# Smart inventory <br> management preventing out-of-stock and overstock situations 

## Stock redistribution driven by algorithms.

## Situation

The client is a mid-size fashion retailer in Belgium. He has both an online and offline presence, combining twenty brick-and-mortar stores as well as a webshop. The latter has gained true momentum these past few years and has urged the retailer to further push efforts. Like many other mid-size retail companies, the client is utterly aware of the urgent need to step up its adoption of new technologies to uphold its competitive advantage and continue on the path of growth.

## Challenges

## Preventing out-of-stock situations

Managing inventory has always been a time-intensive and cumbersome process for any retailer. As a result of digital disruption, it is however become more important than ever to ensure that sufficient items are in store when a sales opportunity presents itself. The potential customer, anxious for a fresh pair of trousers or footwear, has become less forgiving for finding his favourite items out of stock. Provided with the ability to shop online or check where to find these shoes close by, such a sale opportunity can be lost in a blink of an eye.

## Preventing overstock situations

Hoarding and piling-up inventory has never been the right answer to ensure a customer walks out of the store happy and satisfied, nor will it ever be. The challenge is therefore twofold and equally entails safeguarding excessive inventory from piling up in one or more stores due to differences in sales.

## Solutions

We provided the client's team with an application running a custom-made algorithm which periodically analyses the inventory levels for each product, in each store. For all 300.000 products a unique inventory profile was created, allowing the system to determine the exact inventory shift required.

The tool safeguards an ideal range of stock based on sales data and suggests what inventory should be moved and where. When the application proposes a shift, a single push of a button allows the team to transfer the order directly into the companies' enterprise resource planning tool, activating the inventory transfer.

The combination of multiple data sources allows the application to go further than mere analysis of sales data. It enables the client to predict future fluctuations and automate actions accordingly.

## Results

+ Shops encountered fewer out-ofstock situations, growing the number of in-store sales (5\% $10 \%$ increase in revenue) and satisfied customers.
* Shops piled-up lesser stock, lowering the impact of unsold items on financials.
+ Time required to count stock and ensure redistribution of items were substantially reduced, leading to reduced costs and increased revenue.
* One-click solution on top of existing enterprise resource planning tool.

