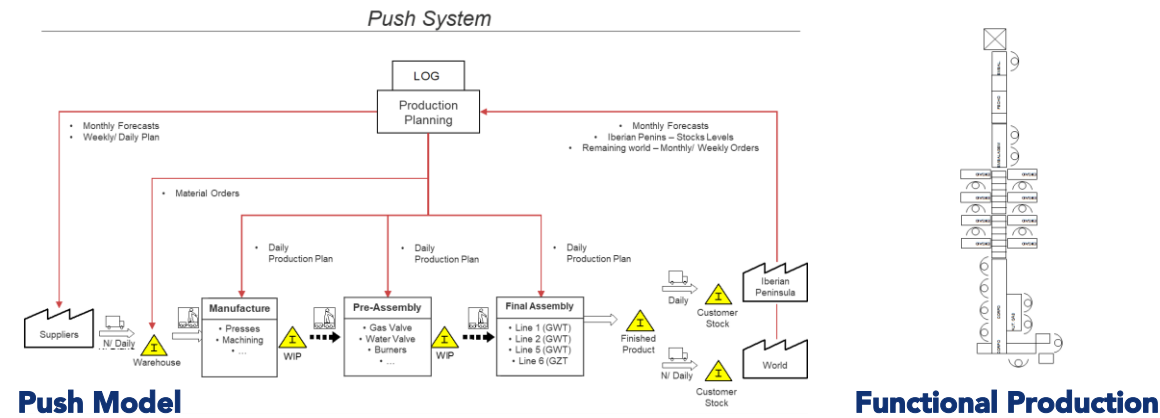


Pull Flow Model in Discrete Assembly

PICTURES BEFORE



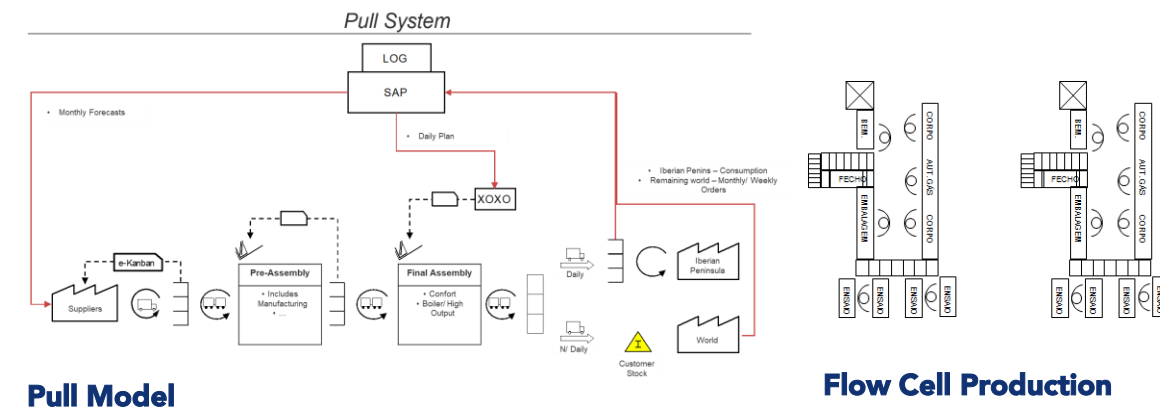
Problem

- 15 days of finished goods inventory with a customer service level of 93% - dysfunctional inventory
- 30 days of stock of raw materials and parts
- Between 1 and 5 days of WIP in production and assembly lines
- Poor line efficiency with 50% of missed planned production

Root causes

- Finished goods planning based on order forecast
- Functional layout: preassembly lines separated from final assembly lines
- Operators isolated from each other, supply of large pallet-sized containers, poor operator standard work, low line balancing efficiency
- Delivery to final assembly line by forklifts, under instruction of supervisors

PICTURES AFTER



Solution approach

- Pull planning algorithm comparing a certain replenishment level with the current stock of finished goods and creating the production orders according to deviations; **Daily assembly schedule** determined by freezing one day of production in the logistics box
- From one assembly line to two with **fewer product references** on each; **Zero changeover** time; **Balanced operation** time between operators; **Small containers** on the border of line
- Three Mizusumashi shuttle lines for purchased parts, sub-assemblies and finished goods

Benefits

Payback Period
5 months

Savings
£3m/year

