Developing a Sustainable Organics Recovery Sector

A Forum for Sharing Strategies and Building Toward a Regional Consensus

Bay Area Air Quality Management District

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Context

GHG + Waste Reduction Goals

Growth of Recovery Operations

Sustainable Development of California Bio-economy

Motivators

- Health Protection
- Knowledge Growth
- Sustainable Design
- Policy Consistency

Stakeholders for Regional Convening

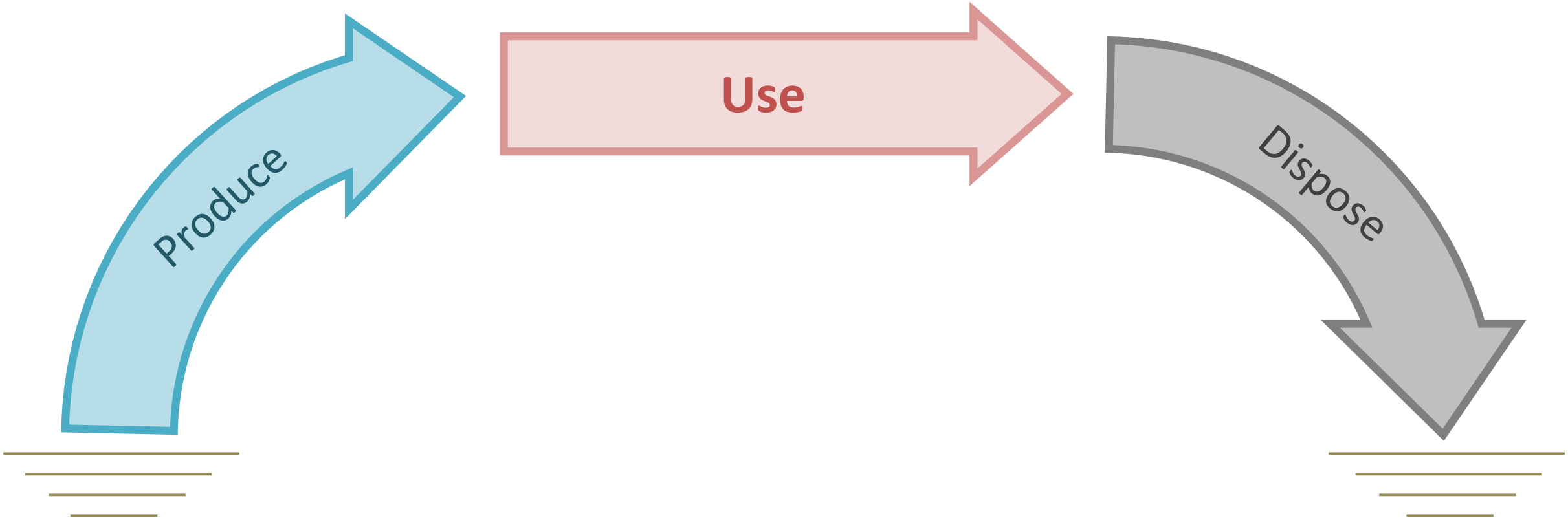
36: Owners / operators of facilities

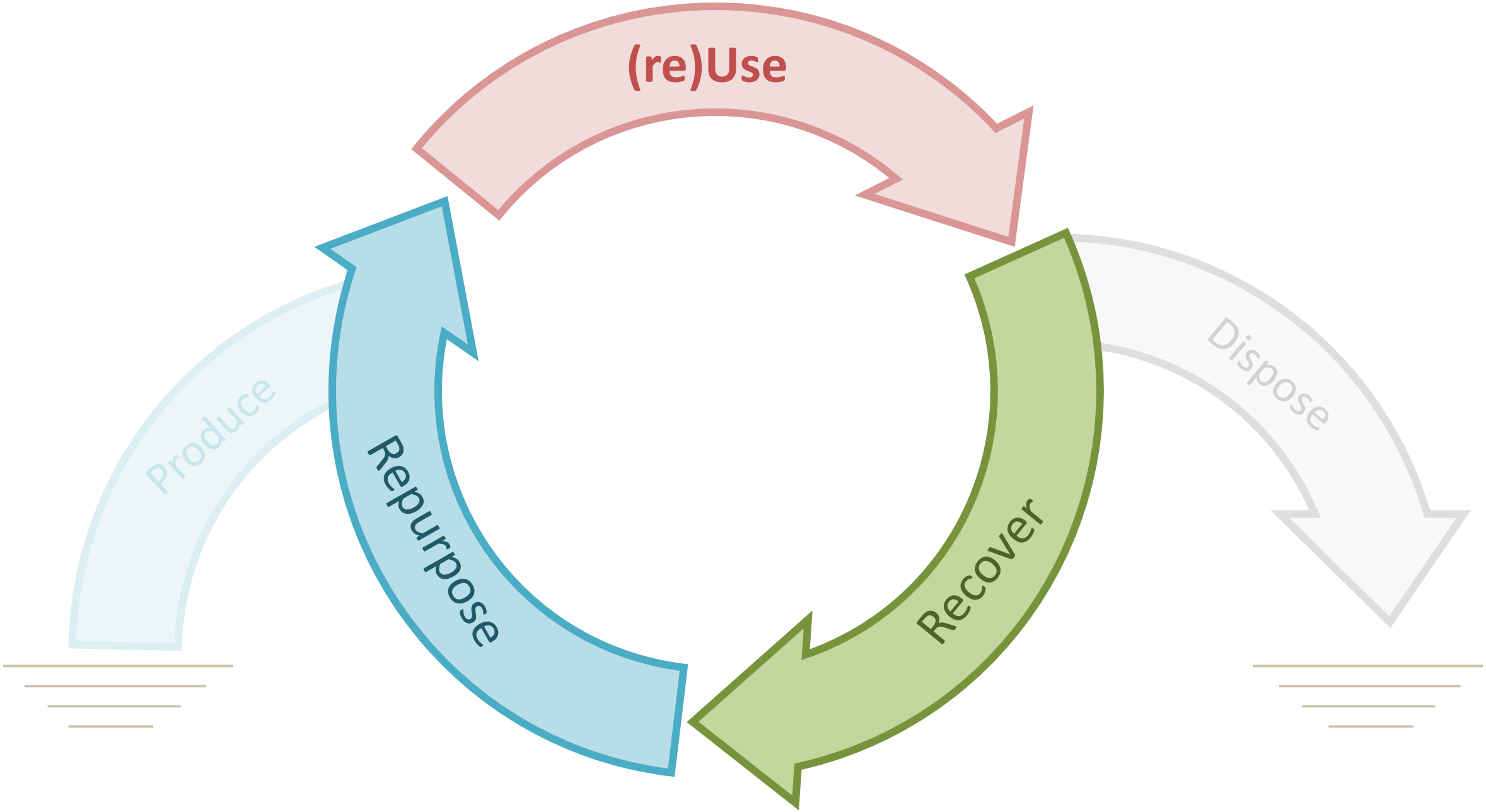
26: City and county government

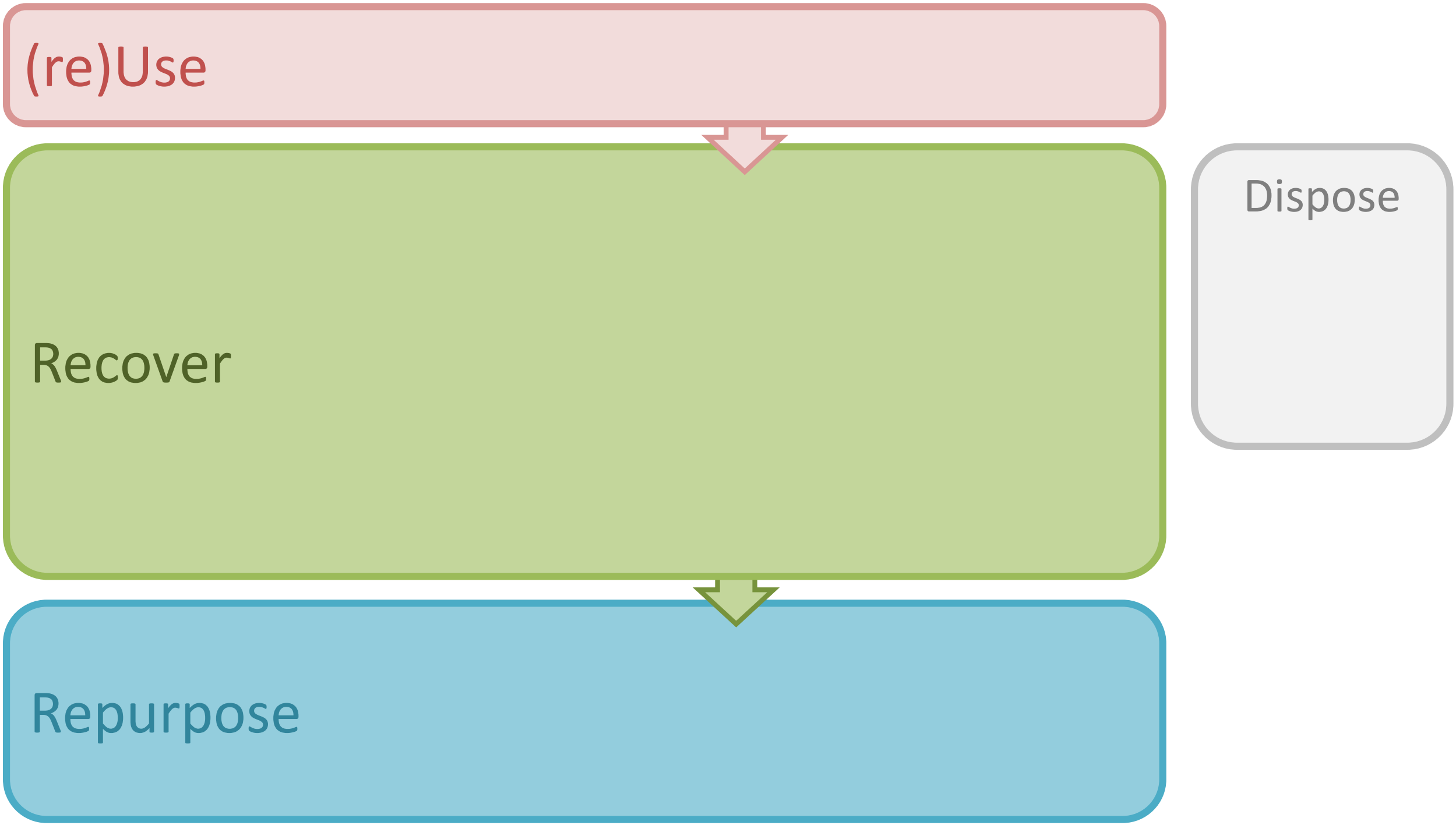
15: Practice Leaders / Consultants / Trade Associations

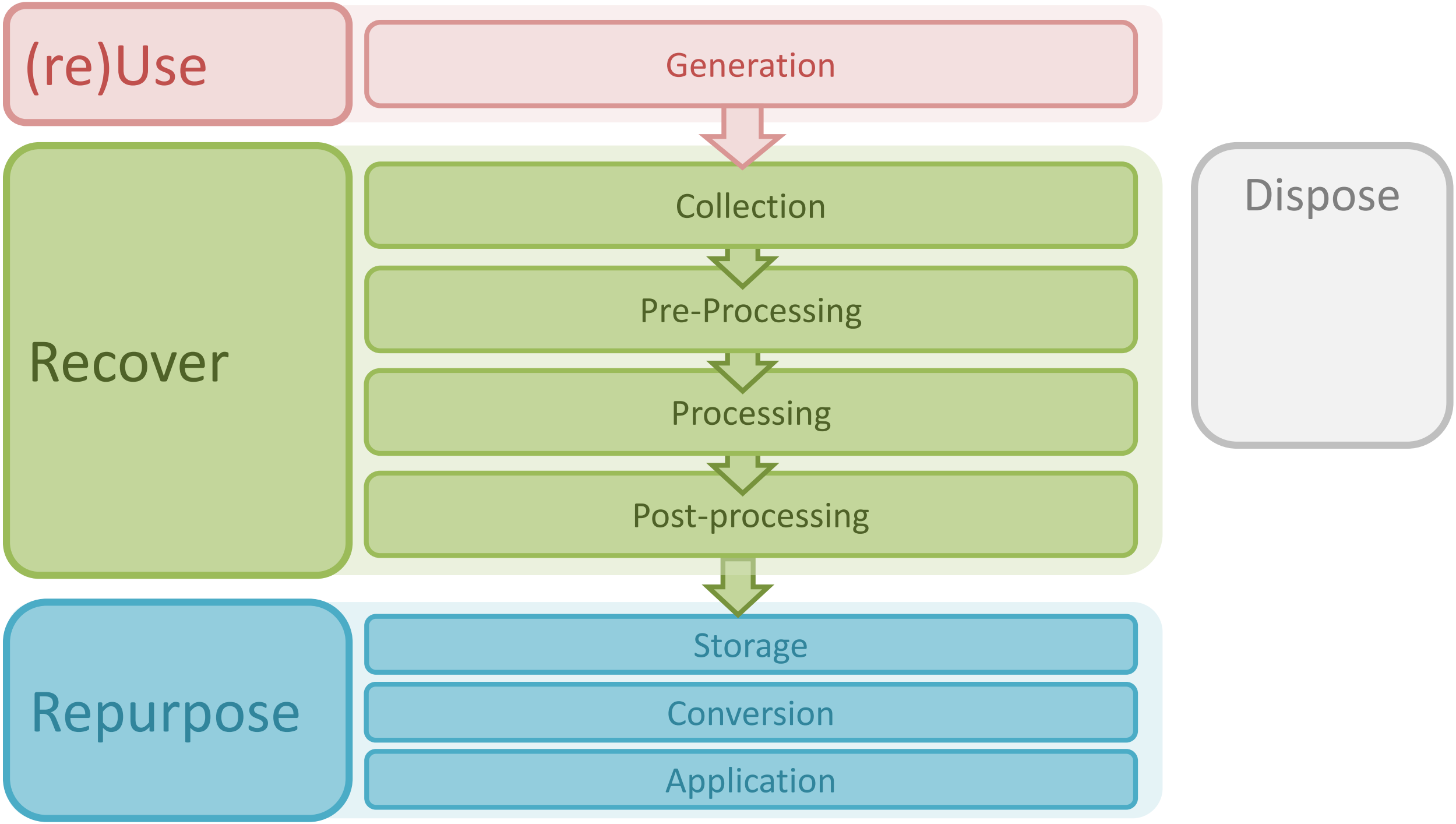
13: Public Interest and Community-based Groups

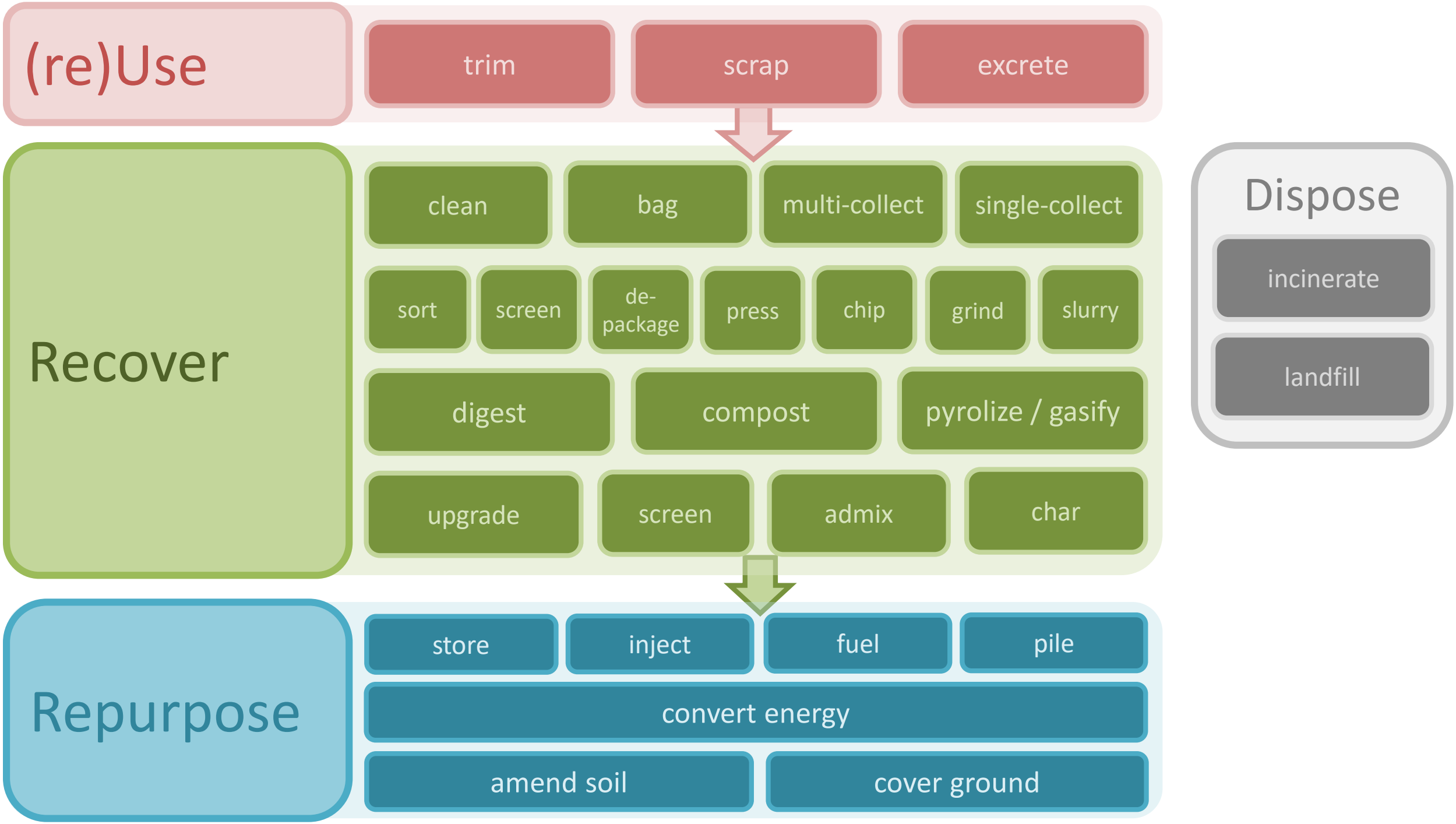
12: Regionwide and State Agencies

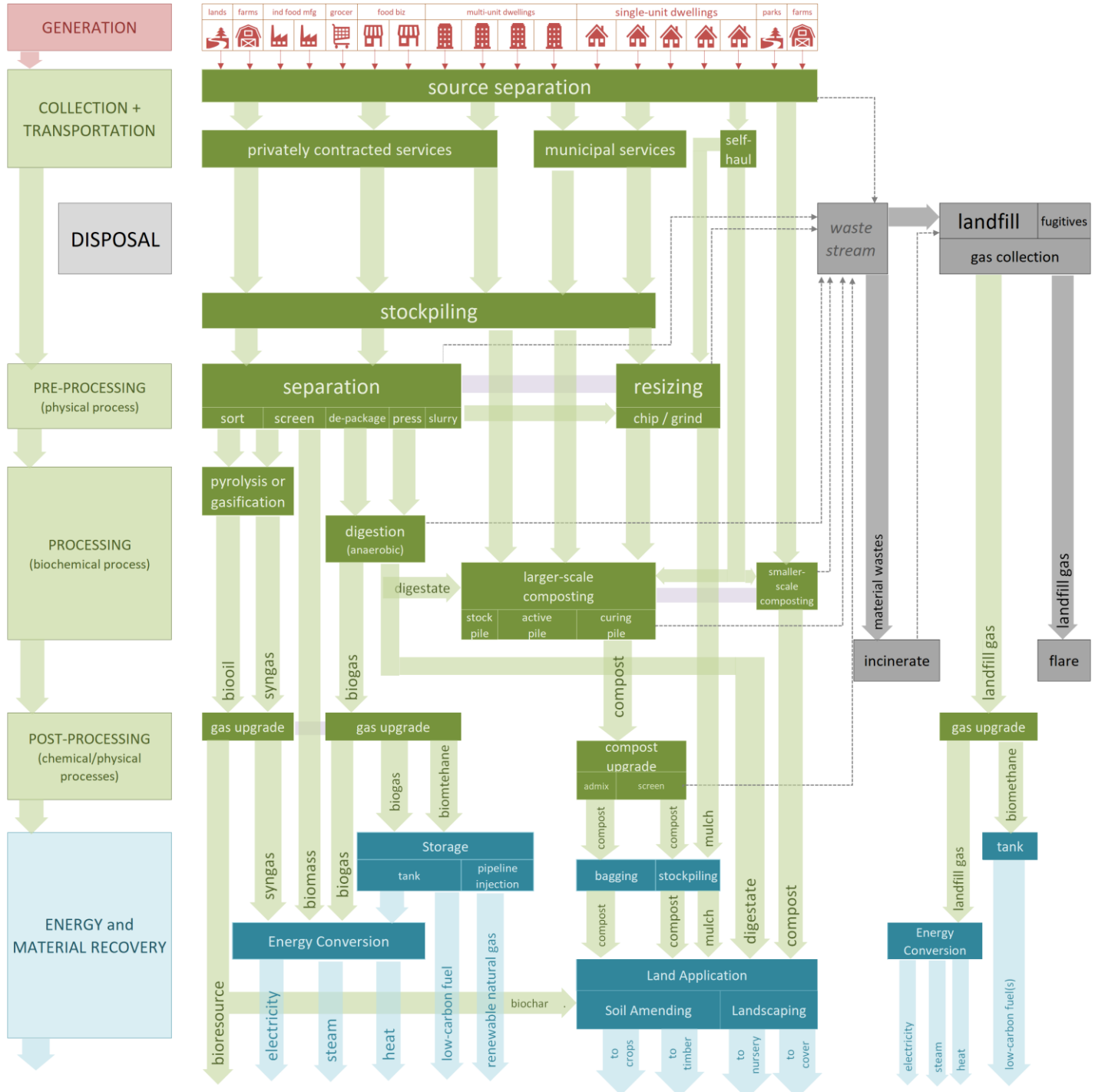

Produce
Use
Dispose


(re)Use
Recover
Repurpose
Produce
Dispose

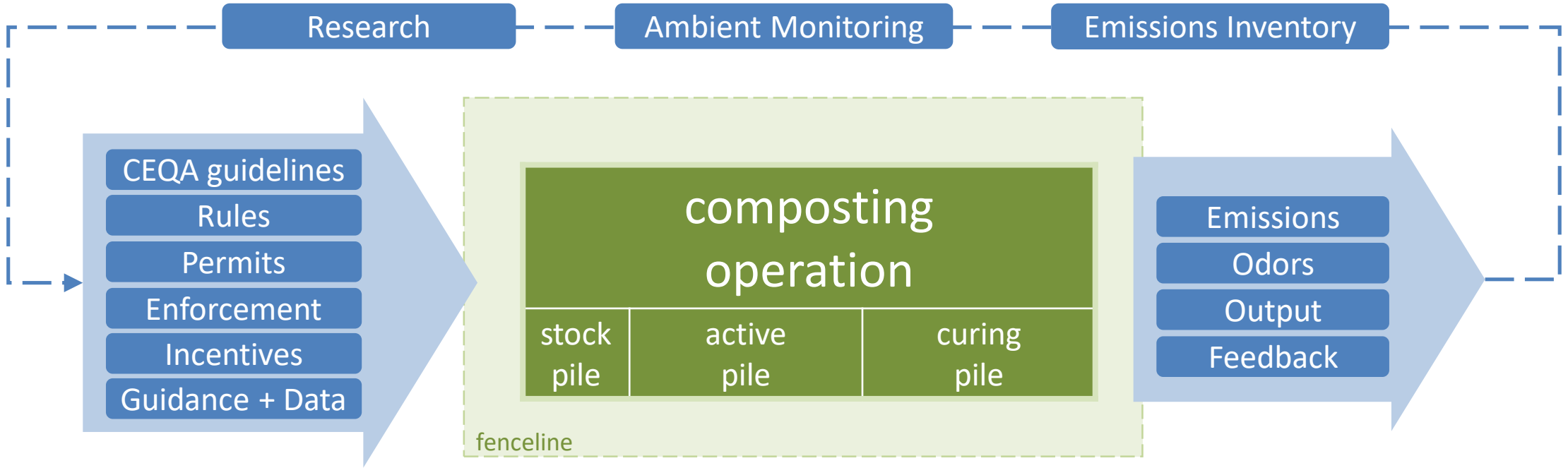

(re)Use
Recover
Repurpose
Dispose


(re)Use
Generation
Recover
Collection
Pre-Processing
Processing
Post-processing
Dispose
Repurpose
Storage
Conversion
Application


(re)Use
trim
scrap
excrete
Recover
clean
bag
multi-collect
single-collect
sort
screen
de-package
press
chip
grind
slurry
digest
compost
pyrolize / gasify
upgrade
screen
admix
char
Repurpose
store
inject
fuel
pile
convert energy
amend soil
cover ground
Dispose
incinerate
landfill


GENERATION
lands
farms
ind food mfg
grocer
food biz
multi-unit dwellings
single-unit dwellings
parks
farms
COLLECTION + TRANSPORTATION
source separation
privately contracted services
municipal services
self-haul
DISPOSAL
waste stream
landfill
fugitives
gas collection
stockpiling
PRE-PROCESSING (physical process)
separation
sort
screen
de-package
press
slurry
resizing
chip / grind
PROCESSING (biochemical process)
pyrolysis or gasification
digestion (anaerobic)
digestate
larger-scale composting
stock pile
active pile
curing pile
smaller-scale composting
material wastes
incinerate
landfill gas
flare
biooil
syngas
biogas
compost
landfill gas
POST-PROCESSING (chemical/physical processes)
gas upgrade
gas upgrade
gas upgrade
biogas
biomtehane
compost upgrade
admix
screen
biomethane
ENERGY and MATERIAL RECOVERY
Storage
tank
pipeline injection
compost
compost
mulch
bagging
stockpiling
syngas
biomass
biogas
landfill gas
tank
Energy Conversion
Energy Conversion
compost
compost
mulch
digestate
compost
Land Application
Soil Amending
Landscaping
bioresource
electricity
steam
heat
low-carbon fuel
renewable natural gas
biochar
to crops
to timber
to nursery
to cover
electricity
steam
heat
low-carbon fuel(s)

“Well-designed and Properly-functioning Facilities”

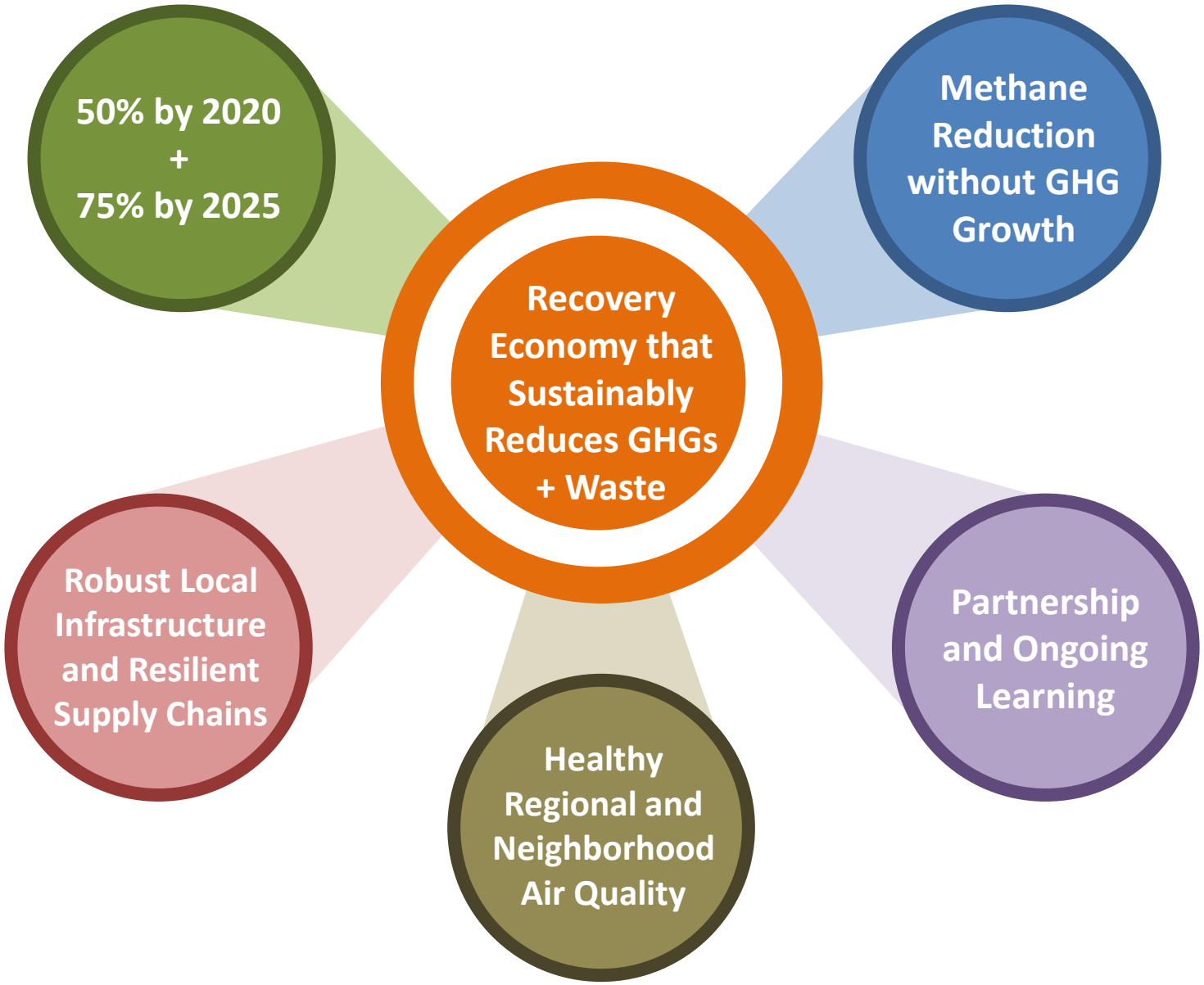


1 Policy Toolkit
- CEQA guidelines
- rules, permits, enforcement
- incentives
- guidance + information

2 Life-cycle Thinking
- supply chain assessment
- process flow estimation
- net GHG emissions analysis
- resilience planning

3 Collaborative Design
- neighbors / cities + counties
- agencies / cities + counties
- operators / cities + counties
- markets / cities + counties

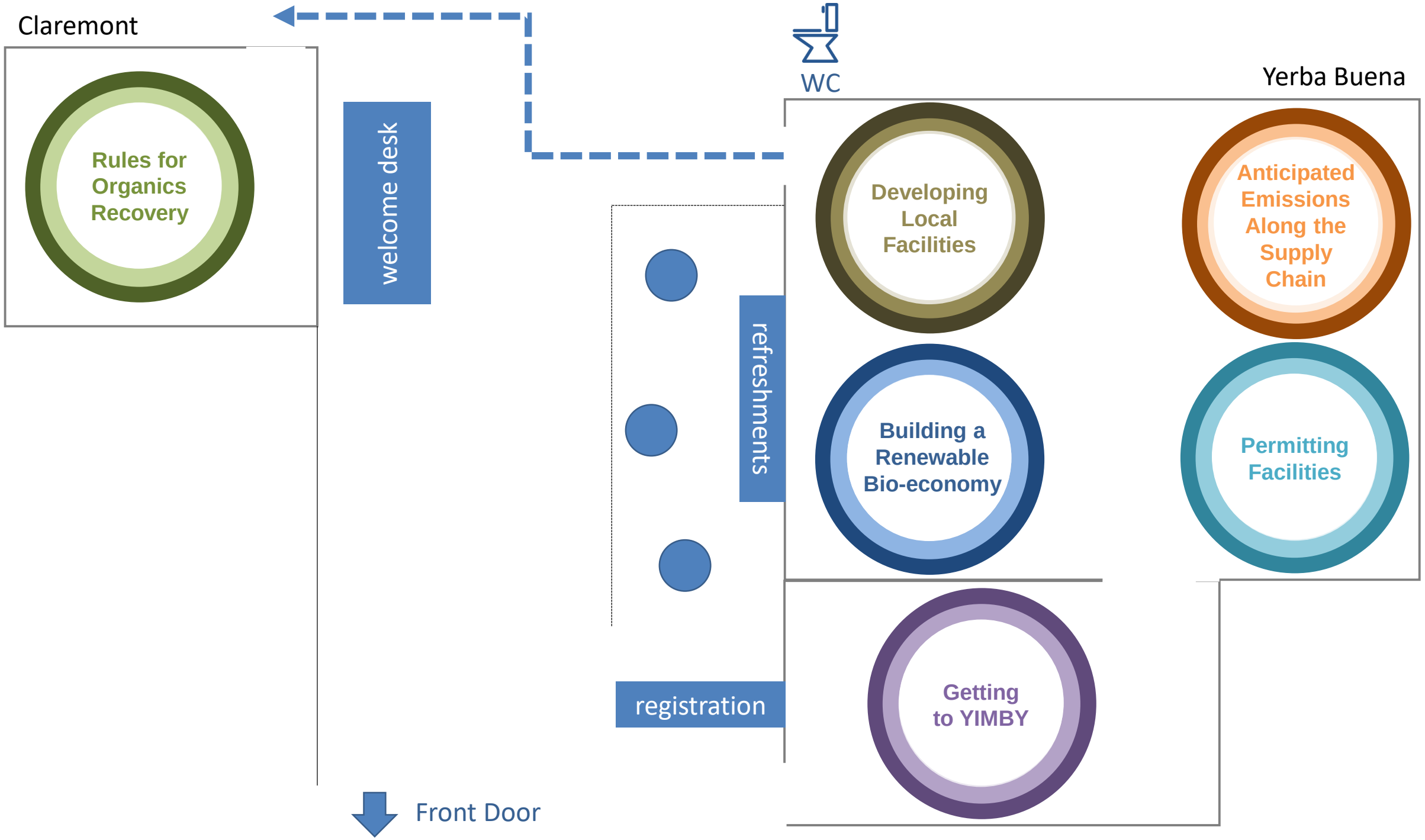
Vision


50% by 2020
+
75% by 2025
Methane Reduction without GHG Growth
Recovery Economy that Sustainably Reduces GHGs + Waste
Robust Local Infrastructure and Resilient Supply Chains
Partnership and Ongoing Learning
Healthy Regional and Neighborhood Air Quality

Strategy

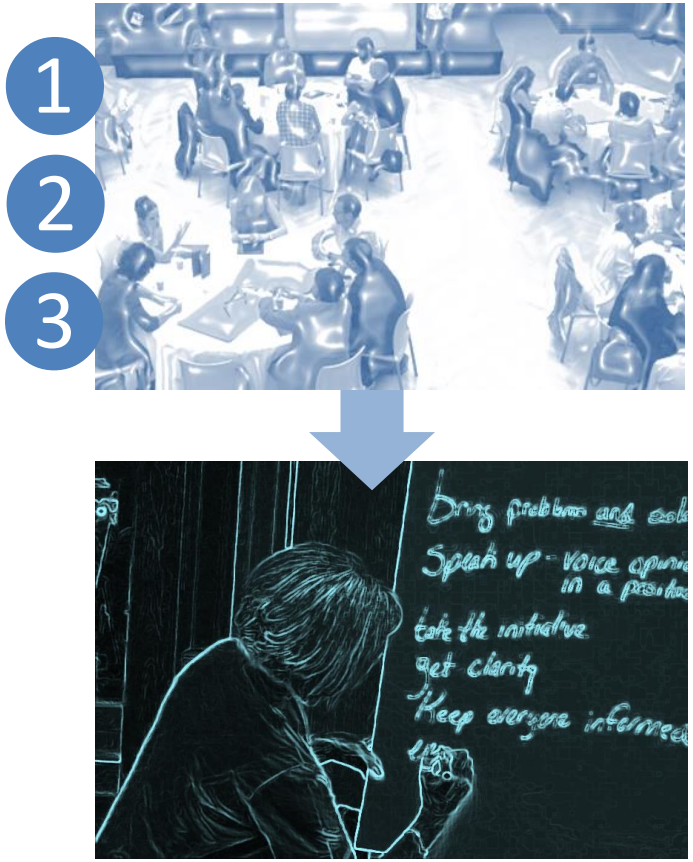

Support for Renewable Bio-economy
Development Assistance to Local Governments
Listening to and Engaging Community Concerns
Improved Emissions Data and Factors
Rules that Ensure Best Practices
Permitting Design Review that Limits Emissions
Recovery Economy that Sustainably Reduces GHGs + Waste

Event Structure: Six Discussion Stations


Claremont
Rules for Organics Recovery
welcome desk
WC
Yerba Buena
Developing Local Facilities
Anticipated Emissions Along the Supply Chain
refreshments
Building a Renewable Bio-economy
Permitting Facilities
registration
Getting to YIMBY
Front Door

Event Schedule

1:30 Welcome + Presentation



2:00 Discussion Session (🔔 at 2:25)

2:30 Discussion Session (🔔 at 2:55)

3:00 Discussion Session (🔔 at 3:25)

3:30 Report Back + Plenary Discussion

4:00 Planned Adjournment

Rules of Engagement

- Please help us balance participation across tables. If a table fills up, please try next session. (If need be, pull up a chair.)
- Please share your perspective. We are here to hear it, not judge it.
- Please be respectful of everyone else's perspectives. We are here to hear them too.
- Please speak at a modest volume to keep the din down in this room.
- Please be thoughtful about the length of your comments so that discussion happens.
- Please take side conversations into the atrium. (There are treats out there.)
- **Be REGIONable.** Please think about way to help this system work overall.

Six Discussion Station Options

(Choose up to three)

Table	Description	What You Should Learn	What You Should Share	Goals
Getting to YIMBY: Building public consensus around organics recovery	This highly interactive station starts with a map of Bay Area organics recovery infrastructure and encourage you to share your perspectives about it.	Air District community engagement and compliance/enforcement commitment.	Your perspectives as a community member about organics recovery infrastructure.	• Identify common community concerns about organic sites • Explain our nuisance response efforts
Developing Local Facilities: Rightsizing, planning, and siting facilities in your community	This station discusses the need for new organics recovery facilities in the Bay area and ways to plan their integration to minimize vehicle miles traveled.	Estimates of Bay Area organic diversion needs, number of facilities, facility types, and integration examples.	Your strategic perspective about rightsizing facilities and create compatible land uses in Bay Area communities.	• Express support for local facility development • Socialize the idea of facility rightsizing and savvy siting
Building a Renewable Bio-economy: Strategies that help organics recovery supply chains create products and value	This station takes a birds-eye view of recovery operations to contemplate how what we send down a supply chain can achieve its highest use.	A layered view of organic resource recovery and synergies that might maximize the aggregate value of recovered organics.	Your knowledge about market forces and thermodynamics that shape recovered organic products.	• Think about organics recovery in terms of regional economy • Strategize product and market development
Rules for Organics Recovery: A preview and discussion of our developing regulations	This station provides an overview of our conceptual framework for organic material tracking, handling and composting. It relates these to our overall Methane Strategy. If needed, it provides a "Rule Development 101" overview.	A little about the Rule Development Process and where we are headed on the Composting front.	Your ideas and opinions on what we should emphasize in our Rule making efforts	• Receive feedback on our regulatory concepts • Help align our rules with those of CalRecycle and CARB
Permitting Facilities: Ensuring air quality goals and consistency for recovery operations	This table engages participants in discussion about some of the key questions involved in permitting organics recovery facilities.	Current permit requirements and opportunities for public participation. Impacts of differing permit circumstances. Our data gaps.	Suggestions for permit exemptions, assuring real emissions reductions, and for collaboration with other agencies.	• Agree on the value of early informaton sharing (i.e., during CEQA review). • Identify areas of partnership with other permitting agencies. • Discover ways to fill data gaps
Anticipated Emissions Along the Supply Chain: A review of what we know	This station looks across the value chain to reflect on anticipated emissions at each step and the state of our estimation of them.	A more detailed view of emissions and emission sources along the organics recovery supply chain.	Your knowledge about emissions, emission data, and source tests.	• Improvements in the combined knowledgebase about emissions along organics recovery supply chains.

Questions?

(clarifications only please)