SCV Trade-off Map



Planning

Sourcing

Manufacturing

Delivery

Location and procurement decisions

- Evs. R: Production in stable regions strengthens resilience but can increase procurement costs
- E vs. R: Diversification (multi-sourcing, regions) strengthens resilience but can increase procurement costs
- E vs. S: Sustainable supplier selection can increase procurement costs
- E vs. R vs. S: Nearshoring strengthens resilience and reduces emissions but can lead to higher procurement costs and disadvantages for the Global South

Risk management

 E vs. R: Improved planning capacities (e.g. for risk management) strengthen resilience but can result in higher operating costs

Supplier relationship management

- E vs. S: Investments in supplier development strengthen sustainability but can increase procurement costs
- E vs. R vs. S: Demand for transparency in supplier relationships can strengthen resilience and sustainability but at the same time impair partnerships (e.g. suppliers who are not prepared to create transparency may leave)

Production methods

- E vs. S: More sustainable production (e.g. OHS) and avoidance of outsourcing strengthen sustainability but increase production costs
- E vs. R vs. S: Redundant production capacities (e.g. 2nd line) strengthen resilience but can lead to higher production costs and lower sustainability

Distribution network and location planning

- E vs. R: Centralised production and warehousing reduce production and storage costs but can weaken
 the resilience of the supply chain
- E vs. S: Centralised production and warehousing reduce production and storage costs but can lead to higher CO2 emissions due to longer transport distances

Shipping and transport management

- Evs. R: Logistics outsourcing can reduce logistics costs but reduces flexibility and control
- E vs. R vs. S: Fast and flexible transport strengthens resilience but increases CO2 emissions and transport costs
- E vs. R vs. S: Safe route selection strengthens resilience but can cause higher CO2 emissions and transport costs
- E vs. R vs. S: Consolidation of transport loads reduces emissions but can increase delivery times and storage costs

Delivery flexibility and reliability

- **E vs. R:** Shorter order cycles increase flexibility but can lead to higher transport and handling costs

Delivery flexibility and reliability

- E vs. R: Higher inventories strengthen resilience but tie up capital and increase opportunity and obsolescence costs
- R vs. S: Higher stock levels strengthen resilience but increase the risk of waste (e.g. BBD)

Product design

- E vs. S: Environmentally friendly materials strengthen sustainability but can lead to higher procurement costs (design-for-sustainability)
- E vs. S: Sustainable and durable product design strengthens sustainability but can reduce profits in the short term as fewer products are sold (build-to-fail)

Investment decisions

- Evs. R and Evs. S: Measures to increase resilience and sustainability incur investment costs in the short term but can lead to cost savings and more stable processes in the long term