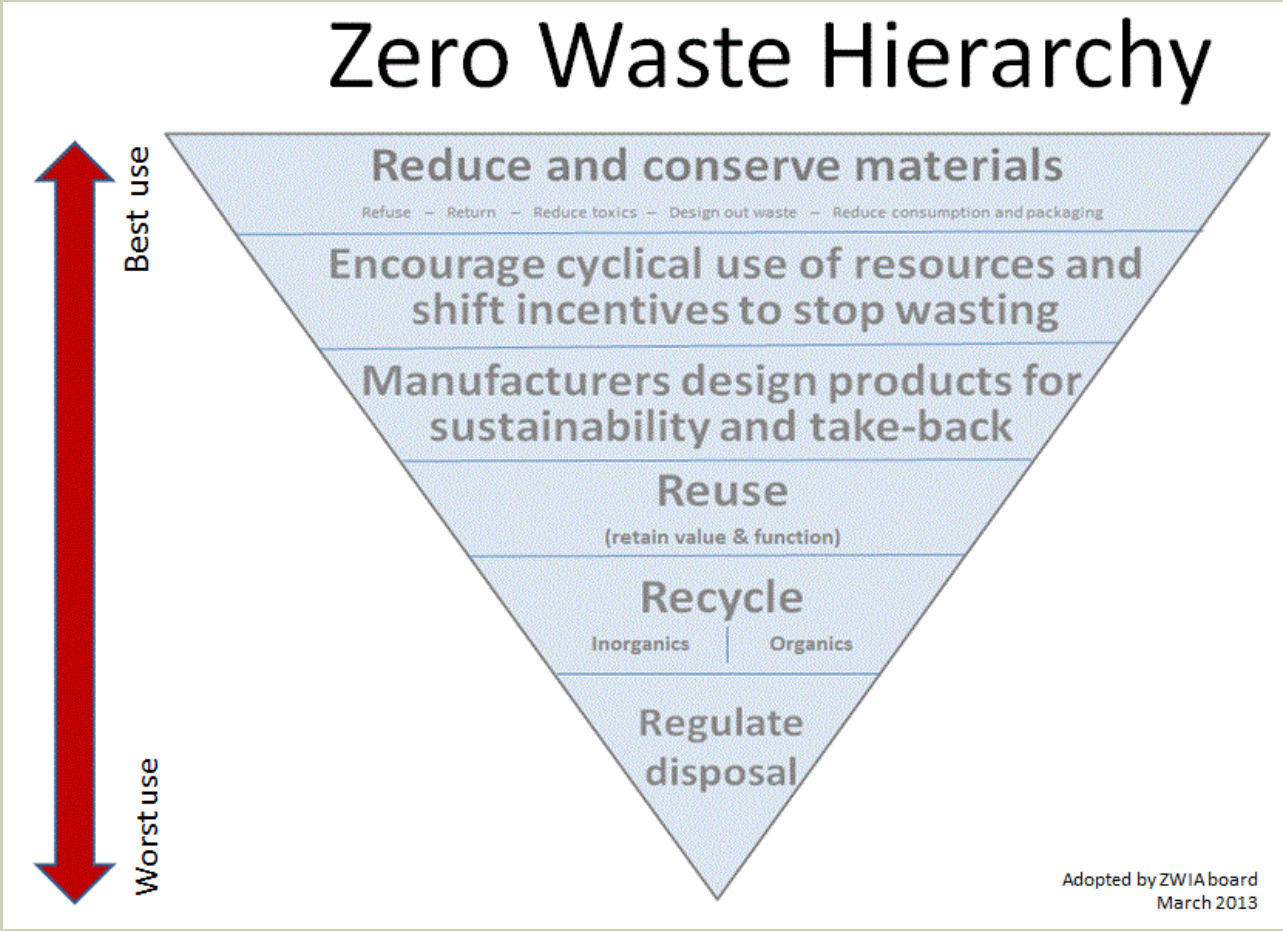


ZERO WASTE
KEY OPPORTUNITY FOR A NAMA IN THE WASTE SECTOR

- Zero waste: the goal and strategy of continually maximizing the use of resources and minimizing waste.

- **Zero waste solutions include: programs for waste reduction, reuse, recycling, redesign, composting, biogas, extended producer responsibility, and sustainable consumption and clean production.**

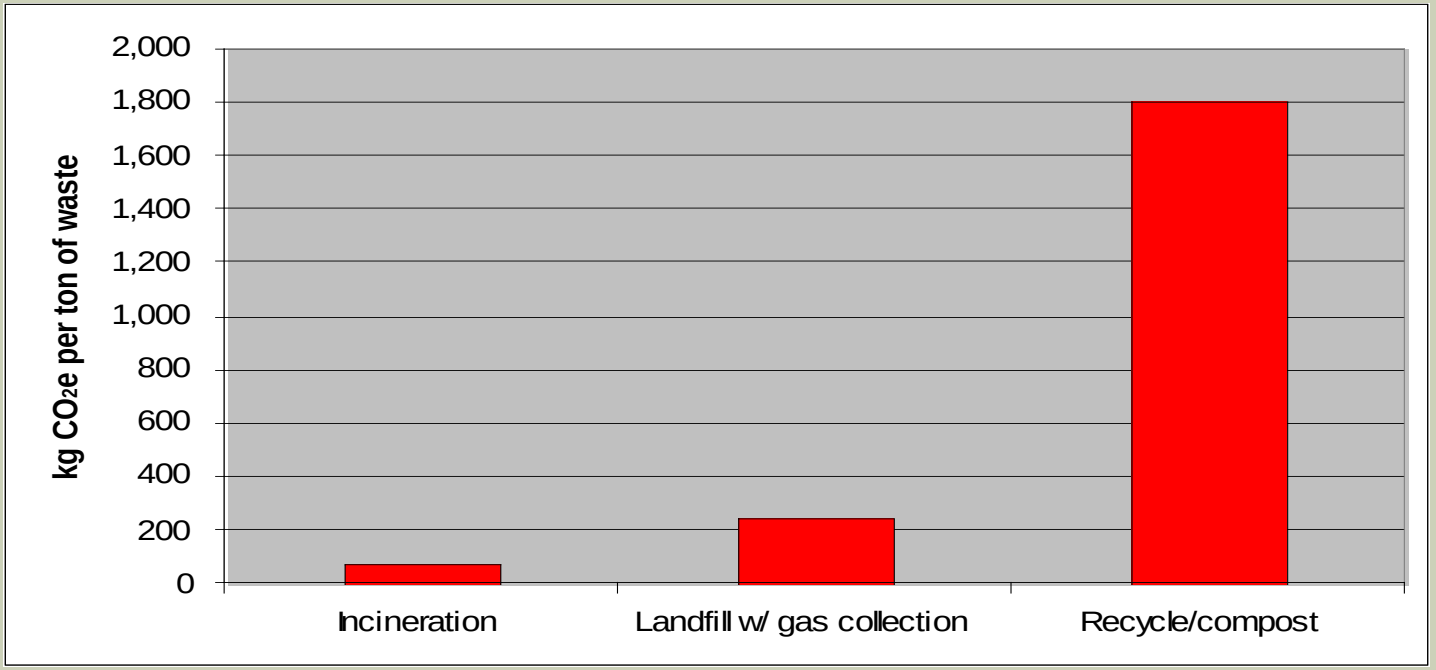
CRITERIA FOR THE WASTE SECTOR



http://zwia.org/standards/zero-waste-hierarchy/

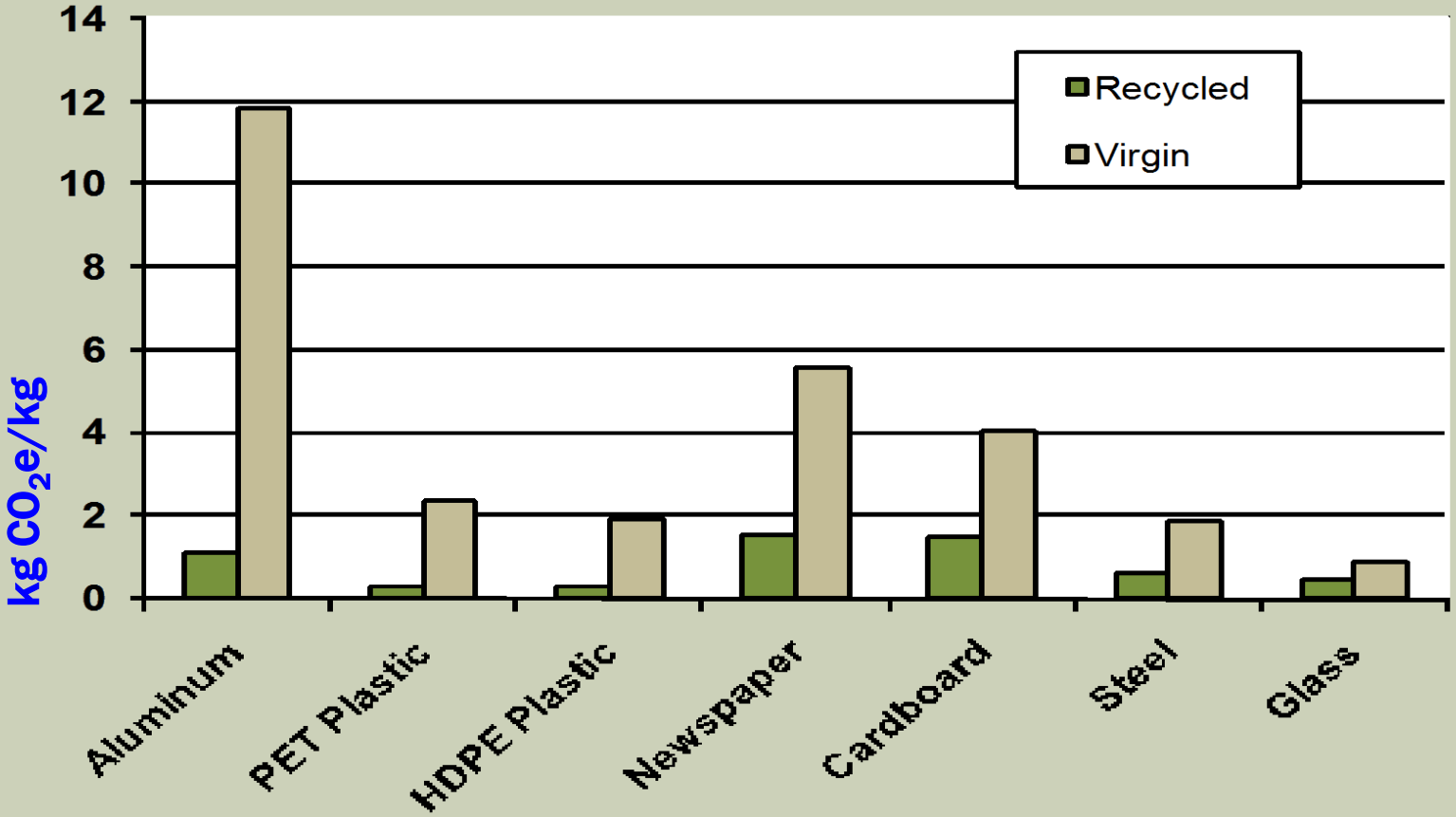
KEY ACHIEVEMENTS OF A ZERO WASTE STRATEGY

1. Reduction of GHG emissions in every household.



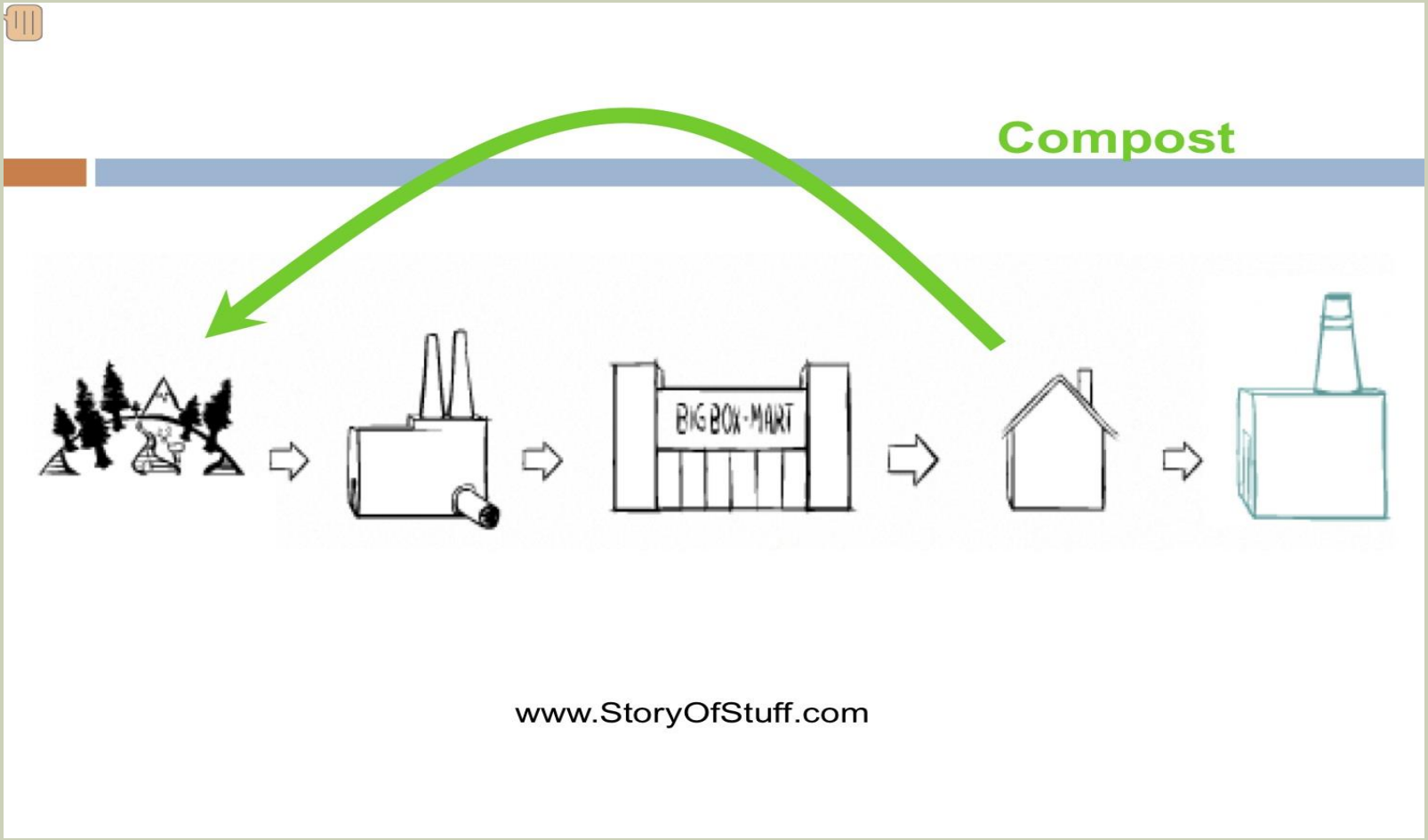
SOURCE: Assessment of Materials Management Options for the Massachusetts Solid Waste Master Plan Review, Tellus Institute December 2008.

2. REDUCTION OF GHG EMISSIONS AT THE PRODUCTION LINE



Sources: Morris, "Comparative LCAs for Curbside Recycling, Versus Either Landfilling or Incineration With Energy Recovery." *International Journal of Life Cycle Assessment*. (2005); 13(3) 226-234. Schlesinger, *Aluminum Recycling*. CRC Press, 2006.

3. SOIL RESTORATION WITH COMPOST AND INCREASE OF CARBON SINK CAPACITY



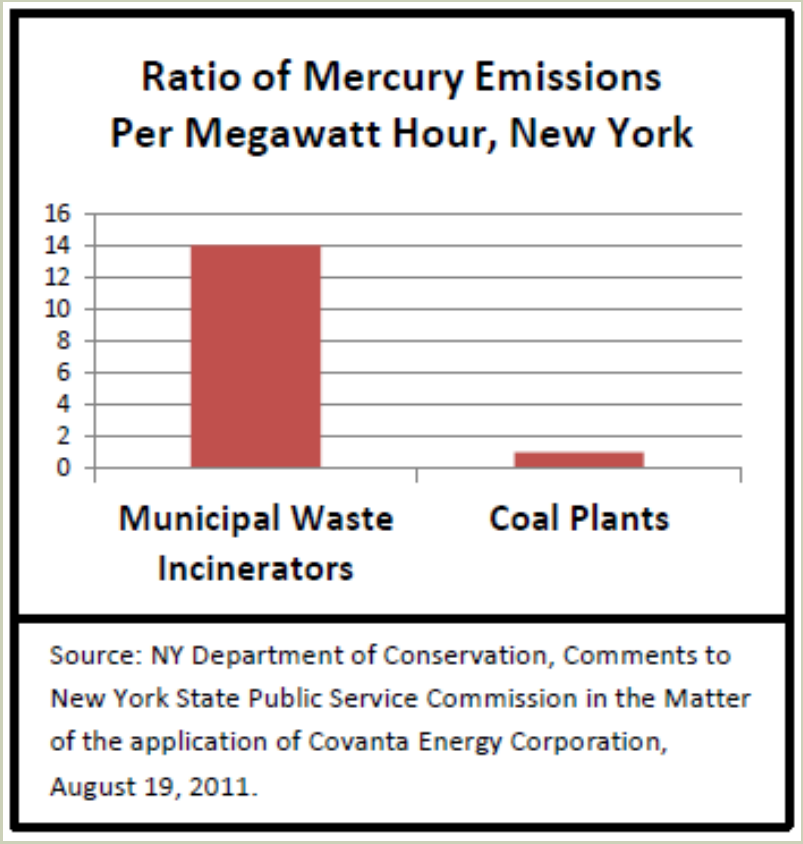
See http://www.marincarbonproject.org/marin-carbon-project-science for the latest bibliography on this work.

4. REDUCTION OF GHG AND TOXIC EMISSIONS FROM WASTE DISPOSAL

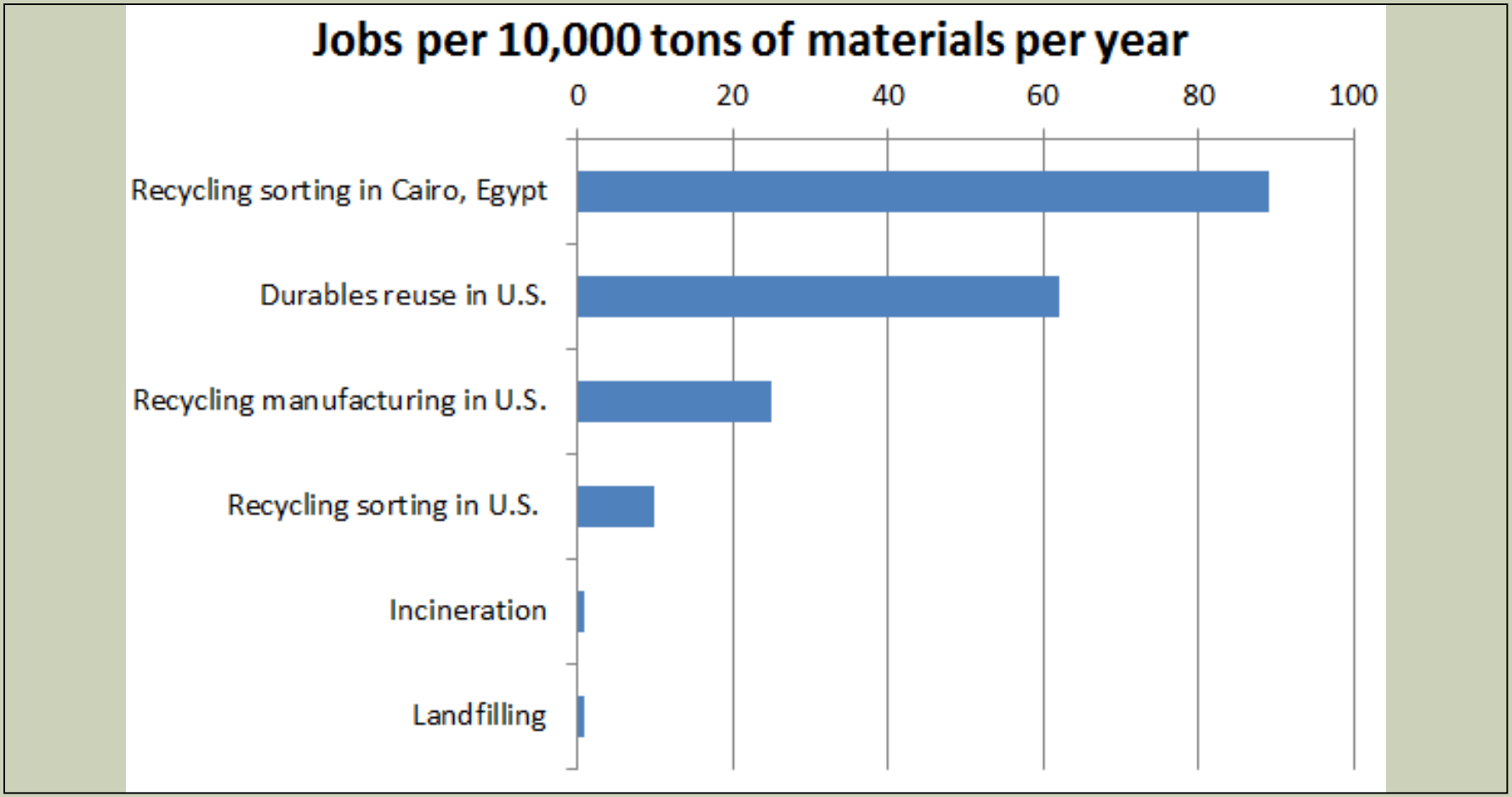
MOST WIDELY KNOWN INCINERATOR POLLUTANTS OF CONCERN

- DIOXINS 二恶英
- PCBs 多氯联苯
- CADMIUM 镉
- ARSENIC 砷
- CHROMIUM 铬
- MERCURY 水银
- LEAD 铅

No place for waste disposal/incinerators due to lock-in situation risk



5. ZERO WASTE SOLUTIONS CREATE GREEN JOBS AND REVITALIZE LOCAL ECONOMIES



RECYCLERS AROUND THE WORLD

Recycling in Tamil Nadu

Recycling in Brazil

Recycling in Bali

Recycling in San Francisco

NAMAS IN THE WASTE SECTOR SECTORAL OVERVIEW

- Currently 18 NAMAs in the waste sector (12%).
- Other NAMAs on waste but classified under other sectors: energy, industry.
  - Ex.: NAMAs in Cement/CoProcessing and Waste Sector in Republica Dominicana, classified under Industry.
  - Waste streams under the generic 'Biomass', classified under Renewable Energy.
- Comprehensive analysis of the NAMA pipeline concerning projects on waste coming up in the run-up to Paris.
- Positive potential, with important red flags.

CURRENT NAMAS IN THE WASTE SECTOR

- Colombia – aiming at improving recycling rates through a mechanical-biological treatment (MBT).
  - Generally, facilities increase recycling rates but still produce an important percentage of residual waste.
- Residual waste is converted into Refuse-Derived-Fuel to be burnt in cement kilns, with potential unintended consequences.
- Lack of accountability on involvement of cooperatives of recyclers.

RDF IS MADE OF REUSABLE AND RECYCLABLE MATERIALS

- RDF: 31 % plastic, 13 % paper and cardboard, 12 % wood, 14 % textiles and 30% other materiales.
  - Source: Puig, Fabra, Calaf, *La puerta de atrás de la incineración de residuos*, 2012.
- **Materials that end up RDF could be reused, recycled, or the products should be redesigned to do so."**
- Recycling/reusing these materials offers a much higher GHG emission reduction than burning it.

WASTE INCINERATION IN CEMENT KILNS

CONCRETE TROUBLES

A report on the emissions from Cement Plants in India and a critique of the ongoing co-incineration of Hazardous Wastes in the Cement Industries

Global Anti Incineration Alliance (GAIA) – India
&
Community Environmental Monitoring, The Other Media

January 2014

- Lafarge, Holcim and Cemex in partnership with GIZ – Development Agency in Germany – promoting waste incineration in cement kilns in India.
- Evidence found about exceedingly high levels of heavy metals and carcinogenic emissions.
- Community environmental Monitoring bringing forward a petition to the Green National Court. Some of the demands are:
  - Cancel all permissions for co-incineration of wastes in cement plants across India, in violation of Indian regulations.
  - Transparent research and application of regulations.
  - Define strict guidelines for fuel that can be used in this process.
  - Direct industry to prescribe legal standards for heavy metal emissions in air from cement plants and see through its implementation.

NAMA IN DOMINICAN REPUBLIC

- Main action - burning of waste (used tyres) in cement kilns.

NAMA IN DOMINICAN REPUBLIC

- Reducing GHG emissions from pig farms with anaerobic digestors

CONCLUSIONS

- NAMAs can be a powerful policy tool to drive investment to climate mitigation policies with important co-benefits.

- NAMAs lack strong environmental integrity criteria, accountability mechanisms, stakeholder involvement, and therefore it's used to legitimize industrial practices that are contributing to climate change, not mitigating it.

CONCLUSIONS

- The waste sector represents a major opportunity to mitigate climate change and with further co-benefits, air pollution reduction, green jobs, empowerment of communities.
- There is a need to empower stakeholders both to be consulted in the development of NAMAs and to access the resources needed to develop NAMAs that are people's centred.
- Let's not rely on misleading concepts. Biomass and waste cannot be the new coal because they are not clean energy, neither renewable.

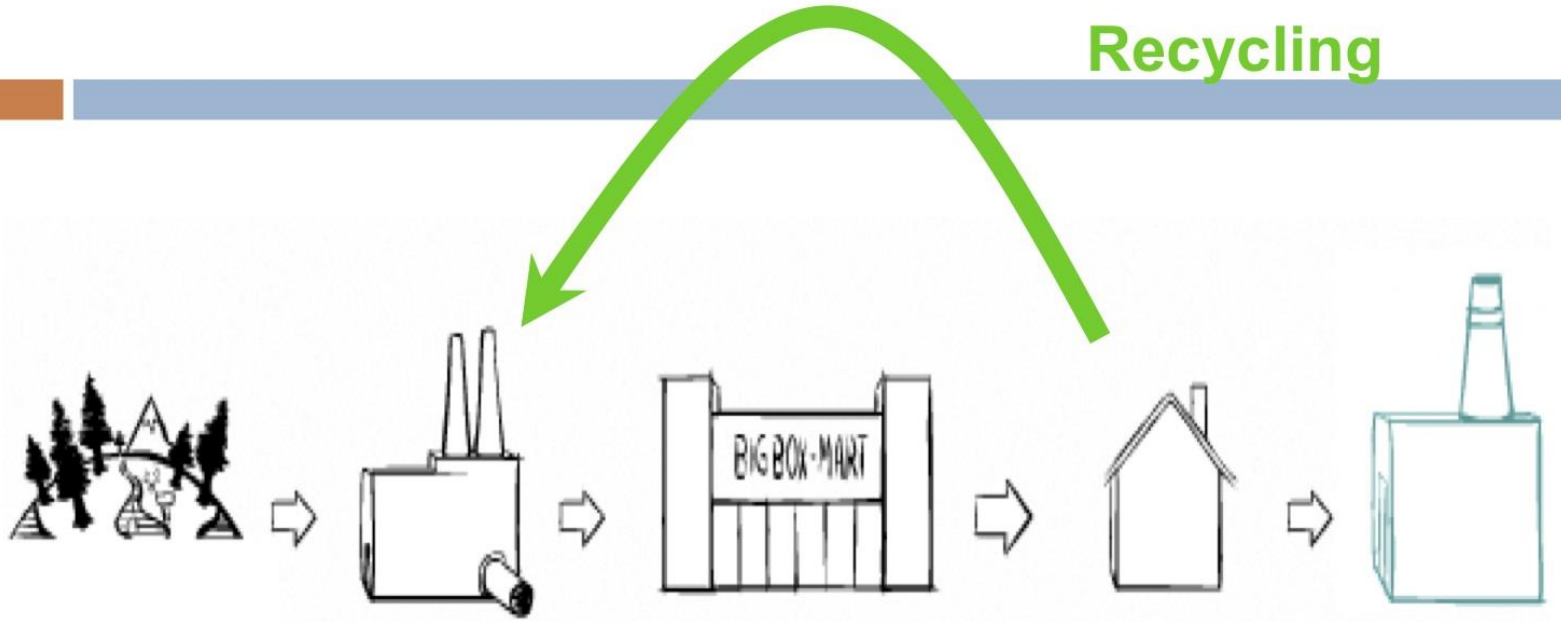
THANKS!

mariel@zerowasteeurope.eu

www.no-burn.org

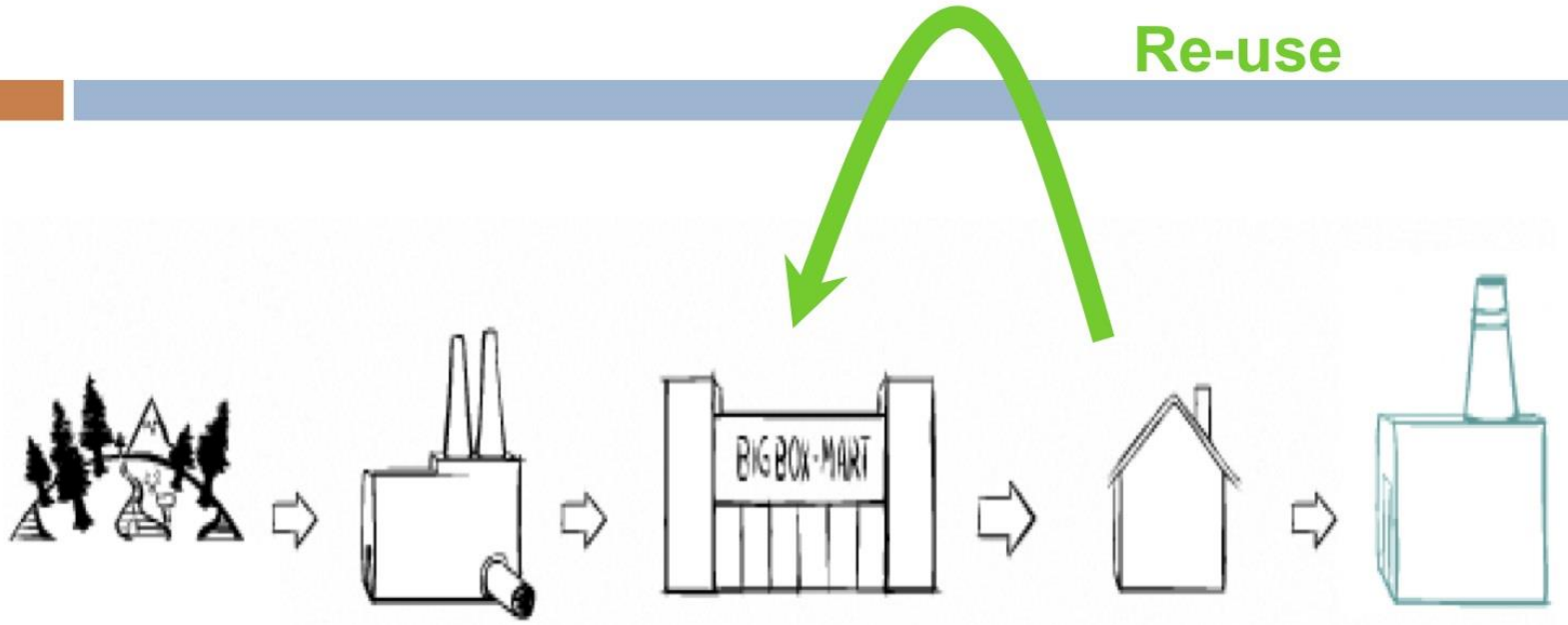
www.zerowasteeurope.eu

Recycling



www.StoryOfStuff.com

Re-use



www.StoryOfStuff.com

GAIA: INTERNATIONAL ALLIANCE FOUNDED IN 2000 TO END ALL FORMS OF WASTE INCINERATION AND PROMOTE ZERO WASTE ALTERNATIVES

Our ultimate vision is a just, toxic-free world, and an economy where all products are reused, repaired or recycled back into the marketplace or nature.

GAIA: ALLIANCE OF MORE THAN 800 MEMBERS IN 90 COUNTRIES.
WHAT WE DO: SUPPORT TO GRASSROOTS COMMUNITIES, STRATEGIC ALLIANCES GLOBA CAMPAIGNS AND PROMOTION OF ZERO WASTE SOLUTIONS FOR LOCAL DEVELOPMENT.

Detroit, US, 2010. Photo by the Ruckus Society

6. IT REINVIGORATES AND DEVELOPS OUR COMMUNITIES

NOW WASTE ENDS UP…IN CEMENT KILNS

- Amount of waste being burnt in cement kilns has increased x5 times, and it's expected to continue rising.

- Global projection: 37% of the fuel being burnt in cement kilns by 2015

- Cement kilns burning this waste can receive exemptions from regulations *and* financial benefits for waste burning, and can add fossil fuel and hazardous waste to the mix without penalty.