How to Keep Customers Running during a Logistics Crisis

By Luis Marsaioli
# Tetra Pak

**In figures (Global)**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales 2021 in € billion</td>
<td>10.8</td>
</tr>
<tr>
<td>Countries in which Tetra Pak had sales in 2021</td>
<td>&gt;160</td>
</tr>
<tr>
<td>Number of employees:</td>
<td>25000+</td>
</tr>
<tr>
<td>Production plants</td>
<td>53</td>
</tr>
<tr>
<td>Customer Innovation Centers</td>
<td>6</td>
</tr>
<tr>
<td>Technical Training Centers</td>
<td>8</td>
</tr>
<tr>
<td>R&amp;D centers:</td>
<td>6</td>
</tr>
<tr>
<td>Packaging machines in operation:</td>
<td>8,700+</td>
</tr>
<tr>
<td>Processing units in operation:</td>
<td>100,000+</td>
</tr>
</tbody>
</table>
Tetra Pak
Manufacturing Locations in the Americas
Tetra Pak
Manufacturing Strategy - [https://youtu.be/fR-esiS1Pn0](https://youtu.be/fR-esiS1Pn0)
Tetra Pak
Manufacturing Strategy

- Make to Stock
- Make to Order
- Assemble to Order
- Engineer to Order
The money supply QUADRUPLED overnight to combat the effects of the pandemic on the economy.
Production Planning & Scheduling

- Week 1
- Week 2
- Week 3

Product Block

Production Blocks

Confirmed Orders

New Order

Leadtime
Tetra Pak

Lead times in 2020

![Graph showing lead times for Tetra Pak in 2020 with data points for Denton and Queretaro.]
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Texas Winter Storm

Feb 2021 - Gas curtailment (-100%)

Feb 2021 - Gas curtailment (-50%)

DENTON

QUERETARO
Tetra Pak
Production Planning & Scheduling

Week 1
Week 2
Week 3

Product Block
Production Blocks
Confirmed Orders
New Order

M T W T F S S
M T W T F S S
M T W T F S S

Leadtime

New Order

Week 1
Week 2
Week 3
Tetra Pak

Leadtime impact

1.3 X

Jan
Feb
Mar

Denton
Queretaro
Tetra Pak

Shortage of Polymer

Mar 2021 – Shortage of Polymers
Container Shipping Rates

The money supply QUADRUPLED overnight to combat the effects of the pandemic on the economy.
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Capacity Utilization Proj

North America Capacity Utilization Projection

- Denton Capacity Utilization - 12 months
- Queretaro Capacity Utilization - 12 months
- Target Denton Capacity Utilization - 12 months
- Target Queretaro Capacity Utilization - 12 months
Tetra Pak
Leadtime impact

2 x

Jan Feb Mar Apr Qtr2 May
0 5 10 15 20 25 30 35 40 45

Denton
Queretaro

Initials/YYYY-MM-DD
Tetra Pak
Rebalance Capacity Across America

Transfer Production of 670 mil Packs
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Challenges with Rebalancing

► Differences Board supply (US Bleached x BR Duplex)

► Delays due to some customer testing protocols

► Delays due to logistics from Brazil (Ocean & Air)
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Airfreight

- Inbound
- Outbound

<table>
<thead>
<tr>
<th>Otr 3</th>
<th>Otr 4</th>
<th>Otr 1</th>
<th>Otr 2</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>September</td>
<td>October</td>
<td>November</td>
<td>December</td>
<td>January</td>
<td>February</td>
</tr>
</tbody>
</table>

Initials/YYYY-MM-DD
Tetra Pak

Leadtime impact

- 2 X
- 1.5 X

Graph showing leadtime impact over time from January to December 2021.
Conclusions

- A Supply Chain must be prepared for triggering a business continuity plan (BCP) at any moment, and that means:
  - To monitor and utilize capacity wherever is available.
  - Educate your big customers to validate your products with different specs before a BCP event occurs.
  - Standardize production processes and communications systems to allow rapid orders transfer from one factory to another.
  - Close collaboration and frequent communication between Supply Chain & Sales is key to executing your BCP successfully.