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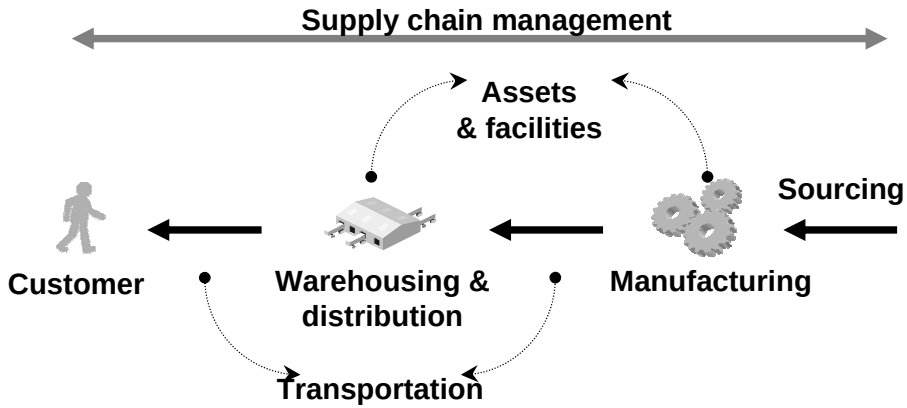
# •What 2 Store•

logistic engineering tool

Stock Simulation




GW ref. 9021X999 - version 1.0

A. Benefits What2Store

B. Why What2Store?

C. Model structure

D. Results

# Benefits What2Store

## •What 2 Store•
logistic engineering tool

Minimize your inventory and re-order costs,
minimize your storage capacity
while optimizing your service level

A useful help for your stock control department
and supports your company to be aware of making
well-founded commercial choices

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# Benefits What2Store

## Application areas:

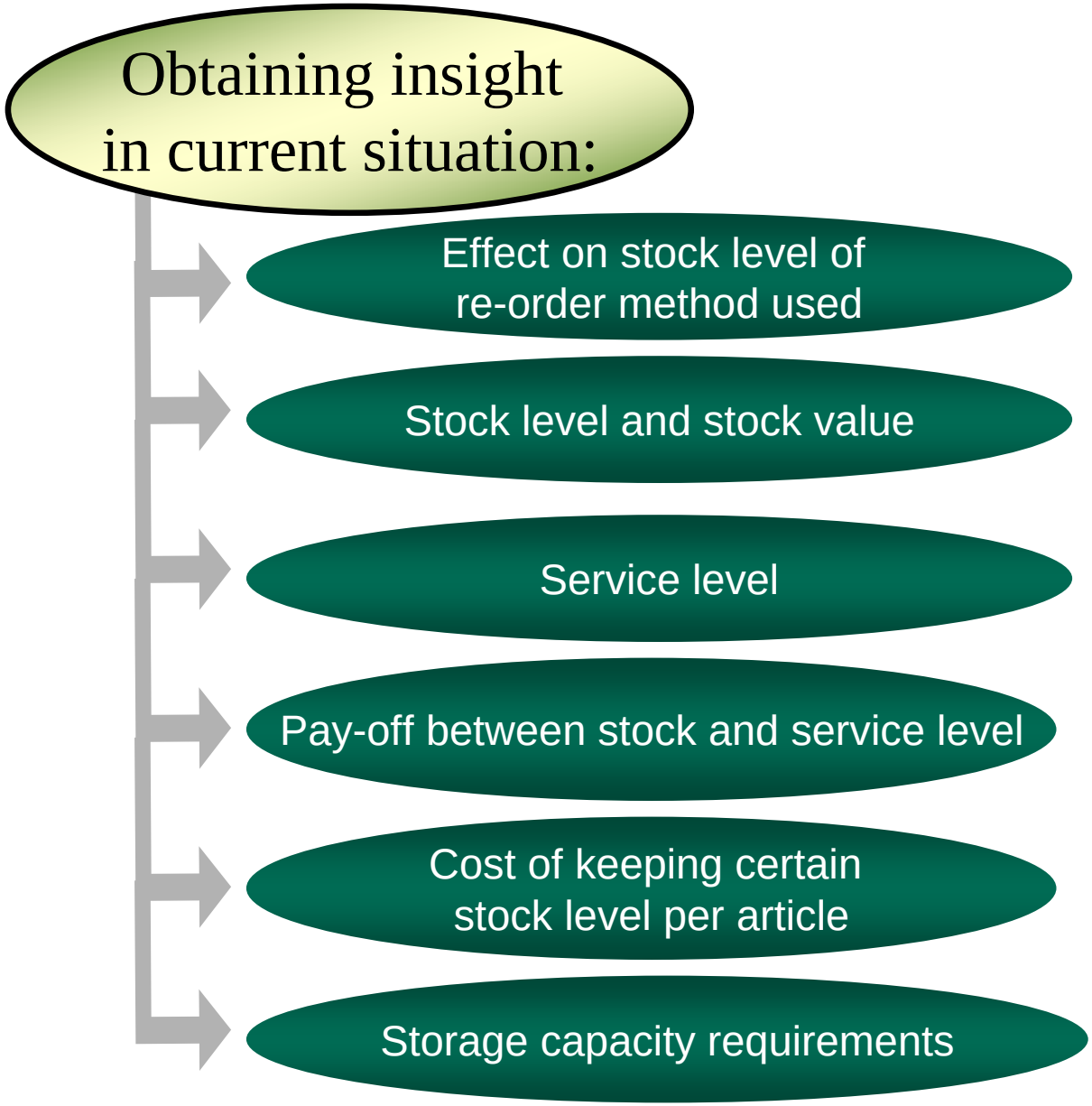
### Define and optimize stock parameters per SKU, given a target service level:

- Stock parameters can be for example min-max, depending on available information system
- Optimization can be done on a frequent basis, for example once per week or once per month

### Answer what-if questions, for example:

- What is the impact if I want to improve the service level by 1%?
- What is the impact if the lead time of my supplier is 20% shorter and/or 20% more reliable?
- What is the impact if I reorder twice per week instead of once?

# Benefits What2Store



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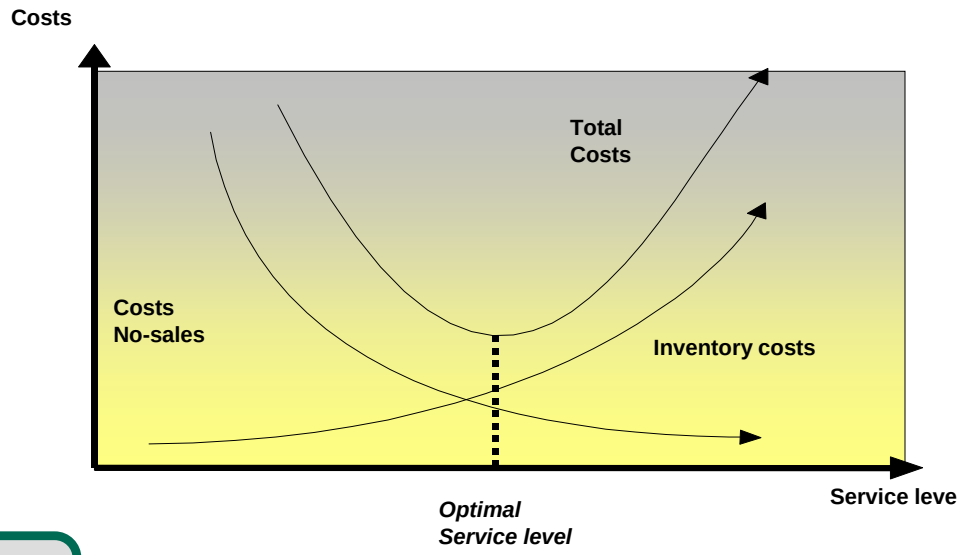
# Why What2Store ?

Inventory and ordering costs
determine 5-25% of
the sales price of a product

⬇

A lot of potential savings




Insight in inventory and ordering costs
are often not there

⬇

No stock optimization possible
on product group or SKU level



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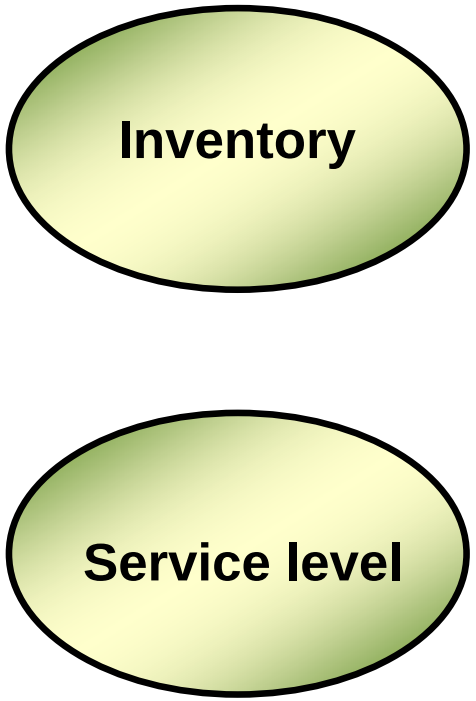
# Why What2Store ?




## Increase your service level:

- What are consequences of adjusting your service level, financially and in storage capacity?
- Do you have sufficient safety stock?
- Do you not have too many back-orders?
- What is the benefit of decreasing purchase delivery times?

## Save on inventory and ordering:

- Do you have articles that could be scrapped?
- Is your re-order method optimal?
- Couldn't adjustment of purchase order delivery times save inventory costs?

## Save on storage space:

- Can you not decrease your stock levels?
- Can your warehouse meet future demands?



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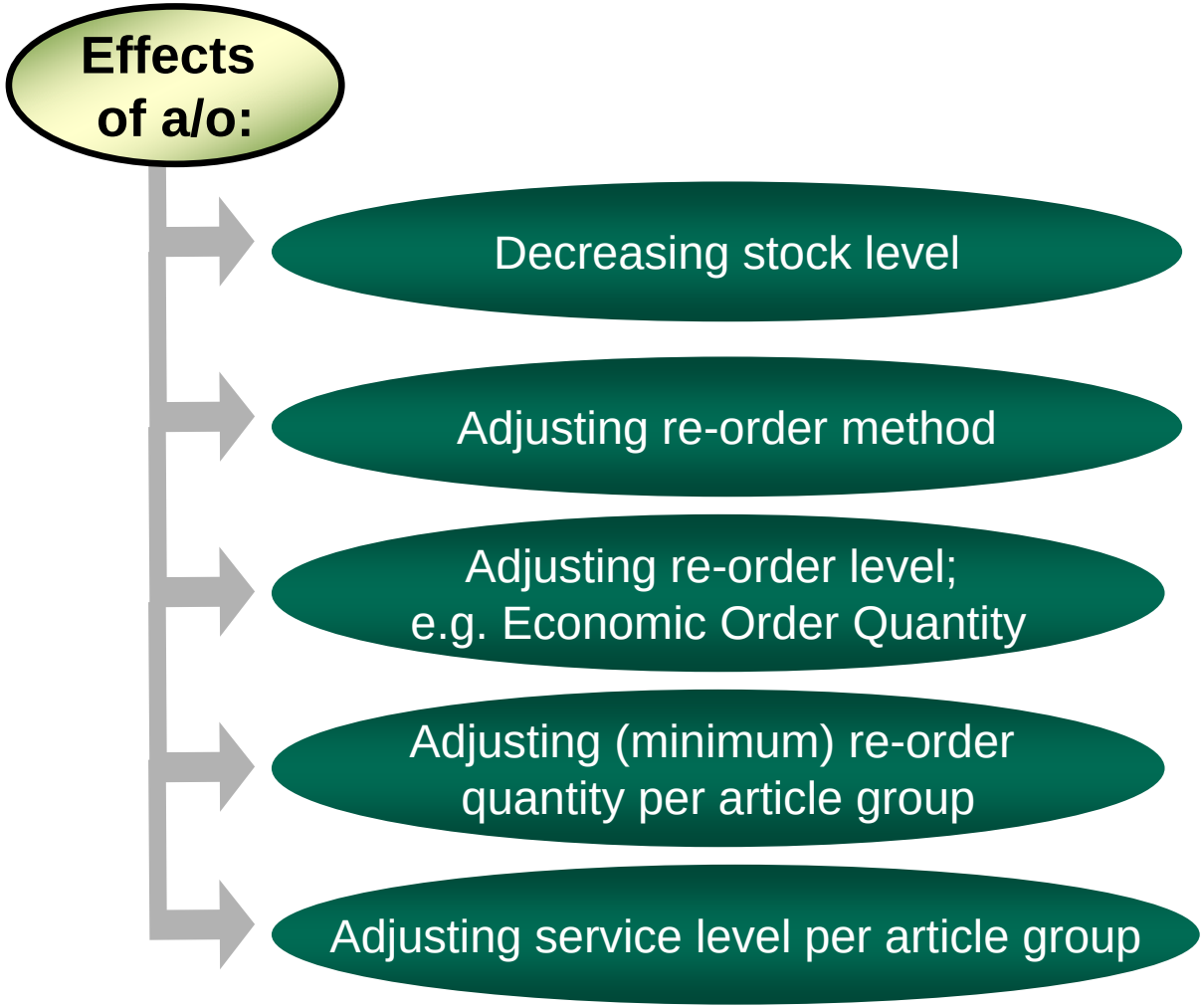
# Why What2Store ?

The use of simulation enables the possibility to work through ‘what if’ scenarios



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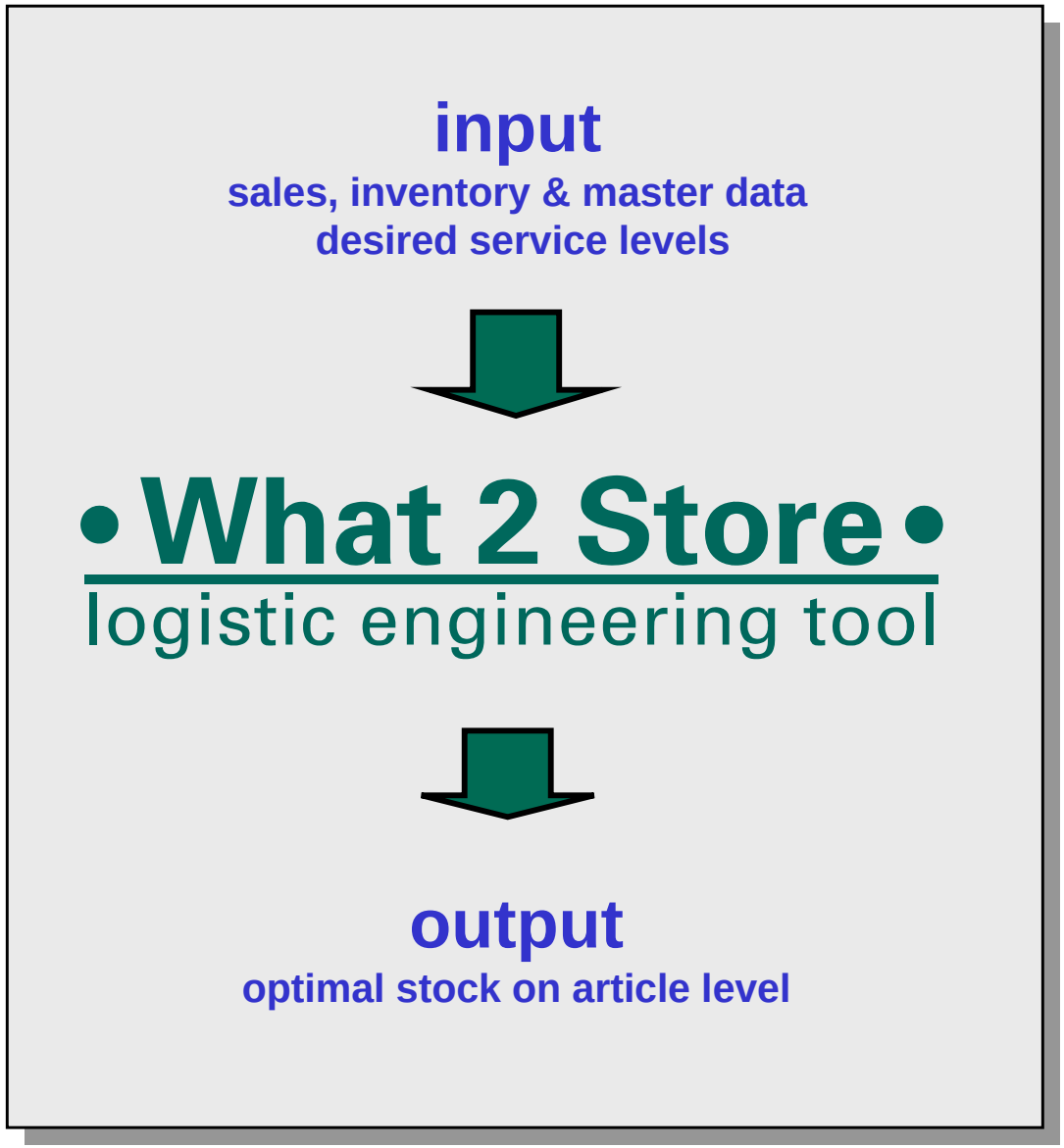
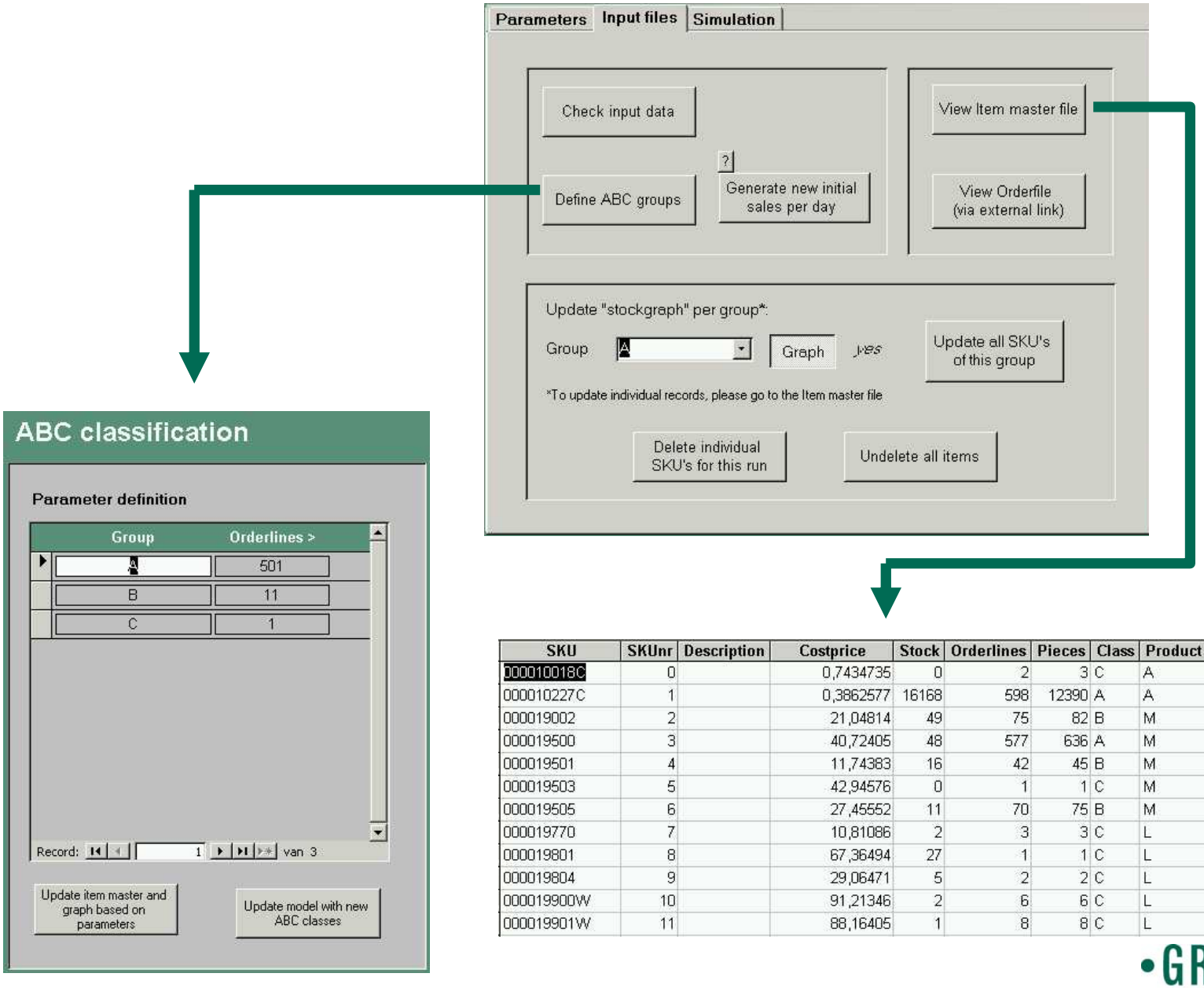
# Model structure



# Model structure




| SKU | SKUnr | Description | Costprice | Stock | Orderlines | Pieces | Class | Product group | S |
|---|---|---|---|---|---|---|---|---|---|
| 000010018C | 0 | | 0,7434735 | 0 | 2 | 3 | C | A | |
| 000010227C | 1 | | 0,3862577 | 16168 | 598 | 12390 | A | A | |
| 000019002 | 2 | | 21,04814 | 49 | 75 | 82 | B | M | |
| 000019500 | 3 | | 40,72405 | 48 | 577 | 636 | A | M | |
| 000019501 | 4 | | 11,74383 | 16 | 42 | 45 | B | M | |
| 000019503 | 5 | | 42,94576 | 0 | 1 | 1 | C | M | |
| 000019505 | 6 | | 27,45552 | 11 | 70 | 75 | B | M | |
| 000019770 | 7 | | 10,81086 | 2 | 3 | 3 | C | L | |
| 000019801 | 8 | | 67,36494 | 27 | 1 | 1 | C | L | |
| 000019804 | 9 | | 29,06471 | 5 | 2 | 2 | C | L | |
| 000019900W | 10 | | 91,21346 | 2 | 6 | 6 | C | L | |
| 000019901W | 11 | | 88,16405 | 1 | 8 | 8 | C | L | |



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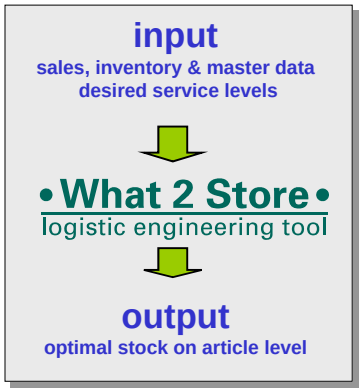
# Model structure

**What 2 Store:** A simulation tool determining the service level & optimized safety stock level using parameters such as:

- Desired service level
  (Overall & per article group)
- Re-order point
  (Depending on safety stock, average demand during lead-time & review period, **deviations of demand & lead-time**, etc.)
- Re-order quantity
  (Depending on Fixed order quantity or Fixed order-up-to level, Minimum order quantity, Using Camp Economic order quantity, etc.)
- Carrying inventory or not
  (Slowmovers; impact on costs and overall service level)
- Product groups based on ABC-classification



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# Results

Savings are achieved by a/o:

- Focussing on fast movers
- Improving parameter settings in the stock management system
- Decreasing the dead stock up to 50%
- Introducing a less time-consuming and more efficient re-ordering methodology
- Improving forecasting
- Decreasing the Minimum Order Quantity

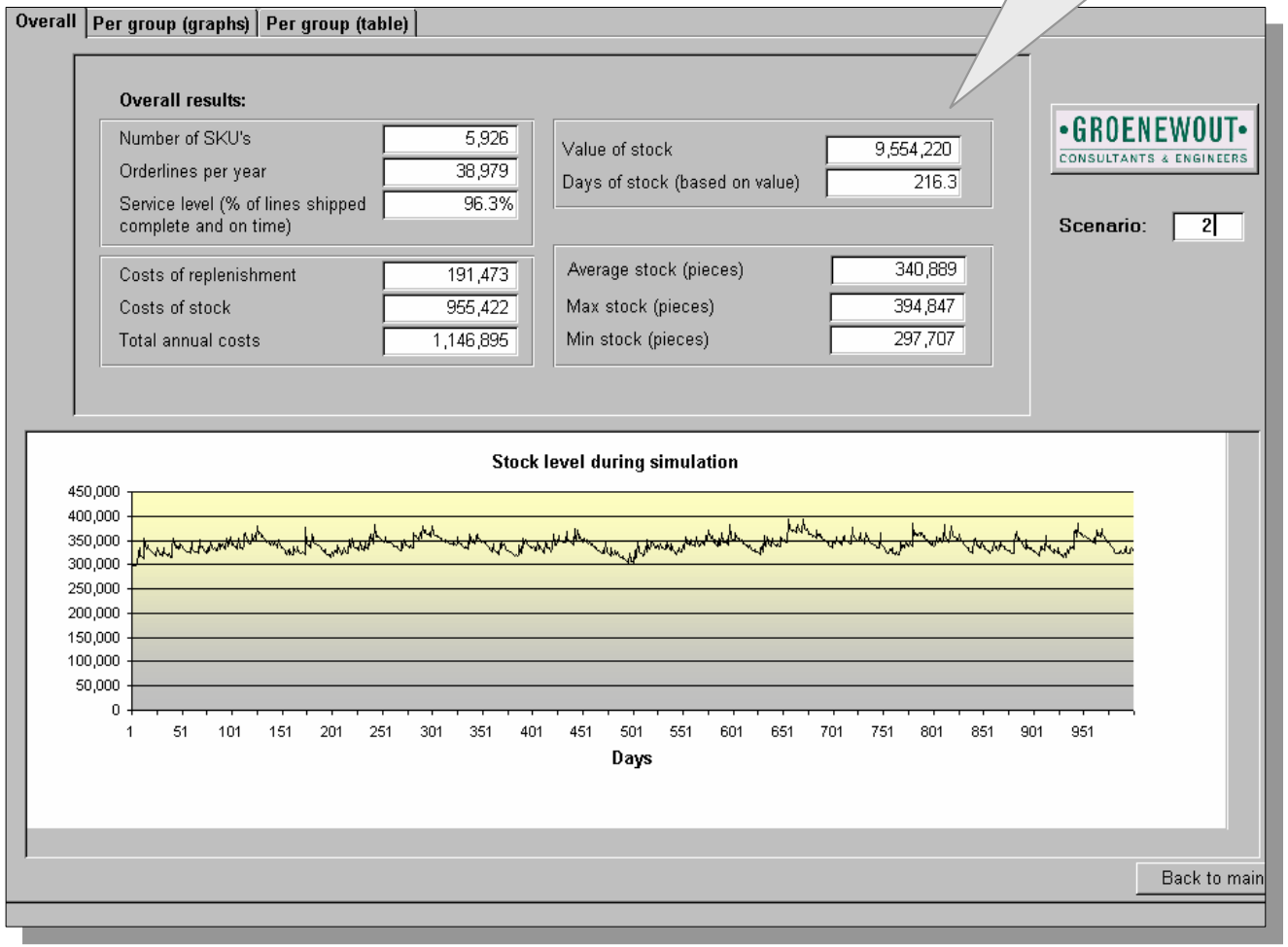
*This can be realised while improving the service level provided!*

# Results

Output is given:

1. Overall
2. Per article group
3. Per article

**1. Example of overall results**



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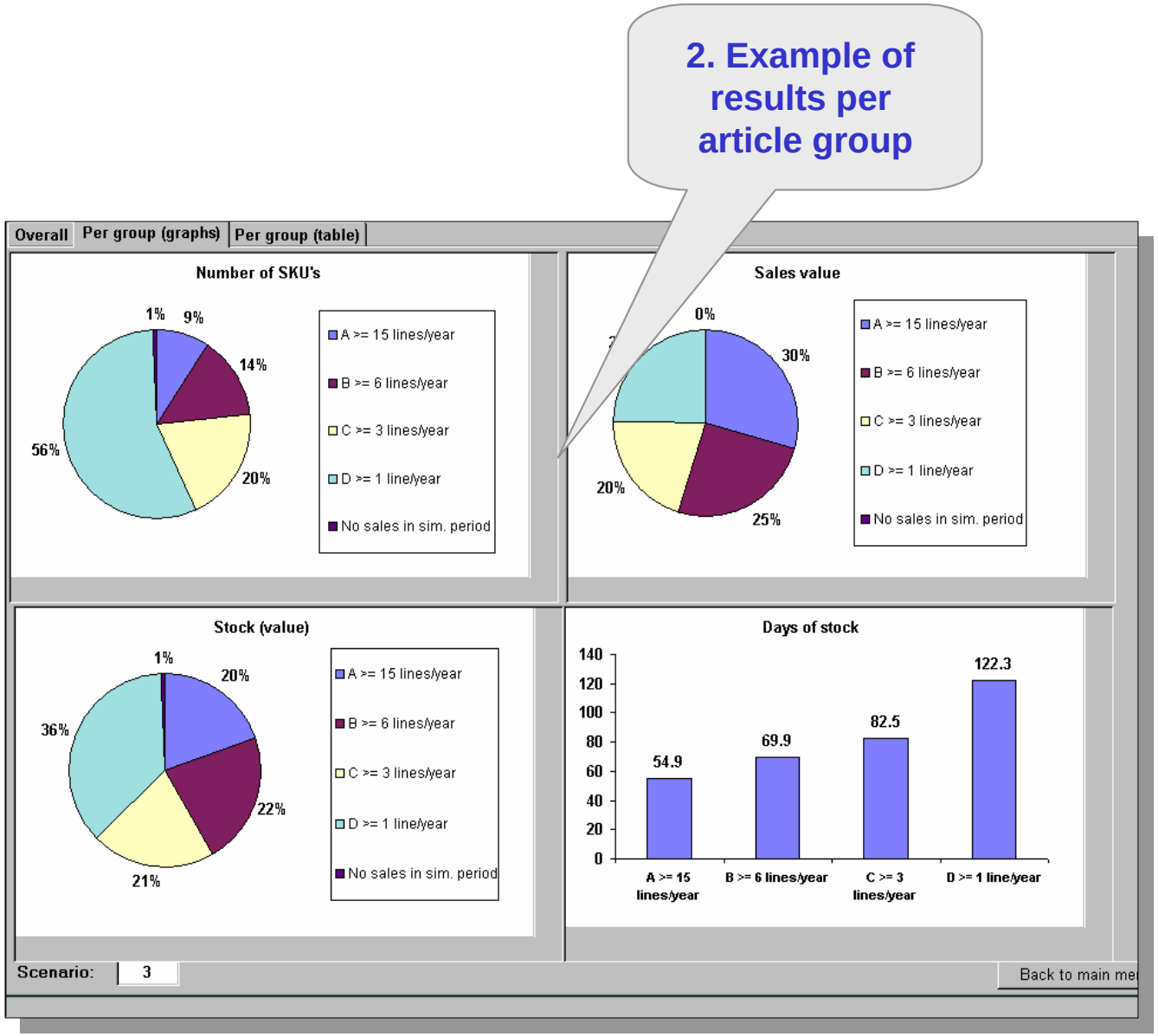
# Results article group



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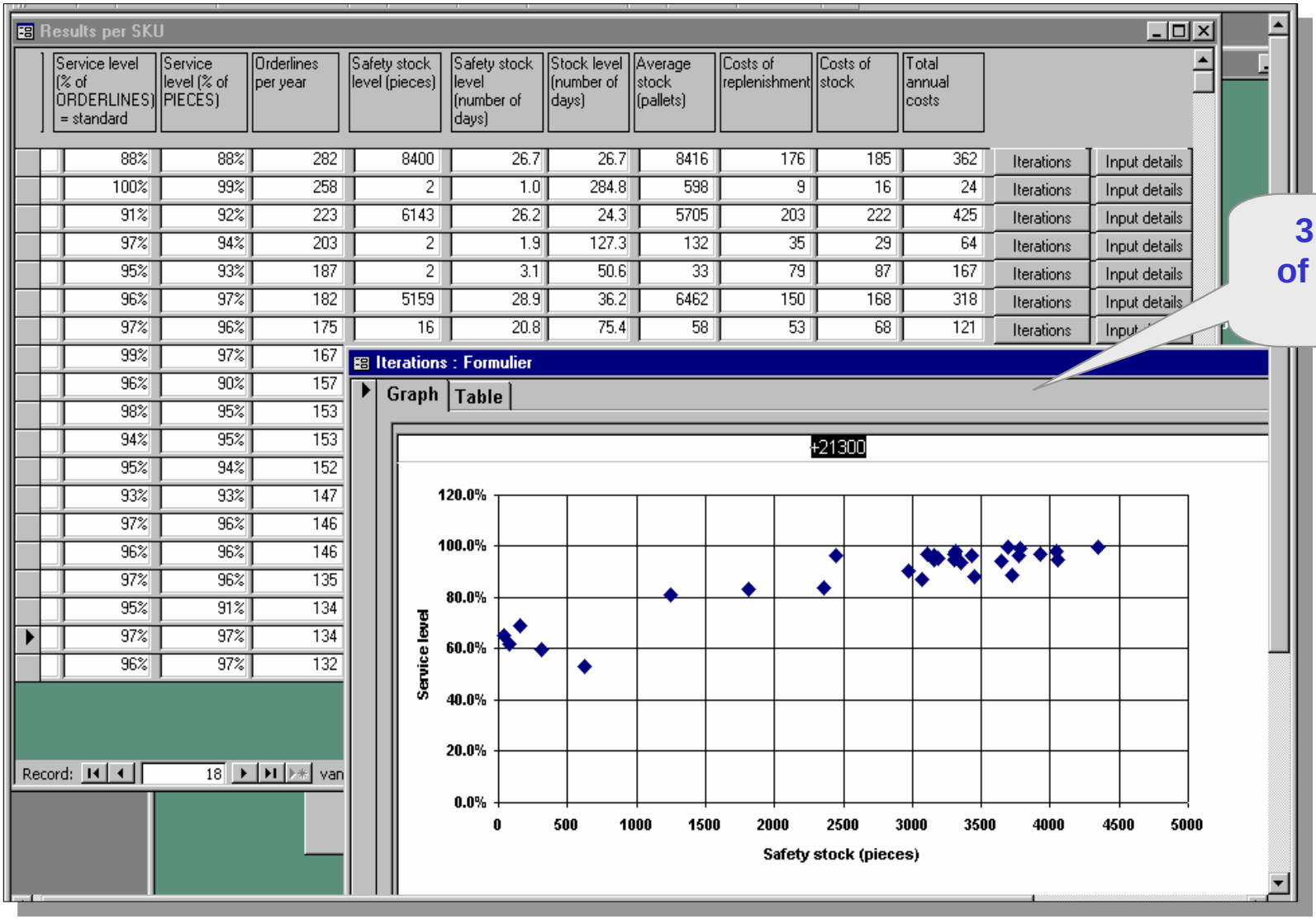
# Results per article




**3. Example of results per article**



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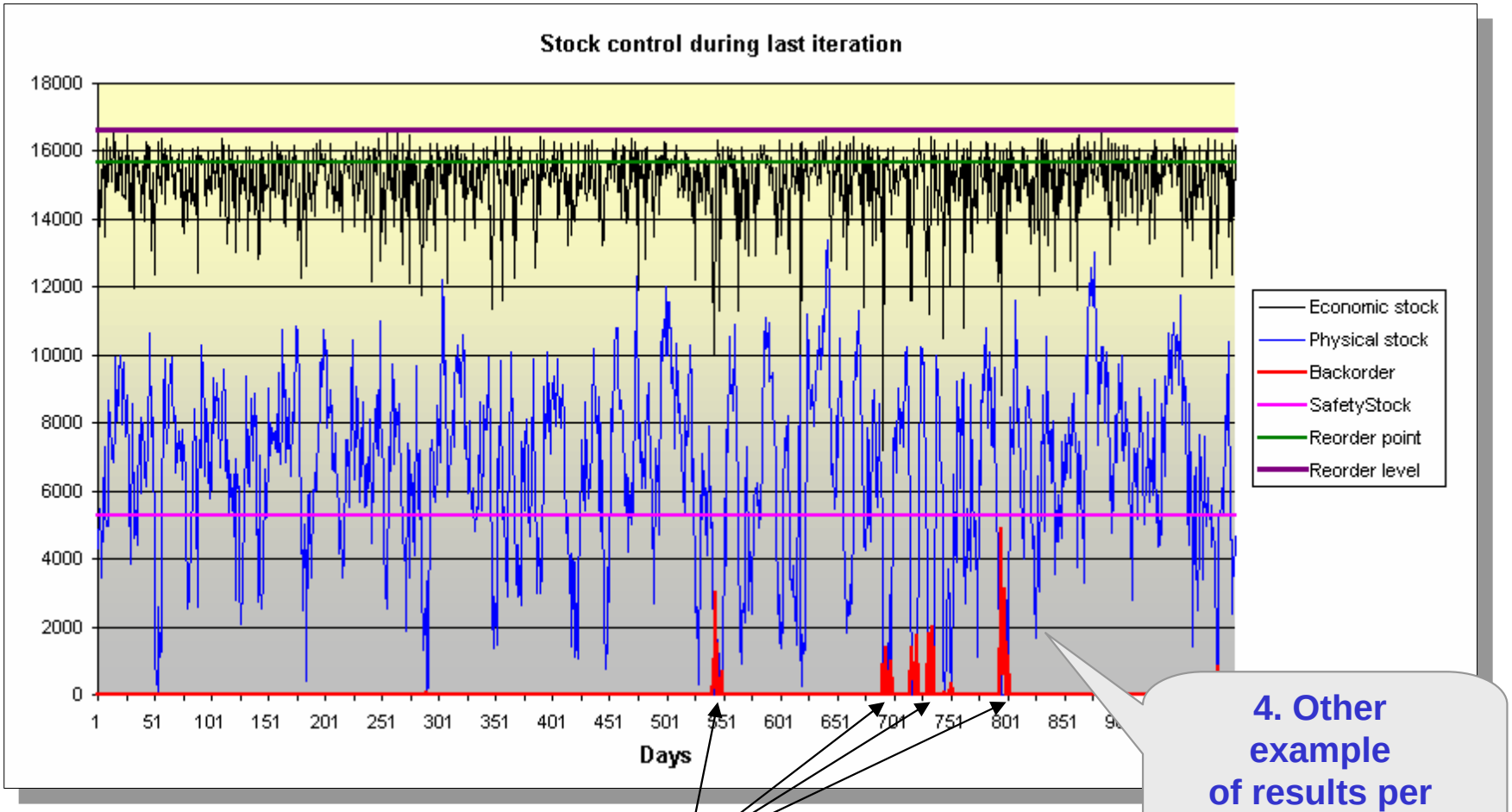
# Results per article




*Insufficient stock*
*Service level for this SKU = 97%*

**4. Other example of results per article**



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