IMPROVING EU AND U.S. TRUCKLOAD PROCUREMENT

PART 1: 7 INSIGHTS ON CARRIERS AND DRIVERS

WHITE PAPER

C.H. ROBINSON
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IN BRIEF

There have been a number of high-profile mergers and acquisitions in recent years between U.S. and European companies. Among the many integration issues these companies face is whether a universal truckload procurement strategy can work for both regions. This is Part 1 of a two-part white paper that examines this topic and offers relevant insights for truckload procurement professionals.

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ABOUT THIS WHITE PAPER SERIES

This white paper series explores truckload procurement in the European Union and United States—the similarities and differences in each market, along with key factors to consider as part of an overall transportation strategy that crosses regions:

- Part 1: 7 Insights on Carriers and Drivers
- Part 2: 6 Insights on Route Guides and Peak Seasons

As companies headquartered in Europe or North America merge with firms in the other region,[1] many try to combine shared services. One of these is logistics. Yet, as companies apply a universal truckload procurement strategy across both regions, they tend to see mixed results.

70% of U.S. freight[3] and 75% of EU shipments[4] move by truck.

Transportation procurement professionals are understandably surprised when their results differ from expectations. There are market similarities that exist in both regions:

- The European Union is technically a single transportation market. It is almost as easy to transport products between the 28 EU countries as it is to cross state lines in the United States.
- Economic activity increases at certain times of the year to varying degrees, causing disruptions in the overall truckload market in each region.
- Occasional market inelasticity temporarily highlights the issues of an aging driver population, the difficulties of recruiting new talent, and driver wages–all issues present in the EU and United States.

Yet, each transportation market has its nuances:

- In the European Union, each country implements its own road taxes, driving bans, and labor laws. Some of these factors can cause a lack of clarity that can temporarily disrupt the overall truckload market.
- Specific transportation considerations apply to busy trade lanes that cross into non-EU countries.
- U.S. active truck utilization hovers at 95 percent,[2] so the market has limited elasticity to absorb a collection of mild demand pressures. During peak shipping seasons, equipment shortages can occur, along with higher transactional pricing and route guide substitution to premium-priced carriers for shippers with contract rates.

About Armstrong & Associates and this white paper

For this white paper, C.H. Robinson commissioned Armstrong & Associates, Inc. (A&A) to research the key similarities and differences in the truckload markets in Europe and the United States. Their research is complemented by experiential information where researchers were unable to locate specific demographics.

A&A is a supply chain management market research and consulting firm specializing in strategic planning, logistics outsourcing, competitive benchmarking, mergers and acquisitions, 3PL service/cost benchmarking, and supply chain systems evaluation and selection. Armstrong & Associates publishes *Who's Who in Logistics and Supply Chain Management–The Americas* and *Who's Who in Logistics and Supply Chain Management–International.*

This white paper compares and contrasts carrier and driver issues in the EU and U.S. markets.[5] It blends market research conducted by Armstrong & Associates with experiential knowledge and presents procurement considerations that apply to each trade region. A companion paper will examine issues surrounding procurement events, route guide construction, and contract awards.

CARRIER DEMOGRAPHICS AND SIZE

In Europe and the United States, large multinational companies typically set a maximum number of core carriers they will use. While one might expect large shippers to work primarily with the largest carriers, virtually none can limit their strategy in this way and obtain enough equipment for their shipments. The reason: small carriers—who do not work directly with global companies—own most of the equipment in both the EU and U.S. markets (see Figure1).

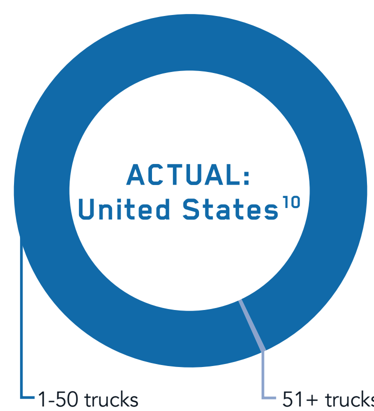
Some of the factors in carrier size and demographics are similar in both markets:

- **Small carriers** tend to work with small, local shippers, and use their own equipment to provide truckload services. Or, they accept subcontracted work from large carriers or 3PLs. Typically, large carriers and 3PLs obtain freight awards and then work with small carriers to fulfill their commitments.
- **Medium carriers** dominate national and regional markets. Most serve medium to large customers. They may provide truckload, networked transportation, and warehousing services in small geographies.
- **Large carriers** (international network transport providers or 3PLs) in both markets prefer freight with low demand volatility and high density corridors, and they prefer to work directly with the shipper. In the EU road markets, large carriers are the biggest players, offering LTL, truckload, and warehousing services; they may subcontract as much as 90% of the shipments they manage to small carriers.[6] In the U.S., most large carriers manage shipments on their own assets. Some also have brokerage divisions to supplement this activity and cover freight awards. Others grow their fleets by contracting owner operators to work exclusively with them so they have "functioning assets" rather than brokered assets.

FIGURE 1:
For-Hire Carriers & Equipment

90% of shipments managed by large EU carriers are actually subcontracted to small hauliers.[8]

90% of EU carriers have 1-5 employees.[9]



61% of all U.S. equipment belongs to owner operators.[11]

22% of all U.S. equipment belongs to the 200 largest for-hire carriers.[12]

As stated previously, small carriers own most of the equipment in the EU and U.S. transportation markets, but large shippers want to limit the number of carriers they manage. Using one of the large carriers or 3PLs may be the only way for shippers to aggregate the largest pool of available equipment in their markets while leveraging freight volumes for more advantageous rates.

Despite the many similarities between carrier demographics and size, there are differences that have a bearing on procurement bids, route guide construction, and contract awards in each region. For instance, small carriers do cooperate with major asset and non-asset players in both regions, but overall cooperation of smaller U.S. carriers does not match the levels involving small carriers in Europe. Independent U.S. owner operators may sign exclusive contracts with a carrier for one year or operate without structured agreements, as their business model warrants. This factor and others are explored in Part 2 in this white paper series.

EQUIPMENT AND FUEL

Equipment considerations and fuel differ substantially from one market to the other. These differences have significant implications for shippers and transportation budgets.

First, equipment and pallet sizes are dramatically different (see Figure 2). EU trucks are shorter in length, width, and height than their U.S. counterparts, and EU pallets are 22.5 percent smaller than U.S. pallets. In addition, fuel as a percent of total carrier operating costs is higher in Europe. Carriers operate on thin profit margins in both regions. However, the cost of fuel has a significantly greater impact on EU carriers' costs, and is passed along in their rates to EU shippers. Combine the higher fuel costs with trailers that have less space overall than U.S. equipment, and the freight cost per each (pallet, weight unit, case) will likely be higher in Europe than in the U.S.—a consideration for shippers as they plan and compare transportation costs between the two regions.

FIGURE 2:

Comparing the EU and U.S. equipment and fuel

COMPARISON POINT[13]	EUROPEAN UNION	UNITED STATES
Most common equipment	13.6 m L x 2.45 m W x 2.5 m H (44.6 ft L x 8.0 ft W x 8.2 ft H)	16.2 m L x 2.6 m W x 2.7 m H (53 ft L x 8.5 ft W x 9 ft H)
Number of pallets	33 euro pallets or 26 UK pallets	26
Common pallet size	120 cm x 80 cm (47 in x 32 in)	122 cm x 102 cm (48 in x 40 in)
Trailer to tractor ratio	1.35	2.89
Fuel as a percent of a carrier's fuel expenditures/costs	50% Minimum[14] 65% Maximum 59% Average	8% Minimum[15] 64% Maximum 25% Average

The differences in the trailer to tractor ratio also have implications for drop trailer strategies. While many EU shippers want drop trailer programs, the EU trailer/tractor ratio is close to parity. The EU carrier market is largely skewed toward small carriers with just a few pieces of equipment; without many assets to deploy, smaller carriers typically don't participate in drop trailer programs because their networks are seldom dense enough to support the turns on trailers.

In contrast, larger U.S. carriers appear to be increasing their trailer to tractor ratio to deal with the combination of the driver shortage, the tightening of hours of service (HOS) regulations, and the mandate that all carriers must use electronic logging devices (ELDs) by December 2017 (see the section on Drivers, page 9), which will provide closer HOS management. By employing drop trailers and other strategies, U.S. carriers can make the maximum use of hours for a limited number of drivers and reduce the number of hours lost to excessive loading and unloading times. The cost of keeping another trailer asset on the books is a more manageable cost for U.S. carriers than driver turnover is.

Key market insights

- Because EU equipment is smaller overall than U.S. equipment and fuel as a percent of total carrier operating costs is higher in Europe, EU shippers tend to pay a higher cost per unit to ship than their U.S. counterparts.
- Drop trailers are hard to find in Europe, but are becoming more of a strategy for U.S. carriers.

CABOTAGE

Cabotage regulations apply in both regions. However, the way cabotage is employed differs in each region, with an impact on how shippers approach truckload procurement.

EU cabotage

Most (66%) of the EU's total tonne-km that are transported by truck are moved by in-country hauliers.[16] Local drivers tend to transport freight across short distances, sometimes with multiple deliveries. A small but growing percentage (currently 1.8%) of tonne-km is hauled through EU countries using cabotage truckload.[17] Under cabotage rules, a driver can carry 3 loads in 7 days in a destination country; after that, they can either return empty to their home country or take a cross-border shipment. Most cabotage occurs in countries that share a common land border with cabotage hauliers.[18] At 12 million cabotage shipments, Germany has the highest volume, followed by France at nearly 8 million shipments.[19]

It becomes important to consider cabotage activity in connection to Europe's economic growth, which has been relatively slow in the last decade. In addition, during that time, Central European countries experienced high unemployment rates; many people in these countries became truckload service providers. For instance, drivers from Poland provided cabotage across the continent, exploiting their lower costs in the domestic markets of Western Europe.

EU shippers benefit from cabotage and the influx of Central European drivers in several ways. Cabotage makes drivers and equipment more readily available throughout Europe. Using technology, even small carriers can easily find freight outside their home territories, which makes it easier for shippers to find carriers who prefer their lanes and product types. Cabotage also enables fierce competition between carriers from Central and Western Europe, holding wages down—along with costs for EU shippers.

Because truckload markets and economies are dynamic, shippers should keep a careful eye out for economic factors that could impact cabotage activity. For instance, as the local economy heats up in Poland, more drivers may prefer to ply their trade closer

Definition

Cabotage: Transporting goods between two places in the same country by a transport operator from another country.

Key market insight:

- EU cabotage makes drivers and equipment more readily available throughout Europe. EU shippers can more easily find carriers who prefer their lanes and product types, and see generally stable rates.

to home. In that event, there may be fewer Polish drivers willing to provide cabotage services. The result for shippers in Western Europe may be less capacity availability and higher truckload rates.

U.S. cabotage

Cabotage is much more restrictive in North America than it is in Europe.

At the Canada-U.S. border, U.S. motor carriers can pick up shipments in the U.S. and deliver to one consignee in Canada; they may pick up a shipment in Canada and deliver it back to the U.S. But U.S. carriers cannot travel to Canada, pick up a load in Canada, and deliver in Canada. Canadian carriers are constrained the same way in the U.S.; Canadian carriers can deliver international loads from Canada into the U.S., but Canadian drivers may not deliver intra-U.S. freight unless they are U.S. citizens or can otherwise meet INS requirements.[20]

Cabotage works differently at the Mexico-U.S. border. U.S. carriers can pick up or deliver to a border zone near the U.S.-Mexico border, but cannot make pickups or deliveries within Mexico beyond this. The same is true in reverse for carriers from Mexico who enter the United States.

Some cabotage does occur at the southern border. A Mexican citizen may possess a U.S. work permit that allows him or her to live and/or work in the U.S. They can work for a trucking company incorporated in Mexico, or work for a U.S.-incorporated company. And there are some dual-nationality trucking companies that own both an American entity and a Mexican entity and operate the same tractor for both companies.

These factors tend to impact U.S. truckload procurement professionals in a variety of ways. First, cabotage is not robust enough between the U.S., Canada, and Mexico to provide additional truck supply in periods of heavy shipping demand.

Second, U.S. shippers tend to choose a preferred method for truckload shipping—transload or direct—across the Mexico-U.S. border. Each has its own implications for insurance, capacity, cost, cargo handling, and security. For example, carriers from Mexico are not obligated to carry cargo insurance in Mexico; U.S. carriers are.

Transloading or direct service?

When shipping to and from Mexico, there are two distinct methods of truck transportation across the U.S.-Mexico border.

- **Transloaded** product is transferred from one trailer or container to another at a warehouse or terminal before crossing the border and being taken to the final delivery.
- In **direct service**, a trailer or container crosses the border on the same trailer or container from origin to destination.

Regardless of whether a shipment is transloaded or sent by direct service, these factors apply:

- Customs requirements for both the U.S. and Mexico are exactly the same.
- Any vehicle can be stopped and unloaded for inspection.
- There will be two brokers of record: one for U.S. Customs and one for Mexico Customs.

To cover the value of their freight while it's in Mexico, many U.S. shippers add a separate endorsement on their global insurance policy for cargo insurance.

As previously noted, U.S. active truck utilization hovers at around 95%, according to FTR. With freight volumes and available trucks relatively equal, all it takes for equipment shortages to occur is a surge in demand. With somewhat restricted cabotage rules in place, U.S. shippers do not have ready access to carriers and equipment from other countries to assist with temporary demand surges.

In Part 2 of this white paper series, the issue of peak seasons and its impact on procurement events and contract awards will be explored in greater detail.

Key market insight:

- With more restrictive cabotage between the United States, Canada, and Mexico, U.S. shippers cannot access additional truck supply from other countries for periods of heavy shipping demand.

DRIVERS AND HOURS OF SERVICE

Drivers are aging rapidly in both regions. There is a shortage of new entrants to replace older drivers and no systematic approach in either region to develop new drivers.

FIGURE 3:
Comparing drivers and hours of service

COMPARISON POINT[21]	EUROPEAN UNION	UNITED STATES
Drivers per tractor	1.07	1.14
Mi/km per vehicle per year	70,000 mi/112,654 km	125,000 mi/201,168 km
Loaded miles	86-87% loaded miles	85-90% loaded miles
Operating days	229	286
Driver work days	215	286
Work hours per day	9.8	14
Hours for pickup/delivery per load	3.9	3-4
HOS restart rule	45 hour break every 2 weeks[22]	34 hour break weekly[23]
How HOS are logged	100% of drivers must use digital tachographs	100% of U.S. drivers required to use electronic logging devices (ELDs) by December 2017

In the EU, 62% of drivers are over age 40; 48 is the average age of German hauliers.[24] The UK Freight Transport Association describes a 25% fall in the number of applications for licenses between 2008 and 2015.[25] Experientially, some EU carriers report difficulty in finding drivers for their trucks.

In the United States, the American Trucking Associations reports that the average age of truck drivers is 49.[26] If the trajectory of current conditions continues, ATA anticipates the driver shortfall could go as high as 175,000 by 2024.[27]

While both regions share an aging workforce, there are a few differences between regions. In Europe, each of the 28 EU countries has its own labor laws, with implications for their drivers' hours of service. U.S. labor laws are standardized across the country. All U.S. drivers can drive up to 11 hours per day, with scheduled breaks. Drivers can be on duty for up to 14 hours per day, and the additional time may be devoted to non-driving tasks, such as waiting to load and unload.

To measure HOS compliance, the EU has required tachographs in all trucks since 1985; since 2006, tachographs have been digital. Drivers can be fined for not having a working tachograph to measure HOS to ensure compliance with regulations.

While the United States has lagged behind the EU in measuring HOS, electronic logging devices (ELDs) will be required in every truck in December 2017. Some analysts believe that the new ELD requirements could reduce capacity by as much as 4 percent, leading to higher rates; others believe the effect will be negligible. In any case, 27 percent of U.S. carriers already use ELDs in all their equipment; 12 percent more use a combination of paper logs and ELDs.[28]

Key market insights:

- Each of the 28 EU member countries has its own labor laws; U.S. laws are standardized for driver working hours for clearer shipper-carrier communications and expectations.
- Since 2006, the EU has required digitized tachometers in all vehicles to measure HOS, making it easier to ensure driver compliance with HOS rules. The U.S. lags, but will require ELDs in all vehicles by December 2017; more accurate measurement of HOS compliance could reduce capacity by as much as 4%, according to some estimates.

CONCLUSION

Part 1 of this white paper series introduced these key carrier and driver insights that influence truckload procurement in the EU and U.S. markets:

1. EU shippers tend to pay a higher cost per unit to ship than their U.S. counterparts.
2. Drop trailers are hard to find in Europe, but are becoming more of a strategy for U.S. carriers.
3. Fuel as a percent of total carrier operating costs is higher in Europe.
4. EU cabotage makes drivers and equipment more readily available throughout Europe. EU shippers can more easily find carriers who prefer their lanes and product types, and see generally stable rates.
5. With more restrictive cabotage between the United States, Canada, and Mexico, U.S. shippers cannot access additional truck supply from other countries for periods of heavy shipping demand.
6. Each of the 28 EU member countries has its own labor laws; U.S. laws are standardized for driver working hours for clearer shipper-carrier communications and expectations.
7. Since 2006, the EU has required digitized tachometers in all vehicles to measure HOS, making it easier to ensure driver compliance with HOS rules. The U.S. lags, but will require ELDs in all vehicles by December 2017; more accurate measurement of HOS compliance could reduce capacity by as much as 4%, according to some estimates.

Part 2 of this series will continue to compare factors that influence procurement events, route guide construction, and contract awards. Transportation buyers can use these two reports to develop more effective truckload procurement strategies that are adapted for each of these two key trade regions.

NOTES

1. Maureen Farrell, "2015 Becomes the Biggest M&A Year Ever," *The Wall Street Journal*, December 3, 2015.
2. FTR, "Freight Focus: Trucking Update," June 2016.
3. "Weight of Shipments by Transportation Mode: 2007, 2013, and 2040," U.S. Department of Transportation, Bureau of Transportation Statistics and Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 3.5, 2015.
4. Armstrong & Associates/Fraunhofer's Top 100 in European Transport and Logistics Services.
5. While this white paper focuses on the U.S. truckload market rather than on North America as a whole, it presents regulations that affect truck transportation for trade between the United States, Canada, and Mexico. This discussion is especially useful for comparing cabotage in North America with cabotage between EU countries. See page 8.

Carrier demographics and size

6. European Commission, "Task A: Collection and Analysis of Data on the Structure of the Road Haulage Sector in the European Union," 3 February, 2014.
7. While exact size segmentation data of the EU for-hire market is not available, there are 250,000 Community Licences in EU countries. Experiential information suggests that it is similar to the U.S. market, with the vast majority of carriers owning 50 trucks or fewer. Some of the Community Licences are private fleets focused on local, short haul, or national distribution, but most seem to be for-hire, focused on international moves.
8. European Commission, "Task A: Collection and Analysis of Data on the Structure of the Road Haulage Sector in the European Union," 3 February, 2014.
9. Armstrong & Associates/CSCMP. Employee counts for these carriers range from an average of 2 to 17 employees.
10. C.H. Robinson analysis of comprehensive data on 206,667 for-hire truckload carriers from the Federal Motor Carrier Safety Administration, U.S. Department of Transportation, 2015. Analysis showed that 50% of all available U.S. equipment belongs to private fleets, bus companies, the government, and "other." The rest is broken down in this chart; 22% of all U.S. equipment belongs to the 200 largest for-hire carriers.
11. Armstrong & Associates/CSCMP.
12. Ibid.

Equipment and fuel

13. Comite National Routier (www.cn.fr/en), Armstrong & Associates, Inc., Carrier Annual Reports; EU (for HOS Restart Rules).
14. U.S. Energy Information Administration, www.eia.gov/tools/faqs, "How much tax do we pay on a gallon of gasoline and diesel fuel?" July 2016.
15. European Commission. "Task A: Collection and Analysis of Data on the Structure of the Road Haulage Sector in the European Union," 3 February, 2014, and Transport Intelligence proprietary data, November 2016.

Cabotage

16. Transport Intelligence, "European Road Freight Transport 2015."
17. European Commission, "Task A: Collection and Analysis of Data on the Structure of the Road Haulage Sector in the European Union," 3 February, 2014.
18. "Road freight transport statistics-cabotage," Eurostat Statistics Explained, December 2015.
19. Ibid.
20. While cabotage with Canadian carriers is allowed by the U.S. Department of Transportation, U.S. Immigration and Naturalization Service [INS] does not allow non-U.S. workers to work inside the United States.

Drivers and Hours of Service

21. Comite National Routier (www.cn.fr/en), Armstrong & Associates, Inc., Carrier Annual Reports; EU (for HOS Restart Rules).
22. There are a variety of EU and country regulations about breaks and hours.
23. The U.S. HOS Restart Rules are currently on hold.
24. European Commission, "Task A: Collection and Analysis of Data on the Structure of the Road Haulage Sector in the European Union," 3 February, 2014.
25. Transport Intelligence. "European Road Freight Transport 2015."
26. Bob Costello, "Truck Driver Shortage Analysis 2015," American Trucking Associations, October 2015.
27. Ibid.
28. FMCSA, "Attitudes of Truck Drivers and Carriers on the Use of Electronic Logging Devices and Driver Harassment," U.S. Department of Transportation, November 2014.

ABOUT US

At C.H. Robinson, we see things differently. We believe in accelerating global trade to drive the world's economy. Using the strengths of our people, processes, and technology, we help our customers work smarter, not harder. As one of the world's largest third party logistics providers (3PL), we provide a broad portfolio of logistics services, fresh produce sourcing, and managed services through our global network. In addition, the company, our Foundation, and our employees contribute annually to a variety of organizations.

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Teleportboulevard 120, 1043 EJ Amsterdam The Netherlands | info-europe@chrobinson.com | www.chrobinson.com