



**DA WMS A 3MS: ENTRA NELLA  
INTRALOGISTICA DEL FUTURO CON  
ODATI<sup>o</sup>**

Riccardo PRIORI – Senior Software Sales Engineer

A black and white photograph of a large, modern warehouse interior, showing a high ceiling with a complex steel truss structure and numerous industrial lights. The floor is polished and reflects the overhead lights. The image is partially obscured by a red triangle on the left and a blue triangle at the bottom left.

**01** LA NOSTRA AZIENDA

**02** AMBITO STANDARD WMS

**03** DA WMS A 3MS

**04** IL 3MS E IL SUO IMPIEGO NEL MAGAZZINO DEL FUTURO

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## CHI SIAMO

# Siamo un produttore ed integratore di soluzioni per l'intralogistica e la supply chain

35 anni di esperienza nella logistica e nel controllo di sistemi automatici

### Un'azienda, due anime:

#### ***ADVANCED SOFTWARE***

Design e sviluppo di soluzioni software per la supply chain execution : OMS, WMS, WCS, TMS, EDI

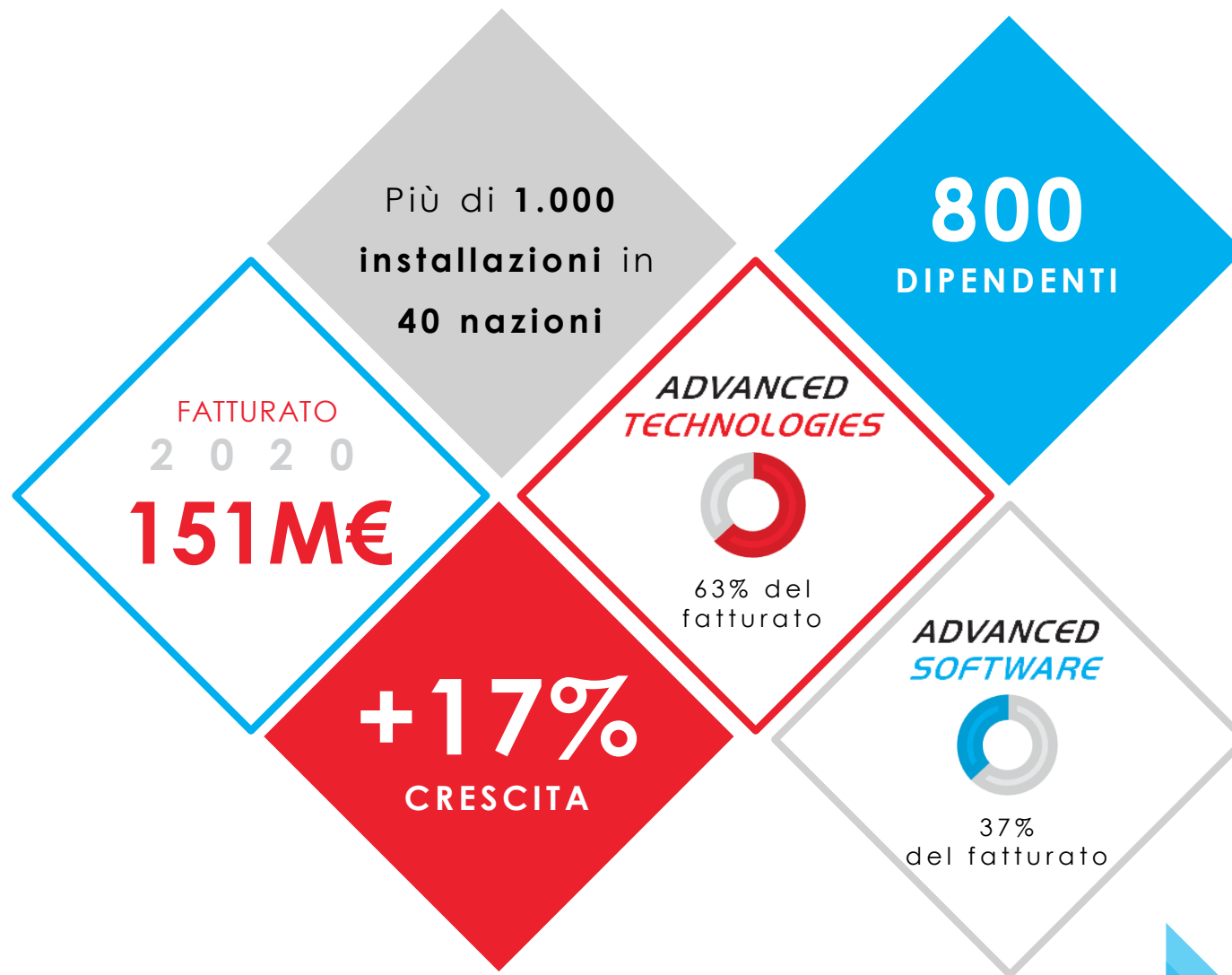
#### ***ADVANCED TECHNOLOGIES***

Progettazione e produzione di sistemi automatici per il packing, l'order picking e lo stoccaggio della merce

# LE NOSTRE SEDI



# I NOSTRI NUMERI



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**OMS**

**Order  
Management  
System**

**WMS**

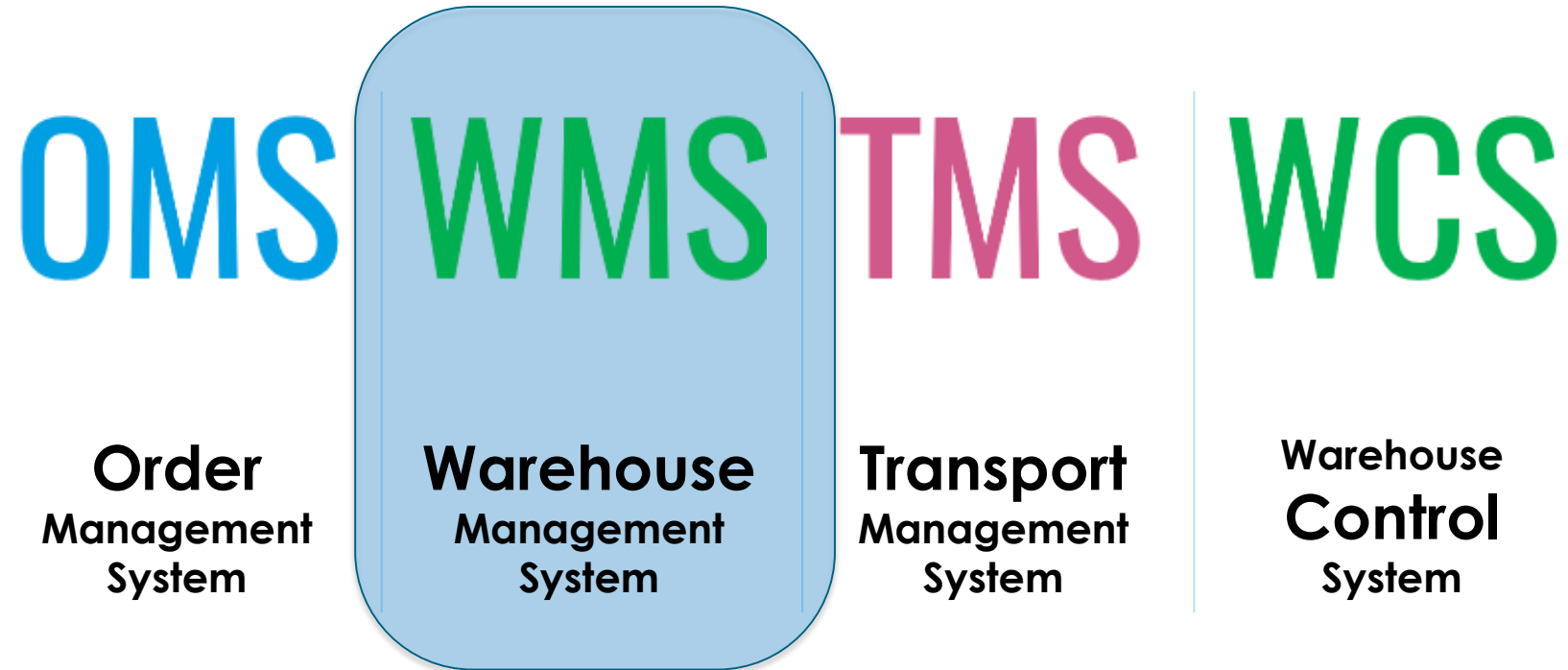
**Warehouse  
Management  
System**

**TMS**

**Transport  
Management  
System**

**WCS**

**Warehouse  
Control  
System**

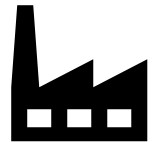




**Controllo e ottimizzazione delle attività di inbound**



**Controllo e ottimizzazione delle attività di outbound**



**Monitoraggio e ottimizzazione delle attività interne di magazzino**

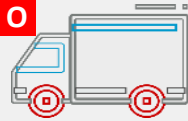


**Condivisione delle informazioni**

# COPERTURA FUNZIONALE WMS



## RICEVIMENTO



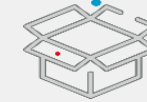
Unloading  
Litigations  
**Traceability**  
ASN / PO  
Unexpected goods  
Declarative, calculated receipt  
Splitting-up (storage / picking)

## VERSAMENTO



Putaway optimization  
**Replenishment optimization**  
Movements management  
Different way for counting  
Opportunistic stock takes  
**Assembly**

## ESECUZIONE



Scheduling  
Precubing  
**Cubing after launching**  
Shortage  
**Launching campaigns**  
**Fulfillment**  
**PAP, PTP, automation, mix**  
Quality check after picking  
Link with simple to complex automation

## SPEDIZIONE



Flow consolidation  
Packing  
Palletization  
Loading  
Shipment closing  
DESADV management

## DASHBOARD

Standard and customizable widgets  
Goods-in/ Statuses  
Late Putaway/ goods-in  
Goods-in of the day  
Filling ratio per zone  
Late picking orders  
Shipping units reporting

## SETTINGS



XML exchanges  
**Multi-sites / Multi-owners**  
Warehouses settings / Means management  
Customers, Carriers, suppliers rules  
Traceability / audit trail  
Process rules management

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**Un contesto sempre più in movimento**



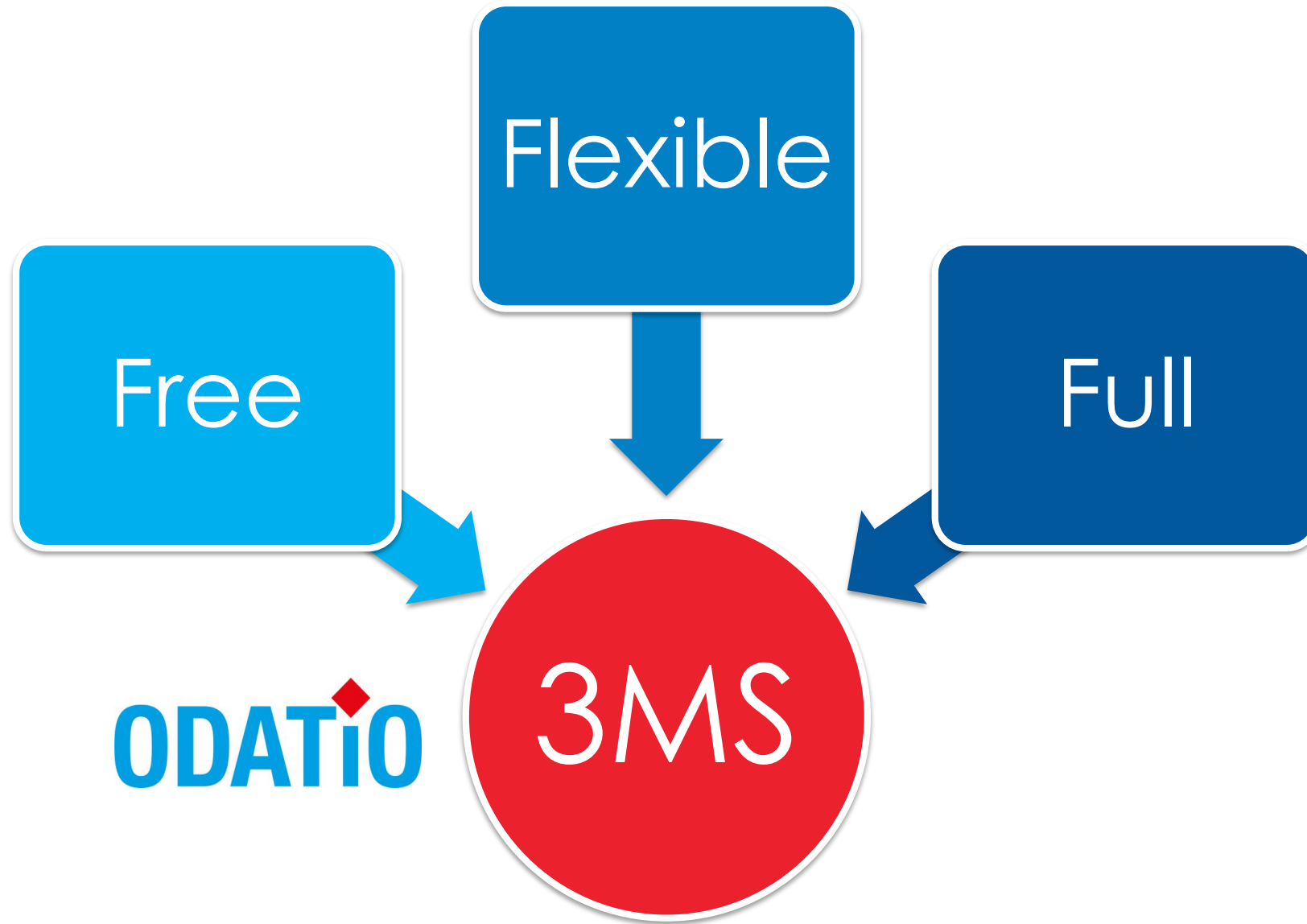
**Necessità da parte dell'intralogistica di essere sempre al passo con le nuove richieste dei clienti interni ed esterni**



**Una richiesta di interconnettività sempre più spinta**



**Richiesta di performance più elevate**



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Full

Una soluzione completa, comprendente moduli propri sia del WMS che del TMS

Flexible

Una soluzione flessibile, capace di adattarsi alle esigenze del cliente anche a valle del *Go-Live*

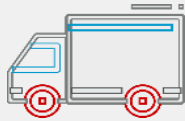
Free

Una soluzione che permette al cliente di essere libero di modificare i processi gestiti dal software, senza passare dalle *Change Request*

# LA NASCITA DI ODATIO - FULL



## RICEZIONE



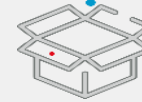
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## TRASPORTO



Parcels and Freight  
Grouping and carrier selection  
Scheduling  
**Transportation labels and EDI**  
Collaborative platform  
**Track & Trace**  
**Fleet Management**



## SPEDIZIONE



Flow consolidation  
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## GESTIONE DEI COSTI

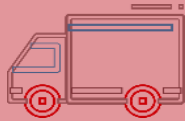


Pre-billing  
Billing control  
Costs simulation  
Budget comparison

# LA NASCITA DI ODATIO - FULL



## RICEZIONE



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## TRASPORTO



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# WMS

## SPEDIZIONE



Flow consolidation  
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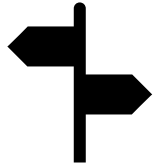
# TMS

## GESTIONE DEI COSTI



Pre-billing  
Billing control  
Costs simulation  
Budget comparison

## ✓ VANTAGGI:



**Possibilità di implementare unicamente moduli TMS, WMS o entrambi**

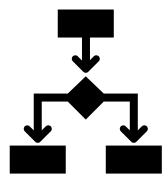


**Possibilità di scaglionare l'attivazione WMS o TMS in istanti temporali differenti**



**Integrazione nativa, riduzione di costi e tempi di interfacciamento tra WMS e TMS**

## ✓ VANTAGGI:



Possibilità di modificare le regole di business – in autonomia – a valle del go live grazie alle **50 Business Rules** tracciate nel sistema



**Maggiore reattività** verso le richieste dei clienti interni / esterni



**Riduzione del TCO** – Total Cost of Ownership



**Reportistica «embedded» nel sistema.** Scoprire le cause dell'inefficienza con pochi click

# BUSINESS RULES MANAGER




**PROCESSI ADATTABILI  
AL CONTESTO  
SPECIFICO**



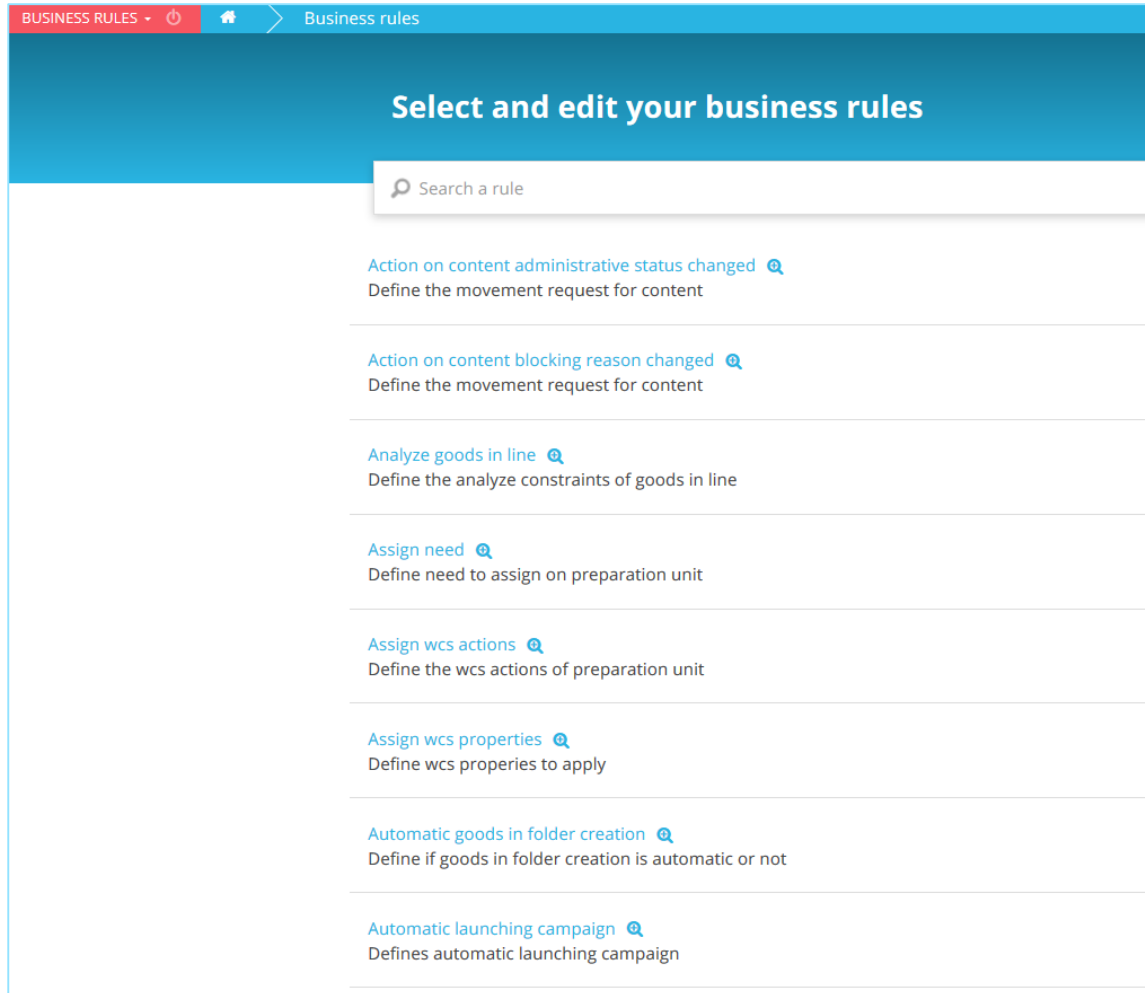
**CUSTOMIZZABILI IN  
AUTONOMIA DAL  
CLIENTE**



**SEMPLICE E  
SICURO**



**COPERTURA  
COMPLETA**



BUSINESS RULES - Business rules

### Select and edit your business rules

Search a rule

- Action on content administrative status changed  
Define the movement request for content
- Action on content blocking reason changed  
Define the movement request for content
- Analyze goods in line  
Define the analyze constraints of goods in line
- Assign need  
Define need to assign on preparation unit
- Assign wcs actions  
Define the wcs actions of preparation unit
- Assign wcs properties  
Define wcs properties to apply
- Automatic goods in folder creation  
Define if goods in folder creation is automatic or not
- Automatic launching campaign  
Defines automatic launching campaign



...grazie al linguaggio  
Apache Groovy!

...più di **50 business  
rules customizzabili  
direttamente dal  
cliente!**

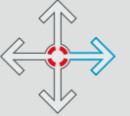
# BUSINESS RULES MANAGER

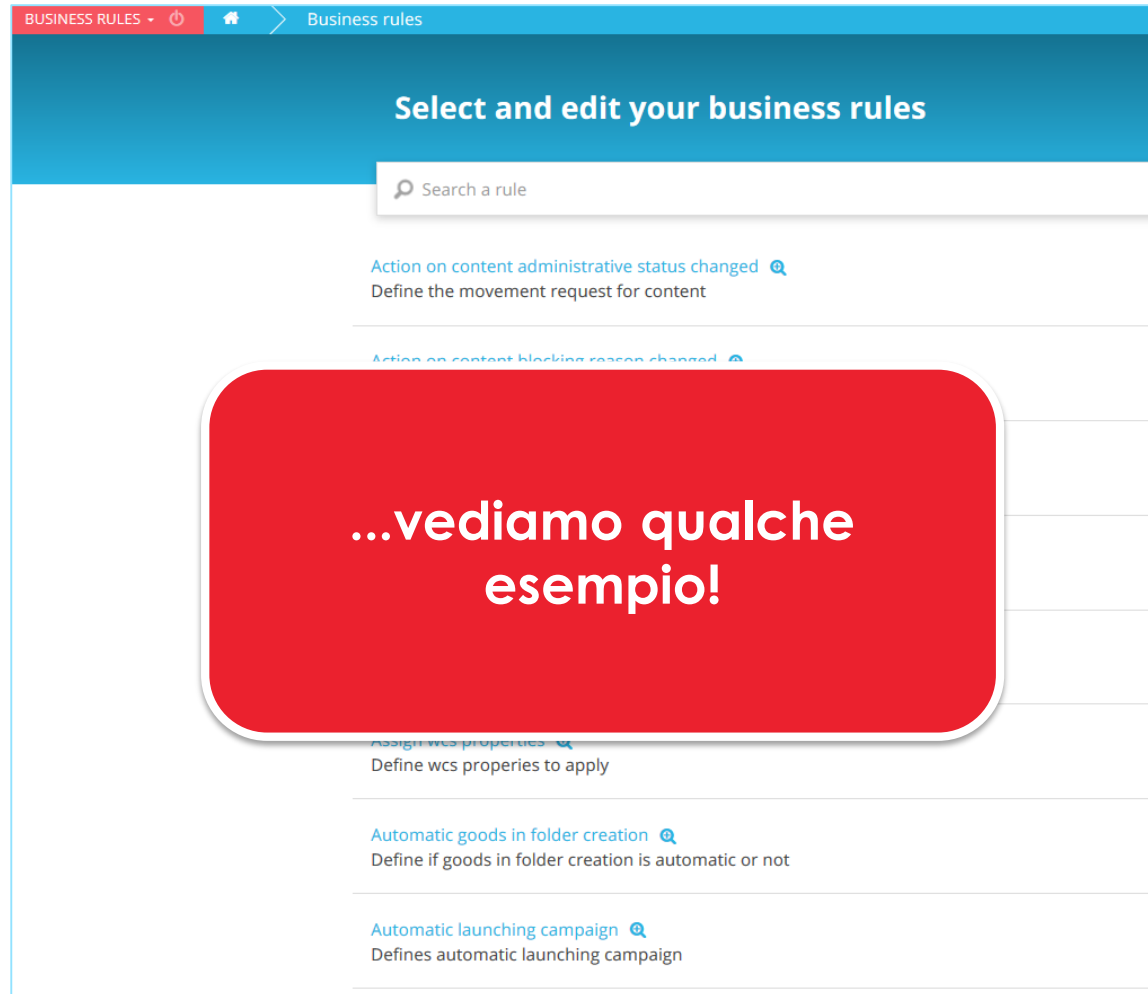


 **PROCESSI ADATTABILI  
AL CONTESTO  
SPECIFICO**

 **CUSTOMIZZABILI IN  
AUTONOMIA DAL  
CLIENTE**

 **SEMPLICE E  
SICURO**

 **COPERTURA  
COMPLETA**



BUSINESS RULES - Business rules

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Defines automatic launching campaign

**...vediamo qualche esempio!**



...grazie al linguaggio  
Apache Groovy!

...più di **50 business  
rules customizzabili  
direttamente dal  
cliente!**

- A
- B
- C
- D

**First reception** ? EXPORT IMPORT DUPLICATE RESET SAVE AND ACTIVATE

<b>Given</b> The product which be managed	<b>PROFILES MANAGEMENT</b> <span>+</span>
<b>When</b> at least, one dimension is null <b>Then</b> Block when first product is received	<b>Block first reception</b> <span>✎</span> <span>✕</span> Block when first product is received
<b>When</b> supplier is DIOR <b>Then</b> Block when first product is received	<b>block first reception</b> <span>🔍</span> Block when first product is received
<b>When</b> supplier is MUFE <b>Then</b> Block when first product is received	<b>don't block first reception</b> <span>🔍</span> Don't block when first product is received
<b>Otherwise</b> Don't block when first product is received	

ADD A CONDITION



**GESTIRE IL PROCESSO DI RICEVIMENTO MERCE CON LA MASSIMA FLESSIBILITA'**



# BUSINESS RULES MANAGER – RICEVIMENTO



- A
- B
- C
- D

**First reception** ? EXPORT IMPORT DUPLICATE RESET SAVE AND ACTIVATE

<b>Given</b> The product which be managed	<b>PROFILES MANAGEMENT</b> <span>+</span>
<b>When</b> at least, one dimension is null <b>Then</b> Block when first product is received	<b>Block first reception</b> <span>✎</span> <span>✕</span> Block when first product is received
<b>When</b> supplier is DIOR <b>Then</b> Block when first product is received	<b>block first reception</b> <span>🔍</span> Block when first product is received
<b>When</b> supplier is MUFE <b>Then</b> Block when first product is received	<b>don't block first reception</b> <span>🔍</span> Don't block when first product is received
<b>Otherwise</b> Don't block when first product is received	

ADD A CONDITION

**Processo Standard → non bloccare mai merce per controllo qualità in ingresso**

- A
- B
- C
- D

**First reception** ⓘ

EXPORT ▾ IMPORT DUPLICATE RESET **SAVE AND ACTIVATE**

<b>Given</b> The product which be managed	→ <b>PROFILES MANAGEMENT</b> +
<b>When</b> at least, one dimension is null <b>Then</b> Block when first product is received	<b>Block first reception</b> ✎ ✕ Block when first product is received
<b>When</b> supplier is DIOR <b>Then</b> Block when first product is received	<b>block first reception</b> ⓘ Block when first product is received
<b>When</b> supplier is MUFE <b>Then</b> Block when first product is received	<b>don't block first reception</b> ⓘ Don't block when first product is received
<b>Otherwise</b> Don't block when first product is received	

ADD A CONDITION

Se l'UdC ha una dimensione (lunghezza / altezza / larghezza....o peso) pari a 0 → l'UdC viene messa in stato di blocco per controllo qualità

# BUSINESS RULES MANAGER – RICEVIMENTO

- A
- B
- C
- D

**First reception** ? EXPORT IMPORT DUPLICATE RESET SAVE AND ACTIVATE

<b>Given</b> The product which be managed	<b>PROFILES MANAGEMENT</b> <span>+</span>
<b>When</b> at least, one dimension is null <b>Then</b> Block when first product is received	<b>Block first reception</b> <span>✎</span> <span>✕</span> Block when first product is received
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<b>Otherwise</b> Don't block when first product is received	

ADD A CONDITION

Se il fornitore della UdC è «DIOR» → l'UdC viene messa in stato di blocco per controllo qualità

- A
- B
- C
- D

**First reception** ⓘ

EXPORT ▾ IMPORT DUPLICATE RESET **SAVE AND ACTIVATE**

**Given** The product which be managed

**When** at least, one dimension is null  
**Then** Block when first product is received

**When** supplier is DIOR  
**Then** Block when first product is received

**When** supplier is MUFE  
**Then** Block when first product is received

**Otherwise** Don't block when first product is received

ADD A CONDITION

→ **PROFILES MANAGEMENT** +

- Block first reception ✎ ×  
Block when first product is received
- block first reception ⓘ  
Block when first product is received
- don't block first reception ⓘ  
Don't block when first product is received

Se il fornitore della UdC è «MUFE» → l'UdC viene messa in stato di blocco per controllo qualità

# BUSINESS RULES MANAGER – VERSAMENTO



## Find location for storage

**Given** The list of contents which need a storage location **and** The handling unit which need a storage location **and** The list of plant config (if mono content)

**When** High tech Products are received on docks position

**Then** load every location in RES3

**When** product are for stock owner MY CUSTOMER\_2

**Then** load every location in RES\_1 and aisle A

**When** product received is "PRODUCT\_ROLEX"

**Then** new profile

ADD A CONDITION

**Otherwise** Search everywhere without constraint

GESTIRE IL PROCESSO DI  
VERSAMENTO MERCE A  
MAGAZZINO  
CON LA MASSIMA FLESSIBILITA'

- A
- B
- C
- D

# BUSINESS RULES MANAGER – VERSAMENTO



## Find location for storage ⓘ

**Given** The list of contents which need a storage location **and** The handling unit which need a storage location **and** The list of plant config (if mono content)

A

**When** High tech Products are received on docks position

**Then** load every location in RES3

B

**When** product are for stock owner MY CUSTOMER\_2

**Then** load every location in RES\_1 and aisle A

C

**When** product received is "PRODUCT\_ROLEX"

**Then** new profile

D

**Otherwise** Search everywhere without constraint

ADD A CONDITION

Scenario Standard → Nessuna limitazione

# BUSINESS RULES MANAGER – VERSAMENTO



## Find location for storage ?

**Given** The list of contents which need a storage location **and** The handling unit which need a storage location **and** The list of plant config (if mono content)

A

**When** High tech Products are received on docks position

**Then** load every location in RES3

B

**When** product are for stock owner MY CUSTOMER\_2

**Then** load every location in RES\_1 and aisle A

C

**When** product received is "PRODUCT\_ROLEX"

**Then** new profile

D

**Otherwise** Search everywhere without constraint

ADD A CONDITION

Se si tratta di un prodotto della famiglia «HIGH TECH» → le UdC verranno sempre versate in una specifica area di magazzino (RES3)

# BUSINESS RULES MANAGER – VERSAMENTO

## Find location for storage ?

**Given** The list of contents which need a storage location and

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**Then** load every location in RES3

**When** product are for stock owner MY CUSTOMER

**Then** load every location in RES\_1 and aisle A

**When** product received is "PRODUCT\_ROLEX"

**Then** new profile

**Otherwise** Search everywhere without constraint

### Edit your condition

#### WHEN

DESCRIBE YOUR EXPRESSION

High tech Products are received on docks position

EXPRESSION

```
wmsContents.every{it.refProduct.familyCode == "HIGH TECH"}
```

#### THEN APPLY

load every location in RES3 ▾

[+ Create a profile](#)

#### 1 DEFINITION

#### 2 DETAIL

##### ◆ Line parameters

Try to compact in priority  No

Try to find location with same product in priority  No

Picking closest  No

In nearby reserve  No

##### ◆ Predicates

Building code ▾

Floor code ▾

Movement sector ▾

Area code contains RES ▾

Aisle contains B OR C ▾

Bay ▾

Level ▾

##### ◆ Sort by

Sort by ▾

Aisle ▾

Movement order number ▾

A

B

C

D

Se si tratta di un prodotto della famiglia «HIGH TECH» → le UdC verranno sempre versate in una specifica area di magazzino (RES3)

# BUSINESS RULES MANAGER – VERSAMENTO



## Find location for storage ?

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**Then** load every location in RES3

**When** product are for stock owner MY CUSTOMER\_2

**Then** load every location in RES\_1 and aisle A

**When** product received is "PRODUCT\_ROLEX"

**Then** new profile

ADD A CONDITION

**Otherwise** Search everywhere without constraint

A

B

C

D

Se si tratta di un prodotto del cliente «MY CUSTOMER\_2» → le UdC verranno sempre versate in una specifica corsia di una specifica area di magazzino (rispettivamente Aisle A e RES1)

# BUSINESS RULES MANAGER – VERSAMENTO

## Find location for storage ?

**Given** The list of contents which need a storage location and

**When** High tech Products are received on docks position

**Then** load every location in RES3

**When** product are for stock owner MY CUSTOMER\_2

**Then** load every location in RES\_1 and aisle A

**When** product received is "PRODUCT\_ROLEX"

**Then** new profile

**Otherwise** Search everywhere without constraint

A

B

C

D

### Edit your condition

#### WHEN

DESCRIBE YOUR EXPRESSION

product are for stock owner MY CUSTOMER\_2

EXPRESSION

```
wmsContents.every{it.refProduct.refStockOwner.id == "MY CUSTOMER_2" }
```

#### THEN APPLY

load every location in RES\_1 and aisle A

[+ Create a profile](#)

1 DEFINITION 2 DETAIL

Parameters

Lines

Line 1

Line 2

Add line

Line parameters

Try to compact in priority No

Try to find location with same product in priority No

Picking closest No

In nearby reserve No

Predicates

Building code

Floor code

Movement sector

Area code contains RES1

Aisle contains A

Bay

Level

Sort by

Sort by

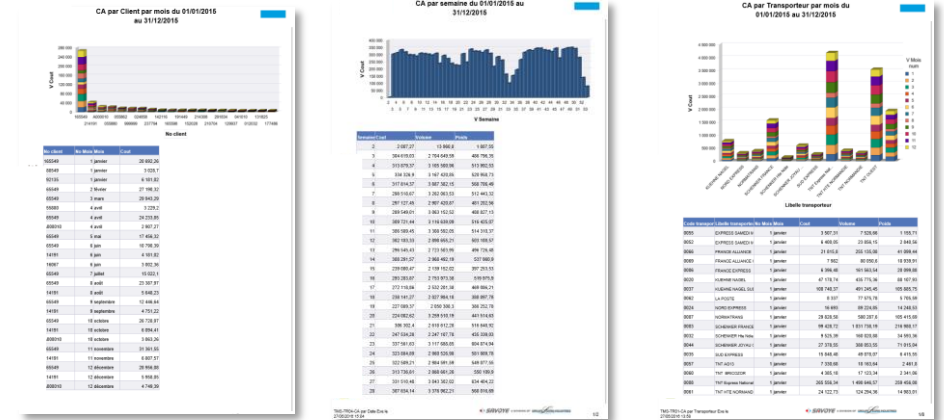
Se si tratta di un prodotto del cliente «MY CUSTOMER\_2» → le UdC verranno sempre versate in una specifica corsia di una specifica area di magazzino (rispettivamente Aisle A e RES1)

# REPORTING



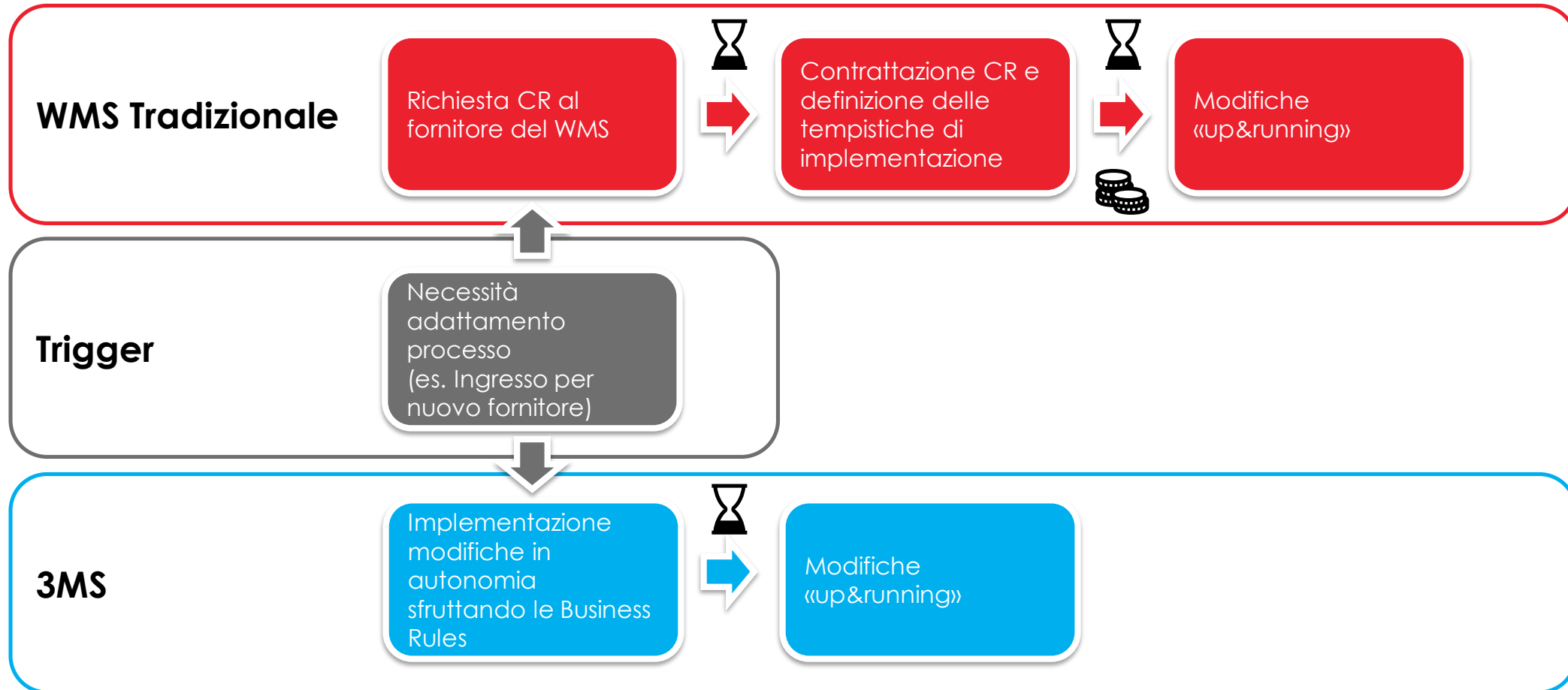
## BI REPORTING

REPORT STANDARD O CUSTOM  
IN BASE ALLE ESIGENZE DEL  
CLIENTE



FOLLOW UP IN REAL TIME  
WIDGET & DASHBOARD CUSTOMIZZABILI

# 3MS vs WMS: PROCESSO GESTIONE CHANGE REQUEST



# 3MS vs WMS: PROCESSO GESTIONE CHANGE REQUEST





**GRAZIE PER LA  
VOSTRA ATTENZIONE!**