

iRide : Ridesharing powered by Ethereum blockchain

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Team iRide

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Abstract

Ride-sharing platforms have made rapid progress in the recent years. Worldwide revenue of these platforms is expected to be \$60 Billion USD in 2018. The ease and comfort which they provide have made many people adopt them for their daily commute needs. But with the rise in their reach, these platforms have also become more centralized and less transparent. Drivers face the brunt of their power by paying increased commission and facing arbitrary changes in incentives. With **iRide** we envisage a blockchain based platform which solves the current problem of increased commission charged by centralized platforms like Uber and make the platform more transparent. iRide is ride-sharing platform powered by smart contracts which connect riders and drivers without the middleman, enabling drivers to make more money and riders to pay less.

1. Introduction

Ridesharing market throughout the world has grown by leaps and bounds. The idea of just pressing a button on your smartphone and a car comes at your doorstep to pick you up has found appeal in all parts of the world. Worldwide revenue in ride-sharing is expected to be US \$60 bn in 2018 and is expected to reach US \$109 bn by 2022.

Uber was launched in March 2009 and introduced the idea of ridesharing to the world. Soon, there were many companies like Lyft, Grab which were launched in different parts of the world to cater to the demand of people for getting a cab on the press of a button on your smartphone. Before the advent of ridesharing services, booking a cab was a tough task. You either had to go down to the street to hail a cab or call your local taxi service operator to send a taxi. The response time and quality of these services were flaky at best.

The ride-sharing services like Uber and Lyft streamlined this process and introduced a mobile-based system to call cabs. They were able to provide services at a much lower rate by utilizing the idle time of taxi drivers and cab operators. The quality of service, ease of use and increased earning capacity for drivers made sure that these services grew in popularity at an astonishing rate, and soon everybody was using ride-sharing services for their daily commute.

But, as these services grew in size, they became increasingly less transparent and centralized. The power which these platforms command today is enormous. They control all the supply of customers to drivers and thus are able to charge high commission rates. The commission rates for a platform like Uber & Lyft go to as high as 28-29%. This has led to increased dissatisfaction among the drivers and cab operators who operate in these platforms. According to some estimates, annual turnover rates for drivers at any of these ridesharing platforms are as high as 40-50% [\[1\]](#)

If we think about it, the key service these platforms are providing is that of **trust**. We trust that the drivers working in these ride-sharing platforms are vetted and are trained to adhere to timings and certain quality. The users are sure that a car if booked will come to their location within the indicated time. The drivers are also sure of the payment by the users.

Blockchain technology is an ideal solution for such a system where the key job of the platform is to provide trust. All the transactions and agreements are captured through smart contracts on the blockchain and are immutable. With iRide, our vision is to use these features to provide a more efficient and transparent ride-sharing platform, where the power is with the community of riders and drivers and not with a centralized organization.

2. Motivation

There are about 5 million drivers which work in major ride-sharing platforms across the world. Out of these Uber and Didi Chuxing hold about 70% of the market share and the rest 30% is distributed among the other ride-sharing services like Ola, Lyft, etc [\[1\]](#). The increased

centralization of market share among these platforms has led to increased negotiation power for these platforms.

Platforms like Uber sign up drivers with high average monthly claims and also incentives and bonuses. But once they have captured a market, the platform commissions are increased and bonus schemes are stopped. This leaves the drivers in a precarious situation as they take a loan and plan certain investments based on the increased level of income.

Problems with current ride-sharing platforms:

Centralized organizations like Uber and Lyft take a large commission from drivers. The centralized platform owners are in complete control of the business network and can dictate terms without consulting the drivers as they control the supply of customers.

The ratings of drivers significantly affect their earning potential, and a driver with low rating gets a lower number of rides and hence lower monthly income. The riders can give any rating they want and there are not much checks and balances on why a certain rating was given to a driver. A driver can get a bad rating even though he has provided an excellent service.

2.1 Opportunity

Ride-sharing platforms are relevant primarily for urban areas where a large number of people stay in a small area. With the way our world is developing, urban centres are becoming more and more crowded. Migrant workers from villages and rural areas flock to urban areas in search of better livelihood and standard of living.

Urban population is growing, driven by the global population growth rate of around 1.09% [\[2\]](#) per year and amplified by rural-to-urban migration. The urban population is set to grow at a CAGR of 1.6% until 2030 vs. 2.2% average growth rate over the past two decades.

Today, 54% of the world's population lives in urban areas, a proportion that is expected to increase to 66% by 2050. This augurs well for ride-sharing platforms which have urban areas as their market.

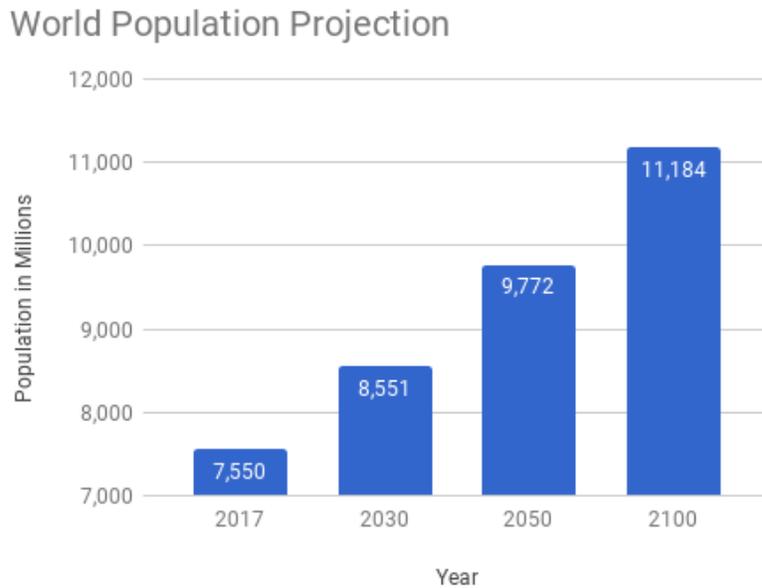


Fig 1. World Population projection (World population prospects: The 2017 Revision [3])

Currently, there is a need for a ride-sharing platform which is fair to both the drivers and riders. A platform which is controlled by the drivers and riders and where the members benefit as the ride-sharing platform grows. It should be able to cater to the following market needs:

Offer reliable and reasonably priced services due to busy routines and people need cab services for traveling within or out of the city. There is a demand for ride-sharing services that also deliver parcels at the doorsteps. Quick response time when customers request a ride and safety matters a lot. It is important to have experienced and licensed crew of drivers

Provide job security to drivers with a much better rewarding system

2.2 How we think blockchain can help?

As we discussed earlier, the key problem which these ride-sharing platforms solve for is that of **trust**. This can be done easily via blockchain based smart contracts where the agreements between drivers and riders are negotiated in a decentralized way rather than being orchestrated through a centralized organization like Uber or Lyft.

We think that a blockchain based platform can provide the following advantages over a centralized system:

The blockchain based platform will be fair and transparent as all the rules and conditions will be coded in smart contracts and will be available to be reviewed by all the members of the platform. There can't be arbitrary changes in rules and incentives as is currently done by centralized ride-sharing platforms. Any changes would need to be executed by a governance mechanism put in place using smart contracts. Drivers can decide their fares individually or in a group based on supply-demand, and no intermediary is involved in the process

The cost of running such a decentralized organization will be minimal as most of the decisions will be made by smart contracts. There will be no bloated office spaces and huge salaries to be paid to the employees. The increased usage of the platform will lead to an increased value of the native token and thus all the riders and drivers can benefit from the increased value of the tokens. Thus, the profit made by the platform is distributed among the community.

3. iRide Platform Design

iRide is a decentralized ride-sharing platform where riders can request for their travel needs and drivers can accept those requests to deliver the service to the passenger. The platform will be powered by iRide token, which is a native ERC-20 token for iRide platform.

3.1 Key Features

Some of the key features of iRide platform are:

Users can request rides through the iRide mobile app which will be forwarded to all online drivers. The drivers can pick up rides which are most appropriate for them.

The driver assignment and user requests will be executed by Ethereum based smart contracts which will have the logic for the percentage fees charged from the driver and the loyalty points.

Riders can pay both with fiat currency (credit cards) or using iRide token. If they choose to pay via iRide token they will get a certain discount in the fare and will also earn loyalty points.

Increased use of iRide tokens by users will lead to greater value for the token.

Drivers will have to pay a much lower commission fees as compared to centralized platforms like Uber & Lyft. The detailed schedule of driver commissions is given in section **X**

The platform will have partnerships with pension plan providing wealth management companies like Betterment. Drivers can agree to invest a small percentage of their earning to these plans to ensure a pension cover after their retirement from the service. If the drivers opt for this, the iRide tokens will directly be invested for them via the smart contracts governing their earnings.

The identity of drivers is vetted through third-party oracles who would push the data about the correctness of the profile information submitted by drivers on the blockchain. This data would be used by smart contracts to approve a driver on the system. Decentralized identity platforms like [Civic](#) will also be used to ascertain the identity of drivers working on the iRide platform.

3.2 Booking Process

Users will download the free iRide app from the app stores.

A rider will submit a request for transportation through the app.

The request will then be forwarded to all online drivers.

The driver who accepts the request will pick-up and drop-off the passenger. Insurance for drivers will be provided per ride, offered through our iRide app.

At the drop-off location, the passenger will have the option to pay the fare by iRide Token or Credit Card. Both driver and rider will rate each other's services.

3.3 Driver Benefits

Driver Pension

Partner with wealth management companies like Betterment to provide “Individual Retirement Accounts” for drivers these accounts will have added features like zero minimum account balance, direct deposit, etc. which will be exclusive to iRide drivers

Driver partners can easily set a fixed amount per month to be deposited to the IRA account from their iRide earnings

Drivers Paid No Commission, get to keep 100% of the fees.

3.4 Advantages for Passengers

Lower cost of travel - Since the decentralized platform charges no commission, the drivers are in a position to make greater earnings from their rides. They can choose to pass on some of the earnings to passengers as reduced price to compete with each other. This would lead to overall lower fees for the passenger. Since all the transactions and agreements on the platform are present on the blockchain, users can check the agreements and the validity of driver information if they choose to. They can also audit if they are being charged a fair price. Such transparency is not available on centralized systems like Uber as they closely guard these secrets under the hood of “proprietary information”.

4. Market & Competitive Analysis

According to Statista [\[4\]](#), global revenue in the ride-sharing segment amounts to US\$59,678m in 2018. Revenue is expected to show an annual growth rate (CAGR 2018-2022) of 16.3 % resulting in a market volume of US\$109,050m in 2022. User penetration is at 9.8 % in 2018 and is expected to hit 13.3 % in 2022.

The pace of growth is also picking up. Uber took six years before it reached a billion rides in December of 2015, but it took only six months for the company to get to two billion rides. For the US market alone, the number of users of ride-sharing services is estimated to have increased from 8.2 million in 2014 to 20.4 million in 2020 [\[5\]](#).

A larger percentage of US adult population is using ride-sharing services, as shown in the table below.

Year	Number of US ride sharers (in millions)	% of US adult population
2014	8.2	3.40%
2015	12.4	5.00%
2016	15	6.00%
2017	17	6.70%
2018	18.2	7.10%
2019	19.4	7.50%
2020	20.4	7.80%

Table 1. Number of US ride sharers as % of the adult population [\[5\]](#)

Ride-sharing companies have achieved great success in all parts of the world. From Ola in India to Grab Taxi in South-East Asia each market has a local player who is competing with global brands to provide the best services and prices to the user.

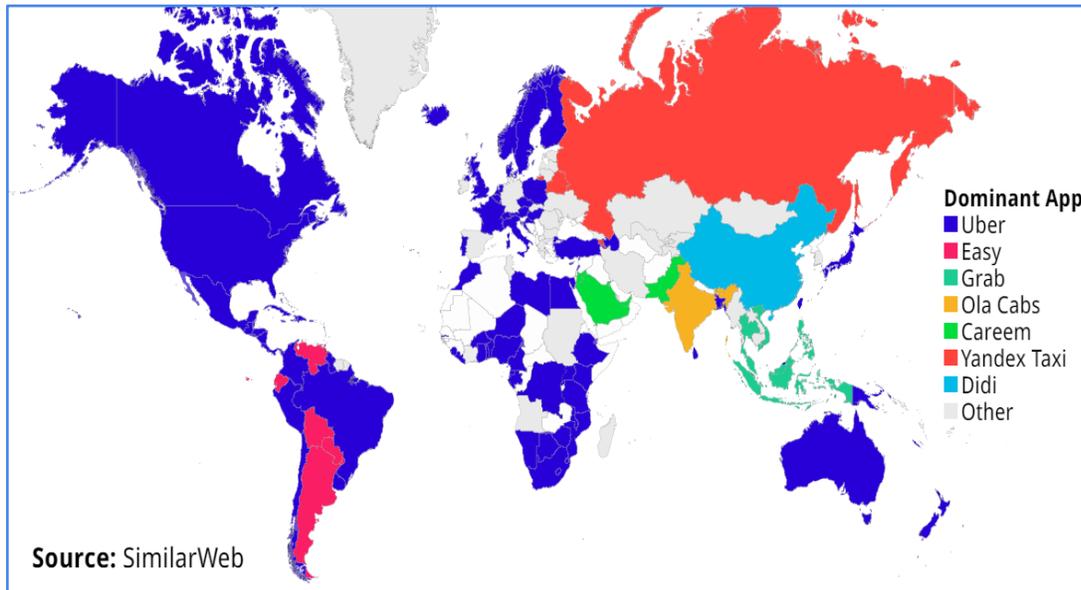


Fig 3. Dominant players in different geographies in the world

From Asia to North America, we will launch our services worldwide so that users in all parts of the world can benefit from our decentralized ride-sharing service. The schedule of launch in different markets will be chosen based on the market potential and our own research.

4.1 Competitive Analysis

			
About	It develops, operates and markets Lyft mobile app. Only present in the US	Uber is a US-based online transportation company. It has a presence in many countries. It runs Uber app	iRide will offer 100% commission free for drivers, and in turn, saving cost for riders
Offerings	Ride-sharing Parcel Delivery 25-28% commission	Ride-sharing Parcel Delivery 25-28% commission	Ride-sharing Parcel & Food Delivery 0 % commission
Strength	<ul style="list-style-type: none"> - High partnership opportunities - Excellent Customer Service - Convenient Services 	<ul style="list-style-type: none"> - Available in more than 100 countries - Established brand name 	<ul style="list-style-type: none"> - Experienced Management Team - Ensures safety of rides - Powered by blockchain technology

Table 2. Comparison with existing centralized players

4.2 Players using blockchain technology in ride-sharing

Lazooz - Lazooz is a decentralized, community-owned transportation platform that turns a vehicle's unused space into a variety of smart transportation solution. By using cryptocurrency technology La`Zooz works with a "Fair Share" rewarding mechanism for developers, users and backers.

La`Zooz platform synchronizes empty seats with transportation needs in real-time, matching like-minded people to create a great ride-sharing experience for a "fair fare". Lazooz is based out of Israel

SnagRide - SnagRide is a long-distance ride-sharing platform that combines artificial intelligence with blockchain technology through Smart Contracts. This technology allows the

SnagRide platform to easily and securely manage the lifecycle between drivers and passengers willing to travel together between cities and share the cost of the trip.

SnagRide is based in the US and completed its token sale in March 2018.

[Arcade City](#) - Arcade City is a decentralized ride-sharing platform with special emphasis to better conditions for drivers. Arcade City enables its drivers to organize into autonomous self-organized guilds. These guilds create their own charter on how they should operate and manage themselves.

Arcade City launched in 2015 when competing rideshare firms left Portsmouth, NH and Midland, TX. The platform is powered by ARCD token which is the native token for Arcade City.

[Ridecoin](#) - Ridecoin is a blockchain based peer-to-peer transportation marketplace that supports network growth through cryptocurrency rewards. Ridecoin combines concepts from the rideshare industry with the technological benefits of a blockchain. Ridecoin is one of the first cryptocurrencies to seek qualification with the SEC to provide a new level of security to cryptocurrency investment through a dual token design

[Chasyr](#) - Chasyr is a blockchain powered ridesharing company with a team with extensive experience in the transportation industry as drivers, riders, ambassadors, and business developers. They are focusing on having a more fair distribution of value between drivers and riders.

5. Token

We have been dedicating our efforts to raising the living standards of our drivers through our quality services and discount rideshare pricing structure.

iRide token will be used both by drivers and passengers. Riders will use iRide tokens to make payments on the platform while drivers will receive their earnings in them. Because the whole system is decentralized and based on smart contracts powered by Ethereum blockchain, the price of operating this platform will be much lower than current alternatives like Lyft and Uber.

This will improve profitability for drivers as they would have to pay only around 2-4% of their earning to the platform as compared 28-29% for Uber and Lyft. iRide tokens will be instrumental in enabling a reasonably priced ride-sharing experience for the growing masses.

5.1 Token information

iRide tokens will be used for making the payments for the services availed in iRide platform. Drivers on the platform will take iRide token as a payment. The tokens will also be used to reward loyal users for their continuous support to the iRide platform.

Token Issue Date	February 20, 2018
Token Name	iRide Token
Token Symbol	iRide
Token Owner	iRide.io Tech PTE, LTD
Token Type	Ethereum
Total Token Supply	10,000,000,000 Hard Cap
Token Price	1 iRide = 0.10 USD

Table 3 - Token Details

5.2 Token Transaction Schedule

Exchange Rate	1 ETH = 2,000 iRide Token
Project Protocol	ERC-20
Pre-sale	9/16/2018
Soft Cap	\$5 mn
Hard Cap	\$25 mn
Public Sale	November 20th, 2018
Soft Cap	\$5 mn
Hard Cap	\$25 mn

Table 4 - Token Transaction Schedule

5.3 ICO Details

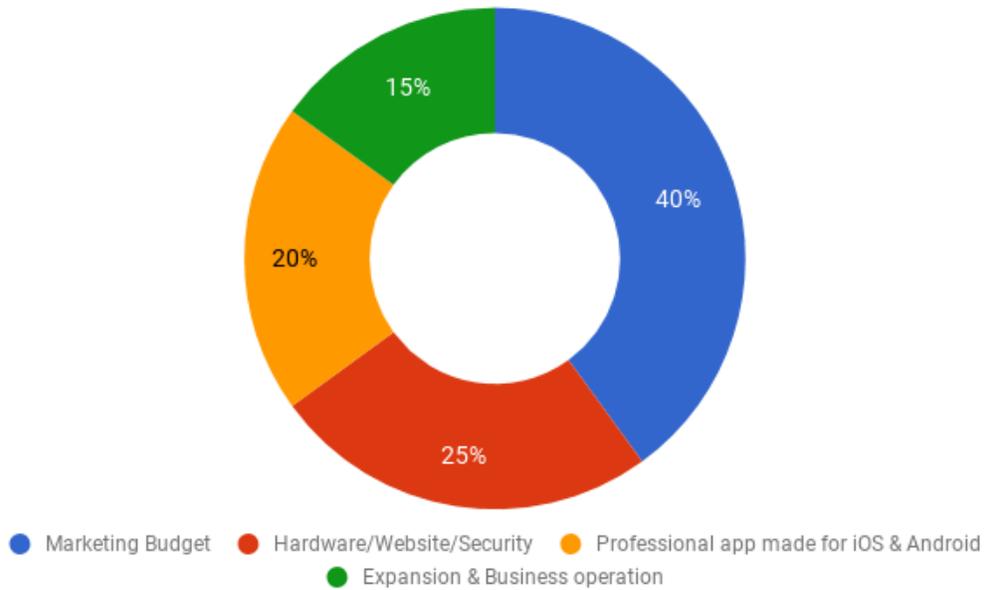


Fig 4. Use of ICO funds

The funds raised through ICO will be primarily used for development of the platform and marketing. On the development front, we will focus on developing a top quality app for both iOS and Android platform. Marketing funds will be used to launch the iRide platform in a stage by stage manner as detailed in the **Roadmap** section.

5.4 Token Percentage Chart

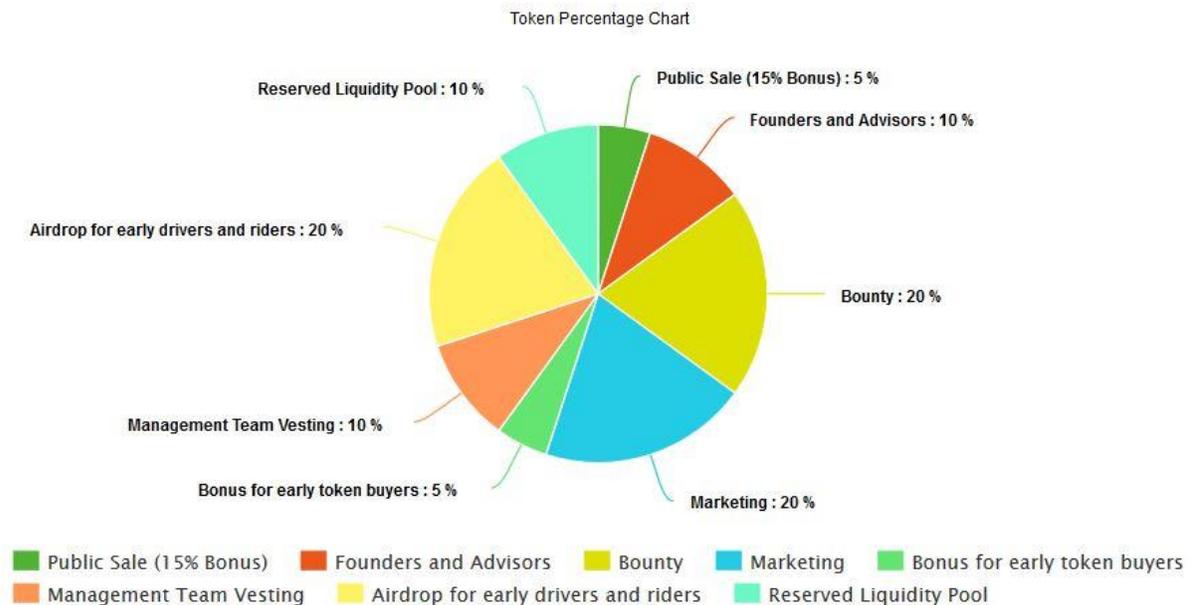


Table 5. Token percentage chart

Tokens purchased with ICO have a 180 days restriction before selling. Bonus for early token buyers - No restriction

6. Strategy and Roadmap

Our key strategy is to charge 0% from drivers by leveraging the advantages of smart contract technology. The platform take- 0% rate will also make the drivers compete among themselves to offer a lower price for the customer. This will create a lower cost of travel for the customer. We expect that this advantage will help us achieve the following strategic objectives

To increase our passenger and driver registrations on our iRide token application on the Ethereum Blockchain. To establish and maintain a strong market presence that assures both short-term and long-term profitability, growth and success for our drivers.

We also plan to introduce the following new services by Q3, 2019.

Food delivery and Insurance options.

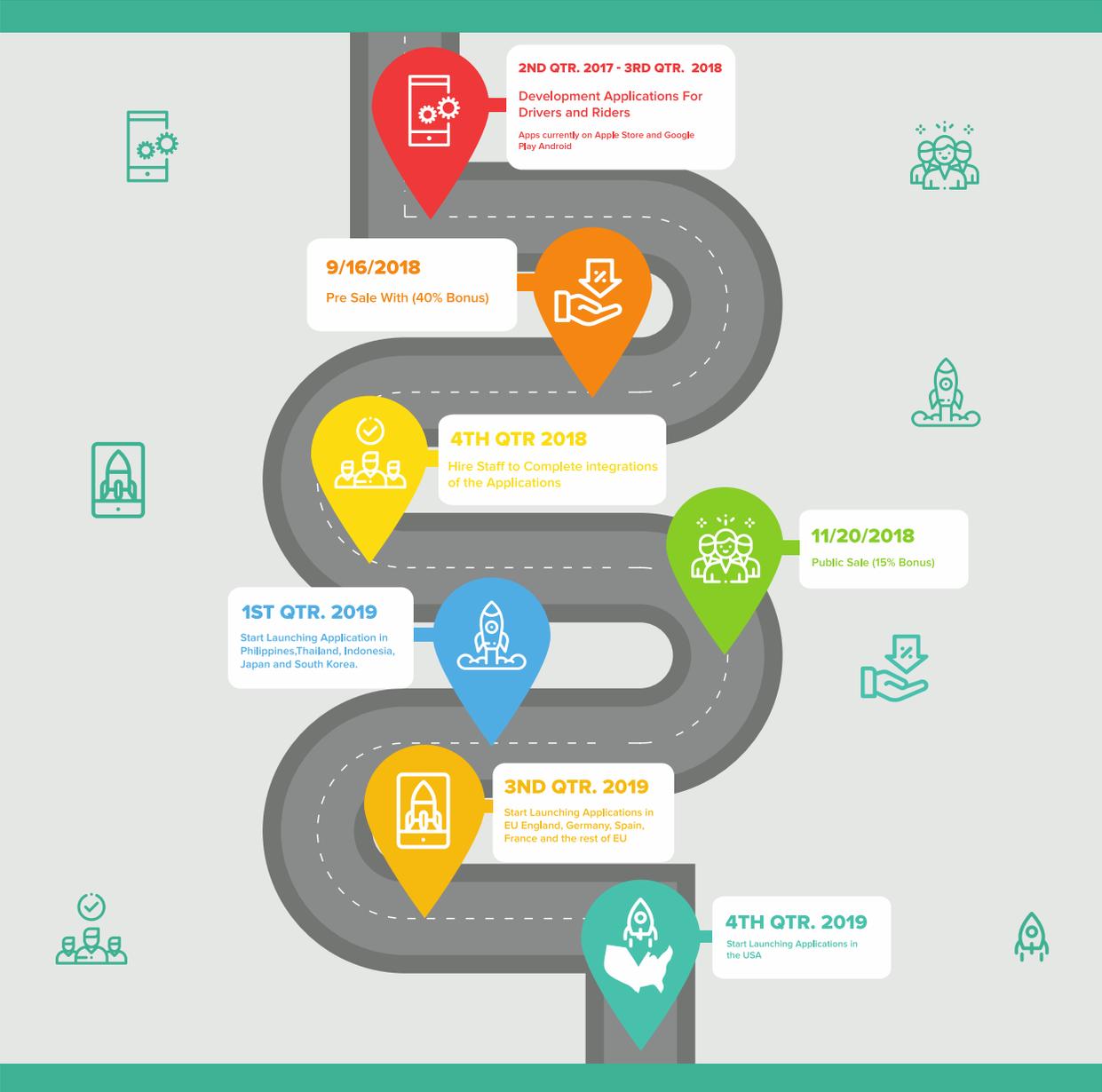


Fig 5. Launch roadmap for iRide

We plan to finish our application development by June 2018 and start launching in different geographies from Q1, 2019. We will start with South East Asia and Japan, and then proceed to the EU and the USA

7. Management Team & Advisors

Management Team



[Steve Foo](#)
CEO/CFO



[Saeid Toufani Asl](#)
Graphic Designer



[Trung Nguyen](#)
Programmer



[Hristo P](#)
Data Analyst



[Silvija Jurgelevic](#)
Accounting



[Gaurav Kumar](#)
Human Resource

Advisors



Ong Eng-Hwee Gareth



Naviin Kapoor



Richard Trummer



8. Summary

iRide is an attempt to create a decentralized ride-sharing platform which is transparent and fair to both drivers and riders. We have used blockchain technology and Ethereum based smart contracts to set the rules in the system and enable transparent mechanisms for setting fare. The use of smart contracts reduces the cost of operating the platform and drivers need to pay a much lower commission on their earning as compared to centralized platforms. Our vision is to create a transparent platform where the community benefits with the growth in the usage of the platform and power is not centralized into single entities.

References

- [1] Blockchain Based Ridesharing Platform, YoStartups, <https://yostartups.com/1001-startup-idea-blockchain-based-ride-sharing-platform/>
- [2] World Population Clock, Worldometers, <http://www.worldometers.info/world-population/>
- [3] World Population Prospects, 2017 Revision, United Nations, https://esa.un.org/unpd/wpp/Publications/Files/WPP2017_KeyFindings.pdf
- [4] Ride Sharing Worldwide, Statista, <https://www.statista.com/outlook/368/100/ride-sharing/worldwide#>
- [5] The Ride Sharing Business: Is a Bar Mitzvah moment approaching?, <http://aswathdamodaran.blogspot.in/2016/08/the-ride-sharing-business-is-bar.html>

Legal and Risk Disclosure statement

iRide.io is a registered iRide is a registered Singapore Company.

This statement applies to this White Paper and any information available on our website:

<https://www.iRide.io>

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