TEAM LACK

PARIDE ACIERNO

MICHEL BELLOMO

LUCA BERTOLASI

PAOLO CAVICCHIOLI

LORENZO IPPOLITO

FRANCESCA RAFFELLI

CAMST
LA RISTORAZIONE ITALIANA

coop
Alleanza 3.0

GRANAROLO

Impronta Etica

legacoop

How much milk is wasted before you enjoy your cappuccino?

116m tons

Dairy products wasted globally per year

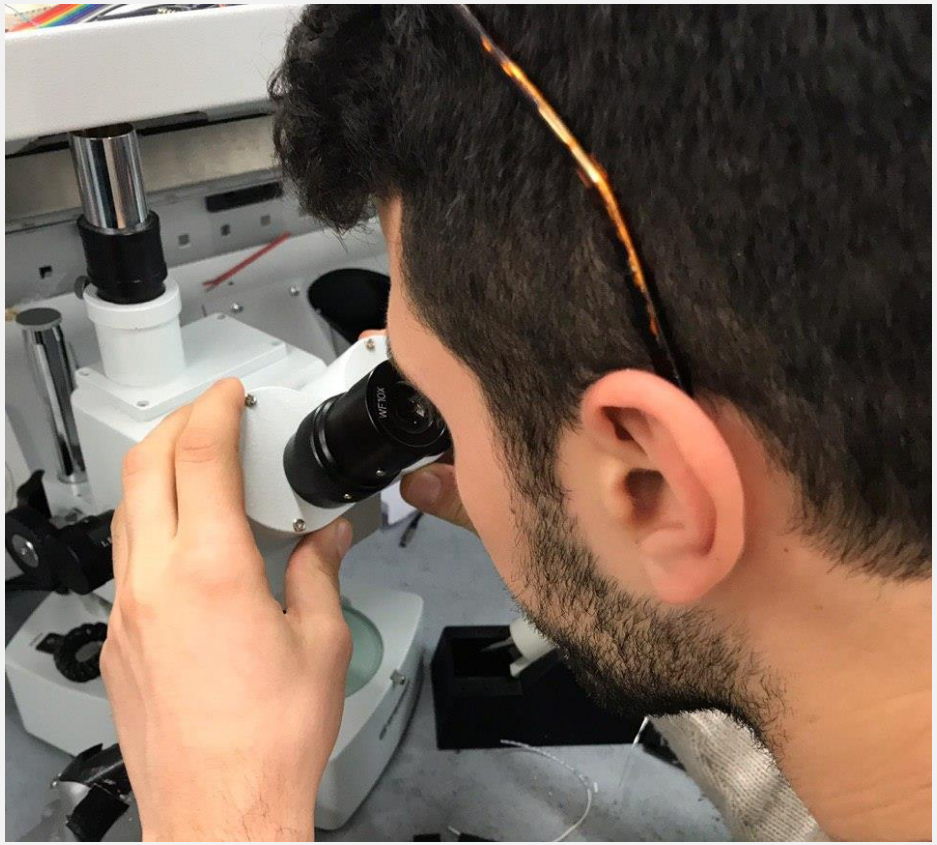
Equal to 15 million red buses

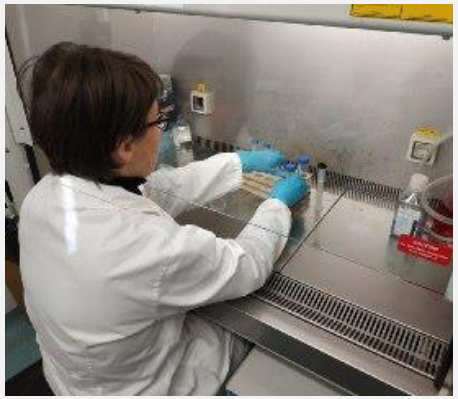
Source: theguardian.com

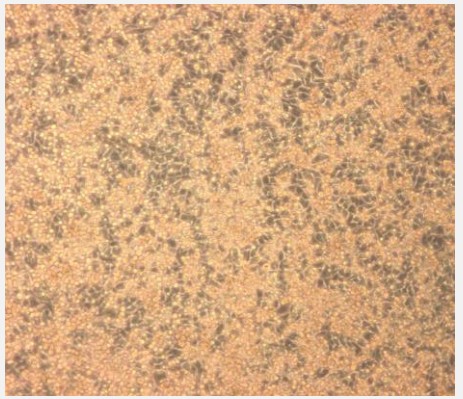
EUTROPHICATION

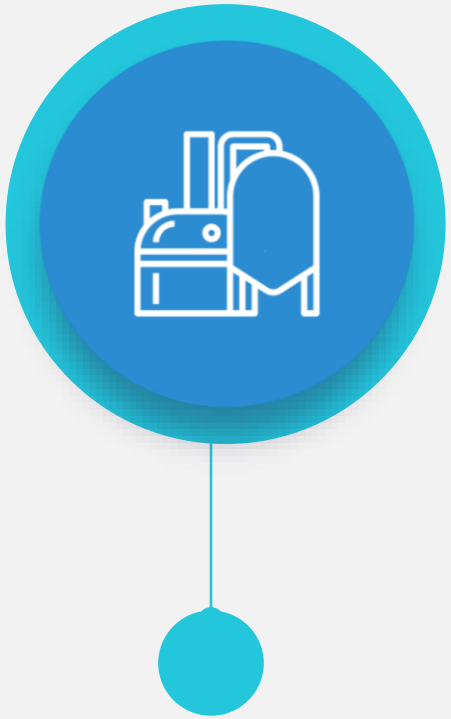
GREENHOUSE
GAS EMISSIONS

OUR RESEARCH







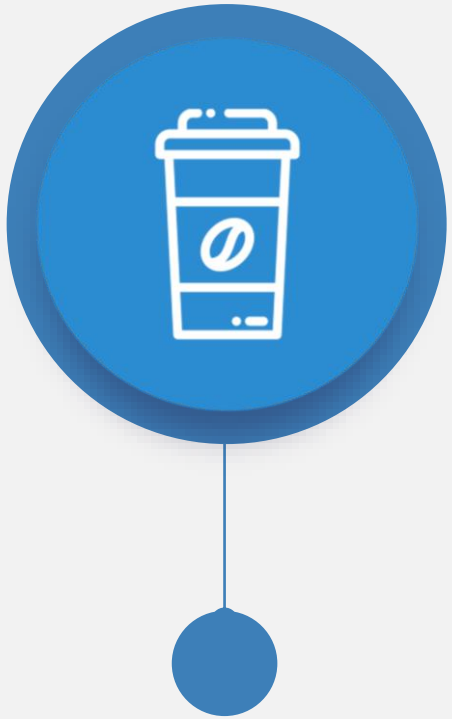


MILK PRODUCER

Optimizing the production planning

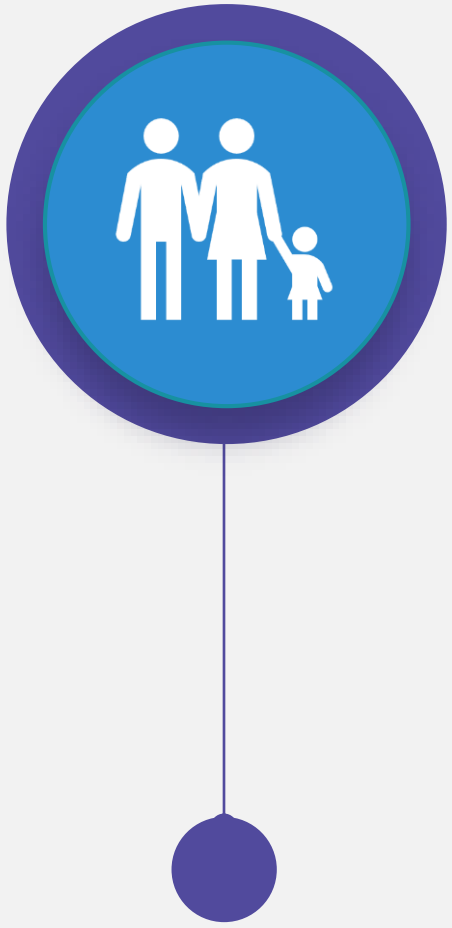
DISTRIBUTORS

Facing variable demand



CAFÈS

Consuming all the purchased milk



FINAL CONSUMERS

Saving money

TIMING

"I WILL PRODUCE
12
BOTTLES OF MILK"

"I WILL PURCHASE
10
BOTTLES OF MILK"

TIMING

"I WILL PRODUCE
12
BOTTLES OF MILK"

"I WILL PURCHASE
10
BOTTLES OF MILK"

"I WILL PURCHASE 8
BOTTLES OF MILK"

TIMING

"I WILL PRODUCE
12
BOTTLES OF MILK"

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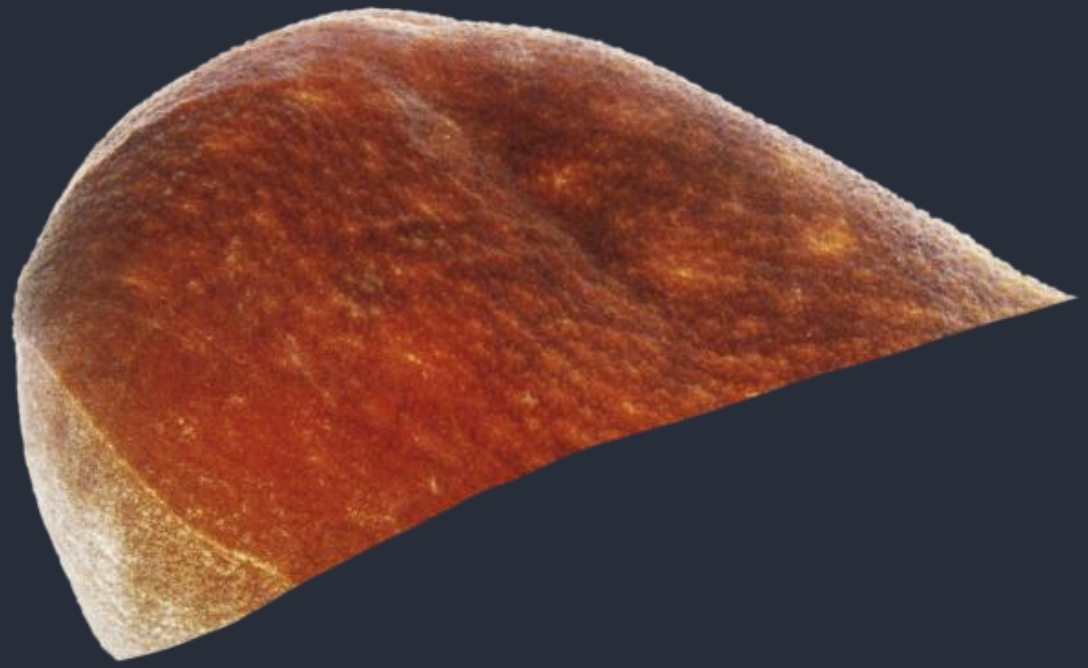


«**Networking** in the supply chain is important»

(Luca, LEGACOOP)

«**Sharing of information** with the distribution would ease the production planning»

(Giorgio, COOP)

COLLABORATION

LACKTOPUS

Service of **sharing** and **elaboration** of information between the actors of the supply chain, with the aim to **improve effectiveness** of the process of production, supply and distribution, and to **value** the product. **Milk waste is reduced**.

ELABORATION

of information through our algorithm

EFFECTIVENESS

improved in the processes of production, supply and distribution

SHARING

of information between the actors

VALUE

of instead wasted milk is increased

FUNCTIONS OF THE SERVICE

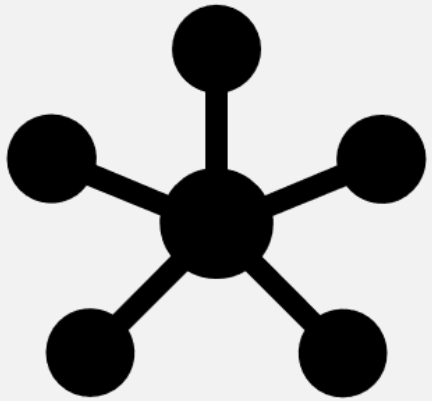
Forecasting market demand

Tracking the distributors’ stock

Performance visualization

New market for expiring products

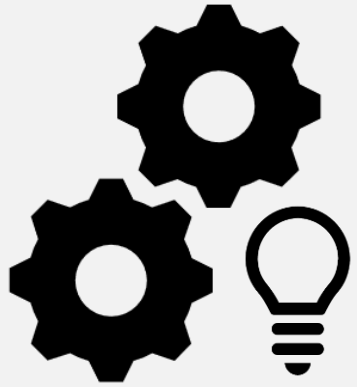
SHARING



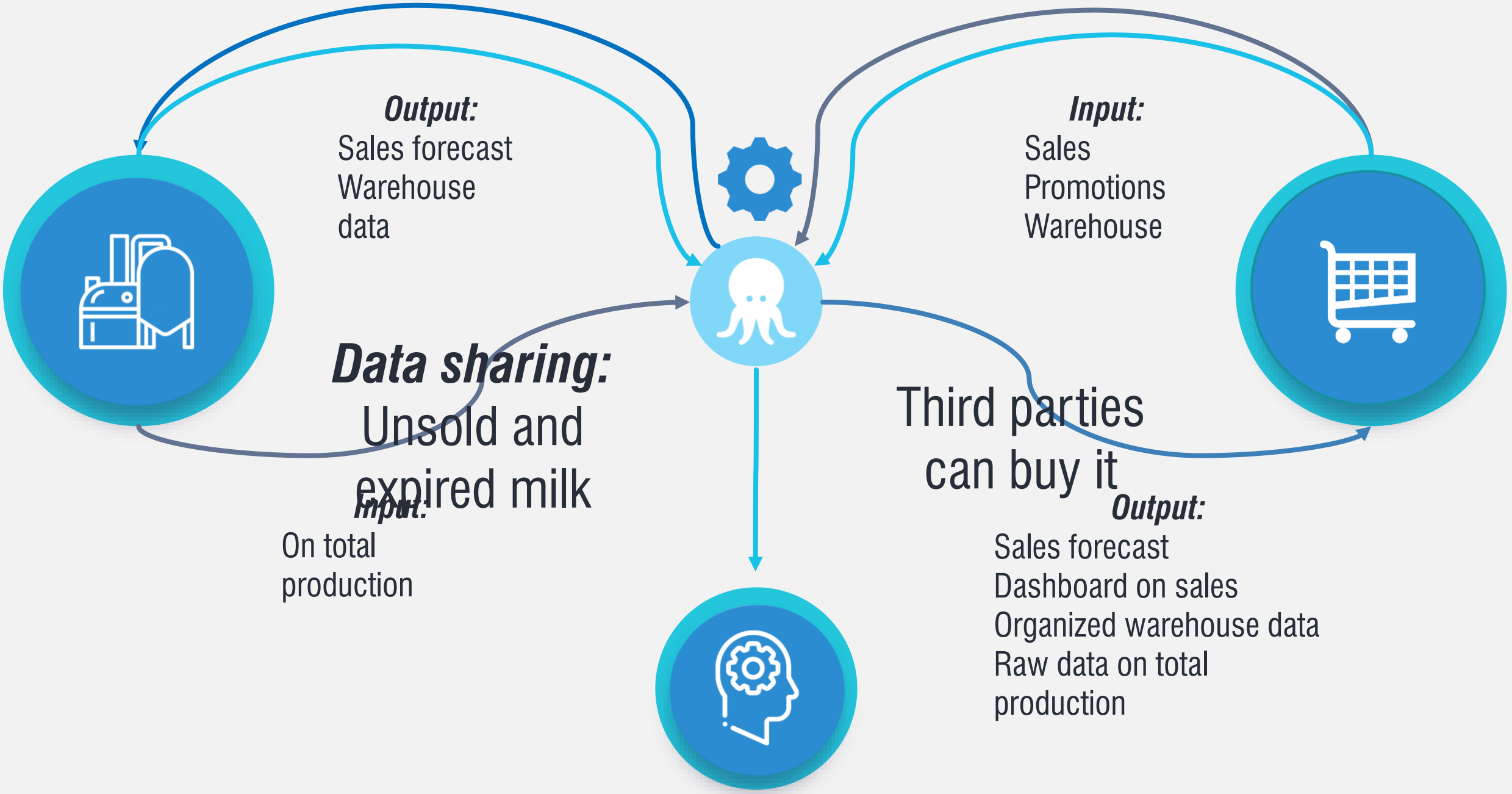
- Data
- Informatio

  n
- Interaction

ALGORITHM

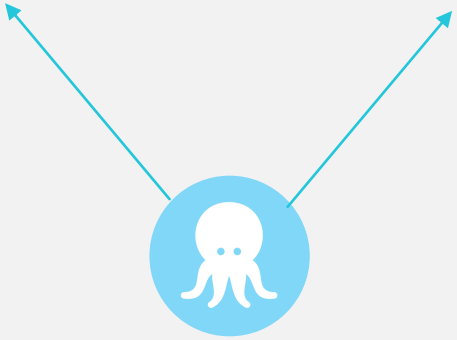


Machine Learning algorithm based on **clusterization** of the storical data, finding the nearest class for the new data and **regression** for forecasting


Output:
Sales forecast
Warehouse
data
Input:
Sales
Promotions
Warehouse
Data sharing:
Unsold and
expired milk
Input:
On total
production
Third parties
can buy it
Output:
Sales forecast
Dashboard on sales
Organized warehouse data
Raw data on total
production

TIMING

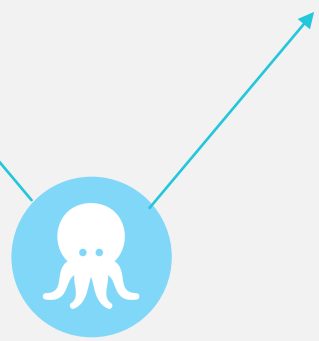
"IT IS FORECASTED I WILL PRODUCE 9 BOTTLES OF MILK"



"IT IS FORECASTED I WILL SELL 9 BOTTLES OF MILK"

TIMING

"IT IS FORECASTED I WILL PRODUCE 9 BOTTLES OF MILK"



"IT IS FORECASTED I WILL SELL 9 BOTTLES OF MILK"

"I WILL PURCHASE 8 BOTTLES OF MILK"

TIMING

"IT IS FORECASTED I WILL PRODUCE 9 BOTTLES OF MILK"

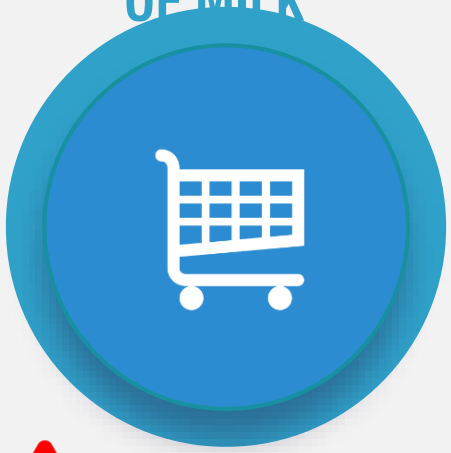
"IT IS FORECASTED I WILL SELL 9 BOTTLES OF MILK"

"I WILL PURCHASE 8 BOTTLES OF MILK"

TIMING

"IT IS FORECASTED I WILL PRODUCE 9 BOTTLES OF MILK"

"IT IS FORECASTED I WILL SELL 9 BOTTLES OF MILK"



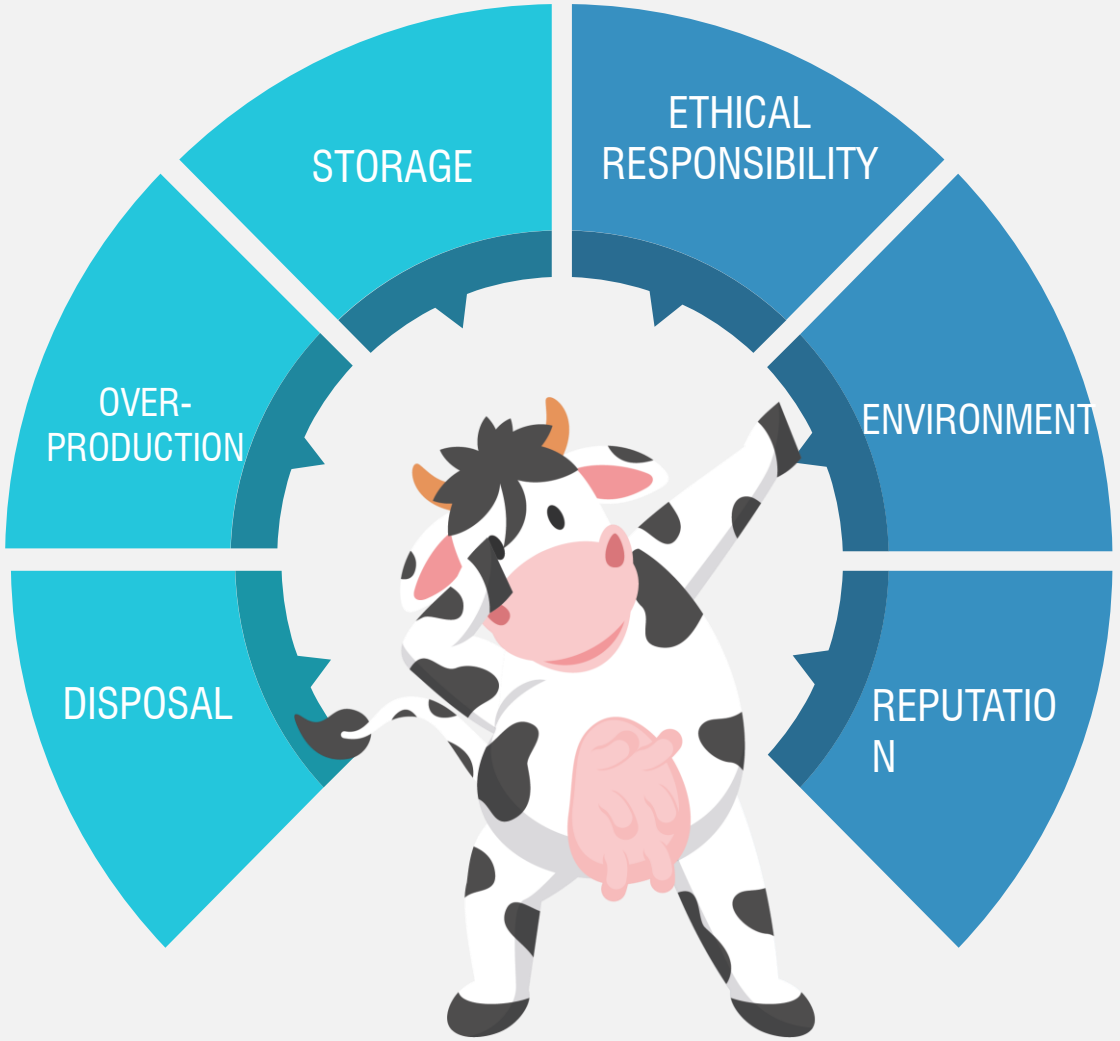
CAN BE PURCHASED BY THIRD PARTIES

"I WILL PURCHASE 8 BOTTLES OF MILK"

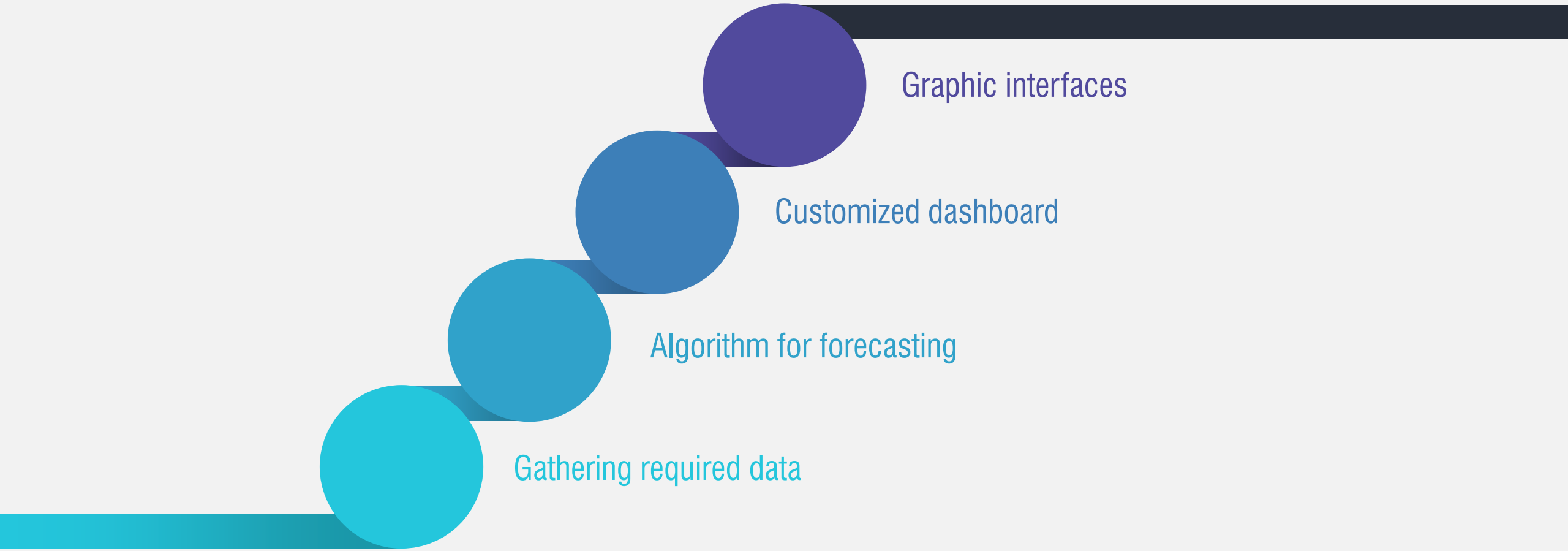
BENEFITS OF OUR SERVICE

COSTS

SUSTAINABILITY



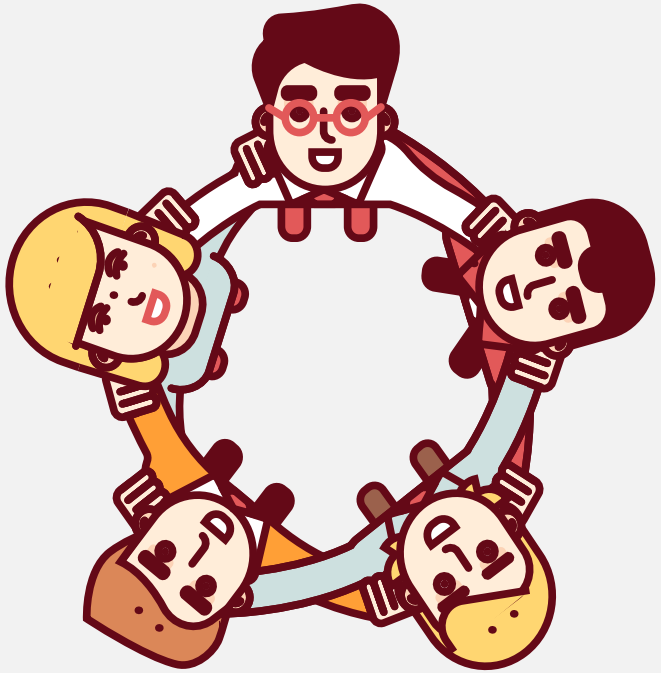
PILLARS OF OUR SERVICE



NEXT STEP?

COMMITMENT

of partners



milk
Coffee
Neuroscience
ORDURES MÉNAG
HOUSEHOLD WA

THANK YOU!

ALMACUBE

Università degli Studi di Ferrara

UNIMORE
UNIVERSITÀ DEGLI STUDI DI MODENA E REGGIO EMILIA

CERN
Ideas