CLTD

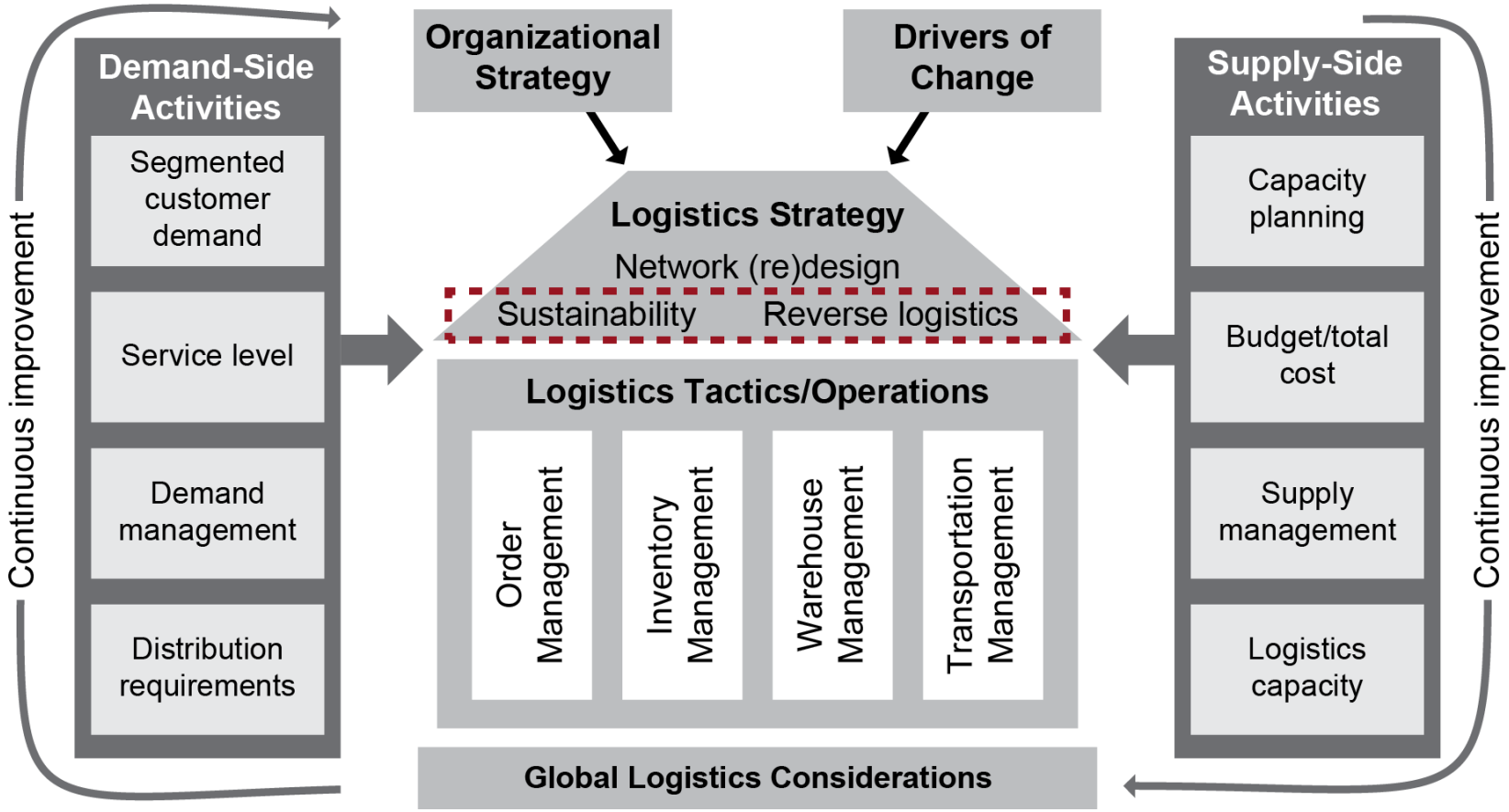
CERTIFIED IN LOGISTICS,
TRANSPORTATION AND DISTRIBUTION

MODULE 3:
SUSTAINABILITY AND REVERSE LOGISTICS

APICS

ASCM

Module 3 Overview



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MODULE 3, SECTION A:
SUSTAINABILITY

APICS

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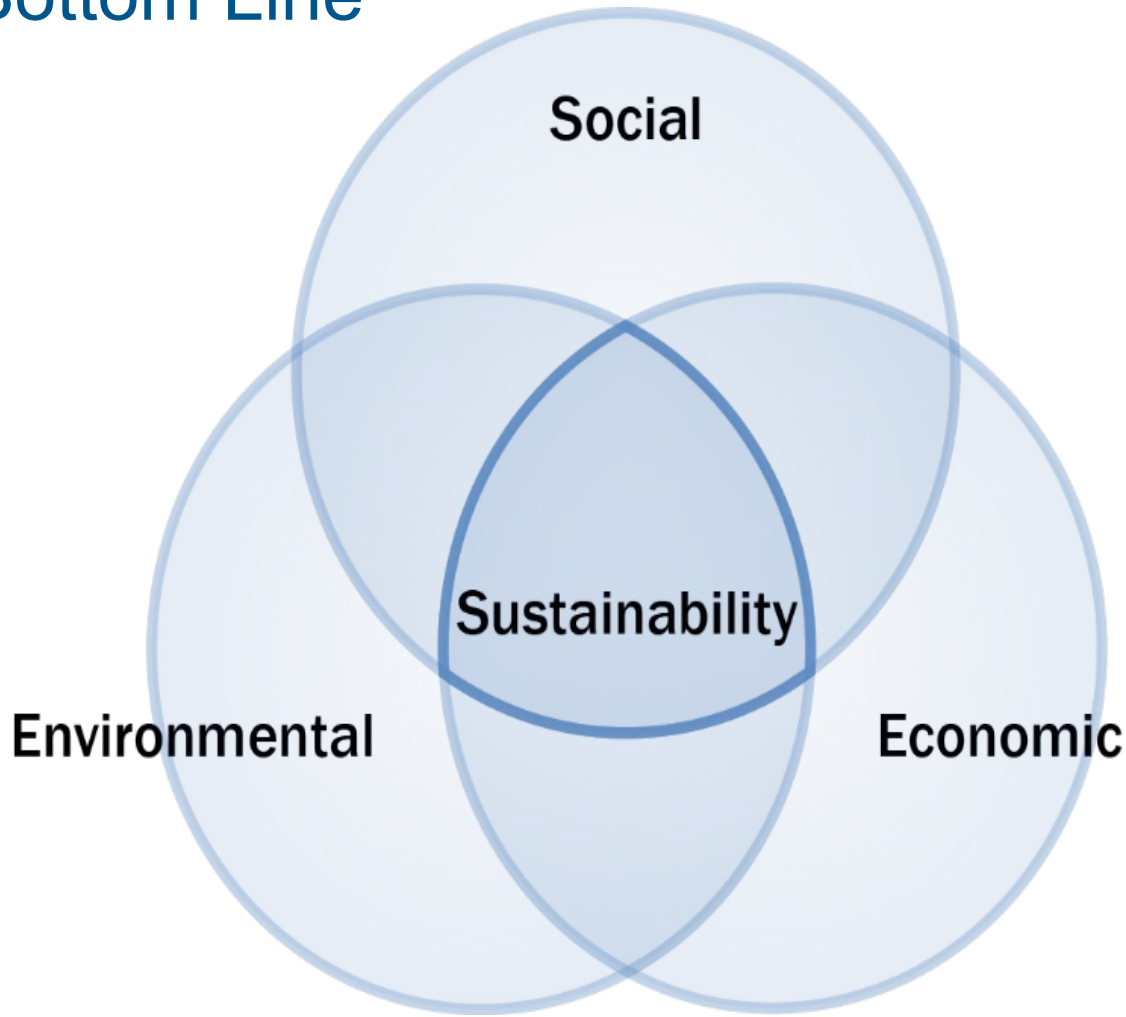
Social Responsibility

"Commitment by top management to behave ethically and to contribute to community development. This may also entail improving the workforce's quality of life." (*APICS Dictionary,* 16th edition)"

Social Responsibility Dimensions

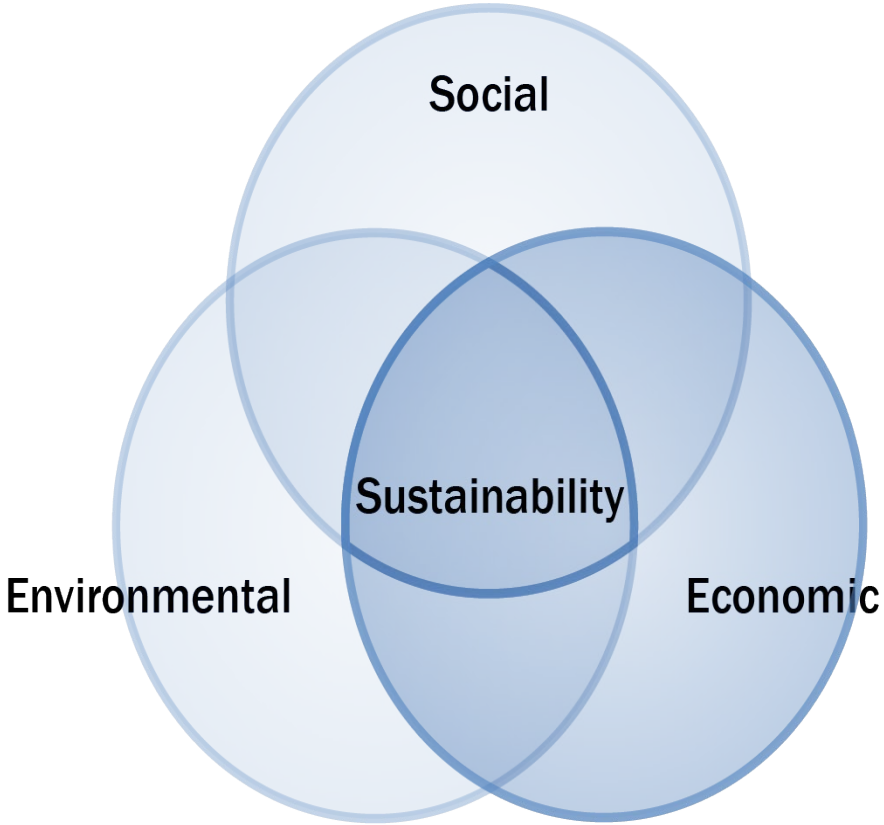
Triple Bottom Line



Triple Bottom Line

Economic perspective

Value created by organization after deducting cost of all inputs



Initiatives:

- Implement technologies to support sustainability and economic goals.
- Develop an eco-friendly reputation.
- Write environmental management strategies.
- Promote green products.

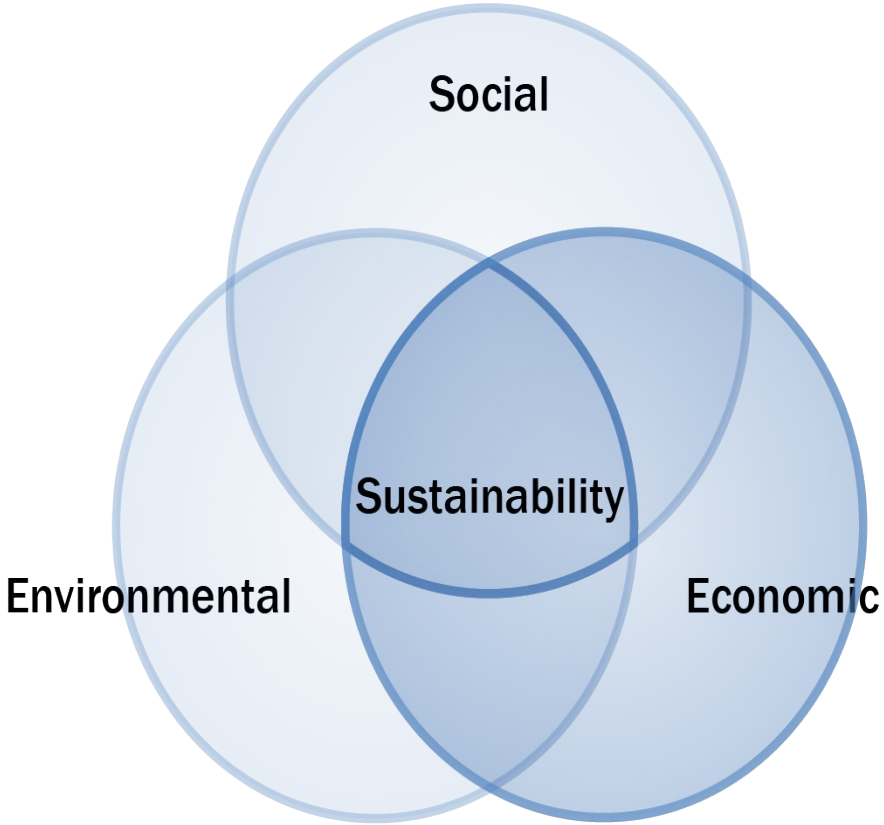
Triple Bottom Line

Environmental perspective

Organization's ability to avoid harming environment and preserve scarce resources for future generations

Initiatives:

- Environmentally friendly manufacturing processes
- ISO 14000
- Regulatory considerations (example: RoHs)
- Energy-efficient transportation and warehouses



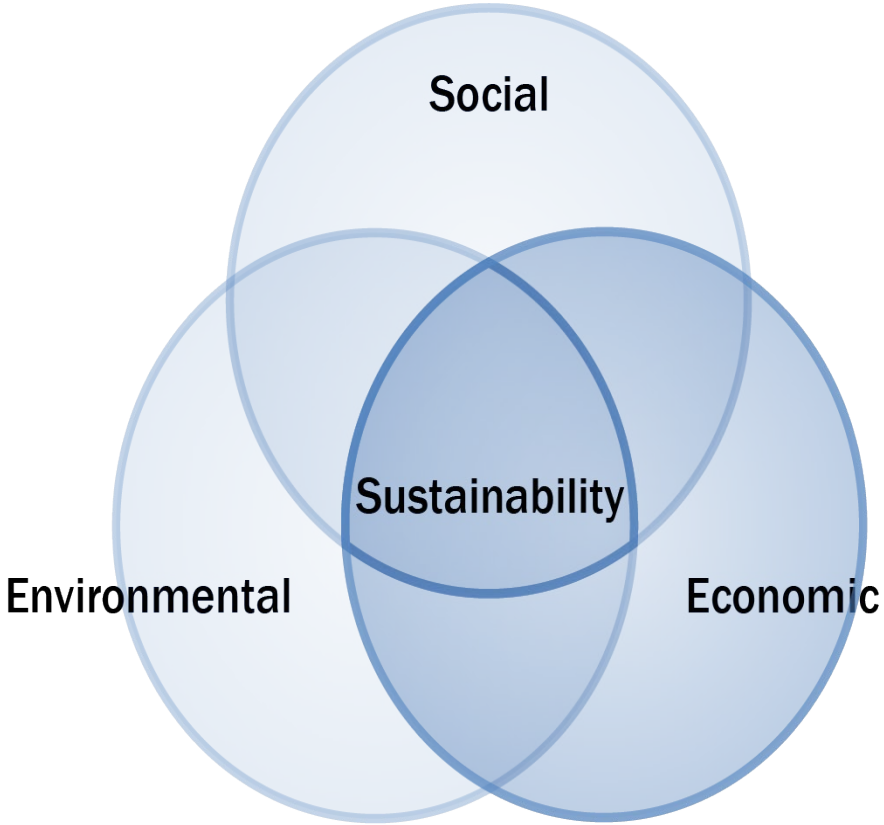
Triple Bottom Line

Social perspective

How organization impacts employees, suppliers, and community at large

Initiatives:

- Promote human rights and fair labor practices.
- Develop socially responsible supply chain.
- Be positive role model.
- Treat stakeholders and environment with care and respect.



United Nations Global Compact

Areas	Principles
Human rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and Principle 2: make sure that they are not complicit in human rights abuse.
Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; Principle 4: the elimination of all forms of forced and compulsory labor; Principle 5: the effective abolition of child labour; and Principle 6: the elimination of discrimination in respect of employment and occupation.

Source: © United Nations Global Compact, www.unglobalcompact.org.

United Nations Global Compact

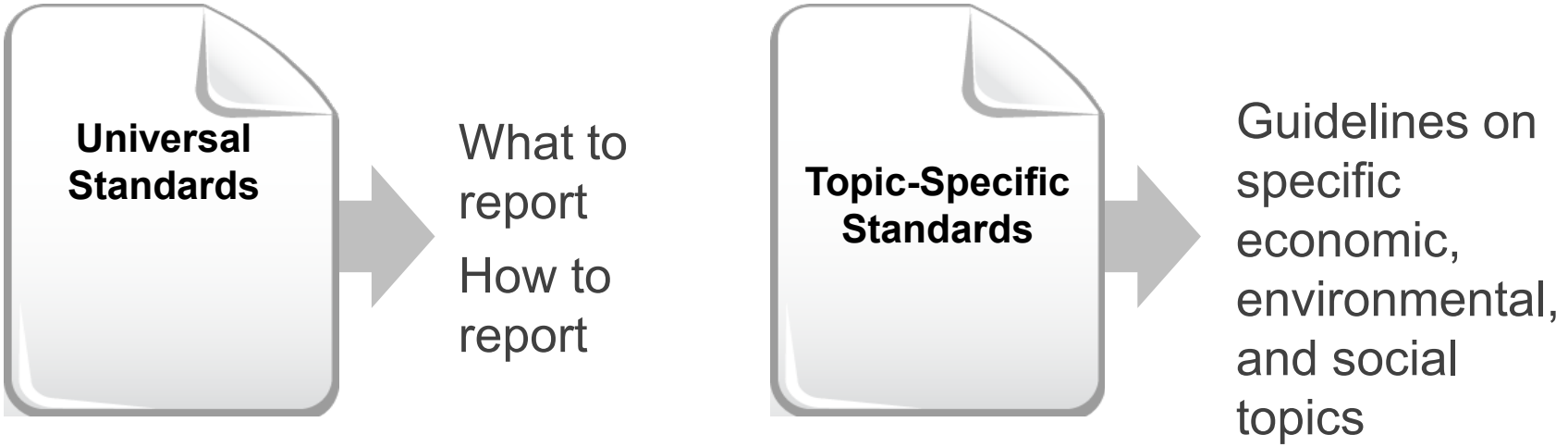
Areas	Principles
Environment	**Principle 7:** Businesses should support a precautionary approach to environmental challenges; **Principle 8:** undertake initiatives to promote greater environmental responsibility; and **Principle 9:** encourage the development and diffusion of environmentally friendly technologies.
Anti-corruption	**Principle 10:** Businesses should work against corruption in all of its forms, including extortion and bribery.

Source: © United Nations Global Compact, www.unglobalcompact.org.

Global Reporting Initiative (GRI)

GRI Standards

- Voluntary sustainability reporting
- Manage risks and optimize supplier performance



International Organization for Standardization

ISO:

- Global federation (163 countries)
- Nongovernmental organization (NGO)
- Trusted partner in supply chain community
- Market-driven
- Voluntary

Benefits:

- Improved efficiency, productivity, bottom line
- Fair trade
- Reduced environmental impacts
- Legislation
- Best practices

ISO 14000 Series Standards

ISO 14001:2015

- Strategic, holistic approach to environmental policy, plans, and actions
- Generic environmental management system requirements

ISO 14004:2016

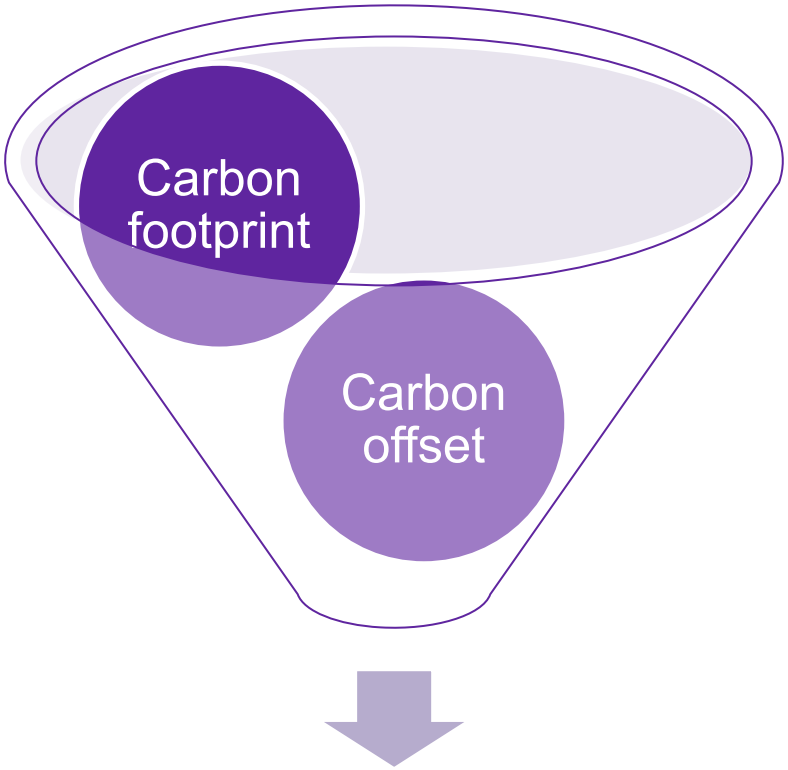
- Guidelines for environmental management systems
- Implementation guide
- Assurance and proof

Topic 1: Logistics Social Responsibility Considerations

ISO 50001

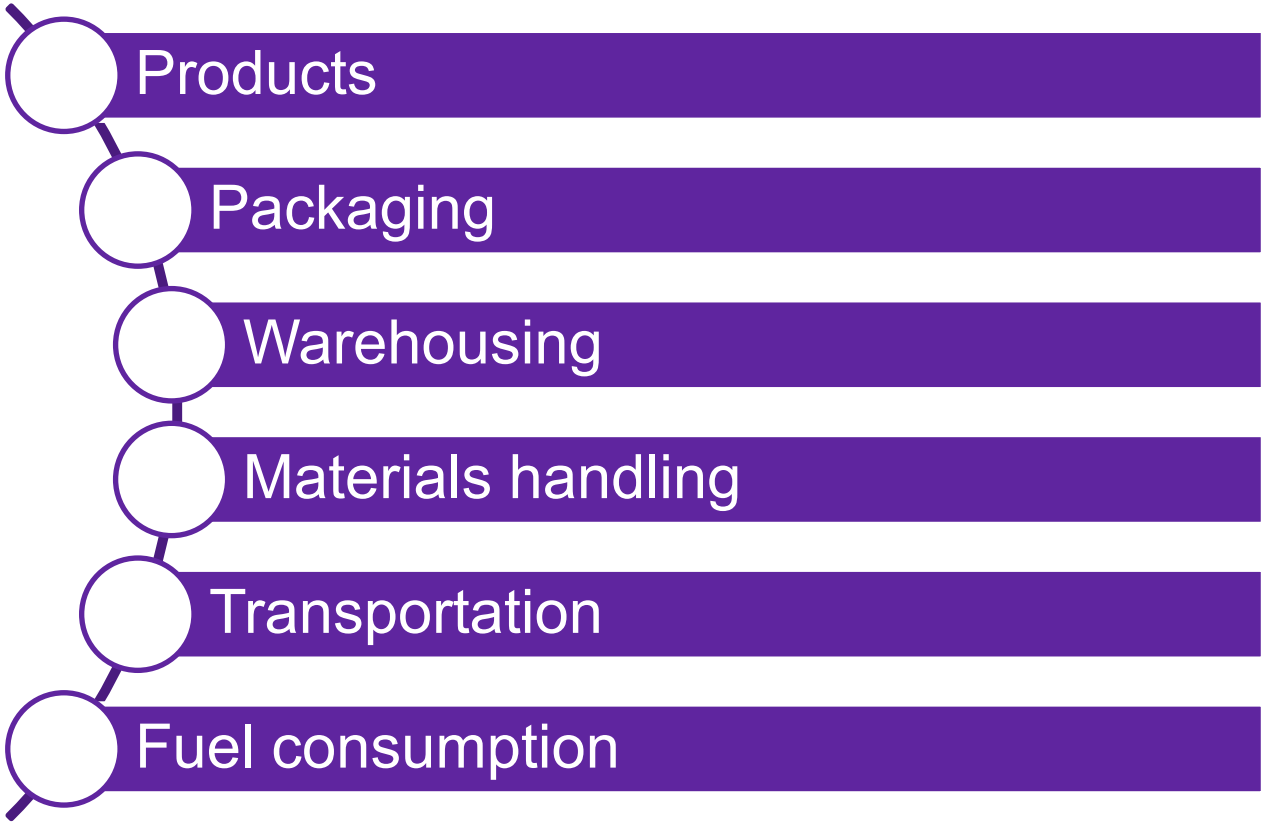
1. General requirements
2. Management responsibility
3. Energy policy
4. Energy action plan
5. Implementation and operation
6. Performance audits
7. Management review

Greenhouse Gas Emissions



Goal: lower logistics emissions

Green Initiatives



Sustainability in the Supply Chain

Vendor selection

Pricing incentives

Handling dangerous materials

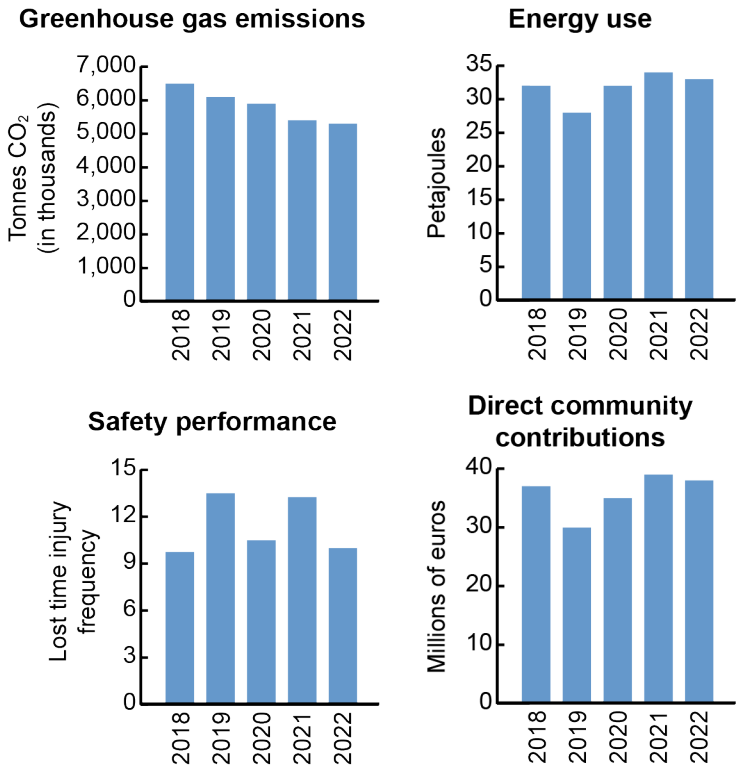
Handling Dangerous Materials

Materials that are “capable of posing an unreasonable risk when transported in commerce to health, to safety, and to property.”

Monitoring and Measurement

Sustainability scorecard

- Compare year-over-year results.
- Track opportunities for improvement.
- Demonstrate continuous progress.



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MODULE 3, SECTION B:
REVERSE LOGISTICS

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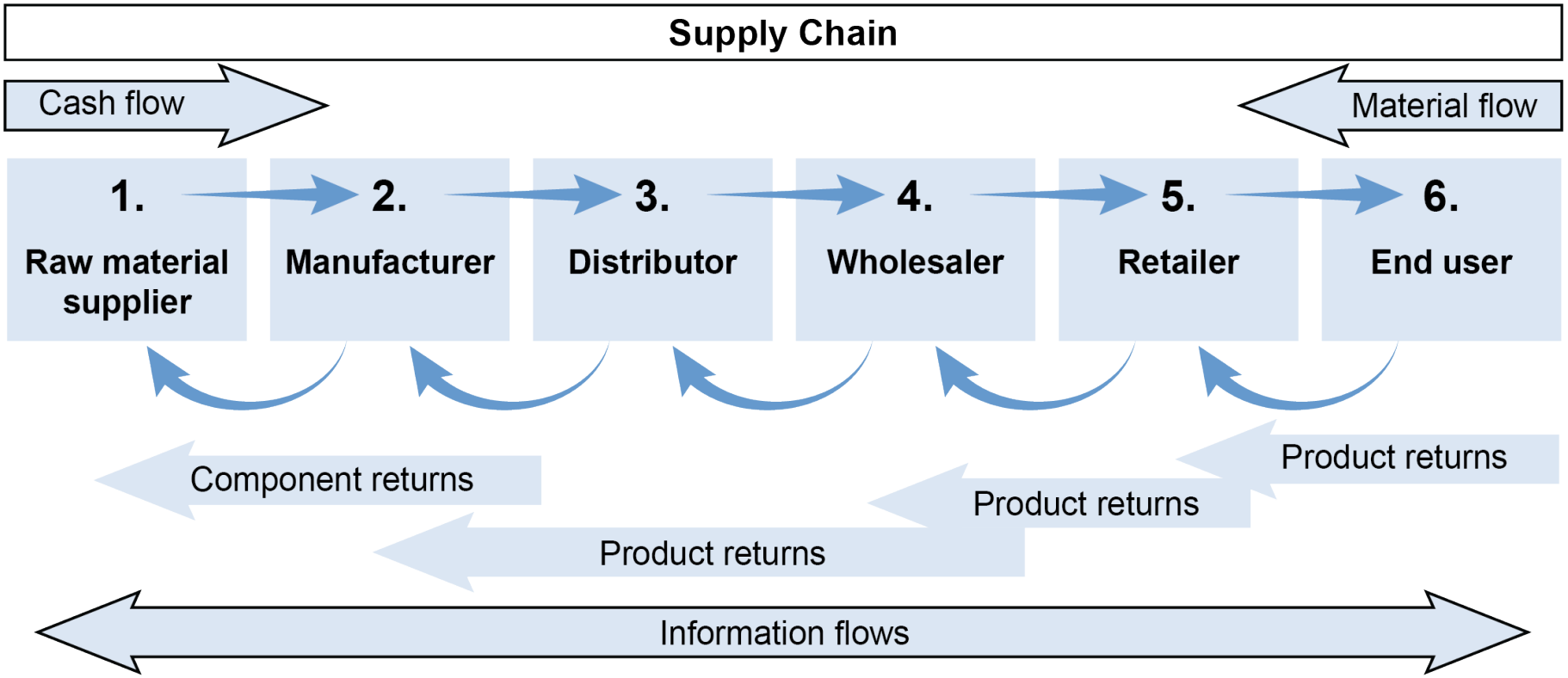
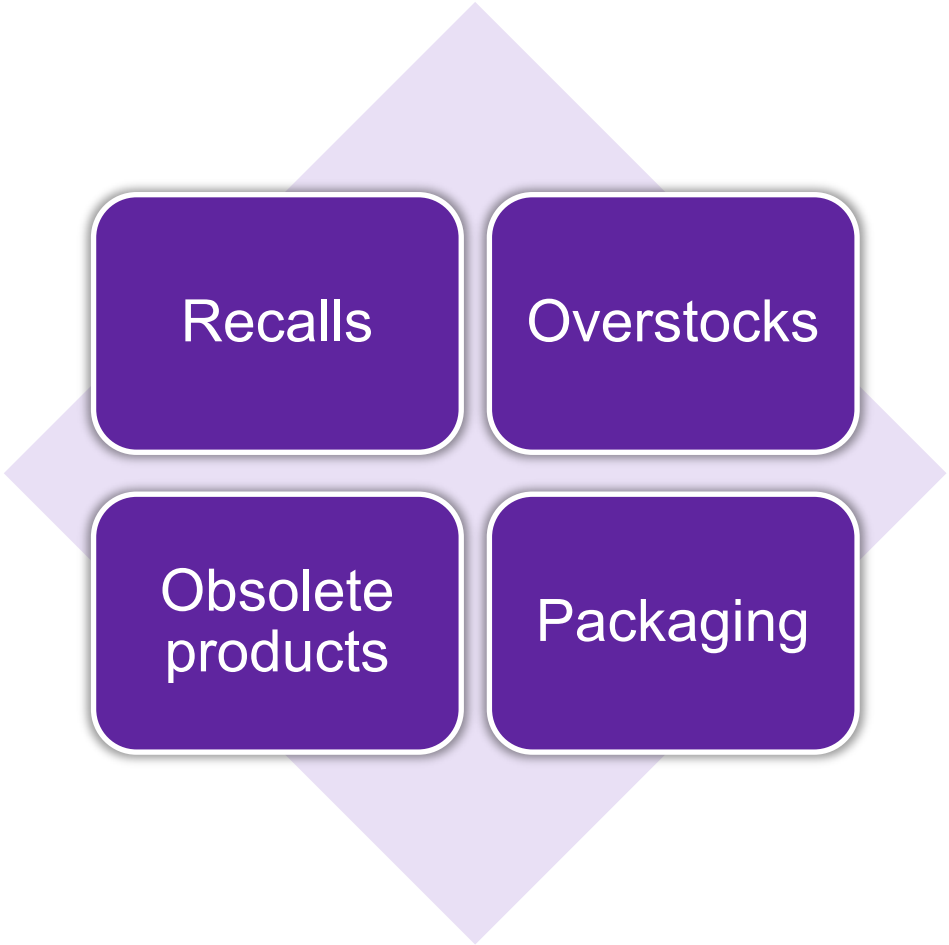
Reverse Logistics Process Flow



Source: *APICS CSCP Learning System,* 2016 Edition.

Reasons for Returns



Return Policies

- ✓ Set policies.
- ✓ Communicate policies to all customers.

Approaches:

- Zero returns policy
- Return rate allowance
- Discount offers
- Defective returns only
- Return allowed with receipt
- B2B: Lot-size returns
- After gatekeeper approval
- Shipping and repair costs

Best Practices

- Retailers deduct costs for returns from outstanding payables with manufacturer.
- Manufacturers do not accept or credit returns from retailers that do not comply with sales agreements.
- For defective or recalled products, manufacturer typically pays freight.
- High tech manufacturers may be more strict about conditions for returns; often do not pay handling or consolidation fees.
- Secondary market buyers (e.g., liquidators) may provide carriers or pay costs of third-party shipper.
- Product may be shipped with reusable packaging and return label, or manufacturer may provide instructions and label on website.

Key Considerations for Reverse Logistics Management

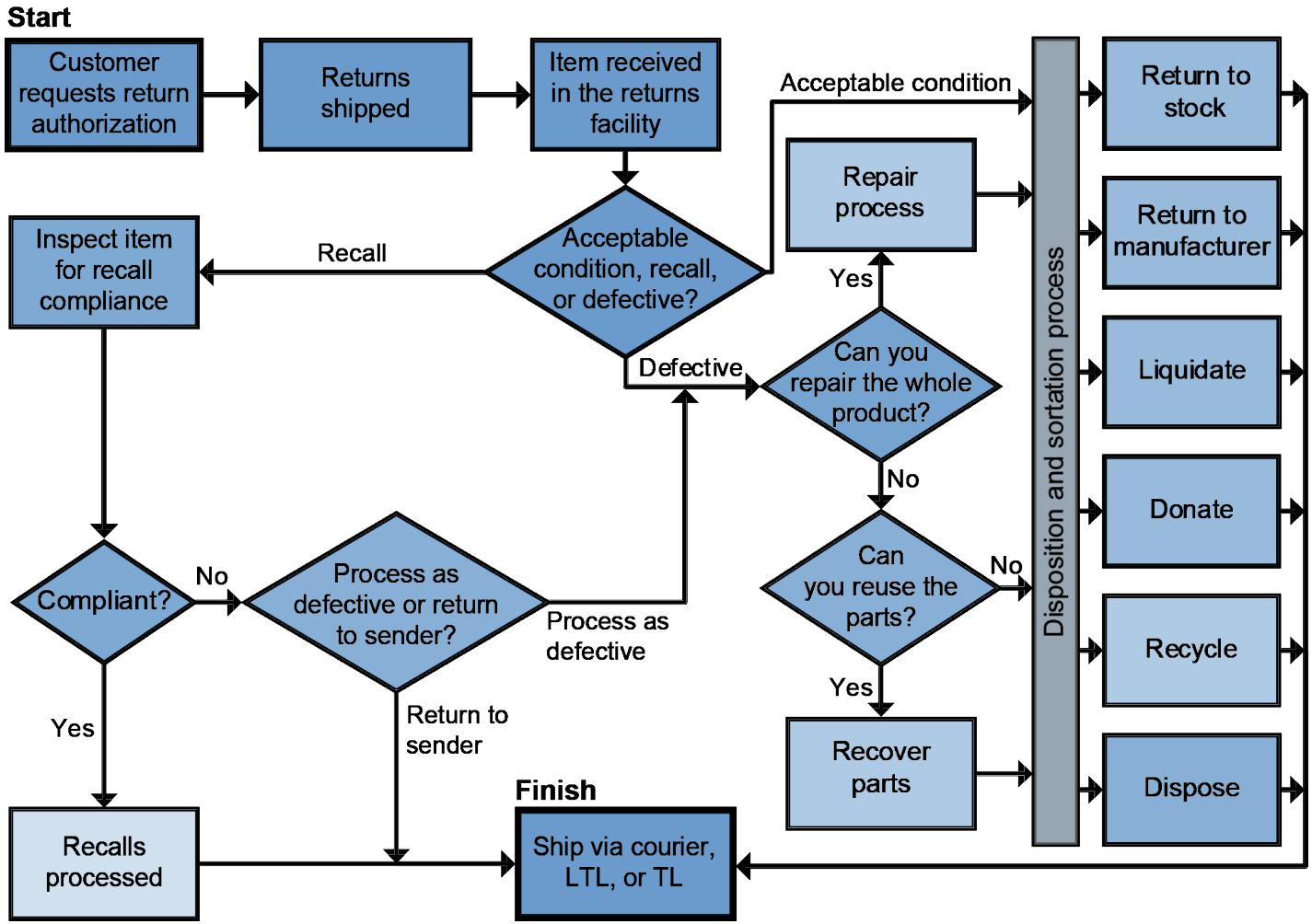
Internal or outsourced?

- Space
- Resources
- Trained personnel

Why develop core competencies?

- Competitive advantage
- Monetize efforts
- Demand for recyclable, reusable products

Disposition of Returns



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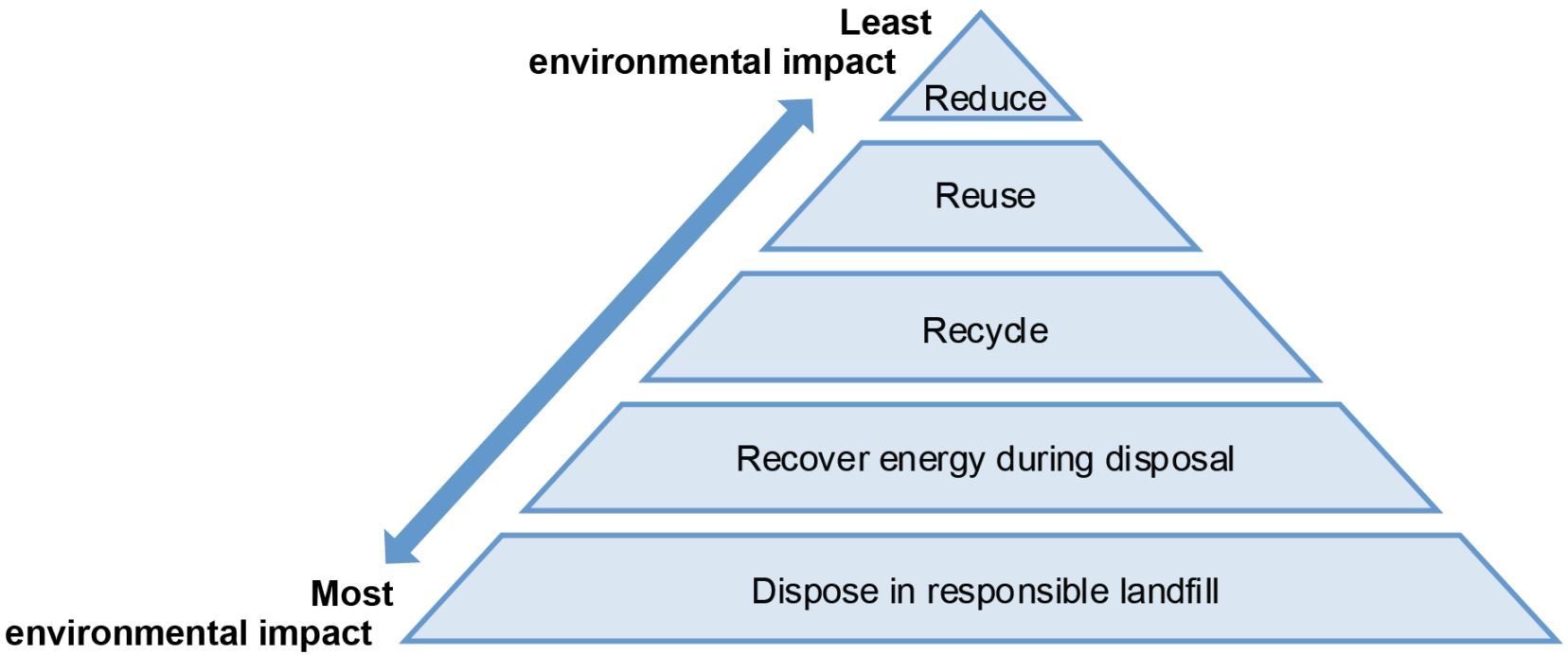
Reverse Logistics Hierarchy



Source: Adapted from *APICS CSCP Learning System,* 2016 Edition.

Closed-Loop Systems

- Designed for both forward and reverse flows.
- Objective is to reuse or recycle every component.

Advantages:

- ✓ Capture significant portion of original value.
- ✓ Products don't end up in landfills.
- ✓ Easier to balance supply and demand.

Managing Reverse Logistics

Key management elements

- Weigh pros and cons of internal returns center.
- Secure management buy-in.
- Select effective information systems.
- Document guidelines and procedures.
- Implement screening process.

Key technologies

Internet	ERP
EDI	IoT
RFID	RMS
Reverse payments	Blockchain

Reverse Logistics Costs

Calculation methods:

- Activity-based costing
- Forward flow analysis and cost plus handling charges
- Formulaic version

Benefits and Challenges

Benefits

- Customer satisfaction
- Brand protection
- Tracking and cost recovery
- Creation of new jobs
- Decreased use of landfills
- Recovery of materials
- Extended warranties and service contracts

Challenges

- Forecasting volumes
- Storage
- Costs
- Traceability