



# Creating **Collaboration** through **Connection**



Science For A Better Life

Netmover - Transport Management System

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Bayer S.p.A., Head of Supply Chain Management Italy

FEDERCHIMICA: Supply Chain 4.0

Milan, 2017 July the 3<sup>rd</sup>



**115,578**  
Employees\*



**€46.8** billion\*\*  
Full year sales



**301**  
Subsidiaries



**€4.7** billion\*\*\*  
R&D expenses

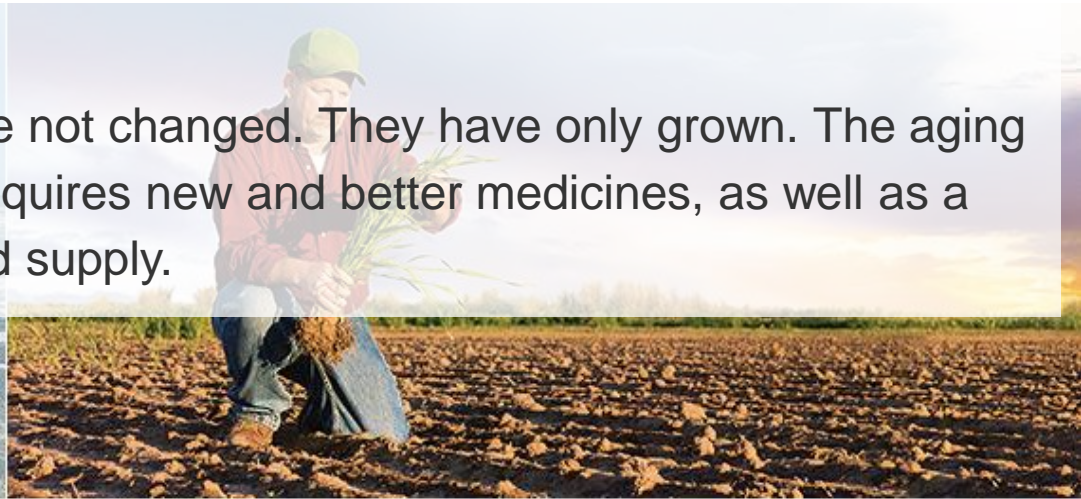
Bayer is a Life Science company with more than 150-year history and core competencies in the areas of **health care and agriculture**.



# BAYER focuses on Life Sciences

## Societal Needs

The challenges facing society have not changed. They have only grown. The aging and expanding world population requires new and better medicines, as well as a much larger and more reliable food supply.



# BAYER

## Innovation and Sustainability



### The Foundation of Our Success

Our success is based on the development of new molecules, technologies, processes and business models in areas of the Life Sciences.

### Healthcare

We develop innovative products and solutions that improve people's quality of life through disease prevention and therapy and also make a contribution to society.

### Food Security

Every second, the world's population increases by another three people. By the year 2050, there will be almost 10 billion humans on this planet. We want to help ensure a safe supply of food, now and in the future.

Welcome



# Bella Italia

*What will you find?*

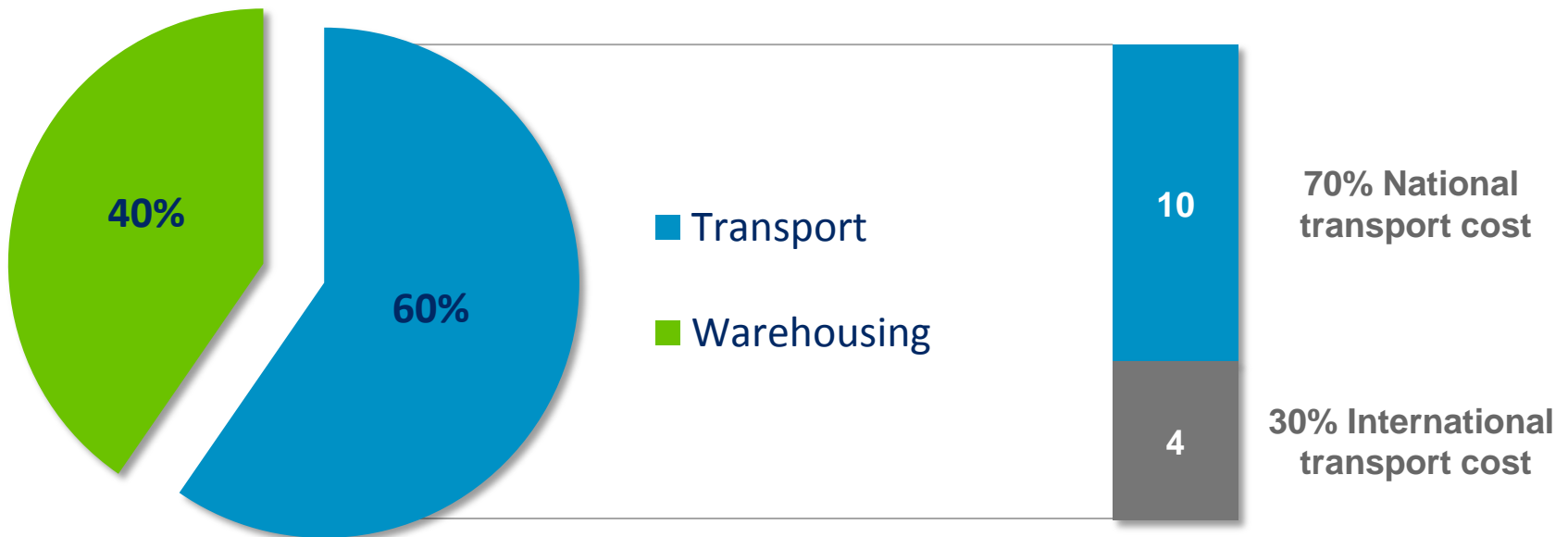
# BAYER – Italian Subsidiary

## Distribution and Logistic procurement



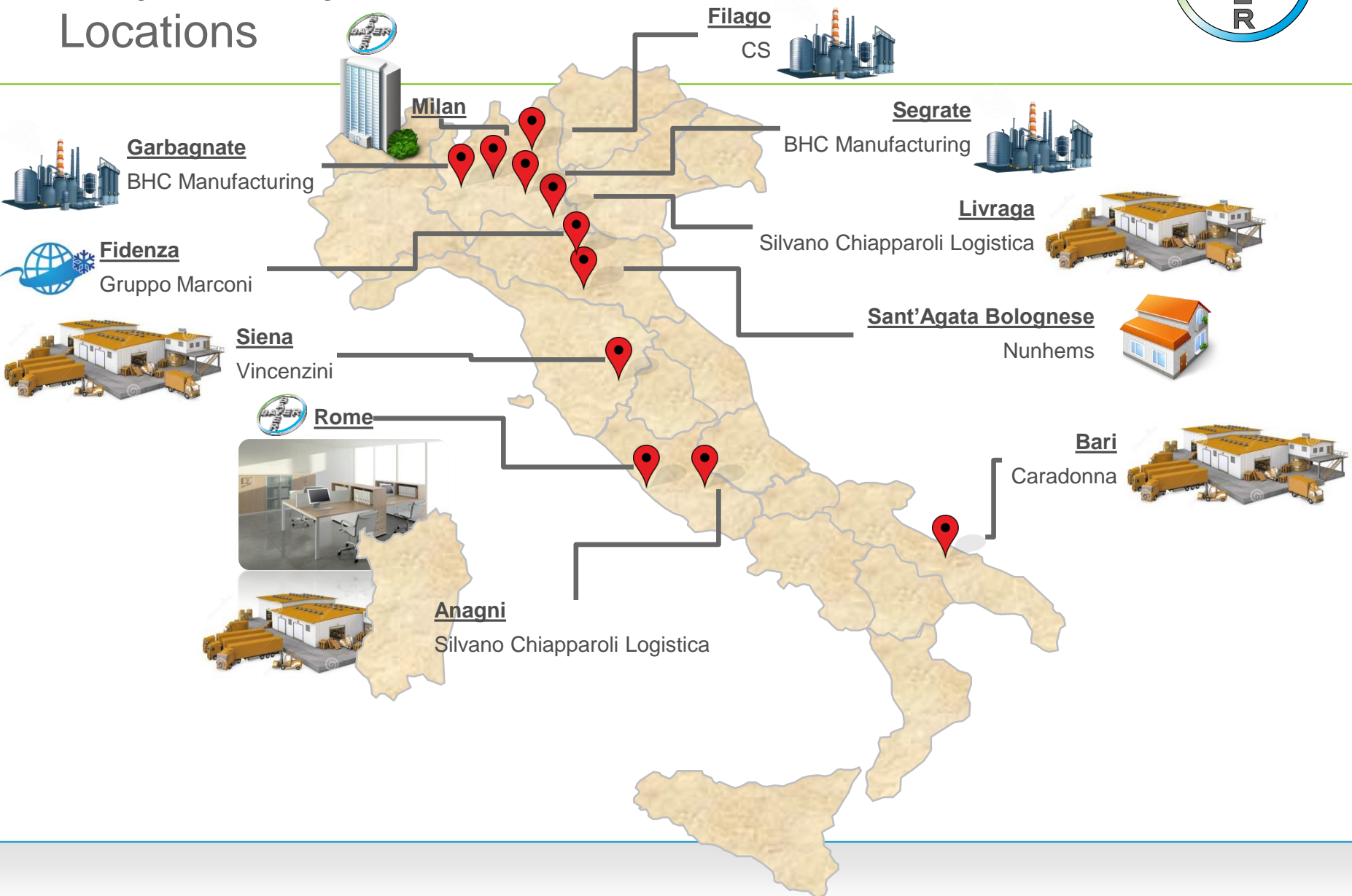
Warehousing cost 10 mio €

Transport cost: 14 mio €



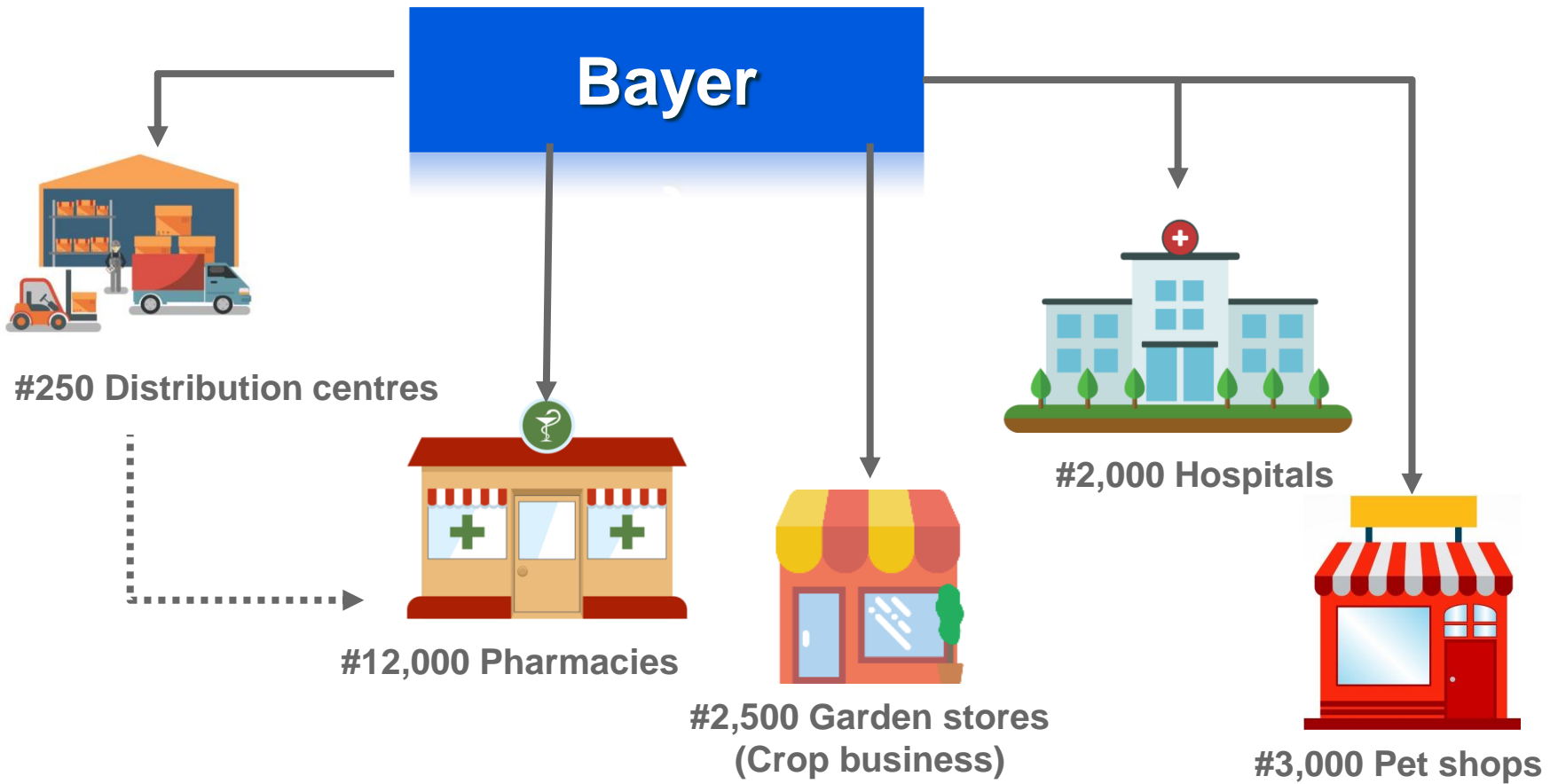
# Bayer Italy

## Locations



# BAYER

## Customer segmentation



**Total customers : over 20,000**



# BAYER

## Project overview



### TMS Digitalization

#### PHASE I

Focus on processes

- # Pre-invoicing
- # Contract Management



Integration with Legacy System

#### PHASE II

Focus on collaboration

- # Customers
- # Clients&Stakeholders
- # Business partners



# Phase I: functional requirements



## PRE-INVOICING

100% automation rate  
monthly

- Transport cost calculation and manual intervention requested only for exceptions

Wide range of cost  
drivers

- Packaging unit (pallet, tote, parcel, etc.)
- Weight and volume
- Distance (kilometer)
- Delivery, Full Track Load, etc

## CONTRACTING

Contractual complexity  
power

- Ability to cope with a deep and wide contractual varieties

Collateral costs  
management

- Manage different ADR surcharge, Cash On Delivery, telephone call, tail gate, portorage, warehousing, isles, attempts, etc.

*An example: ... € per delivery < 100 kg (weight ranges 10 kg - 30 kg - 50 kg - 100 kg), ... € per quintal >100 kg (weight ranges 1.000 kg - 3.000 kg - 5.000 kg - 10.000 kg - 23.000 kg - 28.000 kg) and collateral costs related to delivery to ... (+...%), GDO +...%, warehousing over ... days ... € per quintal, 2° attempt = ... % of basic tariff, portorage = ... % tariff, tail gate ... €*



# Integration Between Phase I and II



## INTEGRATION (beyond the “interface” concept)

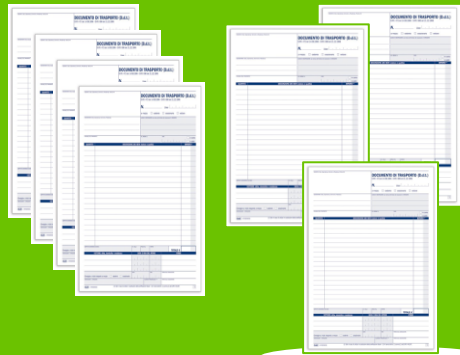
Wide range of IT languages (IDoc, XI, XML, WEB SERVICES, Java, file, etc.)



Wide range of data sources (Fax, EDI, Web EDI, Web, SMS, GPRS, GPS, @mail, etc.)

# Phase II

## Focus on collaboration



In 2010 the main collaborative processes were based on exchanging hard copies that must be manually input into a system

Maintenance  
**TROUBLE  
TICKETS**



In the same year, Bayer decided to implement a cloud platform to achieve an effective collaboration in order to track and trace the Proof of Delivery in real-time.



BAYER's project was the leverage to create a new collaborative supply chain project, targeted to the pharmaceutical world.

# Phase II

## Network is the first step to collaboration





# Logistic Dashboard



Cambio password Visualizza menu Desktop Log

Venerdì 14 Dicembre - 16:20:34 Buongiorno, Loretta Zu

## Tower control

### Filtri di Ricerca



Ricerca



Esporta

Stato/Giorno	Data Spedizione Ottobre																															
	10 Giorni Prec	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Uscita da magazzino																19	46	86	23				31	64	34							
Arrivato a Transit Point																																
Gestione Anomalie di Ribalta																8	1															
Messo in consegna																1																
Merce scaricata - In attesa verifica cliente																																
Consegnato OK																																
Consegnato con Riserva																			1	1					2	3						
Consegne KO																1							1		3							
Giacenza																																
Mancanza da Collo Misto																3	1	1														
In attesa verifica mancanza collo standard																																
Mancanza Collo/i																5	2	1	1				1									
Merce Danneggiata																2																
Manomissione Collo																		1														
Merce Errata																3												1				
Merce Eccedente																																
Consegnato con anomalia																20	5	22	7	17				5		24						
Inversione																2	1															
Disposizione di dirottamento																																
Disposizione di reso																8		5							1	9						
Disposizione di reso contabile																							1									
Disposizione di riconsegna																																
Qualità di consegna																1							4				1					
Inversione statistico																																
<b>TOTALI</b>																73	54	118	33	24	0	0	32	71	41	36	0	0	0	0	0	0

WAREHOUSES



CUSTOMER SERVICE



CARRIERS



# Lesson learned: visions happen

- **100% automation rate** for transport cost calculation and pre-invoicing
- **Contractual complexity** empowerment (wide range of cost drivers)
- **Extra-costs** managed in the regular pre-invoicing workflow

- **Multicompany and multichannel** to follows physical and information flow over the boundaries
- **Identity Access Management**
- **Logistics collaboration platform** based on shared information
- **Distribution Planning:** load/unload booking  
Ø waiting time

## TESI TMS

- **Simple web-based management**, plug & play without interface (SMS, @mail, GPRS, etc.)
- **Track & Trace**, complete visibility thanks to all supply chain players integration, enabling attachments management
- **Automatic exception management**, real time problems detection & delivery

- **KPI dashboard** powered by historical database (business intelligence)
- **Simulator** module for distribution assets reengineering



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# Thank You!

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