INTRODUCTION - THE CONTEXT OF THIS DOCUMENT

This document presents Saga’s intended governance model. It also presents the fundamental principles and values that are the basis of the model’s design. Saga’s constitution formalises the governance model determining the principles, rules and norms defining Saga. It is currently in development and scheduled for ratification by Saga’s Assembly, a governance entity which will be set up a year from SGA launch. Prior to its ratification, a provisional constitution serves Saga as the formal guiding document for its functioning while defining its governance framework in Saga’s initial phase. The provisional constitution is available on Saga’s website (https://www.saga.org/).

This document and its contents are subject to change from time to time, until the final provisions hereof are finally set in Saga’s permanent Constitution.
CHAPTER 1: SAGA'S MISSION, VALUES AND FUNDAMENTAL PRINCIPLES

Currency holders which have onboarded Saga — defined as Saga’s Participants — are Saga’s sovereign and Saga's governance model is designed to represent them. Hereby, we detail Saga's main mission, values and fundamental principles.

1.1. Saga’s Mission

1.1.1. Saga’s mission is to issue, promote and maintain a global currency, SGA, in accordance with the will of its Participants — Saga's sovereign.

For SGA to be a global currency it must fulfill the three functions of money — a medium of exchange, a store of value, and a unit of account - and be commonly used internationally.

For Participants to be the sovereign, the governance system must represent them and (a) enable effective articulation of the Participants’ individual wills into a general will, and (b) fulfill the Participants' general will effectively.

1.2. General Commitment to Universal Values and Rights

1.2.1. Saga is committed to act in the spirit of the Universal Declaration of Human Rights.

The Universal Declaration of Human Rights (UDHR) delineates liberal and democratic values that nation-states should hold and protect. As a representational entity, Saga is committed to act in the spirit of the UDHR.

1.3. Participants and Saga: Fundamental Principles and Rights

1.3.1. Participants are the sovereign of Saga and have the right to govern it.

Participants' sovereignty is fundamental to Saga and is what defines it as a representational entity. Participants, as Saga's sovereign, have the right to govern Saga. In practice, Participants exercise their governance in accordance with Saga’s constitution and governance framework. These include various voting and deliberation procedures covering all aspects of Saga’s functioning as detailed in chapter 3.

1.3.2. Saga is a constitutionalised organisation

Saga operates on the basis of clear normative hierarchy. At the top of that hierarchy is Saga's Constitution which establishes the core principles, rules and norms upon which the Saga operation functions. All other rules and procedures are drafted and executed in light of the constitution. This includes, for example, a set of administrative procedural principles detailed in appendix B.

The Constitution establishes the sovereignty of the currency holders, defines fundamental rights, responsibilities, principles and values, and delineates the governance system. This is fundamental to Saga as it encapsulates normative hierarchy, and disposition to system-wide coherence.

Saga’s governance entities are responsible for seeing that the Constitution is implemented and are obliged to act in line with it in all decisions and actions.

The Constitutional Council, a Saga governance entity, is responsible for resolving any conflicts concerning interpretation of the Constitution among Saga’s entities and Saga Participants.
Changing the constitution shall be possible under special majorities, as shall be defined in the Constitution.

1.3.3. Participants are the default beneficiaries.

Saga adopts common not-for-profit principles. As part of this, the Company shall not, under any circumstances, distribute any kind of dividends to its members or other stakeholders. Furthermore, the income and property of the Company shall be applied solely in promoting Saga’s mission. There are only two exceptions to this principle, and Saga may distribute:

- Reasonable compensation to Saga’s employees and service providers for any services aimed at fulfilling Saga’s mission.
- Predefined remuneration to Saga’s early backers and other stakeholders that enabled the creation and the ongoing development of the Saga project. This is done solely through the Saga Genesis (SGN) mechanism — a voucher token that can be converted into SGA. The SGN mechanism was designed to enable the Saga project while ensuring that the interests of SGN holders are fully aligned with those of SGA holders. Furthermore, SGN tokens bear the same voting rights as SGA tokens.

1.3.4. Participation in Saga is voluntary and open.

Becoming a Participant of Saga is open to all and voluntary; so is leaving Saga. This is in accordance with Saga's core structure and procedures, which can limit use of the currency in order to prevent fraud and illegal activities.

1.3.5. All Participants have the right to take part in government.

All Participants may present themselves for all governance positions, in accordance with SAGA's core structure and participation processes.

1.3.6. Participants’ voting power must balance between ‘one participant - one vote’ principle and stake-based voting.

In democratic representative entities voting power follows the ‘one participant - one vote’ principle (Participant-based). However, in a financial project such as Saga there is reason to take into account Participants’ stake in the economy (i.e. holdings in the currency). In Saga, as a representational-financial project, voting power must balance the two voting methods (see more about this in section 2.6. Democonomy Voting and in appendix A).

1.3.7. All Participants are equal before Saga’s rules, and have the right to an effective dispute resolution mechanism.

No participant shall be discriminated against by any Saga entity or official based on gender, religion, sexual orientation, race or any other factor. In cases where Participants believe that impartiality of governance has been breached, an effective dispute resolution mechanism will be available to the affected participant.

1.3.8. Saga does not have a claim over Participants' SGA holdings.

SGA is the property of its respective holders, and, by design, Saga does not have the ability to make any alterations to Participants’ holdings. As Saga is compliant with relevant laws and regulations, restrictions on the usage of SGA token may apply.

1.3.9. Transparent governance.

In order to assure effective observance of Participants’ sovereignty, Saga’s governing entities and elected officials must operate with meaningful and evident transparency toward its Participants in all significant matters, providing relevant information and clear

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1 Through the SGN mechanism $30M were raised for Saga’s activity by various investors. A list of contributors is available at Saga’s website. For more details on the SGN mechanism see “Saga’s Monetary Model” document available at www.saga.org.
explanations of governance actions. Appendix C details the information rights in the Saga ecosystem.

1.3.10. Governance continuity.

In order to assure that Saga's operates effectively, governance mechanisms must be continuously maintained. This principle must be integrated into each of the governance entities' internal procedures.

1.4. Relations between Saga and Nation States

1.4.1. Saga adheres to local laws in every country in which it operates as a legal entity as well as international law and standards in accordance to the principles presented in this section.

Saga shall respect international law and standards as well as national laws of all states in which Saga operates. Saga aims to operate in jurisdictions that best allow it to fulfill its mission and values. Saga wishes to operate under, and in accordance with, clear regulatory rules and standards. For that purpose, Saga did, and will continue to, pursue open discussions with all relevant rule makers and regulators.

1.4.2. Participants' actions within Saga do not absolve them from being subject to the laws of their respective nation states as well as the laws in the jurisdictions in which they operate.

The fact that Saga is a representational organisation does not absolve Participants from their national laws and obligations.
CHAPTER 2: SAGA’S GOVERNANCE MAIN FEATURES

Early on in the development of the Saga project, it became evident that there aren’t any suitable ‘off the shelf’ governance systems for an organisation that issues and manages a sustainable global currency and in which its users are its sovereign, as is Saga’s vision. To provide a solution, we have created our own system developed by a multidisciplinary team of experts. Its main features are described in this chapter while the detailed model is described in the following chapter.

The main features of Saga’s governance system were developed on the basis of Saga’s mission, values, and fundamental principles as described in the previous chapter. Additionally, we defined the main target function for the governance system as: achieving the highest level of effective representation of Participants. We broke it down into two components: (a) effective articulation of the Participants’ individual preferences into a general will, and (b) effective fulfillment of the general will.

We note that there is inherent tension between these two components. For example, while effective management requires timely decision making, the formulation of the general will is a continuous process. Another example is that managing a currency ecosystem requires expertise, and this knowledge is not necessarily held across the public sphere. The governance system is built to balance out these tensions.

The Saga governance system borrows, adapts and combines various governance components from dominant governance approaches: liberal democracies; private sector corporations; and decentralised organisations. Following, we present the main features of Saga’s governance.

2.1. Checks and Balances Through Separation of Powers

The underlying framework of Saga’s governance is one of checks and balances through the separation of powers in a multi-branch structure. It is adopted from liberal democratic nation-states. We note that liberal democracies, despite various criticisms on their functioning, present the only model of sovereign governance which emphasises civil rights, the rule of law and economic freedom. Importantly, it is a model that has sustained, evolved and been refined on a large scale for more than two centuries. In addition, the system includes decentralised mechanisms that enable transfer of power to Participants if they wish to take such power.

2.2. Decentralisation as a Tool, Selectively Applied

While decentralised technologies are useful for generating an immutable ledger and for execution of smart contracts (digital protocols), they are inherently ineffective when it comes to governance challenges. In the case of the Saga project, they do not provide a solution to many of the functional challenges involved in managing a global currency, such as: the management of reserves, updating the monetary model, and interaction with other organisations. These functions necessitate proper care and expertise. That is probably why, when looking closely at other decentralised projects in the cryptosphere, one either sees some type of centralisation of power (whether informal or formal), or impractical stagnation.

Saga only applies decentralised technologies where the benefits from increasing trust and transparency in the system overcomes their inherent inefficiency. Specifically, they are used in operational processes, including implementing the monetary model (control over the supply of SGA). They are also used for monitoring balances and value transfers, and for ensuring a transparent and immutable ledger. In addition, blockchain is used for central voting procedures, as these are also trust-sensitive operations.
2.3. Expertise-Based Decision Making

For introducing expertise into decision-making and for ensuring effective management, we looked to the corporate model and chose to rely on a small team of professional executives to manage the Saga project as a whole. We refer to this team as the Executive council.

For establishing the sovereignty of the Participants and for ensuring the Executive council’s accountability, the Executive council is elected directly by the Participants, and is subject to monitoring and scrutinising by other governance entities.

2.4. Combining Direct and Representational Democracy

Direct democracy can often overwhelm voters with a need for intensive involvement. In contrast, representative democracy only allows for a very low level of involvement — in periodic elections. In Saga’s governance design we combine direct and representational democracy (a.k.a liquid democracy), which serves to mitigate the traditional trade-off between the size of the group that participates in the democratic process and the extent of individual members’ participation in the decision-making process. In addition, it allows Participants the freedom to decide on their own level of involvement. This is mainly illustrated in the design of Saga’s Assembly — a central governance entity designed to reflect the Participants’ will in a continuous manner. The Assembly’s duties consist of monitoring and scrutinising the Executive Council. The Assembly also has the authority to dissolve the Executive Council and to call for new elections if it sees fit to do so.

With regard to voting processes in the Assembly, Participants can choose between delegating their voting power to a chosen Assembly Member or becoming Assembly Members themselves and voting directly.

2.5. Quasi-Independent Monetary Management

In general, monetary management should generate sound monetary policy that provides certainty and fosters long-term stability. Indeed, that is why national central banks (usually) enjoy a significant degree of institutional autonomy. In Saga, as a monetary project, there are several areas of monetary policy, particularly changes to the monetary model that require similar professional autonomy.

However, full independence fosters a lack of accountability and risks isolation from participants. Therefore, we designed a designated and relatively independent Monetary Committee. To foster professional decision making, its members are chosen by a dedicated appointment committee for a single and relatively long term. To ensure the committee’s accountability Participants have veto power with regard to changes to the monetary model.

2.6. Democonomy Voting

Participants’ sovereignty over Saga takes effect through various voting processes. This requires determining voting power. Two prominent voting methods are the participant-based voting, i.e ‘one person - one vote’ method, used in national elections world-wide; and stake-based voting, a popular voting method in corporate governance.

As Saga is a monetary project we approached this task through the perspective of the functions of money. Money has three central functions: unit of account, store of value and means of exchange. The store of value function is in line with stake-based voting as voting power is proportional to holdings. In other words, the more you hold the more power you have to influence decision-making. On the other hand, the means of exchange function is in line with the participant-based method as it favors a large network of small users. It promotes higher acceptance of the currency by encouraging small holders to join in as they immediately receive equal voting power. Preventing plutocracy as well as hostile takeovers is another important consideration for participant-based voting.
Serving both of these functions of money requires balancing between the two voting methods. In the elections for Saga’s Executive Council, the entity which manages Saga on a day-to-day basis, we dynamically balance between the two voting approaches by using Democonomy Voting — a unique and novel voting method Saga has developed (see more in appendix A and in a Saga blog post on this method²). Its basic mechanism calculates both stake-based and participant-based voting powers and allots each one weight in accordance to the concentration of wealth in the economy. If much wealth is concentrated in the hands of a few, then the weight of stake-based voting will be relatively low and the weight of participant-based voting relatively high. If wealth is more evenly dispersed, then the stake-based and participant-based weights will be more balanced. The main advantages of Democonomy Voting is that it allows representation of stake while preventing plutocracy. Specifically, we use a gini-coefficient³ to measure the concentration of wealth and then to assign the appropriate weights to each voting method.

As an additional counter-balance for protecting against plutocracy, voting power in the Assembly is participant-based. Although the assembly does not have operational responsibilities it has the authority to dissolve the Executive Council. Participant-based voting in the Assembly also facilitates a discourse in the Assembly that reflects participants views and preferences in an equal manner.

2.7. Safeguarding Usability

In Saga, as Participants are the sovereign, high usability is of great importance as it enables Participants to act effectively in accordance to their interests while gaining confidence in the system. Saga’s governance system isn’t simple as it is based on the separation of powers. Nonetheless, we made sure that for both Participants and governance officials, complexity is reasonable and allows for more or less straightforward usage.

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² https://www.saga.org/blog/blogPost/XRs7BBEAACIzB6/

³ A statistical measure of distribution commonly used for measuring inequality.
CHAPTER 3: SAGA’S GOVERNANCE MODEL

This chapter presents Saga’s intended governance model. We begin with a short description of the governance entities followed by more detailed descriptions.

3.1. Quick Introduction to Saga’s Entities

The Participants: These are SGA holders who have onboarded Saga. The Participants are Saga’s sovereign and they are the equivalent to nation states’ citizens.

The Executive Council: An elected team of experienced professionals that are in charge of managing Saga’s ecosystem and operations.

The Assembly: A place for all Participants to express their views and participate in the ongoing formation of the general will and in various governance processes. Participants may either represent themselves or elect delegates to vote on their behalf. The Assembly functions as a central check and balance mechanism for the Executive Council and can vote to dissolve it.

Monetary Committee: Responsible for ensuring the long term sustainability and soundness of SGA as money. Only the Monetary Committee has the authority to amend Saga’s Monetary Model and its implementation in the Smart Contract.

Constitutional Council: Responsible for resolving disputes between Saga entities that are brought before it. Saga’s Constitution serves as the basis for the Council’s resolutions.

Transparency Committee: Serves as transparency agent for Assembly members. It is responsible to ensure that all relevant information is provided to the Assembly.

Appointment Committee: In charge of appointing members of both the Monetary Committee and the Constitutional Council, by setting qualification standards and assessing applicants.

Smart Contract: A digital protocol, executed over a public blockchain, embedding procedures that were coded in advance for reliably and transparently executing principal monetary and electoral processes. Although not an actual entity, it is a central governance component.

3.2. Core Entities

3.2.1. The Participants.

The Participants are Saga’s sovereign and have the right to govern Saga. Participants are currency holders who have completed a registration process which includes the completion
of relevant KYC and anti-money laundering checks. Participants are Saga's parallel to nation state's citizens. To allow for effective representation and execution of their general will, the Participants exercise their right to govern through elections to the Executive council and through participation, directly or by delegation, in the Assembly.

To become a Participant, an SGA holder must hold a predetermined qualifying amount of SGA tokens for a qualifying period of at least 3 months. The minimal holding threshold would be set by Saga to the minimal amount that effectively reduces the risk of "hostile" takeover by means of registering a large organised group, while still allowing for broad participation.

All Participants are represented in the Assembly, either actively — by becoming an Assembly Member, or passively — by delegating their power to an existing Assembly member. This is mandatory and Participants must choose between one of the two options, or pay a non-participation transaction fee. It is a financial incentive for encouraging a minimal level of participation in Saga's governance imposed on those who enjoy the services of the governance system without taking part in it.

3.2.2. Executive Council.

The Executive Council is the main operative entity in Saga's governance system in charge of managing and directing the day-to-day operations of the currency. The Executive Council is headed by a chairperson and a team of executives, resembling a corporate executive team. It is composed of five to seven members, each having a particular area of responsibility, such as legal, finance, or technology. The Chairperson and its team of choice are elected by participants through the Democonomy Voting method (See 2.7 and Appendix A) that dynamically balances between the stake-based and participant-based (i.e. one participant - one vote) voting methods. The Council is elected as a team for a term of five years. Individual members can be replaced by a decision of the Chairperson. The Assembly can vote to dissolve the Executive Council prior to the end of its term (see more details in the Assembly's section below).

3.2.3. The Assembly.

The Assembly is the deliberative governance entity where Saga Participants can continuously express their opinions, and initiate and take collective decisions. It is a central check-and-balance mechanism for monitoring and scrutinising the Executive Council. All Participants are represented in the Assembly, whether directly or by delegating their voting power to Assembly Members. The size of the Assembly varies according to Participants’ preferences; in theory, all Participants could be Assembly Members.

Assembly Members

Participants can become Assembly Members at will. The voting power of Assembly Members is equal to the number of Participants that delegated their voting power to them, in accordance to the participant-based method (in addition to their own personal vote).

Assembly Members must participate in all votes in the Assembly. In addition, Assembly Members which represent other Participants are obligated to publish a report, detailing the reasoning behind their vote. Those who continually fail to fulfill these duties would lose their Assembly Member status.

Liquid Representation

In order to enable real-time representation, Participants can change their delegated Assembly Member at any time. Furthermore, Assembly Members' votes are pre-published and Participants can override their delegates' decision by either appointing another delegate or voting directly on the issue at hand.
Dissolving the Executive Council

A central power of the Assembly lies in its ability to dissolve the Executive Council and call for new elections. Here lies an important balancing mechanism — while the Executive Council is elected based on Democonomy Voting (which takes Participants stake into account), it can be dissolved by the Assembly’s participant-based voting. However, in order to promote system stability the majority needed in the Assembly for dissolving the Executive council is dynamic. Immediately following the elections it is set to high threshold of 80%. Then, it gradually declines by 5% every 6 months, until it reaches a regular 50% majority after 3 years.

<table>
<thead>
<tr>
<th></th>
<th>Executive Council</th>
<th>Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voting Power</td>
<td>Democonomy Voting</td>
<td>Participant-based</td>
</tr>
<tr>
<td>Election Cycle</td>
<td>5 Years</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Number of Members</td>
<td>5-7 Members</td>
<td>Unlimited</td>
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Table 1: A comparison between Executive council and the Assembly’s main characteristics.

Conveying a stance on the Executive Council’s decisions

The Assembly is obliged to convey a stance with regard to major decisions made by the Executive Council. Major decisions are defined as decisions which deviate from normal business activity and have significant consequences for Saga or its Participants. The Executive Council is responsible for classifying whether their decisions are major or routine. In any case, the Assembly can also convey its stance on routine decisions and the decision’s level classification mainly serves as a pragmatic means for presenting to the Assembly the most significant issues for their deliberation.

In the case that the Assembly votes against a decision made by the Executive Council, the Council is obliged to reconsider its decision in a ‘comply or explain’ procedure. The Council may still ratify its original decision, on the condition that it provides an accompanying explanation to the Assembly.

Putting forward proposals to the Executive Council

The Assembly can put forward proposals to the Executive Council. Assembly Members are responsible for preparing and promoting such proposals. If a proposal reaches a predetermined threshold of support, it is forwarded to a mandatory voting procedure in the Assembly. If approved, the Assembly's proposal is brought before the Executive Council which in turn must react in a 'comply or explain' procedure.

The Assembly Portal

An online and accessible interface for enabling and encouraging meaningful participation in the Assembly. It should allow Participants and Assembly Members to easily gather relevant information, communicate, deliberate, propose and vote. It should provide delegates’ views, deliberations, official reports, and everything else that is needed for Assembly Members to effectively fulfill their duties and for Participants to effectively keep track of their delegates, or vote independently. The portal is managed by the Assembly, rather than by the Executive Council, in order to assure that it best fulfills its purpose.

3.2.4. Constitutional Council.

The Constitutional Council is the governance entity with authority to resolve disputes between Saga entities that are brought before it. The basis for its rulings is first and foremost Saga's Constitution. In this sense it resembles a nation-state’s constitutional court. Participants may also appeal to the Council, however it does not deal with disputes that do not concern Saga's governance entities such as disputes between Saga Participants.
Appealing to the Council

Two types of disputes can be brought before the Constitutional Council: a personal dispute and a public one. Personal disputes occur when a Participant appeals to the Constitutional Council regarding an infringement of rights. This appeal may be presented only after they have turned to Saga's Ombudsman (see 3.3.3 below).

Public disputes concern general public rights and interests. They can only be submitted by a Saga entity or by Assembly Members. In the latter case, the appeal can be submitted only if it has gathered a minimal amount of support in the Assembly.

The Council's structure

The Constitutional Council consists of three members. Its members are required to have a strong relevant legal background, and are appointed for staggered terms of six years. Once a member has served their term, they are not eligible for reappointment. Every two years, one Constitutional Council Member is replaced. Replacing one member at a time promotes continuity and stability in the Council's functioning. The relatively long terms of office and the fact that members are not eligible for reappointment, promote the Council's independence. Constitutional Council Members are appointed by Saga's Appointment Committee specifically set up to elect candidates solely based on professional considerations. Council Members may also be dismissed in accordance with a defined procedure (see 3.3.2. Appointment Committee for more info).

External enforcement

To enable enforceability of the Council's resolutions, Council decisions are defined as arbitral awards, and are accepted by all entities and Participants as such. This means that Council decisions can be enforced by national courts, if the need arises.

3.2.5. Monetary Committee.

The Monetary Committee is responsible for the performance of Saga's monetary model and for updating it when necessary. This must be done with a long term outlook, and therefore requires a designated entity other than the Executive Council, which is prone to short term considerations. Therefore, the Committee is structured as a relatively independent group of monetary experts, in a similar manner to the independence that central banks enjoy in liberal democracies. The committee is required to balance between long term stability and growth of the SGA currency in its decision making to ensure widespread adoption and acceptability.

The Committee's structure resembles that of the Constitutional Council. It consists of three members, which are required to have a strong background in monetary economics. Members are appointed for staggered terms of six years and are not eligible for reappointment. Every two years, one Monetary Committee Member is replaced. Replacing only one member at a time promotes continuity and stability in policy. The relatively long terms of office and the ineligibility for reappointment, promotes independence, and a long-term outlook on behalf of Committee Members. The members are appointed by Saga's Appointment Committee in a procedure that aims to ensure their professionalism and independence. The members may also be dismissed in accordance with a defined procedure (see 3.3.2. Appointment Committee for more info).

On the basis of the understanding that monetary policy should promote monetary predictability and stability, the Committee should aim to minimize its interventions in the monetary model.

3.2.6. The Smart Contract.

The Smart Contract is a central component in Saga's governance model. It is executed over a public blockchain, embedding procedures that were coded in advance for reliably and transparently executing principal monetary, electoral and financial processes used by the Monetary Committee, Assembly, and the Executive Council respectively. The Smart
Contract's transparency and reliability substantiates it as an important check and balance mechanism.

**Red Button: Halting some Smart Contract functionalities**

Saga's monetary model is executed by the Smart Contract and is designed to be resilient in as many real-world scenarios as possible. Nevertheless, Saga may face unexpected turn of events in which the Smart Contract's pre-defined behaviour puts its economy at immediate risk. Therefore, the Smart Contract is embedded with a 'red button' mechanism for temporarily halting its market-making functionalities until the issue is resolved. Other Smart Contract functionalities, such as enabling transfer of SGA between Participants, cannot be halted. The halting mechanism is considered a measure of last resort and its usage should be avoided whenever possible. Its general procedures are as follows:

- The authority to activate the halting mechanism is entrusted to the Monetary Committee. Halting for a period of more than a week must be approved by both the Executive Council and the Constitutional Council. In such a case, the Assembly can initiate a vote to cease the halt in the Smart Contract.
- In the case that the Executive Council determines that an immediate halt is imperative, and that the Monetary Committee cannot be assembled (online) in time, it has the authority, by vote, to halt the smart contract for up to two intervals of 24 hours each.
- In the aftermath of the event, the Executive Council and the Transparency Committee must each release a report detailing the event, the reasons for using the halting mechanism, and the operative steps taken to resolve the issue.

**Amending the Smart Contract**

The Smart Contract is embedded with protocols for updating most of its components and functionalities. This is necessary in order to allow for changes in the Monetary Model in case need arises, and for technical considerations such as for fixing vulnerabilities in the protocol. Nonetheless there are elements in the Smart Contract that cannot be changed such as that the transfer of SGA from one’s wallet requires one’s signature.

In the procedures for updating the Smart Contract we differentiate between technical amendments, that are under the authority of the Executive Council, and monetary updates that are under the authority of the Monetary Committee. In both cases, any motion to update the smart contract should be publicly introduced for review at least 30 days in advance. Motions by the Executive Council's to change the smart contract are considered by default as major decisions Accordingly, the Assembly is required to convey its stance on the suggested amendment during the review period. The Assembly can also vote to block a suggested amendment with a supermajority of 66%.

The review period can be shortened to a period of no less than 48 hours, if both the Executive Council and the Monetary Committee find that delaying the implementation of the suggested update has a significant effect on the ability of the SGA token to serve its purpose.

In cases where a technical update of the smart contract is urgently needed, for example if a security breach was identified, the Executive Council may ask the approval of the Constitutional Council for an immediate change of the smart contract. The Constitutional Council may approve the amendment only if it finds that the update is indeed urgent. Only technical amendments (i.e not related to the implementation of Saga's monetary model) can be implemented immediately.

A decision of the Monetary Committee or the Executive Council to amend the smart contract, like any other decisions, can be subjected to a ruling of the Constitutional Council if an appeal is submitted on the matter.
The Smart Contract as electoral tool

The electoral process is extremely trust-sensitive, hence there is merit in using decentralised tools for overseeing the elections, despite their inherent inefficiency. Thus, the delegation process in the Assembly and voting mechanisms are implemented over a public blockchain, for ensuring the integrity of these processes.

The Smart Contract as a budget monitoring tool

Budget monitoring is another Saga governance feature implemented over the blockchain. Saga's yearly budget will be managed in the framework of the Smart Contract by the Executive council. This means that its usage will be only in accordance with the terms defined in advance in the algorithm, and that the budget is transparent and open to inspection.

3.3. Supplementary Entities

3.3.1. The Transparency Committee.

Appointed and Guided by the Assembly, the Transparency Committee serves as a transparency agent for oversight and disclosure. The Committee has authority to oversee the Executive Council’s actions. It reports to the Assembly, publishes its findings and supports knowledge-based decision making and promotes accountability. It is important to note that all of Saga’s entities are required to uphold a set of information rights detailed in appendix C.

The Executive Council has the authority to withhold information from the Transparency Committee only if it reasonably expects that publishing it may significantly harm the Saga Economy. If the Transparency Committee sees fit it can appeal to the Constitutional Council on the matter.

3.3.2. The Appointment Committee.

The Appointment Committee is responsible for appointing the members of both the Monetary Committee and the Constitutional Council. The Committee is made up of representatives from the Assembly, the Executive Council, and members of the Committee at hand. This appointment mechanism is designed to ensure a high level of independence and professionalism among chosen members. The Appointment Committee is set up ad-hoc, whenever a new appointment is needed. It consists of six members that are selected in the following way:

- Two representatives are elected by the Assembly
- Two representatives are appointed by the Executive Council
- Two incumbent members from either the Monetary Committee or the Constitutional Council, according to the appointment on the agenda.

Candidates are selected by the Appointment Committee only by a majority of at least four out of six members and under the condition that at least one member from each of the three entities which appointed the members (the Executive Council, the Assembly, and the incumbent members) supports the appointment.

The Appointing Committee is also responsible for determining the outcome of an early dismissal process for members of the Monetary Committee or the Constitutional Council. The Executive Council or the Assembly can initiate such an early dismissal process. Then an Appointment Committee is formed and votes on the dismissal. If it reaches the same majority conditions of the selection process, as detailed above, then the dismissal is approved.
3.3.3. Ombudsman.

The Ombudsman is responsible for taking care of maladministration complaints raised by Participants. An SGA holder that has turned to the Ombudsman and is not content with the response, may appeal to the Constitutional Council. The Ombudsman is appointed by the Executive Council. It is important to note that all of Saga's entities are required to uphold a set of administrative procedure principles detailed in appendix B.
CHAPTER 4: FINANCIAL ASPECTS

Funding, compensation and incentive mechanisms are essential aspects of governance systems. This chapter highlights several of such components in Saga.

4.1. Annual Budget

All of Saga’s operations take place within the framework of an annual budget. The budget is devised and approved by the Executive Council. Nonetheless, it must be presented to the Assembly before its final approval. The Assembly may endorse the budget. Alternatively it may disapprove of the budget, detailing its reservations while requesting further explanations from the Executive council.

The approved budget is implemented as a smart contract, hence, promoting transparency and reliability of the budget’s utilisation. The Executive Council may decide to change the budget, by following the same approval process of a new annual budget.

4.2. Incentivising Active Participation

Participants are required to either delegate their voting power to an existing Assembly Member or to become Assembly Members themselves. Participants which fail to do so will be imposed with a non-participation transaction fee. It is a financial incentive for encouraging a minimal level of participation in Saga’s governance imposed on those who enjoy the services of the governance system without taking part in it.

4.3. Assembly Member Compensation

Saga’s governance design states that the Assembly should include Assembly Members who devote their full time towards their Assembly duties, similar to parliament members. This would promote the effectiveness of the Assembly as well as Participants’ effective representation in general. Accordingly, Assembly members are compensated for their efforts. A key factor for determining the amount of compensation that an Assembly Member receives is the number of Participants they represent. Another key factor is the size of Saga’s economy.

For promoting broad representation, Assembly Member’s compensation shall be capped once they exceed a predefined quota of Participants’ representation.

To ensure that Assembly Members fulfill their duties they are required to deposit a small financial pledge. In case a Member fails to fulfill their duties the pledge is disowned.

4.4. Compensation for Governance Officials

Officials in the governing system receive salaries and are entitled to other types of compensation, as in any workplace. More specifically, members of the Transparency Committee, Appointment Committee, Constitutional Council, Monetary Committee receive and the Ombudsman fixed pay — in order to avoid any conflict of interests and short-term considerations. Executive Council members may receive variable pay that depends on SGA economy performance.

4.5. Funding Governance Operations

Saga’s governance system is designed to best fulfill its mission and values for the benefit of its Participants. Essentially it is a service and, as in many other services, those enjoying it cover its costs, whether directly or indirectly.
A central source of funding for Saga's governance operations is the proceeds from the price band\(^4\) — the difference between SGA buy and sell prices as determined by Saga's monetary model for those buying directly from Saga's smart contract. This funding mechanism links between a central service provided by Saga, the liquidity offered by the smart contract, and income for Saga's operation.

Another source of funding, at least in the short to mid time range, is the proceeds from the sale of SGN tokens\(^5\). In the long run fees imposed on SGA holders may also be considered for affording the services that Saga provides them with.

\(^4\) The profit coming from the price band can be seen as partial seigniorage, where the bid price represents the cost of minting new SGA and the seigniorage only comes from the difference between the smart contract's bid and ask prices. On the other hand, this can also be seen as transaction fees - imposed only on SGA holders transacting directly with the smart contract.

\(^5\) Saga Genesis (SGN) is a voucher token that can be converted to SGA. It is used for predefined remuneration to Saga's early backers and other stakeholders that enabled the creation and the ongoing development of the Saga project. In addition, 36% percent of the SGN tokens were apportioned to Saga for usage towards fulfilling its mission (For more info on SGN see Saga's whitepaper).
APPENDIX A: DEMOCONOMY VOTING

The following gives a formula for the voting influence, $V(i)$, of an entity in Saga:

$$V(i) = (1-G)S(i) + (G)ID(i)$$

It is based on:

1) $S(i)$ - the influence a voter would have had if we used the "one token one vote" method, i.e. the tokens the entity has relative to all tokens\(^6\).  
2) $ID(i)$ - the influence a voter would have had if we used the "one holder one vote" method, i.e. his 1 vote among all votes.  
3) $G$ - is the Gini Coefficient of the current Saga economy. It gives the weighting of the wealth-based method. 1-$G$ is the weighting of identity-based method.

For example, let’s assume there are 100 tokens in an economy and 100 holders. Entity A holds 3 tokens. Therefore, entity A holds 3% of all tokens but represents 1% of entities who hold tokens. Assuming the Gini coefficient is, let’s say, 0.4, then entity A’s voting influence is given by:

$$V(A) = G*3\% + (1-G)*1\% = 0.4*3\% + (1-0.4)*1\% = 1.2\% + 0.6\% = 1.8\%$$

According to the method of Weighted Stake, entity A’s voting influence among all other Participants is 1.8%.

\(^6\) Holdings are calculated over time, to prevent holders from gaining excess voting powers by buying tokens immediately prior to a vote in order to gain influence.
APPENDIX B: ADMINISTRATIVE PROCEDURES

PRINCIPLES

In order to ensure good administration and decision-making in Saga, which will provide an efficient, independent and equitable governance system, Saga's entities will be subjected to several principles as detailed hereunder. These principles fall into two categories: procedural principles, which set out a number of obligations with respect to the formal procedure of the decision-making, and principles that relate to the essence of the decisions and limit the entities’ discretion in order to make sure they would not exceed their power.

The hereinafter principles serve as general guidelines. Each entity shall publish a detailed procedure, which will be subject to approval, based on these principles

A Proper Procedure

Acquisition of Information: Saga's entities shall take proper means to ensure they are well informed before making any decision. All relevant facts, expert opinions and any other relevant information concerning an issue both for and against any decision should be taken into account. Such factual foundation shall also include other principles and values of Saga. The process of laying down the factual foundation should be done reasonably. Thus, each entity shall take into account its resources, workload and priorities, as well as the urgency, complexity and the implications of the decision, in deciding what information should be required, the time frame for acquiring it and how much effort and resources to put in acquiring the information.

Consultation: each entity shall ask to consult with relevant bodies or individuals in order to get a wide perspective in a decision it is about to make. The consultation can be objective, for example, with experts who have no interest in the decision, and subjective, for instance, with a person who might be harmed by the decision, so that the entity will be able to better understand and assess the impacts of its decision. The entity will then reasonably consider all advice, and act upon the advice it finds most reasonable. The duty to consult and the figures whom the entity should consult will apply to each entity according to its internal procedures. However, each entity, at its discretion, shall decide on a case-by-case basis if there are other relevant consultations that should be made.

Transparency: Saga's entities shall act in a transparent manner in order to ensure that substantive information regarding their decisions and procedures will be available to the Participants. This principle includes two types of obligations:

Reasoning: the entities are required to share with Participants the reason why the discretion in a certain decision was exercised as it was. This obligation requires the entity to present the basis for the decision, the general objectives which it intended to achieve and, as applicable, a reference to opposing opinions which were rejected or taken into account by the entity.

Publication: before a decision is made, entities are required to provide Participants with an adequate notice through a publication of the proposed decision, providing the Participants a meaningful opportunity to object and comment where they believe that the decision will have a bad impact on them. This obligation will apply to legislative effect decisions. Each decision should be reasonably published so that each affected Participant would have access to it.

There are some exceptions to the principle of transparency:

• If fulfillment of the principle might damage the financial, monetary or economic policy of Saga or its partnerships;
• If fulfillment of the principle might infringe the right to privacy;

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• If reasoning/publication includes a trade secret or other kind of secret that should not be exposed; or
• If another principle exists which states that in a specific case, the entity is not obliged to provide reasoning for its decision or to publish it.

Even if one or more of these exceptions apply, the entity will provide a part reasoning or publication, in accordance with the circumstances of each case, where possible. In addition, the Transparency Committee has the right to ask the entity to: (i) explain on what basis the entity had decided that an exception to the principle of transparency applies; and/or (ii) provide the full reasoning or publication of a decision when it has a reason to believe that the circumstances under which such information was excluded are no longer relevant.

**Right to a Hearing:** each of Saga’s entities shall provide fair opportunity for hearing to any Participant who may be directly and adversely affected by its decision. Hence, the entities shall notify the Participant in due time of the pending decision while providing them with the necessary information (as detailed below).

**Access to Information:** in order for a Participant to be able to fulfill its right to a hearing, Saga’s entities shall provide to a Participant whose interests are at stake to receive access to information regarding a decision about them.

However, this principle is subject to some exceptions:

- **The entity shall refuse access to information in the following cases:**
  - *Where disclosure would undermine the protection of the public interest of the Participants* with regard to the financial, monetary or economic policy of Saga; or to Saga’s partnerships;
  - *Where disclosure would undermine the protection of privacy or integrity of a Person*; or
  - *Where disclosure would undermine the protection of commercial interests of a Participant, including intellectual property."

- **The entity may refuse access to information in the following cases:**
  - *In order to protect good government and provide a safe space for policymaking.* It includes information regarding the formulation or development of government policy; documents which were collected for internal use that relates to a decision, including internal discussions, opinions for internal use, the content of internal investigations, advice or recommendation - if such disclosure would seriously undermine the entity's decision-making process; information relating to a negotiation process with an external person/entity; information which related to the internal management of the entity and has no relevance/importance to the public; or
  - *Where disclosure imposes a grossly oppressive burden on the entity,* including a request which requires an unreasonable allocation of resources from the entity; information in the public domain; information which the entity, after taking reasonable measures, was not able to find; information that was created by a different entity (in this case the entity shall refer the applicant of the information to such entity, and shall make sure that such referral would not impose an unreasonable burden on the applicant).

- **The entity may approach the Transparency Committee in advance with a request to declare any specific information or documentation as ‘classified’, thereby assuring such information or documentation will not become subject to any future disclosure obligation (unless the Transparency Committee’s decision in this regard is overturned by the Constitutional Council), where such assurance is required to allow the entity to perform its duties.** Such assurance may be needed, for example (without limitation) when legal advice on sensitive issues is sought, when discussing trade secrets or other confidential or proprietary information, and where the entity reasonably believes that the disclosure of such information may cause severe damage to Saga or to its Participants.
**Neutrality**: a decision shall not be made by a person who has an interest, financial, familial or otherwise, in the decision. Decision-makers will be deemed as biased if their actions are objectively or subjectively for or against one of the sides for reasons unconnected with the merits of the issue. Subjective motivation may stem from prejudices, predilections or personal interests. Objective conflict may stem from a specific problematic action taken by a decision maker even if not acting with conflict of interest, but a reasonable decision maker will be deemed biased under similar consequences. Thus, a representative in any of Saga’s entities must not be found in a situation of any kind of conflict of interests. There are two exceptions to this rule against bias:

**Necessity**: in cases where the decision-maker against whom a claim of bias has been made cannot be replaced since this person is the only one reasonably available to act in this particular case.

**Entity Bias**: Where a Saga entity, or all of the individual officials within such entity, in their capacity as such, are perceived to be biased due to their position (but not their own, personal, interests), such bias shall be mentioned, discussed as necessary and documented, but shall not prevent the entity from making a decision in this regard.

**Waiver**: if the case at hand is of a specific Participant (or defined group of Participants), who are reasonably expected to be adversely affected by a decision to be taken by someone who is biased, such Participant(s) may ask that the decision will be made by them in spite of such bias, provided that they were fully informed of the facts. Such Participant(s) are held to have waived the right to invoke the bias rule in such cases.

In exceptional cases, the above principles may not apply if, to the relevant entity’s discretion, the fulfillment of a principle is likely to adversely affect most Participants’ interests, or to impose a heavy burden on the entity in a manner that will affect its ability to ensure good governance. In such cases, the entity will have to assess and identify the trade-off between the harm of enforcing the principles and the importance of satisfying it.

Each entity decision which falls under an exception must be well explained, and implemented to the minimum extent possible. The same as all other decisions, exception-based decisions will be subject to a judicial review by the Constitutional Council.

**Equal Treatment and Non-Discrimination**: universal human rights are a fundamental principle of Saga’s governance system. This obligates Saga’s entities to treat all SGA holders equally. This means that the entities must grant rights and impose obligations on individuals without any discrimination or prejudice in interpretation. Decisions may not be affected by any personal characteristics that are not relevant to the issue. This principle also applies to the implementation of the entities’ decisions.

To clarify, and without derogation from the above, Saga and its entities may apply different rules and otherwise differentiate between Saga’s Participants and non-participants. This is due to the fact that although human rights are granted to all human beings, the aim of the Saga project is, and will continue to be, serving its Participants.
APPENDIX C: INFORMATION RIGHTS

Information rights establish a "right-to-know" legal process, by forcing public authorities to provide members of the public with official information that these authorities hold. This is one of the fundamental rights in any democracy and is one of the main pillars of Saga's governance system.

Saga's vision is to provide its Participants with the broadest information rights possible, as Saga adheres to the concepts of transparency, accountability and responsiveness. Since Saga is governed by its Participants, who exercise sovereignty by electing their representatives, such information rights are essential in Saga's governance system:

- In order for Participants to be able to exercise their voting rights properly, they should have a broad perspective and their decisions should be based on the most accurate information;
- The Participants should have the ability to examine and criticize their representatives' decisions and have the information necessary to decide if they agree with representatives' decisions and considerations;
- Without access to the necessary information, participants may not be privy to failures of the entities and representatives. What's more, lack of transparency over information can equate to a lack of accountability when it comes to the professional integrity of representatives, making it difficult to ensure they are not affected by irrelevant considerations or improper purposes.

Therefore, similar to the broad information rights that are granted to citizens and residents by their country, Saga's Participants will be entitled to receive all information held by Saga's entities (unless the requested information falls under the exceptions listed below).

In order to enable Participants to exercise their information rights, each entity shall appoint an officer who will be in charge of fulfilling these rights. Saga's information rights can be divided into three types:

1. Rights that place duties on Saga's entities to make certain information available to Saga's Participants:

   **Periodic Reports**: Each of Saga's entities shall publish a report every six months. This report will include information about the entity's activities and responsibilities and an explanation about its functions and powers.

   **Administrative Guidelines**: Each of Saga's entities shall provide the Participants with the administrative guidelines under which it operates and which affect or are of importance to the Participants.

2. Rights that grant Participants with access to the information held by Saga's entities:

   **Request of information**: Each Participant shall have the right to request any kind of information that is held by an entity. The request shall be made in writing to the appointed officer of the relevant entity or anyone else acting on such officer's behalf, and does not have to include any reasoning for the request. This right is also given to non-profit organisations that are aimed at supervising and examining the entities' work.

   **Format**: The information shall be provided to the applicant in the format of their choice, whenever feasible, including electronic and easy to use formats. The format shall allow the applicant to process and analyse the requested information.

   **Reject of an information request**: The information rights cannot be absolute, and have to be balanced with other considerations and interests that are necessary to protect the interests of the Saga project. Therefore, in some circumstances, the
officer may decide to reject a request for information, for one or more of the following reasons:

a) Efficiency and resource allocation: answering the request will require unreasonable allocation of resources.

b) Internal information: the requested information concerns to an opinion or recommendation provided to the entity for the purpose of decision making, unless the consolation was obligatory; the information concerns to internal discussions, drafts or consultations among entities; or that it concerns to the internal management of the entity.

c) Saga's stability: the disclosure of the information would undermine the protection of the Participants' interest regarding the financial, monetary or economic policy of Saga, or to Saga’s partnerships or that the requested information concerns to a policy still being formulated or to negotiations proceedings.

d) Protection of Rights: the disclosure of the information would undermine the protection of basic and protected rights of any person, including their privacy, integrity or property rights, including intellectual property.

e) The officer has a reasonable suspicion that the information request was made in bad faith, for the purpose of harming Saga, any of its entities, officers, employees, advisors or Participants.

Notification of rejection: In case the officer decides to reject the request or a part thereof (as detailed in the next paragraph), a written notification shall be sent to the applicant. This notification shall specify the reason for the decision.

Partial response to the request: Before rejecting the request entirely, the officer shall examine whether it is possible to provide a partial response to the applicant, including providing access to insights from the requested information, if applicable.

Appealing: Participants can appeal any decision regarding their information request to the Constitutional Council.

Fees & Times limitation: in order to enable Saga's entities to fulfill Participants' information rights, the Management Board will further publish a policy that determines under which circumstances applicants will need to pay fees for requests of information, along with the size of the fees, as well as the period during which the entity must reply to applicants' request.

3. Right that grant access to information for the sake of data collection and analysis by approved non-profit organisations:

In order to promote the professionalism, efficiency and transparency of Saga's entities and to increase the ability to supervise entities' functioning, a strengthened right of information will be given to non-profit organisations that will be established to provide entities with the research and information services necessary to fulfil their duties. Such organisations will conduct an independent analysis of information and will serve as external assistants, supervising and monitoring the entities' performance, providing entities with background papers, info-sheets, analysis for their decisions, and more.

These approved organisations will be entitled to ask for information, documents and reports that are necessary for their work. Only in exceptional cases, the officer, at his/her discretion may reject a request made by them.