Trapped in Trash:
Barriers to Environmentally Friendly Waste Management
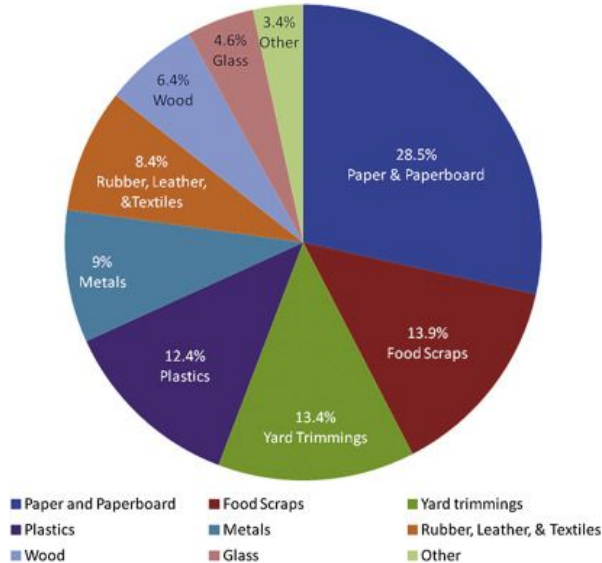
Rita Sherwood

Outline

- What is Municipal Waste?

- The Frameworks

  - 'Modes of Governing'

  - 'Key Characteristics'

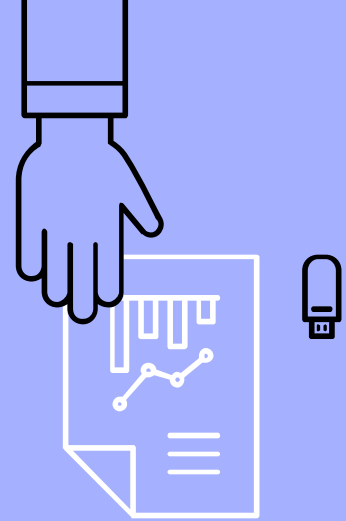- Service Equity

- Conclusion: What's the real issue?
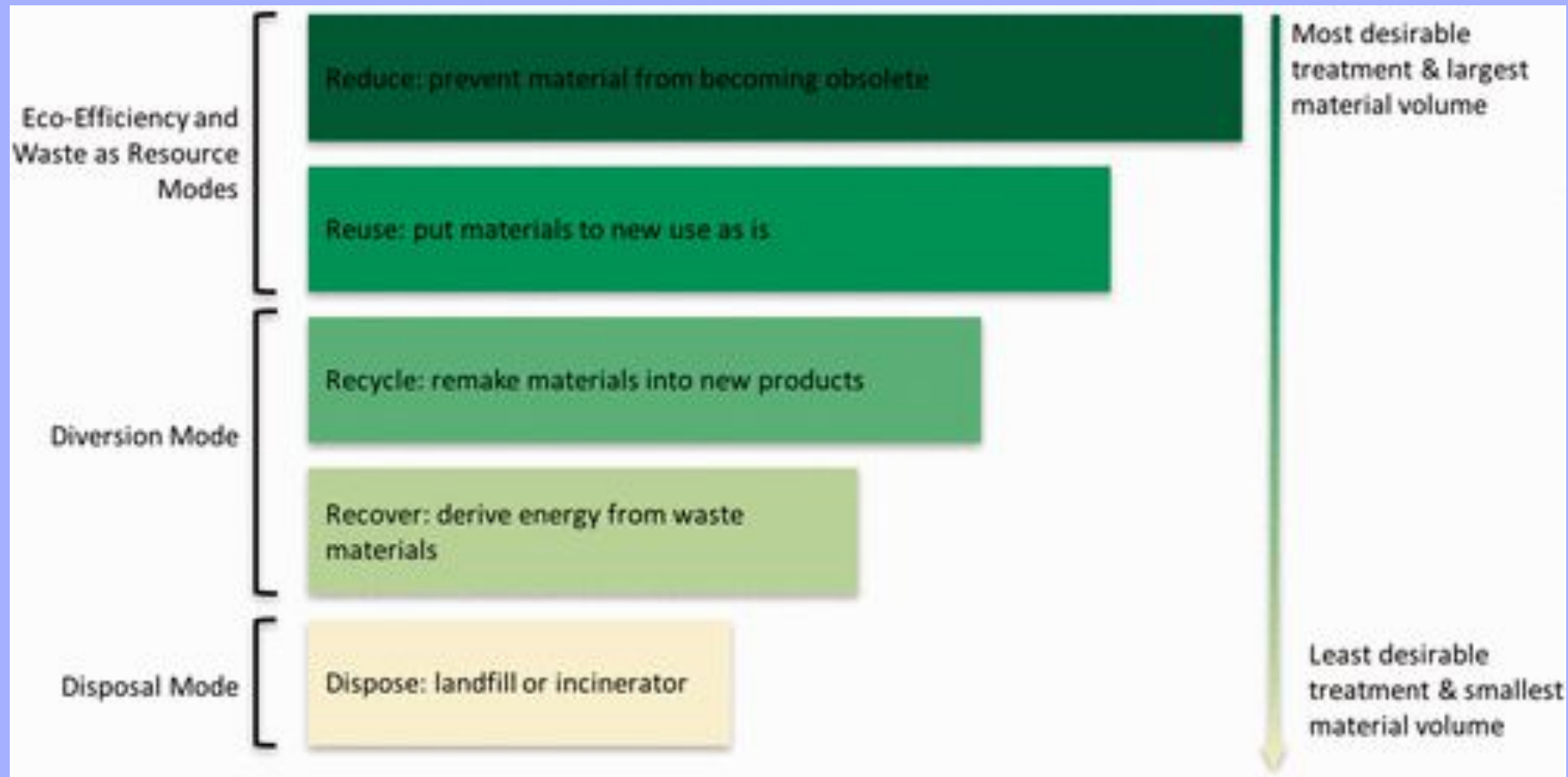
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What is Municipal Waste?

- It's trash!
- Or… material generated through household and commercial activities
- Only constitutes 3% of waste

2010 Total MSW Generation (by Material)
250 Million Tons (Before Recycling)

- 28.5% Paper & Paperboard
- 13.9% Food Scraps
- 13.4% Yard Trimmings
- 12.4% Plastics
- 9% Metals
- 8.4% Rubber, Leather, & Textiles
- 6.4% Wood
- 4.6% Glass
- 3.4% Other

Legend:
- Paper and Paperboard
- Food Scraps
- Yard trimmings
- Plastics
- Metals
- Rubber, Leather, & Textiles
- Wood
- Glass
- Other

Sciencedirect.com

Eco-Efficiency and Waste as Resource Modes

Reduce: prevent material from becoming obsolete

Reuse: put materials to new use as is

Diversion Mode

Recycle: remake materials into new products

Recover: derive energy from waste materials

Disposal Mode

Dispose: landfill or incinerator

Most desirable treatment & largest material volume

Least desirable treatment & smallest material volume

Pollans, 2017

Why are we so locked in our ways?

- Social and Political Interactions
  - Entrenched Power Dynamics
  - Long-term Contracts
  - Citizen-Waste Relationships
- Financial Barriers
  - Source Funding
- Institutional and Spatial Fragmentation
  - We'll get back to this...

Philadelphia Inquirer

What Makes Entrenched Systems so Difficult to Change?

▷ 'Disposal Mode' is locked in…

▷ 'Diversion Mode' can't be implemented…

▷ 'Visionary Mode' has no power.

Service Equity: Let's Talk About It

- EPA estimation: 35% of waste is prevented from landfills via recycling and composting
  - Boston: ~19%

- Institutional Fragmentation
  - Who is responsible for waste pick up?
  - Boston (like most places) has privatized waste service
  - Creates urban geographies defined by level of service

Garden Life

COMPOSTING IN BOSTON

You can compost in your backyard, or even in your apartment.

SUBSIDIZED BINS AND BUCKETS

Boston residents can buy bins and buckets at:

(3) New Age Compost Bin ($25, plus tax, with proof of Boston residency)

COMPOSTING INDOORS

If you don't have a backyard, you can still compost. There are a couple of different ways you can compost indoors:

- Vermi-Composting One Bin Method

- Vermi-Composting Two Bin Method

Gardener's Supply

> "The emphasis on the individual distracts from well-hidden industrial activities and promises little in the way of systematic change."
>
> (Maniates, 2001)

Recover Inc.

Municipal waste makes up 3% of overall waste.

Consumers have no control over how much waste is produced to make the products they consume, nor is this information available.

So how do we really reduce waste?

As a policymaker in the waste management industry, where do you begin?
- Packaging?
- Virgin resource extraction?
- Back-end reuse, like recycling and compost?
- Front-end reduction?
- Cultural overhaul?