

SEMINARIO

**SUPPLY CHAIN
MANAGEMENT:
SFIDE, SOLUZIONI,
MESSA A TERRA
DELLA STRATEGIA**

Relatore

Stefania PIETRELLA

*Responsabile Sales and Operations S&OE Regione
Europa MARS Wrigley Europe, Nederland*

14/10/2024

ORE 17:00 – 19:00

Aula 0.1 – Sede di piazza Strambi, 1, MACERATA

Agenda

MARS

Intro

Mars

Supply Chain E2E – Integrated SC

SC Among different Businesses

Demand Volatility and FCST

Mars Numbers

Mars Global

- **50 Bio \$ (2023)**
- **3 Businesses: Wrigley / Pet Food / Food**
- **150,000+ Associates**
- **100+ Year old Business**
- **15 Billion-Dollar Brands**

Mars

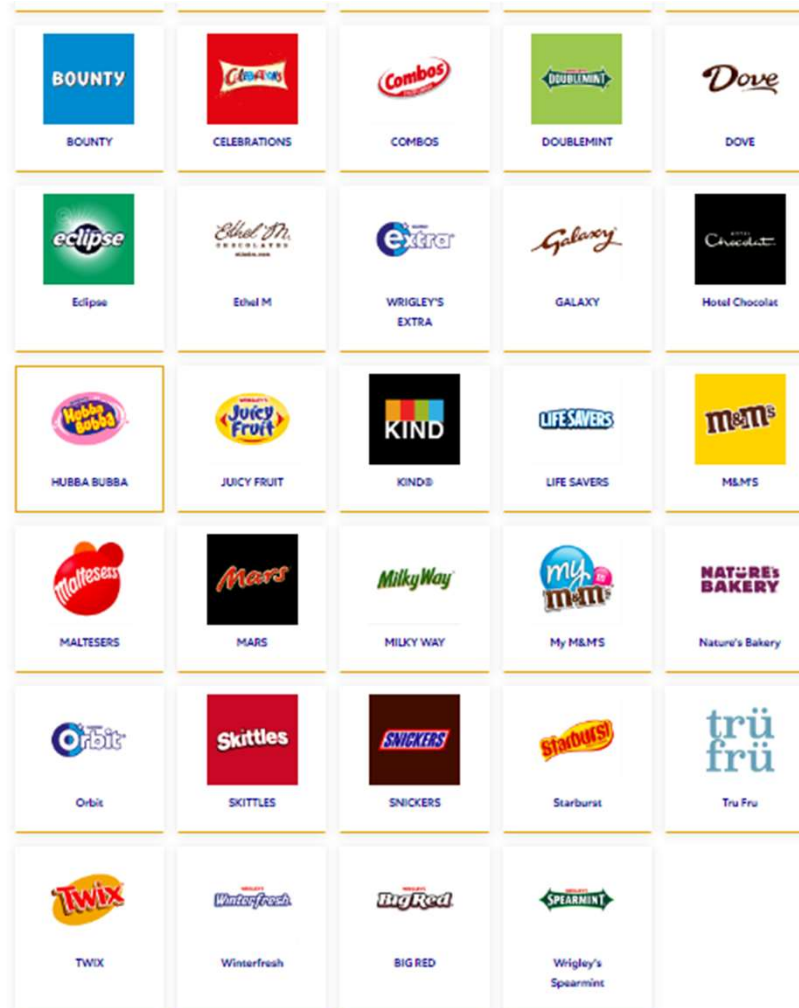
Numbers

MARS EU Wrigley

- **~20 Bio\$ → ambition 30 Bio\$ by 2030 (global)**
- **8.000 + Associates**
- **56 Countries (grouped in 7 Clusters)**
- **9 owned Factories in EU + EM**
- **Veghel (NL) the biggest chocolate Factory in EU**

Mars Wrigley Brands

MARS

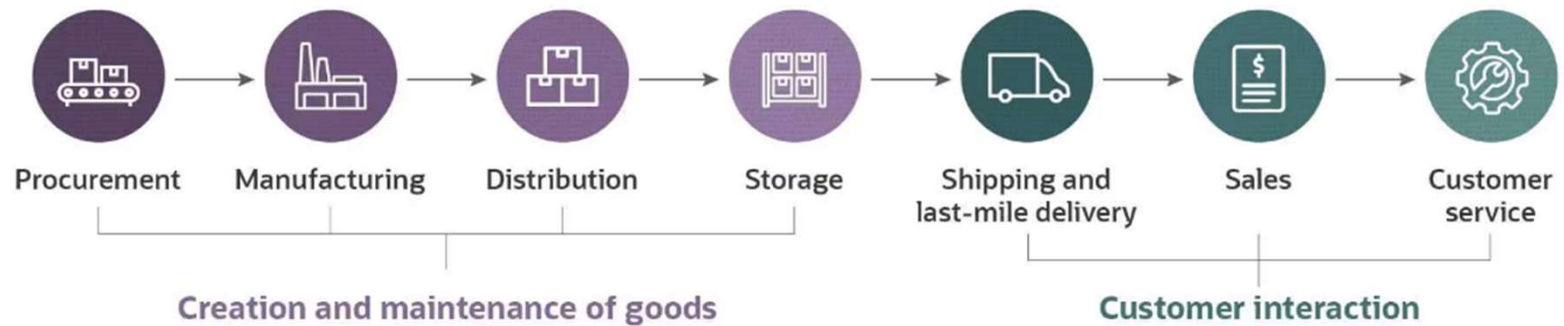


Copyright © 2024 Mars, Incorporated — Confidential

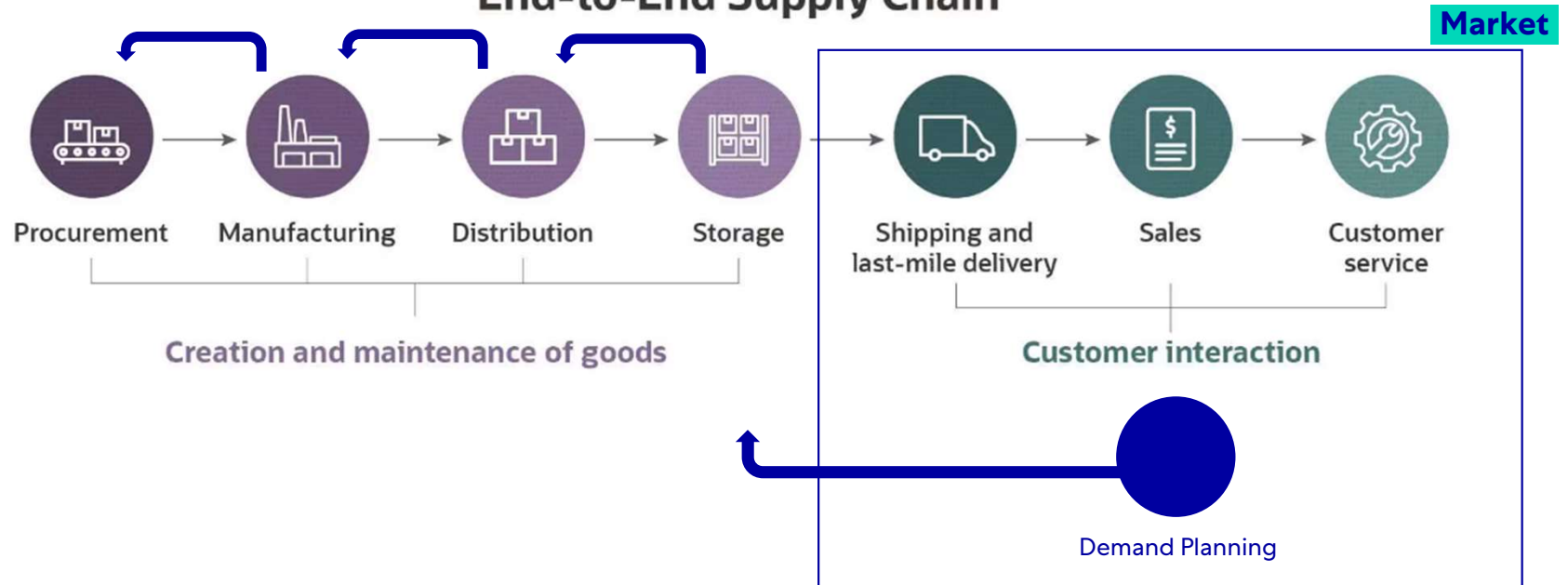
Supply Chain

Dove inizia e dove finisce

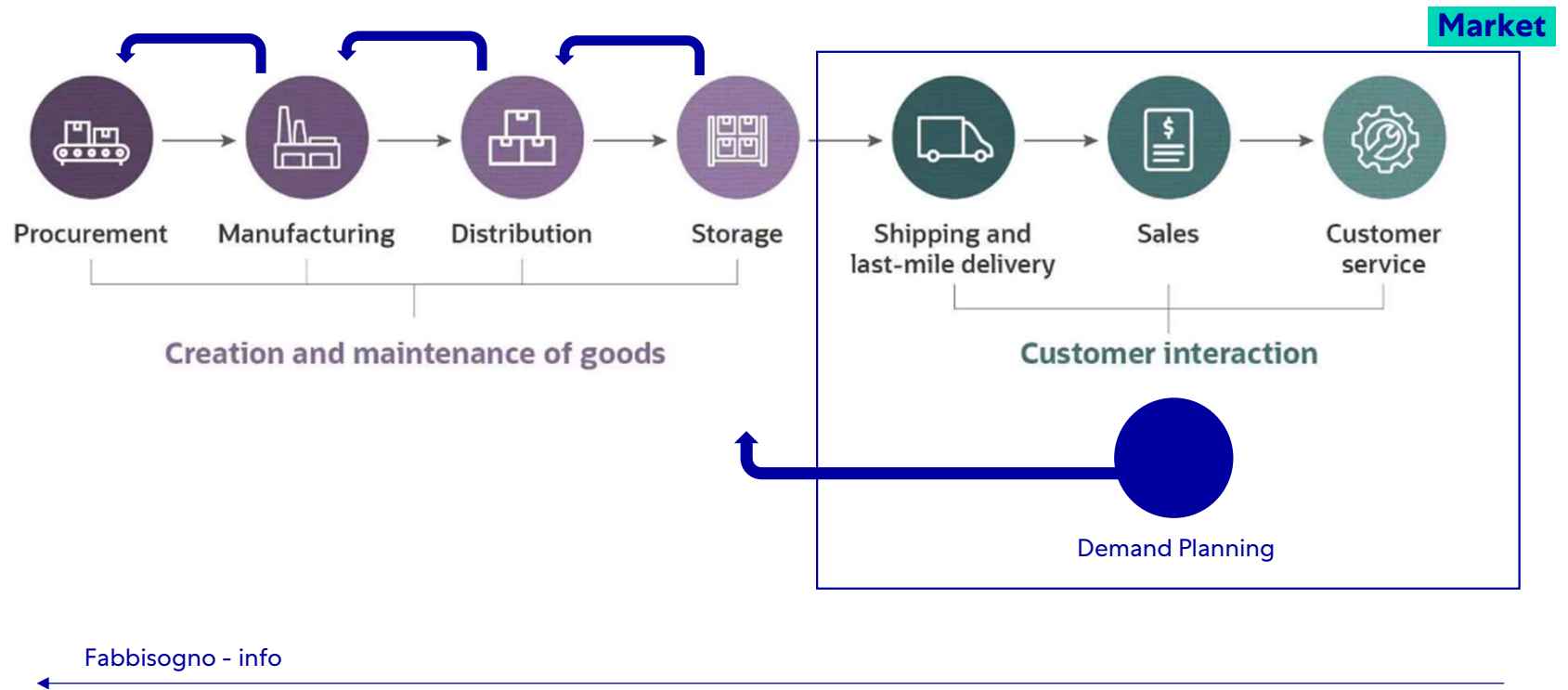
End-to-End Supply Chain



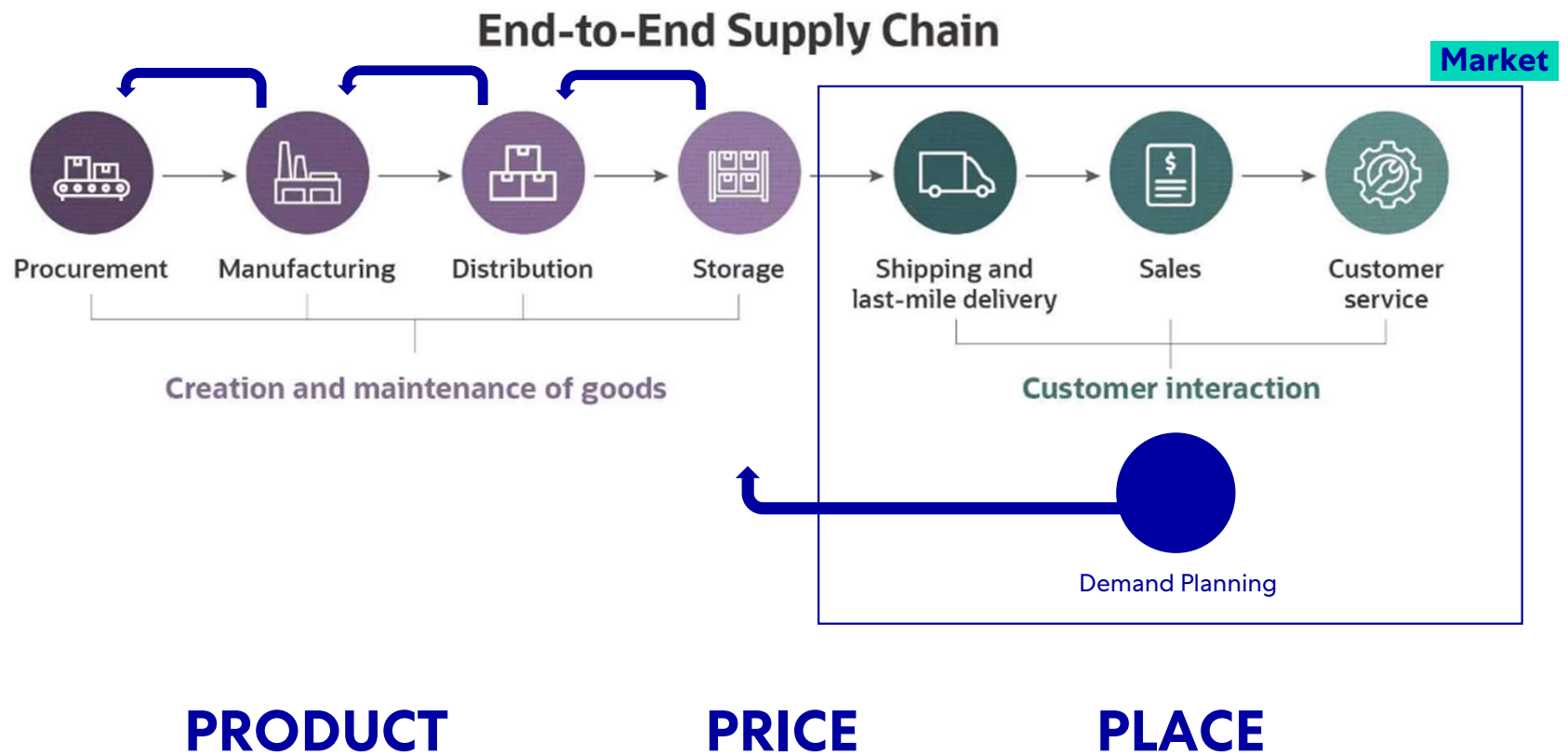
End-to-End Supply Chain



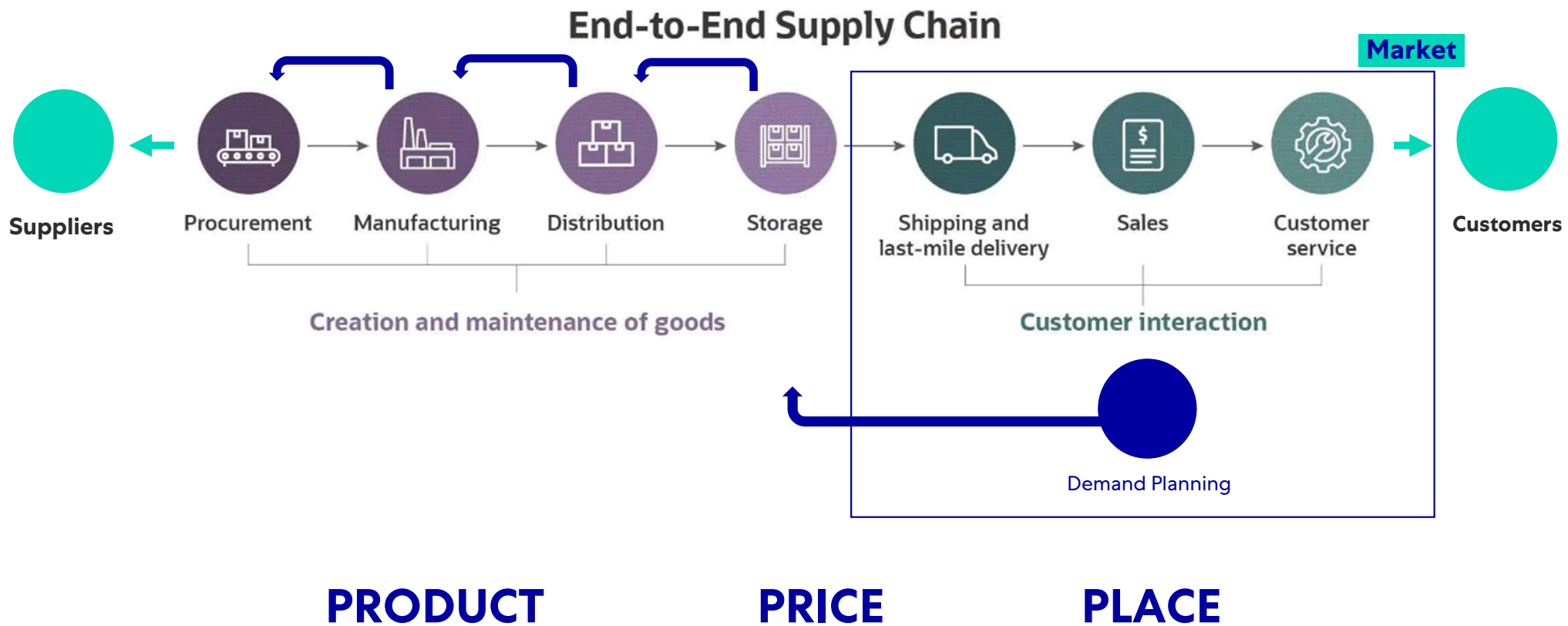
Movimento fisico



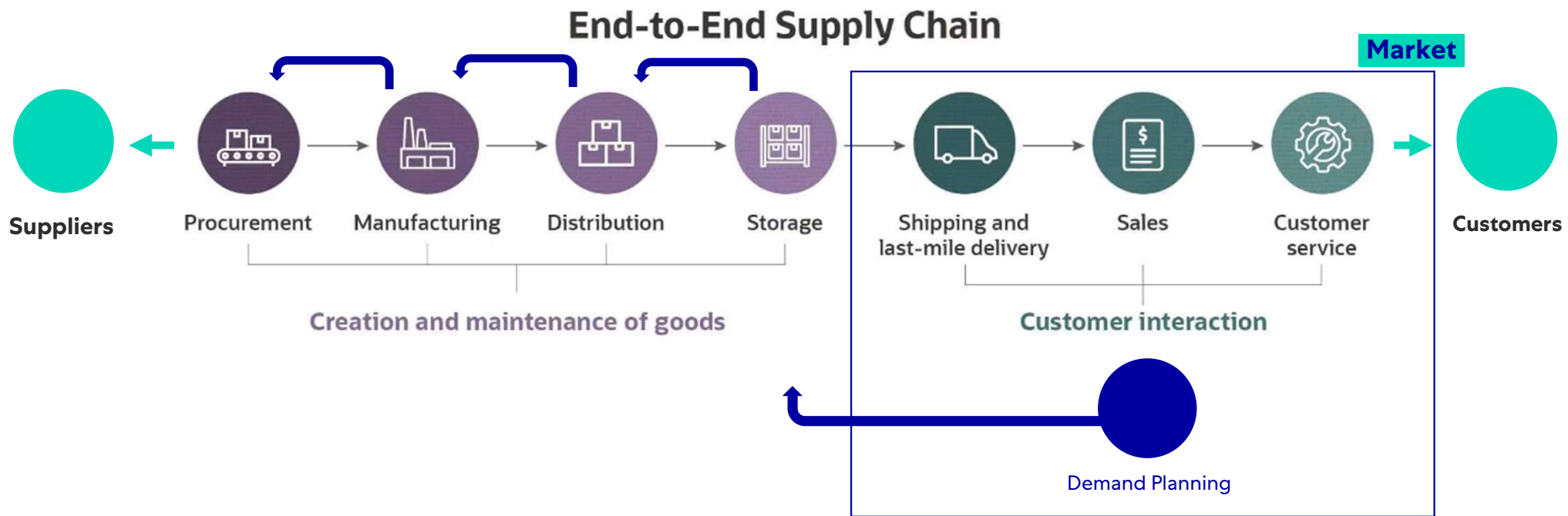
MARS



MARS



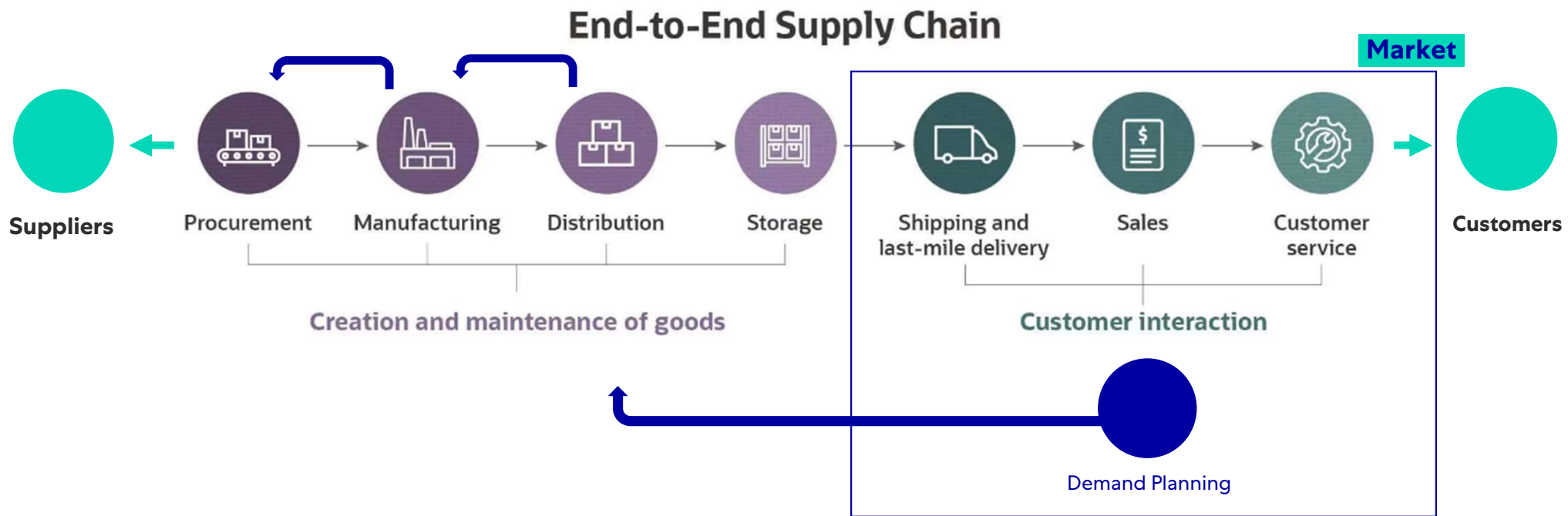
MARS



- Under the hat “Supply Chain” there is an enormous number of roles very different to each other, example Demand/Supply Planners
- Depending on the Company you might have ~1 person that covers everything (except outsource) – our thousands of people
- Outsourcing is possible



**Our job is still very simple in principle:
Balance Demand & Supply**



- Avoid over capacity or under capacity equally!!
- Every function should balance supply and demand and aim towards the same goal: **Work in a synchronized way.**

MARS

Supply Chain

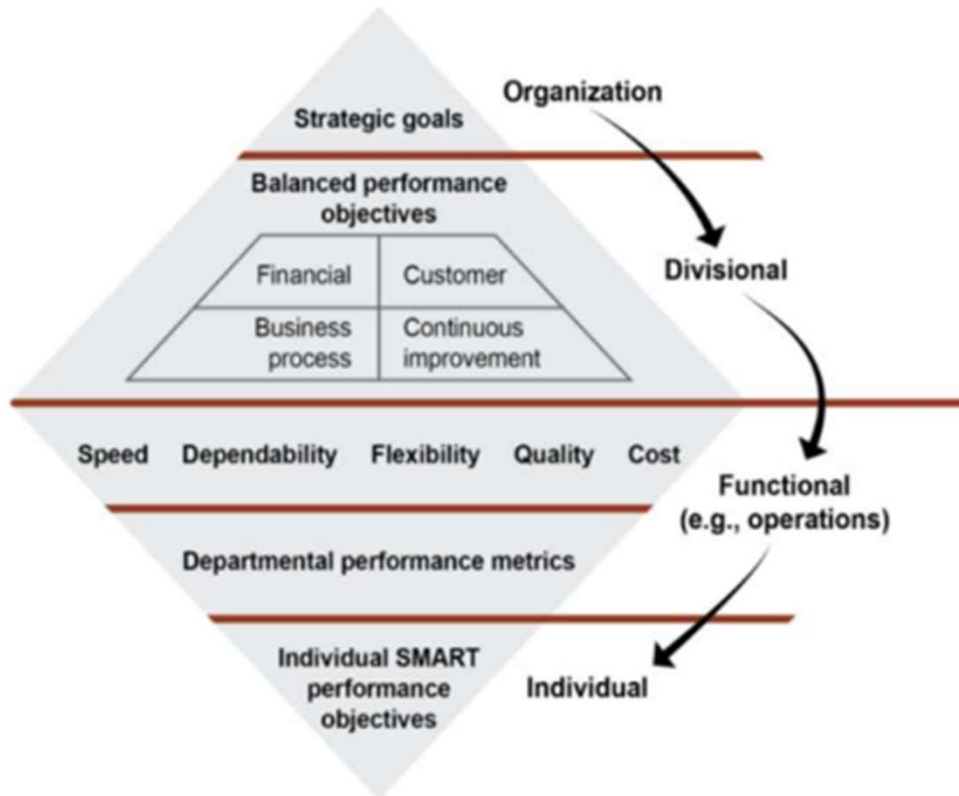
**Come si fa ad andare
nella stessa direzione?
Integrated Supply Chain**

Integrated Supply Chain

What Is Supply Chain Integration?

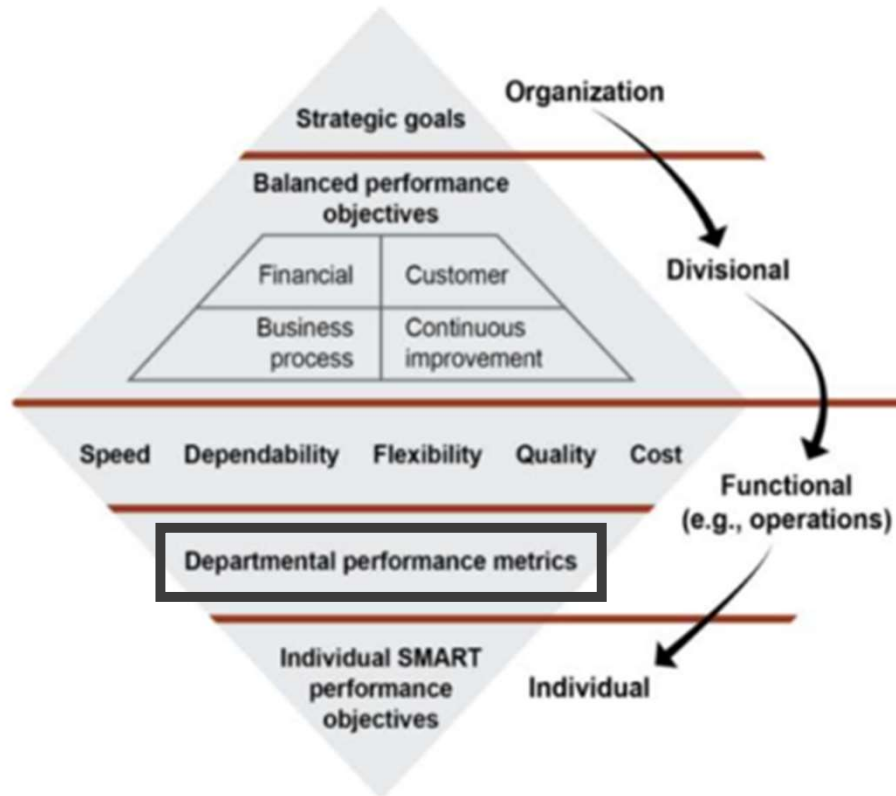
Supply chain integration is the process wherein all stakeholders involved in creating, distributing, and supporting an end product or service are seamlessly connected. The motive of an integrated supply chain is **to ensure everyone is working towards the same goal while optimizing performance.**

Create an Integrated Measurement Model



MARS

Create an Integrated Measurement Model



CSL/OTIF



Inventory



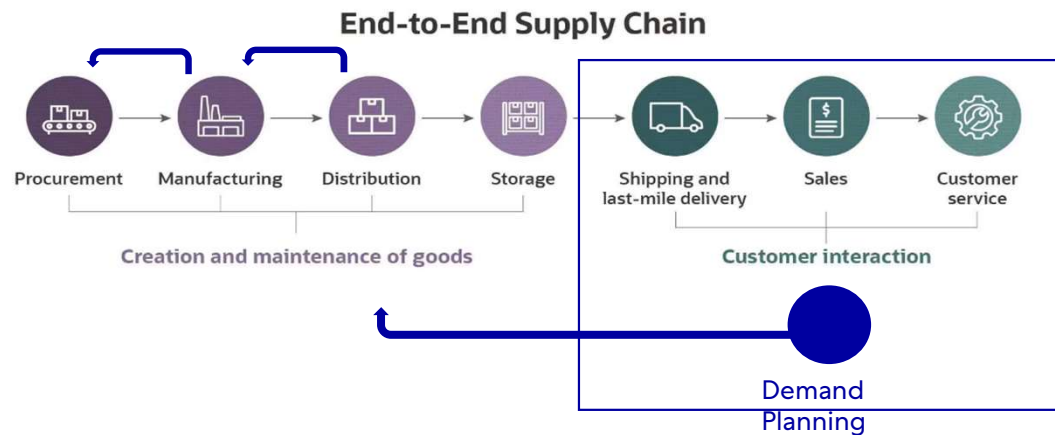
Demand KPIs SFA and BIAS



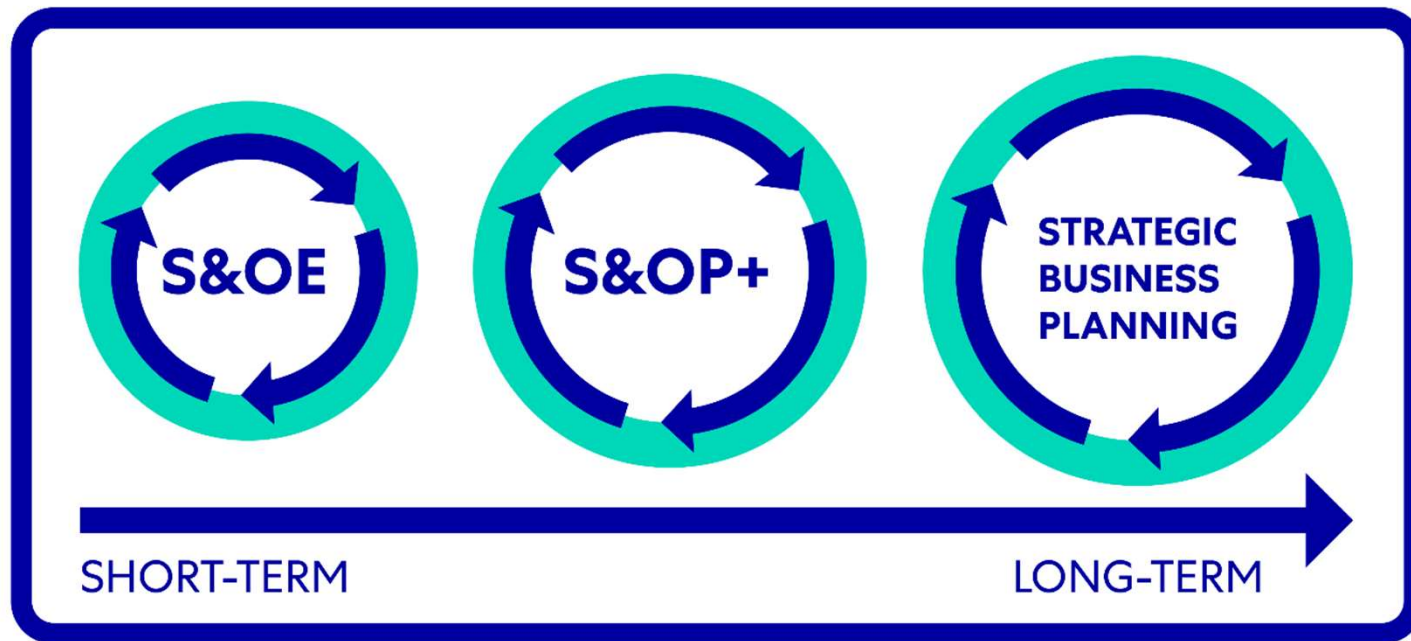
Manufacturing KPIs PSL/ATS

Advanced Supply Chain Planning System

Advanced planning systems (APSs) are applications or software that enable industry leaders to plan the end-to-end supply chain and coordinate tasks such as advanced forecasting, demand planning, supplier collaboration, material planning, production planning, distribution planning, and order management.

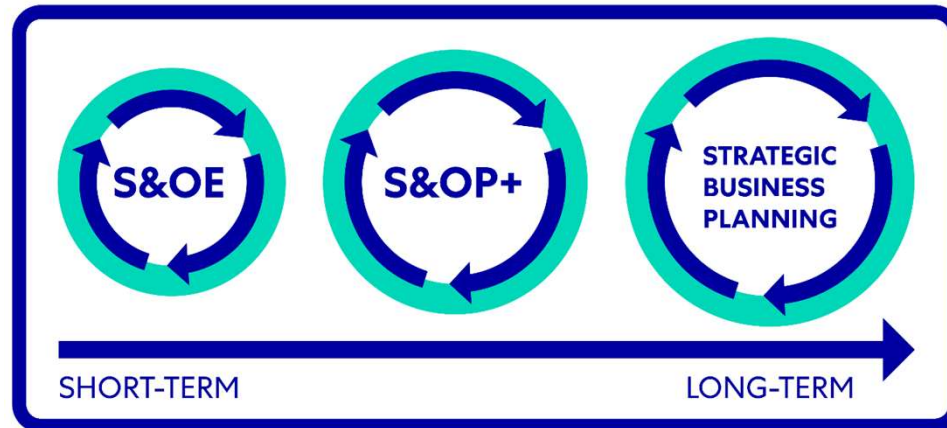


Processes



MARS

Processes



Through S&OP+, we look ahead 18 months or more to ensure we are able to meet the demands of the business within the framework of our long-term business goals.

Processes



Through S&OE (0-12 wks), we execute the business strategy, drive supply chain & performance excellence to deliver outstanding customer service through on time and in full delivery of our products.

Supply Chain

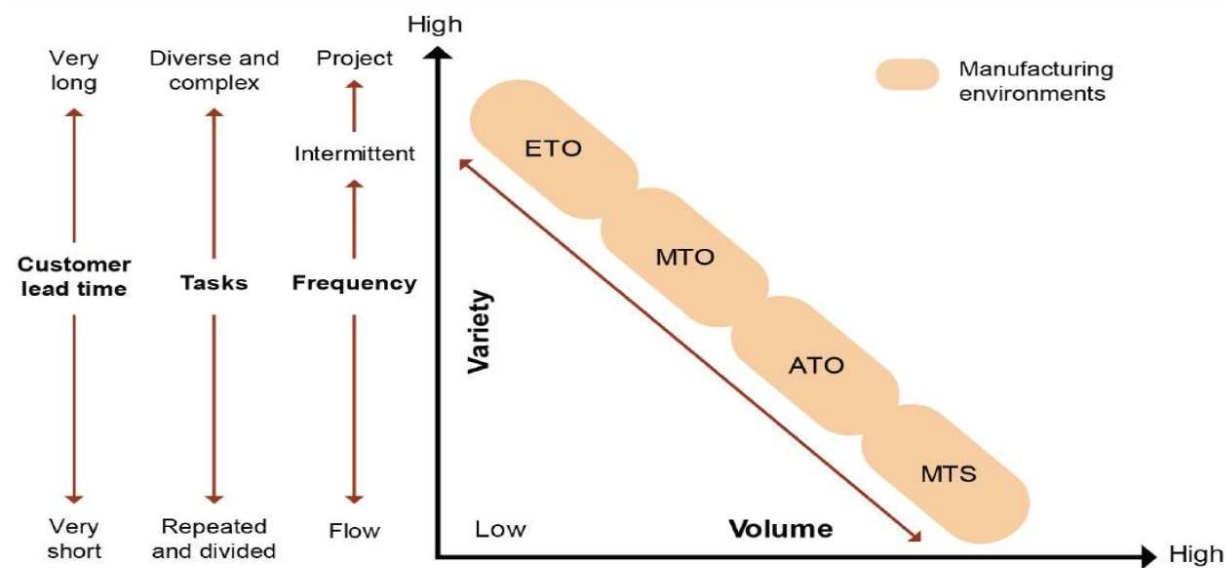
MARS

Supply Chain among different Businesses

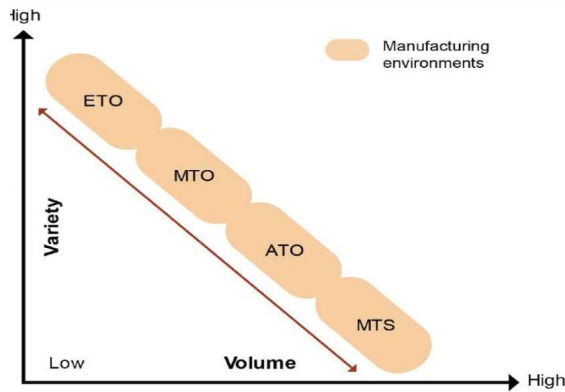
Push Pull Manufacturing Environment



Product-Process Matrix and Manufacturing Environments



Push Pull Manufacturing Environment



ATO – Assemble to order Il modello Assemble To Order (ATO) indica l'assemblaggio su ordine del cliente. L'azienda produce (o acquista) tanti semilavorati con caratteristiche diverse, che verranno assemblati nel prodotto finito secondo le richieste del cliente (late customization)



I processi manifatturieri **Engineer to Order (ETO)**, per loro stessa definizione, sono fortemente incentrati sull'interazione con il cliente... consiste nel **progettare, industrializzare e realizzare un prodotto dopo il ricevimento dell'ordine.**

MTO - Make to order

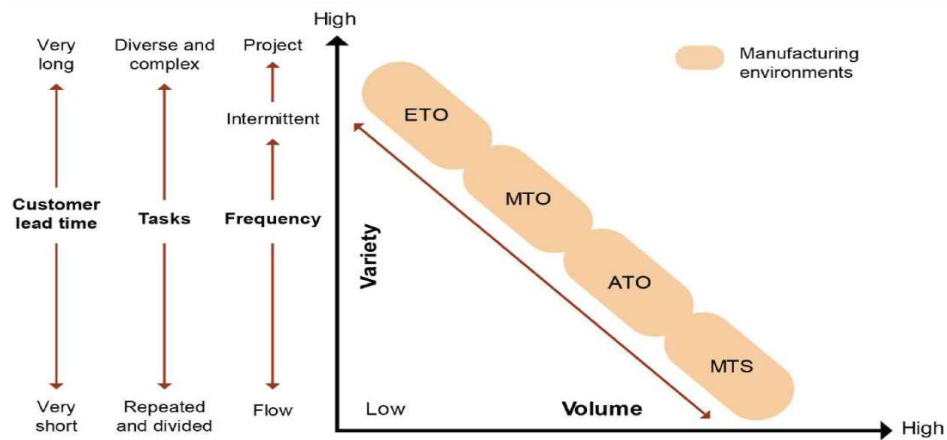
È un processo di fabbricazione in cui la produzione di un articolo inizia solo dopo la ricezione di un ordine del cliente confermato.

MTS è l'acronimo di Make-To-Stock (produzione per il magazzino), una strategia di produzione attuata principalmente dalle aziende che realizzano prodotti di largo consumo.

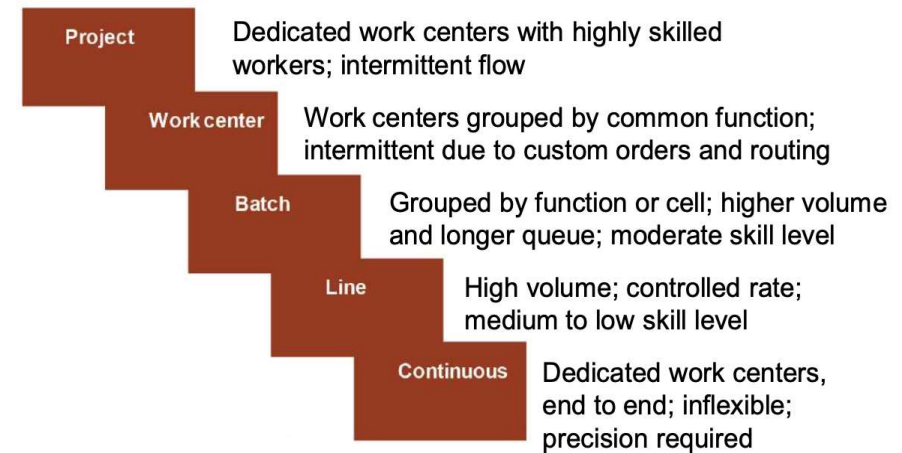
Push Pull Manufacturing Environment



Product-Process Matrix and Manufacturing Environments



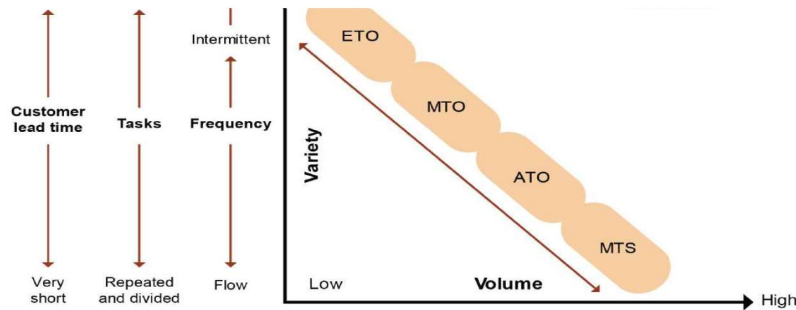
Manufacturing Process Type Comparison



Environment



Manufacturing Process Type Comparison



Project	Dedicated work centers with highly skilled workers; intermittent flow
Work center	Work centers grouped by common function; intermittent due to custom orders and routing
Batch	Grouped by function or cell; higher volume and longer queue; moderate skill level
Line	High volume; controlled rate; medium to low skill level
Continuous	Dedicated work centers, end to end; inflexible; precision required

All these companies play mainly with MTS and by Exceptions with MTO

MARS

Supply Chain

MARS

MTS - BTB vs BTC

B2B and BTC



Consumer Goods

FMCG
(Fast Moving Consumer Goods)



MARS

B2B

B2C

MARS

B2B and BTC



Consumer Goods

FMCG
(Fast Moving Consumer Goods)



MARS

B2B

B2C

Demand Stability

Demand Volatility



MARS

Supply Chain

**MTS = Produce based on
FCST**

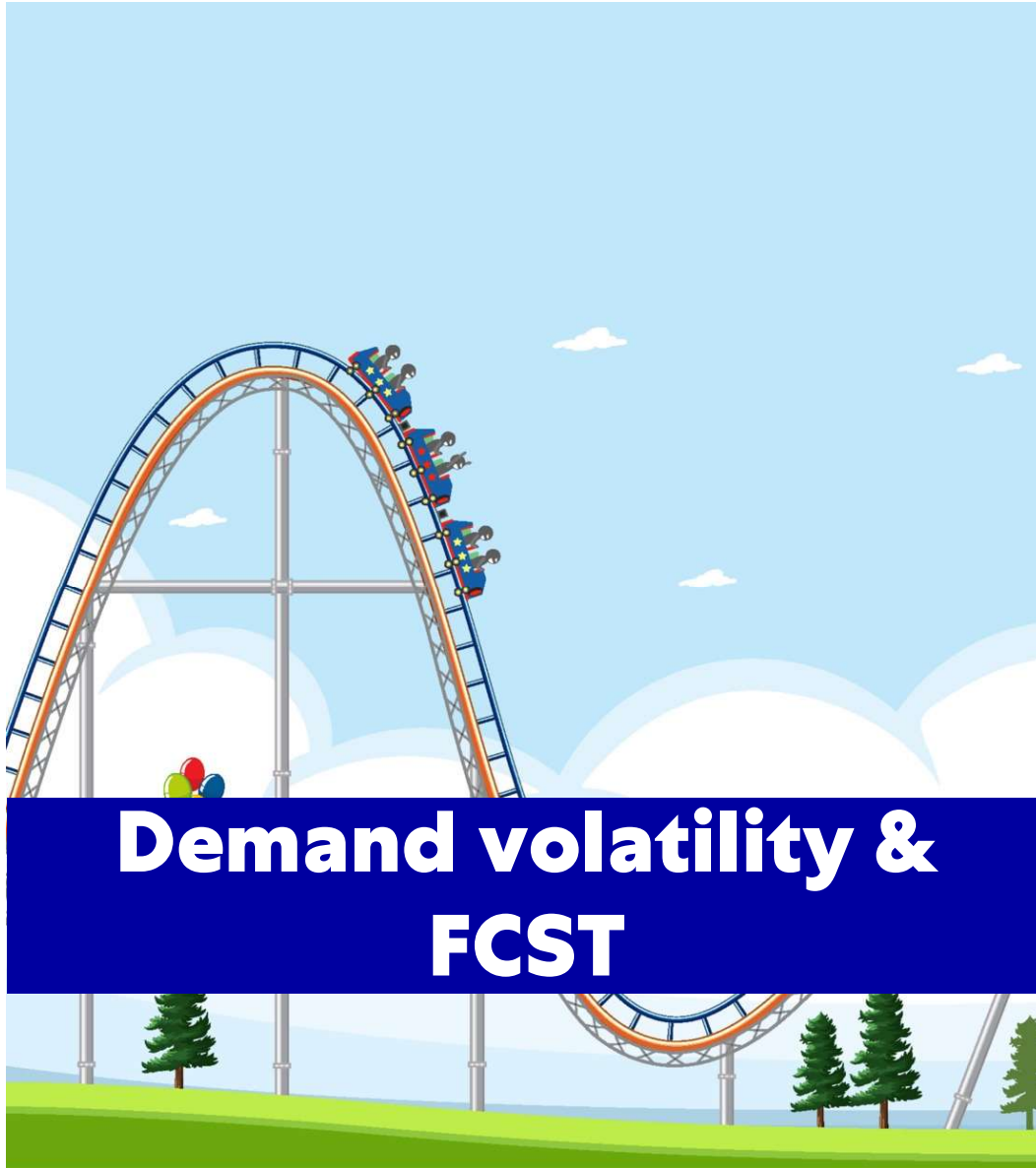
What do we know about forecasts?

1- They are always wrong!

2- In the nearer period they are more accurate

3- At aggregated level they are more accurate

MARS



Demand Volatility....

Consumers are on the driving seat

(domestic appliances, during Covid 19)

**Their behavior is even
more unpredictable
when it comes to FMCG products**

Why?

MARS



...but need to FCST

- **It's very difficult to predict demand, the best option would be to wait until the order is placed.**
- **We can not wait for the order to come, because consumers want to have it already on the shelf / no OOS allowed (Amazon effect)**
- **Retailers keep their inventory quite low, to avoid inventory risk – shorter LT**
- **All what we said, is particularly evident in FMCG**
- **In the FMCG we receive orders with 24/48 hours LT**

MARS

Supply Chain

What are companies trying to do to face the ambiguity in Demand?

2 More Reasons why we need FCST

- **Some RM LT are > 12 months**
- **Manufacturing Capacity/Flexibility**

In which directions are companies working against to deal with demand volatility?

- Trying to improve the quality of our FCST (with AI example E2Open, and new Roles like Forecasting analysts)**
- Improving the Flexibility in Manufacturing
→ (Lean Manufacturing – Toyota Production System)**