CarVDB: A Decentralized End-to-End Platform for the Automotive World

Whitepaper

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1. CarVDB EXECUTIVE SUMMARY

1.1. Introduction

CarVDB is building a new revolutionary technology which will change the conventional concept of how modern date vehicle trade, insurance services and maintenance should be done. As a first step we are moving it on the blockchain.

The functionality we are building will be a must not only for everyone in the automotive business but also for everyday users looking to buy or sell a car, get an insurance quote or schedule a service appointment.

What is more, our blockchain solution will not be limited only to the car industry. Motorcycles, trucks, boats, construction, industrial and agriculture equipment, all of those segments will be integrated into the CarVDB blockchain.

The key to success: A great idea, hard work, perseverance and patience. We have it all!

1.2. CarVDB Platform Overview

The CarVDB Platform in its present state was launched in the beginning of 2015 and has been undergoing constant upgrades ever since.

Introduced initially in the United States, the user adoption grew and we soon realized it's potential. Several months later the platform was translated and launched in Spain to form the two main platforms on the Internet:

www.carvdb.com   **www.micochenuevo.es**

With the rise of the blockchain technology and the increasing adoption of the idea of decentralized applications and smart contracts, we decided that there is much more that the CarVDB platform can offer to its users.

Therefore we revised the strategy and future development plan and redesigned the platform core around the blockchain technology, thus improving its functionality and preparing the introduction of new or enhanced platform modules like:
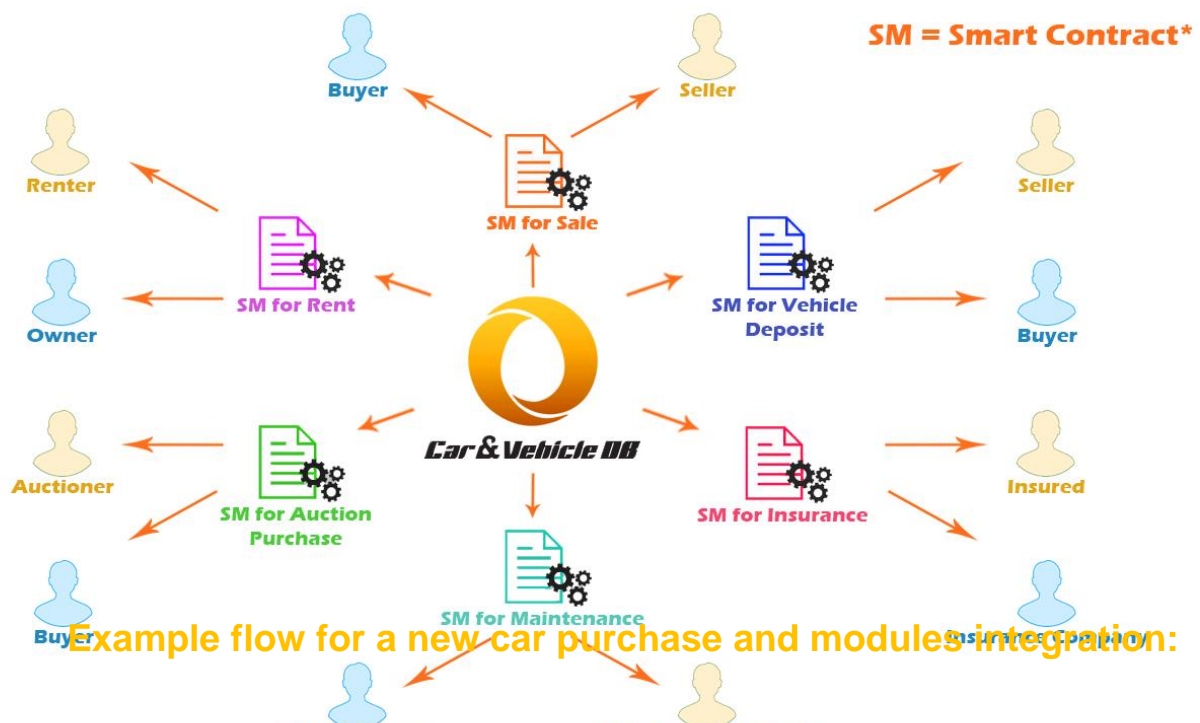
- **Decentralized Vehicle Marketplace** for free trade and rentals between private and professional sellers and buyers.
- **Free vehicle database searchable by VIN,** containing vehicle technical specifications, manufacturer information, maintenance history and reports, scheduled maintenance requirements, repair manuals and more.
- **Powerful Auction Platform**, allowing setup of timed and live auctions both by private individuals and auction houses.
- **Enhanced Insurance Platform,** wrapped around the concept of reducing the premium people pay and in the same time reducing the risk for insurance companies.
- **Fully Automated Vehicle Service Center solution,** aimed at improving the services provided by Vehicle Service and Repair Centers and increasing the customer satisfaction from the contracted vehicle maintenance activities.

Below is outlined the schematics of the new platform design and functionality:

The Platform will consist of 4 core modules:

Insurance Platform

Vehicle Marketplace

Car & Vehicle DB

Auction Platform

Vehicle Maintenance

Everything is designed to operate by Smart Contracts if users choose to:

SM = Smart Contract*

Buyer

Seller

Renter

Seller

SM for Sale

Owner

SM for Rent

SM for Vehicle Deposit

Buyer

Auctioner

SM for Auction Purchase

Car & Vehicle DB

SM for Insurance

Insured

Buyer

SM for Maintenance

Example flow for a new car purchase and modules integration:

Seller wants to sell his car & makes a registration

Seller places an ad

Vehicle Marketplace

Blockchain

Buyer needs a car

Seller

Car data is saved to blockchain

Buyer finds a car

Buyer

+10 CAR

CarVDB sends free CAR Tokens

Car is visible to buyers

Auction Platform

VIN Check Tool

History is fine.
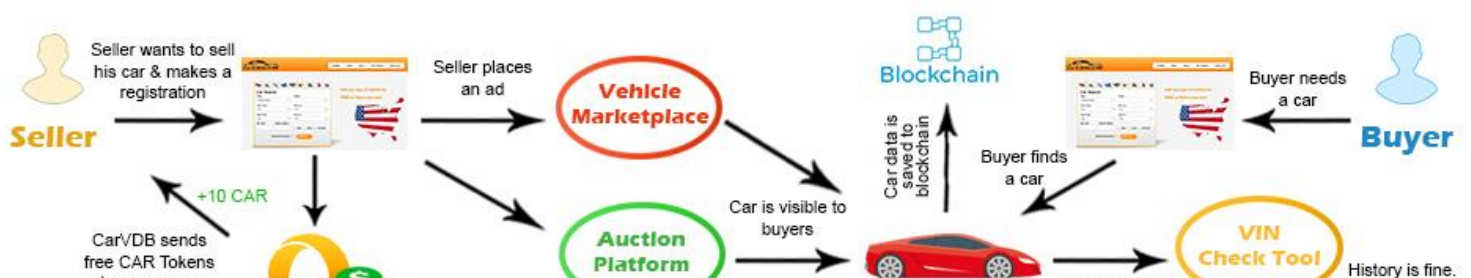
2. Problems to be addressed

The solutions that are currently being developed by our team, along with the ones in the pipeline, are addressing very specific problems that the car market industry has not been able to solve ever after the dot-com bubble.

Generally speaking, there has not been much (if any) innovation in the sector. All the solutions nowadays have basically the same business model as in the beginning of the Internet era. Indeed, the technology has grown, we now have JavaScript and Phyton, and Ruby, and PHP, and CSS, and WordPress, and so on but the better graphics and user interface hardly count as innovation. This is the normal evolution of the technology and everyone is playing it safe.

Clever people with a lot of potential to challenge the status quo just accept what is considered best or "working" at the moment without realizing there is so much more that can be done.

There are a lot of reasons why the innovation is stuck and although we are not going to review those now, we would like to make the following statement – there are possibilities for real breakthroughs in the way users interact with the technology and vice versa and CarVDB is aiming to do just that.

2.1. Problems for Vehicle Sellers

CarVDB is going to address the problems that both individual and professional sellers face when trying to market or sell a vehicle.

2.1.1. Individual Sellers

- **High advertisement cost**
  Placing an ad is often associated with high cost that is rarely justified. Sellers have to pay whether or not they manage to sell the vehicle through the website. It is custom for websites to offer additional "special functions" that cost even more and still do not guarantee successful sale.
  Some websites do offer free ad placement but users that choose the free option usually get limited functionality like less pictures to upload or and less ad visibility over the ads of users who have paid.

- **Too many websites to advertise**
  When it comes to place an ad sellers usually get puzzled when trying to decide which website to choose. There are at least five major classifieds websites dedicated to car sales only in US. Not to mention the other options if users are trying to sell an RV or truck, or a boat. If sellers have to place their ad on all of these, it will take immense amount of time, not to mention the cost.

- **Challenging user interface**
  Every website is different, hence functionality is different. For someone not used to the interface, placing an ad can be very challenging and time consuming. Finding the right field for each option takes times, not to mention that one and the same field might have different label on the different websites.
  There are many and various methods to add pictures, selecting options also vary – from checkboxes to select fields, radio buttons or free text type-in fields make the ad placing task quite complicated for the inexperienced user.

- **Advertise all equipment and options**
  In order to make a great ad a user has to fill in all the vehicle information like standard and optional equipment, car history (if known), write a description, etc. This can be a frustrating task especially if the seller is not quite sure where each option should be added. Forgetting to mark that an option is available narrows the potential circle of buyers that might be looking for a vehicle specifically with that particular option or functionality.

- **Scammers**
  Almost everybody who has tried to sell a vehicle by himself has experienced a scam attempt. Scenarios vary and scammers become more ingenious with every day passed. Lost time trying to figure out if the buyer is really interested in the vehicle is the least of the problems in such cases. Sellers might lose money or even their vehicles if the scammer manages to pull through the scam.

- **Timewasters**
  Another quite unpleasant thing to deal with are people with too much free time, not really interested in buying the vehicle or people who lack the money to pay the asking price. Statements like "I like the car but I am worried about the consumption" or questions like "Would you accept $16,000?" for a vehicle that is offered for $26,000 are quite common and really make the sellers wish they hadn't tried to sell the car on their own.

2.1.2. Professional Sellers

- **High advertisement cost**
  The advertisement cost for online ads that professional sellers have to pay is a big percentage of the total cost to advertise their inventory and is quite often not the only one. Prices vary depending on the number of vehicles advertised but it is not uncommon to pay up to $5000-$6000 for the right to advertise only on one website. If the websites are two or more, the price per year might be equal to the salary of the dealership owner. Quite frankly such cost is unjustified.

- **Difficult to manage cost**

It is not uncommon for dealers to get surprised by the monthly invoice for online advertisement and to have to pay an amount which is far greater than initially expected. Some websites do not offer good means of managing or predicating cost which of course is in their own favor but against the interest of their customers.

- **Too many websites to advertise**

  The fact that there are so many choices of where to advertise makes the life of dealers a nightmare. Some websites have better visibility than others but rarely dealers can decide for themselves whether the chosen website is good or not before becoming a paying member.

  In addition, dealers often have to choose between one website or the other as the cost to advertise on two or more places might become unbearable which ultimately limits the visibility of the inventory, therefore the sales.

  If cost is not an issue, then managing and updating vehicle ads across several platforms becomes a challenge and quite time consuming task.

- **Challenging user interface**

  The user interface might be also challenging to professional sellers especially if the vehicle is advertised across several websites. Fields with options and equipment have different names and order and are often not intuitively placed which makes the task for adding a new vehicle a real struggle. Adding, managing and arranging pictures for multiple vehicles can also be very challenging, an issue which many platforms fail to address.

- **Huge amount of time to publish and maintain ads**

  Professional sellers who have large inventories will confirm this is a real problem. The existing platforms are not making their lives easier and dealers have to spend efforts and many human hours to perform routine tasks – something that ultimately adds up indirectly to the total cost of operations.

  The previous two problems that we already reviewed – several websites to advertise along with the unfriendly user interface contribute to the heavy burden of creating, updating and maintain a good online presence.

- **Too many different communication channels – phone, email, sms, in-app messages**

  Ask any dealer and they will confirm – a customer might come in any form – a phone call, sms question, email request, message sent via the website where a car is advertised, a walk-in customer, a referral and so on.

  Making sure all customer requests are attended properly and in a timely manner requires great organizational skills and human effort. Doing so (and doing it properly) for the various communication channels is quite challenging.

  Why it is important to attend all customer requests properly someone might ask. The answer is simple – customers tend to judge on the quality of a product by the quality of

the customer service. This is basic human psychological behavior. If the overall experience feels positive, buyers tend to neglect minor drawbacks. On the contrary if the overall experience is negative, the minor drawbacks might turn into deal breakers even if they are not such a big deal (a minor dent on the bumper?).

Give your customer a great service and they will show appreciation by buying your product.

- **Little to no customization**
  It is very important for regular users to be able to customize the website they use on daily basis. It will not only save precious time but will also improve the user experience and will make the work somewhat a more pleasant task to deal with. More advanced customizations can help with better visibility, can deliver additional and valuable information and might assist to improve the seller marketing strategies.

- **Scammers**
  Scammers are a big problem for professional sellers. Although, it is easier for the experienced professional to spot a scam, sometimes it might take time to do so, which ultimately feels like wasted time and quite discouraging, especially for commission oriented sellers.

- **Timewasters**
  How to spot a time waster? The million dollar question for professional sellers. Often it is not easy to do so. It might be especially frustrating if one spends hours and often days answering questions, clarifying vehicle options and sale conditions, explaining maintenance requirements and delivery conditions and finally the customer to simply walk off the deal.

2.2. Problems for Vehicle Buyers

- **Too many websites to search**
  The first thing a buyer should do when trying to find a new vehicle is to decide where to look for. Although there aren't million good places to find a vehicle online, there are still a dozen of platforms offering similar services. But how to find the best one?
  A buyer might have previous experience with some website so naturally they will choose the solution they are most familiar with. Although, the chosen platform might serve the purpose, it might not be necessarily the best one or provide enough offers to choose from.
  Using a search engine like "Google" might help but the "results" will not always show the best websites. Paid links appear first and even a bad website might score first page if owners have enough cash to sponsor an ad campaign.

Ultimately, buyers might choose one or two websites to look for a vehicle but those most likely will not be the best in terms of user experience, functionality and what is even worse – a buyer might be missing out on a great offer placed on another website.

- **A lot of time spent searching for that one perfect vehicle**
  Searching for the right vehicle might be time consuming and lengthy process, especially if the buyer needs very specific options or equipment.
  Lengthy, because the probabilities that one can find exactly what they search for from the first time is quite unlikely. Good offers tend to disappear rather quickly – other buyers that have been looking for days or even weeks have already scanned the market and have discarded the too expensive or "average deals" and can grab a great offer in matter of hours.
  The search is also time consuming because a buyer often has to check and recheck one or more websites for new ads, adding all features again and again, looking for price discounts and excluding the ads that have already been marked and "not good" – a process that can be quite frustrating from time to time.

- **A ton of banners and commercials**
  Existing websites and solutions try to monetize their investment in every way possible adding dozens of banners and ads on all pages possible ultimately resulting in three undesired results.
  First, users are getting confused – it is hard to distinguish between the quality information and the undesired spam and no one likes spam.
  Second, lack of simplicity. The easier to navigate, spot and interact with a website, the better user experience this website offers. The more intuitive and easy to use a solution is the more satisfied the users will be and the more likely to return they will be which contradicts with that is currently available.
  Third, no matter how advanced and fast internet technology has become and no matter what professionals will tell you, the website load time will be affected always when there are a ton of undesired ads. There is no way to minimize that effect – it is simple math. The more data has to be loaded, the slower the website will run. There is one solution of course – no additional ads.

- **Scammers**
  In the same way scammers try to trick trustful sellers, there will be scammers who will try to also trick the buyers. The schemes are so many and so ingenious that even more cautious people have fallen victim of ill-intended "sellers". Currently, there is little protection from such scammers - existing websites simply do not protect its users and buyers have to rely solely on their own judgement whether or not they deal with a scammer.

- **Vehicles with problems**

While this would not pose a problem for brand new vehicles, the second-hand market is flooded with offers for vehicles with all sorts of problems. The reason for selling a vehicle might really be "getting a new one" as most sellers are trying to convince the unsuspecting buyers but the case quite often is totally different one – the vehicle has one or more problems that are so expensive or difficult to fix that it is better just to sell the "damn thing" and get a better one.

- **Bad customer support (if any)**
  While sellers might be offered some sort of customer support (since they could be paying for the service) buyers, who are often anonymous, rarely get any attention or help. This could be a problem for, especially for non-techy users. Worthwhile websites should always care for all its users even for the ones that do not generate direct revenue because ultimately they bring value to the other users or community.

- **No customization**
  Buyers same as sellers need to be able to customize the solution as per their own preferences. Although buyers do not generate any direct revenue (as already mentioned), they are the group of people that spend most of time using the provided solutions. If one thinks of it, it is obvious – once a seller places an ad, it might take up to 30 min or 1 hour but ultimately their job is done. It is afterwards the buyers that keep visiting the website, making search after search and scrolling through all the possible ads to find that one perfect vehicle.

- **No buyer protection**
  If a buyer sends a deposit or buys a vehicle with a hidden issue, it is basically their problem and their money. Third party protection not is available and a lot of buyers end up losing not only time but money fixing problems they were unaware of prior to the sale.

2.3. Problems of the Available Platforms

- **Mainly profit oriented**
  All websites that currently offer services to vehicle buyers and sellers are out there first to generate profit and only second to that they aim to serve its users. Being profitable is important in order to stay in business but the real game changers put the users first. Only the businesses that bring real value and solve the user problems are the ones that will stay after all the others are gone.

- **Limited services**
  Nowadays, progress is being understood as improving the old or staying just ahead of the competition. In the old days progress really meant bringing new things to life. Offering search and find functionality with some extras like vehicle history and financial

offers is just not enough. More can be done to broaden the range of services offered and we at CarVDB aim to do just that!

- **High cost to operate**

  Ask any entrepreneur, businessman or investor out there – they will all tell you that cost is as important as the revenue. Good cost management yields opportunities for profit increase and should not be underestimated. The truth about existing solutions is that they are quite expensive to operate, something that CarVDB will change:

  - o Expensive infrastructure (office space, servers, storage, etc.) – the infrastructure is traditionally one of the major costs related to operating a business
  - o Operation & Maintenance – costs associated with day to day operations and maintenance activities should also be considered
  - o Employees – the payroll, if not the first, is the second greatest cost for internet associated businesses and contribute greatly to how financially successful an organization can be
  - o Advertisement & Marketing – Quite important contributor to the total cost for an organization that's should not be underestimated

- **Low page load time**

  Speed is always important. In the era of Internet, it is what separates the good from the great. Designing overcomplicated solutions with tons of content that ends up hurting the page load time does not make any sense even in locations with lightning fast Internet. Load time really matters and it is time that we do something about it.

- **Lack of user feedback as to website functionality**

  Very few if any websites have means to obtain user feedback. Even few have processes to really look into the feedback and introduce improvements. Another problem is how the user feedback is collected – mostly via online or email surveys, something which is as much boring as it is frustrating.

- **Bad customer support**

  With most internet organizations customer support is just absent. If there is any at all, the support level is nothing the organization can be proud of. There is neither knowledge base nor self-help section where users can get the issue sorted out by themselves.

- **No setup or process to allow for customization**

  Even the solutions built focusing on user friendly interface, quite often lack possibilities which allow for customization. All users are different, they need different functions and often have different browsing habits and preferences. Being able to meet specific user requirements is a big problem for existing websites and it seems that there is little motivation to introduce such improvements something that CarVDB intents do perform by all means.

- **Automatization**

The ability to automate repetitive tasks is key success factor for all technology oriented organizations. Few manage to implement such features to some extent, others don't and totally fail. When it comes to automatization, the underlying infrastructure in terms of HW vs. SW setup is quite important. If not properly build from the very start, it becomes really difficult to introduce and successfully carry out automatization initiatives. However, in cases when the service design is properly conducted and the right planning is in place, automation becomes a matter of good coding.

- **Scalability**
Many organizations do not take into consideration neither properly plan for scalability when they begin to operate. A great example from the cryptocurrency world are the Bittrex and Binance exchanges which had to suspend new user registrations due to inability to cope with the increased traffic and resource demand. This does not mean that they have failed to deliver a solution or are not successful enough but no doubt they could have been better prepared. Preparation and good planning are one of the key success factors and the CarVDB Platform is being built around this concept.

- **Flexibility**
No matter if we are talking about a large organization, a multimillion dollar business, a popular webpage or a big country they all face, at some point, one and the same problem – flexibility. When a party becomes too large at some point, the management and administrative burden become a real issue. Many stakeholders involved, long chain of approvals, slow decision making, time consuming and costly process of new policies introduction are amongst the main reasons why "the big" lack the ability to be flexible. As with every problem, there is a solution and we at CarVDB are certain that with a proper strategy, great initial setup and appropriate management flexibility will be one of our strong sides.

3. Core Features & Solutions

3.1. Note from the CEO

The current **White Paper** is intended to provide overall platform overview and basic functionality description. We will not share the overall strategy or the platform design details before the ICO is successfully completed.

All ideas, especially the ones that are not yet realized, hold value and as such should be protected and revealed to the general public in due time. Still, if the hard-cap of the ICO is successfully reached all ICO contributors and the general public will be presented with detailed information which outlines the platform strategy, design and functionality in greater details.

What is important to highlight at this stage is that we have already started building the new platform and we are going to complete it whether or not the Crowdsale event is successful.

Once we are ready to reveal the true magnitude of our platform and the underlying technology, everyone would wish to have boarded the boat with us from the very start. We do not do the things in the established way, we have vision and passion to make a difference, and we are not afraid to experiment. This is the reason why we can and will disrupt the established standards and offer a fully functional solution that will bring value into people's lives.

So consider the risks, think fast and make you own mind whether to participate in the ICO or not.

3.2. Core Features

CarVDB is going to offer a solution to ALL problems outlined in this Whitepaper. In addition, the solution will be built around several core features.

3.2.1. CarVDB Platform

- **International Platform**
  Currently, the CarVDB platform exists in two languages – English (www.carvdb.com) and Spanish (www.micochenuevo.es) and operates in United States and Spain. Our aim in five year term is to extend the scope to the entire North America, the larger countries in Europe and also in South America. In longer term, the goal is to enter the market in Asia and Australia. See the **Timelines** section for more details.

- **Unified Platform**

As of today, there is no single, wide recognizable website or platform that can be used to buy, sell or rent any kind of vehicle worldwide. There are several dedicated platforms divided per vehicle type (cars, motorcycles, boats, etc.) and in addition a different such platform in each country. There is no single well-known marketplace which can be used to sell a car in Canada and in the same time look for Camper rent offers in the US. We aim to change that and even bring a lot more useful functionality like integrate an insurance and platforms, maintenance records check, offer repair manuals and much more.

If someone needs to find anything on the Internet today, they go to Google. There are no two opinions on the matter. Our goal is to build a "Google" for vehicles and we will build it better.

- **Universal Platform**

  The platform will be designed considering the needs of both desktop and mobile users of all ages.

  There will be a Web Client available for Desktop users. Our data shows that it will be used mostly by professionals and by all individuals who prefer to stick to the more traditional Internet browsing.

  In addition, there will be two mobile apps for iOS and Android devices. Both applications will be fully functional solutions build around the concept that mobile users have the very same needs as desktop users and they need it anytime, anywhere.

3.2.2. Blockchain Technology

- **Vehicle Data Storage on the Blockchain**

  What happens nowadays if someone (a buyer for example) needs technical information and history about a specific car and has the VIN number? They have few of choices:

  - Go to an official dealership. This rarely works as dealerships are not allowed to provide car information except to the owner. The buyer can go along with the seller to a dealership but this is quite time consuming option and often unjustified if there are several cars worth checking.
  - Go to an agency that gathers and stores car information. However, this is again time consuming and quite often an expensive option.

- Try searching online. This might work if the car is located in the US and it will be probably free of charge. But in the UK it costs no less than 15 pounds and it is impossible to find car information online in the rest of Europe. Even if there is some information available, it will be probably quite limited - car make and model, engine capacity, fuel type, etc. Nothing that the buyer does not already know.

What about other types of vehicles like motorcycles, RVs, campers, trucks or boats? It is basically impossible to find a full technical specification and vehicle history report without going into a real hassle.

The Solution: A blockchain based vehicle (not only car) database searchable by VIN / HIN that contains all the technical information along with the vehicle maintenance reports and schedule, previous owners count, insurance events and more.

The data will be stored on the blockchain, hence impossible to be forged. It will be additionally encrypted and any personal information will be "stripped off" to guarantee owner privacy. Furthermore, vehicle owners will also be the owners of their vehicle data on our platform providing a means for them to benefit from this fact. (More to be disclosed in the future).

Any vehicle deal that is closed will also be automatically stored on the blockchain, thus providing additional means for tracking vehicle mileage, history and owner count.

3.2.3. Smart Contracts

The blockchain technology has also provided the world with the wonderful power of smart contracts. Reliable, enforceable and secure, smart contracts do not require third party validation, features which make them extremely convenient in a world where

traditional contracts and agreements lose its advantages over more advanced technology.

Smart contracts can be particularly useful in the vehicle market industry, facilitating binding agreements between two or more parties for the mutual benefit of all participants. CarVDB Platform will provide users the possibility to create a range of secure and programmable smart contracts and adjust the contract options as per their specific needs.
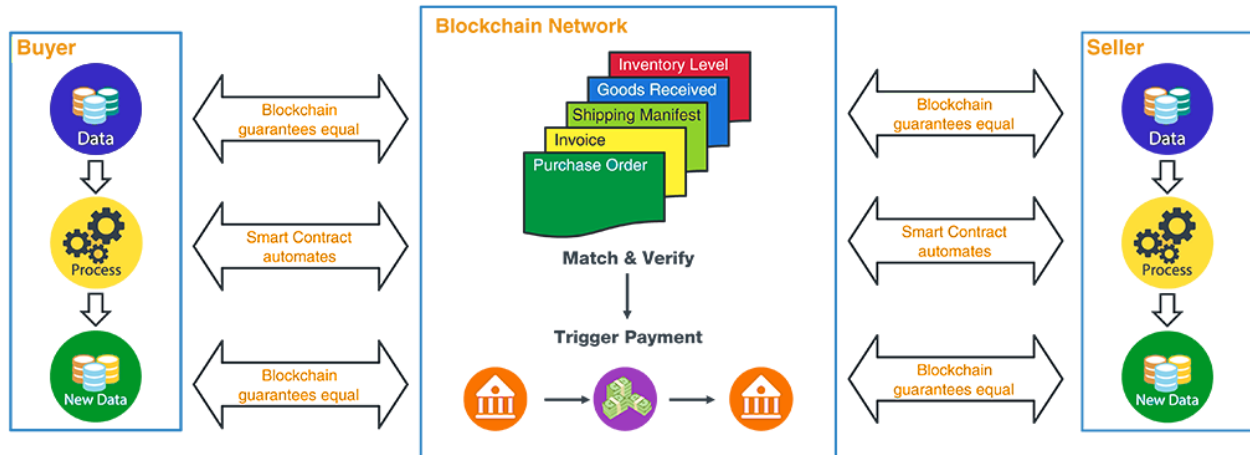
- **Smart Contracts between buyers and sellers**

Buyers and sellers will be able to create a contract for vehicle sale in less than couple of minutes all powered by the blockchain technology. Some of the largest advantages will be:

- Instant payment for the vehicle, upon delivery, via the CarVDB Web / Mobile Client
- Ability to make a deposit for a vehicle
- Ability for sellers to provide vehicle warranty
- Protection from scammers and fraudulent individuals
- No hidden or additional charges
- Agree delivery dates
- Arrange transportation and relevant costs
- Conduct transfer of ownership
- Arrange refund conditions and policies

- **Smart Contracts for Auction Houses**

CarVDB Smart Contracts will also be available for Auction Houses to use as per their needs. Some of the most important features will be:

- Setting up auctions

- Arranging auction sales and conditions
- Confirming sales and payments
- Arranging refund conditions and policies
- Protection from scammers
- No additional charges

- **Smart Contracts for Insurance Providers and Insured Parties**

  Insurance Provides will also be able to benefit from the CarVDB Smart Contracts. Selling any type of vehicle insurance will be easier and safer both for the Insurer and the Insured:
    - Instant and automatic insurance preparation process
    - Personalization available
    - Full Vehicle History integrated with the Smart Contract conditions for lower risk and better premium price
    - Insurance Conditions available within the Smart Contract
    - Instant acceptance and payment
    - Insurance with all its conditions available on the blockchain
    - Insurance claim functionality and more

- **Smart Contracts for Vehicle Repair Services**

  Any vehicle owner will need their vehicle to be driven for inspection and maintenance at some point. With CarVDB Smart Contracts, owners will have the possibility to go through the process smoothly and without any unexpected outcomes:
    - Find the best price service shop in the area
    - Arrange online for vehicle inspection / maintenance according to the vehicle maintenance schedule or for an ad hock visit.
    - Agree on the maintenance terms and cost
    - Agree on the timelines
    - Pay instantly once the job is done / confirmed
    - Arrange reclamation process and conditions

- **Smart Contracts for Vehicle Repair Shops**

  CarVDB Smart Contracts will also be available to Repair and Service Centers, providing possibilities for better customer management and relations, increased service demand, cost reduction and revenue optimization:
    - Send automatic / targeted offers to vehicle owners in the area with approaching scheduled maintenance
    - Arrange online with customers for vehicle inspection / maintenance activities

- Agree on the maintenance terms and cost
- Agree on the timelines
- Receive Instant Payment once the job is done / confirmed
- Arrange reclamation process and conditions

3.2.4. Auctions

- **Powerful Auction platform**
  CarVDB Platform will give its users the option to organize auctions for their vehicles using the full potential of smart contracts:

  - Auctions organized by private individuals – individuals who wish to sell their vehicle might choose between posting an offer with a fixed price, organize an auction or a mixture of the two. Whatever option is chosen, it will all be powered by a smart contract.
  - Auctions organized by professional sellers – whether a dealership or an auction house every professional will have the option to organize an auction for one or a whole batch of vehicles. The platform functionality will allow to fine-tune all auction details and requirements in order to give full control over the auction event.

3.2.5. Special vehicle sell feature

CarVDB platform will provide a special feature which will allow to sell a vehicle in a nontraditional way, bringing a lot of fun both for the seller and buyer. At this stage we will not discover more information regarding the feature and will keep it as a surprise for after the hard-cap celebration.

3.2.6. Powerful Insurance Platform

- **Insurance Providers**
  CarVDB will provide possibilities for insurance companies to offer their best deals to the platform users. The platform will support many various types of insurance coverage for many types of vehicles and will in addition facilitate vehicle history data to the providers in order for them the better assess costs and determine potential risks. It will all be powered by the smart contract technology to guarantee the interests for both the insurance company and the beneficiary.
  Insurers will also be able to easily track, manage and analyze their portfolio on the platform, providing possibilities to minimize overall risk, optimize cost and maximize profits.

- **Insurance Beneficiaries**

    Users in turn will be able to search for the best insurance coverage that matches their requirements and even receive discounts based on incident-free record. Getting an insurance quote will no longer require filling out a quotation form and providing a lot of information to the insurance companies. Users will be able to get a quote immediately by only providing the vehicle VIN number. In addition, the automatic system will track the insurance expiration date and will remind both the insurer and the user that the renewal date is due.

    Note: More platform features to be revealed in the Private White Paper.

3.2.7. Vehicle Maintenance

- **Vehicle Maintenance History on the Blockchain**

    Vehicle owners face two problems when it comes to vehicle maintenance history. First, when buying a pre-owned vehicle, the maintenance records are not always available. Even if available, some maintenance activities might be actually missing – on purpose or by simple mistake. During the vehicle warranty period, the maintenance will most probably be done by the official dealer service center, hence all maintenance work will be recorded. However, once the warranty period is over many owners have their vehicle maintained by non-official repair centers, which do not record the maintenance activities anywhere but their local databases. As a result, there is no unified source of information for the vehicle maintenance history.

    Second, it is very difficult for the owners to accurately track the work done on their vehicle. Currently, the only feasible way for every owner to do this is the paper maintenance book most of the new cars come supplied with. However, as we move into the digital age, some manufacturers do not provide this paper book anymore but keep all records on their internal databases, thus making the information available only to them and their subsidiaries. Furthermore, if the vehicle is maintained at several different service centers and they all record the maintenance activities on their local systems, the owners will never have a comprehensive record of all work that has been done on their vehicles.

    The Solution: A unified blockchain based platform, where all vehicle maintenance records will be kept up to date by the authorized repair centers. One a maintenance record is entered, it will be impossible to delete or alter it, thus making the information reliable and correct. If a mistake is made, an authorized party will have the possibility to correct it. The data on the blockchain will also contain information of when and who made each entry or correction, thus making the data even more consistent.

Furthermore, only authorized parties will be able to add new entries eliminating the possibility for any ill-intentioned individuals to corrupt the information.

In addition, everything will be transparent and available at any time, so that the owner can share the maintenance records with potential buyers or insurance companies if they need to. The best of all is that only the owner will be able to grant access to the blockchain based maintenance history and the data will be reliable enough for everybody to be confident the information is accurate and complete.

- **Manufacturer Maintenance Schedules, Recalls, and Technical Service Bulletins**

The owner's manual supplied with each new vehicle is the main source of information for scheduled maintenance required and vehicle technical data like oil capacity, fuel capacity, recommended tire pressure, etc. The manual is very useful for keeping track of mandatory maintenance activities, ensuring the vehicle is roadworthy. This however is not always the case with preowned vehicles where the manual might be missing. In case like this, an owner should visit a dealership center or try to find the manual online – both being time consuming activities.

The point is, owners should exercise due diligence with regard to their vehicles with or without the owner's manual being available. In order to do so owners should get hold of a manual (if not available) and remember to regularly crosscheck the vehicle mileage across the recommended maintenance for that mileage.

CarVDB Owner's Manuals will help with this task – owners will be automatically reminded when there is a maintenance approaching so that they can relax and enjoy the experience of ownership. Oil and filter change, timing belt and spark plugs replacement, brake pads, brake fluid, coolant and power steering fluid change – all these maintenance activities will be individually tracked by CarVDB Platform and owners will receive a notification once they are due for their particular vehicle.

This is not all – the application will automatically notify owners when there is a recall on their vehicle and will also contain all the technical information that one might need.

As side bonus, owners will be able to easily check the maintenance schedule for their vehicle against any upsale attempts at the repair centers. A second opinion on a "recommended" repair might save some extra dollars – not too bad for a free to use solution.

- **CarVDB Repair Manuals**

Currently, there is no place where owners can find comprehensive repair manuals even for simple activities like changing the cabin air filter. People who prefer to perform some maintenance work themselves have to register at various forums or blogs and look for scarce and unverified "manuals" provided by non-expert individuals.

CarVDB Repair Manuals will change all that. We aim to gather a complete set of repair guides for all vehicle models so that owners might benefit from them. The contributors will also be incentivized to provide detailed step by step repair instructions, pictures, videos and so on, while other members will have the possibility to rate, comment and improve the guides if needed.

3.3. Value Added Features

CarVDB Platform design and functionality is focused around the user with user usability being of prime importance. Therefore, all services and features are being planned, built and tested from the end user viewpoint, ultimately providing an exceptional user experience. Some of the key areas which will bring additional value for the customers are:

- **Automatization** – in a world where time is money, we will provide a solution which automates as much as possible the process of buying/selling a vehicle. We will eliminate weak points and remove redundant steps in order to offer an elegant and in the same time functional solution.
- **Speed** – the platform will be optimized for quick browsing and the speed will be limited only by the user Internet connection and device performance
- **Customer service** – we are aware of the fact that users cannot be possibly familiar with each and every platform or website out there. Some users need assistance and this is a key element of CarVDB commitment toward users.
- **User Feedback** – even the top of the line solutions can be further improved. For that we are going to gather and use the feedback of the community to work and introduce constant improvements to the platform
- **Collaboration with car manufacturers** – we plan to closely collaborate with the vehicle manufacturers in an attempt to be an important party in the communication between suppliers and users.

3.4. The CarVDB Membership Cards

CarVDB will issue 5 types of membership cards which will be available to the platform users both for online or offline purchases, services and discounts with all CarVDB partner companies. A membership card will be assigned to all users, although only the Platinum and Black Card holders will be issued physical cards.
White, Silver and Gold Card members will have a virtual card and will be provided with the possibility to upgrade to the next card level.

Black Cards will be issued exclusively to ICO contributors and will hold special preferences for its holders.

The 5 types of CarVDB Membership cards will be as follows:

- **White Card** – all users of the platform will be entitled to this card. It will provide online discount with all CarVDB partners as per the agreed discount levels.

- **Silver Card** – the Silver Card will be automatically issued to members who have done at least 3 transactions on the CarVDB platform. Any action adding additional value to the platform will be counted as transaction – placing a car offer, buying a car, making a car deposit, purchasing insurance, leaving a buyer/seller/dealer review, etc. Members who hold CarVDB Silver Card will enjoy additional discount percentage.


- **Gold Card** – the Gold Card will be awarded to members who contribute regularly to the platform and also to the employees of partner companies who use CarVDB platform to offer services or products on continuous basis. Members who hold CarVDB Gold Card will enjoy additional discount percentage and access to limited offers or services.

- **Platinum Card** – The CarVDB Platinum Card will be issued and send free of charge to its holders. It can be used for online and offline purchases, will provide the greatest available discount with all CarVDB partners and will offer access to exclusive offers and services. The card will be available in limited supply to members who regularly bring value to the platform.

- **Black Card** – the CarVDB Black Card will be issued exclusively to 500 ICO contributors. The 250 investors who contribute the largest ETH amount as well as the first 250 investors to contribute to the ICO will receive the CarVDB Black Card. There will be no more Black Cards issued after number 500. Black Card holders will enjoy special offers and services available exclusively to them. For more details check here.
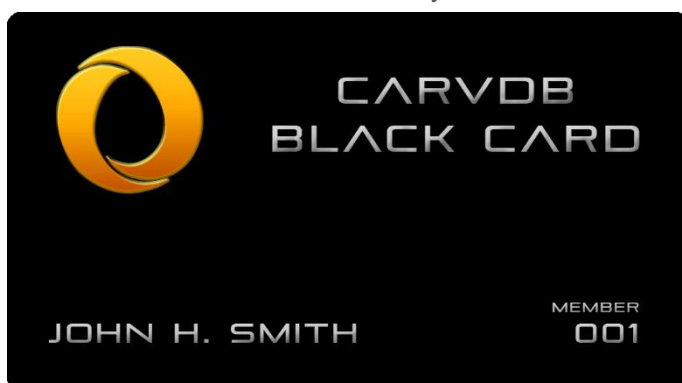
*More details about the CarVDB cards types and terms of use will be revealed during 2018 Q3.

4. BUSINESS MODEL

4.1. Overview

The CarVDB Platform business model is quite simple:

- We will offer the community an exceptionally well designed and built solution which will be free to use for everyone.
- The platform revenue and profits will come from advertisement.

The same very basic business model is adopted by some of the largest IT and social media platforms like Google, Facebook, Twitter, etc. The model has been proven to be sustainable and successful over the years, hence we believe it can also be applied to CarVDB Platform.
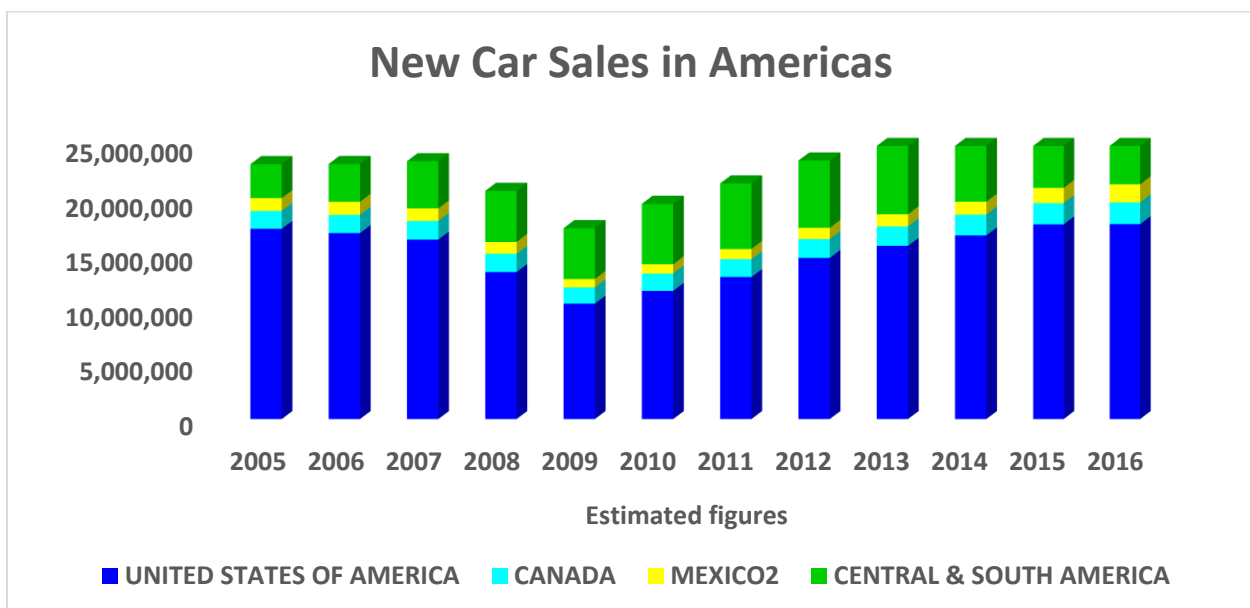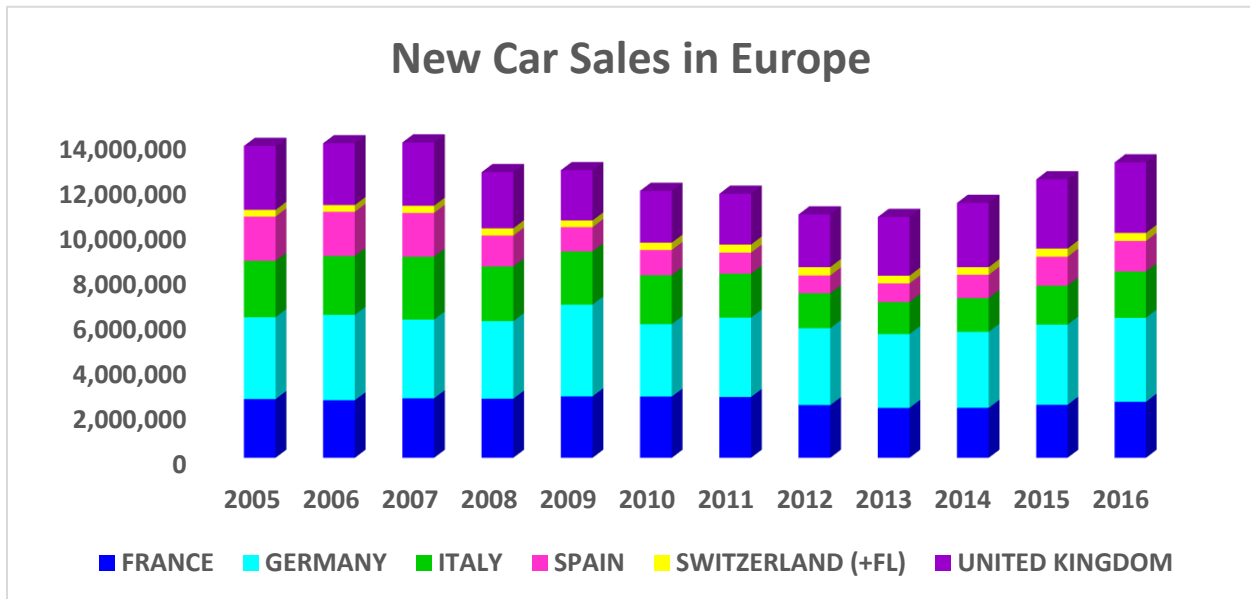
Free of charge access and services for all users will guarantee wide and unrestricted adoption, while user focus, i.e. services and functionality which are tied to the user needs rather than organizational goals, will ensure easy and natural acceptance by the community. Essentially, this will lead to a platform which is extensively used by large groups of people with diverse and in the same time specific needs and interests.

In addition, the platform design aimed for decentralization and transparency will solve a number of privacy issues, which is something the major IT and social media are being massively criticized for. The CarVDB platform does not aim nor intends to own or use its users' private data for any purposes, which is basically introducing another layer of transparency to the services and platform functionality.

4.2. The market

4.2.1. New & Used Vehicles market

The market for new vehicles worldwide is constantly growing year over year. The European and the American car markets in particular, where the CarVDB Platform will be present in the next 4 years is clearly showing an increase since 2012:

New Car Sales in Europe

Legend: FRANCE, GERMANY, ITALY, SPAIN, SWITZERLAND (+FL), UNITED KINGDOM

Years: 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016

New Car Sales in Americas

Estimated figures

Legend: UNITED STATES OF AMERICA, CANADA, MEXICO2, CENTRAL & SOUTH AMERICA

Years: 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016

The pre-owned car market is even bigger. Although there are no official figures available, some estimates point that second hand car market is on average to 3 to 5 times larger than the new car market.

In addition, CarVDB platform can be used as marketplace for all other kind of vehicles - motorcycles, RVs, Campers, Trucks, Industrial and Construction Equipment, Farming Machinery, Boats, Planes and so on.

The conservative projection is that CarVDB Platform will contain 14 million active vehicle ads by the year 2023. The optimistic projection is even better – if we do our job well, the platform users should be able to search between 24 million ads by the year 2023.

4.2.2. Private passenger auto insurance market

The auto insurance market is inseparable part of each vehicle trade market, hence CarVDB aims to integrate the two into one single platform. As per 2016 the auto insurance premiums in Europe and United states alone equal 134.1 billion euros and 124.4 billion dollars each.

Automotive Premiums Europe

Automotive Premiums United States
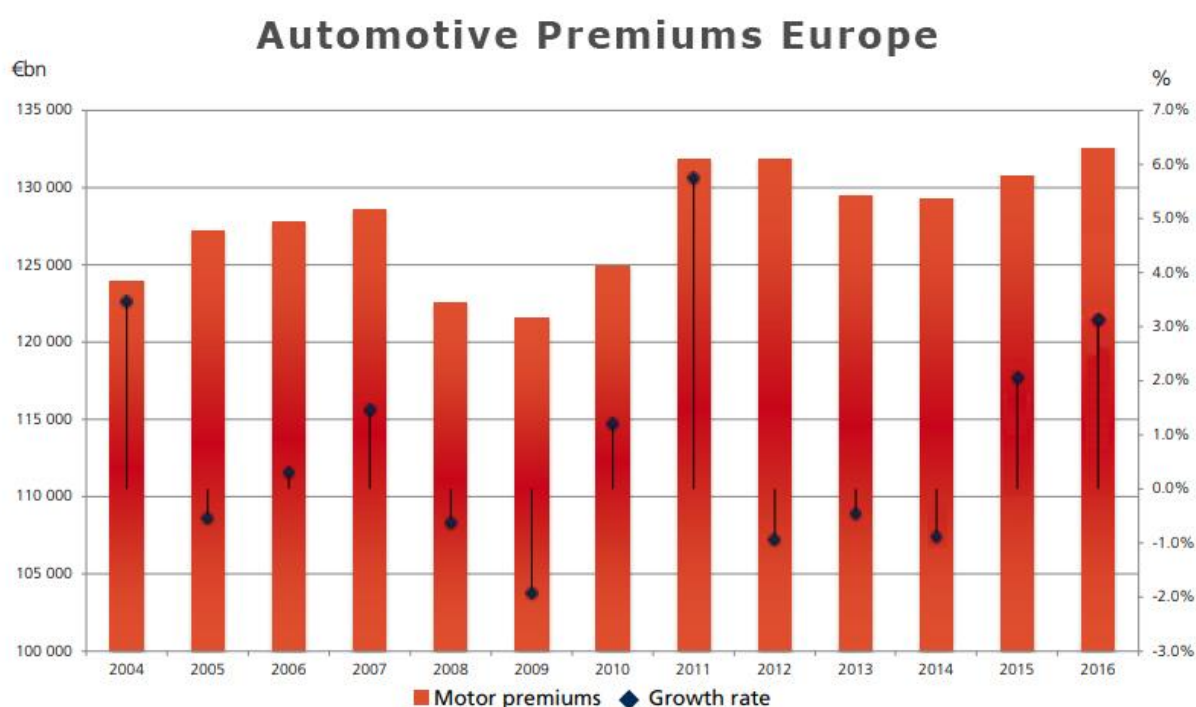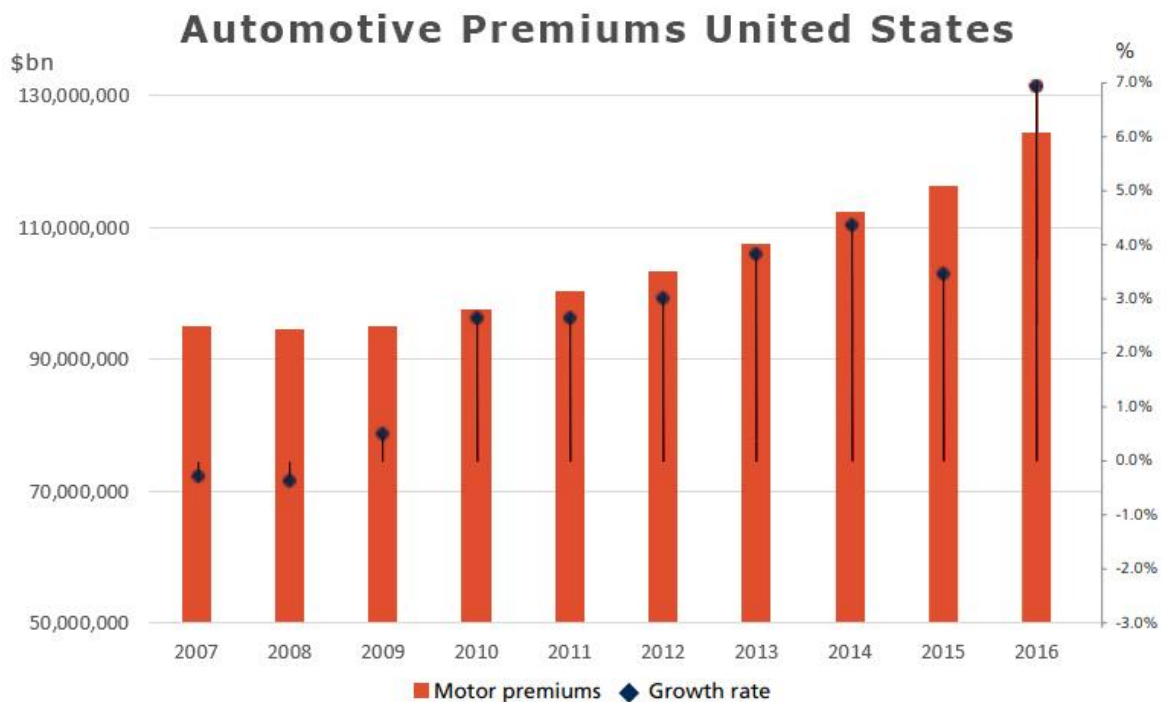
Note: The shown data represents only the passenger vehicles market. Excluded are commercial vehicles, boats, planes, etc.

Although, there is no comprehensive data available, if we are to add the insurance market for noncommercial vehicles and all the regions where CarVDB services will be present, we can easily be looking at 500 billion dollar market.

4.2.3. Vehicle aftermarket

According to a report by Global Industry Analysis Inc., the global automotive aftermarket industry is expected to reach $722.8 billion by 2020. There is no need for charts to visually represent this data, it is pretty self-explanatory by itself.

722.8 billion dollars is quite an impressive number and our plan is to position CarVDB platform as one of the main channels which vehicle owners will use to source maintenance information and services.

There are 130 million registered passenger cars in Unites states and 180 passenger cars in the top European markets. Each of those cars needs service maintenance at least once per year. Conservative projections of 5% market share in the first 3 years equals to 15.5 million vehicle owners that will use CarVDB Platform to source and obtain maintenance services for their cars.

4.3. CarVDB Platform services & functionality for individuals

4.3.1. Services available for all users

CarVDB users will be able to use the platform for multiple purposes, some of the most important are listed below:

- Sell any type of vehicle for free
- Place a rent offer for any type of vehicle
- Search for and buy any type of vehicle
- Find dealership centers in a given area
- Find rent offers for any type of vehicle
- Purchase vehicle insurance
- Participate in auctions
- Transfer CAR Tokens to other users
- Obtain specific manufacturer information (for example owner manuals) or technical specifications about a vehicle directly on a PC or Mobile App
- Receive reminders about scheduled vehicle maintenance
- Schedule a vehicle maintenance
- Find repair manuals
- …and more

4.3.2. Services available for sellers

The individuals who decide to use CarVDB Platform to offer a preowned vehicle for sale will be able to use the all of the following services:

- Free ad placement without any cost until the vehicle is sold
- Set a fixed price or organize an auction with a reserve
- Accept deposit for the vehicle in CAR Tokens on the CarVDB Platform
- Accept payment in CAR Tokens on the CarVDB Platform
- Receive notifications about interested buyers directly on the CarVDB mobile app

4.3.3. Services available for buyers

The individuals who use CarVDB Platform to find a vehicle for their needs will be able to use all of the below features:

- Possibility to create custom search with detailed search options tied to their specific requirements
- Receive automatic notifications for new vehicles that match a custom search criteria
- Receive automatic notifications for vehicles on the watch list where price is reduced
- Ability to check vehicle history and maintenance activities directly on the CarVDB Platform via VIN or licence plate
- Ability to reserve a vehicle via the CarVDB Platform with or without a deposit
- Ability to pay for a vehicle in CAR Tokens on the CarVDB Platform
- Calculate future vehicle costs like insurance, pending maintenance, repairs needed etc.

4.4. CarVDB Platform services & functionality for businesses

4.4.1. Services available for Dealerships

Sellers that choose to make a Dealership Registration will benefit from additional platform functionality specifically designed for professional vehicle sellers:
- Control panel to easily manage multiple categories of vehicles
- Possibility to sell vehicles for a fixed price or organize auctions
- Possibility to offer vehicles for rent
- Personal Dealer Homepage with customizable design which can serve as additional or even the primary dealership webpage
- A Personal Web Address will go along with the Personal Dealer Homepage
- Dealers can post unlimited number of ads
- Dealers will have details statistics per ad
- There will also be overall performance statistics
- Dealers will have additional finance management instruments on the platform to manage sales, overall operational costs, and profits
- Free to use

4.4.2. Services available for Auction Houses

CarVDB Platform will feature a special functionality for Auction Houses intended for their particular needs and requirements:
- Control panel to easily one or more auctions at a time with multiple categories of vehicles
- Organize timed and live webcast bidding
- Auctions available on any device

- Real time, high quality video and audio
- Possibility to place autobids
- Possibility to use Buy Now (Fixed Price) feature
- Auction sniping
- Auto Relisting
- Real time updates to all bidders
- Automatic handling of ending auctions
- Customizable Email Templates
- Bidder Privacy Settings
- Free to use
- Accept payments in CAR Tokens as well as FIAT currencies
- Highly customizable

4.4.3. Services available for Insurance Providers

The CarVDB Insurance platform will be designed and built according to the specific requirements of the Insurance industry. Providers will be able to enjoy all the following features:
- Control panel to manage policies, assess risk and control cost
- Targeting feature for customers that might need insurance renewal according to specific criteria
- Analytics feature to better analyze risk
- Premium Calculator to perform quick and easy calculations according to specific criteria
- Fully automated processes - from quote to claim
- Customizable templates and features available
- Physical signature available
- Easy data exchange with other insurance systems
- Solutions for both B2B and B2C clients
- Free to use

4.4.4. Services available for Vehicle Service Centers

With the understanding that Vehicle Service Centers need customized and fit for purpose revolutionary solution for automated management and customer retention we have a great solution in development:
- Control panel to manage vehicle jobs, quotes and invoices from booking to completion
- Targeting feature for customers in the area who have upcoming scheduled maintenance
- Further customer engagement and retention via automatic service reminders via CarVDB App or SMS

- Analytics features to analyze job duration and resource utilization
- Workforce optimization and resource planning
- Fully automated processes - from booking to job competition
- Automated invoicing process
- Automated process for bookkeeping – record and track revenue, expenses and profits
- Supply Management features – view historical order quantities, track purchases and inventory, create orders, pay invoices
- Track and manage jobs related to insurance events
- Free to use

5. FINANCIALS

The entire team behind CarVDB is committed to stay true to one of the main pillars on which the idea for decentralization rests upon. That is the "free-for-all" concept.
We will build a free to use platform for everyone – dealerships, sellers, buyers, insurance companies, auctioneers, vehicle service centers, bloggers, writers, readers and anyone else who might benefit from it.

That leaves a logical question: How would the platform monetize from the provided services and eventually repay its investors?

The answer is a simple as the question itself: Advertisement.
We will follow the same successful business strategy which has been adopted by all major Internet platforms to this day like Google, Facebook, Instagram, etc. While the platform remains free to use, it will contain a non-intrusive ads which will be the source for revenue. The non-intrusive word is underlined for a reason. We are committed to build a platform which will be focused on user experience first, financial gains second. This is what the traditional investors are neither used to nor like hear but we believe this is the only consistent and worthwhile way to success.

Furthermore, to the investors' relief, our projections show more than satisfactory performance. Our estimations show that by the Q1/Q2 of the third year the platform would have generated enough Net Profit to cover for the entire hard-cap investment of 25888 ETH at $800 price per Ether.

We have prepared two scenarios – Conservative and Optimistic for a five year period.

5.1. Conservative Projection

5.1.1. CarVDB Platform Usage and Revenue Statistics

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Number of Registered Dealers	4,968	15,649	28,763	48,585	66,401
Number of Registered Users	147,055	882,330	3,705,786	9,264,465	18,528,930
Number of Dealer ads	99,359	312,972	575,265	971,710	1,328,025
Number of User ads	102,939	617,631	2,594,050	6,485,126	12,970,251
Monthly Visits	294,110	1,764,660	7,411,572	18,528,930	37,057,860
Monthly SEO Revenue (USD)	222,099	1,332,592	5,596,887	13,992,217	27,984,435

Number of Registered Dealers
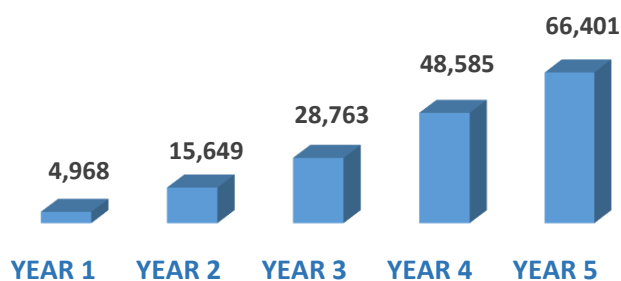
Number of Registered Users
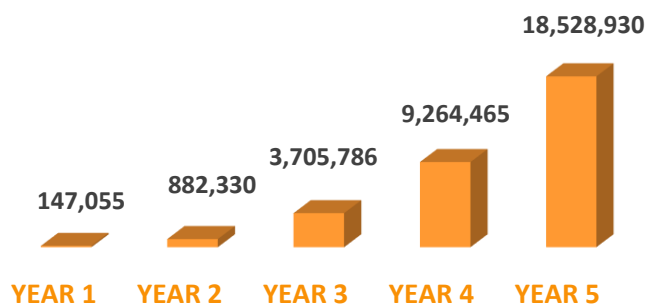
Number of Dealer ads

Number of User ads

Monthly Visits

294,110	1,764,660	7,411,572	18,528,930	37,057,860
YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5

Monthly SEO Revenue (USD)

222,099	1,332,592	5,596,887	13,992,217	27,984,435
YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5

5.1.2. Projected Income Statement for CarVDB Platform during the first five years

Year	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Total Revenue	$ 2,665,184	$ 15,991,105	$ 67,162,643	$ 167,906,607	$ 335,813,215
growth %		500.00%	320.00%	150.00%	100.00%
Advertisement cost					
Ad cost	133,259	783,564	3,223,807	7,891,611	15,447,408
% from revenue	5.00%	4.90%	4.80%	4.70%	4.60%
Gross Profit	2,531,925	15,207,541	63,938,836	160,014,997	320,365,807
Operating Expenses					
Infrastructure	1,266	1,935	2,939	4,056	5,230
Office	135,825	70,829	114,029	70,829	114,029
Salaries	1,320,200	1,546,520	1,818,104	2,144,005	2,535,086
Services	770,000	1,010,000	990,000	943,800	933,800
Depreciation	21,600	21,600	21,600	21,600	21,600
Amortization	17,129	19,129	19,129	19,129	19,129
Operating Profit (EBIT)	265,905	12,537,528	60,973,036	156,811,578	316,736,933
Earnings Before Tax (EBT)	287,505	12,559,128	60,994,636	156,833,178	316,758,533
% from revenue	10.79%	78.54%	90.82%	93.41%	94.33%
Taxes	28,751	1,255,913	6,099,464	15,683,318	31,675,853
Free Cash Flow	20,965	10,054,656	51,567,769	136,143,391	280,076,211
Discounted Cash Flow	18,231	7,602,765	33,906,645	77,840,426	139,247,376
Cash	3,235,562				
Capital Reserve	2,052,000				
Liabilities	0				
Company Valuation	**$ 263,903,004**				

Parameters

Cost of Capital	15%

Car & Vehicle DB

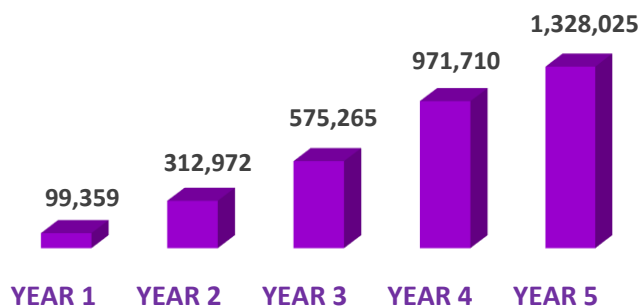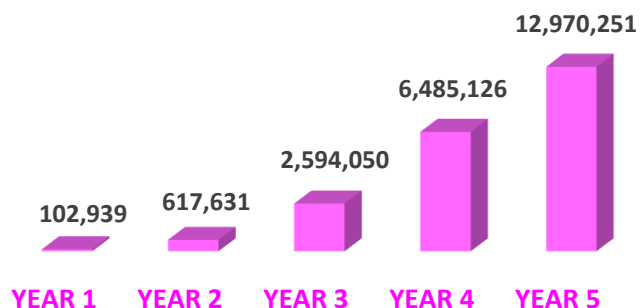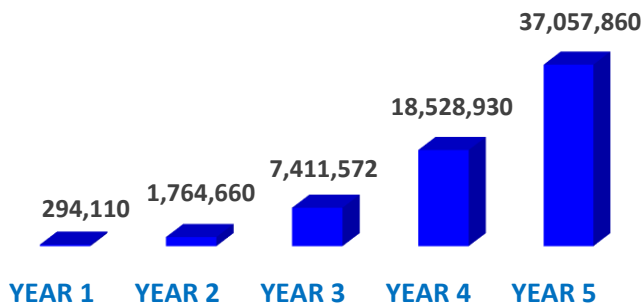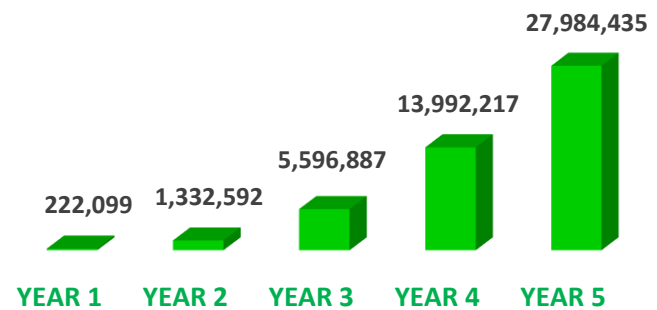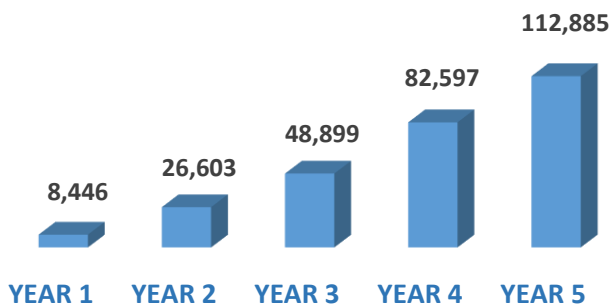# 5.2. Optimistic Projection

5.2.1. CarVDB Platform Usage and Revenue Statistics

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Number of Registered Dealers	8,446	26,603	48,899	82,597	112,885
Number of Registered Users	250,000	1,500,000	6,300,000	15,750,000	31,500,000
Number of Dealer ads	168,915	532,066	977,977	1,651,949	2,257,702
Number of User ads	175,000	1,050,000	4,410,000	11,025,000	22,050,000
Monthly Visits	500,000	3,000,000	12,600,000	31,500,000	63,000,000
Monthly SEO Revenue (USD)	377,578	2,265,466	9,514,955	23,787,388	47,574,776

Number of Registered Dealers
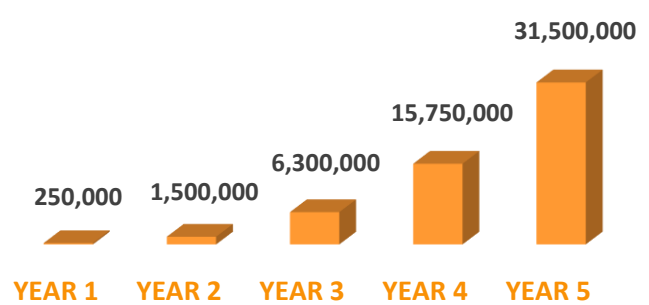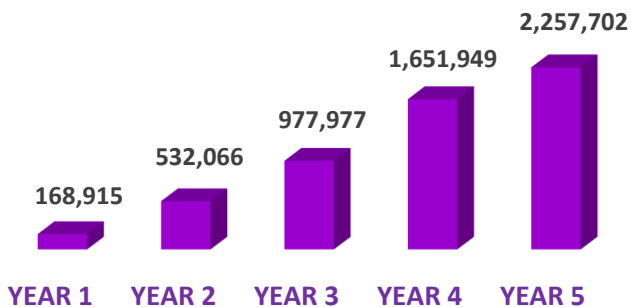
YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
8,446	26,603	48,899	82,597	112,885

Number of Registered Users

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
250,000	1,500,000	6,300,000	15,750,000	31,500,000

Number of Dealer ads

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
168,915	532,066	977,977	1,651,949	2,257,702

Number of User ads

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
175,000	1,050,000	4,410,000	11,025,000	22,050,000

Monthly Visits

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
500,000	3,000,000	12,600,000	31,500,000	63,000,000

Monthly SEO Revenue (USD)

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
377,578	2,265,466	9,514,955	23,787,388	47,574,776
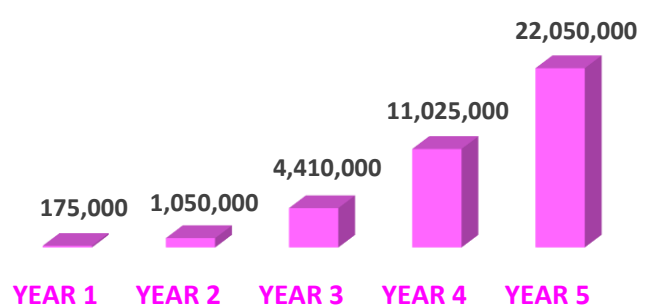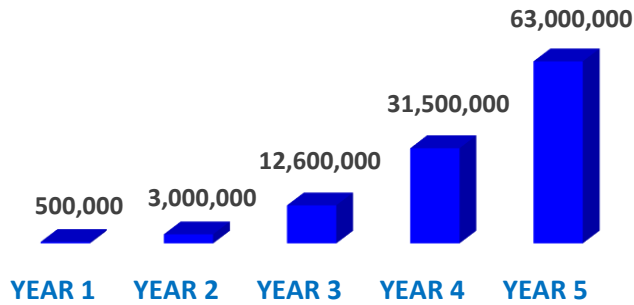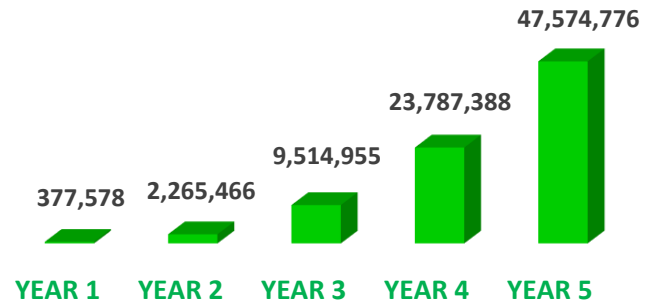
5.2.2. Projected Income Statement for CarVDB Platform during the first five years

Year	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
Total Revenue	$ 4,530,931	$ 27,185,586	$ 114,179,462	$ 285,448,654	$ 570,897,309
growth %		500.00%	320.00%	150.00%	100.00%
Advertisement cost					
Ad cost	226,547	1,332,094	5,480,614	13,416,087	26,261,276
% from revenue	5.00%	4.90%	4.80%	4.70%	4.60%
Gross Profit	4,304,384	25,853,492	108,698,848	272,032,568	544,636,032
Operating Expenses					
Infrastructure	1,266	1,935	2,939	4,056	5,230
Office	135,825	70,829	114,029	70,829	114,029
Salaries	1,320,200	1,546,520	1,818,104	2,144,005	2,535,086
Services	770,000	1,010,000	990,000	943,800	933,800
Depreciation	21,600	21,600	21,600	21,600	21,600
Amortization	17,129	19,129	19,129	19,129	19,129
Operating Profit (EBIT)	2,038,365	23,183,479	105,733,047	268,829,149	541,007,159
Earnings Before Tax (EBT)	2,059,965	23,205,079	105,754,647	268,850,749	541,028,759
% from revenue	45.46%	85.36%	92.62%	94.19%	94.77%
Taxes	205,996	2,320,508	10,575,465	26,885,075	54,102,876
Free Cash Flow	1,429,604	18,740,454	89,500,939	233,432,943	478,393,152
Discounted Cash Flow	1,243,134	14,170,475	58,848,320	133,466,043	237,845,946
Cash	3,048,987				
Capital Reserve	2,052,000				
Liabilities	0				
Company Valuation	**$ 450,674,905**				

Parameters

Cost of Capital	15%

6. THE CarVDB TOKEN CREATION

6.1. ICO Overview

The CAR Token is not a Security or an Asset. The CAR Token is intended to be a utility token, which is to be used to purchase or use services on CarVDB Portal.

CarVDB tokens will be distributed to partners and investors during one single ICO event which will be held exclusively at https://www.carvdb.com/

The Token Sale will start at 9:30am UTC on 13th March 2018 and will last for 90 days.

The total amount of tokens that will be distributed during the ICO will be 49,978,560 or the equivalent of 25,888 ETH (hard-cap) at 1,580 CarVDB tokens per 1 ETH.

The CarVDB soft-cap is set at 5,888 ETH.

If soft-cap is reached, the ICO event will be extended for 21 more days, after which will be automatically closed by the smart contract.

If hard-cap is reached, the ICO event will close automatically.

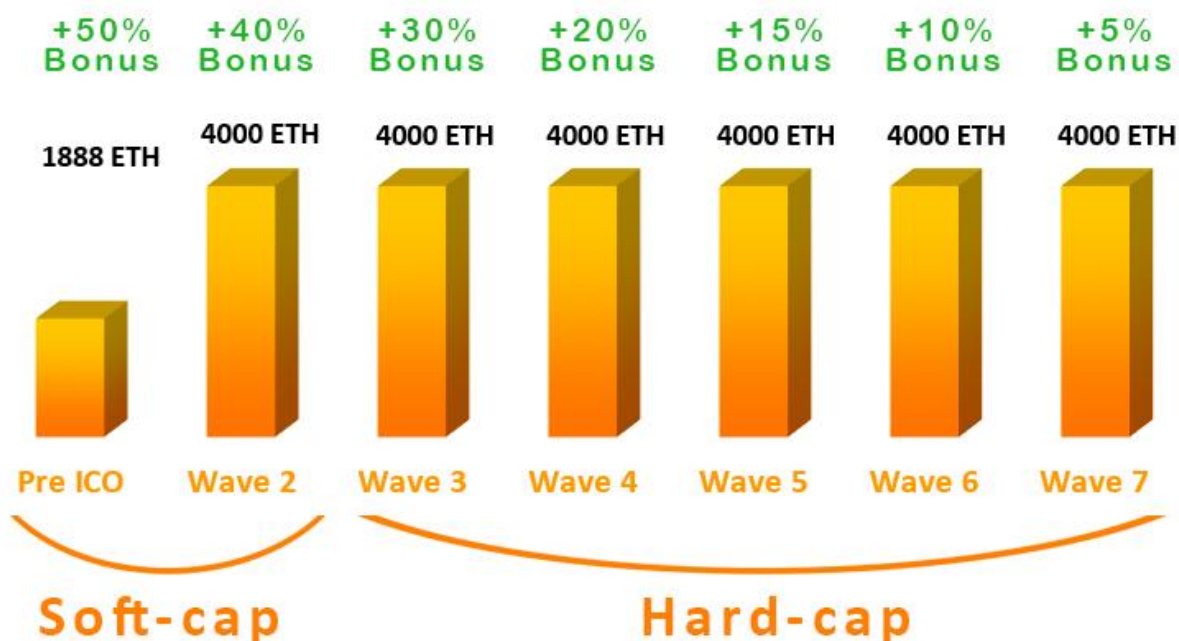The ICO will be held in seven waves as per the below table:

Table 1.

6.2. Use of Funds

The CarVDB ICO is meant to provide funding for a fully functional blockchain based solution for international vehicle trade platform plus additional services like vehicle database, auction functionality and more. As such we aim to develop and establish a successful project which will be beneficial for the international community for many years to come.

Therefore, the majority of the funding obtained from the token sale during the ICO will be used to develop and launch the new product, improve existing services and further user acquisition. **Note: No funds will be used to reimburse or reward the founders or team members apart from the efforts invested during the ICO event. The founding members' share will be in terms of CAR tokens issued to them after the ICO is complete.**

The ICO funding will be distributed as follows:

ICO USE OF FUNDS
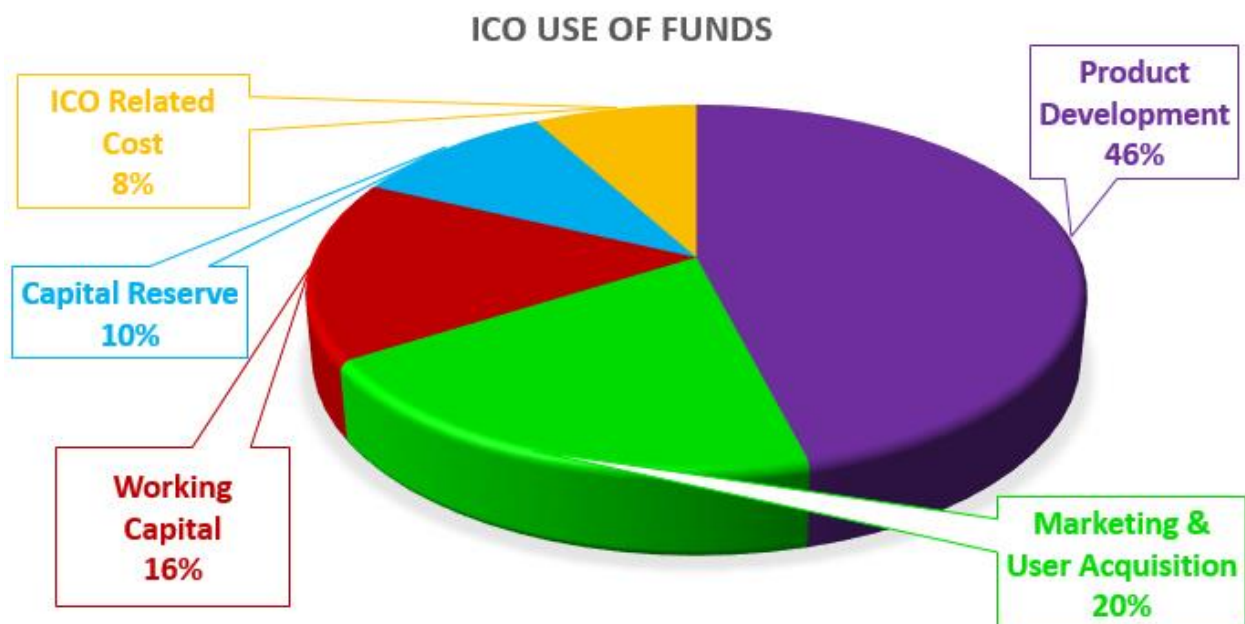
- **46% – Product Development**

Almost, half of the ICO funds will be directly invested in further product development in order to meet the platform design specifications and functionality. Included in the scope is the underlying infrastructure, expansion of the development center in three waves with approximately 30 new developers, engineers and marketing specialists and also the cost associated with the product launch at each phase.

- **20% – Marketing and User Acquisition**

The amount dedicated for marketing purposes is set at one-fifth of total funds gathered. This is the estimated amount required in order to achieve steady and increasing user base which in

turn will allow for further platform growth. As per design the more users from the community join the project the more stable the solution will be.

- **16% – Operational Capital**

A portion of the funds gathered will be used to cover for operational expenses. The platform is designed to provide additional services like insurance quotes, guaranteed deposits, vehicle warranty, etc. All services need to be covered by enough liquidity in order be available for the community.

- **10% – Reserve Capital**

One-tenth of the raised funds will be held as reserve in case of unexpected events during the first two years of the post ICO project. In case the amount is not required after the second year the amount will be used to buy back some of the tokens in circulation.

- **8% – ICO related cost**

Approximately 8% of the total amount gathered during the ICO (pre-ICO) will be used to cover for all the expenses for the ICO event. In case, the ICO finishes before the full 8% amount is spent, the remaining funds will be added to the Reserve Capital.

6.3. CAR Token Distribution

The total CAR Tokens to be ever created will be fixed at 100,000,000 (one hundred million) tokens.
The token distribution will be as per the below table:

CAR TOKEN DISTRIBUTION

CarVDB Pool 36%
ICO 50%
Founders & team 14%
Special Coins 0.021440%

- 50% of all tokens (49,978,560) will be distributed during the ICO as per point 2.1.

- 36% (36,000,000) tokens will be reserved for the CarVDB pool. The tokens in this pool will be distributed during a period of one year to the first CarVDB users for free according to their contribution in terms of content and quality. These tokens will be used to incentivize the usage of CarVDB services rather than encouragement to hold as investment. Various methods will be designed to make sure those tokens are used as initially intended. About <1% of the fund will also be used for Bounty Campaigns during the ICO.
- 14% (14,000,000) tokens will be reserved for the founding members, development team, early hires and advisors. These tokens will be locked in a special vault contract for a period of 2 years. This means that the tokens will not be transferrable until the two years period expire. We are doing this in order to demonstrate the team long term commitment to the project.
- <1% or 21,440 special tokens will reserved for the bounty campaign during the ICO and also for community members who add value to the platform during or after the ICO.

6.4. The CarVDB Black Card

6.4.1. CarVDB Black Cards Award & Distribution

After successful ICO, CarVDB will issue a limited edition CarVDB BLACK Membership Cards. The cards will have exclusive design and will be distributed among the first 500 contributors based on several criteria:
- Cars with numbers 001 – 250 will be issued to the contributors who have made the 250 largest ETH contributions. (Maximum individual contribution is 1,500 ETH).
- Cars with numbers 251 –500 will be issued to contributors who have made the first 250 ETH contributions irrespective of the contribution amount.
- If there are two people who have made the maximum allowed contribution of 1,500 ETH, priority Black Card number will be given to the one who has made the contribution first.
- There will be no more Black Cards issued after number 500.
- The Black Cards will be delivered for free to an address provided by each contributor.
- If the hard-cap is reached before 500 contributors manage to invest, half of the remaining CarVDB Black Cards will be distributed among the contributors with the largest ETH contribution. The other half will be distributed among the contributors who have invested first.

6.4.2. CarVDB Black Card Benefits

The holders of CarVDB Black cards will enjoy the same benefits as the holders of Silver, Gold and Platinum cards. In addition, there will be special limited bonuses, services, offers, discounts and features exclusively agreed and provided by the CarVDB partners for the Black Card holders only. Some features will include but are not limited to:

- **Yearly bonus of 500 CAR Tokens** to be spent by the card holders as per their desire
- CarVDB user profile marked as "**Founding Member**", which entitles each card holder to **priority customer service** and **lifetime no transaction fees** on the CarVDB platform.
- **Up to 25% discount** on insurance premiums
- **Up to 60% discount** on purchases of vehicle spare parts and accessories
- **Priority maintenance appointment** at any of our Service Center partners. This means no more waiting for 2 weeks to get your vehicle inspected / repaired. You get your appointment within the next two business days.
- **Up to 30% discount** on vehicle maintenance / repair jobs
- **Car Rental Benefits** – card holders get complimentary vehicle upgrade and premium prices at some of the major rental companies.
- Additional one time **exclusive offers, services and discounts** provided by CarVDB or our partners.

Note: As we are aware some investors might not want to hold on to their Black Cards and might want to transfer them to a family member or a close friend we provide option for one time free card replacement and issue of new card on another name.
Although we cannot prohibit the sale of the Black Cards we do not encourage such action. Overtime the CarVDB Back Card value will immensely increase, as there will by only 500 cards worldwide.

6.5. CarVDB ICO Rules

- CarVDB tokens will be distributed to partners and investors during one single ICO event.
- The ICO will be held exclusively at https://www.carvdb.com/
- The token sale will start at 9:30am UTC on 13th March 2018
- The token sale will last for 90 days.
- The token sale will be executed by the ERC-20 standard via smart contract on the Ethereum Network
- The total amount of tokens that will be distributed during the ICO will be 49,978,560 or the equivalent of 25,888 ETH.
- There will be 7 waves for token distribution
- Pre ICO is set at 1,888 ETH (1st Wave).
- Soft-cap is set at 5,888 ETH (2nd Wave).
- Hard-cap is set at 25,888 ETH (Waves 3 to 7).
- CAR token price is set at 1,580 tokens per 1 ETH.
- Contributors will receive bonus CAR tokens depending on when they contribute to the project. See Table 1. for details on the bonus received during each wave.
- The funds contributed during the pre ICO will be used to cover for all the expenses related to the ICO event.
- If pre ICO does not reach the target of 1,888 ETH the smart contract will close automatically and funds (from the pre ICO) that have <u>not</u> been spent for ICO related costs will be returned to investors proportionally.
- If soft-cap does not reach the target of 5,888 ETH, the contract will be closed automatically and ALL funds contributed during the Wave 2 will be returned to investors minus the transaction fees. The remaining funds (if any) from the pre ICO will also be returned to investors proportionally.
- Pre ICO donations spent for the ICO campaign will be recorded with due diligence and reported back to the community to allow for transparency and traceability.
- If soft-cap is reached but the hard-cap is not reached during the first 90 days, the ICO event will be extended for 21 more days, after which the event will be automatically closed by the smart contract.
- If hard-cap is reached, the ICO event will close automatically.
- CAR Tokens will be locked during the ICO and will be distributed to investors after the soft-cap or hard-cap is reached and the smart contract is closed.
- Maximum individual contribution is 1,500 ETH (~7% of total tokens offered for sale). The limit is imposed in order to allow for more investors to join the crowdsale and in the same time reduce the ability of one big investor to affect token price.
- Minimum individual contribution is 0.1 ETH ($80 at $800 ETH price).

- Investors during the ICO should use ERC-20 approved wallet and provide the same address in order to receive the CAR tokens after the ICO finish.
- In case the soft cap is reached but the hard cap is not reached, any unsold tokens will be distributed among the investors in accordance to the amount invested by each one.

IMPORTANT!!!

Crypto currency exchange addresses are **NOT** to be used for CAR token purchase – we will not be able to send funds to such wallets, hence investors are advised to use ONLY ERC-20 approved wallets. See the below table for approved ERC-20 wallets.

✓ Compatible Wallets	✗ Incompatible Wallets
MyEtherWallet	No Onilne Exchanges
MetaMask	Bitfinex
Mist	bitFlyer
imToken	Bithumb
Parity	Bitstamp
	Bittrex
	BTC-e / WEX
	CEX.IO
	Coinbase GDAX
	Coinone
	Exodus
	Gemini
	HitBTC
	Jaxx
	Korbit
	Kraken
	Poloniex
	Quoine
	Vaultoro

7.   TIMLELINES

Crucial part of every strategic plan are the mid- to long-term goals, which in turn are one of the key components for turning an idea into a successful enterprise.

Proper long term planning is also an important means to establish a realistic vision for a business and secure future growth.

The below table displays the planned CarVDB Platform Roadmap along the course of five years (2018-2023) and highlights the most important milestones along the way:

7.1. CarVDB Platform & Important Milestones

CarVDB Platform Roadmap & Important Milestones

Q1 2015
- Platform Alpha Released in USA & Spain
- More than 1M Ads Published to Date

Q1 2018
- CarVDB Token Creation Event
- Platfrom Beta Development
- CarVDB Black Membership Cards Distribution

Q4 2018
- Marketing Campaign Kick Off
- Early Adopters Incentives
- Partnerships Anounced

Q1 2019
- Platfrom Beta Release in USA & Spain
- Smart Contracts Relese
- Insurance Platfrom Release
- Auctions Platfrom Release
- Growth Pool & Membership Cards Distribution

Q4 2019
- Platform Release in Canada, Mexico, Australia & New Zealand
- VIN Check Feature Release
- Repair Manuals Feature Release
- Maintenance Reports History Release

Q3 2020
- Platform Release in UK, Germany & China
- European Partnerships Anounced
- Decentralization Begins

Q4 2021
- Platform Release in France, Italy and Switzerland
- Consider Additional Revenue Streams
- Transition to Public Blockchain

Q1 2023
- Platform Release in South America
- Revision of Future Strategy
- Announce Next 5 Year Plan

8. SOCIAL RESPONSABILITY

The entire CarVDB team believes that the platform, we are building is in the best interest of society. In a world over flooded with information and multiple data sources, dishonest individuals and businesses, the companies that manage to offer simple and user friendly services, which actually help people in their everyday lives will be the ones to lead the race in the next 50 years. Add, safety and reliability and the first prize is guaranteed. This is what we aim for and we will not be satisfied with nothing less.

In addition, we strongly believe that successful businesses should not only provide but also give back. In 2018, it is not enough to just pay your taxes and organize couple of social events for people with disabilities. Companies should do more.

This is the reason why, the founders and team is gathered around the idea to donate as much as 10% of the company annual profits to charity. The two main areas where we will contribute will be to the families and victims of car accidents and impoverished children.

Sometimes, things happen without explanation and leave behind a lot of pain and suffering. Car accidents are one of those examples. Often associated with very high medical bills that insurance companies are reluctant to pay for, those unfortunate events force people to make very tough decisions. Although, financial help might not be the answer to all questions, we believe that it can be at least a slight relief if people do not to have to worry about financial maters.

The other area, which is very important in social aspect is related to children who grow in poverty or without means for normal life. We have all heard the saying that children are our future but how many times have we really thought about how true that is. We forget that children who grow in harsh conditions often develop habits that prevent them from being moral individuals and ultimately have destructive effects on the entire society.

Therefore, we believe it is absolutely important to donate to causes that aim to improve children lives like better access to education, employment programs for parents, educational courses on the importance of proper tutoring, among others.

It is not yet decided how those funds will be spent – whether donated to charity organizations or managed and invested directly into programs developed for the purpose. The direction, however has been set and there is a lot to come.

9. LEGAL DISCLAIMER

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