



DISTRIBUTED TECHNOLOGY



AUTOMOBILE INDUSTRY

# Shelf for Automobiles

Shelf is the online, asset distribution and sub-contracting network to sell any type of asset through auctioning. It provides a revolutionary B2B model of outsource, where single asset can be dispensed to n-number of sub merchant's e-commerce or re-marketing websites and traded simultaneously in real time, without central administrator or bidding server.

Blockchain technology as it's foundation frees seller from centralised approach by allowing multiple counterparts to 'plug in' to a protocol. Effectively, blockchain creates the ledgers for these platforms, which are updated as soon as transactions, bids occur in the network. Multiple trading platforms, across the globe, provide a much wider pool of buyers, perfecting competition.

It's a perfect tool for sellers to publish their items and set auctioning format through distributed channel while maintaining neutrality, where any third party can act as an independent agent, only competing with other service providers in gathering buyers around their brand, through benefiting from registration fees, commissions and additional service provision.

Car auctioning is competitive and user engaging, as an asset liquidity is high due to demand, plus purchase price affordable. Overall this should provide a notable traffic for re-marketing websites and open additional source of income through registration fees.

Shelf network will reduce the networking costs and provide truly global infrastructure for settlements. On the other hand, open access and wider pool of inventory will allow any re-marketing and re-selling portal to concentrate on user experience and offer localised, tailored service to wider audience.

On a procedural level, Shelf Network does not change the existing fundamental practice, but widens and accelerates the deal making, by automating the sub-contracting process and distributing assets for trade to multiple counterparts.

Currently, participation in online car auctions requires the pre-payment of deposit and registration fees. Shelf Network, due to its distributed architecture allows the confirmation and smart contract based transfer of such fees. Third parties such as: Banks, Payment processing companies validate the registered participant's payments and allow them bid for a specific lot. Shelf provides a specialised Keys for integrated financial institutions and charge them per each transaction within the network.

Additionally in some cases, there is a commission payment of around 1-3% of the asset's selling price to the sub-agent (re-seller) as a reward, that is automatically transferred from deposit amount to the agent. potentially Shelf network can as well take a small portion from this commission premium.

As of lot deployment, integration and access to inventory pool is free of charge, and contributes to steady growth of the Shelf Network.

## Inventory supply

**Off-lease:** vehicles returned to the financial institution at the end of a lease term. Auctions are usually the only venue for such financial institutions to dispose of a large volume of end-of-lease returns.

**Off-rental:** rental companies normally replace their fleets once a year, releasing a flood of late-model cars to the secondary market. Like the big financial institutions that underwrite car leases, rental companies also rely on auto auctions to sell off their used inventory. These vehicles tend to be well maintained and driven for only one year.

**Company/fleet cars:** companies of varying sizes own or lease cars, trucks or vans that they typically keep for two or more years, although it is not uncommon to see current year models sold at the auctions.

**Repossessed:** vehicles can be voluntarily or involuntarily repossessed by financial institutions or state entities for delinquency or another reason for recall. Auto auctions are again the bank's and governmental repos only option for deliverance. Repossessed vehicles can feasibly sell for less because the financial institution disposing of them only seeks to offset its losses.

**Trade-in:** dealer inventory that is ageing or does not meet their profile. Traded-in cars may have useful extras and sometimes even after market modifications. The overall condition of such vehicles varies greatly. Some may be considerably older and out of warranty.

In 2015, approximately 10.22 million used vehicles entered the European auction market. Overall around 50% of the used cars sales are conducted through auctioning process and that is a significant index.

(In millions of units)	Total Wholesale	To Auction	Auction Share
Dealer wholesale units	13.29	6.13	46.1%
Off-rentals	1.66	0.89	53.8%
Off-lease units	2.55	1.20	47.0%
Repossessions	1.60	1.29	81.0%
Other*	1.41	0.70	50.0%
<b>Total</b>	<b>20.51</b>	<b>10.22</b>	<b>49.8%</b>

\* Others include commercial and governmental fleet

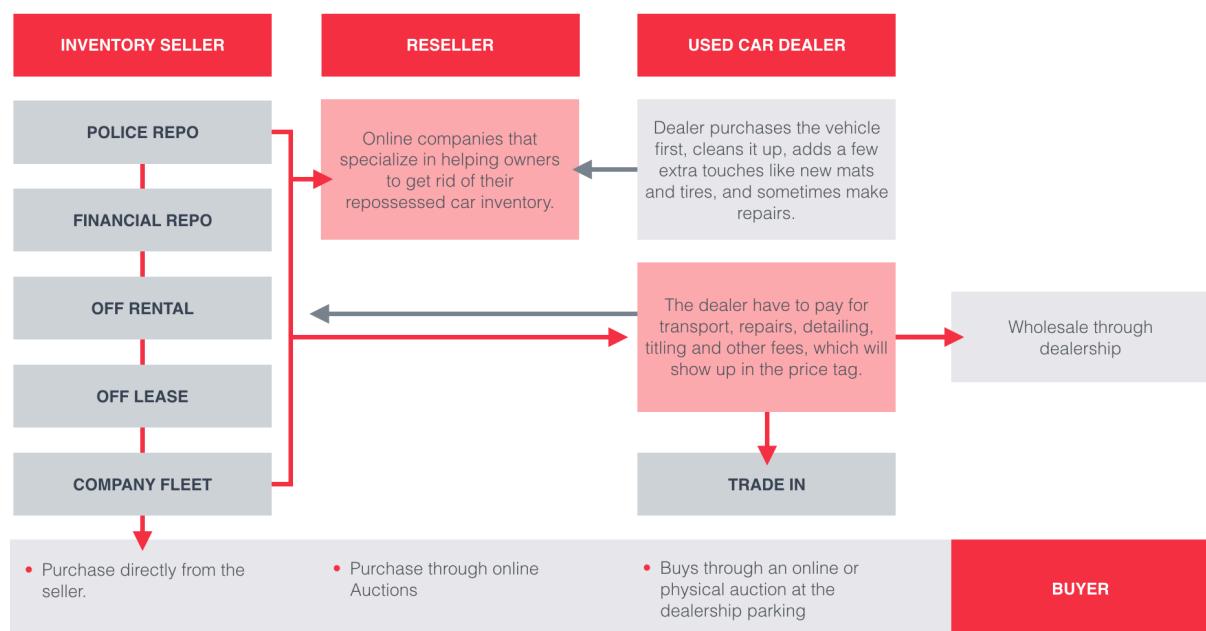
Source: Manheim Consulting

## Industry chain

Shelf network will provide a universal tool for inventory sellers that will allow to partner and consolidate wider pool of re-selling and re-marketing online services, and provide everyone an equal, open access to selling vehicles. Such unification will foster the re-seller (marketing) industry and will provide direct access for buyers from any part of the world who are price sensitive and are looking for companies that move the inventory from lender to buyer without taking ownership.

On the other hand used car dealers that are today more location based and partner only with several inventory sellers and does not have access to wider pool, will benefit from open catalogues and automated deal making with the re-sellers. For most dealers, auction cars make up 30 percent or more of their used vehicle inventory.

Selling through Shelf distribution Network can be useful for used car dealers as well, providing **trade-in** vehicles for selling and allowing re-sellers and re-marketing businesses to partner in auctioning process.



The advantage of working with a reseller service is that these companies often keep up a standard for the condition of the cars. They may even take the initiative to clean and detail each repossessed vehicle and make sure the cars are running well. Another advantage is that, because sellers do not take ownership of the vehicles, they feel no great pressure to add a high margin to the price tag. In general, they would rather move a lot of inventory quickly, at a small markup, than take the time to make a large profit on each car.

Reseller businesses operate as smart service online companies, that commercialise more on transportation fees of the vehicles, they offer more options in terms of pre and after inspection service and sell proprietary packages such as insurance, warranty, car repair discounts and etc.

Shelf network, through providing equal opportunities of auctioning same vehicles on multiple re-selling portals will shift the entire competition towards the service provision side and increase the engagement and trust towards online car dealing among the buyers.

## Why Georgia and Eastern Europe

It is completely natural that majority of the used cars flow from western Europe to eastern world and form a significant additional layer of re-export businesses. Considering the location and logistical potential, Georgia has become a gateway country and the regional leader in vehicle re-export business and total market size of the industry is around 800,000,000 USD. Average annual growth of the vehicle re-export business is 10%.



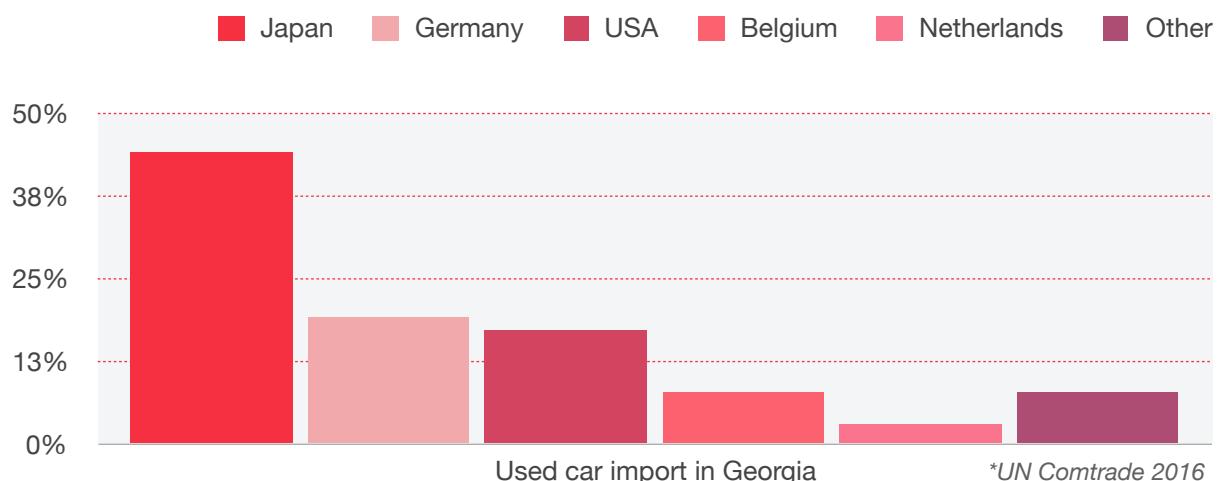
Over the years, eastern country dealers have formed as a pure re-marketing and transportation companies, and car dealing has become the major activity even among the sole proprietors. Business process is built on JIT logic and high liquidity of the asset, so they concentrate on online purchasing, moving inventory quickly, and due to a small markup are price sensitive.

Trend shows that there is a huge demand on the salvage cars as well, sold by auctioning by insurance companies in US and Japan, this is caused due to the lower costs of repairs in eastern countries.

So providing direct access to mid-range priced inventory will accelerate the deal making process and overall vehicle selling for the companies in the west that are stocking up the inventory and are unable to reach out to the wider audience.

## Market trends

For the past few years, used car market in Georgia was mostly supplied by Japanese auctions. Auto auctions are the most popular method to sell used vehicles in Japan and looking at the statistics show that around 44% of the supply was from Japan, followed by Germany 19% and USA 17%.



Since the January of 2017, the new legislation was adopted by the government of Georgia that will change the entire market and shift it more to western auctions and car suppliers.

- Importing right side steering wheels should be minimised and abolished in 2 year period.
- The customs clearing fee of right wheel cars are tripled in size.

Same type of legislation has being adopted in Azerbaijan and custom clearing easing passed for newer cars in Ukraine, that overall will increase the demand of newer, 2-3 years old used vehicles that exactly are re-sold in the off-leasing, off-renting and corporate fleet auctions.

## Market entry strategy

At the first phase of product launch it is important to consolidate existing re-marketing and re-selling e-commerce websites in Gateway countries such as Georgia, Ukraine and Azerbaijan. To allow their local portals displaying inventory and registering users to participate in auctions.

### Re-seller / re-marketing side:

Currently we have mobilised major e-commerce, re-marketing companies, that under signed MOU's agree to integrate and participate in Shelf network initiative.

Partner	Country	Daily visitors	Average monthly
Myauto.ge	Georgia	86,738	1,146,793
Mycar.ge	Georgia	10,078	203,469
Carauction.ge	Georgia	5,063	170,043
999.md	Moldova	160,447	1,877,059
Auto.az	Azerbaijan	75,042	940,420
Cars-az.com	Azerbaijan	12,201	122,923

The integration of e-commerce portals should continue not only in eastern European countries, but expanded to western re-marketing portals, that currently due to the centralised nature of auctioning are limited in inventory and display maximum of 500-2,000 vehicles per month. **List of companies**

**Inventory suppliers:**

The main source of used automobile supply is from Germany and western European countries, major supplier companies are leasing and financial institutions who retain part of vehicle inventory due to unpaid liabilities or after the end of leasing terms. Corporate fleets and off-rental cars are more scattered and require individual agreements with such companies to accumulate the supply volume.

Besides from the western suppliers, there is a significant space to supply inventory from internal market players as well, for example we have already agreed with 2 leading Banks in Georgia, both traded on London stock exchange and their leasing departments, are ready to publish inventory, including property through Shelf Network.

Partner	Country	Asset value to sell: USD
TBC Bank JSC	Georgia, Israel, Azerbaijan	160 million
Bank of Georgia JSC	Georgia, UK, Hungary, Turkey	230 million

Another significant source of inventory on local markets are Microfinance companies, who issue short-term loans and take vehicles as collateral, such businesses are dominating eastern European markets and profit from high margins of profit. Considering the Georgian case, we have as well a preliminary agreement with Ministry of Finance, that is responsible of selling arrested vehicles, repossessed cars and governmental fleet through auctioning. Last year's revenue of such auctions were around 30,000 units.

\* This case is provided as a single asset trade example between west European and eastern countries and serves as a preliminary launch strategy that requires minimal initial investment, provides a self sustainable platform and creates a precedent of cross national trades, by using distributed bidding technology.

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