



OREGON DEQ RECYCLING SYSTEM FRAMEWORKS RESEARCH: DRAFT SCENARIOS FOR CONSIDERATION

Presented to Recycling Steering Committee and Legal &
Relational Frameworks Subcommittee: December 17 2019

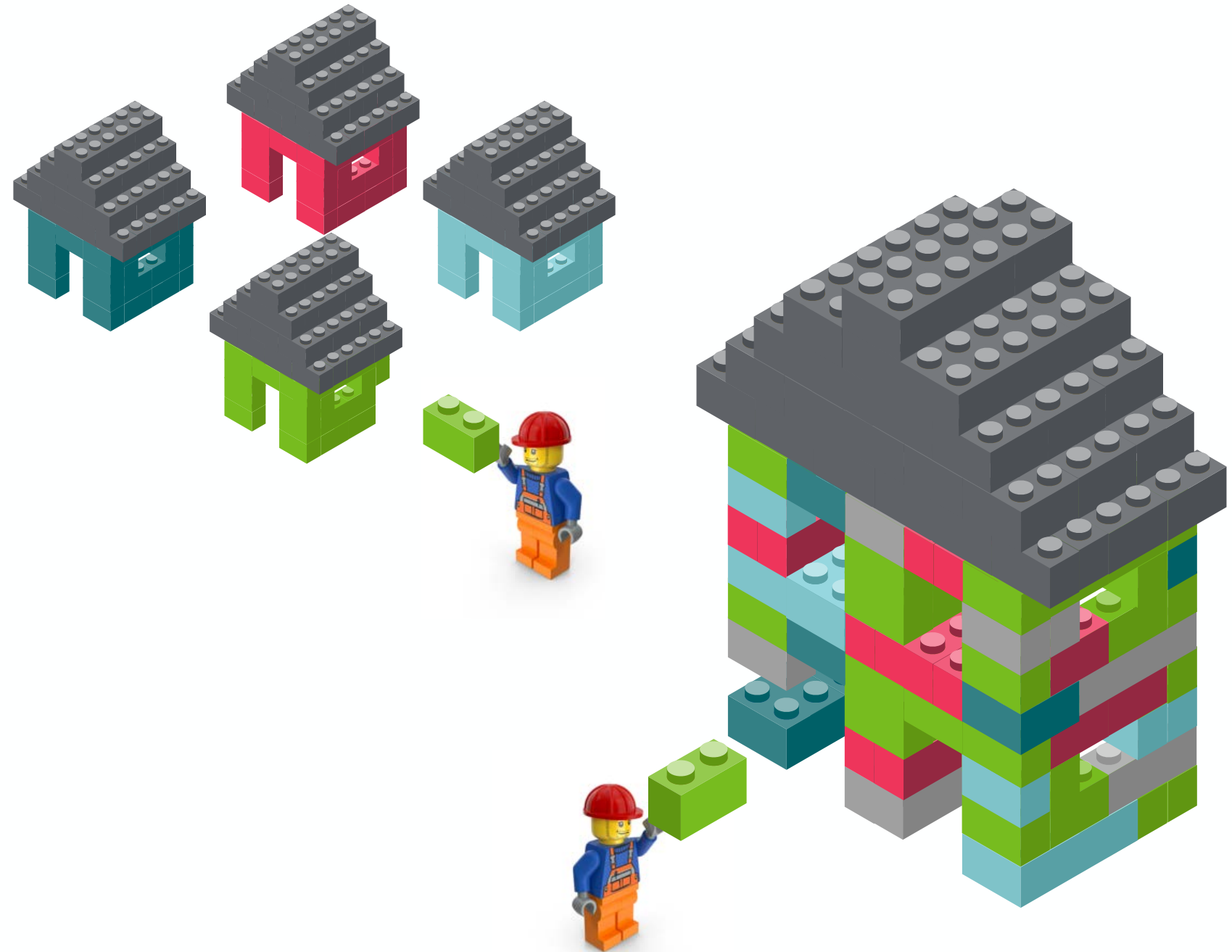
AGENDA

- Approach to Scenario Analysis
- Recap of Oregon Framework
- Initial Draft Scenarios
- Work Session to Refine Scenarios for Study



SCENARIO DEVELOPMENT AND EVALUATION

PUTTING IT ALL TOGETHER: SCENARIO BUILDING





OUTLINE OF JANUARY 31 PRESENTATION

- For each scenario:
 - Roles and responsibilities of key players
 - Financing and operational flows diagram
 - Key Elements
 - Operational
 - Financing
 - Governance
 - Benefits
 - Shortcomings
 - Key considerations for implementation



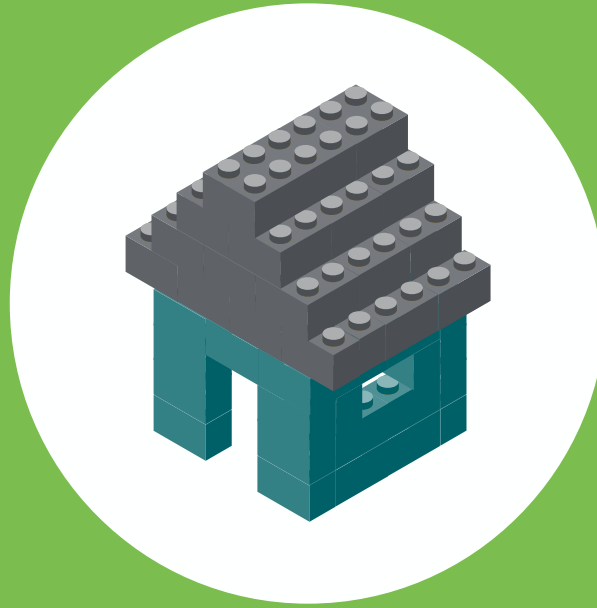
OUTLINE OF THE SCENARIO RESEARCH

In addition to information covered in the presentation:

- Narrative summary of relationship of scenario to functions
- Key factors to consider in transition from Oregon baseline to scenario
 - Legal changes
 - Regulatory approaches
 - Programmatic transitions



OREGON FRAMEWORK RECAP



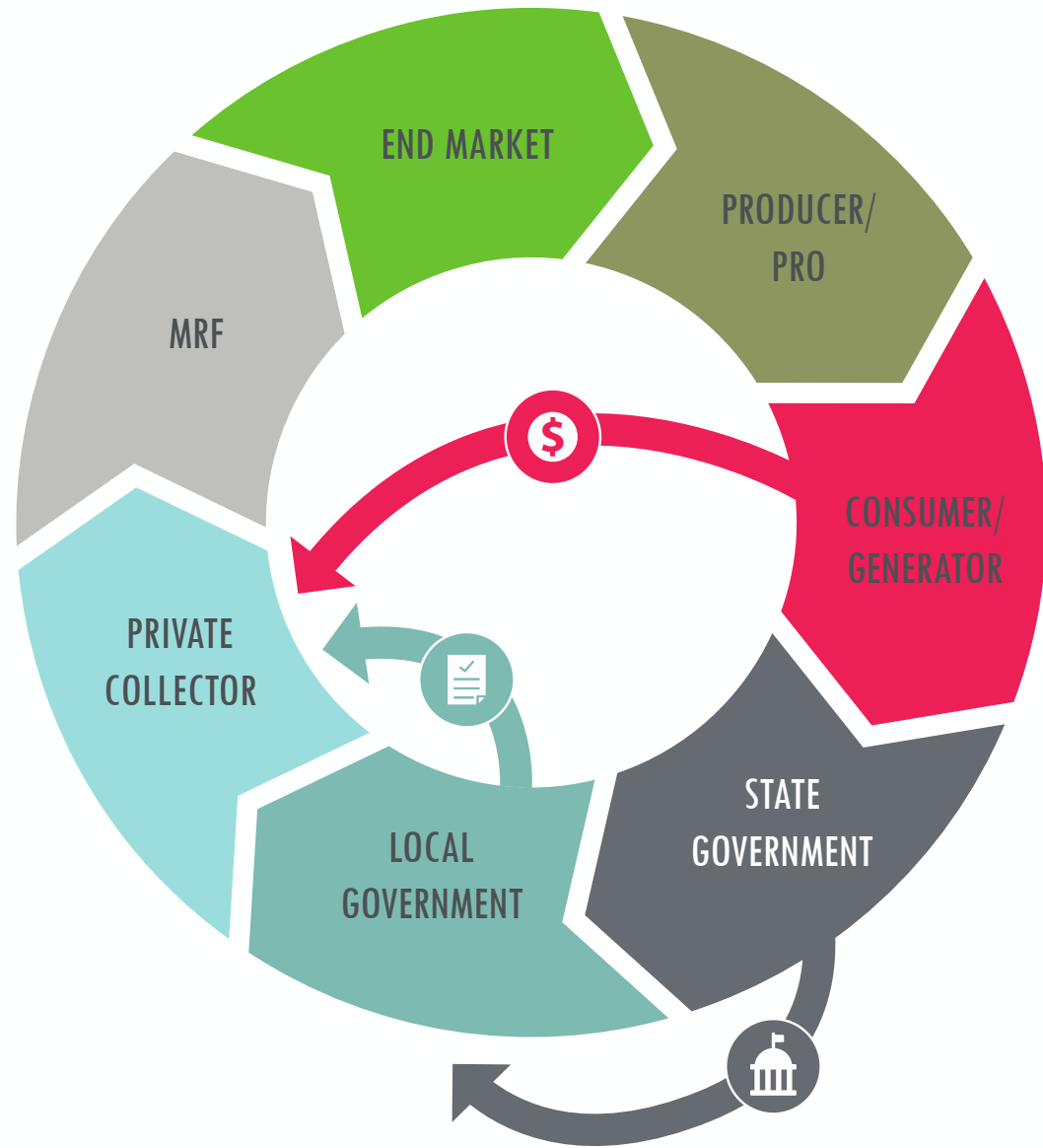
FRAMEWORK 0

Baseline: State Guided Local Government
Contracted System

REFERENCE PROGRAM: OREGON

FINANCIAL AND OPERATIONAL FLOWS: OREGON

* Does not include
flows associated with
bottle deposit program



FINANCING



OPERATIONAL /
CONTRACTUAL



STRATEGIC/ REGULATORY
AUTHORITY

ROLES AND RESPONSIBILITIES: OREGON



REGULATOR

Statewide planning (2050 Vision)

Regulatory Guidance and Oversight



PRODUCER / PRO

No role in curbside recycling

Beverage distributors finance and operate deposit program



CONSUMER

Recycle appropriately

Pay variable rate fees (PAYT)



LOCAL GOVERNMENT

Provide opportunity to Recycle

Comply with state requirements

Plan, Implement and Manage programs

Contract / Franchise collection service providers



COLLECTOR

Provide service in accordance with agreement with Local Government

Take collected materials to processing facility



PROCESSOR

Accept materials from collection service providers

Process, prepare and market materials to end markets



END MARKET



FRAMEWORK 0

Baseline

**REFERENCE PROGRAM:
OREGON**

OVERVIEW:

- Local Governments (cities / counties) must ensure opportunity to recycle by establishing recycling programs that provide a set of required elements and a suite of additional variable elements, depending on size and geography of a community. There are more requirements for larger communities closer to the Portland market.
- Program elements include, at a minimum, education and curbside collection for single family residents with many offering commercial and some offering multi-family (MF). MF will soon be more robust through statutory changes. There is no uniform list of recyclables.
- Collection Services delivered primarily through franchise agreements, where rates are set. Consumers pay set rates to service providers using variable rates (PAYT) which incentivizes waste reduction and recycling. Franchise fees support LG programs.
- Framework does not formally address downstream flow of materials other than that source separated materials cannot be disposed. Collectors usually choose what processors to use and typically don't have formal contracts.
- There are very few public collectors and no public MRFs.
- There is a distributor managed beverage container deposit system.

HIGHLIGHTS: FRAMEWORK STRENGTHS

C

Provides sustainable and equitable financing for stable operations and capital investments

I

Educates and encourages residents and businesses to use the system properly

L

Collects clean, acceptable materials for processing

KEY ELEMENTS

- System Finance – stable funding for collection and education through ratepayers. Provides broad access including many multi-family and businesses
- Education – Clearly defined in rules
- Collection – ROA and PAYT encourage and incentivize recycling resulting in above average recycling rate

AREAS FOR IMPROVEMENT: FRAMEWORK WEAKNESSES

D

Integrates system components to achieve overall system goals

G

Shares responsibility among program participants in a way that is justifiable, reduces risk, and leverages roles to provide program stability

K

Identifies beneficial materials acceptable for collection programs

O

Ensures materials are managed responsibly from collection through end markets

- Post-collection roles and responsibilities are not formally defined or integrated
- Not all system players have responsibility
- No harmonized list of recyclables
- Does not control or guide end markets



QUESTIONS

Clarifying questions to
round out understanding of
the framework



INITIAL DRAFT SCENARIOS



OVERLAYS FOR ALL SCENARIOS

Elements recommended for all scenarios*:

- Universal access / parallel access for all sectors – SF, MF, Commercial, Public Spaces
- Mandatory variable pricing (pay as you throw – PAYT) for all sectors – SF, MF, Commercial, Public Spaces
- MRF certification and reporting requirements
- Material specific LCA database to support EOL and DFE-based decisions
- Defined optimal material specific EOL pathway (instead of hierarchy)
- Statewide list of designated recyclables and ban on disposal of those items
- Recycled content requirements and/or incentives
- Enforceable standards: Material specific recycling rate; contamination rate; equity standards; minimum end market EHS standards
- Labeling requirements
- Market development
- Expanded bottle bill: i.e. wine and spirits

**How these are applied and by whom will change among frameworks*



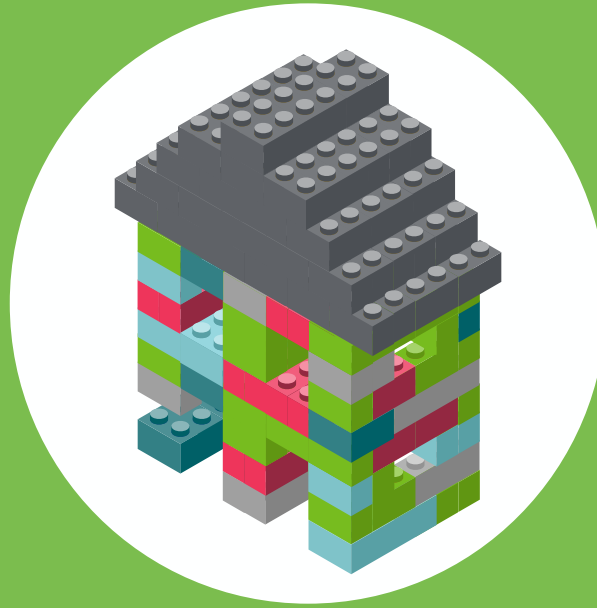
SCENARIO GROUP 1: ENHANCED GOVERNMENT-MANAGED MODELS



SCENARIO GROUP 1: ENHANCED GOVERNMENT PROGRAMS

Basic Elements Applied to Scenarios 1 & 2:

- Current Oregon framework as Baseline
- Additional funding mechanism needed, could be any / all the following:
 - Tip fee surcharge
 - Waste generator Fee
 - Legislative appropriation (removed)
 - Other Options?



SCENARIO 1

Enhanced Government Managed System



SCENARIO 1

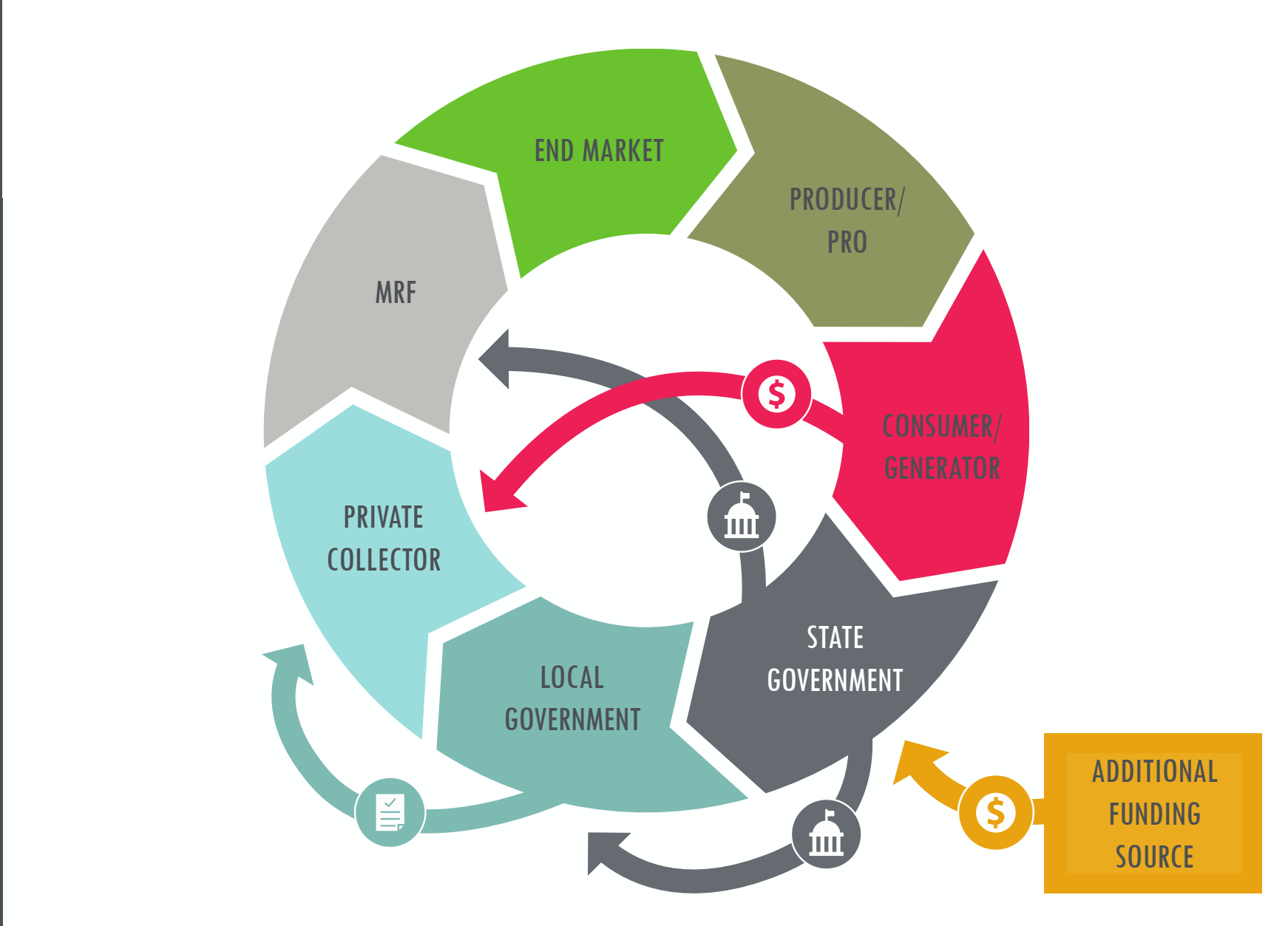
Enhanced Government Managed System

Elements:

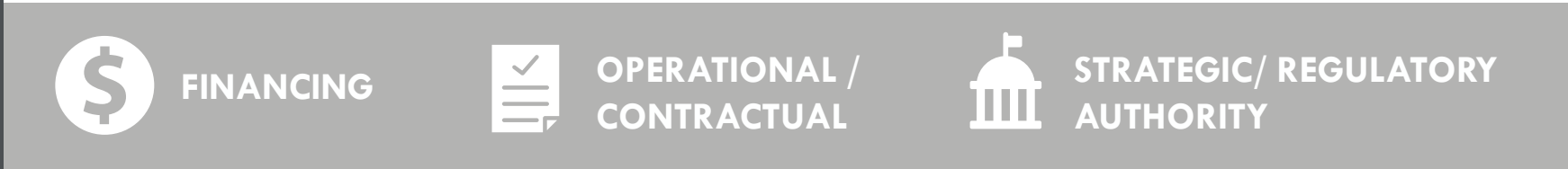
- Operationally similar to current Oregon framework
- Added State Responsibility
 - Develop and implement policy (universal access; mandatory PAYT)
 - LCA research and define optimum EOL Pathway
 - Statewide list of recyclables and ban on disposal of those items
 - Set enforceable standards (recycling rates, contamination rates, etc.)
 - Coordinate and fund strategic infrastructure and market development activities
- Require MRFs to be registered or certified by state
 - Standards and responsibility defined
 - Material flow reporting requirements
- Require Local Governments to provide additional reporting on program costs and material flows



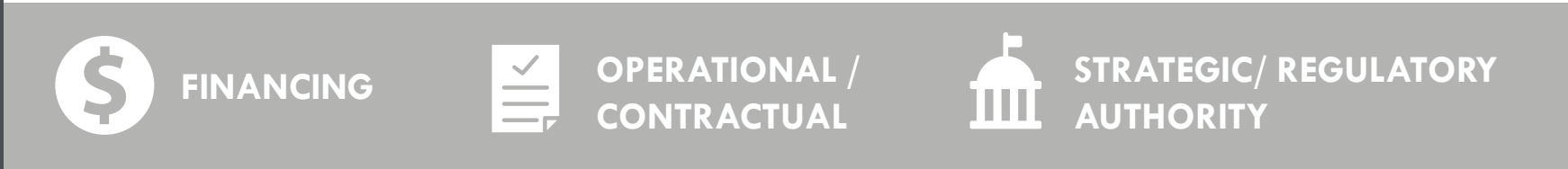
FINANCIAL AND OPERATIONAL FLOWS: ENHANCED GOVERNMENT MANAGED SYSTEM



FINANCING OPERATIONAL / CONTRACTUAL STRATEGIC/ REGULATORY AUTHORITY



FINANCING **OPERATIONAL / CONTRACTUAL** **STRATEGIC/ REGULATORY AUTHORITY**



FINANCING **OPERATIONAL / CONTRACTUAL** **STRATEGIC/ REGULATORY AUTHORITY**

ROLES AND RESPONSIBILITIES: ENHANCED GOV'T MANAGED

*Red indicates change from existing Oregon framework



REGULATOR

Regulatory Guidance,
Oversight and
Enforcement

Statewide Planning
(2050 Vision)

Policy Development

Develop list of
mandatory recyclables

Set performance and
reporting standards

Certify / register MRFs

Coordinate
infrastructure / end
market development



PRODUCER / PRO

No role in
curbside
recycling

Beverage
distributors
financing and
operate deposit
program



CONSUMER

Recycle
appropriately

Pay variable rate
fees (PAYT)



LOCAL GOVERNMENT

Provide
opportunity to
Recycle

Comply with state
requirements
(including add'l
reporting and
performance)

Plan, Implement
and Manage
programs

Contract /
Franchise
collection service
providers



COLLECTOR

Provide service in
accordance with
agreement with
Local
Government

Take collected
materials to
certified /
registered
processing
facility

Meet new
performance
and reporting
standards



PROCESSOR

Accept materials
from collection
service providers

Process, prepare
and market
materials to end
markets

Register / certify
with State

Meet new
performance and
reporting
standards



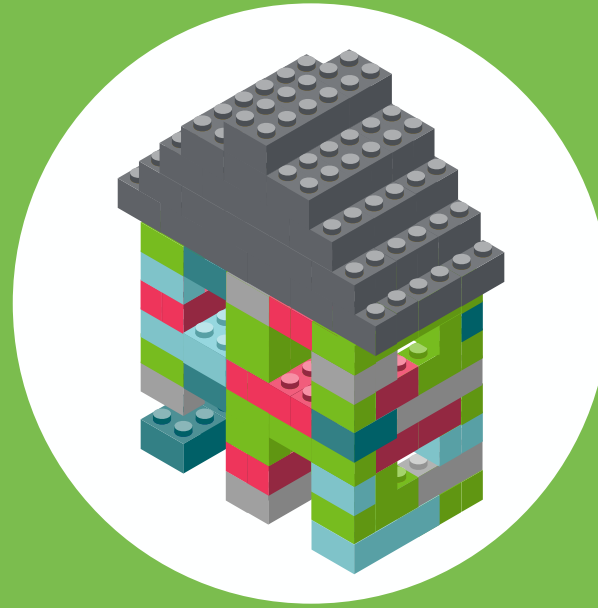
END MARKET

Engage with
DEQ as
appropriate



QUESTIONS

Clarifying questions to
round out understanding of
the framework



SCENARIO 2

Enhanced Government Managed System with
Sustainable Materials Management Authority
(SMMA)



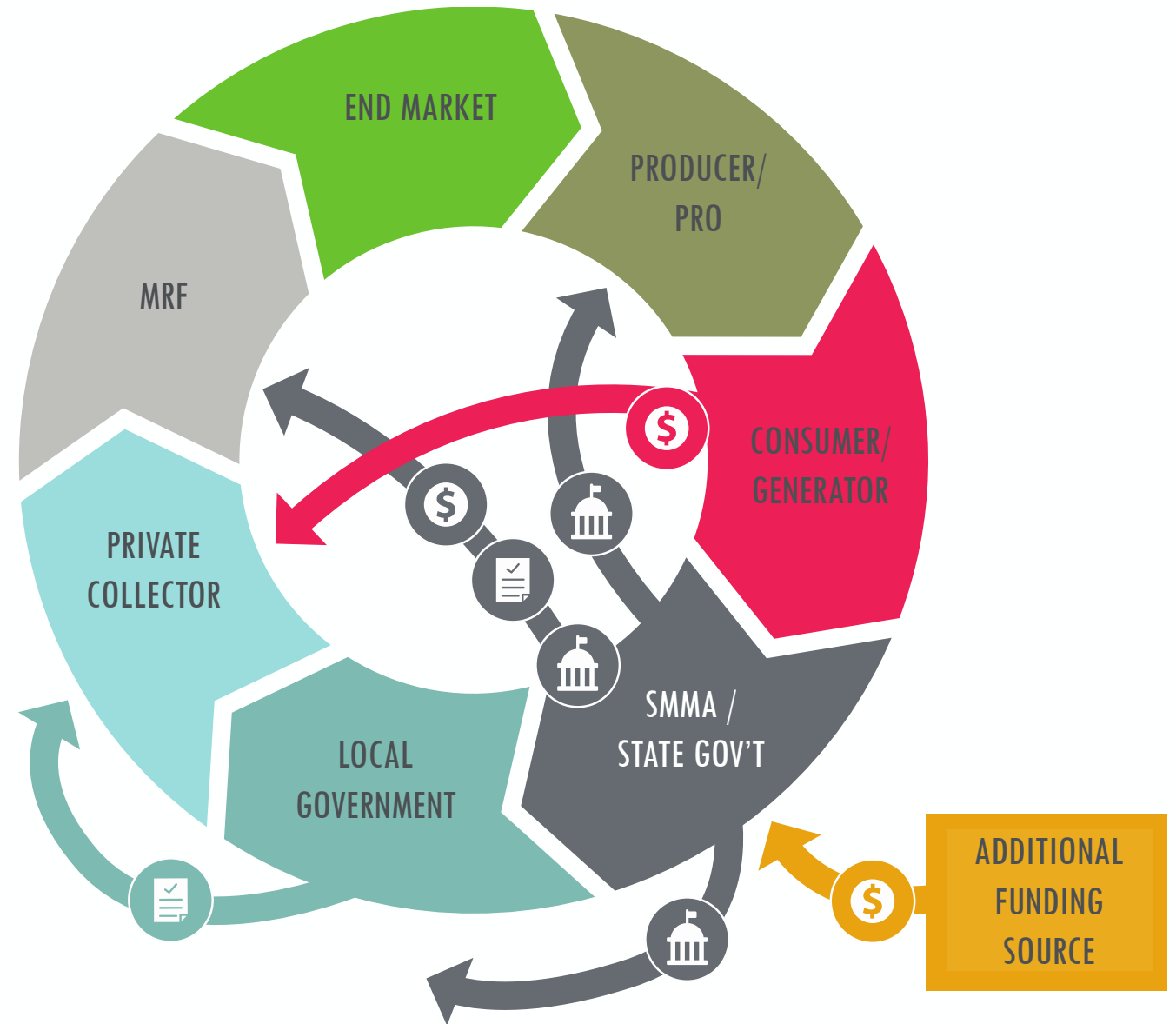
SCENARIO 2

Enhanced
Government
Managed System
with SMMA

Everything from Scenario 1, and:

- Establish SMMA with multi-stakeholder board representing recycling supply chain
 - Authority to address products and/or packaging as it relates to the recycling system, including sales bans
 - Authority to contract with MRFs to provide processing services at low or no-additional cost and set other requirements under the contract
 - Engage in R&D, infrastructure and market development
- Shift some roles from State Government to SMMA:
 - LCA research on optimal EOL pathway,
 - Set uniform list and define materials subject to disposal bans
 - Authority to define performance standards and reporting requirements
 - Coordinate strategic infrastructure planning and market development projects

FINANCIAL AND OPERATIONAL FLOWS: ENHANCED GOVERNMENT MANAGED SYSTEM WITH SMMA



FINANCING



OPERATIONAL /
CONTRACTUAL



STRATEGIC/ REGULATORY
AUTHORITY

ROLES AND RESPONSIBILITY: SMM AUTHORITY

*Red indicates change from existing Oregon framework



REGULATOR*

Regulatory
Guidance, Oversight
and
Enforcement

Policy development

Statewide Planning
(2050 Vision)



SMMA

Develop list of
mandatory
recyclables

Set
performance
and reporting
standards

Harmonization
/ Integration

Contract with
MRF

R&D,
Infrastructure
and Market
development



PRODUCER / PRO

Comply with
requirements
imposed by SMMA
(e.g. single-use
products, source
reduction, recycled
content, reuse/
repair, expanded
deposits)



CONSUMER

Recycle
appropriately

Pay variable
rate fees
(PAYT)



LOCAL GOVERNMENT

Provide
opportunity to
Recycle

Comply with state
requirements
(including reporting
and performance)

Plan, Implement
and Manage
programs

Contract /
Franchise collection
service providers



COLLECTOR

Provide service in
accordance with
agreement with
Local Government

Deliver materials to
contracted
processor

Implement changes
directed by SMMA
(e.g, change in
scope of products/
packaging)

Meet new
performance and
reporting
standards



PROCESSOR

Provide service in
accordance with
contract with
SMMA

Meet new
performance and
reporting
standards



END MARKET

Engage with
SMMA as
appropriate



QUESTIONS

Clarifying questions to
round out understanding of
the framework



SCENARIO GROUP 2: EXTENDED PRODUCER RESPONSIBILITY MODELS



OVERLAYS FOR ALL SCENARIOS

Elements recommended for all scenarios*:

- Universal access / parallel access for all sectors – SF, MF, Commercial, Public Spaces
- Mandatory variable pricing (pay as you throw – PAYT) for all sectors – SF, MF, Commercial, Public Spaces
- MRF certification and reporting requirements
- Material specific LCA database to support EOL and DFE-based decisions
- Defined optimal material specific EOL pathway (instead of hierarchy)
- Statewide list of designated recyclables and ban on disposal of those items
- Recycled content requirements and/or incentives
- Enforceable standards: Material specific recycling rate; contamination rate; equity standards; minimum end market EHS standards
- Labeling requirements
- Market development
- Expanded bottle bill: i.e. wine and spirits

**How these are applied and by whom will change among frameworks*



SCENARIO GROUP 2 EPR Models

Common Elements Recommended for All EPR Models:

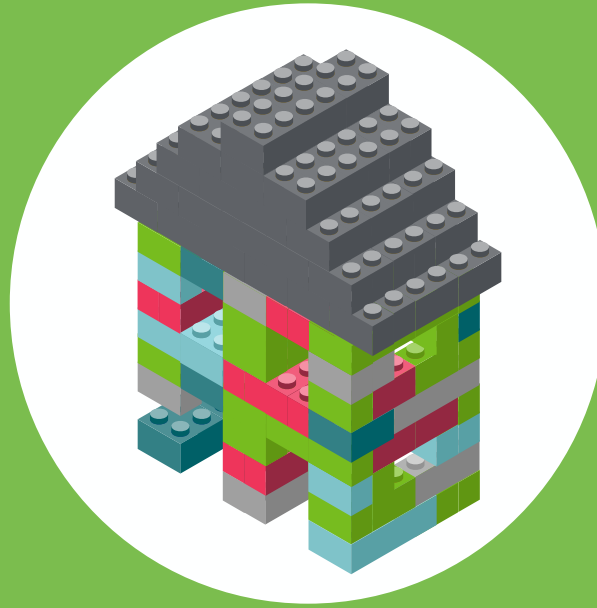
- Scope of obligated materials - includes Either PPP or PPP+
- Obligation extends to all EOL pathways, including litter
- Regulatory authority (DEQ or SMMA) defines optimal EOL pathway
- Eco-modulated fees set by PRO but informed by regulatory authority based on LCA / DFE factors
- Mechanism for investment / coordination in infrastructure and markets
- Education / Outreach clearly defined



SCENARIO GROUP 2 EPR Models

Producer Responsibility Organizations (PROs) in All EPR Scenarios:

- Authorized in legislation which defines:
 - Composition of board
 - Non-profit or for-profit
 - Single or multiple PROs
- PRO(s) must develop program plan to meet goals / targets; plan must be approved by oversight entity (DEQ or SMMA)
 - Proposed list of recyclables
 - Collection / processing arrangements
 - Educational components
- PRO must set and collect fees based on eco-modulation
 - Oversight agency provides DFE impact factors for materials and approves fee structure
 - PRO establishes base fee structure and incorporates DFE impact factors



SCENARIO 3

Post-Collection EPR with SMMA



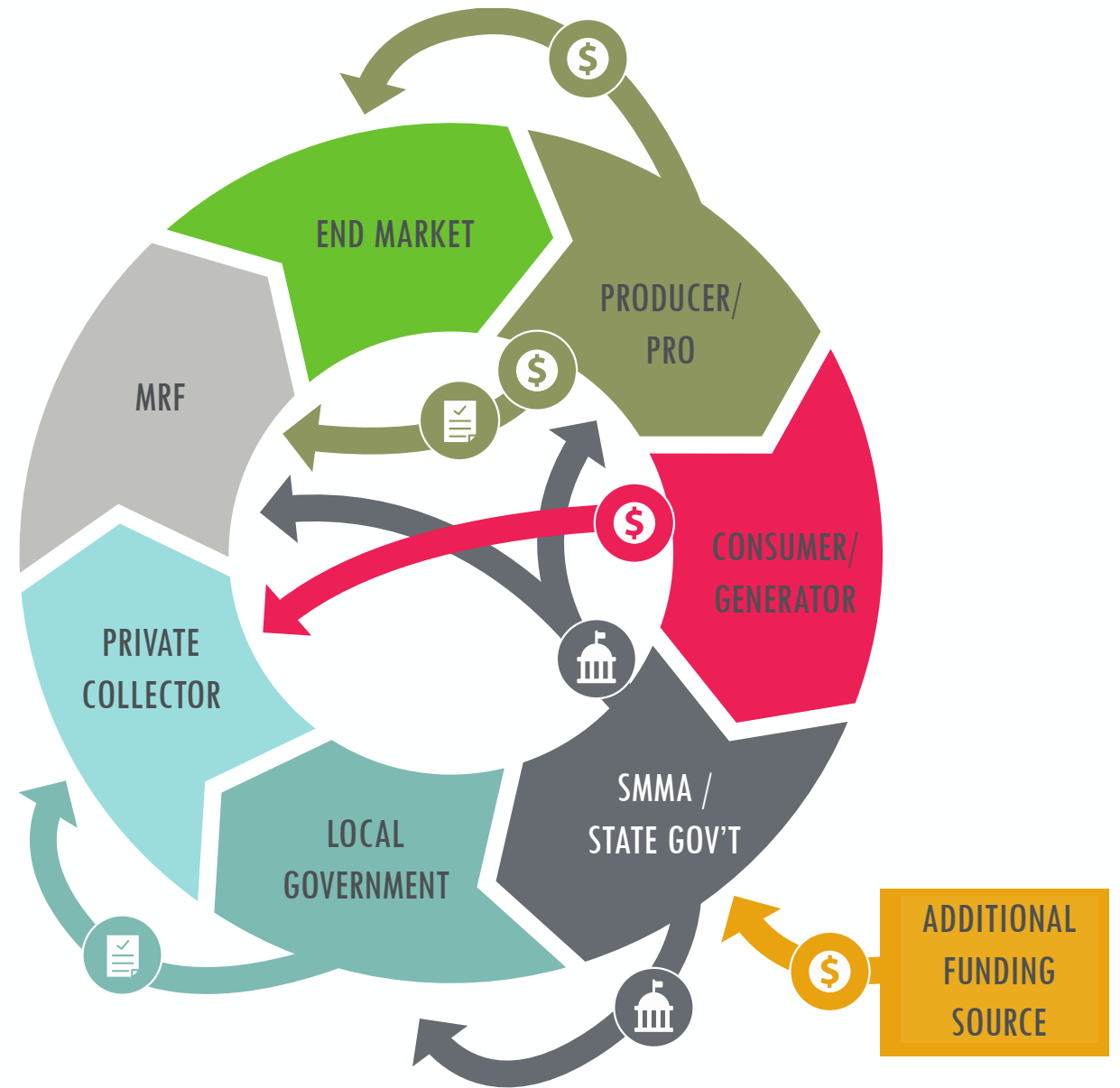
SCENARIO 3

Post Collection
EPR with SMMA

Key Elements:

- Operationally similar to current Oregon framework through collection
- EPR from MRF gate to end markets requiring producers to:
 - Contract with and pay processors to ensure no cost or revenue floor at gate
 - Ensure end markets for designated recyclables
 - Engage in R&D and market development
- SMMA as regulator and integrator

FINANCIAL AND OPERATIONAL FLOWS: POST COLLECTION EPR WITH SMMA



FINANCING



OPERATIONAL /
CONTRACTUAL



STRATEGIC/ REGULATORY
AUTHORITY

ROLES AND RESPONSIBILITY: POST-COLLECTION EPR

*Red indicates change from existing Oregon framework



REGULATOR*

Regulatory
Guidance,
Oversight and
Enforcement

Statewide Planning
(2050 Vision)



SMMA

Approve
Program Plan

LCA research
to Determine
EOL pathway
provide inputs
for eco
modulation

Harmonization
/ Integration

Engage in
R&D and
Market
development



PRODUCER / PRO

Set / collect fees to
finance post-
collection system

Contract with
processors

Comply with
regulatory
standards and
reporting
requirements

Develop program
plan defining how
targets will be met



CONSUMER

Recycle
appropriately

Pay variable
rate fees
(PAYT)



LOCAL GOVERNMENT

Provide
opportunity to
Recycle

Plan, Implement
and Manage
programs

Contract /
Franchise
collection service
providers



COLLECTOR

Provide service as
per agreement
with LG

Deliver materials
to contracted
processor

Implement
changes directed
by SMMA (e.g,
collected
material)

Meet new
performance and
reporting
standards



PROCESSOR

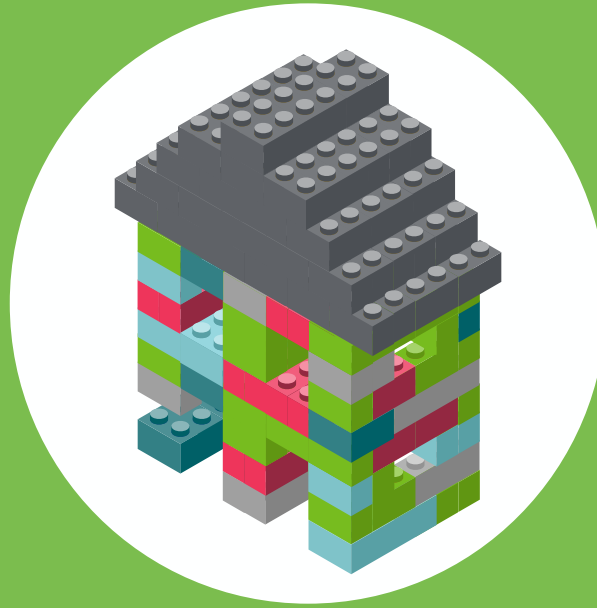
Provide service
in accordance
with contract with
PRO

Meet new
performance
and reporting
standards



END MARKET

Engage with
PRO as
appropriate



SCENARIO 4

EPR with Local Government managed
collection



SCENARIO 4

EPR with Local Government Managed Collection

Key Elements:

- Operationally similar to current Oregon framework through collection
- EPR to finance system and provide integration requiring producers to:
 - Propose list of recyclable materials
 - Reimburse local governments for collection & education costs
 - Contract with MRFs
 - Engage in market development activities
- DEQ as sole regulator (no SMMA)



ROLES AND RESPONSIBILITY: EPR WITH LG COLLECTION

*Red indicates change from existing Oregon framework



REGULATOR

Regulatory Guidance,
Oversight and
Enforcement
Statewide Planning
(2050 Vision)

Set reimbursement rate
and arbitrate
reimbursement process
Approve program plan

LCA research to define
frame of EOL pathway
and eco-modulation



PRODUCER / PRO

Set / collect fees to
finance system

Develop program
plan defining how
targets will be met

Comply with
regulatory
standards and
reporting
requirements

Engage in Market
development



CONSUMER

Recycle
appropriately

Pay variable rate
fees (PAYT) for
waste only



LOCAL GOVERNMENT

Provide opportunity to
Recycle

Comply with state
requirements
(including reporting
and performance)

Plan, Implement and
Manage programs

Pay portion of
franchise cost for
recycling collection

Report cost to State
for reimbursement



COLLECTOR

Provide service
in accordance
with
agreement
with Local
Government

Deliver
materials to
contracted
processor

Comply with
regulatory
standards and
reporting
requirements



PROCESSOR

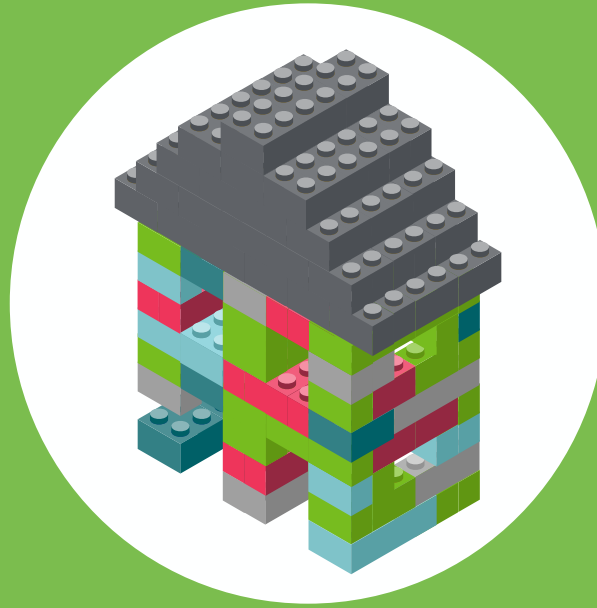
Provide service in
accordance to
contract with PRO

Comply with
regulatory
standards and
reporting
requirements



END MARKET

Engage with PRO
as appropriate



SCENARIO 5

EPR with full producer finance and system coordination



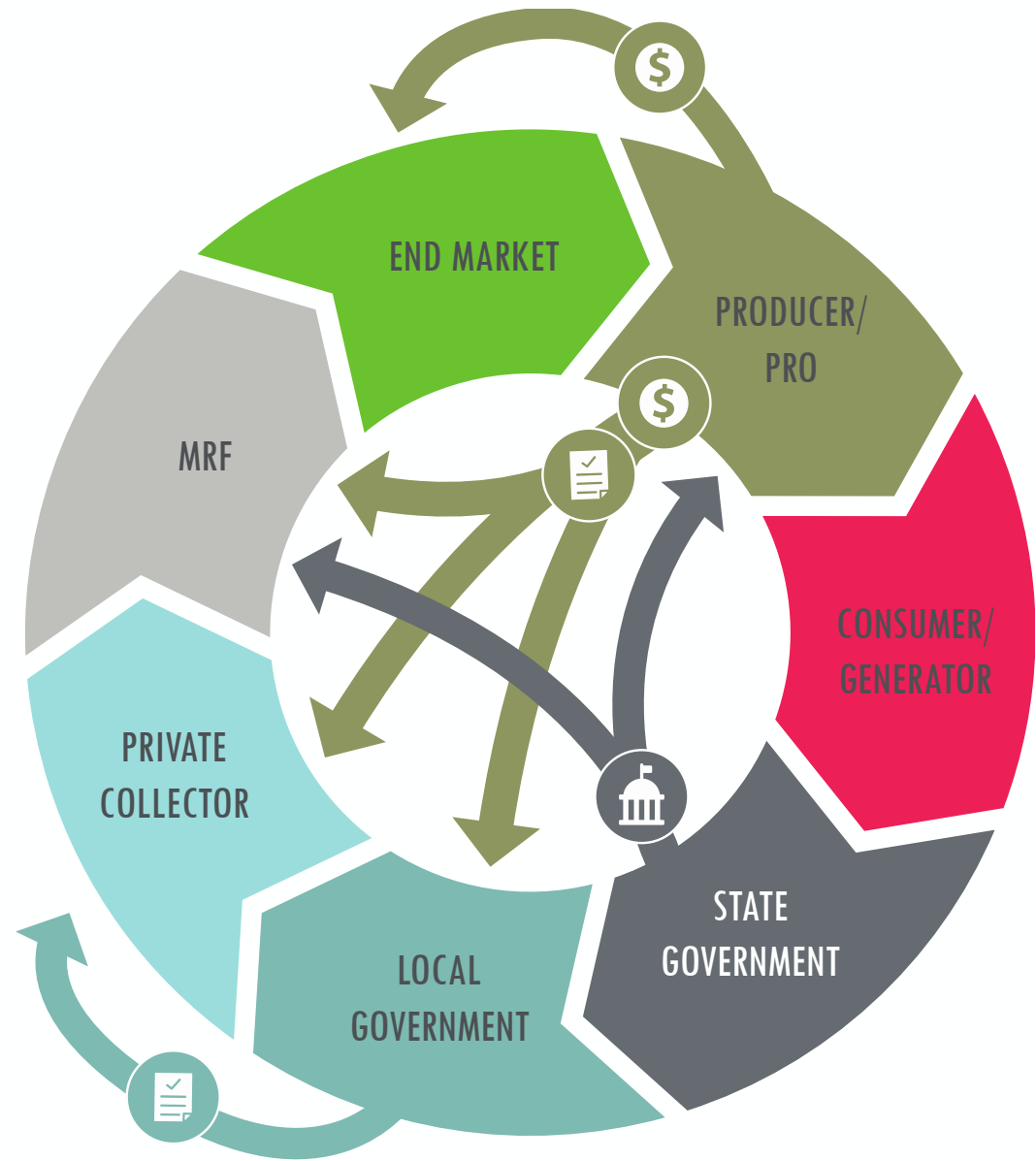
SCENARIO 5

EPR WITH FULL FINANCING AND SYSTEM COORDINATION

Key Elements:

- Collection and post-collection financed and coordinated by PRO through contracts
- Producers
 - Contract with collection service providers (can be LG)
 - Contract with MRFs or establish processing and marketing capacity necessary to manage materials
 - Propose list of recyclable materials
 - Engage in market development
- DEQ as sole regulator (no SMMA)

FINANCIAL AND OPERATIONAL FLOWS: SCENARIO 5 EPR WITH FULL PRODUCER FINANCE AND SYSTEM COORDINATION



FINANCING



OPERATIONAL /
CONTRACTUAL



STRATEGIC/ REGULATORY
AUTHORITY

ROLES AND RESPONSIBILITY: EPR WITH FULL FINANCE AND OPS

*Red indicates change from existing Oregon framework



REGULATOR

Regulatory Guidance,
Oversight and
Enforcement

Statewide Planning
(2050 Vision)

Approve program
plan

LCA research to
define frame of EOL
pathway and eco-
modulation



PRODUCER / PRO

Set / collect fees to
finance system

Develop program
plan defining how
targets will be met

Comply with
regulatory
standards and
reporting
requirements

Engage in market
development



CONSUMER

Recycle
appropriately

Pay variable rate
fees (PAYT) for
waste only



LOCAL GOVERNMENT

Can opt-in to
Provide
education,
collection services
(direct or by
contract /
franchise
agreement)

Comply with
regulatory
standards and
reporting
requirements if
opt-in is chosen



COLLECTOR

Collect materials in
accordance with
agreement with PRO
or sub-agreement
with LG

Deliver materials to
contracted processor

Comply with
regulatory standards
and reporting
requirements



PROCESSOR

Provide service in
accordance to
contract with PRO

Comply with
regulatory
standards and
reporting
requirements



END MARKET

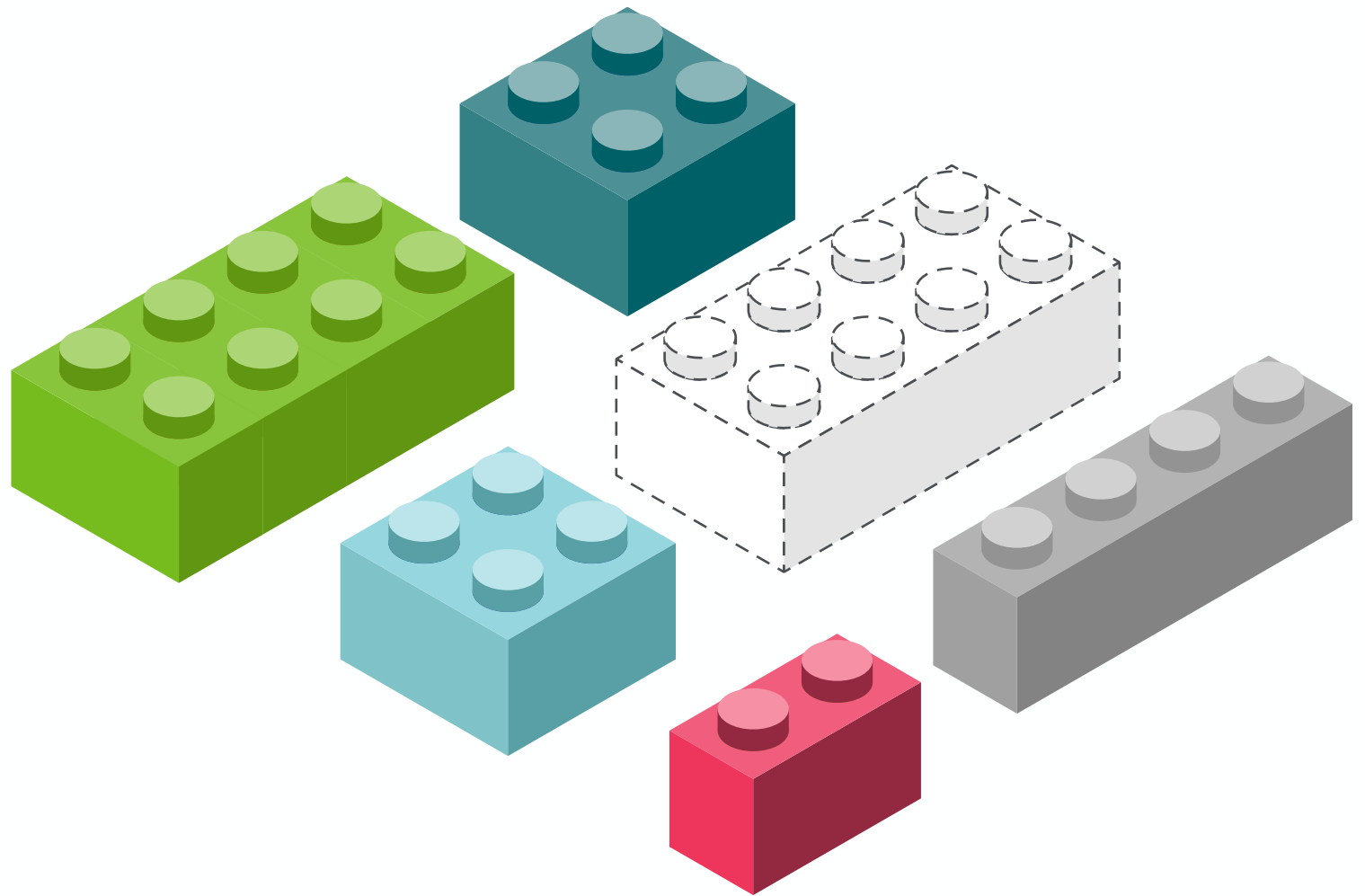
Engage with
PRO as
appropriate



QUESTIONS

Clarifying questions to
round out understanding of
the framework

ARE THERE
ANY
ELEMENTS
MISSING OR
OUT OF
PLACE?





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