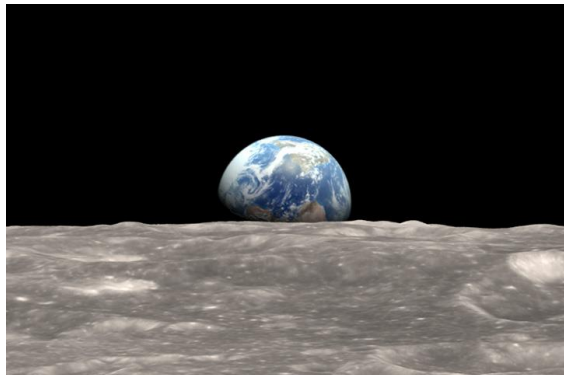


MY STORY



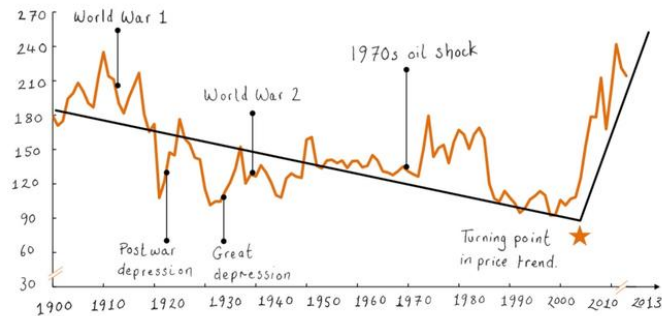
HOW WE LIVE TODAY

Overstepping Ourselves

As our Ecological Footprint continues to exceed Earth's biocapacity, we overdraw from our future.

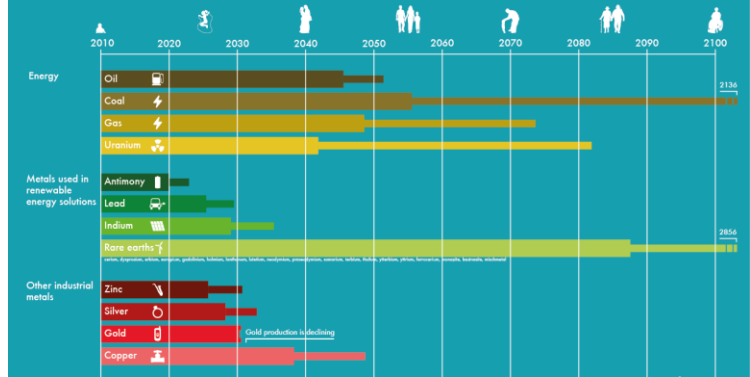


MCKINSEY COMMODITY PRICE INDEX¹ INDEX: 100 = YEARS 1999 - 2001²



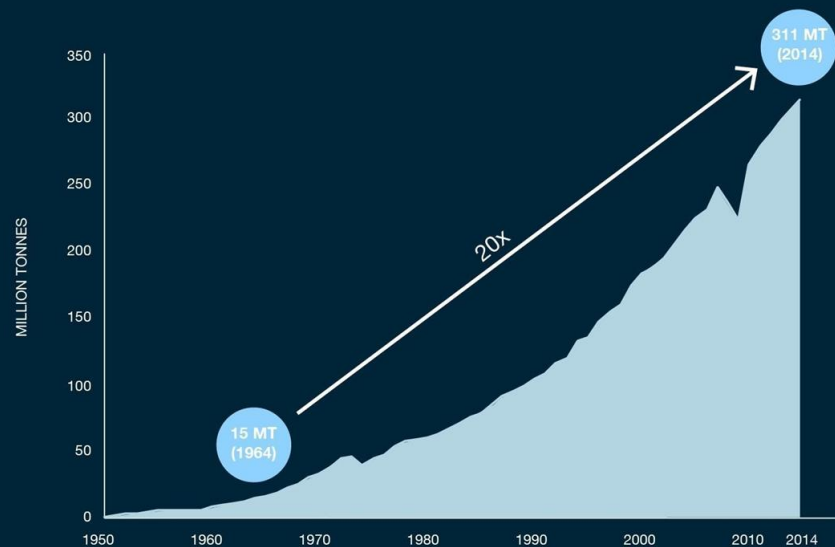
ELLEN MACARTHUR FOUNDATION

Born in 2010: How much is left for me?



PLASTICS CASE STUDY

PLASTICS PRODUCTION INCREASED TWENTY-FOLD OVER THE LAST 50 YEARS



NOTE: Production from virgin petroleum-based feedstock only (does not include bio-based, greenhouse gas-based or recycled feedstock)
SOURCE: PlasticsEurope, Plastics - the Facts 2013 (2013); PlasticsEurope, Plastics - the Facts 2015 (2015).

WORLD ECONOMIC FORUM, ELLEN MACARTHUR FOUNDATION, MCKINSEY & COMPANY,
A NEW PLASTICS ECONOMY: RETHINKING THE FUTURE OF PLASTICS (2016)
WWW.WEFORUM.ORG/REPORTS

8 MILLION TONNES EVERY YEAR INTO OCEANS

=

1 LARGE GARBAGE TRUCK PER MINUTE



IMAGE: Why Files



IMAGE: EarthZine

Scientific Visualization Studio
svs.gsfc.nasa.gov

This world map displays the density of plastic debris in the ocean, with higher concentrations (red) forming large 'garbage patches' in the North Atlantic, North Pacific, and Indian Oceans. The map is credited to the Scientific Visualization Studio (svs.gsfc.nasa.gov).

[illegible]

82% OF MISMANAGED PLASTIC IS FROM ASIA

TOP COUNTRIES FOR MISMANAGED PLASTIC WASTE IN 2010

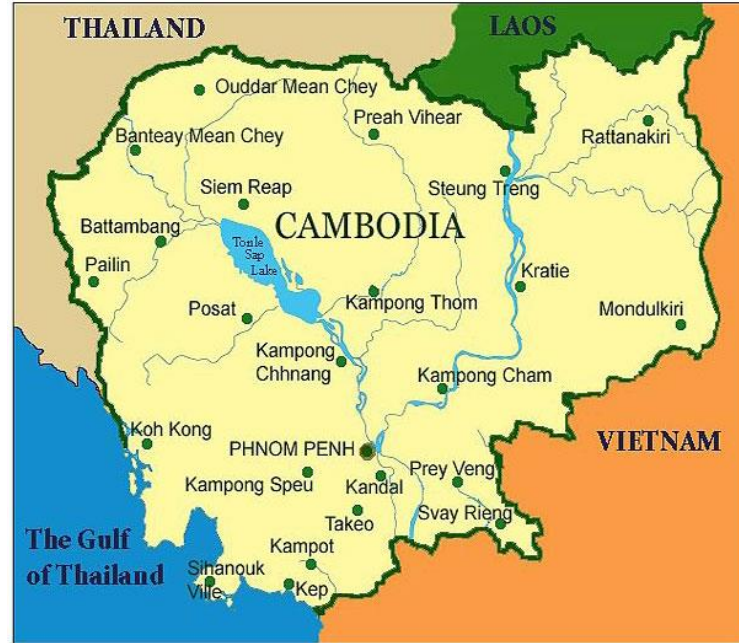


\$80-120 BILLION OF PLASTIC PACKAGING THROW AWAY YEARLY

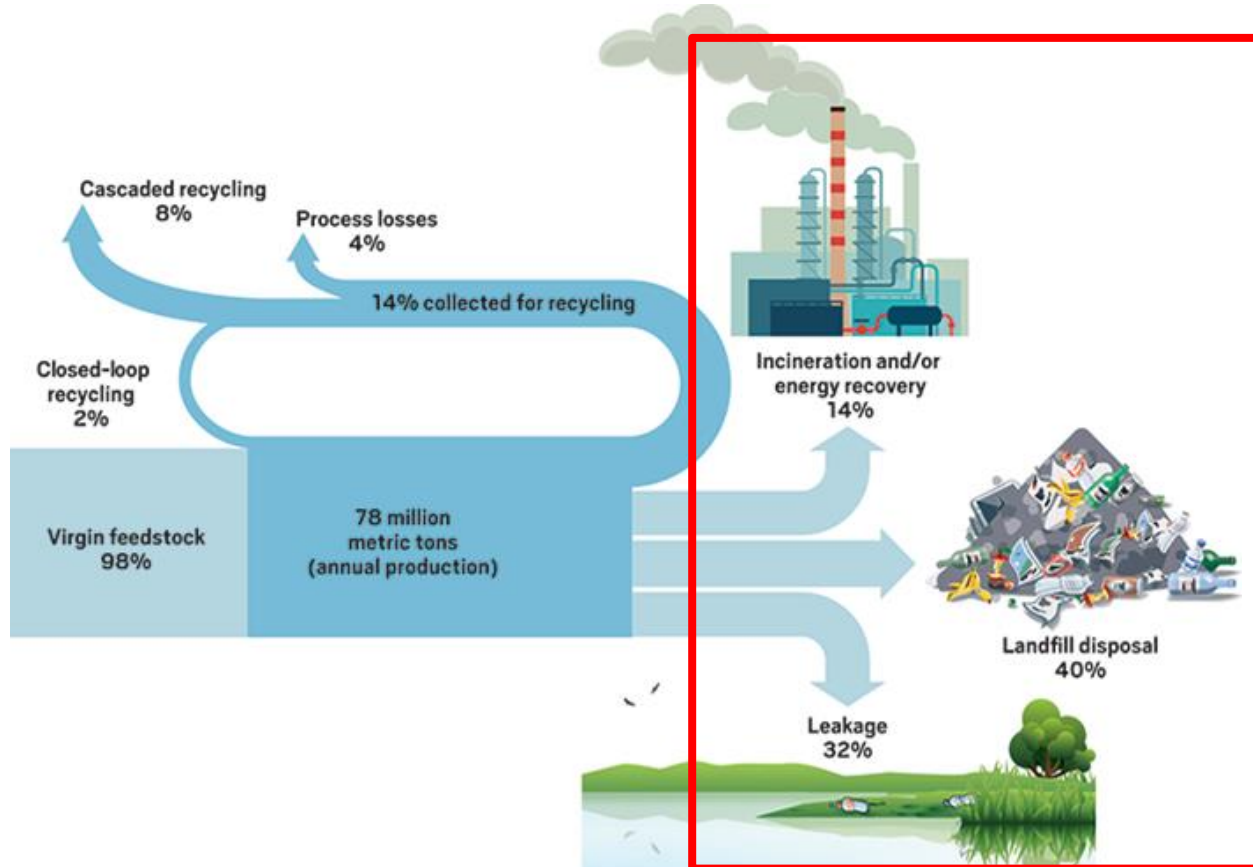


IMAGE:

THAT'S EQUIVALENT TO 6 TIMES CAMBODIA'S ECONOMY



BECAUSE THE VAST MAJORITY OF PLASTICS ARE NOT RECYCLED



\$1 TRILLION OF FOOD IS WASTED EACH YEAR



SINGAPORE RECYCLES ONLY 20% OF HOUSEHOLD WASTE

What happens after collection of recyclables from housing estates?



Recyclables are collected by a dedicated recycling truck and sent to a Materials Recovery Facility (MRF).

The recyclables are sorted into different waste streams, baled and sent to local and overseas recycling plants.



EXTENDING LIFESPAN OF INCINERATORS & LANDFILLS

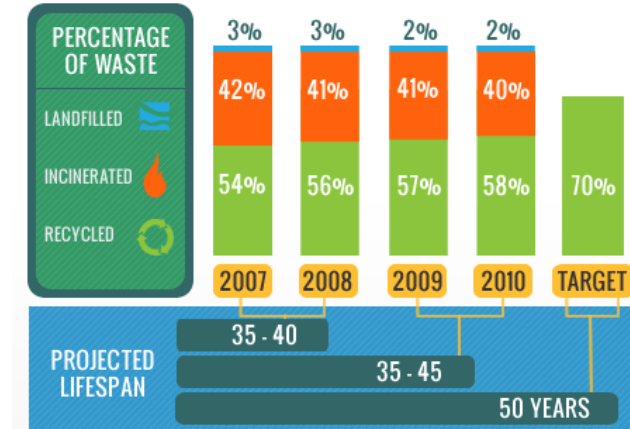
BUSINESS

Hyflux-Mitsubishi consortium
to build S\$750m waste-to-
energy plant in Tuas

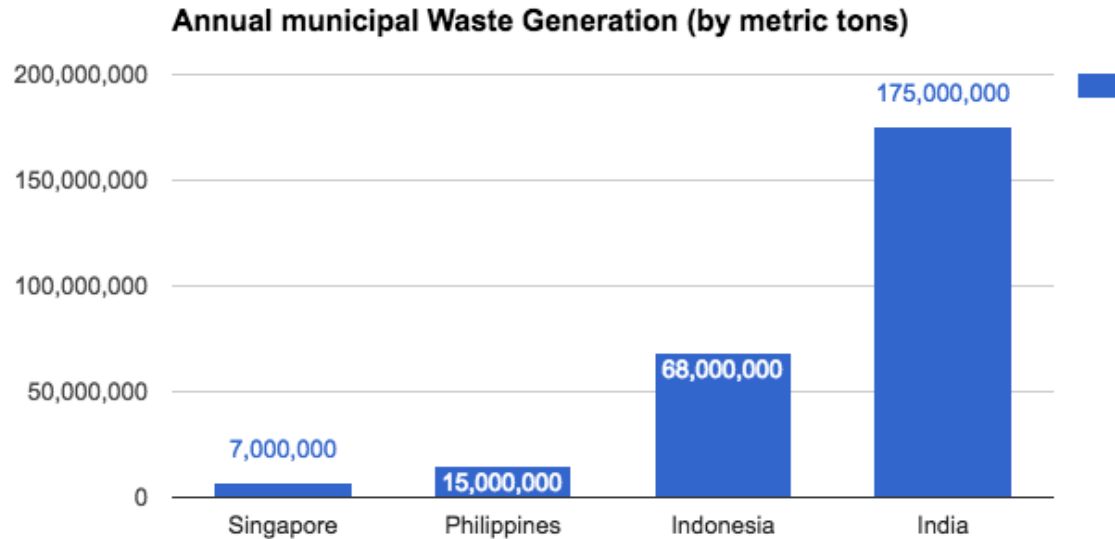
Posted 15 Sep 2015 14:34



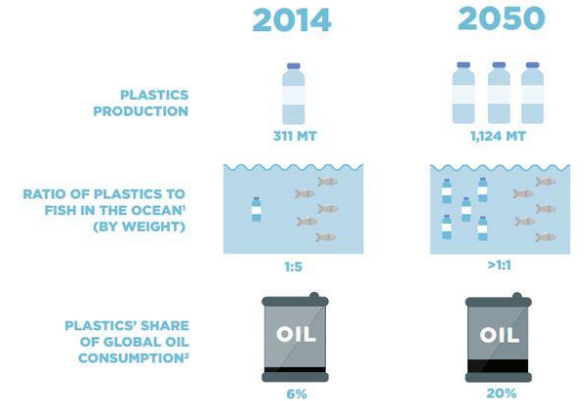
An artist's impression of the waste-to-energy plant to be built in Tuas. (Image: NEA)



WHERE THE OPPORTUNITY LIES



THE FUTURE?



URBANISATION -> 3X GROWTH IN
URBAN WASTE IN ASIA BY 2025!

WASTE EMERGENCY IN THE
REGION

MORE PLASTIC IN THE OCEANS
THAN FISH BY 2050

INCREASED REGULATIONS ON WASTE

NEWS | INDONESIA 15 SEPTEMBER 2016

Indonesia: Plastic tax to curb rubbish dumped in rivers

Home » Politics

Last Modified: Sat, Mar 19 2016. 01 01 AM IST

Government notifies new plastic waste management rules

Under the new extended producer responsibility concept, producers are responsible for collecting waste generated from their products



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Share



Share



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Enter your email



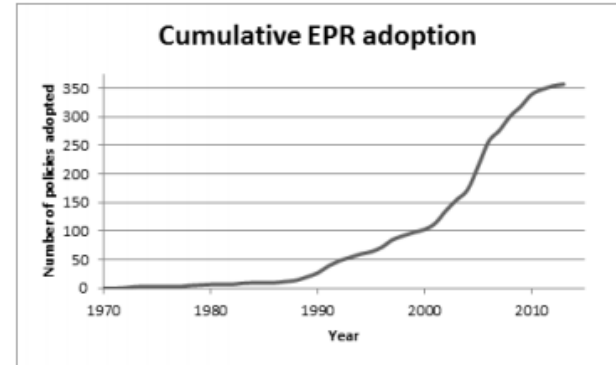
Go

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Mayank Aggarwal



Figure 1. Cumulative EPR policy adoption over time.



THE LINEAR ECONOMY WASTES RESOURCES

The linear economy



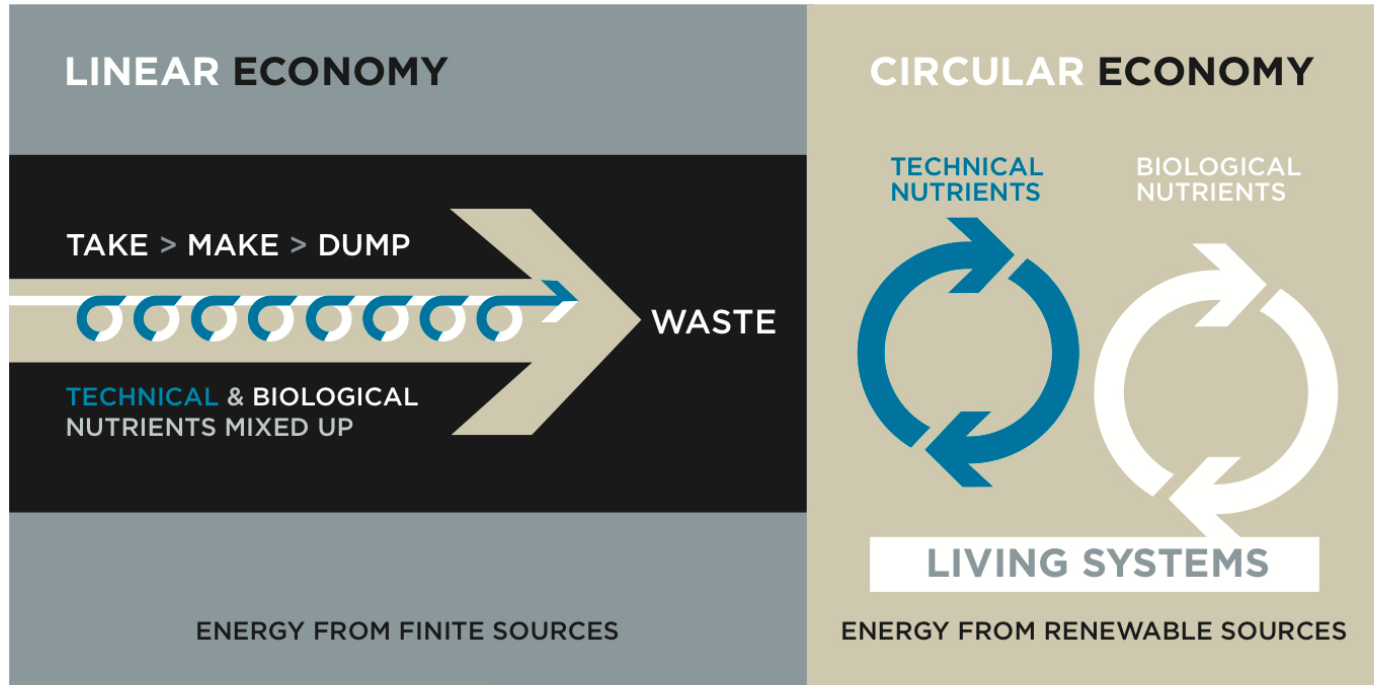
The circular economy



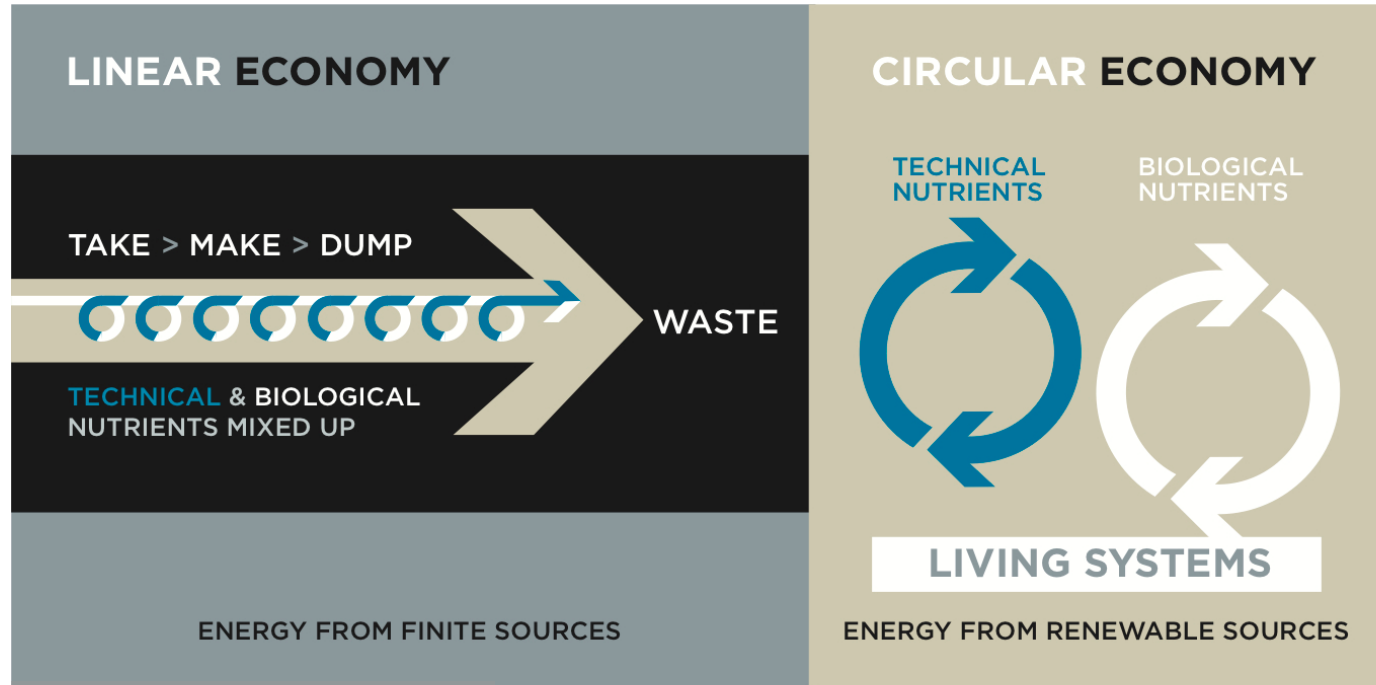
IMAGE: spenditrightubc.wordpress.com

WASTE IS “DESIGNED OUT”

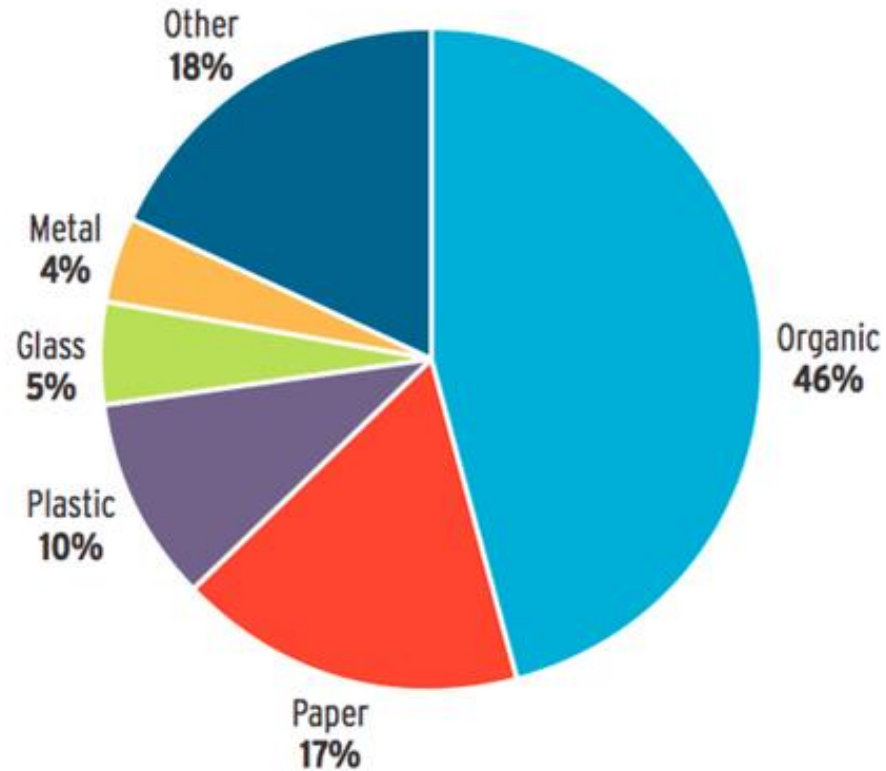
BIOLOGICAL MATERIALS - RETURNED TO THE SOIL OR USED AS ENERGY



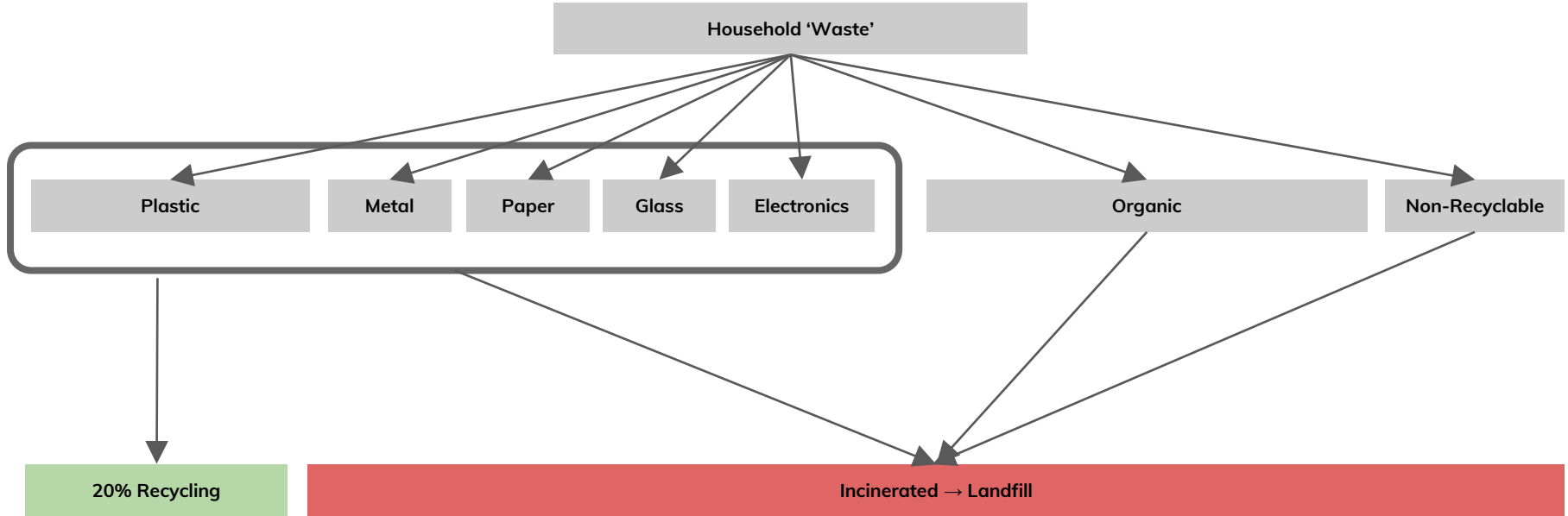
TECHNICAL MATERIALS (LIKE PLASTICS) - DESIGNED TO BE RECOVERED, UPGRADED, REPAIRED, ETC



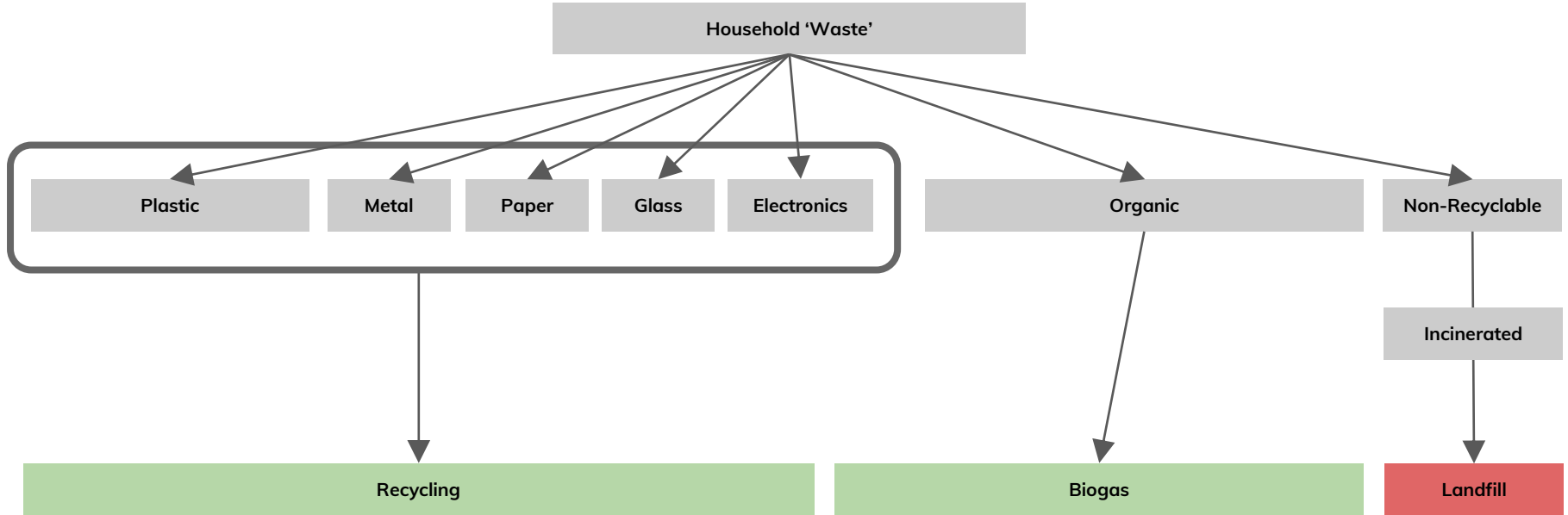
CURRENT HOUSEHOLD 'WASTE'



CURRENT HOUSEHOLD 'WASTE'

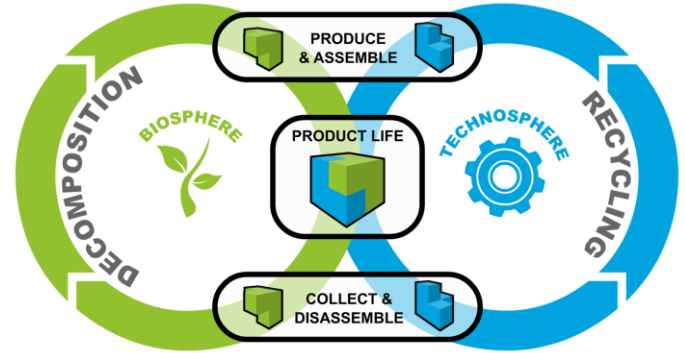


WE WOULD HAVE MATERIAL FLOWS



THE CIRCULAR ECONOMY ISN'T NEW

REUSE
REDUCE
RECYCLE

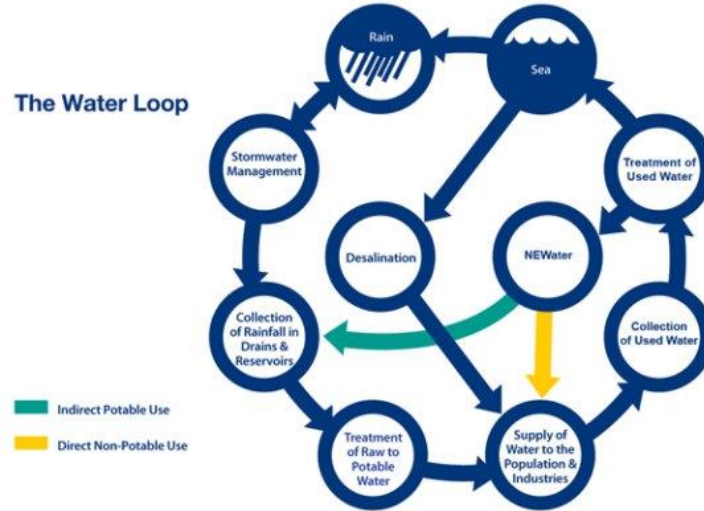
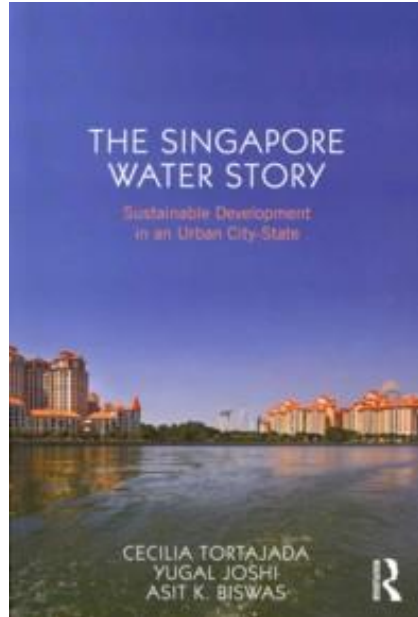


IT'S JUST THAT THE PRESSURE IS NOW GREATER THAN EVER

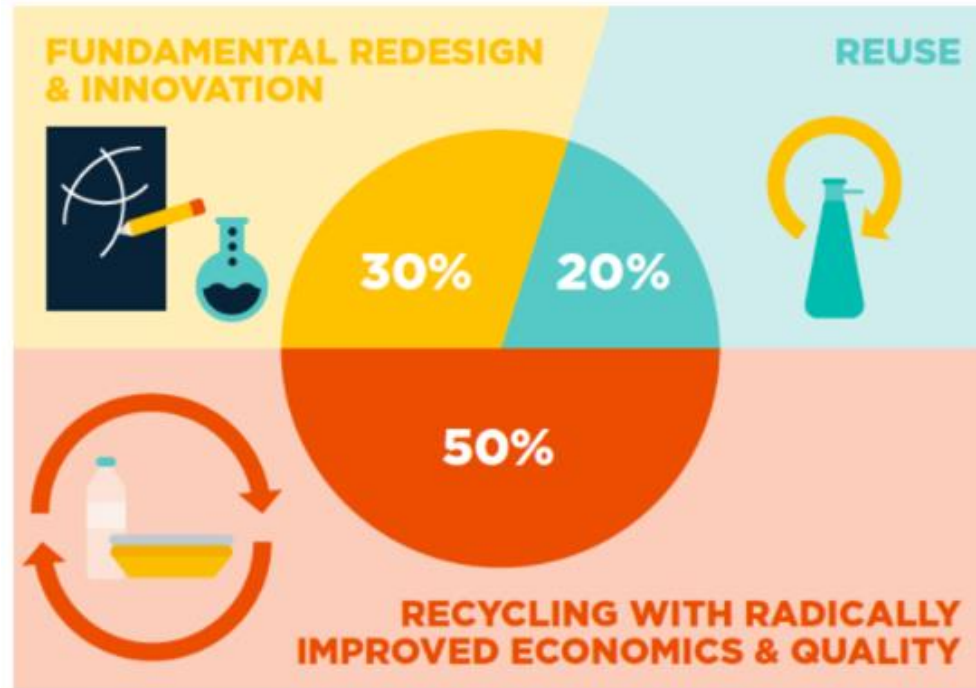
**CAN SINGAPORE BE THE BEACON OF CHANGE FOR THE
REGION?**

IS IT A BUSINESS OPPORTUNITY?

SINGAPORE'S WATER SUCCESS STORY



ASIA OPPORTUNITY: IP & BUSINESS



Source: New Plastics Economy Initiative analysis (see Appendix for details)

FUNDAMENTAL REDESIGN

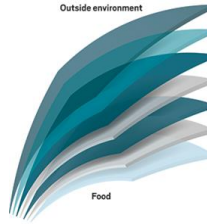


“DESIGN OUT” WASTE & DESIGN FOR AN END USE

FUNDAMENTAL REDESIGN
& INNOVATION



30%



INNOVATE



REPLACE PS/EPS & PVC



REDESIGN / DESIGN OUT



SCALE UP

WORLD'S FIRST RECYCLABLE FLEXIBLE POUCH

FUNDAMENTAL REDESIGN
& INNOVATION



30%



REUSE



REFILLABLE PRODUCTS



SAVING PACKAGING, TRANSPORT & ENERGY
COSTS

OTHER WAYS OF RETHINKING REUSE



RADICALLY IMPROVED RECYCLING



IMPROVING RECYCLING ECONOMICS & QUALITY



50%

RECYCLING WITH RADICALLY
IMPROVED ECONOMICS & QUALITY

Meet the world's
1st recyclable
shampoo bottle
made with
beach plastic



EASIER TO COLLECT FROM CITIES THAN OCEANS



IT'S ALSO A LOT CHEAPER

WASTE TO WEALTH - UPLIFTING THE INFORMAL SECTOR



Nootrees