

Presentation to REMI Worksop

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Examples from other industries

- ❖ Automotive
- ❖ Retail Promotion
- ❖ DIY/Project consolidation

Automotive

Critical issues

- ❖ 6,000-10,000 SKU's per vehicle
- ❖ High diversity (mass customisation)
- ❖ Long supply chains (even intercontinental)
- ❖ Customer expectation

Solution

- ❖ Sequencing centres
- ❖ Progressively hardening forecasts (longest lead time consideration)
- ❖ Manage critical inventory items
- ❖ Express milk run collections
- ❖ Plan for %age of airfreight
- ❖ Multi-source to avoid disruption
- ❖ JIT (Kanban call-off)
- ❖ End-End visibility (EDI/T&T)

Retail Promotion

Critical Issues

- ❖ Large volumes
- ❖ Short timespan
- ❖ Wide dispersion
- ❖ Stock shortage = lost sales
- ❖ Obsolete stock = lost margin (promotional packaging)

Solution

- ❖ Build buffer stock
- ❖ Hold centrally (at least regionally)
- ❖ Maximise stock availability- plan delivery slots
- ❖ EPOS data to drive forced replenishment (within promotion window)
- ❖ Ability to top up regionally
- ❖ T&T for inventory in transit

$E\mathcal{L}(x_{16}^{rt} - D_{16}^r)$ where $\mathcal{L}(x_{16}^{rt} - D_{16}^r) = \$0.50(x_{16}^{rt} - D_{16}^r)^+ + \$1.00(D_{16}^r - x_{16}^{rt})^+$. Notice that $\mathcal{L}(x_{16}^{rt} - D_{16}^r) = \mathcal{L}(q_{14}^{rt} + (22 - D_{15}^r) - 4) = \mathcal{L}(q_{14}^{rt} + 18 - D_{15}^r)$. It is easy to show that the minimizer of $E\mathcal{L}(q_{14}^{rt} + 18 - D_{15}^r)$ satisfies $F(q_{14}^{rt} + 18) = \frac{2}{3}$.

DIY/Project consolidation

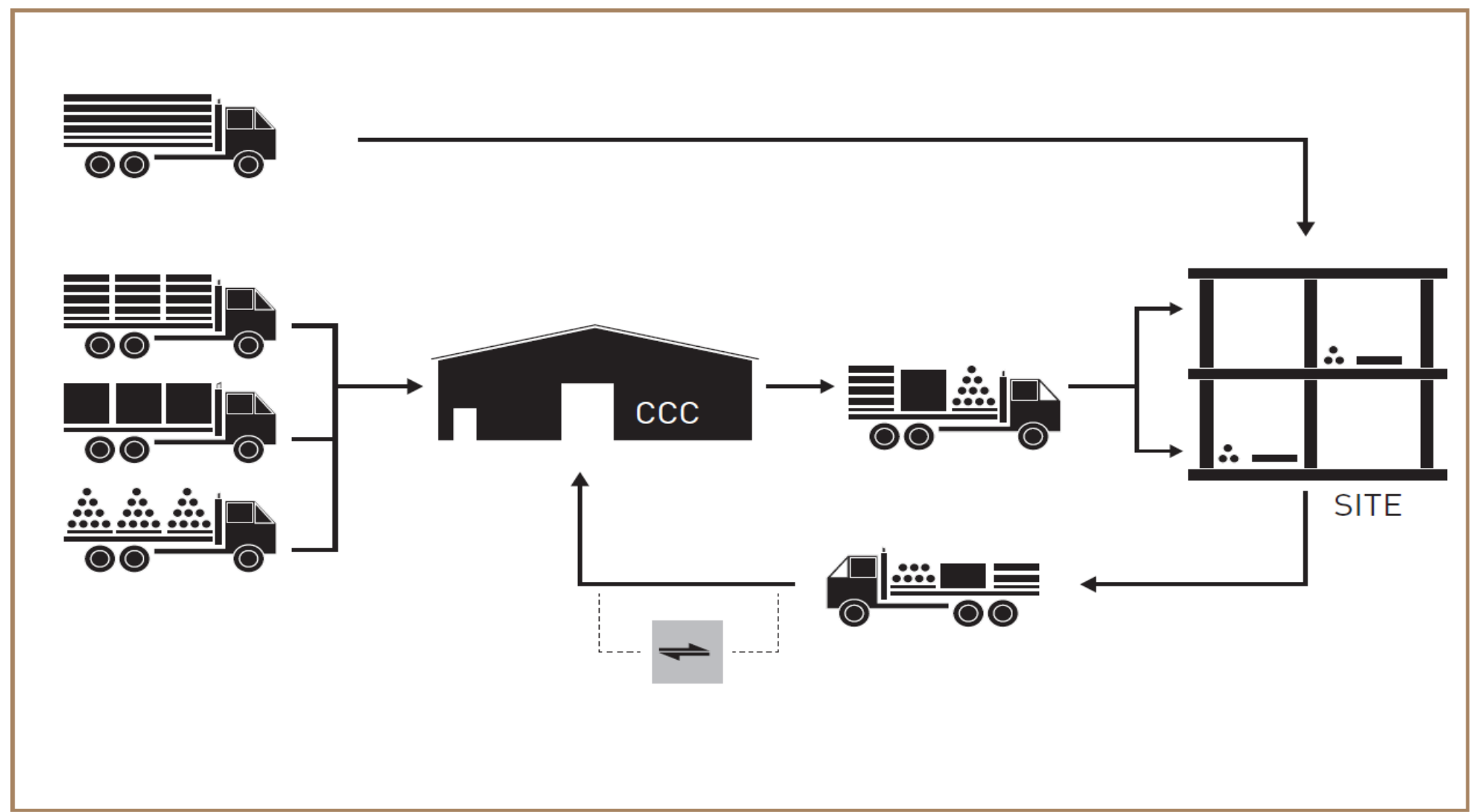
Critical Issues

- ❖ Multi-component products-sheds/garden buildings/kitchens
- ❖ Wide sourcing base (potential multiple deliveries)
- ❖ Wide distribution requirement x 100's of retail stores
- ❖ Complete sort required (shortage can mean lost sale)
- ❖ Retro-supply of missing parts-expensive and frustrating

Solution

- ❖ Take control of inbound supply chain
- ❖ Use consolidation centre(s)
- ❖ Pick/deliver complete modules
- ❖ Direct deliver > 1 tonne
- ❖ Minimise frequency of delivery (once per day)
- ❖ End-End visibility & connectivity (EDI & T&T)
- ❖ Budget for %age courier freight

CENTRAL CONSOLIDATION CENTRES



Basic requirements of RaaS

- ❖ Complete kits of parts
- ❖ Minimum sortation
- ❖ Delivery to site JIT
- ❖ Sequenced delivery
- ❖ Manage interdependencies
- ❖ Connectivity and Visibility (EDI & T&T)

Questions?