Soluzione 1

CASE STUDY

TO KNOW WHAT IS WHAT IN THE WAREHOUSE

Moving and sorting 1,000 tons of fresh products every day

YEAR	2016
SECTOR	Mass Retail Channel, Logistics
TOOLS	Web application, Database, Mobile app, Proximity, Smartwatch

THE CHALLENGE

"Reducing the margin of error while making the process more rapid and efficient"

It isn't a secret that in the Mass Retail Channel, one of the ingredients for success is cost efficiency. And **internal operations** are fundamental. That's why our client, one of the **leaders in the Italian food retail sector**, asked us to work on the management of their daily deliveries of fresh fruits and vegetables.

Every night, our customer **sorts** more than a **thousand tons of fresh produce;** which is received each night until 11 PM the and must be sent out to the **hundreds of stores** by 7 AM in the following morning.
The tasks are delegated to different teams of employees (up to two hundreds) who are committed to intense and repetitive work, something that doesn't create the most ideal conditions for maintaining concentration.

In fact, in the time span of one night, the workers must:

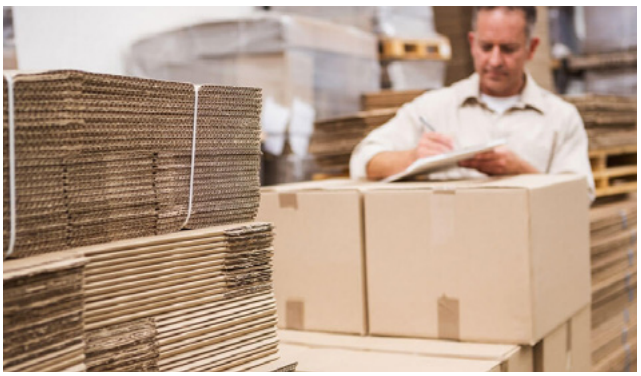
- **receive** the goods and quickly figure out if the delivery is compliant to the order;
- **weigh** the deliveries, **assign** a unique code to each pallet and insert the code into the inventory;
- store each pallet in a **specific area** of the warehouse which is defined by the specific category of produce;
- pass the order along to other workers who then must **divide** the units of each product based on a store's specific order and then place them on "islands" in front of the loading gate where they can be put into vans and sent to each store.

How could we facilitate the work while reducing the margin of error but also making the process more rapid and efficient?

OUR RESPONSE

We divided the project into three phases:

RECEIVING GOODS ***To receive the pallets, weigh them and divide them in the warehouse*****:**
When the supplier comes to the sorting center, the workers already have the information about the delivery in the database. The worker is equipped with a **handheld device with an app** that scans the bar codes, and records the weight of the pallets, sending the data to a server which deals with any weight adjustments.
Immediately, a **label is printed with a bar code** that states the destination of the cargo within the warehouse. If necessary, the worker can intervene manually, on the app, to correct the weights, number of packages, make other adjustments or reject any pallets or packages.
The possibility to **make any corrections directly from the app** is fundamental because in such fast-paced environment, mistakes happen and the correct value is not always assigned the first time.



DISTRIBUTION ***To recognize every package and put it in the right spot:***
The sorting centers are divided into **"islands"** with different storage environments for each category of produce.
Once the pallets are labeled, they are loaded onto a **cart with a tablet** that has another Soluzione 1 **app**. This app, according to the scanned bar code, sends out missions, one after another, so that the **worker only has to focus on one action at a time**. Each set of missions has the pallets or packages transported to a specific island. Each island is divided into areas: here, the workers choose a free area and, while always using the app on the tablet, assign the unloaded goods to it.
When the systems detects that all available areas in an island are full, the app **automatically changes** the destination of the excess goods which are placed in storage and will be sorted for delivery the next day.

SORTING ***To sort the products in the island and for the correct store:***

This is where the tasks gets really intense. The majority of the work happens here: opening every package and **distributing the individual products to every delivery for each specific store, when only a few more hours are left**. Experts know that this step in the process has a **high error rate**. Besides maintaining a high concentration and focus on each order, workers also need to keep their hands as free as possible. So how do we balance the two?

Soluzione 1's answer is to equip each worker with a **smartwatch connected to a bar code reader** which in turn is **connected to the system**. When the bar code is scanned, the system displays to the worker the required amount of products and where to allocate them. Since the smartwatch is hands-free, every delivery can be done much **more easily** – once a mission has been accomplished, just tap (also with gloves on) and move on to the next product!

THE RESULT

We have made a critical job more **efficient and manageable** for our client, helping them to maintain, or rather, improve its leadership in the market in terms of efficiency.
In fact, **time savings** has already reached up to 2 hours per night!

Today, Soluzione 1 is the partner in many fundamental processes for our client's operations, including those involving contact with the public. We also have some upgrades yet to be unveiled but they are all top-secret (until we release the next success story).