

## 1) Customer Design Journey



Aurora's target customers are logistics companies, and their main challenge is finding truck drivers for transportation due to shortages in the industry. The problem stems from several factors, with the aging demographic of truck drivers being the most

critical. As older drivers retire, there aren't enough new drivers to take their place. Additionally, the demanding lifestyle of truck driving, including long hours, time away from home, and irregular schedules, dissuades many potential drivers. Aurora's autonomous driving technology can significantly alleviate this problem.

A transportation company owner may come across Aurora's ad in magazines while waiting at a service store for truck service. They might also discover Aurora while browsing the internet, reading forums, or seeing ads. Once interested, they can seek more information by visiting a store, contacting the sales team, or exploring the website. This way, they learn about Aurora's solution to driver shortages.

Additionally, word-of-mouth recommendations from other industry professionals who have successfully implemented Aurora's solution may also play a significant role in spreading awareness and driving interest in the product. As more transportation company owners learn about Aurora's innovative approach to solving driver shortages, the company's reputation and reach continue to grow, ultimately leading to increased adoption and impact in the logistics industry.

#### Challenges and their solutions:

During this process, transportation company owners may face several challenges. Firstly, they may encounter skepticism or resistance from traditionalists within their organization or the industry who are hesitant to adopt new technologies like autonomous driving. Convincing stakeholders of the benefits and safety of Aurora's solution may require overcoming these objections through education and demonstration of proven results.

Secondly, navigating the complex landscape of autonomous driving regulations and compliance standards can be daunting. Company owners may be concerned about legal implications, liability issues, and ensuring compliance with evolving regulatory frameworks. Addressing these concerns and providing clear guidance on how Aurora's technology meets industry standards is essential for fostering trust and confidence in the solution.

Lastly, integrating Aurora's autonomous driving technology into existing fleet operations and workflows may pose logistical and operational challenges. Company owners need assurance that the implementation process will be smooth and seamless, with minimal disruption to their business operations. Providing comprehensive support, training, and ongoing assistance during the transition phase is crucial for ensuring a successful adoption and integration of Aurora's solution.

The Ongoing Truck Driver Shortage - <https://www.rapidresponseatl.com/truck-driver-shortage-2023/>

## Value Curve Analysis

Characteristics	Low	Medium	High
Price		+	*
Performance		+ *	
Features			+ *
Customer Support			+ *
Customization		*	+
After Sales Service			+ *
Delivery		+ *	

Aurora -> +

Waymo -> \*

Aurora does not have a direct competitor in the autonomous fleet of trucks for goods transportation, but both Waymo and Aurora aim to make vehicles autonomous. Regarding pricing, Waymo uses licensing agreements and service contracts with companies interested in adding autonomous driving technology, while Aurora offers a subscription-based model. Customers make a one-time hardware purchase and then pay yearly for software, making it more affordable. In terms of performance, autonomous systems prioritize safety over speed, resulting in cautious driving behavior and slower reactions compared to human drivers. Aurora is more customizable than Waymo, offering tailored solutions for different client needs, vehicle types, and fleet sizes. Waymo's offerings are more standardized and less adaptable.

Aurora & Waymo both provide comprehensive after-sales service, including regular updates, maintenance, and customer support to ensure the smooth functioning of their autonomous driving solution. Autonomous driving solutions offer a wide range of features designed to enhance safety, efficiency, and performance. They both provide dedicated customer support to assist clients with any inquiries, technical issues, or customization requests. While Aurora & Waymo strives for efficient delivery, one drawback is that customers may experience wait times due to high demand or logistical challenges due to bulk orders, potentially leading to delays in receiving the autonomous driving solution.

## 2) Channel Design Template

### Segment: Truck owners

Channel Function		Channel Type					
		Marketing	E/N	Selling	E/N	Distribution	E/N
Product/Service Delivery	Int.			Sales Operations			
	Ext.					Logistics Partners	
Customization	Int.	R&D Team					
	Ext.					Retrofitting Partners	
Quality Assurance and Security	Int.	Quality Control Department					
	Ext.			Certification Agencies			
After—Sales Service and Support	Int.					Customer Support	
	Ext.					Service Network	
Availability	Int.	Supply Chain Management					
	Ext.					Manufacturing Partner	

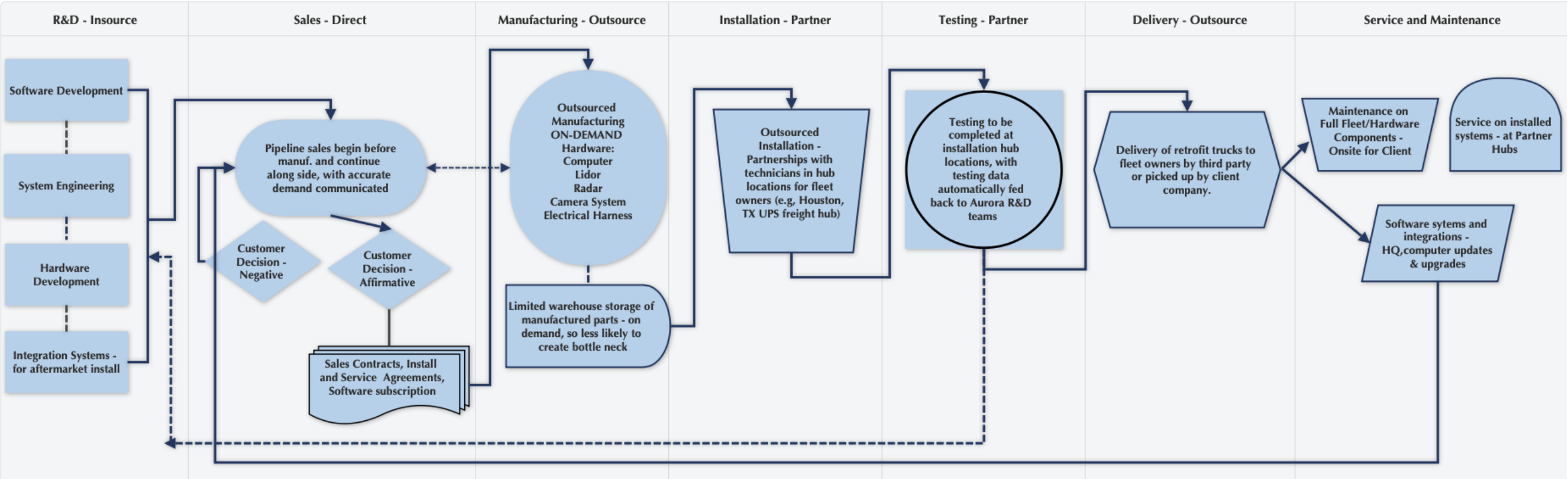
- **Product/Service Delivery:** Aurora's sales operations team is responsible for the direct sale and initial setup of automated driving systems for truck owners. The team ensures that every sale is personalized to meet the needs of the customer, leading to the successful delivery of the product. External logistics partners are companies specializing in transportation and logistics that physically deliver autonomous systems to customers, ensuring timely and safe delivery of hardware components.
- **Customization:** The R&D team develops and customizes the autonomous driving technology in-house to the specific requirements of the customer, ensuring that each system is optimized for the individual truck that will be installed. Outside Modification partners are outside experts who perform Aurora technology modifications on site on trucks that may require unique modifications or specific installations that cannot be done at Aurora facilities.
- **Quality Assurance and security:** The internal quality control department continuously monitors and tests autonomous driving systems to ensure they meet the highest quality and safety standards before being delivered to customers. Certification bodies are third-party entities that provide additional assurance through independent testing and certification of autonomous driving systems, giving customers confidence in the safety and reliability of their products.
- **After-Sales Service and Support:** Customer Support is committed to providing customers with ongoing assistance, troubleshooting, and post-purchase updates to ensure that any issues are resolved quickly. The service network represents external service providers who provide on-site support, scheduled maintenance or

emergency services to customers in areas where Aurora may not have a direct presence.

- **Availability:** Aurora's internal supply chain management oversees the entire supply chain, ensuring that all components are in stock and ready to be assembled and delivered as needed. A manufacturing partner will be an external entity that can achieve the production availability required to meet market demand.

This channel design is designed to align with Aurora's approach to providing comprehensive, high-quality autonomous driving solutions to truck owners. It emphasizes internal control over key aspects such as sales, customization, and quality, while still considering external partnerships to expand product coverage and support networks.

3) Process Flow Diagram



Aurora will innovate their process by outsourcing manufacturing of hardware/purchasing through third party suppliers on-demand. This will allow them to reduce warehousing but will also present challenges in their supply chain if manufacturers cannot maintain capacity for their orders if there are fluctuations. All R&D will be done internally, with an emphasis on real-time improvements as installations are tested and delivered. Aurora will continue to receive data from fleets using their technology, and through continuous improvement release new capabilities and gain additional sales for as clients convert fleets. Along with R&D, direct sales relationships and software service and upgrades are key to Aurora's success. Each process and subprocess as the potential to inform development of their retrofitting integrated hardware and software, as well as bringing in new customers.

#### 4) Key Cost or Revenue Drivers

- **Revenue Drivers:**
  - **Performance-Based Pricing:** Building on the B2B model where logistics and freight companies pay for Aurora's autonomous driving technology, a significant revenue driver would be performance-based pricing. This involves payments based on mileage or the achievement of performance milestones, such as fuel efficiency, safety records, and delivery times, aligning costs with actual value delivered to the customer.
  - **Subscription Model:** Offering ongoing software updates, support, and fleet optimization consulting as part of a subscription model ensures a stable, recurring revenue stream. This approach is particularly appealing as it provides Aurora with consistent revenue while allowing customers to benefit from continuous improvements in autonomous driving technology.
  - **Custom Solutions and Hardware Sales:** Providing custom development for specific logistical needs and selling additional hardware components as technology evolves can serve as another revenue driver. This addresses the need for customization in the diverse logistics and freight industry, allowing Aurora to cater to specific customer requirements and generate additional income.
- **Cost Drivers:**
  - **Research and Development (R&D):** Given the high-tech nature of autonomous driving technology, R&D represents a significant cost driver. Continuous investment in sensor fusion, AI, and vehicle-to-vehicle (V2V) connectivity technologies is essential for maintaining competitive advantage and responding to evolving industry standards and customer needs.
  - **Production and Supply Chain:** The costs associated with producing sensor fusion hardware and maintaining a supply chain for both hardware components and software development are critical. Outsourcing hardware production can help contain costs, but it also requires careful management of supplier relationships and quality control.
  - **Customer Acquisition and Support:** The sales cycle for Aurora's solutions, including demos, consultation, customization, and installation, along with ongoing technical support, drives up costs. Efficiently managing these processes and ensuring high levels of customer satisfaction can mitigate these costs over time.

#### Strategies for Leveraging Drivers:

- **Maximizing Value through Performance-Based Pricing:** By aligning pricing with the value delivered, Aurora can incentivize companies to adopt autonomous driving technology, thus increasing willingness to pay. Demonstrating clear benefits in terms of cost savings, safety improvements, and efficiency gains will be key.
- **Enhancing Recurring Revenue:** Strengthening the subscription model with tiered pricing based on fleet size and service level can cater to a wider range of customers,

from small operators to large logistics companies. This approach ensures a diversified and stable revenue base.

- **Cost Management through Strategic Partnerships:** Collaborating with hardware suppliers, OEMs, and technology partners can spread R&D and production costs while accelerating innovation. Strategic partnerships may also open new revenue streams, such as co-developed solutions or licensing agreements.
- **Customer-Centric Approach to Sales and Support:** Streamlining the sales process and providing exceptional customer support can reduce acquisition and support costs. Utilizing digital tools for customer engagement and support can improve efficiency and customer satisfaction, leading to higher retention rates and lower cost-to-serve.

In summary, Aurora's strategy should focus on leveraging its technological edge and customer-centric approach to maximize revenue drivers while strategically managing and containing its cost drivers. This balanced approach will be crucial for sustaining growth and profitability as Aurora seeks to pioneer in the autonomous fleet market.