



MASTER IN ENTREPRENEURSHIP  
INNOVATION MANAGEMENT  
IN COLLABORATION WITH **MIT SLOAN**

IN COLLABORATION WITH  
**MIT MANAGEMENT**  
SLOAN SCHOOL



UNIVERSITÀ DEGLI STUDI DI NAPOLI  
**PARTHENOPE**

MASTER MEIM 2023-2024

# Case study: logistics project management

STRATEGIC & OPERATIONAL ASPECTS



A cura del Dott. Leo Nucera

Sales & Marketing Director presso Agritalia S.p.A.

# What is supply chain?

## DEFINITION IN SIMPLE WORDS

A supply chain is the network of all the individuals, organizations, resources, activities and technology involved in the creation and sale of a product.

A supply chain encompasses everything from the delivery of source materials from the supplier to the manufacturer through to its eventual delivery to the end user.



# Out-of-stock & panic buying

## DURING COVID-19 PANDEMIC

Panic buying is a common human response to crisis, which is not caused by food shortage, but rather by fear:

*“Food buying helps us feel in control”.\**

Consequences of out-of-stock during pandemic:

- Cancellation of purchase
- Purchase at another store
- In-category substitution
- **Substitution out of category**

\*Karestan Koenen – Epidemiologist @Harvard





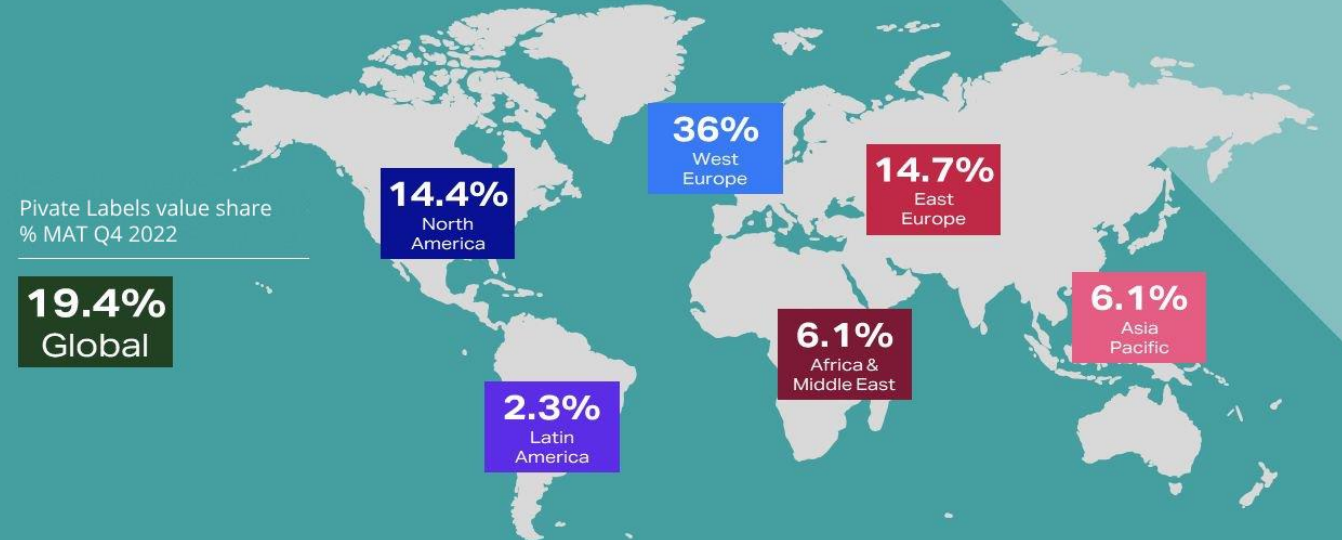
# Store brands VS national brands

## CONTRIBUTION TO TOTAL FMCG SALES WORLDWIDE

In Western Europe, private labels account for 36% share, however, they are experiencing a stagnating trend. The top markets ranked on share globally come from these countries:

- Switzerland (52%)
- UK (44%)
- Spain (42%)
- Belgium (38%)

## Contribution of Private Labels to total FMCG sales varies by region



Source: NielsenIQ Retail Measurement Services (RMS), Moving Annual Total (MAT)

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# PRIVATE LABEL KEEPS SETTING RECORDS IN 2023

Pag. 1



Dollar sales of store brands increased 8.2% during the first half of 2023, outpacing national brand sales gains of 5.1% during the period ended June 18, according to data released by research firm Circana.

PRIVATE LABEL ALSO HAD A RECORD YEAR IN 2022, WITH \$228.6 BILLION IN ANNUAL SALES ACROSS ALL U.S. RETAILING CHANNELS – AN 11.3% JUMP OVER THE PRIOR YEAR.

ACCORDING TO CIVICSCIENCE DATA, PRIVATE-LABEL BRANDS ARE POPULAR IN THE USA. CURRENTLY, 39% OF U.S. ADULTS SAY THEY ARE SHOPPING STORE BRANDS "SOMEWHAT OFTEN", WHILE 24% ARE DOING SO "VERY OFTEN": OVER 60% OF U.S. ADULTS IS SHOPPING FOR PRIVATE LABEL BRANDS.

Pag. 2

American shoppers are demanding high quality products that offer:

HEALTHIER CHOICES, ON-TREND ATTRIBUTES, UNIQUE FORMULATIONS, ENVIRO-FRIENDLY FEATURES, AND INFLATION-FIGHTING VALUE.

This spells opportunity for food and non-food store brands.



Also, impulse purchases have dropped due to inflation and higher prices

AS CONSUMERS FOCUS ON SAVING MONEY AND BUY LESS.

THIS IS A FURTHER OPPORTUNITY FOR STORE BRANDS TO GROW.

Pag. 4



Pag. 3

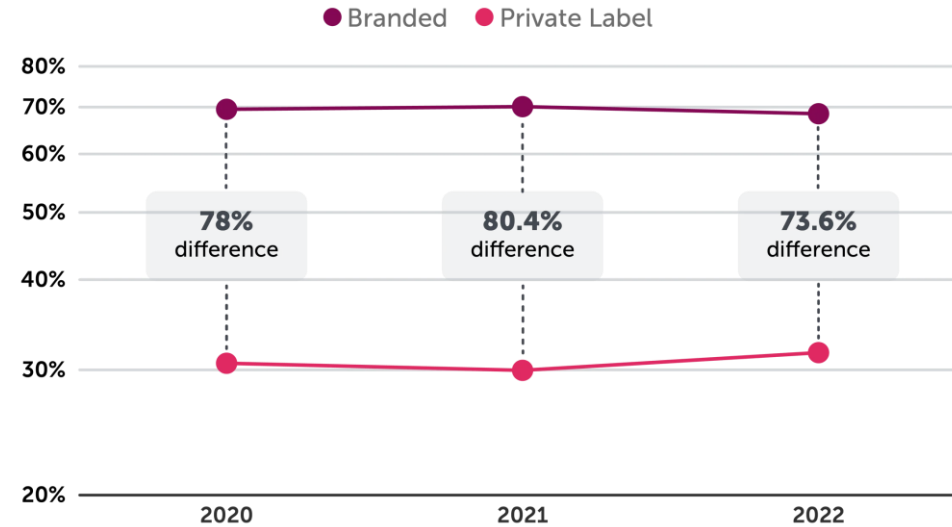
# Shopper Loyalty Research

## SHOPPER WILLING TO SWITCH PRIVATE LABEL TO SAVE

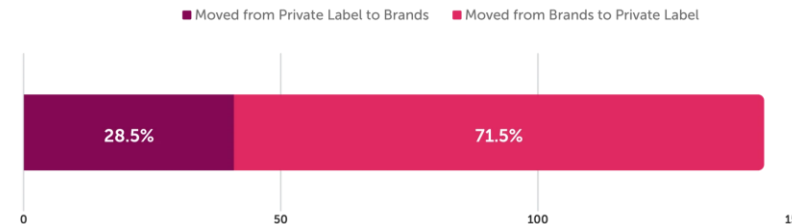
Back in 2020, McKinsey reported “Some 80 percent of customers who started using a private brand during the pandemic indicate they intend to continue using it once the COVID-19 crisis is over.”

IPN data indicate there was truth in such a prediction. Looking at shoppers’ average basket size and the products making up total basket, 2021 showed a small shift in favor of branded products. But a 2022 shift swings back toward Private Label, with many categories turning private label (pasta, condiments, vinegars, breakfast, etc.).

Products making up Total Average Basket



144 categories impacted by Private Label switching (2022)



Source: Iboita first-party SKU-level purchase data in the U.S., including in-store and online sales across all major retail channels.

# Shopper Loyalty Research

## SHOPPER WILLING TO SWITCH PRIVATE LABEL TO SAVE

According to a recent survey, 88% of American adults are willing to ditch preferred brands for private labels to save money. Consumers are most likely to switch grocery brands for cost-savings.

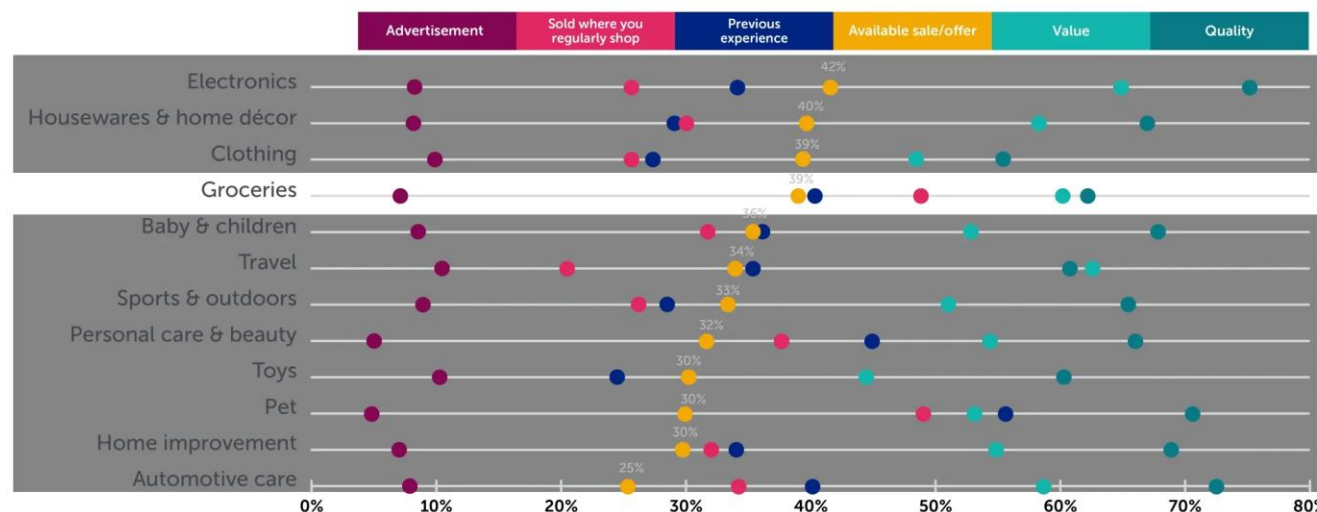
Of the 2,000 American adults that Attest surveyed, 71% said food and beverage brands are the products they would be most likely to switch.

Moreover, consumer expectations will continue shifting toward private labels based on the availability of incentives, rewards, and cash-back offers (i.e.: Amazon Prime discount with each product bought in-store).

## Sales and offers are significantly more important than advertisements for shoppers when deciding what to buy

Overall, quality and value tend to be the most important attributes regardless of category

Factors that are very important when deciding what to buy:







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# PRODUCTION PLANNING **MISTAKES** FROM THE PAST

# The birth of the Masters of the Universe

## MATTEL TOY REVOLUTION BACK IN THE 80'

In 1982, at the American International Toy Fair in New York, Mattel made its triumphant entrance by presenting to the world its revolutionary line of toys, **“He-Man and The Masters of the Universe”**.

This bold business gamble quickly turned into a huge success, with stores beginning to pack with these new toys, immediately capturing the imagination of children around the world.

With modern poses, vibrant colors, formidable enemies, and a mix of unique elements never seen, this franchise had everything it needed to rule the toy industry.

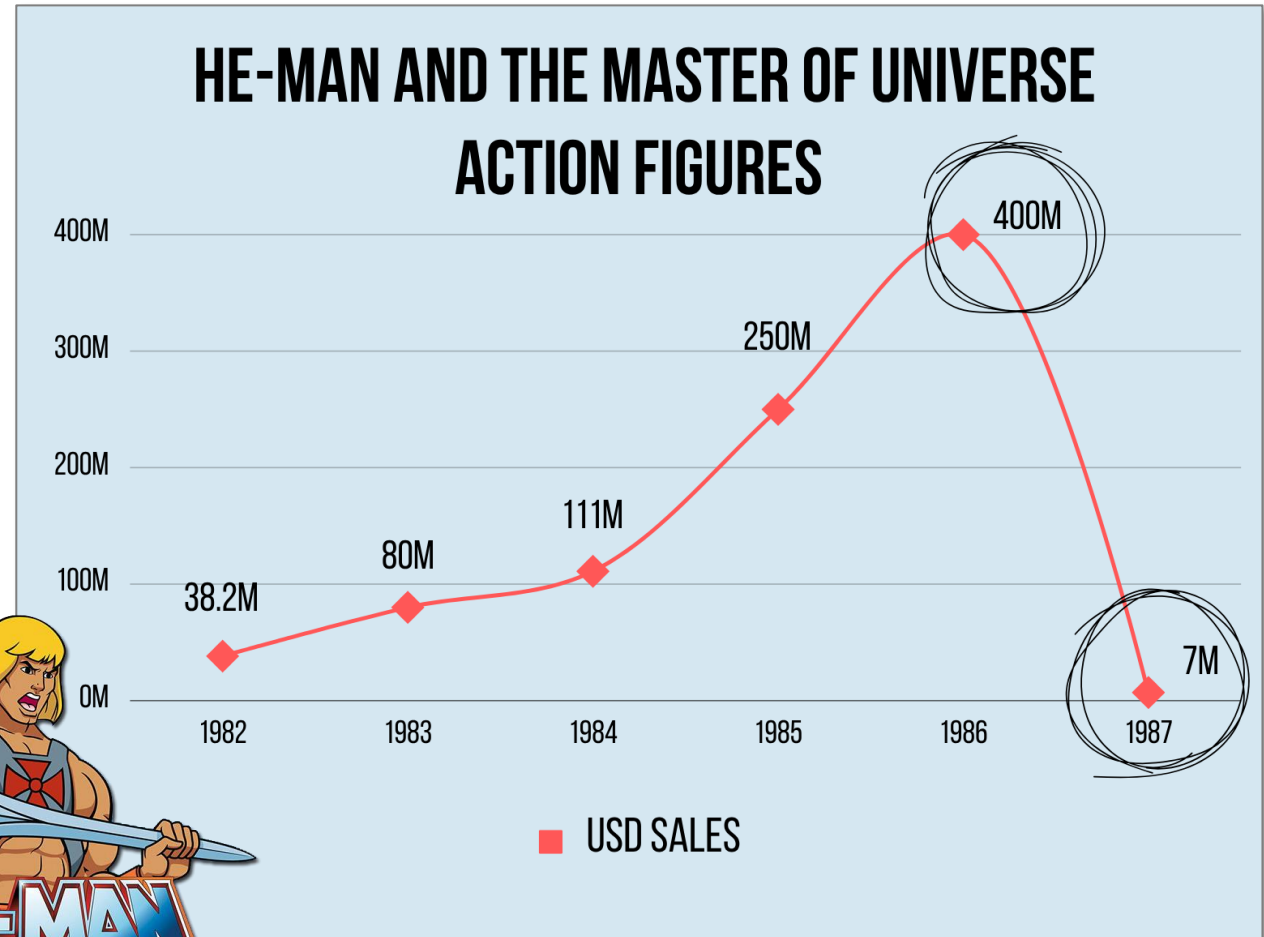
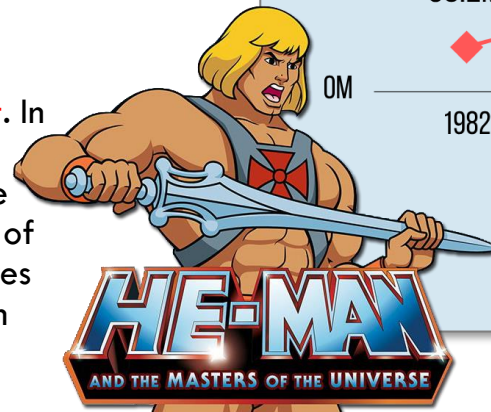


# The rise and fall of a billion-dollar idea

## THE DISASTROUS DEMAND AND PRODUCTION PLANNING

Mattel's "Masters of the Universe" franchise had an incredible rise, with sales growing rapidly from **\$38.2 million in 1982** to **\$400 million in 1986**. But in 1987, **sales suddenly collapsed** by 98%, leading to an unexpected failure of the toy collection.

This decline was caused mainly **by an incorrect production planning and inventory management**. In fact, there was an over-stock of secondary characters and a shortage or out-of-stock of the main characters. By underestimating the success of these toys, Mattel ended up saturating the shelves with dozens of the same less appreciated action figures leading stores to discontinue the range.





- R&D of innovative items
- Supervision of the raw materials markets and production processes
- Suppliers' qualification by internal audits
- Integrated logistics services
- Marketing support, art-work & printing assistance
- Quality Assurance testing program
- Financial services and currency fixing



PASTA



OLIVE OIL



BALSAMIC VINEGAR



PASTA SAUCE & TOMATO PASTE



COUSCOUS



POLENTA



FROZEN PIZZA



BREAKFAST CEREALS



DRIED FRUIT



ORAL CARE

**700+** PRODUCTS OFFERED



**5,000+** CONTAINERS SHIPPED TO U.S. IN 2022

**100+** CERTIFIED SUPPLIERS



Values based on quantities shipped.  
\* frozen products included.

- PASTA (11)
- EVOO (5)
- VINEGAR (4)
- PASTA & PESTO SAUCE (7)
- POLENTA (1)
- COUSCOUS (4)
- TOMATO PASTE (1)
- FROZEN PIZZA (1)
- BREAKFAST CEREALS (1)
- DRIED FRUIT (1)
- ORAL CARE (1)



40 ACTIVE SUPPLIERS

11 PRODUCT CATEGORIES



Basket of products/categories that help competitiveness as well as consolidation program.

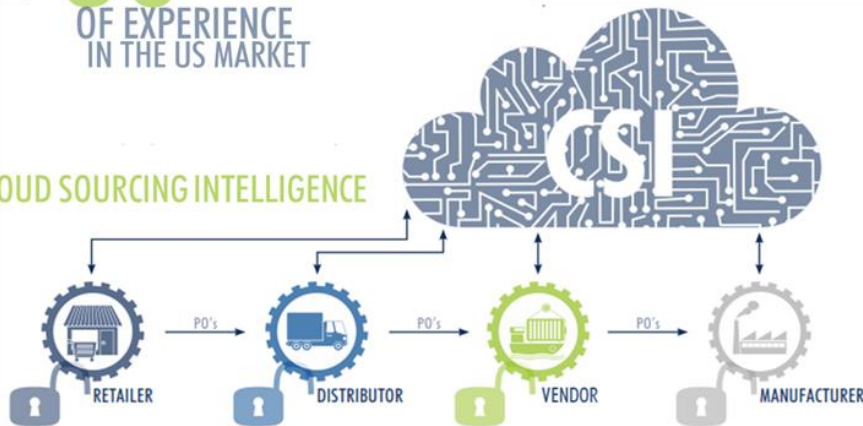


**agrilogistica**

- Intelligence and know how to revolutionize importing model
- Each PO delivered directly to your DCs
- Containers become your moving warehouse
- Eliminate overseas warehousing and LTL deliveries
- Easy supply chain management with information available 24/7

OVER **30** YEARS  
OF EXPERIENCE  
IN THE US MARKET

**CLOUD SOURCING INTELLIGENCE**



OUR PROPOSAL: **1. FREIGHT CONSOLIDATION PROGRAM** OR **2. FREIGHT CONSOLIDATION PROGRAM** +

**FREIGHT CONSOLIDATION & ARP INCLUDES:**

VENDOR QUALIFICATION	MULTIPLE SUPPLIERS MANAGEMENT	DATA ANALYSIS	CUSTOMIZED PLANNING SOFTWARE
EDI FRIENDLY	FREIGHT CONSOLIDATION IN ITALY	ITALY AND US CUSTOMS CLEARANCES	DOOR DELIVERY TO DCs

ARP (Automated Replenishment Program) is a fully integrated supply chain to manage productions, freight consolidation, custom clearances and deliveries to the DCs. A multiple supplier management with an innovative technology revolutionizing the current import and export models.

**agrusa**

- Customs/FDA/USDA clearances
- Port and rail drayage with door delivery
- Marine and product liability insurance
- Inventory management
- EDI capabilities
- Administrative support
- Customer service

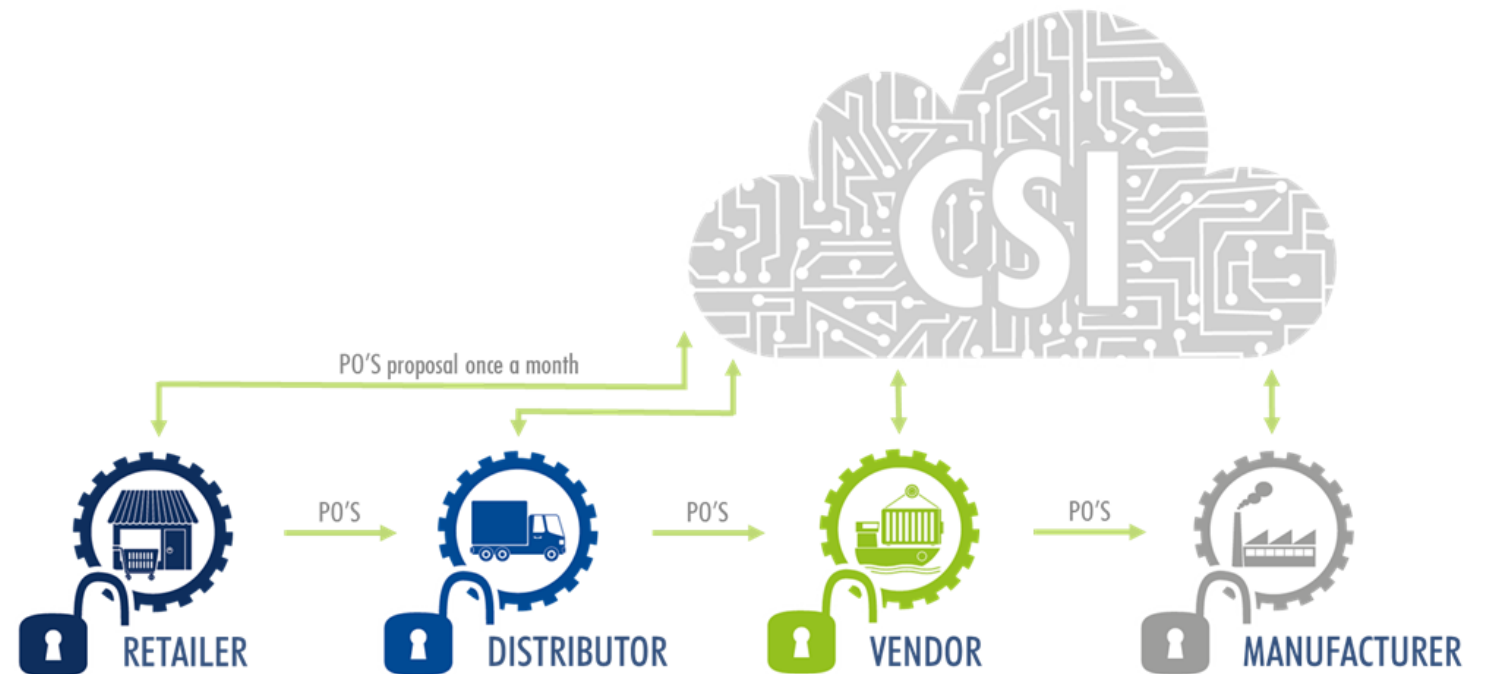


HQ: 811 Totowa Road, Totowa  
07512 - New Jersey - USA

# Cloud sourcing intelligence (CSI)

## FOR THE OPTIMIZATION OF THE SUPPLY CHAIN FLOW AMONG PLAYERS

The Cloud Sourcing Intelligence software (CSI) collects data from individual players to issue to each retailer an **Automated Replenishment Plan (ARP)** and a **PO's proposal once a month** simplifying work. The manufacturer can better plan raw material quantities, production priorities, hence optimize production. Other players gets the quantities to order that perfectly balance customers' needs.



# Automated replenishment program (ARP)



Manufacturer



Agrilogistica Hub



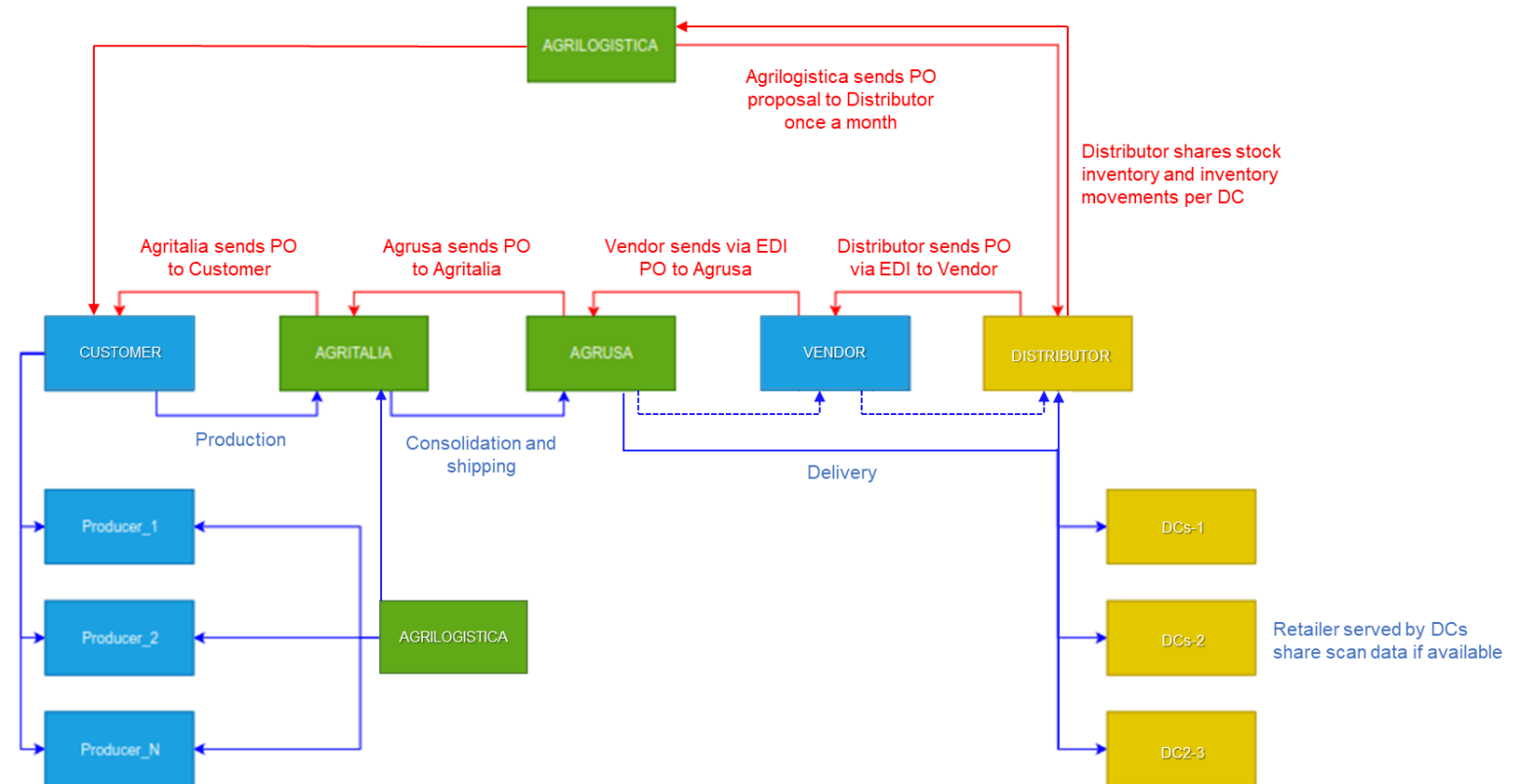
Distribution Center



# Automated replenishment program (ARP)

FOR THE OPTIMIZATION OF THE SUPPLY CHAIN FLOW AMONG PLAYERS

The Automated Replenishment Program (ARP) is an advanced logistics solution based on the innovative Cloud Sourcing Intelligence (CSI), which helps making the supply chain more efficient by analyzing sales data to plan suppliers' workflow, consolidate and optimize the containers leaving every week for USA guaranteeing products always fresh and in stock.



# Logistics case study

RUN FROM 2015 TO 2020 (PRE-COVID 19)

Between 2015 and 2020, we launched a pilot test of the Automated Replenishment Program (ARP) with one of our major customers in the United States.

Initially the average weeks on hand was about **18 weeks**, with out-of-stock issues in some regions.



# Logistics case study

RUN FROM 2015 TO 2020 (PRE-COVID 19)

Between 2015 and 2020, we launched a pilot test of the Automated Replenishment Program (ARP) with one of our major customers in the United States.

Subsequently, through a flow optimization process, we achieved an average of 8.4 weeks for the East Coast and 10 weeks for the West Coast.



# Logistics case study

RUN FROM 2015 TO 2020 (PRE-COVID 19)

During the pilot test we also improved the optimization of the containers in terms of number of suppliers and items carried.

5 years ago, the items per container were on average 16 with a peak of 34; the suppliers per container were on average 4 with a peak of 9.

In the last year of the test, the items per container were on average 28 (with a peak of 50) and the suppliers per container were on average 7 (with a peak of 14).

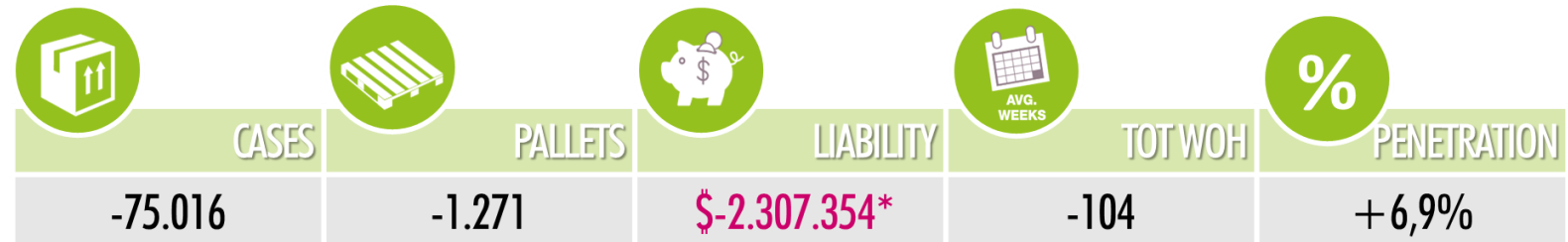
	FROM	FROM	FROM	FROM	FROM	VAR. % LAST 5 YEARS
	06/01/2015	06/01/2016	06/01/2017	06/01/2018	06/01/2019	
	TO	TO	TO	TO	TO	
	05/31/2016	05/31/2017	05/31/2018	05/31/2019	05/31/2020	
AVERAGE # OF ITEMS PER CONTAINER	16	16	20	24	28	+40%
MAXIMUM # OF ITEMS PER CONTAINER	34	38	35	44	50	+43%
AVERAGE # OF SUPPLIERS PER CONTAINER	4	4	5	6	7	+40%
MAXIMUM # OF SUPPLIERS PER CONTAINER	9	9	9	12	14	+55%

# Logistics case study

RUN FROM 2015 TO 2020 (PRE-COVID 19)

The results of the test were very encouraging. In particular, we were able to cut about 104 weeks of stock, equivalent to about \$2.4 million in liability for the customer.

At the same time, the model helped us increase penetration by about 7%, achieving goods coverage up to 99% for the 500 stores served during the test.



\*Value (\$) of the *overstock* products before ARP.

13 DCs, 500 STORES USING ARP

vs 424 stores of 2015

99%

to December 2020  
vs 91,5% (2015)

Responsibility

26/05/2021 15:25

# Il made in Italy sano e sostenibile delizia gli Usa: Agritalia premiata da Whole Foods Market



Di Massimiliano Carrà  
Staff



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**PLMA 2021** NEW DATES | A trade show as dynamic as the industry itself  
PLMA's Private Label Trade Show • January 30 - February 1, 2021



05/25/2021



## Agritalia honored by Whole Foods for 3rd time

The private brand supplier of products from Italy won a Supplier of the Year award for its assortment of products it supplies to Whole Foods.

Retail | Right | Now

CHANNEL: GROCERY - NATURAL

Home

## Whole Foods Market Recognizes Agritalia as Supplier of the Year with Special Recognition

# Sustainability committment

## H2020-MSCA-ITN-2018 PROCEEDS PROJECT

Our sister company Agrilogistica has been involved in the ProCEedS project as a full beneficiary from its inception (September 2019). [...] for analyzing the economic and environmental advantages deriving from the logistical consolidation model provided by the company. [...] Preliminary results point out the usefulness of the consolidation model in terms of access to markets, reduced emissions and enhanced shelf-life.

The goal of the entire group is to reach the following goals of the 2030 Agenda promoted by the World Health Organization:



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 The University of Sheffield  
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 S10 1FL  
 Email: [a.genovese@sheffield.ac.uk](mailto:a.genovese@sheffield.ac.uk)

26<sup>th</sup> April 2022

Re: H2020-MSCA-ITN-2018 ProCEedS Project 823967

Promoting Circular Economy in the Food Supply Chain "ProCEedS" is a research project funded by Horizon 2020 EU's Marie Skłodowska-Curie Research and Innovation Staff Exchange and will support the implementation of the European Commission's Circular Economy strategy in the field of the Supply Chain Management. The project is coordinated by the University of Sheffield (USPD), and involves academic institutions, entrepreneurial development agencies, private companies involved in the agri-food supply chain.

As stated by the World Business Council for Sustainable Development (WBCSD), the CE paradigm can play a pivotal role in order to achieve the 17 Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda. The proposed research project will attempt to contribute to the existing fields of both Circular Economy theory and Supply Chain Management by providing insights related to the actual applicability of the CE paradigm in agri-food supply chains within free-market contexts. Focus is placed on the examination and involvement of stakeholders covering all stages from primary production to the point of regenerating biological nutrients and redirecting them back to agricultural production.

Agrilogistica has been involved in the ProCEedS project as a full beneficiary from its inception (September 2019). Researchers from USPD have been seconded to Agrilogistica for analysing the economic and environmental advantages deriving from the logistical consolidation model provided by the company. The early analysis has been looking at the mapping of the supply chain of the company, identifying key corridors and flows; preliminary results point out the usefulness of the consolidation model in terms of access to markets, reduced emissions and enhanced shelf-life for a wide range of customers (mainly SMEs). Such analysis will be generalised in the next months, through further secondment periods and close collaboration among USPD and Agrilogistica.

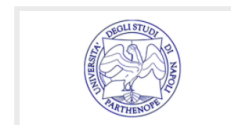
Prof Andrea Genovese

ReTraCE Network Coordinator  
Chair of Logistics and Supply Chain Management  
Management School, The University of Sheffield

This project has received funding from the European Union's Horizon 2020 Marie Skłodowska-Curie European Research and Innovation programme under grant agreement ProCEedS No 823967.  
<http://proceeds-rise.eu/>

Realising the Transition towards the Circular Economy

Promoting Circular Economy in the Food Supply Chain



# Long-term model



Manufacturer



Agrilogistica Hub



Distribution Center



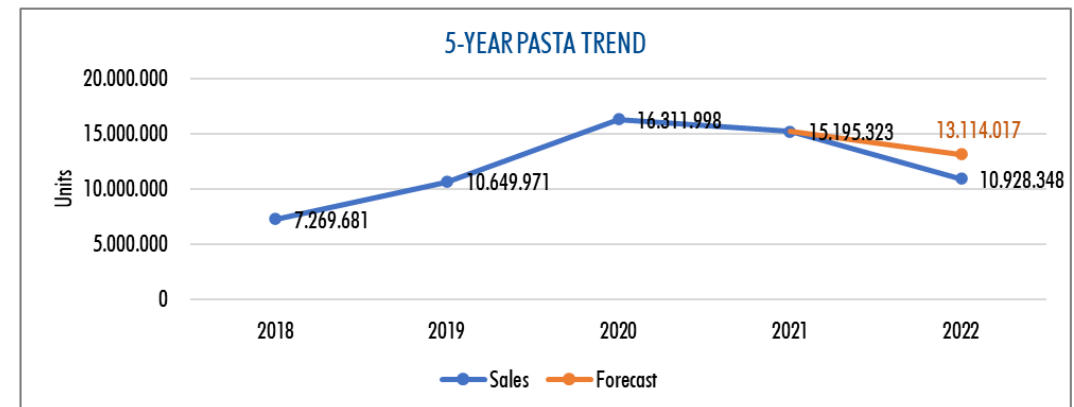
# Pasta case study

31 PASTA SHAPES



PASTA (11 SUPPLIERS)

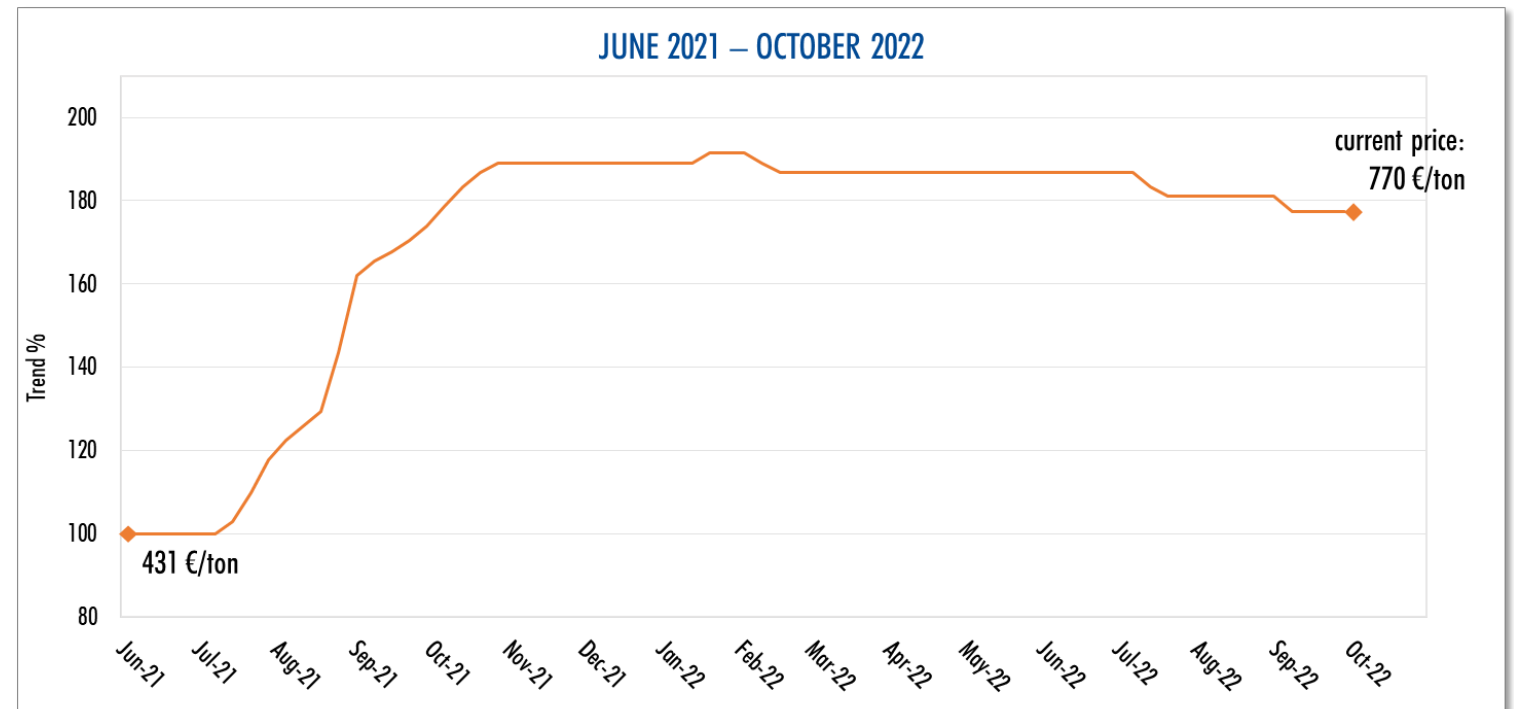
SUPPLIER	CATEGORY	SKUs
DE MATTEIS	DURUM WHEAT PASTA	ELBOWS, PENNE RIGATE, SPAGHETTI, LINGUINE, NO BOIL LASAGNA
	ORGANIC WHOLE WHEAT PASTA	ORGANIC WHOLE WHEAT PENNE RIGATE, SPAGHETTI
NEWLAT FOOD	ORGANIC DURUM WHEAT PASTA	ORGANIC SHELLS, PENNE RIGATE, FUSILLI, SPAGHETTI, LINGUINE, FETTUCCINE, ANGEL HAIR
TAMMA		ORGANIC SPAGHETTI, LINGUINE, FETTUCCINE, ANGEL HAIR
LABOR	ORGANIC DURUM WHEAT PASTA	ORGANIC SHELLS, PENNE RIGATE, SPAGHETTI, LINGUINE, ANGEL HAIR
BARBIERI		ORGANIC CURLY LASAGNA
DE SORTIS	ORGANIC EGG PASTA	ORGANIC WIDE EGG NOODLES
ANDRIANI	GLUTEN FREE PASTA (CORN/RICE)	ORGANIC WIDE EGG NOODLES, EXTRA WIDE EGG NOODLES
ANDRIANI	GLUTEN FREE PASTA (CORN/RICE)	GLUTEN FREE PENNE RIGATE, SPAGHETTI
DE MATTEIS.	ORGANIC DURUM WHEAT PASTA	GLUTEN FREE PENNE RIGATE, SPAGHETTI
CASA MILO		ORGANIC CASARECCE, CAVATELLI, FARFALLE, ORECCHIETTE RIGATE, ORZO, PIPE RIGATE, RIGATONI, ZITI
LA BOLOGNESE	ORGANIC DURUM WHEAT PASTA	ORGANIC PAPILLON
ANDRIANI	ORGANIC GLUTEN FREE PASTA (PULSES)	ORGANIC ZUCCHETTE WITH VEGETABLES & SPICES
ANDRIANI	ORGANIC GLUTEN FREE PASTA (PULSES)	ORGANIC GLUTEN FREE CHICKPEA SHELLS, ORGANIC GLUTEN FREE RED LENTIL SPAGHETTI



# Pasta case study

## CONVENTIONAL DURUM WHEAT SEMOLINA MARKET TREND

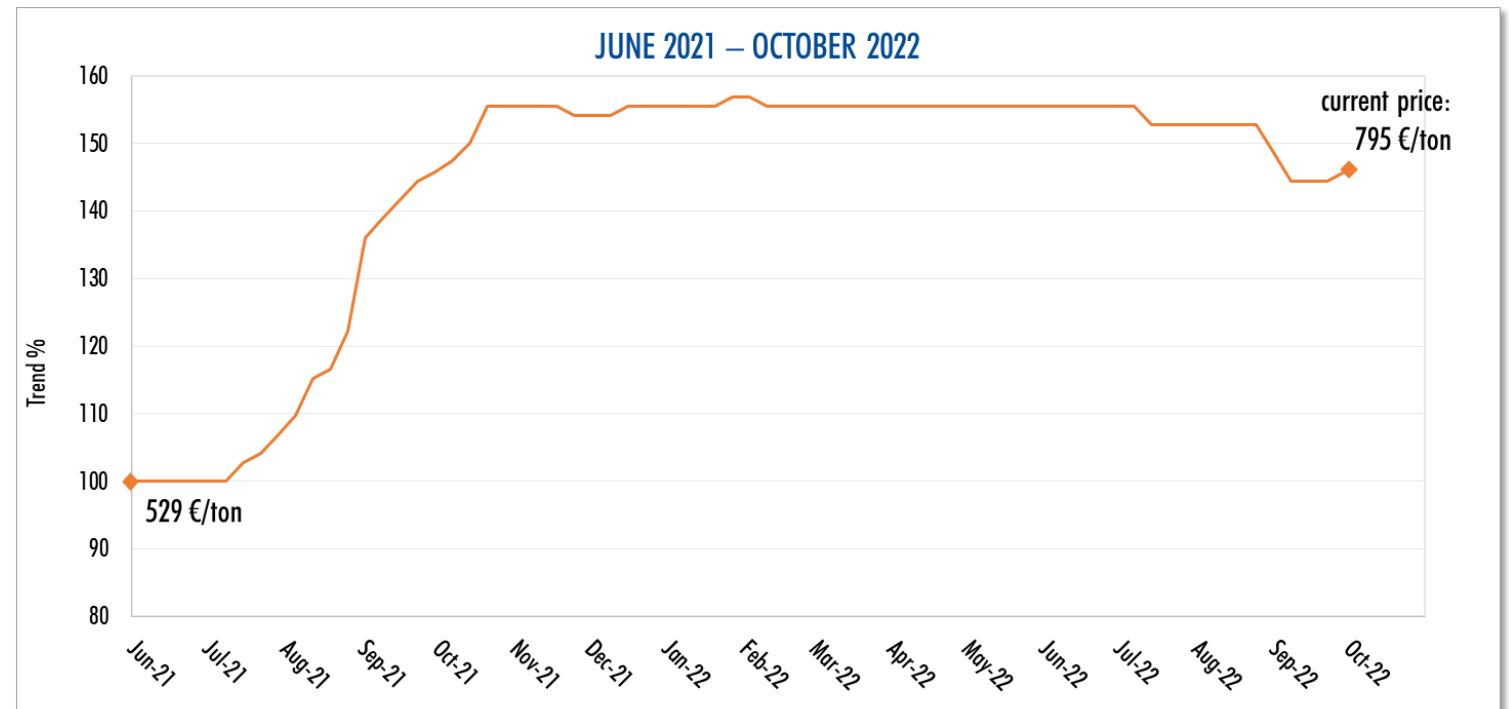
From the start of the new harvest (July 2022) to date, prices are essentially stable, with only a slight downward shift in early September due to positive news from the Canadian market (5.9 M tons of durum wheat expected, in line with 2020 production).



# Pasta case study

## ORGANIC DURUM WHEAT SEMOLINA MARKET TREND

The organic segment follows the trend of the conventional durum wheat. In fact, the gap between the two types has narrowed, which to date stands at about 15 €/ton (3%). If this figure is confirmed over time, it could influence the sowing of organic durum wheat for next year. Two scenarios lie ahead: either a decline in conventional durum wheat or an increase in organic durum wheat to forcibly rebalance the gap.

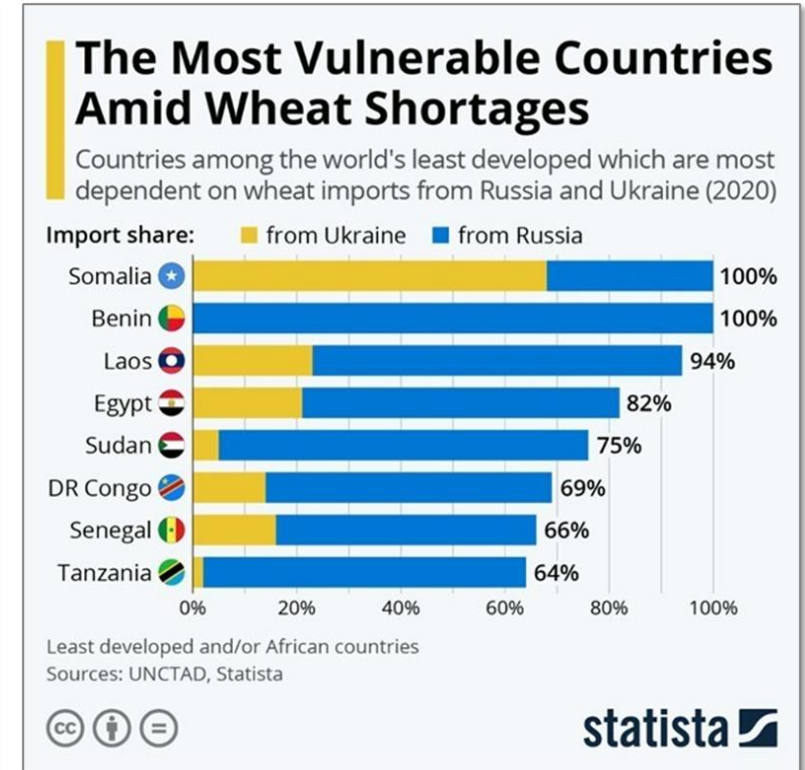
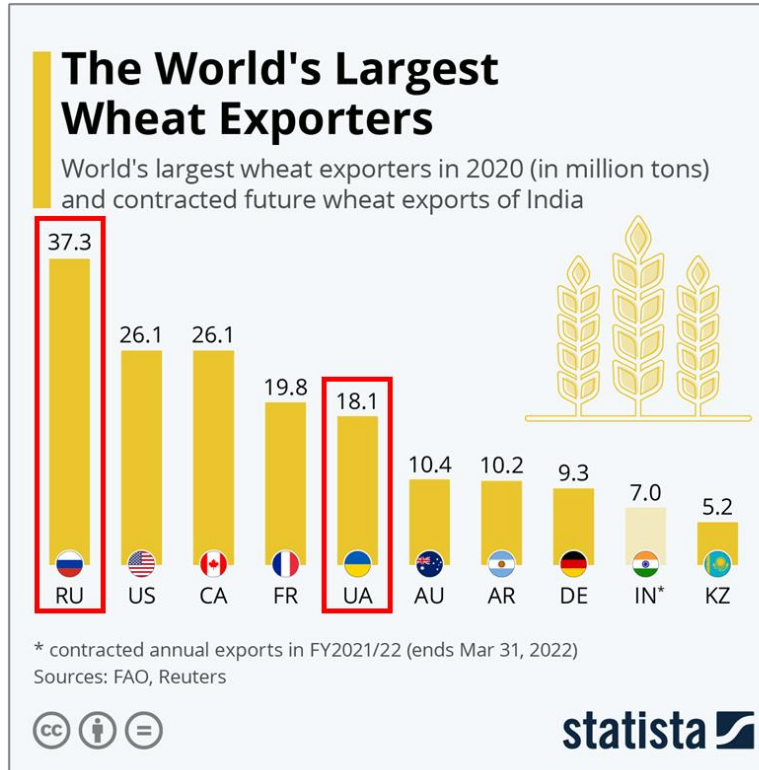


# Pasta case study

## HOW DOES THE WAR IN UKRAINE AFFECT WHEAT PRICES?

Russia and Ukraine together account for nearly a third of global wheat supplies, and global wheat prices are reaching record highs because of the war's impact on shipments.

However, the war in Ukraine is endangering crucial wheat supplies especially in many of the least developed countries in the world. Among them, countries in Africa and the Middle East in particular are heavily dependent on wheat imports from Russia and Ukraine.



# Pasta case study



TASK NAME	START DATE	DUE DATE	DURATION IN BUSINESS DAYS EXCEPT FOR LOGISTICS	TASK OWNER
<b>(Phase) BUSINESS AWARD</b>				
BUSINESS AWARD		14-MAY-21	1	CUSTOMER
AGRITALIA PROVIDES DIE LINES, PRINTER SPEC FORM, LABEL INFORMATION FORM, H2R FORM	17-MAY-21	28-MAY-21	10	AGRITALIA
ITEM SET UP	17-MAY-21	11-JUN-21	20	AGRITALIA
FINAL SPEC (ON CUSTOMER SPEC FORM)	17-MAY-21	11-JUN-21	20	AGRITALIA
<b>(Phase) ORDERS</b>				
CUSTOMER PROVIDES ORDERS QUANTITY/FORECAST	05-JUL-21	09-JUL-21	5	CUSTOMER
AGRITALIA PROVIDES ASSORTMENT PROPOSAL/REVISION	12-JUL-21	16-JUL-21	5	AGRITALIA
CUSTOMER APPROVES ASSORTMENT PROPOSAL/SENDS OFFICIAL POS	19-JUL-21	23-JUL-21	5	CUSTOMER
PRINT REQUEST SUBMITTED TO CUSTOMER FOR APPROVAL TO PRINT + APPROVAL	19-JUL-21	23-JUL-21	5	AGRITALIA/CUSTOMER
<b>(Phase) GRAPHIC</b>				
FIRST DRAFT RELEASED TO VENDOR		09-JUL-21	0	CUSTOMER
GRAPHIC + REGULATORY/QA COMMENTS	12-JUL-21	16-JUL-21	5	AGRITALIA/PRODUCER/PRINTER
SECOND DRAFT RELEASED TO VENDOR	19-JUL-21	23-JUL-21	5	CUSTOMER
GRAPHIC + REGULATORY/QA FINAL COMMENTS/APPROVAL	26-JUL-21	30-JUL-21	5	AGRITALIA/PRODUCER/PRINTER
FINAL ARTWORK RELEASE + HARD COLOR PROOF SHIPPED TO VENDOR	02-AUG-21	13-AUG-21	10	CUSTOMER
PRE-PRESS PDF (SOFT PROOF) SUBMITTED BY VENDOR AND APPROVED BY CUSTOMER	30-AUG-21	03-SEP-21	5	AGRITALIA/PRINTER + CUSTOMER
CASE MARKING - APPROVAL	02-AUG-21	06-AUG-21	5	CUSTOMER
<b>(Phase) CERTIFICATIONS</b>				
NON-GMO/ORGANIC	19-JUL-21	13-AUG-21	20	AGRITALIA
KOSHER - OU	19-JUL-21	13-AUG-21	20	AGRITALIA
<b>(Phase) PACKAGING</b>				
CREATION OF PRINTING EQUIPMENT	06-SEP-21	10-SEP-21	5	AGRITALIA/PRINTER
PRINTING + DELIVERY OF PACKAGING TO PASTA PLANT	13-SEP-21	24-SEP-21	10	AGRITALIA/PRINTER
<b>(Phase) PRODUCTION</b>				
PRODUCTION	27-SEP-21	29-OCT-21	25	AGRITALIA/PRODUCER
FIRST PRODUCTION SAMPLES FOR CUSTOMER RECORDS ONLY	01-NOV-21	05-NOV-21	5	AGRITALIA
<b>(Phase) SHIPMENT</b>				
CONSOLIDATION + LOADING	01-NOV-21	12-NOV-21	14	AGRITALIA
<b>(Phase) LAUNCH</b>				
		17-JAN-22	1	CUSTOMER





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MASTER MEIM 2022-2023

# Thank you!