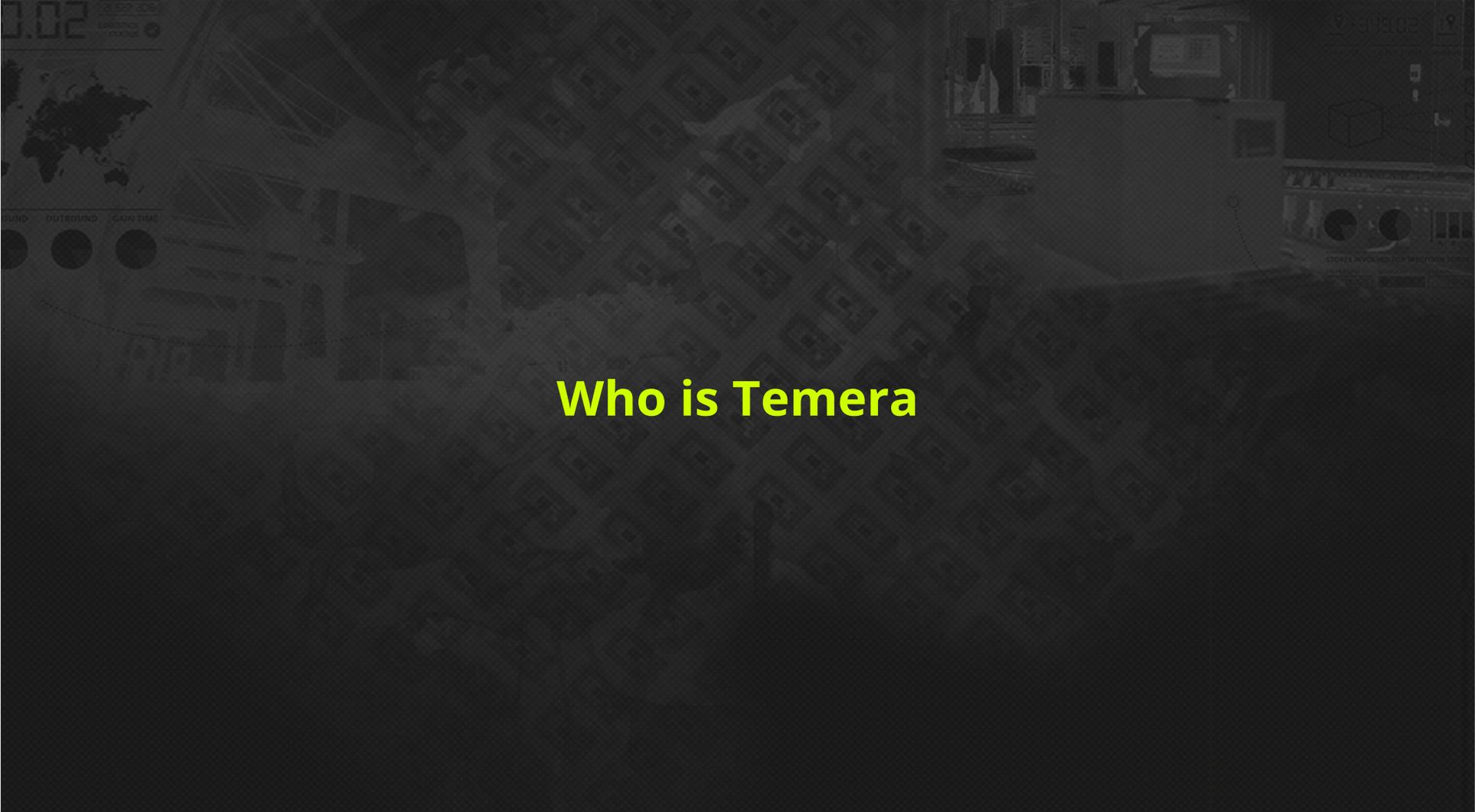# RFID RAIN 2019

The RFID Technology, a tremendous enabler for Fashion

Who is Temera

Temera, Smartrac and Lab ID join forces to enhance IoT impact on the High Fashion and Luxury markets

TEMERA Smartrac and Lab-Id Global Footprint

TEMERA Directs Locations
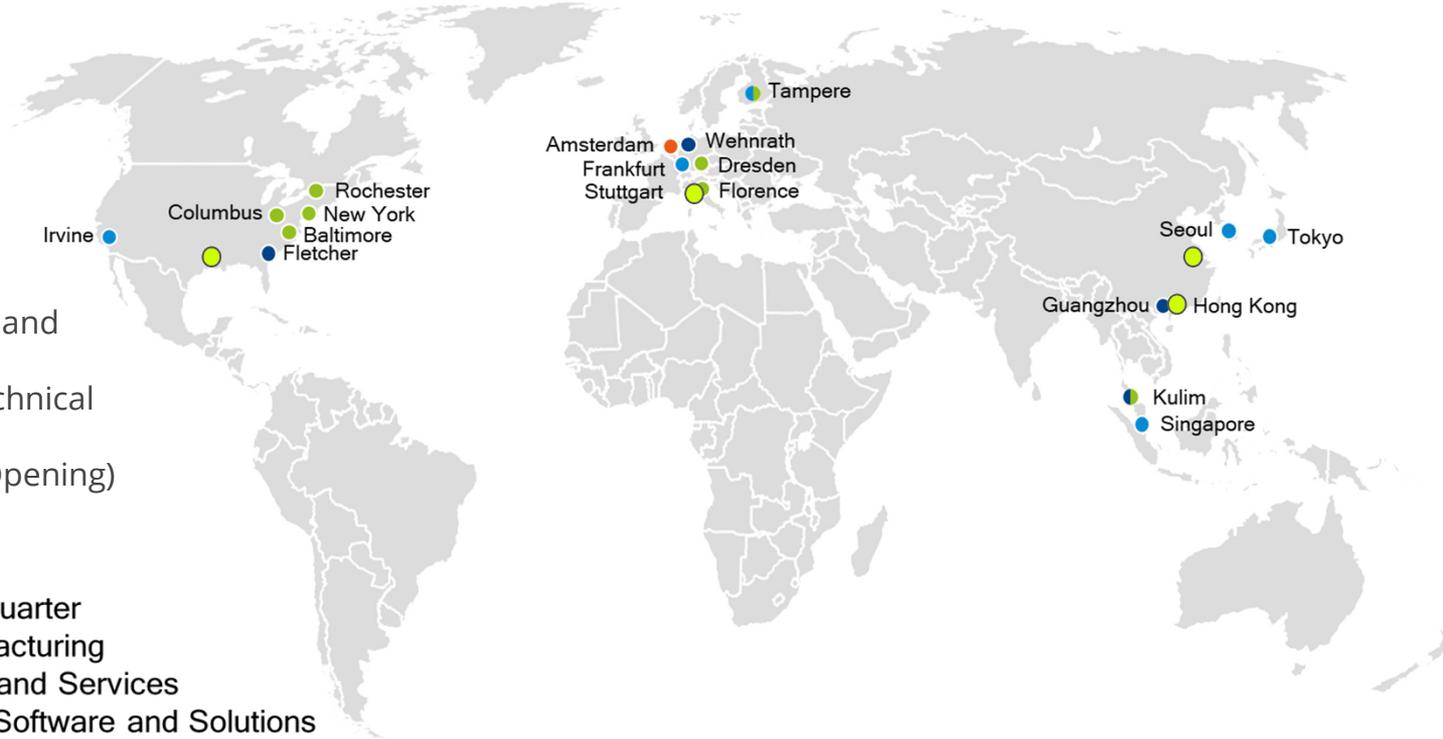Firenze **(HQ)**
Bologna
Milano
London
Stuttgart
New York
San Marcos USA (PM, Delivery and
Technical Office)
Shanghai (Pm, Delivery and Technical
Office)
Hong Kong (Sales Office next Opening)

Tampere

Amsterdam   Wehnrath
Frankfurt   Dresden
Stuttgart   Florence

Rochester
Columbus   New York
            Baltimore
Irvine   Fletcher

Seoul   Tokyo

Guangzhou   Hong Kong

Kulim
Singapore

- Headquarter
- Manufacturing
- Sales and Services
- R&D, Software and Solutions

Temera: Delivering RFID since 2009

2009
Clients: 1
Y/Income: 90K €
Team peoples: 2

2011
Clients: ~5
Y/Income: 1.3M €
Team peoples: 12

2013
Clients: ~30
Y/Income: 3.8M €
Team peoples: 25

2016
SMARTRAC
Clients: ~40
Y/Income: 6.5M €
Team peoples: 45

2019
Clients nr: ~70
Y/Income: 13.5M € (2018)
Team peoples 2019: 95
New Headquarters

Since 2009 FOCUSED in delivering RFID for FASHION & LUXURY Market

TEMERA, In Fashion and Luxury Market

Standard RFID Applications
for F&L Market

The RFID Key Values in the Luxury market

MANUFACTURING

PRODUCTION PROGRESS

QUALITY CONTROL

ANTI-COUNTERFEITING

LOGISTICS

PROCESS OPTIMIZATION INBOUND/OUTBOUND

MANAGEMENT WORK PEAKS

INVENTORY VISIBILITY

GREY MARKET

TRACEABILITY SUPPLY CHAIN

STORE

COSTS REDUCTIONS

STOCK VISIBILITY

SELLER ASSISTANT

SALES UPLIFT

CUSTOMER EXPERIENCE

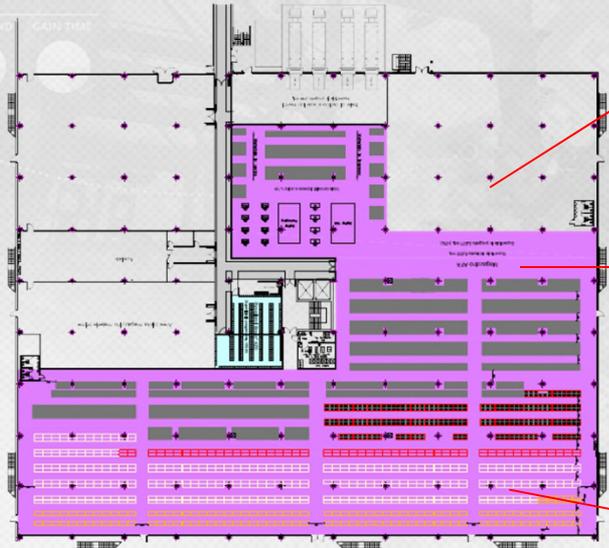**MAGIC MIRROR**

DIGITAL WARRANTY

FITTING ROOM

Production & Logistic Applications

1. Anti Counterfeiting
2. Grey market control
3. Quality Control
4. Automatic Inbound
5. Automatic Outbound

Warehouse logistic flow - OUTBOUND

PICKING

OUTBOUND
(WITH RFID
SYSTEM)

TRUCK LOAD

Enhance standard WMS capabilities

Retail Operation

1. Automatic Inbound
2. Store to store
3. Sales & Return management
4. Seller assistant
5. Antitheft system
6. Inventory
7. RTLS

01 Inbound and Anti-theft

IMPACT

- The store operator scans the incoming products to the store warehouse through a PDA or a fixed workstation, verifying the consistency between physical and theoretical
- The operator does not have to apply the anti-shoplifting hard tag because the RFID label also performs this function

BENEFIT

- Dramatic reduction of time devoted to the activity of receiving goods: from tens of minutes to seconds

ABOUT 4H SAVED PER STORE PER WEEK

02 Inventory

IMPACT

- An accurate inventory of variant / size can be done in less than 30 minutes

- The same can be done to verify the stock with the affiliates

OBJECTIVE: GREATER PRECISION UP TO 99%

BENEFIT

- Inventories much more frequent and much more precise

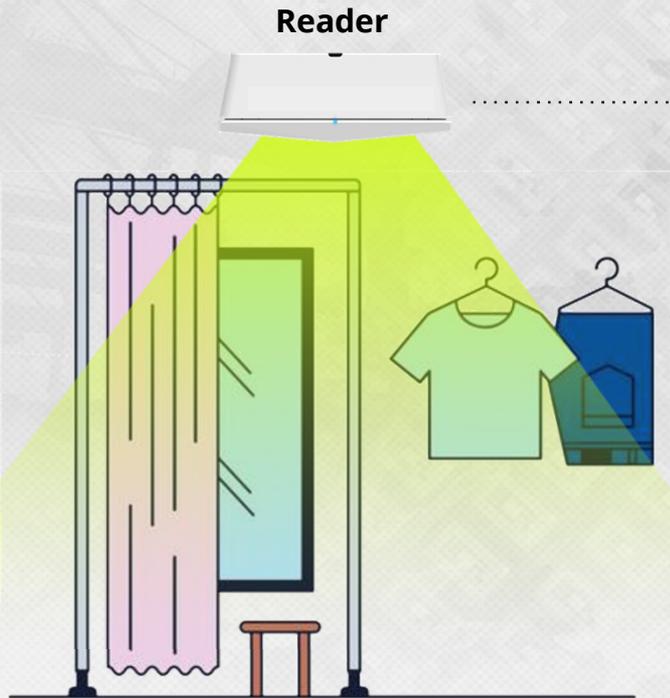# 03 Outbound (Store-to-Store)

IMPACT

- Automatic creation of the shipping list with scanning the actual products through a PDA
- Verifying the consistency between physical and theoretical at the receiving

BENEFIT

- Better Store-To-Store product accuracy

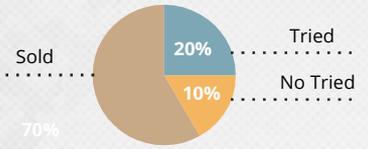**OBJECTIVE: REDUCTION ON THE NUMBER OF STORE TO STORE OPERATIONS**

Reader

Fitting Room

Movement - Fitting room
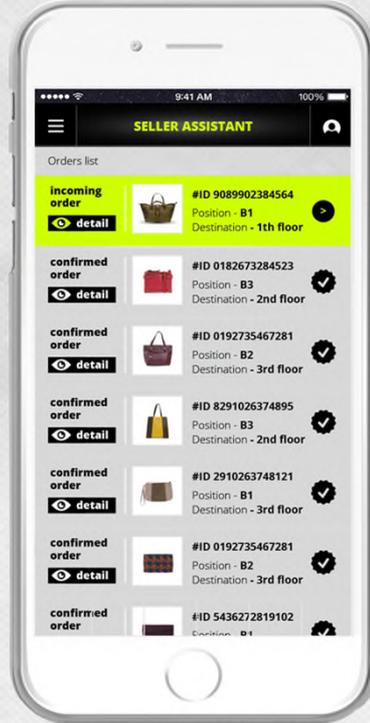
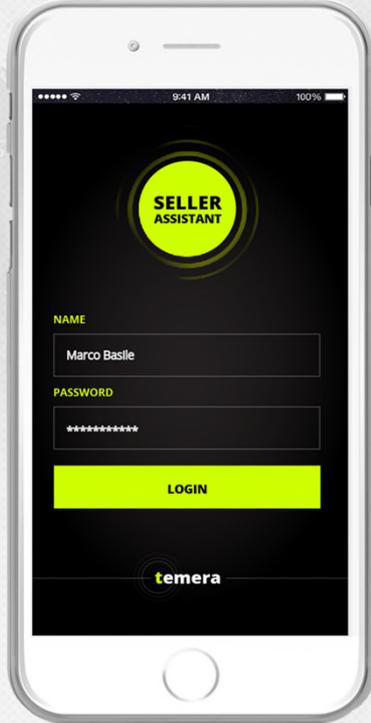| ITEMS - A	0 0 1
ITEMS - B	0 0 1

1st ROI between tried and sold

Sold

Tried

No Tried

20%

10%

70%

2nd ROI between tried and sold + people entered in the store

Better Insight on success rate for SKU

The Seller Assistant

The seller assistant is one of the applications that "downloads" the benefits of an implementation of RFId technology, leveraging the availability of a constantly updated stock, made possible by the frequent inventories that can be done in a store.
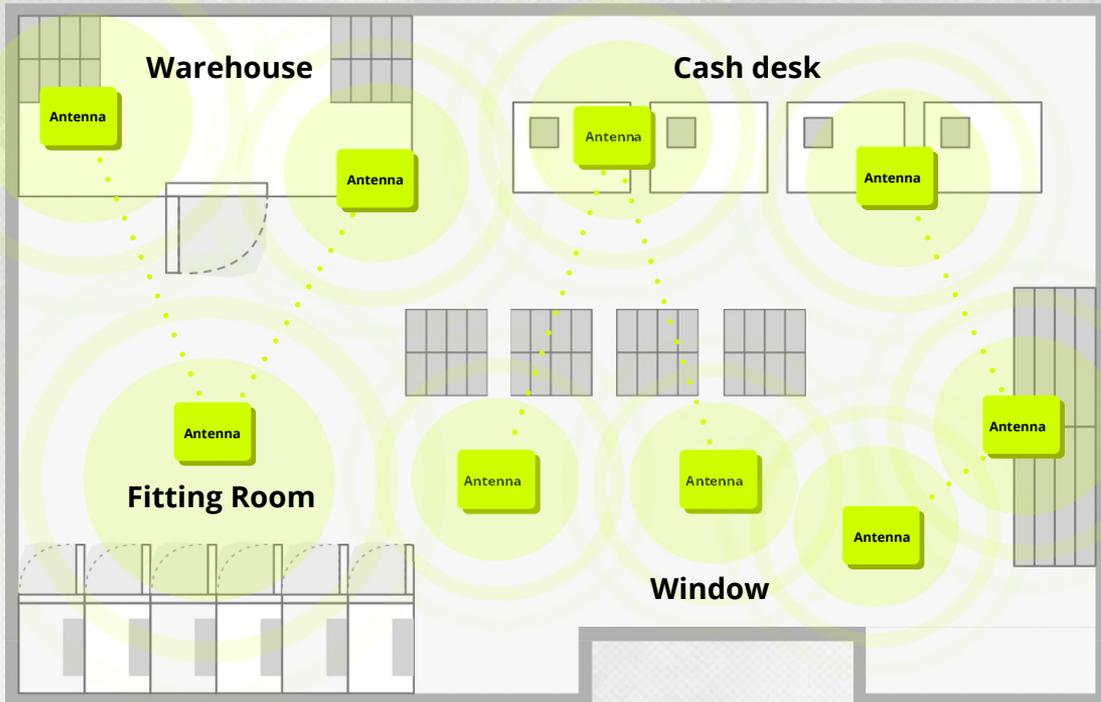
RTLS

Real Time Location System

- *Real time Inventory*
- *Real Time Movement*

Locate your time anywhere and in any moment

New keywords for RFID

End-User Traceability and 360° integration

Society is **evolving,** IoT is now **IoE**
Millennials are always **connected, informed, influenced**

People wants to know what they are buying and if it is
sustainable

End-To-End traceability and 360° integration

Global traceability between production to end-user

01 TAG SUPPLIER

02 FACTORY #1

03 CDC

04 WAREHOUSE

05 STORE

06 End-User

TAG production associated to production order and worker

Verification of the TAG in the production facility

Reading TAG in distribution center

Outbound and TAG association to final destination so Store or Wholesaler

Verification of goods arrival in the store

End-User verification of product authenticity and product lifecycle

End-User verification

Customer can autonomously verify
the authenticity of products.
Strong fidelization messages

temera

**Your product is
AUTHENTIC!**
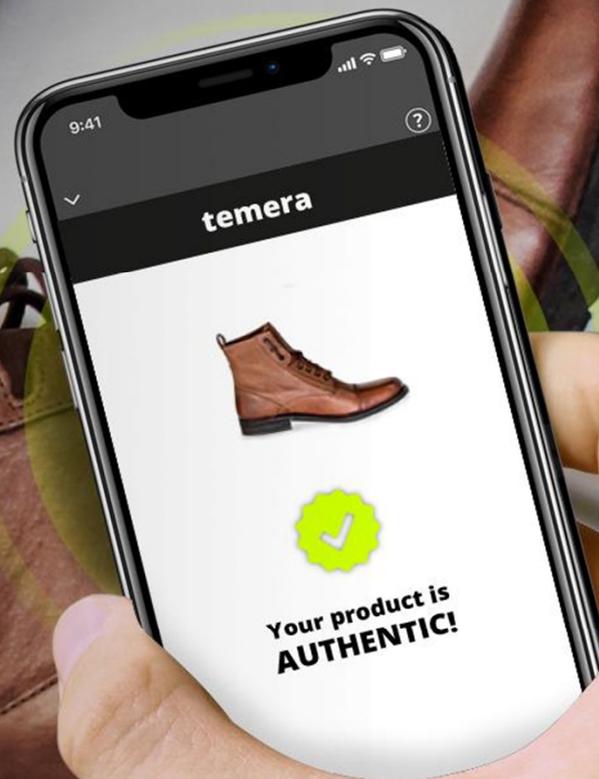
RFID in Retail
from Retail operation to realtime stock and Omnichannel

Retail Operation

- Automatic receiving
- Store-to-Store
- anti theft
- inventory

Realtime stock

- Common stock
- effective replenishment
- Customer Satisfaction
- Fidelization

Customer wants to be **unique** and buy **unique** products
The number of seasons per year increased considerably in the last years
Nowaday it is fundamental to have the right product in the right moment and know where customer can find it

Inventory challenges & improvement possibilities

BEFORE RFID		AFTER RFID		IMPROVEMENT
67,4%	Inventory accuracy	84,5%	⟫	25,4%
64,6%	Customer satisfaction	71,7%	⟫	11,0%
16,5%	Store Out-of-Stocks	9,8%	⟫	40,6%
17,8%	Shrinkage	11,8%	⟫	33,7%
8,9%	Profit Margin	14,3%	⟫	60,7%
14,8%	Average Markdown	11,9%	⟫	19,6%

- The ROI model for RFID is relatively mature and these figures are taken from multiple deployments in many different retailing sectors

- A project can normally return a significant ROI from one of these metrics, not all are required

- The overall aim is simple: Earn more for doing Less.

Why Retail Market is evolving

MARKET EVOLUTION AND CUSTOMERS EXPECTATIONS

- Increasing number of seasons per year and increasing number of SKU, but decreasing n. of pieces per SKU.

- Increasing worldwide number of stores

- Increasing **Competition** (Including Fast Fashion brands)

- Increasing Customer **Expectations - Check availability by CustomerCare or WebSite and collect in Store**

- **Customer looking for specific SKUs in store**

- **Ever-evolving Technology**

COMPANY ORGANIZATION

- Small stock availability for each store

- Increasing number of shipments from MainWH

- Increasing the importance to certificate the shipments

- Increasing number of transfer Store2Store

It's not possible to reserve the item in the stock of the store because the stocks are shared.

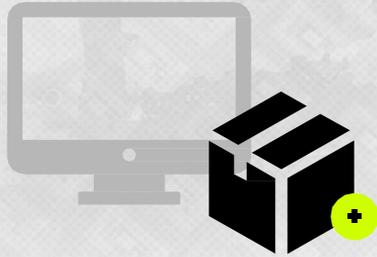**MANUFACTURING,WH, REGIONAL WH, STORE OR ECOMMERCE, CUSTOMER**

Use Case
Different channels playing a different role in a bigger game

7-13

	4	

1

3

Only Buy
Online

Both
Channels

Only Buy
In Store
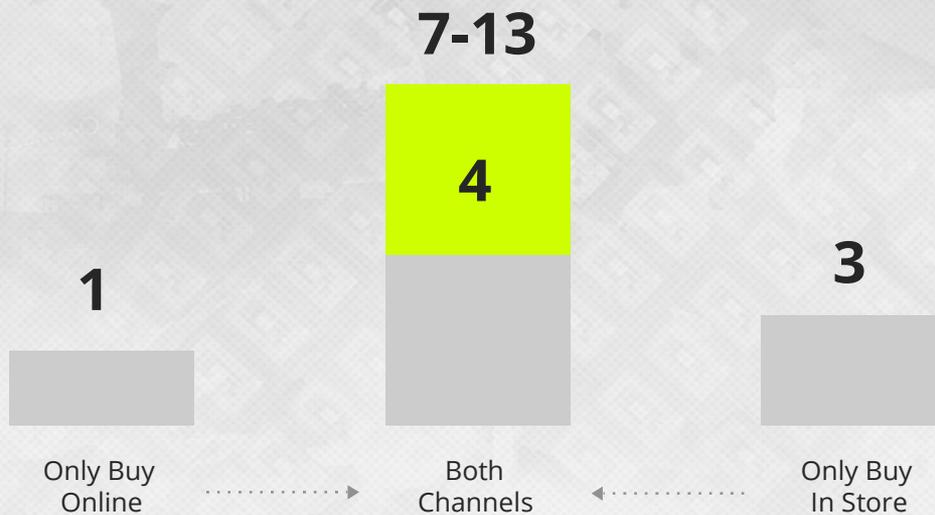
Use Case
Experiences with in-store returns of online purchases

45%

Made an additional purchase
when processing a return
on a website

70%

Made an additional purchase
when returning in store

RFID TAG history and r/evolution

UHF

Single embedded TAG or dua/multiple TAG per product
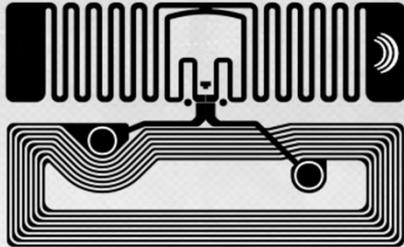
Item tracking
Integration in Production
• Anti Counterfeiting
• Grey market control
• Quality Control

Logistic process Optimization
• Automatic Inbound
• Automatic Outbound

UHF+NFC

Single TAG combining UHF with NFC technology for customer engagement (limited to Android devices)

Introduced even before the rumors about iOS enabling NFC (low penetration in fashion&luxury market)
Not optimal for logistic process (dual TAG)

Dual TAG

2017 Apple introduce first compatibility with NFC technology for iOS devices

This finally enabled NFC technology for Fashion&Luxury market

Better performance
Better integration into garments
More freedom in NFC/UHF selection

Additional application for end-user authenticity verification and customer engagement
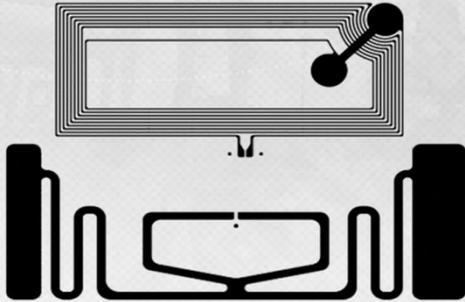
RFID for brand protection

The cost of counterfeiting for the global apparel industry is estimated to $ 1.8 trilioni -
According to a recent study, the counterfeiting good represents the 10% of the global market

Wine & spirit Market use case:
- **Mediterranean (East):** 56.2%.
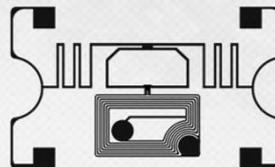- **South-East Asia:** 69%.
- **Russia:** 35-50%.
  The market for counterfeit whiskey in Russia is estimated to be 166 million euros.

- According to the International Center for Alcohol Policies, **30% of alcohol consumed Worldwide is illicit** and experts from Wine Spectator estimate that **20% of the wine Consumed worldwide is counterfeit.**
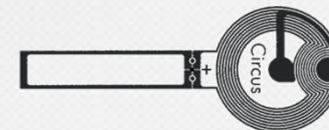
Rolling codes TAGs

Multifrequency TAGs

Tamper TAGs

Headquarter
Florence
Via di Pianvallico, 5
50129, Scarperia - IT

Office
Milan
Via Vittor Pisani, 20
20144 - IT

Office
London
242-246 Marylebone Road
NW1 6JQ

Office
New York
377 Park Ave S, New York,
NY 10016 - US

Tel: +39 055 53.92.960 - Fax: +39 055 53.92.959

www.temera.it