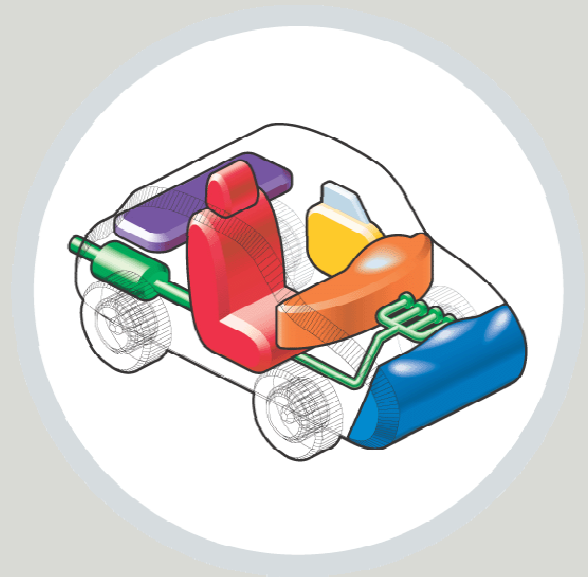


# Lean Manufacturing, a chance against crisis

> Impacts on inventories and  
flat storage

**Eric Moreau**



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# Today's situation is not stable

**Decisions are short term oriented and impacts are global.**

- **Worldwide footprint**
- **Complex flows**
- **Environmental constraints**
- **Crisis**

**Results need to be immediate**

# Link Lean actions to Financial results

## ➤ Costs

- Do not over produce
- Keep same efficiency

&

## ➤ Cash

- Reduce investments (Capex)
- Minimize inventories

**Flex labor, Flex inventories**

Today more than ever, we need to improve cash situations and achieve lowest inventories.  
Lean is a chance.

Everybody can focus on same priority.

# Consequences of actual crisis

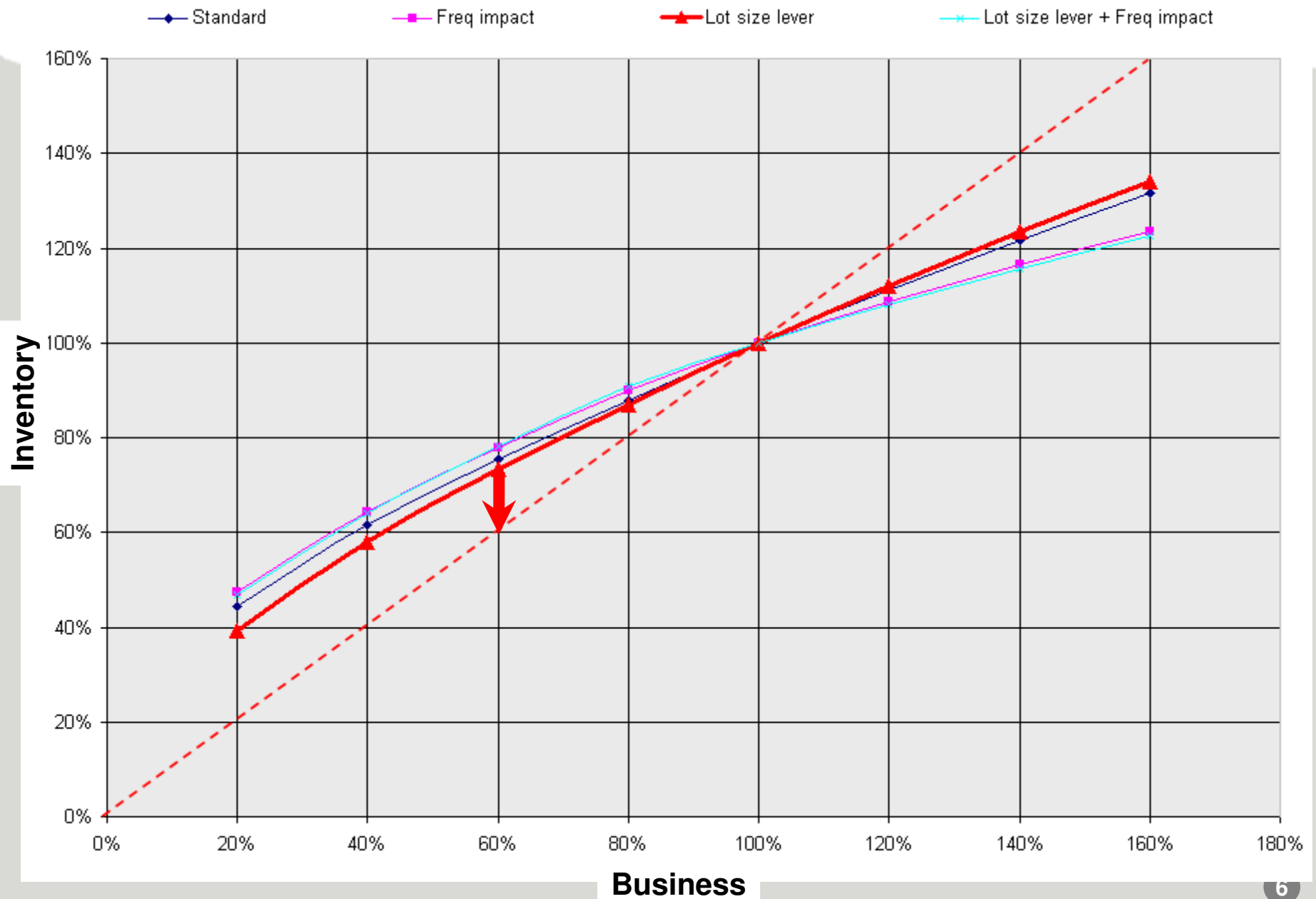
**Low volumes of activity impose to reduce frequency of deliveries or to increase transport costs.**

**Lean helps to counterbalance those effects thanks to:**

- **Leveling**
- **Exworks conditions, offering synergies**
- **Continuous lead time reduction**

**Companies with Lean are better equipped vis-à-vis the crisis**

# Stock reduction: flex is not immediate



# Stock reduction: more actions, new levers

## > Lessons learnt and Main levers

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### Levers

#### 1. Stock segmentation (JNI)

- Reduce gap to Just Needed Inventory

#### 2. Adapt lot sizes

- Eliminate 'too big' lot sizes from suppliers (represent app. 7% of our overstock)

#### 3. Increase delivery frequency

- Global transport optimization between plants

#### 4. Reduce packaging size

- Adapt packaging to new volumes (low runners)

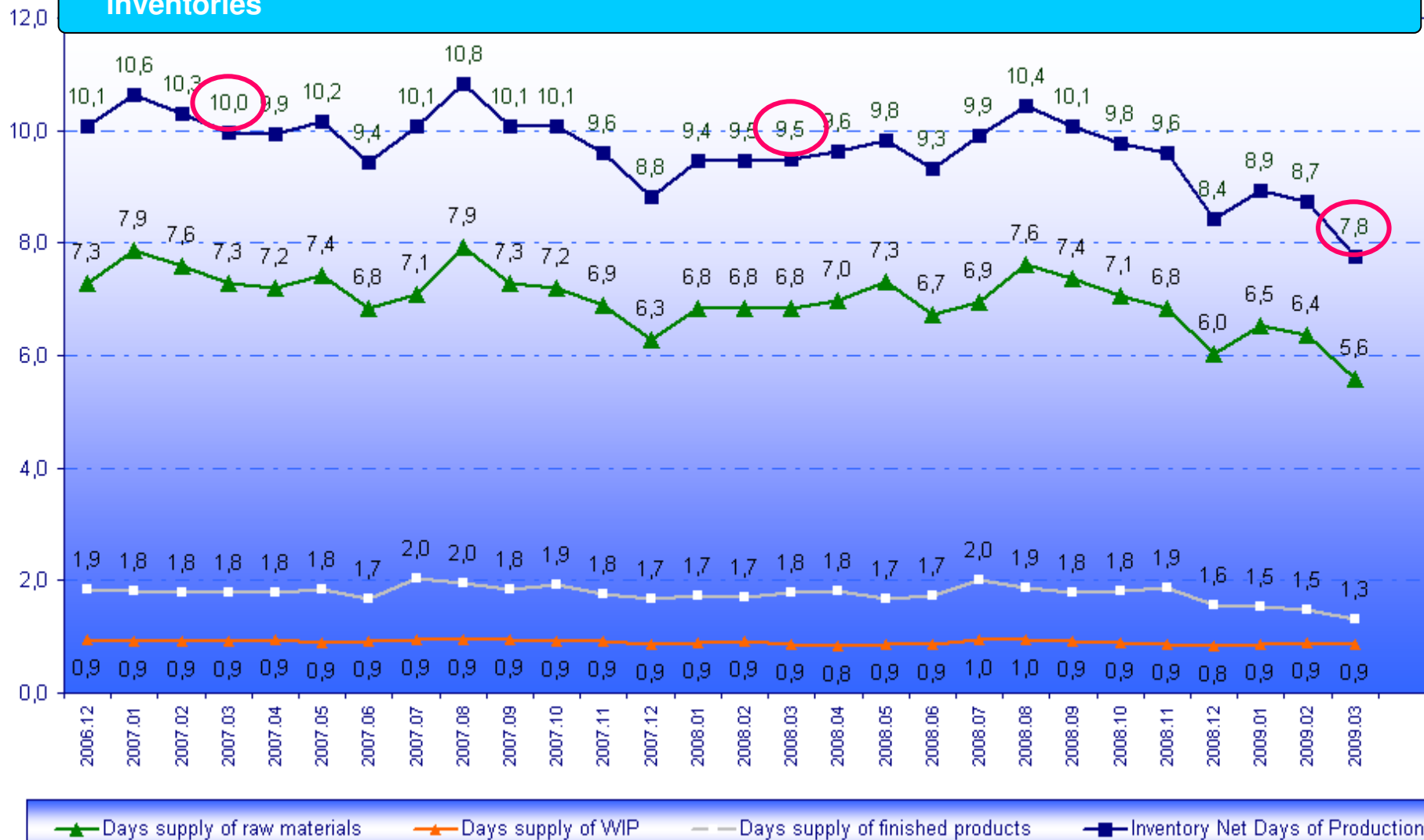
#### 5. Reduce WIP

- Speed up implementation of pull systems + PDP adherence

# Despite crisis, our stocks continue to decrease

faurecia

- Reduction of -2.2 days over last 24 months and -1.7 over last 12 months of Faurecia Group inventories





**A good way to show abnormalities and understand how stocks are reacting is to visualize them on shopfloor =**

**FLAT STORAGE**

# Why Flat storage ?

## Protect Production Lines

- Visualize shortages (alert system)
- Reactivity is immediate
- Escalation and anticipation is clear

## Reduce Inventories

- Overstocks are highlighted
- Understanding of right stock level (Just Needed Inventory) is simple

## Reduce Safety Hazards

- No forklifts, less accidents

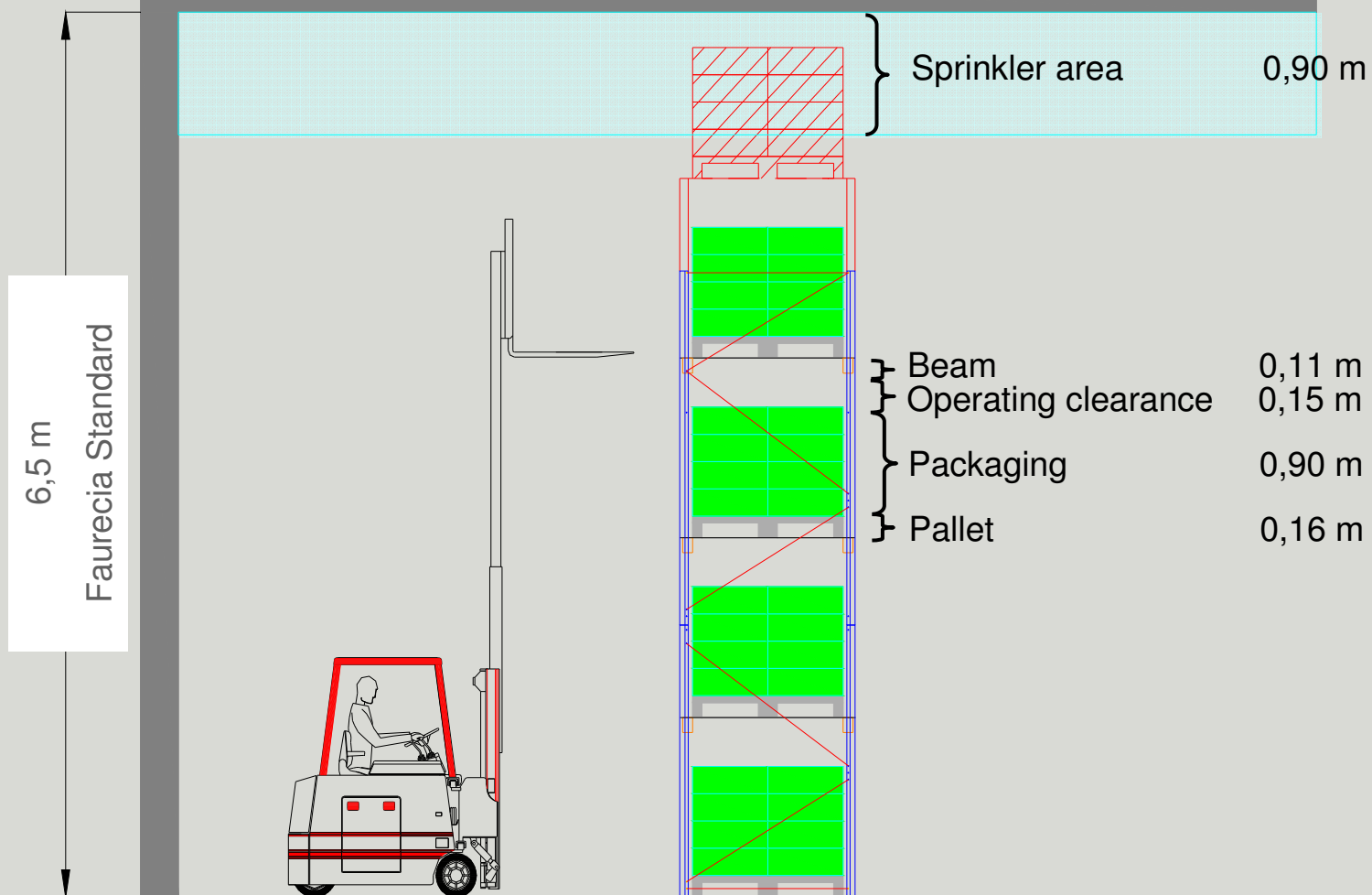
## Improves Quality

- Less handling, less risk of damage

## Reduce Surface

- High racks requires more m2

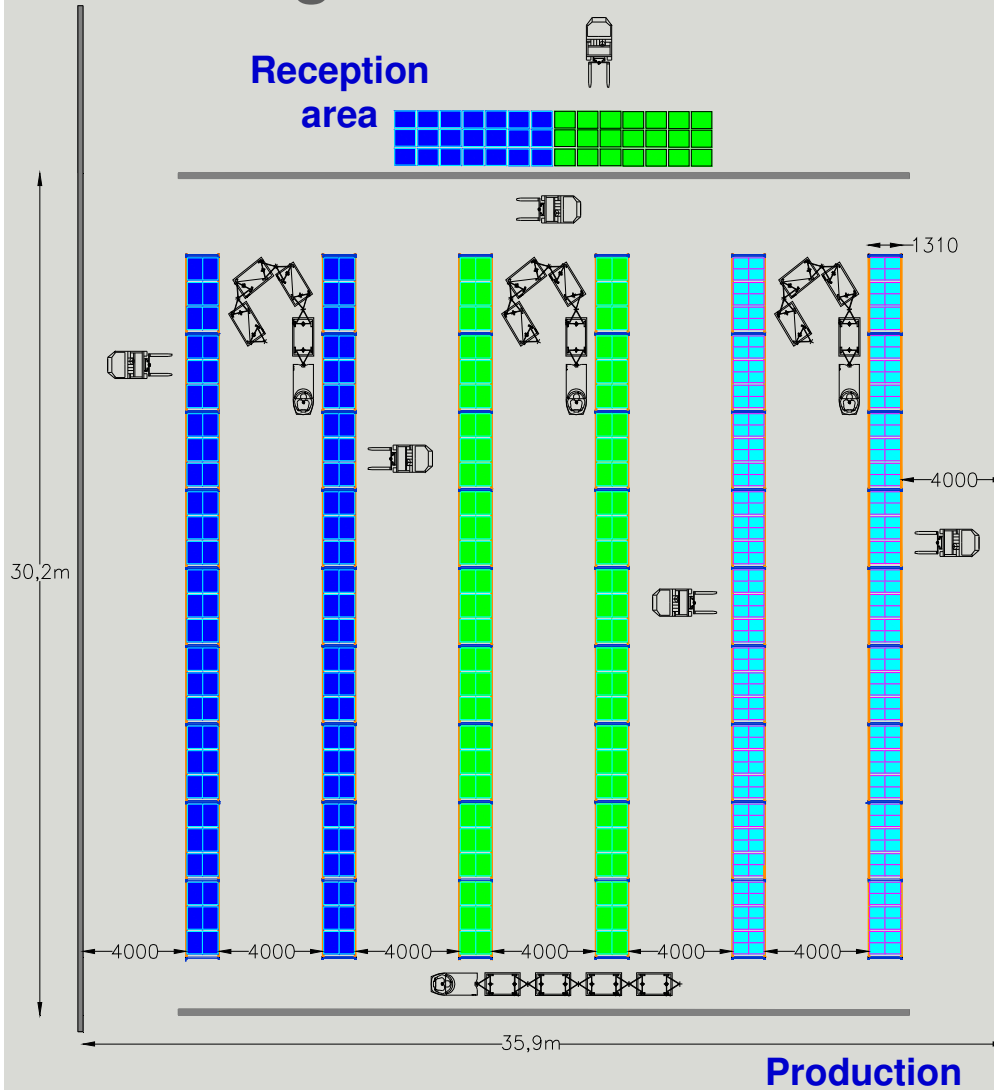
# High Rack design



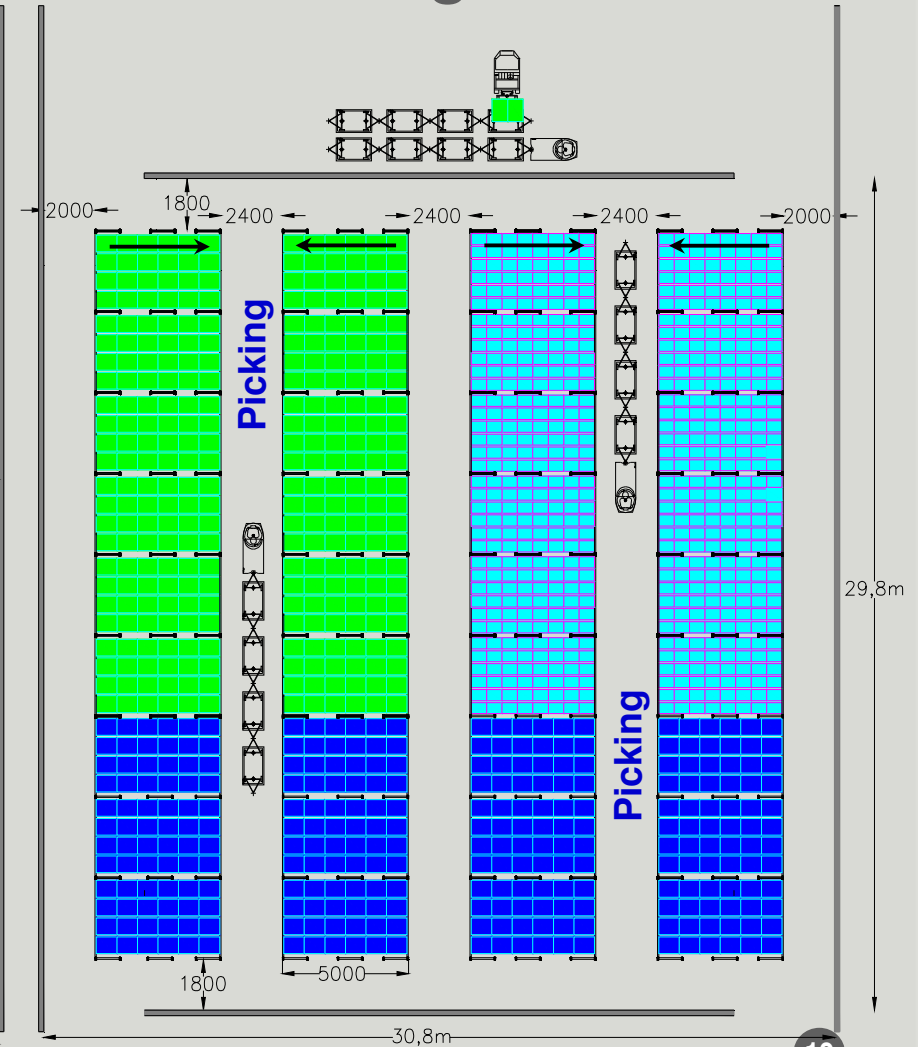
# Comparison

faurecia

High racks : 1084 m<sup>2</sup>



Flat storage : 918 m<sup>2</sup>



# Flat storage advantages



- Visual management
- Area optimization
- Better operator productivity for the small train loading
- Components flows reliable and continuous
- Automatic & precise stock rotation : FIFO management (better for eng. changes, obsolescence, traceability)
- No energize consumption : Flow racks (dynamic)
- Security & Ergonomics rules respected :
  - Forklift and small train always separate
  - Packing unit weight : max 12 Kg

# Flat Storage basics principles



- Small
- Compact
- Organized like a supermarket
- With full diversity (minimum one box of each reference)
- Minimum pallets
- Flat
- Easy to localize (mental load of operator)
- Correctly sized (ABC class)



# Easy alerts systems



- Kanban
- Flags
- Lights
- Min-Max
- Cycle countings
- Andon
- ...

**What is important is not the tool itself but the management of the alert and the associated reaction !**

# Visualize the status

faurecia

Reaction rules

Risk analysis by material planner:  
next deliveries will cover and no line stop risk



**Trigger:** missing part in the picking by GL

Confirmed by SV including reception and quality stock

**Visual:** Situation under control (not at standard BUT under control)



# Common Traps on flat storage

**Picking Center is too big**

- All inventory is put as flat
- No visual management possible
- Big distances for train driver

**Nice alerts but not used**

- Alerts are visual but do not generate reactions or escalations

**No physical segmentation**

- We use safety stock without knowing it
- Inventory size is uncertain

**No gemba from logistics**

- Material planners never go in Picking Center to visualize alerts

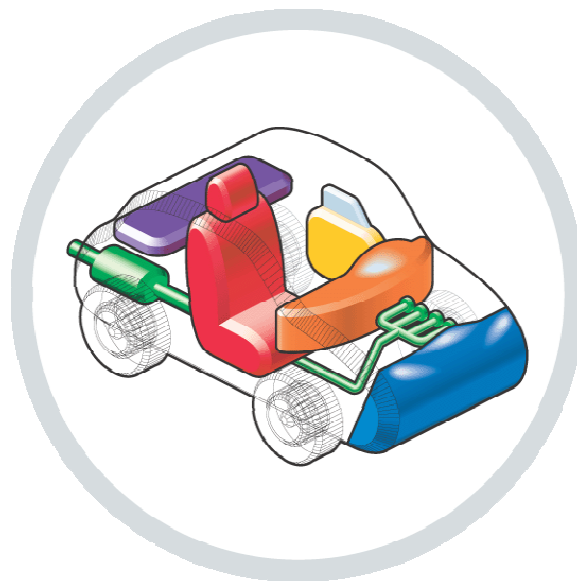
## Challenge correctly your inventories

Looking for low inventories tightens the system,  
makes inefficiency visible  
and leads to Excellence



**A change in our daily attitude**

**THANK YOU !**



**faurecia**

**Technical perfection, automotive passion.**