

WILLE

DAO Whitepaper

This whitepaper serves as a foundational document for the creation of a new DAO

It includes the organogram, by-laws, a roadmap and the basic smart contracts needed to operate

Our goal is to create an international treasury fund which will be managed by the community itself and to allocate these funds directly to projects, tasks and other interventions that will help society transition from a representative democracy to a more direct democracy, call it liquid or digital

We are organizing ourselves to launch the platform by mid 2022 and hope to achieve practical results beginning 2023. Our goal is to operate globally, but as with all situations where limited resources need to be managed we shall focus our attention to a particular country or a set of countries to begin with which will be decided by the DAO democratically

Welcome to WILLE!

"Arise, you have nothing to lose but your
barbed wire fences!"

Timothy C. May, The Crypto Anarchist Manifesto, 1988

INDEX

Mission

Solutions

Roadmap

Stakeholders

Membership

Reputation

By-laws

Smart contracts

Organogram

Shareholders

Ambassadors

Captains

Angels

KREDIT

Startup plan

Contractors

Mission

WILLE was thought of as a sister DAO to the mother project [NERV](#) – Network Emergency Response Volunteers. WILLE's plan is to develop and implement digital tools in particular those related to on-line consensus which make use of [remote e-voting](#).

According to the Democracy Index published by The Economist, only 8.4% of the countries worldwide can be considered full democracies and around 35.6% of the world population lives in what can be considered to be authoritarian regimes!

Democracy Index 2020, by regime type

	No. of countries	% of countries	% of world population
Full democracies	23	13.8	8.4
Flawed democracies	52	31.1	41.0
Hybrid regimes	35	21.0	15.0
Authoritarian regimes	57	34.1	35.6

Note. "World" population refers to the total population of the 167 countries covered by the Index. Since this excludes only micro states, this is nearly equal to the entire estimated world population.

Source: The Economist Intelligence Unit.

This state of affairs is completely unnecessary if we consider that with the advent of the internet (up to certain cybersecurity assumptions) remote e-voting is without questioning possible to do. Cryptography, the science that studies the transmission of secrets is what makes this possible. It's all just mathematics.

WILLE's mission is thus not only to develop this area but whenever possible to generate dividends from this activity and its crossovers with the private sector. Democratization of a society needs to occur at all levels be them governmental or other smaller ventures. To put into perspective, the [University of Minho](#) alone holds more than 400 elections every year between choosing representatives and managers of the institution to student associations and others. Work unions such as [Ordem dos Advogados](#), again in Portugal, are another type of institutions which are willing to become digitized and are currently investing in remote e-voting solutions. Estimates of the market value for elections worldwide is certainly in the range of the billions of dollars. For example the federal elections of 2015 in Canada required 65 000 polling stations, forced the citizens to leave their jobs or to interrupt their time off from work, and cost \$443 million including costs of hiring election officers and poll officials, printing lists of electors, and renting offices for the returning officers and polling station, material, training for returning officers and other staff, update of the National Register of Electors, etc..

Many private companies operate in the space that claim to be able to offer a complete solution and having deployed pilot experiments already such as [Agora](#), [Extreme Solutions](#), amongst others.

The goal of WILLE is to capitalize on the same market (...)

Because we operate according to [DAO principles](#) and make use of blockchain in all of its full capacity, our institution is transparent and uncensorable. Governance is conducted by our members who invest in the treasure. As a benefit for investing, members are invited to publish and vote on proposals that they consider relevant to the organization and make use of the available resources whether they are capital or human.

There's no central authority deciding for YOU what actions WILLE should be taking.

Solutions

Remote e-voting has become a well understood practice. If it is true that on-line elections are an extremely sensitive topic, in the sense that it is expected that the outcomes are always valid and not corrupted, specially when the stakes are high, it is also true that it is one of the most basic building blocks without which anything else from corporate finance to cybersecurity in general would not be possible.

Solutions to promote the democratization of society do not end with software. Institutions or organizations that conduct open political debates as is the case with many universities, not for-profit associations that are focused in solving a particular problem in society, are examples of places where democratic practices are important. Software is certainly an important piece of the puzzle but other methodologies and experiences need to be addressed as well.

- Create software that facilitates on-line political debates and the generation of consensus.
- Develop solutions for electronic vote to be used even by the private sector.
- Create and contribute to spaces where political discussion happens such as with think-tanks, in universities and other governmental institutions. This is what we would usually call off-chain governance.
- Audit institutions in order to evaluate how democratic they really are.
- Publish a magazine where all these issues are investigated including reports on the state of the art of remote e-voting.

Roadmap

2022 – develop the basic tools for internal use/political discussion consensus generation

2022 end of – Initial DEX offering hopefully pooling at least 100 000 \$

2023 – E2E-VIV demonstration by WILLE at a conference ([E-Vote-ID](#), [Authenticate 2020](#), [\(..\)](#))

2024 - supporting the first political party or another relevant political platform to use remote e-voting in a “developing country”

Reaching \$1 000 000 available treasury value

Generating and distributing dividends at 10 000 \$ per year

2025 – having representative ambassadors well established in at least 50% of the countries worldwide.

Generating and distributing dividends at 50 000 \$ per year

2026 – 2029 - continued work

Reaching over \$10 000 000 available treasury value

Generating and distributing dividends over 100 000 \$ per year

2030 – remote e-voting solutions fully available in all the countries in the worldwide

Stakeholders

WILLE seeks to operate directly with multinational giant corporations with transparency concerns and governmental entities in order to provide education on eID (DIDs, FIDO2, biometrics, etc.) and help interested parties implement remote e-voting solutions with robust auditing measures:

- Corporations with shareholder composition or similar that want to facilitate internal decision-making, reporting and accountability within the organization. These could range from for-profit to not for-profit organizations, legal registered corporations to other DAOs.
- Political parties that want to be digitized and implement remote e-voting in their internal procedures such as organ membership selection, program proposals curation and ratification, public statements and direct participation of the party members in all activities, etc.. These could be more traditional political parties to more recent ones from all sides of the political spectrum, so long as direct democracy is a concern.
- Associations, NGOs and other platforms that focus on promoting political debates and direct democracy which may include think-tanks, universities and other governmental institutions.
- At a global level we have FOSDEM, ICEGOV, ICEDEG, E-Vote-ID, SmartGov, e-Governance Conference, DEF CON, Devxxx, USENIX, Eurocrypt, International Conference on Computer-Aided Verification, Web summit, IACR Conferences, Identity Week, identiverse, Electoral Integrity Project, amongst other events and venues where the activity of WILLE might spark interest.
- Democracy Earth, Pirate Parties International are organizations who may resonate.
- More locally we can find in Portugal, Democracia Digital, Polititank, Conselho Nacional de Debates Universitários, amongst others as venues of interest. More related to blockchain and less to political endeavours but in any case Eth Lisbon, LisCon, Associacao Portuguesa de Blockchain e Criptomoedas, (...).

Membership

Membership to the WILLE DAO is acquired by sending a cryptographic transaction to a specific address used as the initial investment necessary to create a new user registry.

Parallel WILLE runs a reputation metric which we will discuss in greater detail in its own chapter but whose existence is tied to the necessity of recompensing non monetarily pro-active and contributing members, incentivizing positive behaviour in the DAO. There will be certain incentives or perks associated with having a high reputation but in no way are these discriminatory to members with lower reputation or newcomers.

- Investors are entitled to participate in the DAO governance. Consensus should be in a quadratic voting setting.
- Proposals made by KREDIT and captains should be positioned in a highlighted space within the on-line platform.
- Shareholders are entitled access to reporting mechanisms that otherwise are not public. These reports range from textual documentation to video conferences and interviews, etc..

Non members can still have access to the endeavours of the organization by means of a magazine published by the WILLE named ?.

Reputation

Is a non transferable metric that evaluates the commitment of a user to the organization. It should reflect the time, energy and other resources given to the community. It should also reflect how members view or trust each others judgements and actions. The reputation metric is not intended to discriminate the otherwise homogeneous user base but rather exists to help differentiate between contributing and less active members:

- Publishing a proposal that passes adds 1 points to reputation.
- Publishing or voting positive on a proposal that gets rejected decreases 1 point in reputation.
- **Being appointed as a delegate for a particular vote... transits the delegation.**
- Successfully onboarding a new member to the DAO increases reputation by 5 points.
- Being attributed a job by WILLE and holding that job for a period of 12 months without being fired or accused of misbehaviour by an investigative ethical committee, gives the member a 100 reputation points.
- Participating in meetings gives members 1 reputation point for each attendance.
- Being inactive for a period longer than 3 months decreases reputation by 10 points.
- Inactivity for a period of up to a year decreases reputation by 100 points.
- Being averted of on-line misconduct (racial, xenophobia, etc.) by a group of angels decreases reputation by 10 points.

By-laws

WILLE's by-laws, accessible through the official GitHub repo were inspired by by-laws that were originally designed for political parties that use remote e-voting as a mechanism to generate online consensus.

Smart contracts

In general, all proposals are decided by simple majority consensus amongst members of the DAO. Because the treasury is managed by the shareholders, the weight of each vote is proportional to ownership of the shares. So say, if a member of the DAO holds 10% of the shares then a single vote by this member would weight 10% of the total ballot.

To mitigate for the domination of whales in the decision making we impose certain global constraints and suggest improved voting mechanisms such as quadratic voting and funding and positive and negative adaptive quorum biasing:

Transfers out of the treasury should be limited to a fixed maximum value of \$? and should be uphold for a minimal evaluation period stipulated in the by-laws.

For each proposal considered of medium to high impact an ethical committee is assigned to follow and report on the progress of the work and the correct application of the money.

In general proposals should be decided by quadratic funding grouped in rounds according to their impact in the treasury of the DAO.

<https://whiteboardcrypto.com/what-is-quadratic-funding/>

Proposals

- construct proposal {
publisher;
type (task, job, contract, other):
content;
rate of approval;
quorum reached;
}

KREDIT

- List KREDIT members
- Construct Meeting {
objective/subject;
time/date;
frequency;
jitsi link to video:
odysee link to video:
IPFS hash to report:
}
➤ construct Substitute member {

```

    exiting member;
    highest ranking WILLE members queue list;
    veto votes;
  }
➤ Construct elect captain {
    list self proposed captains;
    list captains proposed by ambassadors;
    list highest ranking members from amongst the team members;
  }
➤ construct accept new member {

  }
➤ construct expel member {

  }
➤ Construct Meeting {
    objective/subject;
    time/date;
    frequency;
    jitsi link to video:
    odysee link to video:
    IPFS hash to report:
  }

```

Ambassadors

```

➤ list ambassadors;
➤ Construct ambassador {
    address;
    country;
  }

```

Contractors

➤ Construct contract {
entity name:
entity address:
proposal:
budget:
payment_scheduling:
(...)
}

Angels

➤ Construct angels {
target proposal;
list committee members;
}
➤ Construct Meeting {
objective/subject;
time/date;
frequency;
jitsi link to video:
odysee link to video:
IPFS hash to report:
}

Organogram

WILLE DAO is constituted around **shareholders**, **ambassadors**, **captains**, the **angels**, the *founding group* named **KREDIT**, **contractors** and finally partnerships with another organization which is not part of WILLE but a sister-DAO named **NERV**.

Shareholders are all those who invest in WILLE with cryptocurrency:

- Any shareholder can propose, vote or delegate their own vote on a specific proposal or set of proposals on a specific topic to other members. Weight of the votes is proportional to the cryptocurrency invested.
- If vote turnout is consistently low, then proposals by shareholders should be approved by adaptive quorum biasing with positive turnout bias. Otherwise by simple majority.
- WILLE DAO is structured around tasks and jobs. Tasks can be executed by any member of the DAO at any point in time. These are rewarded either with an increase of reputation points or by receiving cryptocurrencies drawn from the DAO treasury. The establishment of these tasks and their rewards is done by those in managerial positions; captains establish the tasks, ambassadors help recruit and find participants willing to execute them and the ethical committees, named angels, supervise the whole process in efforts to bring to light any misbehaviour. **How to define how much exactly each task should be rewarded?**

Ambassadors

The only requirement to be an ambassador is to have assisted a ? of meetings (received POAPs <https://medium.com/poap/what-is-poap-d7e8fdcf207d>); onboarding meetings or meetings with the captains, and have been awarded the respective participation tokens. The role of the ambassador is to present the DAO to newcomers and to guide them in WILLE:

- Are responsible for the onboarding of new members. By onboarding new members ambassadors get an increase in reputation. Additionally ambassadors may get a cryptocurrency payment if members that join the DAO present a referral code
- When organizing hackatons ambassadors are automatically invited to be part of the hackatons organizing committee

Captains

To be a captain it is required that a minimum ? reputation value is attained. Captains are the equivalent of directors in the traditional analogue corporate setting. Captains should establish objectives, propose tasks and jobs to the DAO. Should also work closely with ambassadors as some managerial tasks crossover between the two roles:

- Requires a minimum ? reputation value to be considered a captain
- Proposes funding of projects to the DAO. These proposals are curated separately from proposals by regular members and should be validated by adaptive quorum biasing with negative turnout bias
- Participate in regular meetings with ambassadors that should be made public

Angels (ethical committees)

Are groups formed from amongst members of WILLE DAO assigned the task of evaluating whether the allocated resources from the approved proposals are in fact being used in the right way.

- Any member of WILLE is eligible to be part of an angel work group (ethical committee)
- Likewise membership to an angel work group is not mandatory. Members are invited and are allowed to refuse participation without prejudice
- Angels are assigned according to a plurinominal vote consensus
- Ought to meet regularly and present a “report” (what kind?)
- A group of angels is instantiated for every approved considered of medium or high impact as established by WILLE’s by-laws
- An initial group of angels is appointed as co-founders to WILLE

KREDIT

Is an invitation-only group co-founder of WILLE (along with angels mentioned in the previous point above) consisting of 10 members who help guide the work of the DAO by curating proposals. Ideally it’s constituted by the most notorious members, the members with the highest reputation, but initially it will be formed by the founding members of the project. It’s never enough to stress that the votes of members of KREDIT weight the same as any other vote from regular shareholders. Proposals by the KREDIT however get approved more easily than proposals set up by regular shareholders because of a different consensus mechanisms. We chose this way because it’s all too common that in DAOs there is a low voter turnout and as a consequent progress is often slow. Thus:

- Intervenes as content and proposals curators. KREDIT should video-conference frequently and publish the meetings discussing the work of the DAO and indicate possible directions
- If voter turnout is consistently low, then proposals by the KREDIT are approved by adaptive quorum biasing with negative turnout bias. Otherwise by simple majority.

Contractors

We consider those as all private entities who contractualize with WILLE and provide some service in exchange for some value in cryptocurrency that is to be transferred directly from the DAO treasury. The choice of contractors, mission and objectives for the contractualization and the overall value of the budget and how payments are to be scheduled in time is to be made by democratic consensual decision between the DAO members.

NERV

Is an entity outside the DAO whose mission and focus is aligned with the values of WILLE.

Shareholders

Investors to the project of WILLE are in all similar to investors in traditional corporate finance. That is to say they allocate an amount of money to the DAO which constitutes the treasury then governed by the investors themselves. The only requirement is that the allocation of these resources is aligned with the mission and goals of WILLE, that is to say to help develop solutions that promote the democratization of society by implementing remote e-voting tools.

Shareholder rights are granted solely based on the transfer of cryptocurrency to the treasury of WILLE. No other documentation and registration information is to be required. That is to say that the identity of the investors remains anonymous and protected.

Generation and distribution of dividends is a primary goal of WILLE thus projects that have this aim are encouraged and should be prioritized in comparison to projects that do not yield a return on investment. In contrast to NERV in WILLE the goal is not to draw resources from the human capital itself (by organizing and building projects with the community members themselves) but rather to make smart investments on other projects that promise achieve our requirements.

Ambassadors

Are the first contact between members inside the DAO and the outside community and thus play a relevant role within the organization. The role is akin to a mix between a human resources manager (HR) and a public relations (PR). Every country where WILLE operates should have a strong community of ambassadors who help present the organization to newcomers and represent WILLE in public events.

Ambassadors are a statutory body on their own and ought to report only to other ambassadors, captains and the angels; while captains are occupied defining what tasks need to be executed, ambassadors can prospect the market and on-board potential contributors while angels should only be concerned with evaluating if the workings of ambassadors and captains are aligned with the intentions and mission of WILLE.

Onboarding is the entire process of presenting the DAO to new members. It assumes off the chain acts of marketing, personal mouth to mouth contact, etc. Ambassadors are given a private passphrase which they can give to new members and which is renewed every time a member successfully joins the organization. The passphrase plays the function of a referral code which can later prove that an ambassador successfully completed the onboarding task and can be used as well to mitigate strong Sybil attacks on the network because bad actors would in addition to all the protective measures break the passphrase encryption which just adds to the difficulty. Ambassadors are limited to generating 10 passphrases per month.

In continuing the procedure, newcomers should be presented the organogram of the organization and explained a little bit about the ongoing projects, preferably those related to their geolocation and jurisdiction. This presentation of WILLE's organogram and ongoing workings should be done off the chain by video-conferencing or in presence between the ambassador and the new comer. Within the onboarding procedure newcomers are invited to participate in meetings with other newcomers and other ambassadors to better debate the idea and values behind WILLE and to better understand if there are strong reasons to adhere to the DAO.

Ambassadors should also partake in off-boarding procedures such as by organizing farewell events, indicating strong candidates for the substitution of captains, or other ideas that might be interesting.

Captains

WILLE selects the most valorous members to help manage the organization; captains curate proposals. Although votes from captains count as any other vote, proposals curated by captains are shown in a special space within the on-line platform.

Captains define the tasks and jobs that are considered important to the mission of the DAO. Leadership should always be encouraged by way of example so we invite all captains to offer themselves to the tasks and jobs put forward by WILLE.

Angels (or ethical committees)

According to Transparency International, $\frac{2}{3}$ of the world population considers that the social environment of their country is corrupt, with the global average of the Corruption Perception Index ranking at 43 points, under 50% and far from 100% that would be considered a society where the perception of corruption would not exist. The ethical committees, (or angels) are organs of WILLE whose sole purpose is to mitigate for these situations. One of the main issues in collaborative development, whether we're talking about the government sector, private sector, NGOs, traditional or on-line has always been accountability. We can easily pool resources to a treasury and we can channel them to actors who ought to execute a set of tasks and procedures, routinely or punctually required to achieve the goals to which we set ourselves but if we don't set the proper mechanisms of checks and balances for accountability these resources are often spent without much return on the investment as research by Catherine Austin in [Solari Report](#) for the case of USA for example suggests.

KREDIT

KREDIT is the co-founding group of the WILLE DAO. The name means soul in german.

The reason for KREDIT to exist in the DAO is not meant to segregate the founding members from newcomers or to give them privileges. It simply exists out of the necessity to curate content and to guide the initial workings. In fact, a vote from KREDIT counts as much as a vote from a new comer, regardless of the reputation or of the time of membership or of anything else.

There is one distinction however which we explain:

Proposals made by the KREDIT are to be highlighter separately in the on-line platform. ***In either case, proposals are voted on and decided on a majority consensus.***

Startup plan

To begin operations the KREDIT committee **proposes** an initial modest **program** which needs around **100 000 \$** to be implemented. This initial program deals with the most basic needs of the decentralised organization (DAO/dorg). From buying the domain for the DAO, to graphism and design, to allocating the first resources to a small group of software engineers, to choosing a PR to represent the DAO at certain important events, etc.. This plan is offered as a way to start operations and pin-points no particular actor that should receive the funding; this ought to be decided democratically.

- (1) Buy wiile.dao domain (**unstoppable domains = 1200\$? ENS?**)
- (2) **5000\$** exclusively to website design and graphism.
- (3) Contract with a software engineering company dedicated exclusively to the creation and deployment of smart contracts relevant to WILLE. The director ought to report to the DAO directly through various mechanisms and also to an ethical work group elected amongst the DAO members. To facilitate communications we shall name this work group “**Ethical committee for the development of smart contracts**”.
- (4) Contract with a software engineering company dedicated exclusively to the development and implementation of Computer Supported Cooperative Work (CSCW) solutions that will be used to facilitate communications within the DAO and with other external entities with which WILLE might choose to collaborate (political parties, NGOs that advocate for democracy, etc). The working group shall consist of volunteers of the DAO coordinated by an elect director who should earn 1000\$/month, totalling 12 000\$ over the period of a year. The corresponding ethical committee the “**Ethical committee supervisors of CSCW development**”.
- (5) KREDIT should as soon as possible elect its ambassadors. The precise goal, rights and duties of ambassadors is defined in the next chapter.
- (6) Elect and finance, 1000\$/month, 12 000\$ yearly, a PR figure responsible to attend and represent WILLE in venues such as FOSDEM, ICEGOV, etc.. (**elaborate a little**)
- (7) The DAO should attribute a monetary prize, for example of a 10 000\$ to the person or institution, internal or external, that shareholders of WILLE consider that most contributed the advancement of our own mission. The receivers of the prize should be chosen by democratic consensus. This prize could be attributed every year and should be named “**name**”.
- (8) **production of WILLE merchandise (t-shirts, pens, etc.) for sale on the website. proceeds revert to DAO. invest 10000\$ in this? elect responsible member and ethics committee?**
- (9) **Think**
- (10) **Think**

Contractors

WILLE ought to invest in other DAOs like [Effect Network](#), [Edgeware](#), [Seed Club](#), [Metacartel](#), etc., to name a few that often run incubating and investment programs.

Companies that are focused on developing remote e-voting solutions such as (...).

Software engineers, public relations (...).