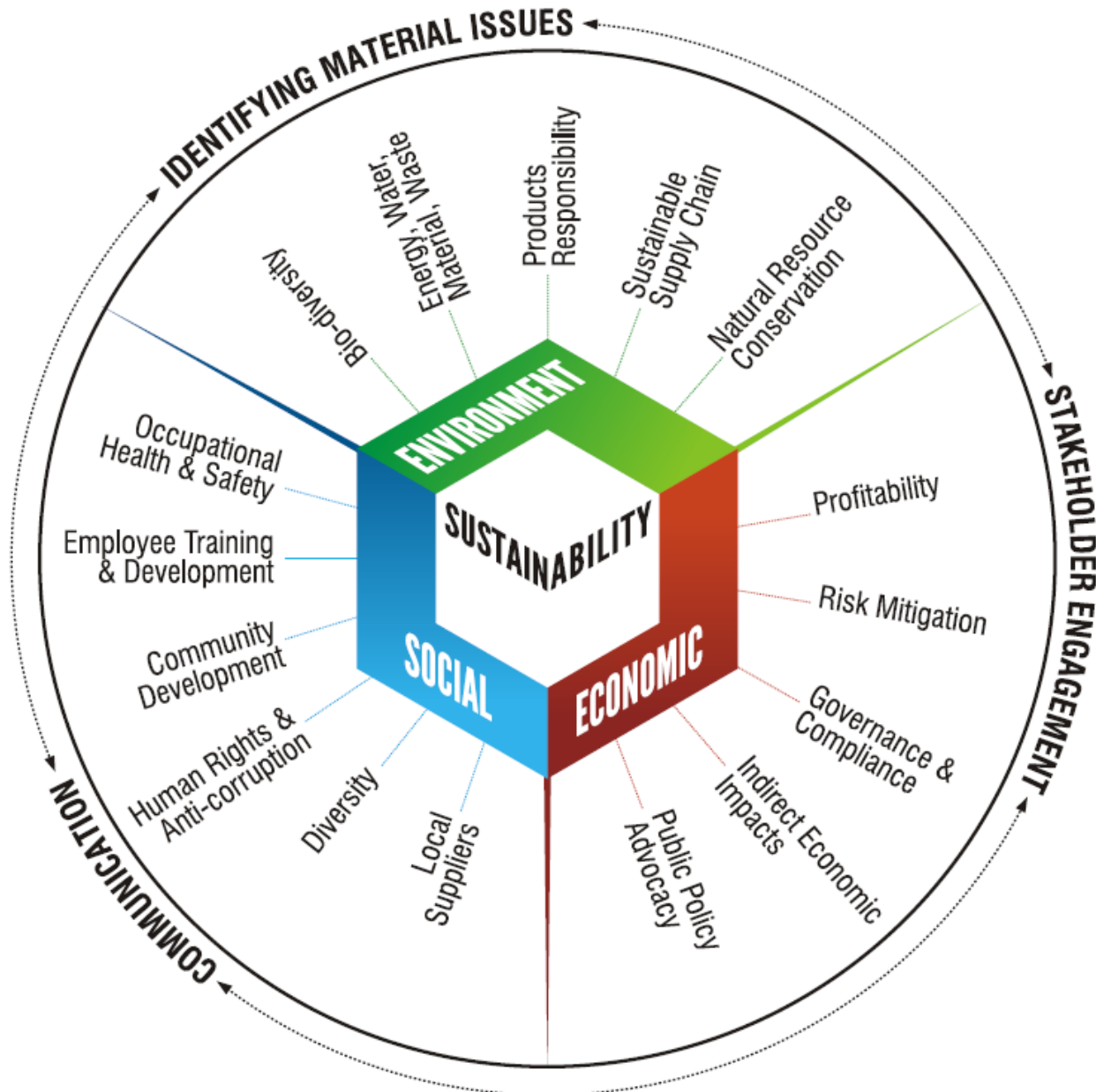


Sustainable & Ecological Logistics

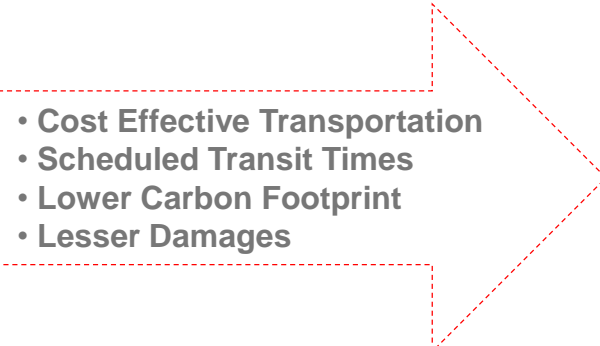
Sustainability At MLL



Potential Focus Areas in Transportation

Asset Utilization:

- **Route Optimization**
 - Load & Location
 - Transit Times
 - Dynamic Routing
- **Shipping Unit Design**
 - Minimize total Volume / Mass
 - Fixtures
- **Consolidate Movements**
 - Network Level & Not Company Level
- **Lower Emissions in Transit**
 - Technology Improvements in Vehicles
- **Fleet Capacity Utilization**
 - Loading Capacity
 - Running Time – Reduce Idle Time
 - Reduce Dead Runs
 - Customization of Fleet
- **Multi-Modal Network**

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- Cost Effective Transportation
 - Scheduled Transit Times
 - Lower Carbon Footprint
 - Lesser Damages



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Challenges in Transportation

- **Route Optimization**
 - Dynamic Route Selection
 - Location Wise Load Visibility
 - Dimensional Data of Shipping Units
- **Shipping Unit Design**
 - Product / Packaging Design to include Logistics Aspects
- **Consolidate Movements**
 - Advance Intimation on Loads
 - Sharing of Network among competitors
- **Lower Emissions**
 - Low Freight Rates
 - Consideration for total logistics costs vs freight rate
- **Fleet Capacity**
 - Infrastructure Constraints (Loading Bays / MHEs / Yards)
 - Visibility to all loads in the vicinity
 - RTA / Border restrictions
- **Multi Modal Network**
 - Low accessibility
 - Higher volume requirements

Potential Focus Areas in Warehousing

• Warehouse Design

- Construction Details
- Layout Design
- Multi User Capability

• Utilities Conservation

- Minimize Electricity Consumption
 - Design for natural sun light
 - Cross Ventilation
 - Alternative Sources - Solar
- Minimize Water Consumption
 - Controlled Usage of Water

• Travel Path Optimization


- Shelf Space Allocation
- Interleave Tasks – Pick & Put

• Order Fulfillment Lead Time

- Order Fill Rate – Inventory Accuracy
- Truck Turn Around Time

• Traceability

- Recall Capability
- FIFO / Lot / FMFO / Expiry Controls

- 
- Improved Order Fill Rate
 - Faster Turn Around Time
 - Lower Carbon Footprint
 - Complete Traceability



PROFITABILITY

Challenges in Warehousing

- **Huge Investments**

- Warehouse Construction
- Solar Power Panels
- Automated MHE
- ASRS - Carousals etc
- Battery / CNG Operated MHE

- **Multi Company Usage**

- Resistance to Operate from same W/H of Competitors
- Combined Distribution to same geographies

Potential Focus Areas in Stakeholder Engagement

- Driver Engagement Programs
 - Safe Driving / Health & Financial Awareness
 - Loyalty Programs
 - Performance based incentives
- W/H Manpower
 - Local Community employment
 - OTJ Training programs
- Communities
 - Adoption of local villages
 - Create awareness on health / finance / education etc
 - Build infrastructure
 - Impart vocational training
- Customer / Supplier
 - Periodic structured feedback
 - Review and incorporation in business

THANK YOU