XAURUM

Adding Value.

Join the rise of a digital asset with continuously growing gold base.

Whitepaper 2.0

November 2017

Content

1 Introduction

The technology of financial transactions and their use is rapidly changing with the advent of smart-phone payments, financial apps, peer-to-peer lending, crowdfunding and crypto-currencies. We anticipate this trend will continue, especially through development and implementation of decentralized and/or distributed ledgers that will most likely become ubiquitous as protocols and a normal part of the web user experience and reduce the use or replace the current financial tools available on and offline.

While costs of securing the ledger will be lowered by the development of different ledger implementations, the costs and profits of issuing new money supply are distinct and always presents a systemic problem for the particular currency, a problem that immediately affects its value and consequently its price.

For this reasons **Xaurum** focuses on the function of **preservation of value** on ledger(s), viewing it as concern separate from the development of ledger implementation technologies and more general in nature. The problem of **storage of value is a problem of money in general**, one that Xaurum is solving by creating a representative **crypto-currency based on gold**.

2 Xaurum concept

Xaurum is a representative cryptocurrency based on an **increasing amount of gold**. It is designed as a store of value on the ledger, and uses distribution of profit of money creation (seigniorage) to achieve its goal. Regardless of the technology of its implementation, Xaurum could be summed up as an economic game with the next economic agents: the **commonwealth gold reserves**, traders, users, money creators, money destroyers and the foundation. Increase of the commonwealth gold provides the basis of **unity of interests of all economic agents**, this is the main systemic function of seigniorage, its other functions are used to regulate the particularity of the interests of economic agents into unity. Because the commonwealth is composed of physical gold, that provides the guarantee to be exchanged for xaurum, it requires centralized control over money creation (coinage) and destruction (melting, fees). For this task a **legal entity Auresco Institute** was created to serve as the foundation to oversee the process of money creation that sustains itself with the rebate on gold.

Certified 999.9 investment gold is bought from Good Delivery refineries and because its retail prices are relatively high, Auresco can charge its fee while still providing lower than retail prices of gold for the commonwealth. Because xaurum in exchange has a higher market value, than the value of its gold base, the difference can be used for increasing the commonwealth and incentivizing coinage (details in Coinage section). Commonwealth is sustained by half of all seigniorage, collection of fees of transactions and will seek additional forms of income through economic activity of Auresco.

2.1 Seigniorage

Seigniorage is the profit of money creation, it is mostly used as an implicit or hidden tax or fee, that benefits money creators to the detriment of money users. This profit is not created out of nothing, all existing money supply's value carries the cost of seigniorage, therefore this debt must be repaid.

Xaurum proposes a shared system, where seigniorage is **shared equally** between the money creator and the rest of the users.

(a) consensus

Distributed consensus is currently achieved for cryptocurrencies in two ways, by proof-of-work and proof-of-stake. Proof-of-work, requires mining, the process of finding blocks, bundles of recent transactions, and verifying them by using computation. Mining blocks, verifies transactions and is rewarded by collecting transaction fees and seigniorage of money creation. Proof-of-stake uses the tokens of

cryptocurrency as miners, making them less dependent on electricity, as most of electricity of proof-of-work is not used for useful computation, but competition for seigniorage. Proof-of-stake currencies use quantity of tokens for this competition and unite the interests of users and miners by making possession of tokens sufficient for creation of new money.

> Xaurum separates the consensus mechanisms of implementation from the value on ledger and can be implemented on new ledger technologies as they are developed.

- *centralization of seigniorage / division of interests*

The antagonism of proof-of-work and proof-of-stake mechanisms is one between the security of the blockchains and centralization of money creation - the security of a blockchain depends on the distribution of mining/staking, and because mining/staking is collecting all seigniorage, mining/staking is centralizing. Its systemic function is limited to creation of consensus, creating antagonism of interests between money creators (miners/stakers) and users.

> Xaurum's commonwealth is an attempt to unify the interests of money creators and users and shares seigniorage between them according to the Coinage formula.

- *market loss of seigniorage*

Another problem of capturing seigniorage is potentiated by the increased money velocity of cryptocurrencies, achieved by making the function of money as medium of exchange digital and therefore much more efficient.

> This increased velocity of money, means a loss of captured seigniorage to the market, as the demand for new cryptocurrency is indistinguishable from a general demand for more exchange-value.

The result is the decrease in price that decreases the exchange-value of users and increases the exchange-value of miners in another currency, this is factor is potentiated when real costs like electricity are relevant.

Xaurum's cost is determined by both the quantity of its gold reserves and the market price, so the market **loss of seigniorage** can be at least partially **avoided**.

- *commodity loss of seigniorage*

In proof-of-work seigniorage is captured through competition, and therefore partially lost in the form of electricity cost (negative seigniorage mechanism of difficulty), this loss is prevented in proof-of-stake, as their cost is trivial (liquidity), yet this solution has its own problems.

The cost of liquidity is equal to **risk of value**, and because value is correlated to technical innovation it is immediately endangered by competition, these problems are perhaps good short-term initiatives for innovation, yet they reduce their functionality as money, especially as store of value.

Xaurum bases all its other functions on its function as a **storage of value**. Its value is the combination of intrinsic value of the digital asset and extrinsic value as a representation of a physical-asset.

- *the end of seigniorage as the base of artificial scarcity*

The other issue of current PoW cryptocurrencies is their two-fold model, that demands the end point to the new money supply in order to produce artificial scarcity. This is a consequence of the halving mechanism used for artificial scarcity, where at a point in time, production of new money supply is halved until the production is stopped completely. When this happens, the value could drop significantly with the number of miners, or an inflationary model could be accepted.

Xaurum bases its **artificial scarcity** differently, not on the quantity of new money supply, but on **quantity of gold required** for new money supply to enter circulation, even though the gold reserves currently grow mostly from profit of money creation, an increase of use and an increase of commonwealth projects using Xaurum could shift this in favour of money destruction.

(b) public ledger

The blockchains combine the function of consensus with the function of public ledger, they are nonetheless distinct and could be separated in different systems. While consensus is used to prevent double-spending by linking new transactions to the history of all transactions, the function of the public ledger is to represent all transactions and distributions in currency, or rather to publicly represent objective information in general. Because the blockchain combines both functions, it requires synchronicity of the system and the whole of the past must be included in every full node.

> The true accomplishment of cryptocurrencies, despite the dominant sentiment in favour of anonymity, is the public ledger.

This is the practical intersubjective epistemic field, created by consensus that enables the epistemic agents to know that they know what they know. Public ledgers are a practical application of the positive introspection axiom of epistemic logic: "Knowledge of p implies knowledge of knowledge of p." and useful for every instance of our dependence on objective information, such as property relations, law and money.

> The classical functions of money that are based on representation, that is unit of account, standard of value, medium of exchange, can be achieved by public ledgers. Ledgers elevate exchange to the mode of representation, however the function of storage of value remains extrinsic to public ledgers. That is, we can know, the unit of value, the sender and receiver of value, the type of value, **but not value itself**.

2.2 Xaurum monetary policy

(a) Inflation

Inflation is necessary in the sense that there needs to be enough tokens to function as a money, this demand grows when the users increase, however the cost of inflation is significant.

> **In fiat, and fiat-like crypto-currencies**, the effect of money supply inflation is price inflation, the **decrease of value**.

All change of money supply is a redistribution of value. In fiat currencies redistribution favours the upper class while disfavouring the middle and lower economic classes, and increases wealth inequality.

> In Xaurum model price and value inflation are **positively correlated for its value in gold**, while its price remains determined by the market and speculative.

(b) Fractionality

In representative currencies with fractional reserve banking the ratio is determined by the banks that can use the difference between required reserves and the full amount to profit while the money users are burdened by risk.

> In Xaurum's model, the fraction of gold to price is determined by the market, so that **the users** that risk their capital **are also the beneficiaries**.

(c) Growth

> The main purpose of all Xaurum monetary policy is **to sustain** the common interest by increasing **the commonwealth**. The commonwealth is stored as gold reserves that serve as the basis of Xaurum's value, the increase of the commonwealth increases the base value of all Xaurum. This means that the ratio of Xaurum **to gold is increasing with coinage**, and the **users of Xaurum are rewarded with an increase of value**, both as the determined increase of value in gold and the potential and speculative increase of its price.

Because coinage of new money pays part of seigniorage to the money creator, the demand for Xaurum can be only a cloaked demand for more exchange-value in general, this would mean that seigniorage would not be captured and the commonwealth would not increase.

> To distinguish between the demand for Xaurum and demand for exchange-value in general, some additional regulation of coinage is necessary. **The goal of coinage** is sustainability of seigniorage for the **benefit of the commonwealth**.

2.3 Money destruction – Melt and Fees

(a) Golden fee

Each transaction of xaurum pays a fee of 0.5 XAUR, this fee is destroyed, therefore increasing the Xaurum ratio. **The commonwealth can therefore profit on value from money destruction.**

(b) Melt

Melting is the process of provably destroying XAUR and receiving the quantity of gold determined by xaurum ratio at the time of melting. Xaurum ratio is determined as the quantity of current gold reserves divided by the quantity of the current money supply. Melting becomes economically advantageous only when the market prices are below the value of gold. **Melting serves as a mechanism of preserving value regardless of the market price.**

2.4 Money creation - Coinage

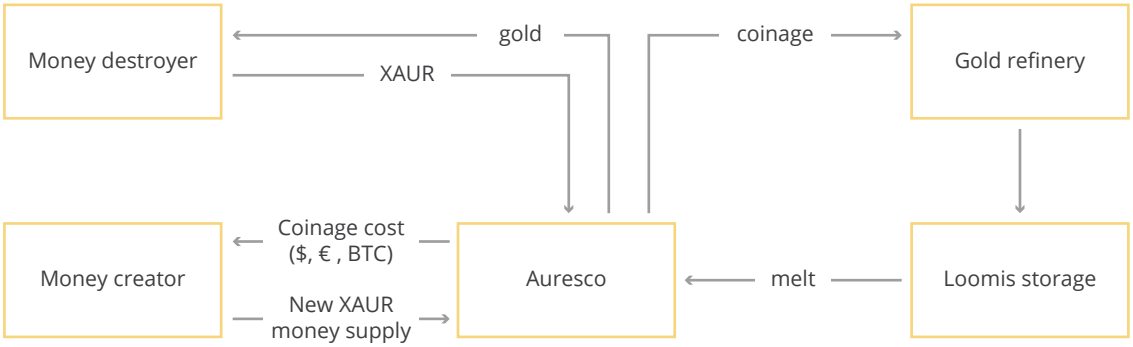
Xaurum is a representative crypto-currency based on gold, and therefore requires centralized process of money creation and destruction.

- Auresco is the overseer of coinage and melting.
- Money creation and destruction is done by Xaurum users.
- Money creation has special conditions for different types of money creation.
- Coinage script

```
import time


def get_density(xau_in_circ):
        if (xau_in_circ >= (7000 * 8000) and xau_in_circ < (7500  * 8000)):
                return 1.24
        elif (xau_in_circ >= (7500 * 8000) and xau_in_circ < (8000 * 8000)):
                return 1.25
        elif (xau_in_circ >= (8000 * 8000) and xau_in_circ < (8500  * 8000)):
                return 1.26
        elif (xau_in_circ >= (8500 * 8000) and xau_in_circ < (9000  * 8000)):
                return 1.27
        elif (xau_in_circ >= (9000 * 8000) and xau_in_circ < (9500  * 8000)):
                return 1.28
        elif (xau_in_circ >= (9500 * 8000) and xau_in_circ < (10000  * 8000)):
                return 1.29
        elif (xau_in_circ >= (10000 * 8000) and xau_in_circ < (11000  * 8000)):
                return 1.30
        elif (xau_in_circ >= (11000 * 8000) and xau_in_circ < (12000 * 8000)):
                return 1.31
        elif (xau_in_circ >= (12000 * 8000) and xau_in_circ < (13000 * 8000)):
                return 1.32
        elif (xau_in_circ >= (13000 * 8000) and xau_in_circ < (14000 * 8000)):
                return 1.33
        elif (xau_in_circ >= (14000 * 8000) and xau_in_circ < (15000 * 8000)):
                return 1.34
        elif (xau_in_circ >= (15000 * 8000) and xau_in_circ < (16000 * 8000)):
                return 1.35
        elif (xau_in_circ >= (16000 * 8000) and xau_in_circ < (17000 * 8000)):
                return 1.36
        elif (xau_in_circ >= (17000 * 8000) and xau_in_circ < (18000 * 8000)):
                return 1.37
```

2.5 General funds flow process



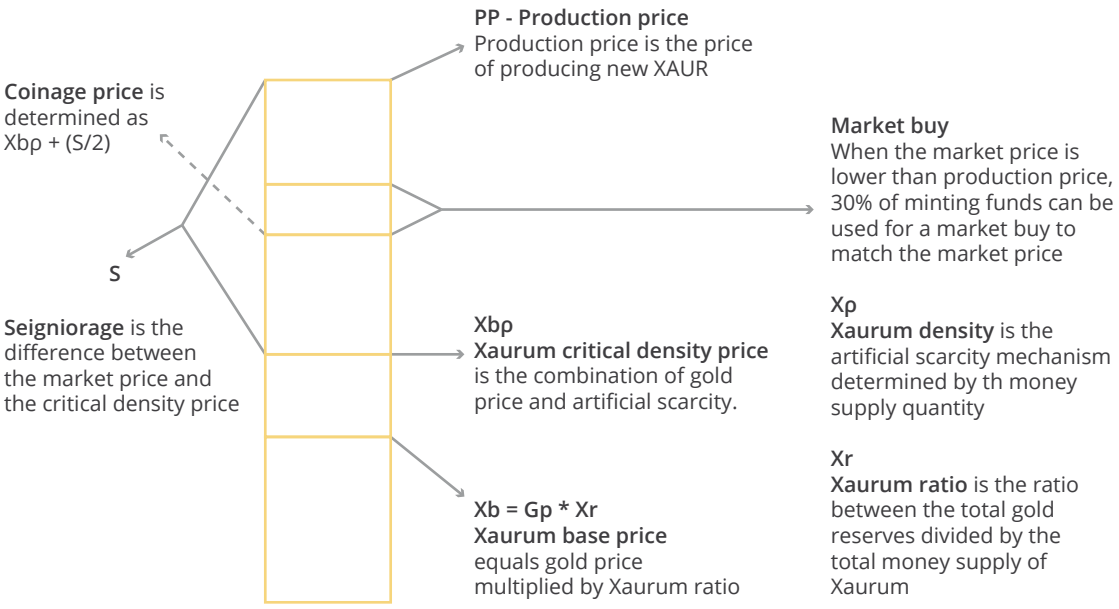
Auresco oversees the creation (coinage) and destruction (melt) of money supply, by securing the funds for gold reserves and executing the smart-contracts.

Auresco buys gold from Nadir and sustains itself from rebate.
The gold is shipped to Loomis for storage, and shipped from loomis in case of melt.

2.5.1 Coinage mechanisms

The essential mechanism of Xaurum is the profitable inflation achieved by increasing the gold reserves more than increasing the money supply, when increasing money supply.
Money creators are incentivized by receiving XAUR at a rate lower than the market price and money users are incentivized by the increase of the common gold reserves. The seigniorage is therefore shared between the commonwealth and the money creator.

Money creator creates new money supply together with masternode reward and contributes more gold to the commonwealth.



*All the parameters work in harmony and they change accordingly to the difference between production and market price.
** Masternode reward acts like parameters mentioned above and harmonises with other variables in equation.

(a) Gold Price

Gp = Gold price USD/g

Explanation:

The price of 1 g of 999.9 purity in USD, with Auresco rebate included.

(b) Xaurum Ratio

Xr = gold reserves / money supply

Explanation:

Determined in previous coinage

Xaurum ratio represents the quantity of physical gold represented by 1 XAU.

(c) Base price

Xb =Gp*Xr USD/XAU

Explanation:

Xaurum base price represents Xaurum value in physical gold.

(d) Xaurum Density

Xρ = Determined in Xaurum Coinage Density table

Explanation:

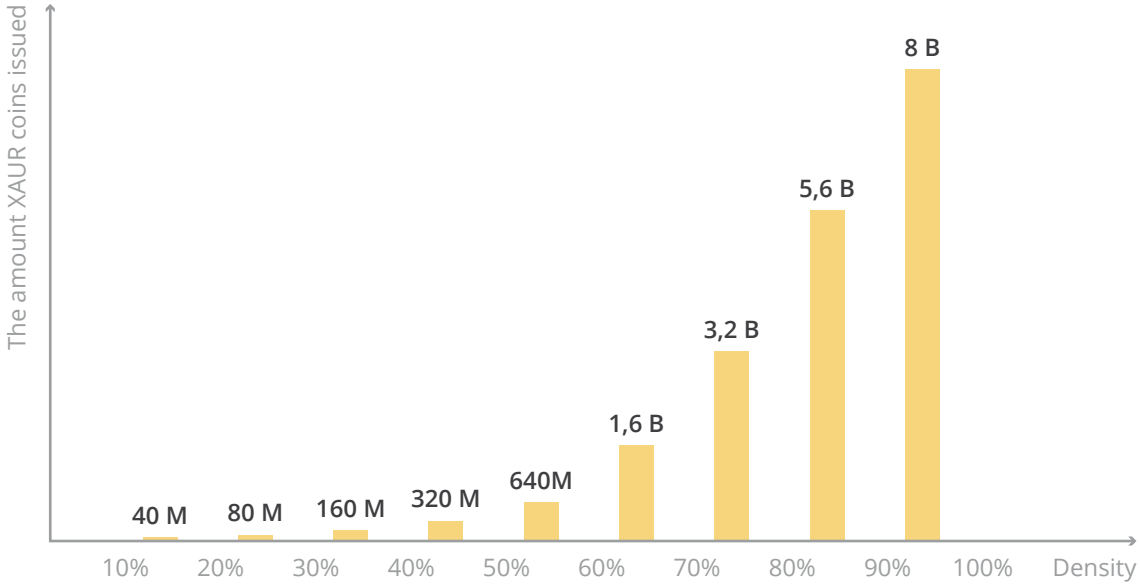
Density ensures Xaurum growth even if Xaurum market price is below base price, it increases with the number of Xaurum coined.

Because the immediate relation with the market would result in a unsustainable inflation decreasing seigniorage, coinage is restricted by the mechanisms of coinage, and artificial scarcity mechanism of increasing density, that ensures that coinage does not happen with zero or negative seigniorage to the commonwealth.

Density table

Coinage	Density	Coinage	Density	Coinage	Density
8000000	1.10	272000000	1.47	2400000000	1.75
40000000	1.20	288000000	1.48	2560000000	1.76
44000000	1.21	304000000	1.49	2720000000	1.77
48000000	1.22	320000000	1.50	2880000000	1.78
52000000	1.23	352000000	1.51	3040000000	1.79
56000000	1.24	384000000	1.52	3200000000	1.80
60000000	1.25	416000000	1.53	3440000000	1.81
64000000	1.26	448000000	1.54	3680000000	1.82
68000000	1.27	480000000	1.55	3920000000	1.83
72000000	1.28	512000000	1.56	4160000000	1.84
76000000	1.29	544000000	1.57	4400000000	1.85
80000000	1.30	576000000	1.58	4640000000	1.86
88000000	1.31	608000000	1.59	4880000000	1.87
96000000	1.32	640000000	1.60	5120000000	1.88
104000000	1.33	736000000	1.61	5360000000	1.89
112000000	1.34	832000000	1.62	5600000000	1.90
120000000	1.35	928000000	1.63	5840000000	1.91
128000000	1.36	1024000000	1.64	6080000000	1.92
136000000	1.37	1120000000	1.65	6320000000	1.93
144000000	1.38	1216000000	1.66	6560000000	1.94
152000000	1.39	1312000000	1.67	6800000000	1.95
160000000	1.40	1408000000	1.68	7040000000	1.96
176000000	1.41	1504000000	1.69	7280000000	1.97
192000000	1.42	1600000000	1.70	7520000000	1.98
208000000	1.43	1760000000	1.71	7760000000	1.99
224000000	1.44	1920000000	1.72	8000000000	2.00
240000000	1.45	2080000000	1.73		
256000000	1.46	2240000000	1.74		

Graph: Xaurum Coinage density (M = Million; B = Billion)



Explanation:
Artificial scarcity mechanism

(e) Critical density price

Xbρ = Xb*Xρ USD

Explanation:

Base price with density. When Seigniorage is equal or less than 0, this is the price of Xaurum Coinage.

(f) Production price

PP = Determined at each coinage by Auresco Institute

Explanation:

The price of producing new XAUR token is defined as Production price.

When the price on the exchange grows above production price it is a sign that market is demanding new XAUR tokens. In this case supply will be increased through coinage and a new coinage price will be set.

Xaurum production price is an empirical variable for a mechanism of Xaurum Coinage, that regulates Xaurum money supply inflation. The purpose of this mechanism is to distinguish market demand for new xaurum from the general demand for profit, and determine the ratio of seigniorage distribution between the Xaurum commonwealth and the money creator.

Coinage price is Xaurum's external parameter, that allows Xaurum to respond to its external market conditions. It defines the market price required for inflation, and provides speculators with the well-defined market price of XAUR, when anticipating Xaurum growth.

Rules:

- Production price can never decrease.
- Production price can stay the same or increase.
- New Production price is set at every Minting event.
- When the market price is lower than production price, 30% of minting funds can be used for a market buy to match the market price
- Production price is denominated in USD.

(g) Seigniorage

S = Xm-Xbp USD

Explanation:

Seigniorage is the difference between the market price and critical density price.

(h) Coinage price

Xi=Xbp+A*0,5 if A<0 then Xi=Xbp USD/XAU

Explanation:

This is the price required for 1 Xaurum to enter circulation via minting. When production price is not reached 30% of coinage funds can be used to acquire XAUR from the market to match the production price.

(i) Transmutation limit

Value: 5,000$ (There is a maximum of 5000$ per calculation.)

Explanation:

Because Xaurum coinage is purposefully recursive, the transmutation limit prevents money creators to avoid it, therefore the amount of funds for one cycle is limited.

2.5.2 Types of Coinage

(a) Masternodes

Minting requires a masternode, possession of 8.000.000 Xaurum as the proof and guarantee of the common interest that the Xaurum commonwealth requires. Because minter possesses 8.000.000 Xaurum, he has the good of the whole in mind, as he profits both from the increase of the commonwealth and from seigniorage. It is therefore in his interest to sustain the market price both to keep profiting from seigniorage and for seigniorage to profit him directly. Minting is additionally restricted by the last price of minting, as there was demand for new Xaurum at the former minting, we can consider that there is no new demand when the market prices are not higher. Minting also requires a legal entity to be established, to prevent issues with governments. The goal of minting is to provide a distribution of xaurum for money, lowering the costs of large amounts of new coinage.

(b) Mining and Farming

Xaurum mining was done by mining other cryptocurrencies for value, exchanging their value for gold, and issuing Xaurum. The goal of xaurum mining was to find an easy way to use distributed mining process, to provide a distribution of xaurum for trivial costs to the miner and non-trivial surplus in xaurum. Farming, like mining is done by creating other cryptocurrencies that support a proof of resource model, that can be used by a greater number of users than specialized mining. Farming will be applicable when other cryptocurrencies will establish infrastructure that enables crating value for xaurum commonwealth.

3 Xaurum Commonwealth

Commons are useful in overcoming the divisions produced by market competition. In the case of money, where the goal is to produce a unit of value equal to any other unit of value market mechanisms do not make sense, and should be replaced by commons.

> The commonwealth **gold reserves are owned by Xaurum users, each XAUR token has a value in gold** in determined by the quantity of gold and the quantity of money supply. Because half of the profit of the newly created money supply is added to the commonwealth, the value of each XAUR in gold increases when money supply grows.

(a) Gold

Xaurum commonwealth is composed of the gold reserves in the form of f 1 g good delivery gold bars of 999,9 purity from NADIR Metal Rafineri.

(b) Commonwealth Transparency

Gold reserves audit / public

The gold reserves are stored by Loomis at their Turkish office providing Xaurum commonewalth with safe storage and full insurance coverage. http://www.loomis.com/en/Contact/Our-country-offices/Turkey/
The gold reserves from the Loomis account are announced daily to the audit mailing list. To participate in the public audit of Xaurum gold reserves stored at Loomis. The reserves are stored as 1 kg and 0.5 kg bars and the status of the storage is updated daily.
Note that there should be the total gold supply (availiable from the smart contract) minus 6036 g (local storage), minus whatever the ammount Nadir has before 1 kg is reached and stored at Loomis.
The gold is prepaid as 1g 999.9 good delivery gold bars and stored as 1 kg or 0.5 kg bars, to decrease costs of storage.
https://groups.google.com/forum/#!forum/xaurum

Potential risks and mitigation

Gold stored at Loomis is covered by insurance.

4 Xaurum Ethereum implementation

Xaurum is implemented as an ERC20 standard token.
This enables Xaurum to use smart-contracts for its mechanisms, and will enable the development of a user-friendly interface as DAPP on the Ethereum network. Xaurum is open-source and its code can be reviewed on GitHub:
https://github.com/XaurumTeam/XaurumOnEthereum

4.1 ERC20

The ERC20 standard defines a common list of properties for the implementation of Ethereum tokens. Following is an interface contract declaring the required functions and events to meet the ERC20 standard: (code snippet from https://theethereum.wiki/w/index.php/ERC20_Token_Standard)

```
// https://github.com/ethereum/EIPs/issues/20
contract ERC20 {
    function totalSupply() constant returns (uint totalSupply);
    function balanceOf(address _owner) constant returns (uint balance);
    function transfer(address _to, uint _value) returns (bool success);
    function transferFrom(address _from, address _to, uint _value) returns
(bool success);
    function approve(address _spender, uint _value) returns (bool success);
    function allowance(address _owner, address _spender) constant returns
(uint remaining);
    event Transfer(address indexed _from, address indexed _to, uint
_value);
    event Approval(address indexed _owner, address indexed _spender, uint
_value);
}
```

4.2 Xaurum token specific mechanisms

4.2.1 Xaurum Proxies

Xaurum proxies are the interfaces that users can use for the most basic Xaurum functions, to send and receive xaurum. This feature enables users to continue to use Xaurum, even in the event that we update the codebase of Xaurum Token contract. This is because proxy will be updated, so that the reference will point to the new updated Xaurum, with the same balances. This feature was developed for the main purpose of updating the code that includes easy migration of users, with Xaurum Proxies, users migrate to the new code automatically. In addition, this type of token design helps by being compliant to the community standards, even as they change, without editing the core token, in this way our contracts can never become outdated. Xaurum proxies are already working, however their full functionality will be improved with the release of our own wallet.

Currently, Xaurum uses Proxy ERC20, is a proxy that implements ERC20 Token Interface, which is the current community defined standard for tokens. Users can use this contract as any other token and never see the migration to new version of Xaurum. The only particularity of this token is that because the Burn event does not exist in ERC20 implementation, burning is simulated as sending the appropriate amount to burning address via transfer event.
You can always check the current implementation of Xaurum Proxies on the XaurumProxyContract, that holds information about available proxies their status.

4.2.2 Xaurum money supply and gold reserves

Xaurum uses increasing gold reserves as the basis of its value. Its current implementation on Ethereum transparently shows all the relevant data, that can be easily seen in the smart-contract. Both the Total supply of XAUR and the Total gold supply are displayed, if you click the Xaurum token (Xaurum proxy will only display Total supply of XAUR) in the "Contracts" tab of your wallet. With this data everyone can easily check and calculate how much gold is currently used as a basis of 1 XAUR. All values be divided by 10^8. Both values can only change with the predetermined Xaurum mechanisms of adding XAUR and gold through Coinage, and decreasing it with Melting (destroying XAUR in exchange for the gold of its base value) or Sacrifice (provably destroying XAUR), that are public events all users watching Xaurum token contract will be able to see.
totalSupply and totalGoldSupply - There is an embedded counter of tokens issued and gold held in reserves. With these two variables user can check and calculate how much gold is behind every XAUR at any time. Values must be divided by 10^8 before used for computation.

4.2.3 Sacrifice

Xaurum is a representative currency, and is always backed with some determinate quantity of gold, because of this property, the quantity of money supply directly determines a part of its value.
This means, that whenever a xaurum is provably destroyed or burned,
or sacrificed, it can be subtracted from the total Xaurum money supply, while the quantity of gold remains the same;
it therefore distributes the gold it represented before it was destroyed to all other existing xaurum.
Because of this, Xaurum benefits uniquely from destroying its money supply, as the effects of this destruction are at least partly measurable.
For this reason sacrifice is an easy to implement way to help the Xaurum commonwealth as a whole, or implement payments that reward all users.
Examples of mechanisms using sacrifice:

- Golden fee
- Allies

(a) Golden fee

The transaction fee is embedded into our token, which deducts from the sent amount when user is sending and burns the predetermined Golden fee. With this, the coin supply decreases and the gold

supply stays the same resulting in backing ammount rising. At the moment golden fee is set to 0.5 XAUR and will be adjusted by its growth. The amount is stored in the XaurumDataContract.
The fees for sending transactions, are thought to be sufficient payment for blockchain security of the PoW model cryptocurrencies, for example Bitcoin. Their model tries to slowly replace the source of payment to the miners from seigniorage (profit of money creation) to payment with fees collected from existing money supply, to limit inflation that reduces their value. Xaurum does not require this replacement, as its inflation is profitable, it does however employ a similar fee collection mechanism, that additionally benefits the users. Its fees don't reward only the miners, but all Xaurum users, as xaurum collected as fees are verifiably destroyed and subtracted from the Xaurum money supply.

> This means that the gold base backing each xaurum in exchange increases, simply because the number of xaurum in exchange decreases.

(b) Allies

There is a xaurum Allies Contract that holds all the data of our Allies and sacrifices (provably burns) the amount of Xaurum that the Allies want to sacrifice for the benefit of the Xaurum commonwealth. It automatically ranks the allies in order, according to the quantity of the Xaurum they have sacrificed. The fees associated with using this contract, as all the others are always sacrificed themselves.

4.2.4 Time Lock

In order to increase usefulness of Xaurum wallets, we have included a Lockdown function that serves as enchantment of security of your wallet funds, be it against other people, or yourself. This makes the function useful for either additional security of your funds or locking it as savings. You can Time Lock your funds for an arbitrary time (estimated in blocks, Ethereum current block time is 15 s), this means your funds will be impossible to access and transfer until the time, that only you know. The user can check whether the accounts is locked or not, but he can never determine for how long, this makes hacked accounts unusable for the period that only the legitimate user should know. Please note that, if you time lock your account for too long (100 years or 10000000000000 years) there is no way to retreive the funds as there is no possible way of reverting the lock, and that you should remember or write down the number of blocks when your account becomes available, as you won't be able to check after you lock it. We recommend that you lock for a half of a year at maximum, as block times can change.
To access this function you can select "Contracts", click "Write to Contract" and "lockAccount".
lockAccount - Is a feature that can make hackers life just a little bit harder. User is able to lock all withdrawals from its account for some period of time accepted in blocks from now(block is approximatly 15 sec). When the account is locked user can still check if account is locked or not but he can not know for how long(if he is not a node). We added this second layer of security for users that are certain that they will hold coain for certain ammount of time and are affraid of hackers. **There is no way of reverting the lock, so if user locks the account for 100 years it will remain locked for 100 years.**

4.2.5 Refuel

Anything you do on Ethereum costs a small amount of ethereum (gas), this means Xaurum has an additional cost of sending to its own fee, until the Raiden Network, and even though it is economically trivial, it could be a time consuming task for a user to purchase ETH on the crypto exchanges. To make things easier, we've implemented a direct way to exchange a small amount of XAUR for ETH in wallet.

When you click on the contracts tab, and select the Xaurum contract, you can click on the "Write to Contract" to select one of the many functions. If you wish to refuel your wallet with ETH, select getGasForXaur This will deduct a small ammount of XAUR from user and send eth to the address specified. The exchange rate is not favorable, so it shouldn't be used for exchange of large quantities, only for getting gas to your account. The exact exchange rate is shown in the data contract. Don't forget you will need some gas to do this function, so you should be mindful of the quantity of ETH on your account, and refuel when you see you are running low on gas.

5 Legal and Compliance

GENERAL TERMS AND CONDITIONS
Introductory provisions and definition of terms

ARTICLE 1

Services and deliver comprise all services and deliveries offered and sold by the provider AURESCO Institute under this or any other brand or service mark and are defined, described and available via the web-site http://xaurum.org/ (hereinafter referred to as: Services).
The provider of services and goods is AURESCO, zavod za naložbeno dejavnost z uporabo internetne in kripto tehnologije, Bled, with its information as follows:

- registered office and business address; Triglavska cesta 43, 4260 Bled, Slovenia;
- registration number: 6747604000;
- tax ID number: 52124517;
- contact e-mail address: info@xaurum.org;

(hereinafter referred to as: Provider).
A buyer is a legal or natural person who has signed an agreement with the provider on the web-site xaurum.org or in any other way (hereinafter referred to as: Buyer).
The Buyer is obligated to complete and sign the agreement and submit all required documents. These General Terms and Conditions apply in addition to the agreement and form its integral part.
A service user is any legal or natural person who uses the services or visits or uses the web-site xaurum.org, notwithstanding whether or not he has ordered the use of services with the provider (hereinafter referred to as: User).
The purpose of the Provider, for which it was established, is to sell a virtual currency Xaurum (XAUR), invest in gold as per the price list, provide storage of gold and exchange the virtual currency for its current gold basis, whereby the primary task of the Provider is to manage gold reserves for Xaurums for buyers according to the ratio determined by the market and the Provider, and to maintain and develop the cryptocurrency network.
The Buyer may "donate" the gold represented by its Xaurums to the common good through destruction of its own respective Xaurums carried out by the Provider.
The Provider provides the production of new Xaurums (minting and mining) online in exchange for Xaurums at their specific value according to the price list.
The Provider's Articles of Association defines in more detail the purpose of its operation.

Validity, adoption and use of General Terms and Conditions

ARTICLE 2

The provisions of these General Terms and Conditions define the conditions of the method of ordering, rights of access, prices and rights and obligations applicable to all Provider's services and deliveries, for which the Buyer submits an order. According to the specificity of each individual service, in addition to

these General Terms and Conditions, Special Terms and Conditions may also apply (a separate document not constituting an integral part of the General Terms and Conditions), which are presented to the client upon ordering an individual service to which these Special Terms and Conditions apply. These Special Terms and Conditions are binding for the Buyer and constitute an integral part of the agreement between the Provider and the Buyer.

The General Terms and Conditions also apply to users using the services on the basis of the agreement or other relationship with a third party who is not the Provider and has signed an agreement with the Provider, on the basis of which the Provider confers the right on the respective third party to grant the right to its clients to use the services. By accepting these General Terms and Conditions or using the services, there is no contractual relationship established between the Provider and these users. Nevertheless, the users are obligated to follow the provisions of these General Terms and Conditions. In the case of any discrepancies between the provisions of these General Terms and Conditions and the agreement concluded between the third party and the user, the provisions of these General Terms and Conditions shall apply.

The Buyer is notified of and agrees with the fact that in terms of specific services and deliveries it is, in addition to these General Terms and Conditions, also bound by the General Terms and Conditions or contractual provisions of third parties. By using the services, the Buyer confirms that it fully accepts the provisions of the General Terms and Conditions or contractual provisions of third parties. Upon submitting the order, i.e. prior to the use of service, the Buyer notes the use of General Terms and Conditions or contractual provisions. In the foregoing cases, the Provider is in no case responsible for the actions of third parties in their relationship to the Buyer or User.

The provisions of these General Terms and Conditions apply to all buyers, notwithstanding whether they are legal or natural persons.

By using the Provider's services or visiting or using the website http://xaurum.org/, the Buyer (or User) confirms that it is fully acquainted with the contents of these General Terms and Conditions, that it has been fully and clearly notified of the provisions of these General Terms and Conditions and that it accepts them in full.

The provisions of these General Terms and Conditions are an integral part of the contractual relationship related to the use of services between the Buyer and the Provider, and apply directly.

The price list of the Provider's services is an integral part of these General Terms and Conditions and is available on the website http://xaurum.org/ (hereinafter referred to as: price list). By accepting the General Terms and Conditions, the Buyer confirms that it is fully acquainted with the price list. The prices of services are calculated as per the price list applicable on the day of the performed service or delivery.

ARTICLE 3

The Provider reserves the right to change any of the provisions of these General Terms and Conditions and/or price list at any time and without prior notice. The need to change the provision occurs with the amendments of the legislation, a change of technical conditions, etc., whereby the pricing on the basis of the predetermined formula for services is not deemed as a change to the price list. However, the change of the pricing formula is deemed as a change to the price list.

The Buyer is obligated to publish the change to any provision of these General Terms and Conditions and/or the price list on its public portals. Since the Provider does not and cannot monitor current Xau-

rum ownership structure, it is hereby recommended to all current owners of Xaurums to follow any potential changes in the General Terms and Conditions. As per the first paragraph of Article 43.č of the Consumer Protection Act, the Provider shall not provide a remote withdrawal from the agreement.
If the Buyer or owner of Xaurums does not agree with a change to the General Terms and Conditions, it may sell its Xaurums in the market or exchange them for gold as per the currently applicable price list.
A change of these General Terms and Conditions is binding on the Buyer if it continues to use the website and/or services or, if it does not withdraw from the contractual relationship with the Provider within 15 days of the receipt of notification. In this case it is deemed that the change binds the Buyer as of the day of the receipt of notification via e-mail.

Prices, charging of services, deadline and methods of payment

ARTICLE 4

The price of services and deliveries is formed on a daily basis as per the formula for an individual submitted order published in the price list. The price is not fixed, but it constantly changes, particularly in relation to the factors of market conditions, whereas the formula itself is unchangeable regarding the currently applicable formula published in the price list and thus provides the specific method to calculate the price. All submitted orders are calculated in the virtual currency – Xaurum (XAUR).
All prices published on the website http://xaurum.org/, are expressed in Xaurums (XAUR), if not otherwise specified in an individual price or service.
The price of one Xaurum (XAUR) is expressed in US dollars (USD) excluding value added tax (VAT).

ARTICLE 5

The payment for services and deliveries is calculated with regard to an individual ordered service or delivery from the relationship between the Buyer and the Provider. The order is verified first, and then the acceptance of the order and the verification are sent to the Buyer. The Buyer performs the transfer in the currency and states the amount of cash in dollars to be exchanged for virtual currency Xaurum (XAUR). By confirming/verifying the order, the Provider prepares the mint for the Buyer and notifies it about an approximate price or how much money the Buyer shall receive in the virtual currency, the value of which is constantly fluctuating and cannot be fixed, and is thus calculated using the formula published in the price list.
The Buyer pays a desired amount in the currency that is currently accepted by the Provider, and after the purchase of Xaurums, the Provider transfers to the Buyer its Xaurums to the submitted public cryptographic key as per the procedure described in the first paragraph of this Article.
The Buyer explicitly and unconditionally confirms its responsibility for suitable information before the execution or ordering of any services or deliveries with the Provider. The Buyer also explicitly and unconditionally states that it is aware of the extreme and high risk of this purchase business, thereby explicitly and unconditionally disclaiming any claims against the Provider, since it is responsible for the risk when buying as well as for its decisions and consequences thereof.

ARTICLE 6

To carry out the order, the Provider is transferred the means for which it performed the transfer on the basis of the order.
The Buyer agrees that the Provider may issue an invoice for the submitted order only in an electronic form and send it via e-mail to the e-mail address verified by the Provider or by means of electronic communication, except when the Buyer and the Provider explicitly agree otherwise.
The Buyer performs remittance transfers to buy virtual currency Xaurum via the bank account stated in the agreement or order. If the Provider suspects that the bank operation is not transparent or in case of any other suspicion of the Provider related to the bank, the Provider has the right to refuse the execution of the Buyer's order.

ARTICLE 7

All costs of shipment or delivery of ordered services/deliveries are charged in full to the Buyer and are defined in more detail in the price list.

Signing, duration and termination of the contractual relationship or the agreement

ARTICLE 8

The procedure of ordering a service or delivery, or signing the contractual relationship:
Prior to ordering a service, the Buyer must register on the portal, whereby stating:
- his information, namely: name and surname/name of the company, address, registration number, tax ID number or ID number, date of birth, Personal Identification Number or registration number, number of a valid personal identification document, date of issue of the said personal identification document, validity end-date of the said personal identification document, citizenship, occupation or position in the case of legal person,
- information on the responsible person for the Buyer, if the Buyer is a legal person, and the contact person (all the stated personal information in the case of a legal person is given by the responsible person for the legal person).

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The Buyer fills in the online form for the submission of the melt order, in which it states its personal data and by which it submits the demand. Then, the Provider sends the Buyer to its e-mail account or to its order on the portal the informative offer regarding the price that was fixed at the moment of submitting the demand of the Buyer. Within 24 hours of the receipt of the offer, the Buyer must confirm the offer, namely by sending the Provider an e-mail with the confirmation of the previously submitted information on the form and confirming the order. At the same time it carries out the transfer of Xaurums according to the accepted offer. If the Buyer fails to carry out the transfer of Xaurums in the above-stated time, the Provider has the right to withdraw from the execution of the offer.

By confirming the submitted order, the Provider obtains the right to execute the order, by which the ordered service or delivery is executed.
The contractual relationship may be concluded in the Slovenian or English language with the Buyer with its registered office or place of residence in the Member States of the European Union and other countries of the world, except for those countries determined by the Provider or the official authority. For example, but not exclusively, the Provider does not perform business with countries such as: Iran, Democratic People's Republic of Korea, Algeria and Myanmar (Burma).

ARTICLE 9

The Provider is not responsible for any loss or accuracy of the information of the Buyer from its order. The Buyer is responsible to protect and state the correct data in its order. Particularly, the Provider informs buyers that at the potential loss of the foregoing data, the Provider cannot resend or re-acquire it and that the Buyer bears all costs of potential loss or access denial to the investment or Xaurums.

Deadlines to implement services and deliveries

ARTICLE 10

Among the offered services and deliveries, the Buyer chooses the one that suits it best. For each offered service and delivery there is a description available, including the time period of the provision of the performance of service or delivery.
In the case of force majeure, the deadlines to perform the service are extended for the duration of force majeure, provided that the Provider notifies the Buyer on the occurrence of force majeure as soon as possible.
If the cooperation of the Buyer is necessary or useful to start the performance, continue or conclude the service by the Provider (e.g. communication of data, submission of key information for the performance, etc.) and the Buyer exceeds the agreed deadline or fails to provide immediate reply upon the invitation of the Provider, the Provider is entitled to extend all foreseen deadlines for the implementation for the period required for the proper implementation of the order.
If there is an extension of the implementation deadline referred to in the third paragraph of this Article and the Buyer fails to fulfil its cooperative obligations also within this extended period, the Provider may at his own discretion insist on the contractual relationship or withdraw from it without a notice period.

Copyrights and other intellectual property rights

ARTICLE 11

By signing and implementing the contractual relationship with the Provider, the Buyer does not obtain any copyrights or other rights related to the computer programs (applications, modules, etc.) used for the provision of services and deliveries as per or related to these General Terms and Condition, notwithstanding whether the Provider or a third party is the holder of rights on these computer programs. The Provider is entitled to mark its authorship or copyright or other rights any time, including his logo

or a link to its web site. The Provider may at any time change the method of marking the authorship or material copyright. The Provider must not execute its right in a way that would disproportionally interfere with the right of the Buyer.
Without any explicit preliminary written consent of the Provider or an agreement between the Provider and the Buyer, the Buyer is prohibited to interfere with the copyright works referred to in the previous paragraphs of this Article, to process or tamper them or transfer the right on these works to third parties.
Without the explicit preliminary written consent of the Provider or the agreement between the Provider and the Buyer, the Buyer has no right to access the source code of the copyright computer programs of the Provider that are a part of services between the contracting parties or which support or ensure their operation. The Buyer also has no right to interfere, process or tamper with the source code of the Provider, or transfer it or provide access to the source code of the Provider to third parties with an exception of source codes the Provider determined as open-source solution.
Any attempt to breach or damage the Provider's information system is a criminal offence and the Provider reports it to the supervisory authorities and initiates suitable legal proceedings.
It is prohibited to save copyright protected documents (files) and programs to the electronic equipment of the Provider, for which the Buyer has not obtained suitable rights or the explicit consent of the Provider.

User support and communication

ARTICLE 12

The buyers are provided with technical support via e-mail, namely by contacting the Provider or on the telephone number +38640632700 on work days that are work days in the Republic of Slovenia, namely between 10:00 and 14:00 CET.

Rights and obligations of the Provider, restrictions for buyers

ARTICLE 13

The Buyer (or User) is notified about and accepts the fact that the operation of some Provider's services largely depends on the general status and operation of telecommunication networks and on the access options of the Buyer and on access conditions of these networks. With the care and diligence of an expert, the Provider shall strive to provide uninterrupted and smooth operation of services, but shall not provide any warranties or guarantees thereof.

ARTICLE 14

The Buyer undertakes not to transfer or install any harmful content on the Provider's equipment, including:

- malware scripts and data containing such scripts or programs (viruses, Trojan horse, etc.);
- scripts or content that mislead users (phishing sites) or are in any other way contrary to the applicable legislation;

- pornographic or violent content, documents including hate, offensive or otherwise prohibited speech or content;
- content for which the client has not suitable copyrights or other rights.

The Provider can demand that the Buyer remove the content or in any other way temporarily or permanently limit or prevent access to them if they may be controversial or harmful to the Provider or contrary to these General Terms and Conditions.
The Provider has the right to exclude from use the scripts and applications that overload its equipment, present a security threat or reduce the stability of operation of its equipment. Recurring elimination may lead to a temporary termination of rights to implement scripts or applications, and even to a temporary or permanent shut-down of services and termination of the contractual relationship.
In the case of obviously intentional or recurring (more than twice) unintentional violation of the provisions of this Article, the Buyer (or User) is obligated to pay a contractual penalty in the amount of 10,000.00 EUR for each individual violation, notwithstanding the existence and the amount of the damage caused. If the actual damage caused exceeds the amount of the contractual penalty, the Buyer is obligated to cover the difference to the full compensation in addition to the amount of the contractual penalty.

Exclusion and limitation of liability of the Provider and the liability of the Buyer

ARTICLE 15

In no case is the Provider responsible for damage incurred to the Buyer in using the Provider's services or in relation thereof, if the damage is a direct or indirect consequence of:

- the action of the Buyer or a person, for who the Buyer is responsible or who acts on the Buyer's authorisation (which may also stem from the nature of relationship between the respective person and the Buyer, e.g. the responsible person of the Buyer) or in the Buyer's interest;
- actions of third parties, including the persons who on their own or together with the Provider provide the operation of an individual service or a part of service or deliveries;
- force majeure; events that the Provider could not foresee upon concluding the contractual relationship and which or the consequences of which cannot be avoided are deemed as force majeure; for example, but not exclusively, force majeure includes floods, wars, extraordinary events, demonstrations, instances of civil disobedience, measures of national or local authorities, fire, earthquake, strikes, interruptions to production processes, traffic jams and other cases recognised by case law in the Republic of Slovenia. The Buyer explicitly agrees that a long disconnection or disturbances of power supply, unforeseen hardware or software faults, failures in telecommunication network or its access disturbances, technical problems of suppliers of products and services required and used by the provider are also deemed as force majeure; the foregoing events are deemed force majeure even if they stem from the domain of the Provider.

In no case is the Provider responsible for indirect damage and for loss of profit.
In no case is the Provider is responsible for loss, damage or change to the Buyer's content saved on the Provider's equipment.
In no case is the Provider responsible for damage caused to the Buyer by virus infections or other malware codes or due to breach of the computer or information system.

The Buyer itself is responsible for preparing and saving backups of its data that are located on the Provider's server, unless the agreement between the Buyer and the Provider explicitly states otherwise. A Buyer who causes damage to the Provider or third parties by using the service, is obligated to reimburse it under the general rules of indemnification. The transfer of data required to claim compensation to the injured party or to its authorised person, court or other competent authority by the Provider is not deemed a violation of Buyer's business secrets.

Rights and obligations of the Buyer

ARTICLE 16

If there is a change in data the Buyer stated upon its registration or upon ordering the services or deliveries, the Buyer is obligated to notify the Provider in writing of the change of data within 8 days of the change occurring. In addition to the notification sent to the Provider, the Buyer is obligated to change the data in services offered by the Provider where possible. The Buyer suffers all potential negative consequences of abandoning the notification on the change of data, as well as if the deadline referred to in the previous sentence has not yet expired.

ARTICLE 17

The Buyer is responsible for itself and for its responsible persons for the confidentiality, protection and use of access passwords, user names and other data to access the services. The Buyer is responsible for the content of services it offers and with which it uses the Provider's equipment.
The Buyer is responsible for actions of its responsible persons as if they were his own.

Protection of data and business secrets

ARTICLE 18

The Provider and the Buyer are obligated to protect all data on the other contracting party which they obtain through or in relation with their cooperation as a business secret, namely during their cooperation and for at least three (3) years after the termination of the validity of the contractual relationship. The information, which is as per the first paragraph of this Article deemed a business secret, must not be used by the contracting parties on their own or with others for purposes beyond the contractual relationship, and must not be submitted to third parties or enable third parties to be acquainted with it. The prohibition of the submission information to third parties does not apply to the Provider where and to the extent it is necessary to provide services as per the concluded subscription relationship.
In no case, may the Buyer or the User make a press statement, except with the prior written consent of the Provider, the exception being the data demanded by the official authorities.

Informing the Buyers and the purpose of data processing

ARTICLE 19

The Buyer, who has subscribed to receive e-news of the Provider or other electronic messages of the Provider or third parties, agrees that the Provider or a third party may send it e-mail notifications related to the operation of services and delivery and their capacities, upgrades referring to the services, changes or amendments to these General Terms and Conditions, campaigns or benefits in using the services and deliveries, as well as other service-related messages. The Buyer agrees that these notifications may also include commercial messages (ads) from the Provider or third parties.
The Buyer, who has subscribed to receive e-news of the Provider or other electronic messages of the Provider or third parties, agrees that the Provider sends it these news and other electronic messages to its e-mail address entered upon registration, and to keep and process the data on the Buyer in a way determined in this Article.
The Buyer is understands and agrees that in terms of sent e-mail notifications the Provider may record the data on the Buyers who read a specific e-mail message and the data on the online links in the respective message the Buyers opened (clicked). The Buyer agrees that the Provider may use the data thus obtained to adjust offers and/or contents of future e-mail notifications sent to a specific Buyer.
The Buyer agrees that the Provider may use all the data gathered within the scope of implementing the services and deliveries for the Buyer for its own needs without limitations, including market analyses and adjustment of products and services to the findings of analyses.
The Buyer explicitly allows the Provider to send information, notifications and survey questionnaires directly or indirectly related to the Provider's services to the Buyer's e-mail address during the contractual relationship until the cancellation or opting-out of receiving this kind of notifications.

Protection of personal data

ARTICLE 20

The Buyer agrees that for the purposes of its operation the Provider gathers and processes the personal data of its contact persons who communicate with the Provider in regard to services and deliveries.
The contracting parties undertake to protect the personal data of employees and contractual workers of other contracting party or related data as per the Personal Data Protection Act (ZVOP-1).
In the case of the Buyer being deemed as an administrator of personal data (i.e. a person who on his own or with others determines the purposes and means of the processing of personal data), the Buyer must provide the protection of personal data as per the European and Slovenian legislation (including the Personal Data Protection Act, ZVOP-1). Procedures, measures and conditions to provide the protection of personal data and prevention of its unauthorised processing are defined in more detail in the Rules or the Internal Act on the protection of personal data applicable with the Buyer.

Insurance of personal data

ARTICLE 21

(1) The Provider states that the established procedure to implement services as per these General Terms and Conditions and measures to protect personal data are integral parts of the Rules to protect personal data of the AURESCO Institute related to the first paragraph of Article 25 of ZVOP-1. The Rules referred to in the first sentence of this paragraph define the protection of personal data within the scope of legal, organisational and suitable logical and technical procedures and measures by which the Provider protects personal data, prevents accidental or intentional unauthorised destruction of this data, its change or loss and unauthorised processing of this data by ensuring:

- the protection of premises, device and system software,
- the protection of applicative software used for processing personal data,
- the provision of secure submission and transfer of personal data,
- the prevention of unauthorised persons to access the devices used to process personal data and their databases,
- the provision of subsequent determination about the time when individual personal data was used or entered in the data collection and by whom, i.e. for the period in which individual data is stored.

Final provisions

ARTICLE 22

Where these General Terms and Conditions require a written form and is not explicitly stated otherwise, registered mail is required sent to the address of the other contracting party stated by the Buyer upon registration or the contracting party subsequently submitted to other contracting party as per the provisions of these General Terms and Conditions. In all other cases, an e-mail message suffices as a valid channel of communication between the contracting parties. This e-mail message must be sent to the e-mail address stated upon registration or to the e-mail address the contracting party submitted to other contracting party as per the provisions of these General Terms and Conditions and is verified by the Provider.

The message is deemed received upon its receipt by the other contracting party. The message is deemed received even if the other contracting party does not receive it and the sending party can prove that the message was sent as per the first paragraph of the Article, namely:

- if the Buyer has its head office or place of residence in the Republic of Slovenia, the message is deemed received on the second day after the sending date;
- if the Buyer has its head office or place of residence in any other country, the message is deemed received on the third day after the sending date;

In the case of large orders exceeding the monthly value of 10,000 EUR, upon the call of the Provider the Buyer is obligated to disclose the data on its property and its origin, and in addition to that it guarantees to the Provider that its property does not originate and is in no way related to money laundering, money hiding, tax evasion, terrorism, crime, illicit trade in weapons, drugs, trafficking or other offences and that it fully complies with the legislation in the field of money laundering and terrorism financing prevention.

The relationship between the Provider and the Buyer is subject to the law of the Republic of Slovenia, without the use of rules on private international law and procedure. Disputes between the contracting parties are settled by the competent court according to the Provider's registered office.
Definition of the most frequent terms:

- Melt is the exchange of Xaurum for its gold determined as a basis of its value.
- Mint is the production of new Xaurums where a person intends a certain value in money to produce new Xaurums as per the Xaurum equation.
- Burn is a verified destruction of Xaurums where they are subtracted from Xaurums traded.
- Blockchain is a transparent public ledger of all transactions.

THESE GENERAL TERMS AND CONDITIONS ARE APPLICABLE FROM 1 JUNE 2016.

XAURUM

Adding Value.

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