



Science For A Better Life

Delivery /Replenishment strategies used as Supply Chain practice *A supplier view*

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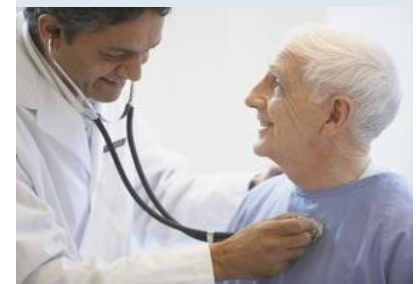
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Pharmaceuticals Division

Our products help improving people's quality of life



- Therapies with significant clinical benefit in **liver cancer, colorectal cancer, prostate cancer, and gastrointestinal tumors**
- Products to prevent and treat venous and arterial **thromboembolism**
- Helping people with **cardiovascular** risk management
- Treatment for different forms of **pulmonary hypertension**
- Treatment for **Hemophilia A** patients
- A therapy for five of the leading causes of **vision** loss in the working age and elderly population
- **A broad Women's Healthcare franchise including contraceptives, menopause management, and gynecological therapies**
- **Anti-bacterial treatments** to manage respiratory, urinary and surgical infections
- Well established therapy for **Multiple Sclerosis**





Science For A Better Life

Family Planning

World Population Dynamics

Population Growth



Every **10 sec**
26 new born

According to the
World Population Clock
7.247.524.392
people live on our planet. ¹



	Global Population Growth
per year	86.661.000 people
per day	237.427 people
per minute	165 people
per second	2,7 people

1) Source: Deutsche Stiftung Weltbevölkerung 2014, www.weltbevölkerung.de

Unmet Need for Family Planning Methods

Did you know, that...*



- ... at least **200 million** women want to use safe and effective family planning (FP) methods, but lack access to products/services or the support of their husbands and communities.
- ... more than **50 million** of the 190 million women who become pregnant each year have abortions. Many of these are clandestine and performed under unsafe conditions.
- Worldwide, some **14 million** children are born every year to women aged 15 to 19.
- The absolute number of married women who either use contraception or who have an unmet need for FP is projected to grow from 900 million in 2010 to **962 million** in 2015



Bayer HealthCare Programs

Securing Essential Contraceptive Supplies



Bayer provides a broad range of contraceptive choices in highest quality

*Method Mix of
WHO pre-qualified
products¹*



¹ Norigynon® is submitted for WHO pre-qualification and currently under review

Bayer HealthCare Programs

Our FP Partners (Selection)



Governmental Sponsors



Bilateral/Multilateral



Private/Non-Governmental



Note: Partners are mentioned in alphabetical order

Bayer HealthCare Programs

Jadelle Access Program



- Contract partner Bill & Melinda Gates Foundation
- Volume Guarantee for Jadelle for 2013-2018 with a total of **27 Mio** units
- **Price reduction of more than 50%** over the next six years: US\$18 → US\$8.50 ex works per unit
- Effective from 1 January 2013, in more than **50 developing countries** where the 1x10 package is registered or can be brought in through waiver process
- **Multi-Stakeholder Partnership** between Bayer, Bill & Melinda Gates Foundation, Clinton Health Access Initiative (CHAI), Governments of Norway, United Kingdom, United States and Sweden, and Children's Investment Fund Foundation (CIFF) and the United Nations Population Fund (UNFPA)





Science For A Better Life

Delivery /Replenishment strategies used as Supply Chain practice *A supplier view*

Make to order vs. make to forecast



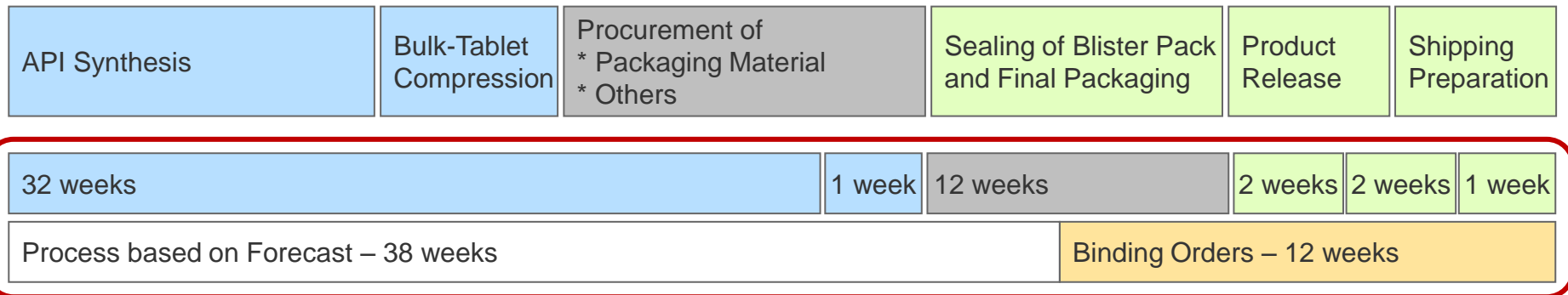
Ideal scenario from purchaser's view:

- High quality - in specifications (local registration, WHO PQ, etc)
- Remaining SL: >75%, >85%
- Instantly available (4-12 weeks)
- Lowest costs possible
- **No commitment to long/short term forecasts**



Lead Time considerations

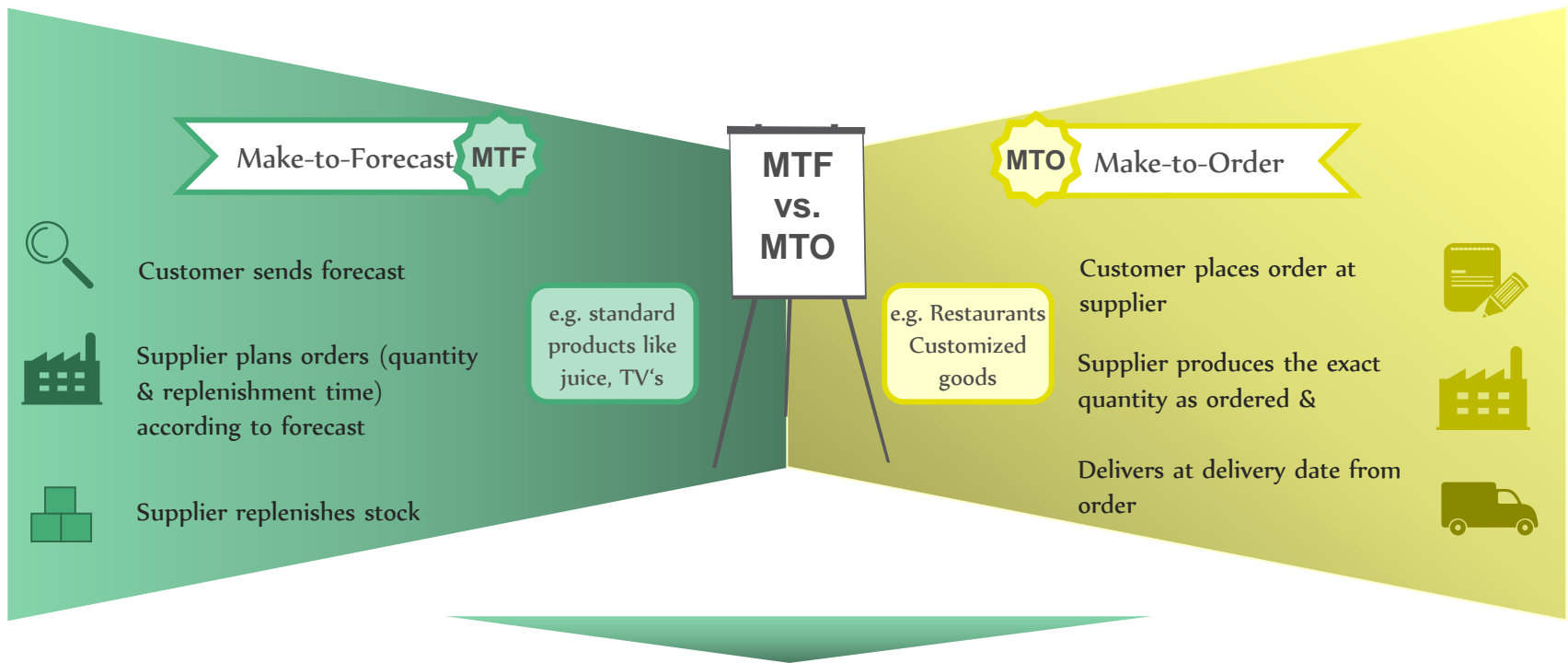
(illustrative for solid tablet formulation tbd quantity)



- Process chain and internal lead time starts already 9 months prior to receipt of a binding order
- Forecast is crucial for all production steps
- Consider internal capacity allocation, external suppliers lead time, working capital, etc

Make-to order and Make-to-forecast

Manufacturing strategies for different purposes



MTF in combination with vendor-managed inventory (VMI) creates a mutual benefit between supplier and customer as it maintains the optimum stock at the lowest possible stock. The prerequisite is a frequent exchange of information & transparency.

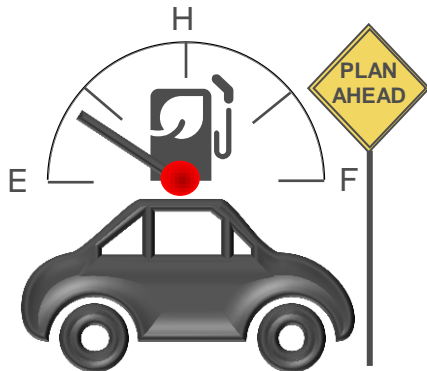
Make-to order and Make-to-forecast

Manufacturing strategies for different purposes



Make-to-Forecast MTF

MTF is like planning your journey with your car. You fill-it up when you need to.



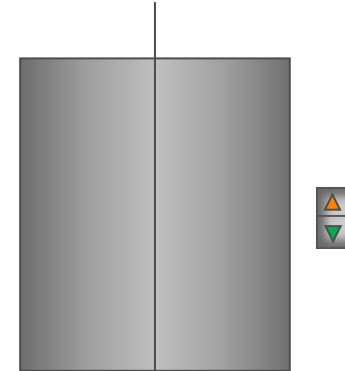
Supplier manufactures according to forecast and stock levels of customer. This method in demand planning is often used for products with frequent sales (e.g. cosmetics, TV's).

This can only be used if you have transparency about the customer's demands and stock levels.

MTF VS. MTO

MTO Make-to-Order

MTO is like an elevator as it starts by receiving an order as an elevator starts by pressing a button



Product is manufactured after the customer places an order. This concept is usually for customized products with small lot sizes such as airplanes.

MTO should also be used in case there is no "fuel indicator" (i.e. no information about the customer's demands and stock levels)

Benefits of MTF and MTO

Both strategies can co-exist even within the same company



Make-to-Forecast (MTF)

Benefits

- Quicker response to consumers' needs
- Prevent opportunity loss by preventing out of stocks
- Most useful for mass production

Threats

- Not useful for single-item production
- Risk of overstocks and waste when forecast accuracy is low
- Cannot be used if you do not have the information about stock levels and ongoing demands

KPI's

- **Forecast accuracy (FCA):** How accurate was the forecast?
- **Forecast Filling:** Is the forecast filled for the complete horizon?
- **Forecast Bias:** Was there over- or underforecasting?

Make-to-Order (MTO)

Benefits

- No excessive inventory
- Less waste
- Most useful for single-item production and if you do not have information about customer demands

Threats

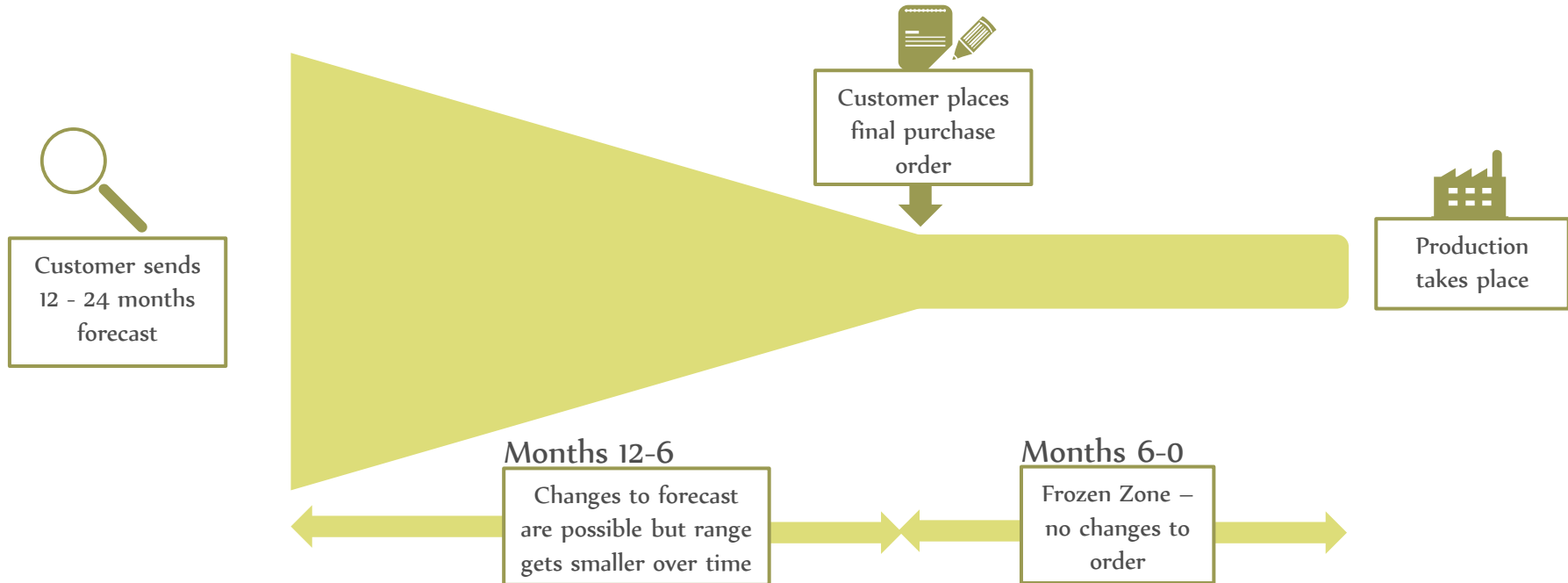
- Often unused capacity/ difficult capacity planning
- Longer delivery times

KPI's

- Order placed in time by customer
- Order change rate by customer

MTO business with third-party customers

From mid-term plans to short-term frozen zones



- The industry standard is, that customers send a rolling 12-24 months plan to the supplier showing when they plan to get a delivery (including timing and quantity)
- They can change this plan up to 3-6 months before production but the range of order increase or decrease becomes smaller over time
- 3-6 months before the production the final order has to be placed and no changes are allowed anymore.



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Thank you for your attention!

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