

SEJA BEM VINDO AO



AGRIBUSINESS



SAÚDE

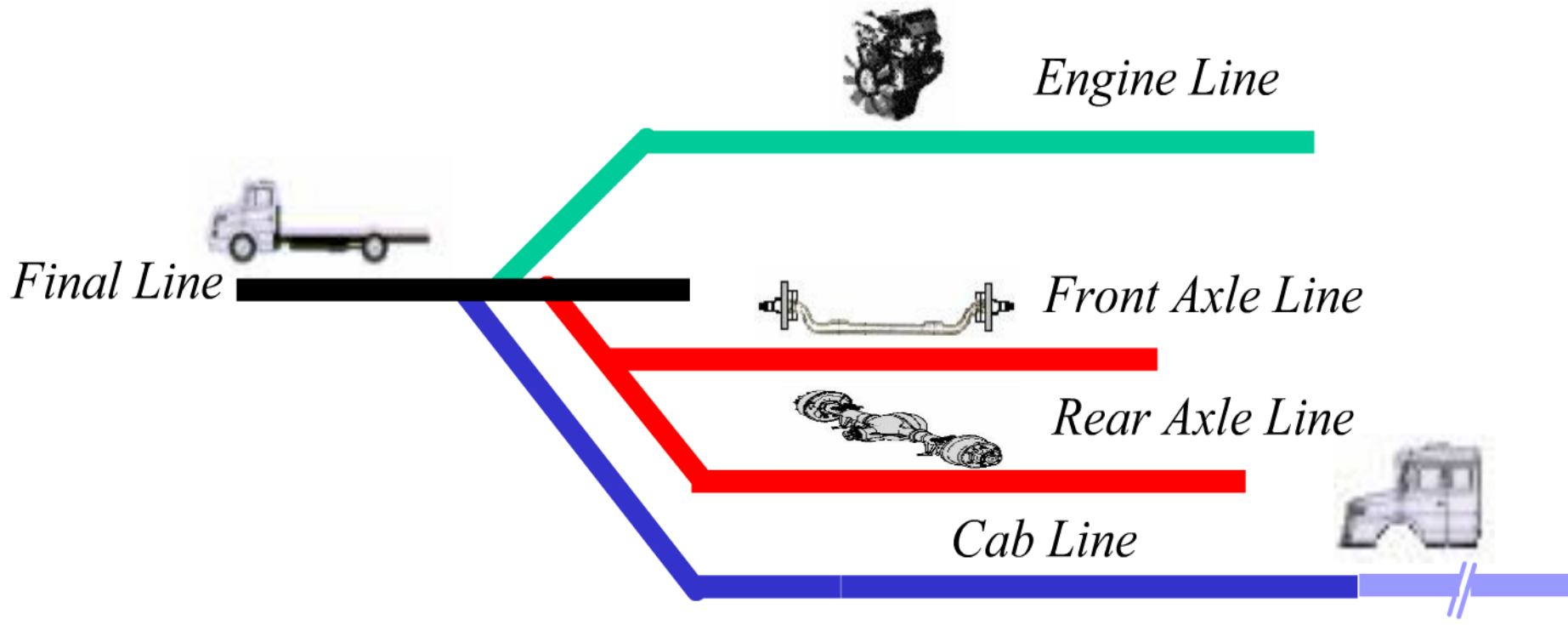


•Médico Hospitalar/ Farmacêutico

FOOD SERVICE

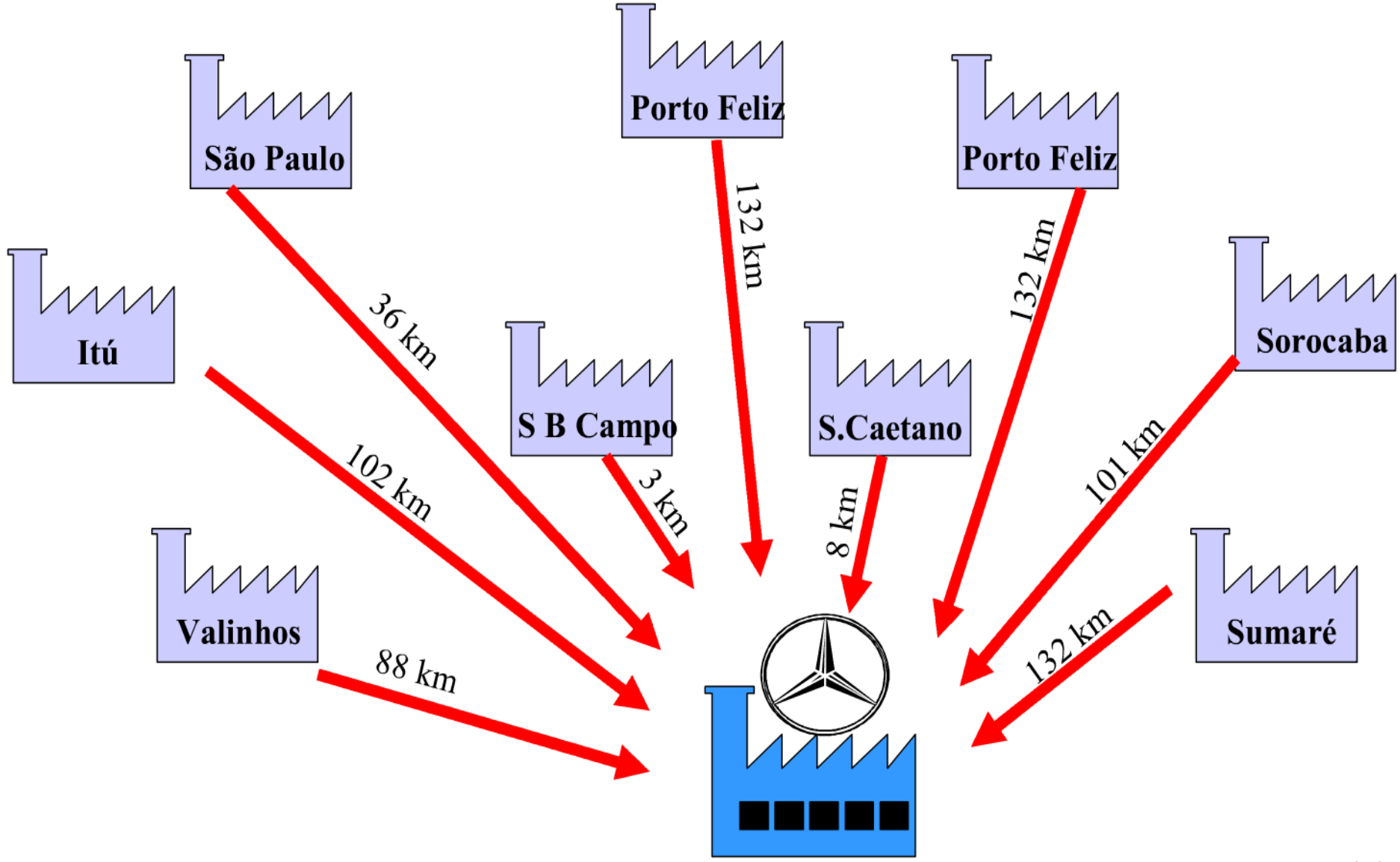


Mercedes-Benz Production System

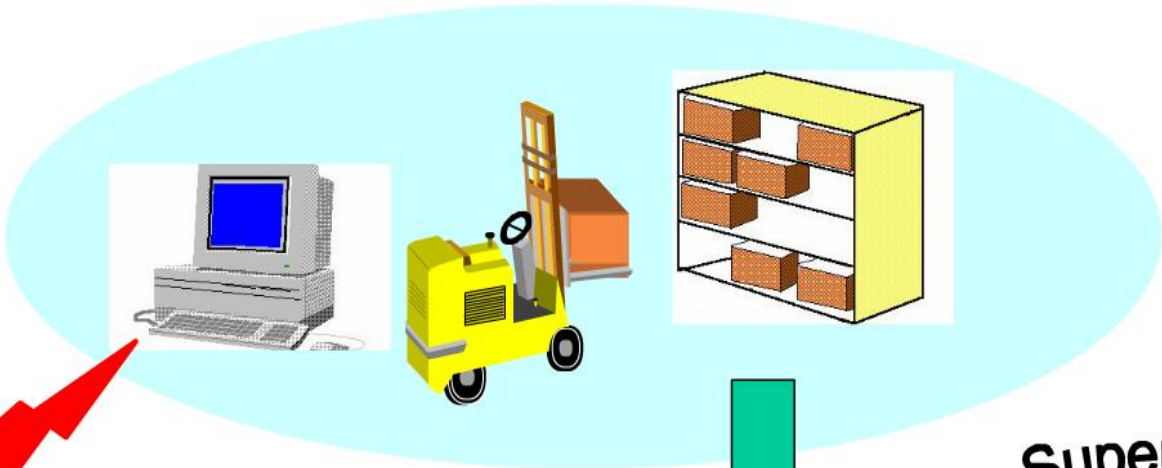
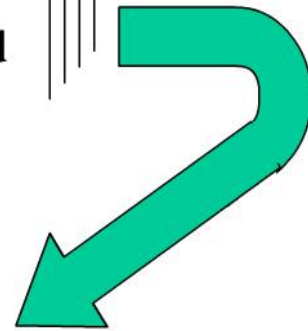
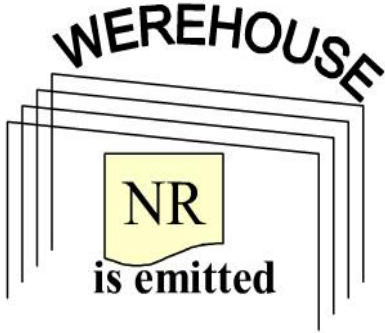
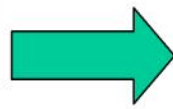
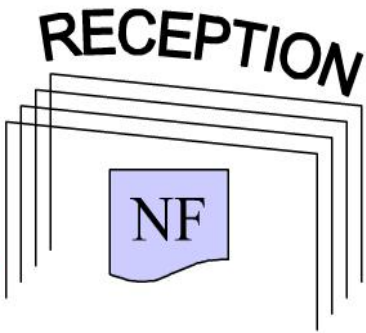
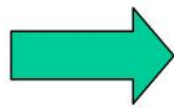


Fishbone flow diagram

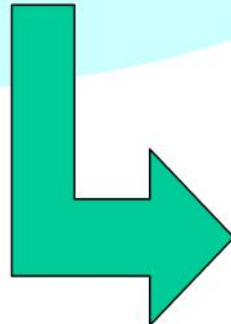
The former situation



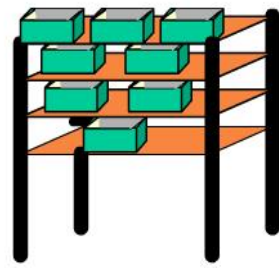
The former process



Assemble line technician calls the part

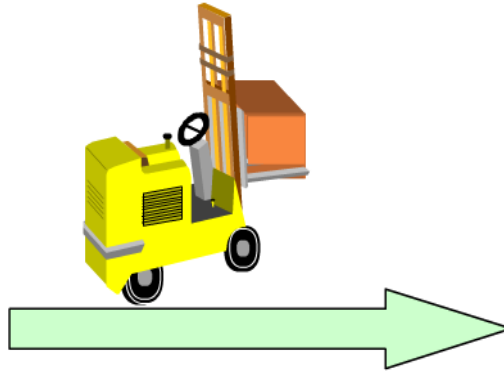
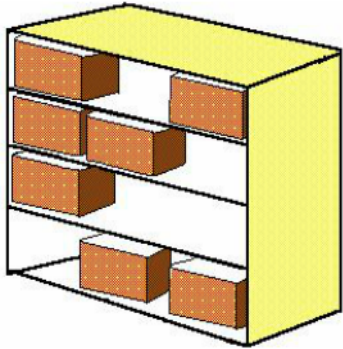


Supermarket

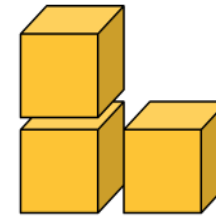


Supermarket concept:

WEREHOUSE



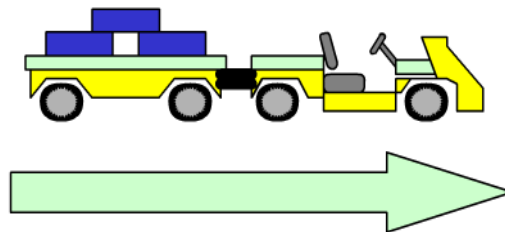
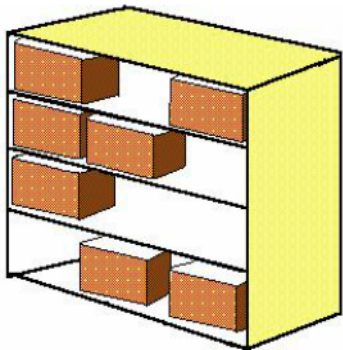
Large
containers



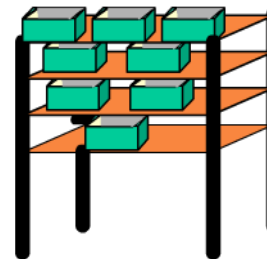
Assemble
Line



WEREHOUSE



Small
containers
Supermarket



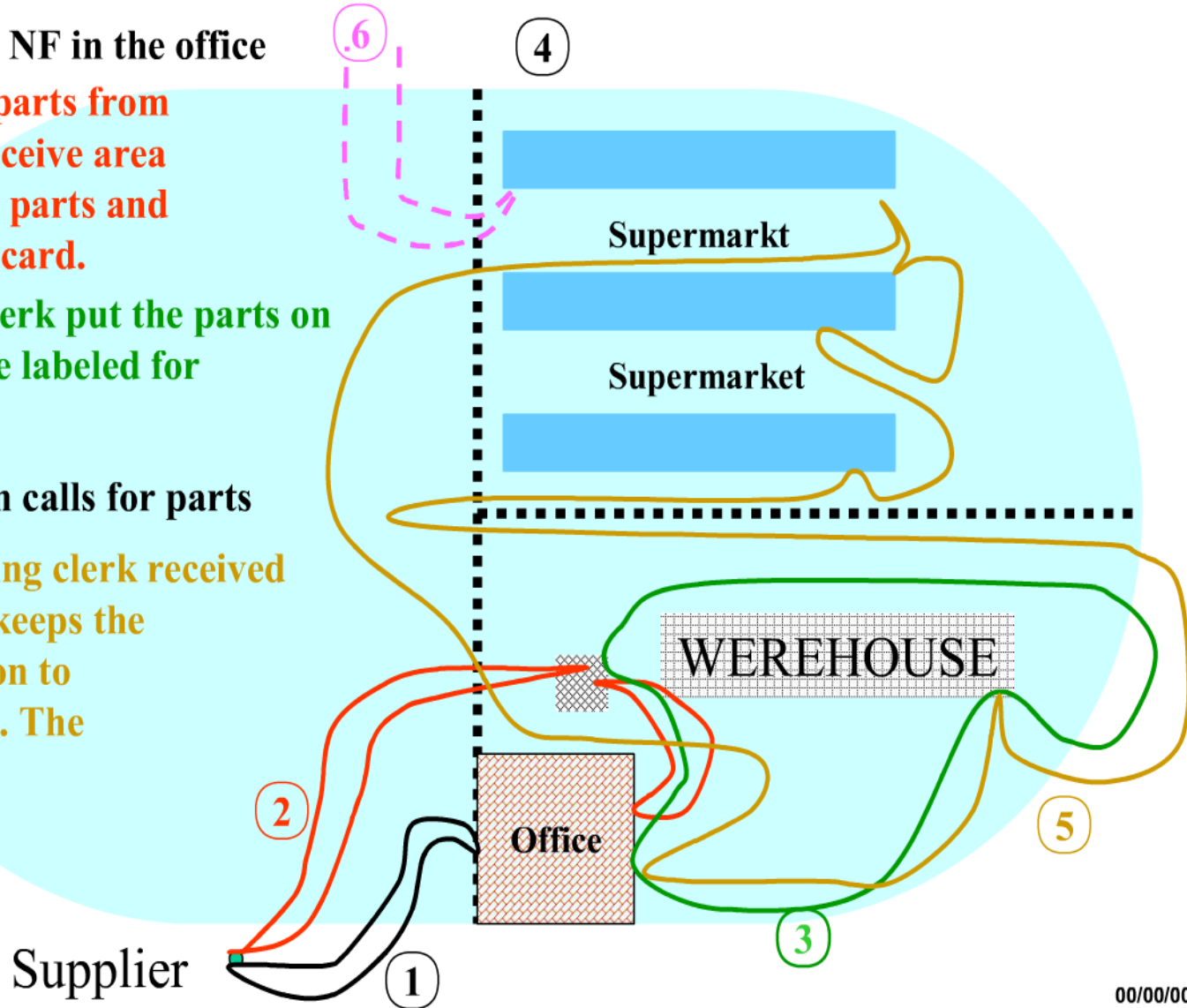
Spiderman

Assemble
Line



The former feeding

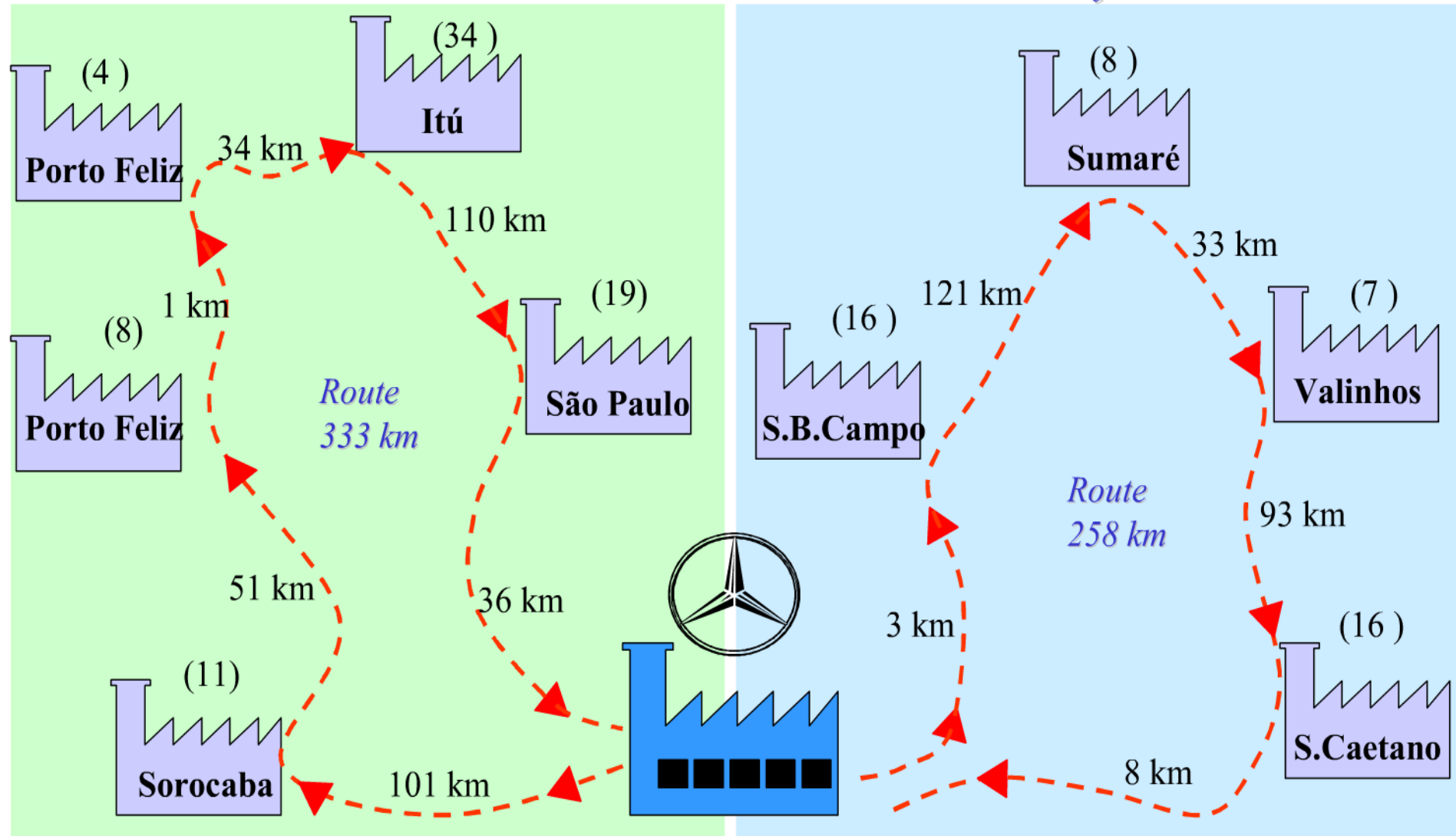
- ① Supplier driver let the NF in the office
- ② a) Fork lift driver gets parts from truck and put them on receive area
b) Fork lift driver checks parts and stamps the identification card.
- ③ Warehouse reception clerk put the parts on carts leave them in a space labeled for (average 3 trips)
- ④ Assemble line technician calls for parts
- ⑤ The assemble line feeding clerk received the call, goes to the stock keeps the specific part and move it on to supermarket (many trips). The empty boxes are leaved in container area
- ⑥ Spiderman

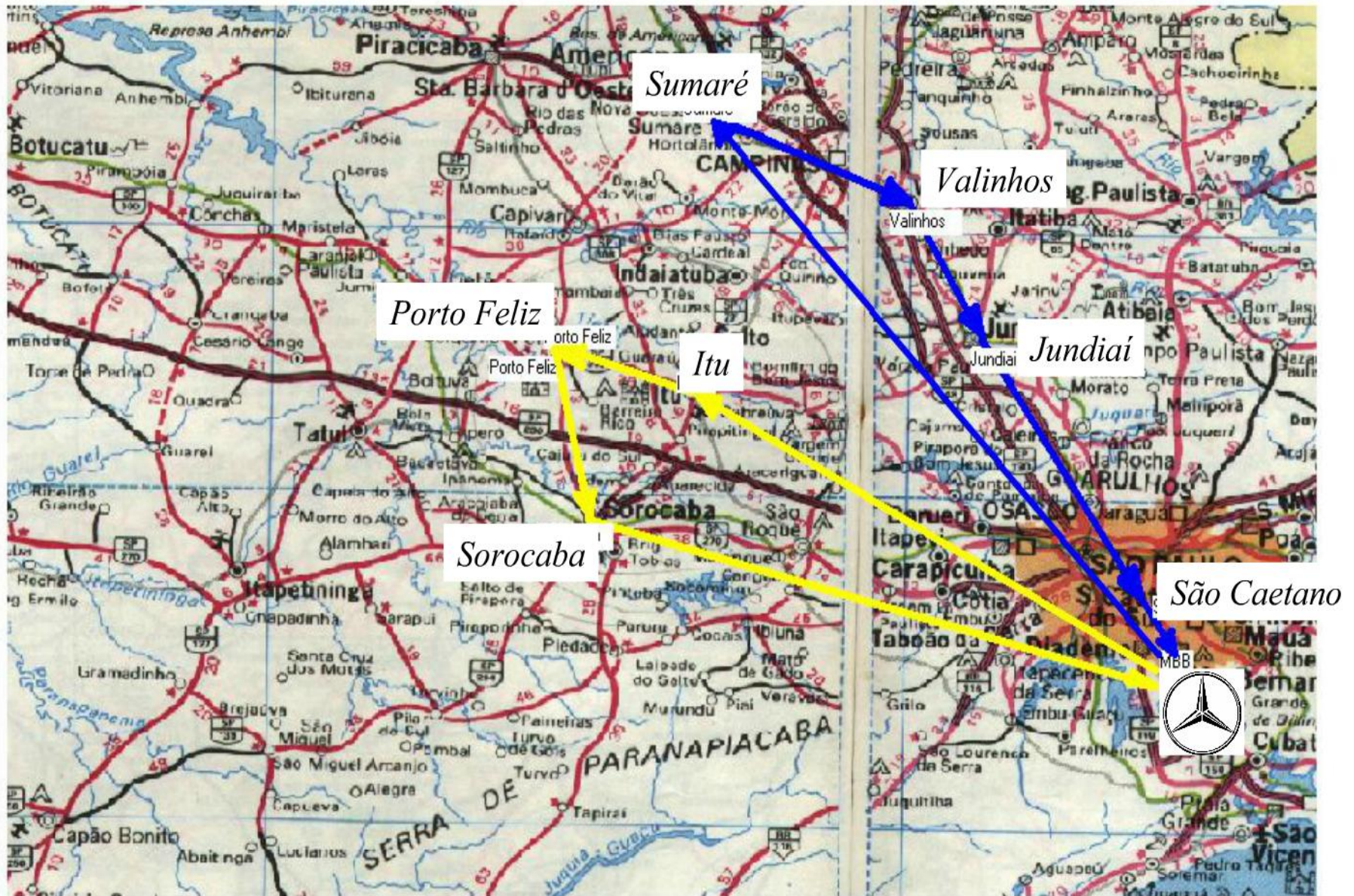


Real situation

Shift work A

Shift work B





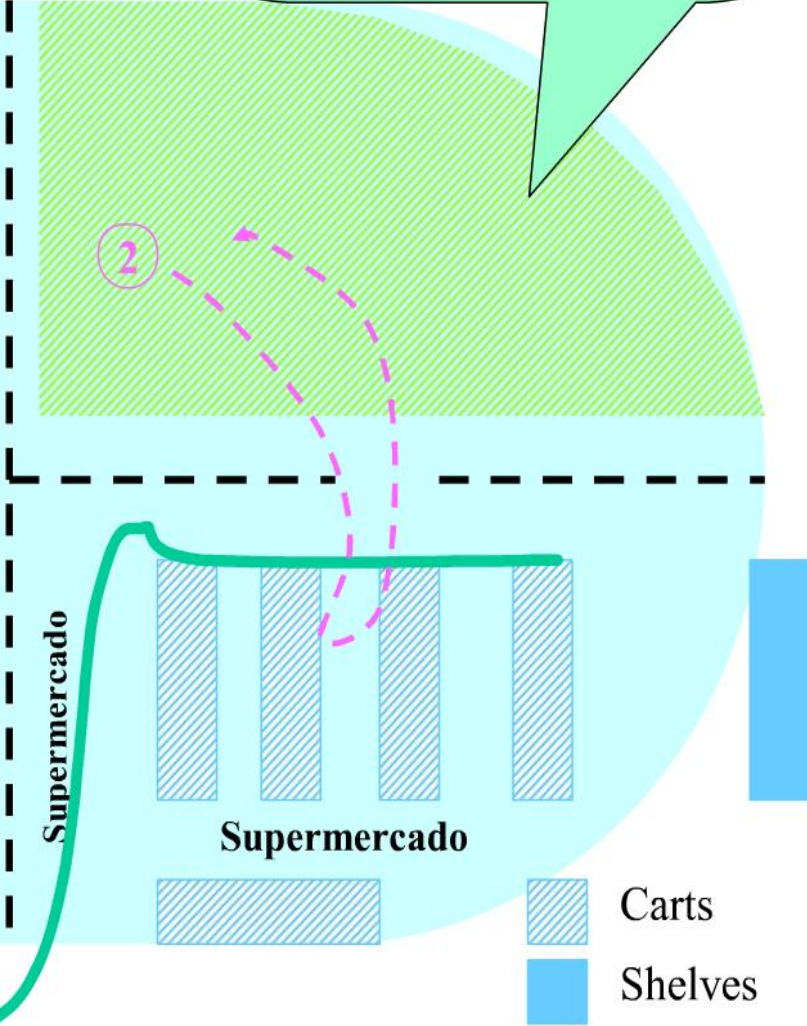
Real situation of assemble line feeding

Nearby 800m² of area was disposed to production

AREA FREED TO GEAR BOX ASSEMBLY LINE

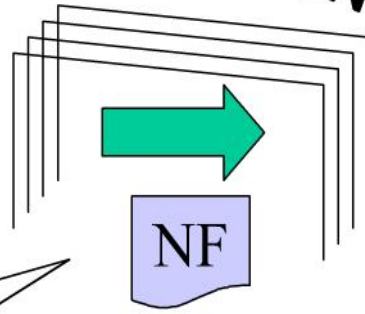
① The Milk-man leaves NF in reception and goes right to supermarket. The truck is unload by putting the parts on a cart and places the parts in a space labeled in supermarket

② Spider-man



Real situation

RECEPTION



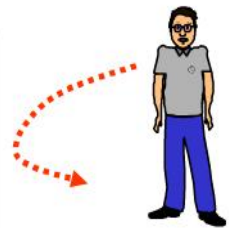
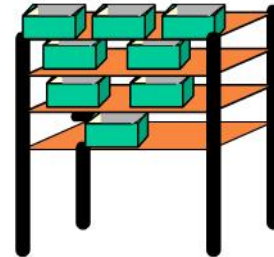
The reception area scanned the NF and automatically the inventory register the deliver and the dispatch to production (JIT). There isn't a emission of NR

The milk-man leaves the parts at supermarket

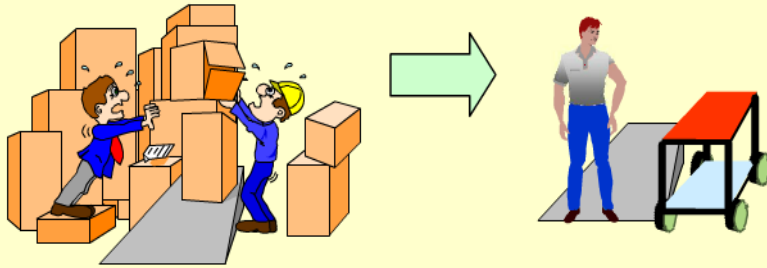
The spider-man gets the parts to the kit to assemble line



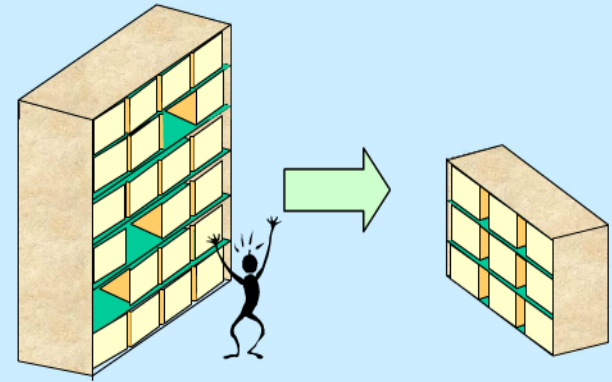
Super Mercado



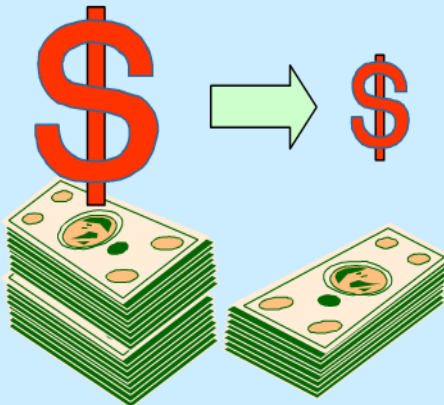
The gain with Milk Run



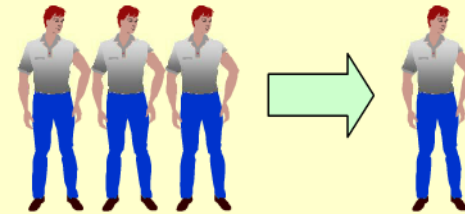
Save warehouse area: 100%



Stocks reduction: over 80%
from 12,6 days stocks (average) to 1 day



Price reduction of the parts:
0,5% (average)



Labor saved: 2,6 blue-collar workers
(transferred to new functions)

The additional advantages with Milk Run



Reduction of inventory containers in plant



Save the transportation to containers shipment area



Save space in the containers shipment area

The additional advantages with Milk Run



The containers draw back rightly at supermarket or assemble line



Cycle time is reduced when the workers only assemble parts



Information follow up is optimized



The internal traffic is optimized