



Supply Chain Challenges and Complexities During and Post Covid

Yoram Eshel – Founder & CEO of Cannabilog

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Yoram Eshel - CEO



- For more than 30 years, I've been working in all areas of Global Supply Chain and Logistics. Gaining vast experience and knowledge in all areas of Pharmaceutical and Medical sectors. Yoram is a top expert in all aspects of Logistics, supply chain and distribution - all around the world.
- In the last 14 years, I've proudly led the Global Logistics Network of Teva Pharmaceutical Industries - the largest generic company in the world - with direct responsibility for a budget of more than 300M\$ and more than 150 employees Globally.
- In 2018 I retired from Teva and founded Cannabilog. My vision and passion is to bring the most professional knowledge and expertise from the Medical/Pharma worlds into the Cannabis eco system.
- Cannabilog is proudly the leading provider of global cannabis supply chain & logistics solutions. Delivering successfully more than 35,000 Kg. of cannabis products across many countries in the last 2 years alone.

Agenda



- **Covid and Post Covid Impact on....**

- **Supply Chains**

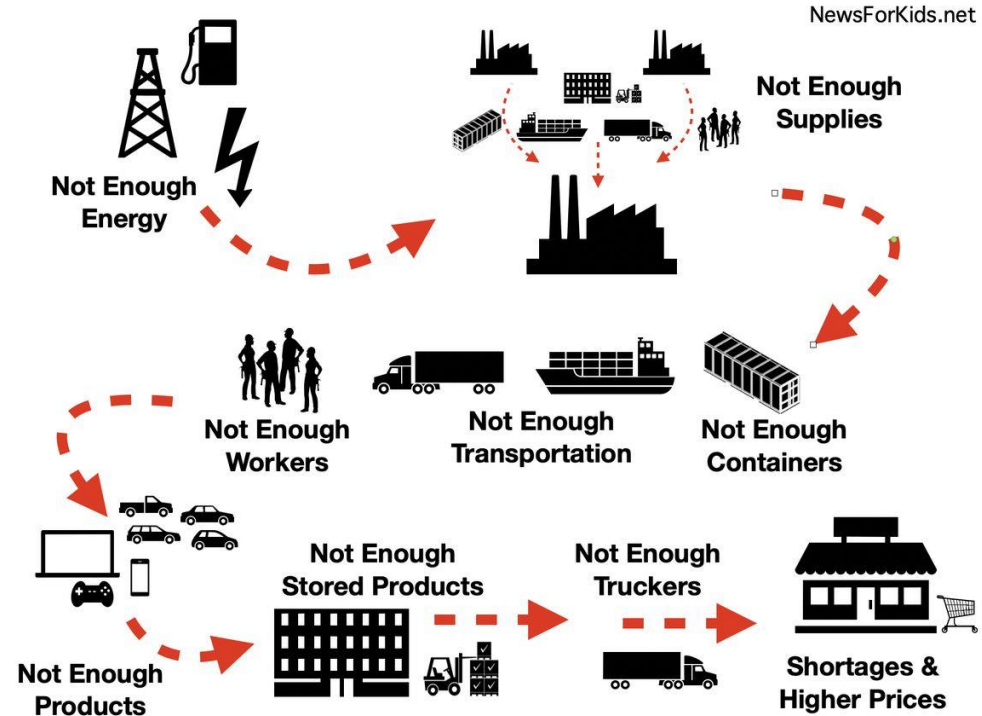
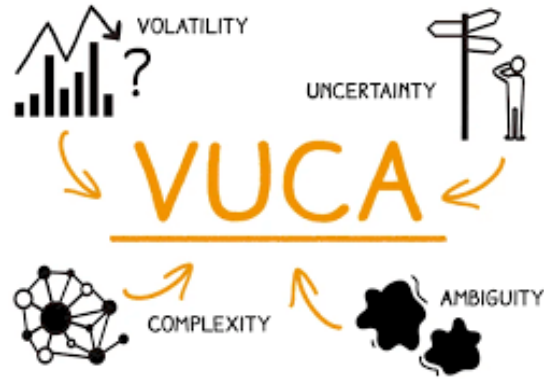
- **Logistics Chains**

- **The Challenges**

- **Recommended Actions**

- **Key Take Away**

Let's talk about real life....

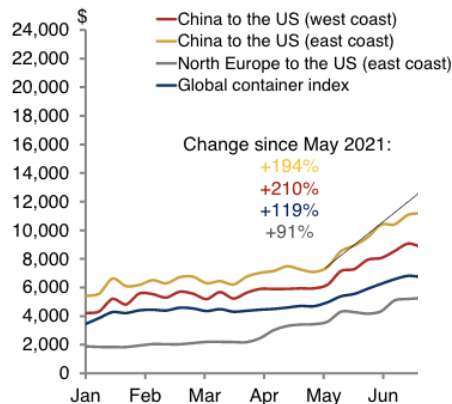


Some Data....



Figure 2: Port congestions and a shortage of containers have pushed up shipping costs

US: The cost of shipping a container from



Source: Oxford Economics/Freightos Baltic Index

COVID-19 has disrupted businesses worldwide, resulting in a range of operational challenges.

94%

of Fortune 1000 companies are seeing supply chain disruptions from COVID-19.

75%

of companies have had negative or strongly negative impacts on their businesses.

55%

of companies plan to downgrade their growth outlooks (or have already done so).

to the effect of COVID-19 disruption¹, %

ges 45

d 41

30

22

22

Significant
increase in
demand

New information
security, fraud, and
data-theft-related risks

(2020)

Sources: U.S. Census Bureau; CEA Calculations



THE NEW NORMAL

HOW COVID-19 WILL
REDEFINE PROCUREMENT &
SUPPLY CHAIN STRATEGIES



Supply Chain Aspects

Challenges along the Supply chain



- **Planning**
 - Demand Planning / forecasting
 - Supply and distribution
- Shortage of Raw Materials (Tier 1 / Tier 2)
- Production Constrains and Adjustments
- Sourcing – suppliers' qualifications / validation (traveling – really ??)
- Procurement Aspects (cost / reliability / lead times)
- Commercial Agreements and Incoterms – Short / Long term
- **Lack of Visibility !!**



DESTINATION	FLIGHT	GATE	REMARKS
BERLIN	LH543	09	CANCELLED
NEW YORK	AA978	28	CANCELLED
TORONTO	AC902	11	CANCELLED
MADRID	18342	15	CANCELLED
BEIJING	CX654	02	CANCELLED
HOUSTON	AA384	08	CANCELLED
PARIS	AF893	14	CANCELLED
SYDNEY			



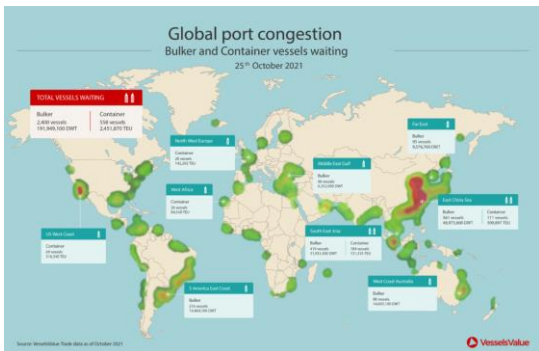
Air Freight Challenges



- Flights' Cancelations – unexpected / last minutes
- Airport's closures
- Aircraft types - unexpected / last minute
- Re-route regular scheduled flight.
- Huge lack of **Capacity** (Shrining Cargo aircrafts' fleet + Ocean shortage)
- More legs and transshipments (South America 2 → 4)
- Huge increase in **COST** – 300% - 500% (Carriers Opportunity !!)



Ocean Freight



Ocean Freight Challenges



- Port **Congestions** and significant delays
- Lack of **Empty Containers**
- Huge lack of **Capacity**
- Huge increase in **COST** – 300% - 500% (Carriers Opportunity !!)
- **Labor** issues – strikes and shortage
- Offload at **alternate Ports...**



Land Transportation

Land Transportation Challenges



- **Shortage of Temperature Controlled (and general) trucks**
- **Shortage of Drivers !! (80,000 in the US / 4,000 in Israel...)**
- **Significant Delays at borders (Canada- US Covid tests...)**
- **Delays at Ports and Airports.**
- **Huge increase in COST – 200% - 300%**



Quality Aspects

Coronavirus risk matrix

Potential risks to health enterprises and needs requirements



■ The following points represent areas of potential risk to biotech companies and other healthcare enterprises.

■ The second stage after risk stratification would be to determine to develop a risk mitigation plan.

■ Risk mitigation plan would include the following:

- Scenario planning
- Cost benefit analysis
- Comms planning
- Monitoring systems

Quality challenges along the Logistic chain



- **New Risk Assessment challenges** – Methods / Data gathering / On Going changes...
- **New Route Qualifications** – and ever changing....
- **New airlines and LSPs** – new QTAs + Security Aspects
- **Update lead times / transit times / storage times / delays**
- **Shorten shelf life and validity times**
- **Maintaining the products' integrity along the supply chain**
 - Temperature Management - VACCINES
 - Data loggers – on-line - longer times...
 - More temperature excursions = more investigations = more QA resources
- **GMP and GDP** aspects
 - Laboratory Tests.
 - Validated Packages and vehicles
 - Labels





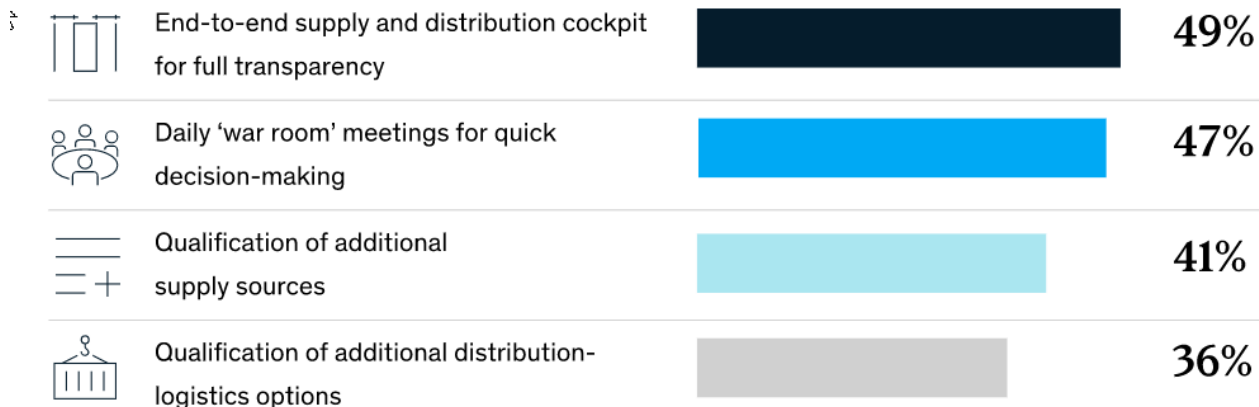
Recommended Actions

Some Recommendations.....



Transparency and nerve centers help mitigate potential long-term risks.

Measures to minimize materials shortages¹, %



¹Multi-select question—respondents selected multiple options.

Source: McKinsey COVID-19: Global Manufacturing & Supply Chain Pulse Survey (2020)

More Recommendations....



Managing Increasing Complexity

As supply chains become more complex and technology-driven, shippers and carriers are looking for ways to manage this complexity.

Addressing Capacity Constraints

Dealing with Disruptions

Implementing New Technologies

As supply chains become more complex and technology-driven, shippers and carriers are looking for ways to manage this complexity.

Complex Doesn't Mean Impossible

Looking ahead to the rest of 2022, these are some of the key challenges that supply chains will face. By preparing for these challenges now, businesses can ensure that they are ready for whatever comes their way.

By working to manage complexity in the supply chain, carriers are able to select the most efficient route for their trucks.

Carriers are also taking advantage of new technologies, such as GPS tracking and automated notification systems. These technologies allow carriers to track shipments in real-time, which helps them make better decisions about where to route their trucks.



Key Take away





Five key actions to address COVID-19's impact on logistics

1. **Improve visibility** - use an integrated logistics control tower to get real-time visibility into operations.
2. **Increase flexibility** - repurpose assets, inventory and capabilities to balance supply and demand.
3. **Communicate effectively** - ensure proactive communication with onsite and remote workers, suppliers, carriers and customers
4. **Support the workforce** - address the physical health and mental well-being of the core workforce as well as the extended logistics workforce.
5. **Be a responsible steward of supply chains** - think creatively and with purpose about how to support customers, suppliers and logistics networks affected by COVID-19.

Embrace New Technologies – Look for new Startups....



The Supply Chain & Logistics Tech Market Map



Digital Freight Shipping



Sensors & Asset Tagging



Inventory Management



Blockchain



Food Supply Chain



Supply Chain & Logistics Analytics



Trucking Marketplace & Fleet Management



Warehousing



Enterprise Resource Planning



E-Commerce Logistics



Autonomous Trucking



Last Mile AV & Drones



Last-Mile Delivery Services



Good News and Bad News... Just more confusion...



Russia – Ukraine war Implications - ???

Shipping predictions for 2022 – to sum up

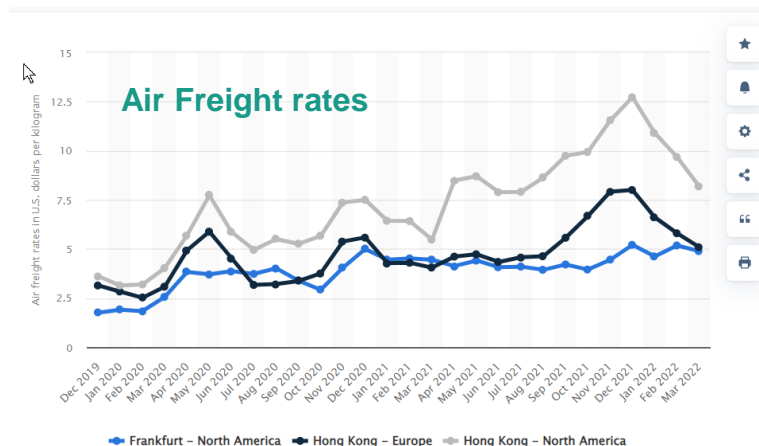
In conclusion, in 2022 we will not see freight rates at the 2019 level, but they will stabilize, and it will be easier to plan shipping. In 2022 we will probably see:

- Significant delays in shipping before the [Chinese New Year](#)
- More shipping spots
- Port congestions
- More containers for hire
- Shortage of staff
- More ships
- Raising fuel prices.

חברות הספנות מבטלות הפלגות עקב ירידה בביקושים

PORT2PORT

ברית 2M הודיעה על כוונתה לבטל שלוש הפלגות בנתיב אסיה - צפון אירופה בחודש הבא, וזאת עקב צניחה בביקוש לייצוא מסין. לפי מקורות שונים, הזמנות הייצוא לשבועות הקרובים ירדו בלמעלה משליש



What should I Take home....



- **Get Ready and adjust to the New Era – people, systems, processes, resources...**
- **Real-time monitoring is here to stay and will play a significant role in supply chain**
- **Look at the FOREST, not just each tree by itself.**
- **Embrace new technologies and data driven decisions.**
- **Work closely with your customers !! Customers' Segmentation...**
- **Work together with your Suppliers – All of them !!**
- **Customer & Supplier - Loyalty is a KEY !!**





Any Questions ?

Be in touch



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