Transportation in Supply Chain

1. Sea/Ocean Transportation (Break Bulk, Ro-Ro, FCL, LCL)

2. Air Transportation

3. Additional services (Customs Clearance, Warehousing, Stuffing, Unstuffing, Distribution)

4. Expenses monitoring / Choice of Transport Mode
In shipping, break bulk cargo or general cargo is a term that covers a great variety of goods that must be loaded individually, and not in intermodal containers.
Roll-on/roll-off (RORO or ro-ro) ships are vessels designed to carry wheeled cargo such as automobiles, trucks, semi-trailer trucks, trailers, mafi-trailers or railroad cars that are driven on and off the ship on their own wheels.
Sea/Ocean Transportation, FCL Shipments

A Full Container Load (FCL) is a shipment in ISO standard container that is loaded and unloaded under the risk and account of one shipper and only one consignee

<table>
<thead>
<tr>
<th>Example</th>
<th>Container Dimensions</th>
<th>Length</th>
<th>width</th>
<th>Height</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>20' Standard</td>
<td>589.9 cm 235 cm 238.6 cm</td>
<td>33.1 M3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40' Standard</td>
<td>1203.3 cm 235 cm 238.6 cm</td>
<td>67.5 M3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40' High Cube</td>
<td>1203.3 cm 235 cm 269.1 cm</td>
<td>76.2 M3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45' High Cube</td>
<td>1357.6 cm 234 cm 268.6 cm</td>
<td>85.5 M3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sea/Ocean Transportation, LCL Shipments

Less than container load (LCL) is a shipment that is not large enough to fill a standard cargo container. A system of transportation used in international trade, where various shippers pool their boxed goods in the same container. It is grouped with other consignments for the same destination in a container at CFS (container freight station).

Another way to carry consolidated cargo is LTL (Less than Truck Load)

The combination of LCL and LTL is often used for transportation.
Air Transportation

For certain types of cargo (mostly small amounts, expensive or highly perishable or urgent, etc.) Air Transportation is likely to be used. Usually for smaller amounts regular passenger flights are being used, but in case of huge amounts, OOG cargo charters can be used as well.
Additional services (customs clearance, warehousing, stuffing, unstuffing, distribution)

In addition to “pure” transportation services there are additional, which are being used along with transport:

1. Customs Clearance
2. Warehousing including stuffing, unstuffing and storage of cargo
3. Distribution is process of delivery of the deconsolidated goods from warehouses to final users
Expenses monitoring / Choice of Transport Mode

The main task for the business in scope of transport needs is actually to define how to arrange transportation of goods for them to be delivered timely, at reasonable rate and in sound condition.

Here DMAIC principle can be used:
DEFINE – what, where and when to move
MEASURE – to plan volumes and budget for transport needs
ANALYZE – which transport mode is the best for certain commodity/volumes
IMPROVE – actually to begin moving the cargo by planned transport means
CONTROL – how the scheme works (both financially and operationally), if any changes needed, and if so, to repeat the process

As the conclusion of above said: choosing of the appropriate mode of transportation is definitely a great source to reduce business expenses for delivering goods and finally to cut the cost of production which gives competitive advantage.
THANKS FOR YOUR ATTENTION

Russia Contact
Maxim Volkolupov
Ocean Commercial Center Manager
OFR Department
DHL Global Forwarding
St. Petersburg, Russia
Tel: + 7 812 346-74-10 ext.391
Fax: + 7 812 346-74-13
Mobile: + 7 911 926-28-34
www.dhl.com
maxim.volkolupov@dhl.com

Chinese Taipei Contact
Aniko Leboh
CEE Help Desk
DHL Global Forwarding (Singapore) Pte Ltd Chinese Taipei Branch
Taipei City, Chinese Taipei
Mobile: +886 9 8782 1252
Tel: +886 2 6603 8165
Fax: +886 2 2658 9118
www.dhl.com
aniko.leboh@dhl.com