

# The Future of Betting

BETR - A crypto currency ICO to establish a betting currency providing truly decentralised sports betting on the internet with the ultimate goal of providing a Global Betting Liquidity Pool.

### Contents

1.	Disclaimer		
2.	Ove	erview	3
2.1	Mar	ketplace	3
2.2	The	Problem	3
2.3	The	Solution - Why BETR Betting is better	4
2.4	Con	4	
2.5	Risk	(S	4
3.	Elen	nents of an Online Sportsbook	5
4.	A D	istributed Peer to Peer Model	5
4.1	Med	chanism	5
4.2	В	enefits	5
4.	2.1	Peer to Peer betting with no central party	6
4.	2.2	Applicability to other activities	6
4.	2.3	Open source systems	6
4.	2.4	Access to much larger bets - the wholesale angle	6
4.	2.5	Provably fair and unbreakable	6
4.	2.6	No risk to punters from underfunded operators	6
4.	2.7	Ease of funding for bet placement	6
4.	2.8	Instant access to winnings	6
5.	Con	nponents of a Distributed Model	6
5.1	Е	scrow and Resulting/Settlement	7
5.	1.1	Layor	7
5.	1.2	Consensus	7
5.	1.3	3 <sup>rd</sup> party settlement	7
5.2	A	Authentication	7
5.3	T	he Better Betting Node	7
5.4	D	Different views based on target market	8
5.5	В	setter Betting Node Software	8
5.	5.1	Transaction confirmation	9
5.	5.2	Directory Service	9
5.	5.3	Synchronisation Services	9
5.	5.4	Automated APIs for bet offers	9
6.	Tech	hnical Implementation	9
6.1		Overview	

#### © Better Betting Foundation 2017

6.	.2	One Application and Two Linked Systems	10
6.	.3	How it Works for All	10
6.	.4	BBN Close-up	11
6.	.5	BBN's Three-Layered Structure	12
7.	Th	ne ICO	13
7.	.1	Foundation establishment and governance	14
7.	.2	ICO and token sale	14
7.	.3	Hard Cap	14
7.	.4	Reserve for future issue	14
7.		Ongoing Maintenance Tokens	
8.	Fo	ounders and Partners	14
8.	.1	Management Team	14
	8.1.1	Adriaan Brink	15
	8.1.2	lan Sherrington	15
	8.1.3		
	8.1.4	Mitchell Rankin	16
8.	.2	Advisors	
	8.2.1	Ronnie O'Sullivan	17
	8.2.2	Jon Matonis	18
	8.2.3	Jez San OBE	18
	8.2.4	Eric Benz	19
	8.2.5	David Vanrenen	19
	8.2.6	Rasmus Sojmark	19
	8.2.7	Michael Caselli	20
	8.2.8	Dennis Van Maanen	20
8.	3 M	edia Partners	21
	8.3.1	Lyceum Media	21
	8.3.2	Sports Betting Community	21
8.	.4	Strategic Partners	22
	8.4.1	Socialitize Ltd t/a 2BET2 Sports Apps	22
	8.4.2	Optimaplay	22
	8.4.3	Coinpoint	22
9.	Ro	oadmap	23

# The Future of Betting

### 1. Disclaimer

This document (the "Document") and the information available in this Document should be regarded strictly private and confidential, and may not be used or forwarded to any third parties in any manner without the written consent of Better Betting sihtasutus (the "Company"). This Document may only be disclosed to the public by the Company at its sole discretion.

The sole purpose of this Document is to provide the recipient with preliminary information regarding the token issue to assist the recipient in deciding whether they wish to buy the tokens issued by the Company and to express their respective interest to the Company in order for the Company to be able to determine the final conditions of the token issue. The tokens that are mentioned in this document will have their own particular terms and conditions, which should be read and consulted before entering into any transaction. A purchaser contemplating making an investment into the token issue should not make an investment decision relying solely upon this preliminary circular.

The statements of fact, information, opinions and estimates contained in this document have been obtained, compiled or arrived at from sources believed to be reliable and in good faith, but no representation or warranty expressed or implied is made as to their accuracy, completeness or correctness. In particular any numbers, valuations and schedules contained in this document are preliminary and are for discussion purposes only. The information contained in this Document is published for the assistance of recipients but is not to be relied upon as authoritative or taken in substitution for the exercise of judgment by any recipient. The Company nor any of its directors, officers or employees nor any other person accepts any liability whatsoever (in negligence or otherwise) for any loss howsoever arising from any use of this document or its contents or otherwise arising in connection therewith. Expressions of opinion herein are subject to change without notice. No person has been authorised to give any information or make any statements, other than those contained herein. Any other information or representations must not be relied upon as having been authorised by the Company.

This document is being furnished to you solely for your information and may not be reproduced, redistributed or published in whole or in part to any other person, except for your advisors following the same requirement of confidentiality. Upon request recipients must promptly return this Document to the Company or destroy it without retaining any copies. In furnishing this Document the Company undertakes no obligation to update this Document or to correct any inaccuracies that may become apparent.

All statements of opinion and all projections, forecasts, or statements relating to expectations regarding future events or the possible future performance represent the Company's own assessment and interpretation of information available to it currently.

This Document does not qualify as a prospectus. For the avoidance of doubt, the tokens do not qualify as securities and the issuance of the tokens does not qualify as issuance of securities within the meaning of the Estonian Securities Market Act (in Estonian: Väärtpaberituru seadus). As a private non-listed entity, the Company has not been approved or disapproved by the financial supervision authority of the Republic of Estonia or any securities regulation authority of any jurisdiction nor has the financial supervision authority of Estonia or any securities regulation authority of any jurisdiction passed judgment upon the accuracy or adequacy of this Document.

This Document does not constitute an offer to sell or a solicitation of an offer to purchase the tokens in any jurisdiction in which such offer or solicitation is not authorized or to any person to whom it is unlawful to make such offer or solicitation. Each violation of such restrictions may constitute a violation of applicable laws of such countries. The purchasers are required to inform themselves of any such restrictions and return this Document to the Company should such restriction exist. The Company reserves the right to approve each purchaser.

In particular, the information herein is not for distribution, and does not constitute an offer to sell or buy, or the solicitation of any offer to sell or buy, any securities in the United States of America or to or for the benefit of United States persons (within the meaning of Regulation S under the Securities Act of 1933).

By receiving the white paper recipients accept and acknowledge that no special relationship of trust or duty whatsoever exists that would require updating the information in the white paper and confirm that purchasers are not relying upon any such special relationship of trust or duty (including under Article 1048 of the Estonian Law of Obligations Act, in Estonian: Võlaõigusseadus).

The contents of this document should not be construed as legal, tax or investment advice. The purchasers shall conduct their own investigation as to the potential legal risks and tax consequences related to the issue of and purchase of the tokens. Nothing in this Document shall be construed as the giving of investment advice by the Company or any other person. If you are in any doubt as to whether to purchase the tokens proposed to be offered by the Company and described herein, you should consult an independent financial adviser who is qualified to advise on investments of this nature.

The purchase of the tokens involves a degree of risk appropriate to the specific area of activity of the Company and only those persons or entities that are able to bear the risks associated with the tokens should consider making commitments that expose them to such risk.

The white paper and any use hereof are governed by Estonian law, without regard to Estonian rules on choice of law and venue. Any disputes that may arise as a consequence hereof shall be settled by an Estonian court of law.

### 2. Overview

This document outlines a new methodology for using the advances in technology for decentralised transactions pioneered by Bitcoin and other crypto currencies to implement a truly peer-to-peer decentralised sports betting protocol. The proposed protocol will be open-sourced and it is anticipated over time that numerous disparate software interfaces will be built (much as there are many flavours of Bitcoin wallet today) all using the common protocol with its underlying crypto currency.

### 2.1 Marketplace

The global regulated and unregulated gambling market is forecast to reach \$533 billion by the end of 2017 with sports betting the highest contributor. That represents a 47% increase from the \$363 billion market figure a decade earlier in 2007 according to Global Betting and Gaming Consultants<sup>1</sup>.

The Global online sports betting market is valued at \$205 billion as reported by Statista and the gross gambling yield of the regulated global football betting market alone is expected to reach \$80 billion<sup>2</sup>.

According to Technavio, the global market for online gambling has increased at a significant growth rate over the years 2010 to 2016 and projections are made that the market would maintain growth rates over the next five years. This growth has been forecast taking into consideration the previous growth patterns, the growth drivers and the current and future trends. One of which being large sporting events such as the upcoming FIFA World Cup 2018 in Russia as well as many other major sports events that take place around the world<sup>3</sup>.

\$3-trillion - the value of the global sports betting market according to a UN conference on crime. However, the vast majority of that is generated by unregulated gambling<sup>4</sup>.

In a report from Global and Gaming Consultants, Asia is the biggest market for gambling and sports betting in particular. It has grown at a consistent rate to more than \$40 billion. In China, up to \$1-billion can be gambled on a single game of football. It is estimated that there is an unregulated sports betting market of around \$180 billion per annum in China alone and \$60 billion annually in India predominantly through cricket<sup>5</sup>.

Ultimately, sports betting has become the fastest growing market segment within online gambling worldwide. We believe that the online sports betting market offers opportunities for coin usage that far exceeds many other ICOs currently offered. Our goal is to become the number 1 platform for crypto-currency gamblers to bet on sports.

### 2.2 The Problem

<sup>&</sup>lt;sup>1</sup> http://www.gbgc.com/news/gbgc-s-global-gambling-report-2016

<sup>&</sup>lt;sup>2</sup> https://www.statista.com/statistics/270728/market-volume-of-online-gaming-worldwide/

https://www.technavio.com/report/global-media-and-entertainment-services-global-online-gambling-market-2016-2020

http://www.dailymail.co.uk/wires/afp/article-3040540/Global-sports-gambling-worth-3-trillion.html

<sup>&</sup>lt;sup>5</sup> http://www.egba.eu/facts-and-figures/studies/6-sports-betting-report/

The online betting industry has lacked innovative ideas for some time. Odds are massively in favour of the bookmaker, payment methods are outdated and regularly winning players are restricted or banned. There is a lack of security, lack of privacy, extortionate fees and low returns, all of which are factors which either put bettors off or drive them to underground betting.

### 2.3 The Solution - Why BETR Betting is better

BETR is different. It is the betting crypto-currency that will establish truly decentralised sports betting on the internet. With BETR providing financial security true peer-to-peer betting becomes possible on the internet with entities that have no prior relationship. Using blockchain we are able to provide sportsbook clients that operate with no human or business entity in the middle. The system is safe, the software and transactions are provably fair and robust. Add on the ease of paying for a bet through BETR currency and the fact that you can make larger bets, and you can see why BETR Betting is the future of betting.

### 2.4 Competitive Landscape

There are several other sports betting operations that operate in the crypto space but we differ in one significant respect – we take no percentage of wagers and no margin. We purely facilitate a peer-to-peer bet. Add to that a team of seasoned veterans with a wealth of knowledge in the online betting industry and the result is a robust solution designed by the industry to work with the industry.

Competitive Sports Betting products include: Decentbet, Wagerr, Betmaster, Betrium, Imperium, Tombet, Fansunite, Quickbetcoin and Ethersport

### 2.5 Risks

There are a number of risks inherent in the proposed solution:

- We may not raise the minimum amount or may decide to cancel the ICO because of changes in the market place. In this scenario all pre-ICO funds will be returned in full
- The token may not be performant on the Ethereum network under load. While we
  have mitigated this to some extent by removing much of the high speed data transfer
  from the blockchain this remains a risk and may require us to move our technology to
  one of the newer blockchains such as EOS.
- We may have regulatory pressure to impose jurisdictional or other controls on token usage – in practice this is not possible and would translate into pressure to prevent trading of the tokens
- Exchanges may resist listing the tokens because of the gambling nature of the utility
- We may have difficulty providing the truly distributed directory in a performant waythis is an ongoing development and the team has a deep experience of similar
  products we are confident that we will find solutions but there may be compromises
  on the distributed nature of the directory in early versions
- We are reliant on a public blockchain (Ethereum) to provide the underlying transaction mechanism which may become too slow or expensive to be practical. Ultimately much of our technology is not reliant on blockchain and we would be able to move to a competing blockchain such as EOS relatively easily (some of these such as EOS are not yet in production)

# 3. Elements of an Online Sportsbook

A sports book comprises several discrete components:

Bets are found using a user interface that is logically laid out and based on an underlying sports hierarchy. Sports have Leagues (sometimes divided by country/region) and leagues have events. Events have markets which are groups of selections that together make up a bet offering.

Every selection (eg. Chelsea to win against Arsenal) has a price at which someone – traditionally a bookmaker – is prepared to lay the bet. A bet can either be laid or bet – on an exchange users can take either side of a bet – they can lay it or bet it. Using the example above, the lay bet for Chelsea to win would be Arsenal to win or the event to end in a draw.

Typically, a bet includes an element of margin which is the amount that the bookmaker retains as his profit. In an exchange model a percentage is deducted from the winning to provide margin to the exchange.

When a bet is placed an amount is agreed between the Bettor (the person making the bet) and the layor (the party who is offering to take the bet) and then funds from either side are escrowed until the underlying event has been resulted, at which point the bet (less any fees) is settled in favour of the winner.

While all of the above functionality can be encapsulated in a single exchange (such as Betfair) or sportsbook (such as SkyBet), the model described in this white paper eliminates the requirement for these intermediaries – opening the door to unlimited, fee free, betting.

### 4. A Distributed Peer to Peer Model

This document presents a variation on the traditional sportsbook and exchange model. By eliminating the "middle man" – essentially the escrow agent – using technology now freely available through the blockchain we can build sportsbook clients that operate with no human or business entity in the middle between betting pairs.

#### 4.1 Mechanism

The betting process is broken into several discrete software components with defined APIs for interaction between them. All bets are stored on the Ethereum blockchain which provides transparency and provable fairness on the transactions. More importantly it provides a way for 2 parties who don't know each other and have no common account holder to bet with one another.

### 4.2 Benefits

The benefits of the distributed model are numerous.

#### 4.2.1 Peer to Peer betting with no central party

By providing a robust escrow and settlement service between 2 parties who do not know one another and have no common operator the system provides access to betting opportunities that did not previously exist.

#### 4.2.2 Applicability to other activities

A transaction does not have to comprise a bet – the same system can be used for any activity where funds are escrowed prior to a result and then settled to the winner (eg. A game of poker) although we will focus on betting initially

#### 4.2.3 Open source systems

Ultimately the software and standards that comprise the system will be open source and free for anyone to copy and use.

#### 4.2.4 Access to much larger bets - the wholesale angle

There is a massive market for betting where the amounts exceed those that individual operators are prepared to risk. This system will provide the liquidity to enable these bets to be placed – there are no system limits. Bets are pooled so many parties can match a single bet.

#### 4.2.5 Provably fair and unbreakable

The software and transactions are provably fair and robust. Punters need to know that they will be paid their winnings – no questions asked!

### 4.2.6 No risk to punters from underfunded operators

Punters have no risk of operators or layors who have insufficient funds to lay their bets – in this system all bets are prefunded on both sides.

### 4.2.7 Ease of funding for bet placement

No more credit cards, wire transfers and other outdated payment mechanisms. BETR (Betting coins) are ERC20 compliant coins and will trade on major crypto exchanges and can always be bought and sold against coins such as bitcoin and ethereum.

#### 4.2.8 Instant access to winnings

Winnings are distributed as soon as a bet is resulted and available in instant crypto funds for use as the owner sees fit.

# 5. Components of a Distributed Model

### 5.1 Escrow and Resulting/Settlement

Placing a bet with another party entails two important functions. The first is to hold funds from the time that a bet is made until it is settled. The second is settlement in favour of the winner (assuming there is one – refunds to both parties in the event of a tie or cancellation).

The latter poses a problem. Any system that is automated would have to have a robust and agreed resulting system that is immune to human or system error.

We intend to cater for a number of different resulting systems – the differences being simply how the winner is determined.

By using this mechanism there is no requirement for the token to have any understanding of the underlying event or bet.

#### 5.1.1 Layor

Bets may be offered with either party able to agree on the result. In the case of sportsbooks or exchanges linking to the system it is quite likely that they would set settlement to be at the discretion of the layor (Sportsbook) as that is how they operate today. Initially this may be the bulk of the bets.

#### 5.1.2 Consensus

In the same way that the blockchain is kept inherently honest by all parties agreeing, settlement could be according to the majority. On any bet due for settlement, once settlement of layor resulted bets has occurred there would likely be sufficient evidence that the result is correct triggering a consensus resulting. Protection would have to be incorporated to deal with low liquidity markets, with a varying set of rules depending on the number and size of bets.

Note that, given that the bets are all public record on the blockchain, resulting claims are not limited to the parties who hold the specific bet. Consensus can be reached across all bets on the same selection across the network and resulting decisions made network wide.

### 5.1.3 3<sup>rd</sup> party settlement

An interface will be provided for 3<sup>rd</sup> parties to provide resulting and arbitration. There could be a fee associated with this service.

### 5.2 Authentication

While parties may remain anonymous it is intended that this system can also be integrated with existing sports books or exchanges. In this scenario placing a bet may require an account at the counterparty – bets that are offered may be flagged as requiring an account and authentication.

The protocol will ultimately incorporate a distributed authentication mechanism to facilitate the offering of bets by entities that require player accounts

### **5.3 The Better Betting Node**

It is no use having a betting system if the users cannot find the bet that they want. Not only

that, for the system to present sufficient liquidity, and to provide optimal volume for consensus settlement, it is important that all nodes see the same selections as the same thing. As an example, it is equally valid to call a match winner market "match winner" or "winner" or even "moneyline 1X2". The system will aim to provide a mechanism to avoid duplication of markets and present a unified interface between disparate parties.

A distributed directory of sporting events, markets and selections will be incorporated in the system making it simple for software clients to present a logically ordered menu of choices. The system will combine the many "standards" for event and market naming so that the same bet is treated equally regardless of the source.

This presents two distinct advantages to the overall ecology. In the first instance, it makes it easy to find any specific bet. Secondly, and very importantly it makes it possible for bets to be standardised and pooled together.

By ensuring that anyone wishing to offer a specific bet uses a common registry we are able to increase the reliability of the consensus, and also to combine liquidity into a pool so bets are not simply one on one.

So (as an example) assume I want to lay the Chelsea to win bet for this weekend's premier league fixture. I decide I am prepared to lay \$1000. Someone else also wishes to lay \$1000. There is now \$2000 available for anyone wishing to back Chelsea. The user would see a unified interface – disparate layors are agreeing on the identification of the same bet and their liquidity combined. As a punter I can come in and back Chelsea to win for \$1500 and this would be shared across both layors – as two separate transactions.

The more entities on either side of the bet that exist the better consensus settlement will work.

### 5.4 Different views based on target market

While the API will provide all functionality to all participants it is anticipated that there would be more specific apps built that focus on the intended end user. As an example, a sports bettor would in general use an interface similar to modern sports betting apps where bets can easily be found and taken with no concern for the underlying markets and events or laying prices.

Sportsbooks and wholesale bettors would utilise the lay side of bets. Some implementation of directory services and lay pricing may be purely API level integrations with existing sports books or exchanges.

# 5.5 Better Betting Node Software

Core to the system is software that implements this distributed directory and places bets as contracts onto the blockchain. This software is called the Better Betting Node (BBN). Similar to miners in a blockchain system the BBN acts as a distributed mirror for directories, facilitating a standard repository for sporting information that can be added to from any agent on the network, and queried in order to present user friendly client interfaces to punters.

Anyone will be able to implement a BBN using open source code. There are no limits on the number of nodes and no one node is in control of the network. The foundation will establish some initial nodes to present an initial sporting offer which can be amended and contributed to by other nodes.

A node has the following high level feature sets:

#### 5.5.1 Transaction confirmation

Every transaction, whether placing or resulting a bet is confirmed and stored on the Etheruem blockchain. The process of placing and resulting (which triggers settlement) is controlled through the node.

#### **5.5.2 Directory Service**

Acting as a mirror service, nodes facilitate a coordinated, consistent distributed directory service. It is this key building block that enables bets on the same selection to be pooled, both for aggregate betting and for consensus settlement. The more bets that are placed on any single selection the more robust the system becomes. Nodes also propagate bids and offers to all clients, facilitating the matching of Bettors and layors.

#### **5.5.3 Synchronisation Services**

Nodes automatically synch with all other nodes providing low latency updates to betting offers and consistent offering across the network

#### 5.5.4 Automated APIs for bet offers

Nodes expose APIs for all functionality allowing server to server integration between existing bookmaker servers and the network.

## 6. Technical Implementation

### 6.1 Overview

The Better Betting Foundation depends on an effective technical implementation to reach its intended goal of providing a Global Betting Liquidity Pool.

Alongside the evolving business requirements, a technical investigation has been taking place with the intention of finding the optimal technical solution.

Fundamentally, the intention is to provide a global betting liquidity pool for use by bet market creators and bettors. In principal, anyone can create a Bet Offer based on real sports events, this is more traditionally known as laying a bet. Each Bet Offer will be grouped by market and event and listed in a searchable directory. Bettors wishing to place a bet can then search the directory and locate the bet they want.

The betting acceptance process then involves the Ethereum blockchain to store the agreed bets contracts which also holds the stake and liability in escrow – the system will use our own issued betting tokens (BETR).

When the events are over, the bets related to that event can be settled. In order to settle a bet, the result of that selection must be determined. The bet smart contracts will contain information as to the party that will supply resulting for the selection. In the case of bets offered by sportsbooks this will generally be the Bet Offer Creator (the layor of the bet). Other solutions are to appoint a 3rd party to result (this could be a data feed) or to appoint a special 3rd party which is the consensus node – this node would settle according to a set of rules based on all other settlements of the same selection.

On settlement, the contracts are notified and either the bet stake is transferred to the Bet

Offer creator or the liability is transferred to the Bettor. In the case of a push or refund, then the stake is returned to the bettor and the liability is returned to the Bet Offer creator.

### **6.2 One Application and Two Linked Systems**

The bet offer system needs to scale and to offer low latency price and offer updates to the bettors. We believe that the optimal architecture is to create a Hybrid system combining the power and transactional integrity brought by blockchain (while acknowledging existing issues such as speed and scalability and gas cost of transactions) with the superior processing power and low latency that can be derived from a peer-to-peer non-transactional system.

The Ethereum network will be used for the management of the bet contracts and the BETR tokens and interface to another system on top of that to provide a UX for the Bet Offer creators and Bettors by running the betting directory services as a distributed database. This system we call the 'Better Betting Node' (BBN).



The BBN is a downloadable application which is installed on the user's device and incorporates an ethereum wallet. It is similar to a blockchain application in so far as it operates without central servers and the nodes communicate with each other to maintain the state of the database. BBN does not need to store data indefinitely, and that is one aspect that sets it apart from standard blockchain networks where every node (or miner) stores a complete copy of the transaction ledger.

By creating the BBN to be meet the precise technical requirements of the Bet Creators, the Bettors and API clients, the application will be fast and will not have 3rd party costs to run. In its interface with Ethereum for creating and resulting bet contracts, the BBN will restrict the Ethereum costs to a minimum whilst still maintaining the decentralized nature of the application.

### 6.3 How it Works for All

There are two parties to a bet. In our terms we call the party that creates (or lays) a Bet Offer a BET CREATOR. Traditionally this would be a sportsbook but in our case, anyone can be a Bet Creator. On the other side, the party that takes the bet offer (or a part of it) is called the BETTOR.

From the Bettors point of view, they fundamentally would like to see a list of sporting events and the bet options with odds and limits that are available. By selecting a bet option and applying a stake amount, the bet can be created.

For the Bet CREATOR, they want to be able to set up a series of Bet Offers with bet options, odds and limits (maximum risk exposure) and place them onto the bet directory so that the Bettors can then select them as above. It is envisaged that a standard BBN API will be created that will enable the Bet Creators to integrate directly with their own systems so providing automatic bet offer creation.

Above all this the system needs to know when the sporting events are scheduled and when they are resulted. To do this the same API that is available to sports books can be used to link instances of BBN and data feed providers. This will facilitate automated event, market and selection creation and may also facilitate resulting. One of the key features of the directory will be to provide Event, Market and Selection IDs so that the event data can be cross matched with the bet creators systems. The Event IDs will include major Data Feed Provider's IDs and may also include Bet Creators IDs.

### 6.4 BBN Close-up

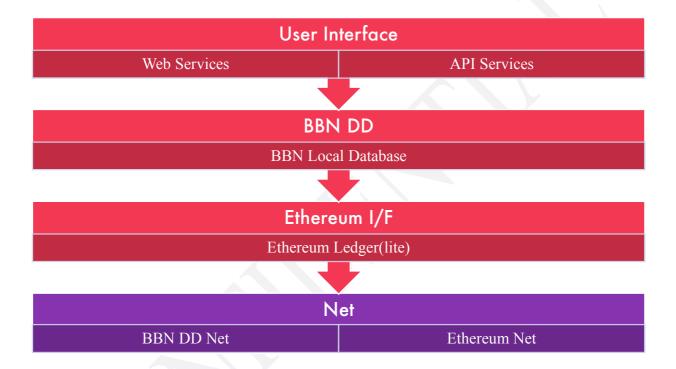
While there is a more comprehensive set of technical use case requirements, the summary below gives an indication of how the system will function:

- BBN provides a distributed bet information database which is referred to as the Distributed Directory. In essence, the application maintains a local database on the client's device and keeps it in sync with the Distributed Directories on all the other BBN devices in the network.
- 2. The size of the Distributed Directory needs to be kept small, not only so that it is fast but also so that the BBN application can ultimately run on mobile devices with smaller storage availability.
- 3. To maintain the Distributed Directory, data changes must be transmitted to other BBNs so that they all maintain the same data throughout the network.
- 4. The BBN application will provide a user interface so that the Bet Offer Creators and Bettors can **interact with the Distributed Directory**.
- 5. Bet Creators will at least the following functions available:
  - a. Create Bet Offer with options, odds and limits. The Bet Offers total exposure (the limit) must be covered by sufficient BETR tokens which will be escrowed when the bets are placed the system must have sufficient funds to pay out if the bettor wins.
  - b. Remove Bet Offer remove it from the market
  - c. Edit Bet Offer Options, odds and limits can be edited
  - d. **List accepted bets** this requirement means that when the bets are accepted on Ethereum, the contract addresses are transmitted back to BBN which then stores them for later reference.
- 6. The Bettors need to be able to:
  - a. **Find the events and bets** they are interested in. Navigation is part of event information (sport, country, league etc).
  - b. Select the bet and enter the amount of stake (in BETR tokens) they wish to bet.
  - c. **BBN will accept a bet** if the Bettor has sufficient funds and the bet is still available.
- 7. Ethereum will manage the bets in the form of contracts.
  - a. On acceptance BBN will transmit the bet in the form of a contract definition to Ethereum. If this is the first bet taken of the Bet Creators Bet Offer then BBN will tell Ethereum to create a new Bet Offer Master Contract, if not then the existing Master Contract will be updated. The funds from both sides will be

- escrowed by debiting the required BETR tokens from their Ethereum addresses and transferred to the bet contract. Contract addresses will be transmitted back to BBN which will update the Bet Offer in the Directory.
- b. On Settlement, the **bet contract will be settled by the resultor**. The win or stake (depending on who wins) will be transferred to the correct party. The Master Contract and the Bet contracts for that bet offer will then be closed destroyed.

### 6.5 BBN's Three-Layered Structure

To provide a technical solution for these requirements, a three-layered application is envisaged which can be described as follows:



The highest level is the user interface which is in essence a standard browser encapsulated within the application. Use of modern web app coding practises makes this an optimal way to deliver the user experience.

The User Interface will communicate with a mini-webserver within the BBN application. The webserver will be responsible for generating pages and data connections and receiving responses from the User Interface layer.

Note that more scalable nodes can also be produced to serve as web servers for a server based wallet.

Also delivered from the mini-webserver are API services which provide a common method of access to the Web Server functions as well as all other external interactions to systems such as data feed providers and Sportsbooks.

The API Services layer will also be responsible for the interaction with the BBN DD which is the distributed database and the Ethereum Network.

The betting protocol (placing and settling of bets) will be implemented as smart contracts on the Ethereum network. While this is the core of the system – in fact a large amount of the functionality will be in the Better Betting Nodes – the distributed betting directory nodes. Due

to the latency, performance and cost issues on Ethereum, BBN will coexist on a proprietary distributed system and be built to incorporate the Ethereum functionality. A BBN client will incorporate both its own proprietary fast protocol for the betting offer and also the Ethereum protocols for bet placement and settlement.

### 7. The ICO

The system will be funded through the issuing of a betting token (BETR). BETR will be capped in terms of the total number of tokens that can exist and will be issued according to the following schedule:

Amount to be Raised	Terms
Min \$2M Max \$30M	There will be an early bird bonus system built into the ICO. No more than \$30M will be raised. Within 2 weeks of the ICO end date tokens will be issued and become available for trading.
	Tokens issued to founders will be released in 4 equal tranches 3 months apart with the first tranche being on the initial ICO date.
	A tiered bonus system will be built in to incentivise early investment. Up to
	<ul> <li>\$1M: 125% tokens</li> <li>\$2M: 120% tokens</li> <li>\$3M: 115% tokens</li> <li>\$4M: 110% tokens</li> <li>\$5M: 105% tokens</li> </ul>
	Thereafter tokens will be issued at ICO value
	ICO token value is set to US\$0.10c per token – to be priced in ETH and BTC at an exchange rate at the time of ICO.
	24% of tokens issued will be to founders and the team.
	7% of tokens issued will be for advisors and bounty.
	5% of tokens were sold to early stage investors
	There is a hard cap of 650M tokens

We will seek to list BETR on as many crypto exchanges as possible, making interchange seamless and priced according to market prices. So, as an example, the initial issue may be limited to \$50M worth of coins at the time of issue. In the event that there is \$500M in play at any one time, the price of each coin will have to increase from 10c to \$1 in order to accommodate the increased volume.

Usage of the coins is fundamental to any ICO – we believe that the betting market offers opportunities for coin usage that far exceeds many other ICOs currently being offered.

### 7.1 Foundation establishment and governance

The Better Betting Foundation has been established in Estonia (Better Betting Sihtasutus – 90014075). It has been funded privately for the initial establishment and to provide marketing and technical resources to proceed to the ICO.

The foundation is not for profit and has no beneficiaries. Its purpose is to develop and make available the software systems to enable distributed sports betting on the blockchain.

The foundation was founded by Adriaan Brink and David Vanrenen. Supervisory board members are David Vanrenen, Hilly Ehrlich and Mitchell Rankin. Management board is Adriaan Brink.

#### 7.2 ICO and token sale

A minimum \$2M, maximum \$30M will be raised through issuing of tokens. These funds will be used for

- Development and release of the better betting protocol
- · Development and open-sourcing of dapps and node software
- · Marketing to key stakeholders and consumers
- Legal and administrative costs

### 7.3 Hard Cap

There is a hard cap of 650M tokens to be produced. In the event that the token sale does not raise sufficient funds the hard cap may be reduced.

### 7.4 Reserve for future issue

An additional reserve fund of tokens will be created in the initial token event to be sold on the market at the discretion of the foundation. This reserve fund will be no more than 10% of the total amount issued at the ICO and will be held in trust and not released for at least 12 months. No further tokens will be created apart from the ongoing maintenance tokens.

### 7.5 Ongoing Maintenance Tokens

Ongoing maintenance tokens will be created periodically by the foundation and sold on the market to replenish tokens that are burnt as part of transaction fees. Transaction fees will be based on the underlying gas price consumed by the transaction and will be fixed per transaction regardless of the amount of the bet.

### 8. Founders and Partners

### 8.1 Management Team

#### 8.1.1 Adrigan Brink

Brink started professional programming on ICL and UNIVAC mainframes performing statistical analysis of large surveys in 1984.

Having witnessed the potential of the internet and the success of the UK National Lottery, in early 1995 the idea was born for an Internet based lottery. Operating out of Liechtenstein Brink established InterLotto - the world's first legal Internet lottery and quickly established its position as a leading e-commerce site in Europe. In 1997 the International Federation of Red Cross and Red Crescent Societies reached agreement to become the major beneficiary and the site was renamed PLUS Lotto.

As CEO of The International Lottery in Liechtenstein Foundation, the operator of the lottery, Brink architected the systems and directed the design and development team. He also took care of marketing, sales and charity relationships.

In 1998 Brink was a founding director and CTO of Earthport (<a href="www.earthport.com">www.earthport.com</a>) – a UK based Payment Services Company specializing in direct from bank Internet payment mechanisms. Earthport is listed on AIM in the UK.

In 2001 Brink formed Zabadoo AG and bought the lottery systems from Earthport. Zabadoo expanded the markets to include new 3<sup>rd</sup> party partners marketing branded lotteries.

In late 2004 Brink joined the team at Mahjong Mania to bring for money, multiplayer internet Mahjong to the world. Mahjong Mania was the principal business activity of TSX listed company Dynasty Gaming Inc. (TSX:DNY). He was President of Mahjong Systems Limited for 4 years and was instrumental in pioneering multiplayer Mahjong on the Internet.

In 2007 Brink formed iCoins Limited and introduced his new concept in the way money should move on the Internet. iCoins was an idea ahead of its time and many concepts were similar to Bitcoin.

In 2010 Brink re-focused his development resources on apps for smart phones and social networks. He has released a number of these including a mobile sportsbook (iphone, ipad, android, blackberry) and some innovative Facebook apps.

In 2011 Brink formed Socialitize Ltd to develop and operate sports betting oriented apps on Facebook and mobile. Socialitize owns and operates the 2BET2 sports prediction game on Facebook (www.2bet2.com), smart phones and tablets.

Since February 2015 Brink has been consulting to Gamesys Ltd in London, UK building a new sports book.

#### 8.1.2 Ian Sherrington



lan is perhaps best known in the industry for proposing and then creating the first ever Internet Sportsbook in January 1996 - Intertops.com. After 21 years, the first and the best is still online!

As Technical Director of Intertops since its founding in 1983, Ian oversaw many new innovations such as the first Sportsbook to accept single match bets across the board, owner of the first online bookmaking license issued in the UK and many technical advances with voice recognition telephone betting systems, OCR betting coupons and the introduction of a personalized betting coupon printing system.

Following the success of Intertops.com, Ian was one of the first to integrate an online casino, payment systems and wrote one of the industry's best known affiliate programs.

During 2003, Ian founded Mahjong Mania in Montreal, Canada. Mahjong Mania created the first aggregated cash-play Mahjong game and was successful in signing up many of the best known online casinos and software suppliers. During 2005 Mahjong Mania reversed into Canadian publicly traded company which later became Dynasty Gaming.

After Canada, Ian moved to Singapore where he created a Live Bingo system and a P2P Mobile Betting Solution as well as being consulted by many major online gaming companies in the region.

Over the last few years, Ian has been developing a P2P Betting Exchange incorporating an In-Play Cricket Betting game which can be applied to Blockchain technologies.

#### 8.1.3 Hilly Ehrlich

Hilly has been working in igaming operations for more than fifteen years. In this time he has held executive roles at PartyGaming PLC and WPT (Nasdaq). He has also consulted to various companies such as Churchill Downs (CDI) on market strategy and product. He is currently also a director for the fastest growing online poker network in the world, GGNetwork, which has its roots in Asia, where he spent the past seven years.

Although most of this time has been spent in the online poker world, he has also developed relationships in sports betting and currently holds a UKGC operator license.

He brings an extensive global network of igaming associates and colleagues to this exciting new venture.



#### 8.1.4 Mitchell Rankin

Mitchell Rankin is founder and CTO of Optimaplay – an Estonian development company supplying development resources to the project. He founded the Snowcat Group of companies in 2012. Snowcat Games was sold to a major online operator in 2016. He brings 15 years of experience in major lottery and gaming companies, along with a passion and drive to excel. Previous roles have spanned the range of gaming including managing a technical estate of 25,000 FOBT machines worldwide, creating lottery and gaming systems, and Chief Technical Architect of a major online operator. These roles included responsibility for large scale software development, game development, deployment, and integration efforts, as well as budgetary and management control.



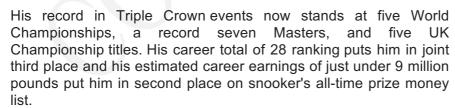
Previous roles include Head of Engineering - Scientific Games, Chief Architect & Software Development Manager - Scientific Games, Senior Software Developer - Cadillac Jack, Founder and CTO Snowcat Games and Chief Technical Architect Gamesys.

#### 8.2 Advisors

#### 8.2.1 Ronnie O'Sullivan

"Rocket" Ronnie O'Sullivan, OBE is widely regarded as one of the greatest snooker players of all time. He is noted for his rapid playing style, mercurial temperament, and his ambivalent relationship with the sport, from which he has taken prolonged sabbaticals and repeatedly threatened to retire.

A childhood snooker prodigy, O'Sullivan made his first century break at the age of 10, and his first maximum break when aged 15. He turned professional in 1992, at the age of 16, and soon earned the nickname "The Rocket", because of his rapid playing style. He achieved his first major professional success when he won the 1993 UK Championship at the age of 17 years and 358 days, making him the youngest player ever to win a ranking title—a record he still holds. He is also the youngest player to have won the Masters, having captured his first title in 1995 at the age of 19 years and 69 days.



Known as a prolific break-builder, O'Sullivan holds the record for the most competitive century breaks with 882. He also holds the record for the most ratified maximum breaks in professional competition (13), and for the fastest competitive maximum break, compiled in 5 minutes and 20 seconds.

Ronnie is hugely popular in Asia and has a passion for sports betting.



#### 8.2.2 Jon Matonis

Jon Matonis is a Founding Director of the Bitcoin Foundation and his career has included senior influential posts at VISA International, VeriSign, Sumitomo Bank, and Hushmail.

An economist and e-Money researcher focused on expanding the circulation of nonpolitical digital currencies, Jon also serves as an independent board director to companies in the Bitcoin, the Blockchain, mobile payments, and gaming sectors. Jon has been a featured guest on CNN, CNBC, Bloomberg, NPR, Al Jazeera, RT, Virgin Radio, and numerous podcasts. As a prominent fintech columnist with Forbes Magazine, American Banker, and CoinDesk, he recently joined the editorial board for the cryptocurrency journal Ledger. His early work on digital cash systems and financial cryptography has been published by Dow Jones and the London School of Economics.



Jon advocates worldwide for Bitcoin and its disruptive economic implications to a wide variety of audiences, including members of the Federal Reserve, Bank of England, ECB, SWIFT, IRS, DOJ, retail payment networks, major financial institutions, financial regulatory bodies, mobile money issuers, iGaming operators, information security firms, hedge funds, gold investors, and family offices.

#### 8.2.3 Jez San OBE

Jez San, OBE is founder and CEO of Funfair.io – developing casino games on the blockchain – which had a successful ICO in July 2017. He was inspired to become a computer game developer in the 1970s, and after playing the first ever massively multiplayer game Multi-User Dungeon (MUD) he founded one of the earliest British games developers, Argonaut in 1982, creating multiple multi-million-selling videogames including Star Fox, Croc, and Harry Potter. Jez was a pioneer in the field of real-time 3D computer graphics and his first game, StarGlider, was one of the earliest 3D games ever published. He co-invented the Super FX graphics RISC processor for Nintendo, the first custom chip to render 3D computer graphics in a game system.

Jez has maintained an active role in computer games and online gaming, including work with console game developers Ninja Theory, mobile developer Origin8 and until recently PKR.com, a leading 3D online poker room. Jez is also an angel investor and some of his investments have included the artificial intelligence pioneer DeepMind Technologies (acquired by Google in 2014) and the cryptocurrency exchange Kraken.



#### 8.2.4 Eric Benz

Eric Benz has over 10 years of experience working in and around Financial Technology. He has delivered innovative SaaS systems for some of today's biggest institutions around payments, identity, and banking infrastructure.

Eric has been in the Blockchain space since 2012 and is involved in a number of blockchain and fintech businesses both as investor and board director. He currently serves as Managing Director for one of the UK and EU's longest running Bitcoin exchange and merchant processor, Cryptopay.



#### 8.2.5 David Vanrenen

David Vanrenen has had a long and distinguished career in the financial markets. In 1969 Vanrenen joined as a partner of Cliffe, Neal and Co, before subsequently moving to Mathison Hollidge, a large South African broking house, in 1975. Vanrenen was responsible for developing the South African bond market, and was a member of the Johannesburg Stock Exchange Committee for two years. In 1982 Vanrenen moved to Australia, where he founded the investment bank, Australian Gilt Securities. In 1987 the company was acquired by Rand Merchant Bank, and Vanrenen remained as Chairman for a further two years. More recently, in 1992, Vanrenen established Equisoft Ltd, which developed front-end quantitative analytic systems with Reuters. In 1997 Vanrenen was responsible for building Earthport, a leading internet payment system, where he was Chairman until 2002.



#### 8.2.6 Rasmus Sojmark

CEO & Founder of SBC, Rasmus has 15 years industry experience, with an early career start as commercial director of BetBrain.com, and founding team member of EveryMatrix. In 2009 he founded SBC Global (a successful events, news and media business) and Oddslife.com (a b2b social sportsbook platform).

He holds a University Masters Degree in International Marketing, with a dissertation that researched and analysed both online and landbased sports betting behaviour. His work was later presented and published in academic books at Aalborg University.

While at EveryMatrix he won EGR Awards for Best Sportsbook



Innovation 2010, Sports Betting Rising Star 2011 and special commendation for White Label Partner of the Year 2011. In 2008 and 2009 he won back-to-back IGB Awards for Best Sports Betting Affiliate and the Best Overall Affiliate with BetBrain.com

#### 8.2.7 Michael Caselli

Michael Caselli is considered one of the world's leading experts on online gaming and has been a sought-after expert by several international news programs including CNBC, MSNBC and the BBC.

Since beginning his career in iGaming in 1996, Michael has shared his expertise in the sector as the editor/publisher of several iGaming magazines; and by participating as organizer, host, chairman and moderator for leading international interactive gaming conferences.

Today, Michael is a sector investor, an entrepreneur and an advisor for companies in the iGaming space. Additionally, Michael also spends his time philanthropically, working on The Caselli Foundation, advancing educational opportunities in iGaming.

Michael holds an MBA with a thesis subject on iGaming, and has been honored by multiple groups for his publications and for his expertise. He has been honored as a Leader in Gaming by the Global Gaming Expo where he has spoken and chaired on a variety of iGaming topics.

Michael is a Director and Head of Strategy at iGaming Business / Clarion Gaming, where he works actively on a variety of publications and conferences; and organizes social events for the industry including Fire & Ice, the iGaming industry's oldest and largest social gathering.

#### 8.2.8 Dennis Van Maanen



Dennis van Maanen has worked with iGaming companies since 2002. Initially, as a recruiter, and more recently as a matchmaker for M&A, JV's, partnerships, funding, expansion and staffing. As founder and chairman of Esanda Consulting, he led the sale of the business to a Fortune 500 company. As an Angel investor, he continues to help technology companies grow. Through Esanda Recruitment he continues to lead the way in executive search for staff.



#### 8.3 Media Partners

#### 8.3.1 Lyceum Media

Lyceum Media was founded reactively to exploit the experience and abilities of its founders and to consolidate their considerable experience in journalism, casino marketing and PR into one entity. Once these personalities joined, they immediately recognized the void in the market for media and PR experts and practitioners that understood the underpinnings of the iGaming business. After that revelation, the founders began to understand that there has never been a time in the history of business where customer acquisition has served such a core function to a business. Raising your brand's profile and acquiring customers efficiently and creatively in this competitive marketplace is the key to a successful iGaming operation



### **8.3.2 Sports Betting Community**

Sports Betting Community (SBC) is an organisation dedicated to raising the profile and coverage of gambling operators, software suppliers, affiliates, service agencies and media portals in the complex and saturated online gaming market. SBC currently operates three brands within the sports and gambling industries: SBCNEWS, SBCMEDIA and SBCEVENTS.



### **8.4 Strategic Partners**

#### 8.4.1 Socialitize Ltd t/a 2BET2 Sports Apps



2BET2 will provide reference app development to the foundation.

Pioneering social betting on networks such as Myspace, Bebo and Facebook and mobile devices, 2BET2 brings extensive betting and app building experience to the foundation.

#### 8.4.2 Optimaplay



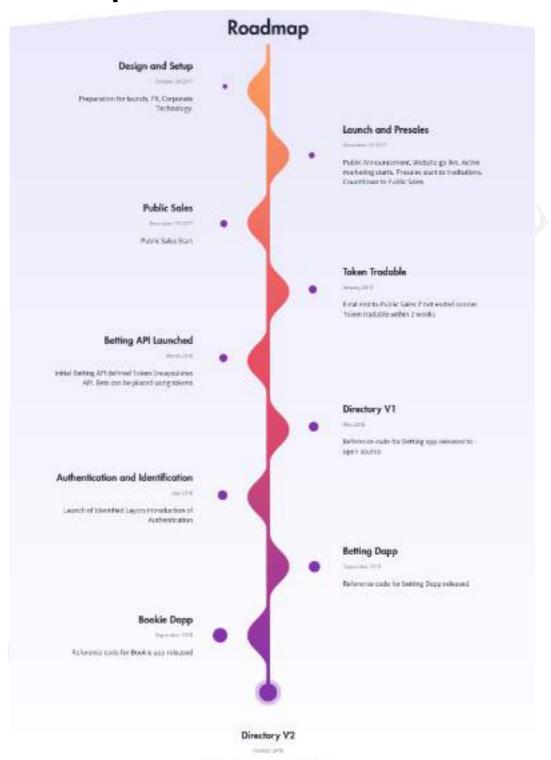
Optimaplay OU was established in 2017 to build and leverage systems technology focused on the gaming industry. The studio draws on the wealth of experience of its staff and founders in the regulated gaming markets. These markets include US, South American, and CIS lottery jurisdictions, Online gaming in Scandinavia, Malta, USA, and UK, and world wide regions. The studio was founded with a commitment to the highest standards in gaming technologies and processes that produce to be certified at the highest standards.

#### 8.4.3 Coinpoint



CoinPoint is a knowledge and services agency focused on catering various Blockchain, fin tech, and cryptocurrency markets around the world. Established in 2013, we have built a strong global network of partners, suppliers, and clients in multiple sectors.

# 9. Roadmap



True Decembralisation corners to the Directory.