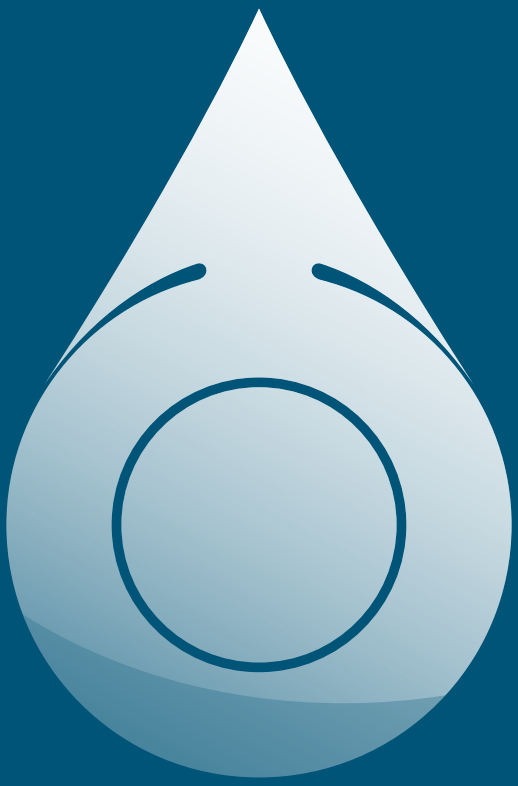


daat

Authenticity of Things

Executive Summary

daat.earth contact@daat.earth @daat_earth

The problem

Lack of trust from consumers towards the authenticity of products.

> “In the last year alone we’ve seen a surge in fire claims caused by electrical faults, with a correlation to counterfeit phone chargers. We’d like to warn people about the dangers of using these items, as the poor quality components can lead to not only electrocution and burns but serious house fires, with tragic circumstances.”
>
> Jonathan Guy, head of claims at the Co-op Insurance, The Independent.

> “I hate being cheated,” he says. “There’s a code of silence in the wine industry – I was not going to take it. With super-fine wines you can taste the love the vintner had in making it, and that to me is almost a religious experience. We collectors like precious things. What price can you put on love?” he says, before correcting himself. “Well, when you get divorced you can.”
>
> Bill Koch, wine collector, The Guardian.

Our solution

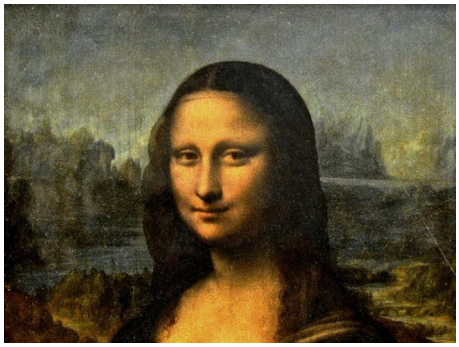
Help manufacturers to protect their goods with a new technology proven impossible to be duplicated, and give their users the possibility to check the authenticity of their products in a quick and simple way with their smartphones.

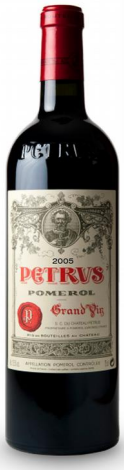
Upon this core functionality of authentification, third parties can seamlessly propose additional services to owners of any object, thanks to an integrated wallet, cash-flow, and modular framework.

Falsified products harm brands and consumers, in terms of credibility, value, safety, economy and trust.

This calamity hurts a tremendous and heterogeneous spectrum of industrial sectors, such as food, beverages, art, cosmetics, luxury, pharmaceuticals, health consumables, automotive spare parts, precious metals, cash, and so on.

Countless solutions and systems have been tried to address this issue, yet without success since those technologies always turn out to have flaws, allowing counterfeiters to work around for making fakes anyway, in the best cases it somehow limits counterfeiting, but never eradicate it.





This technological race needs a revolutionary jump ahead in order to unlock the situation in favor of the legit market, so the status quo can move on into a prosperous ecosystem. This crucial leap also needs to guarantee that legit products will always remain ahead in a technologically disruptive environment, where such things as darknet markets can pop up, the fact that the same legit product can be manufactured by totally different and independent fablabs/makerspaces around the world, or whatever disruption comes next out of the blue. Key words to match such long term requirements are **#cryptography #blockchain #decentralization #modularity #flexibility #neutrality**.

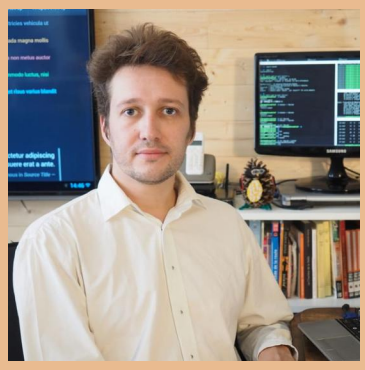
Daat

The strongest and long time proven anti-counterfeiting cryptographic technology, for a technologically ready market. Giving birth to a prosperous, neutral and decentralized ecosystem.

2008-2017

In 2008, Damien, IT Engineer passionate by entrepreneurship, was living and doing business in China. Facing the problem of counterfeit goods on a daily basis hurting his partners' brands and his sales, he developed a cryptographic concept based on dual microchips, indexed on a global network and impossible to duplicate.

After a successful internal proof of concept on wine products, the technology was earning the interest of other industries also victims of counterfeiting such as milk powder, automotive spare parts and luxury goods. While the protection system was ready, the majority of end-user side smartphones was not technology ready to seamlessly launch such a solution, so it went on pause.



Meanwhile, on the other side of the globe, Camille, a software engineer, was researching new P2P economic models and decentralized monetary solutions, such as precious metals and crypto currencies. Bitcoin was the game changing cryptographic technology that will inspire him, in 2010, the solution to address the problems he was facing for authenticating physical coins (gold, silver and crypto). In 2016 he published an electronic asymmetric cryptographic solution based on NFC microchips and blockchain, combined with several other layers of technology, that makes it the world's most advanced anti-counterfeiting solution.

2017-2018

In late 2017, Damien and Camille met online and immediately challenged their solutions through a passionate call. They joined their forces and built a team to help the global industrial market to solve the counterfeiting problem. The project evolved to Daat, improving and combining their core anti-counterfeiting technologies with the blockchain, into a complete modular ecosystem, tailor made for this new market. While involving a growing number of partners, investors and brands as future customers.

Early 2018, Daat opens itself to early investors, finalizing the partnerships before announcing publicly the project, giving a chance to public and private investors to take part in this formidable adventure.

What is Daat?

Daat is the strongest microchip-based anti-counterfeiting technology for the Internet of Things (IoT), as well as an open framework for managing these things and their economy.

The core expertise of Daat is to allow users to verify the origin and authenticity of any object via an ad-hoc smartphone application. This expertise takes root in a long experience of research, collecting, inventing and combining the strongest anti-counterfeiting solutions. Daat is the most advanced solution in that domain, and will make sure to remain in this position.

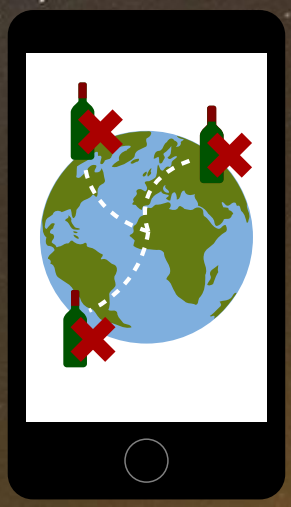
Upon this, because of its easy programing interface, it allows an unlimited number of third party services to be plugged into the framework, in a modular manner. Therefore creating a unique worldwide ecosystem, neutral, decentralized for the Economy of Things (EoT), which will benefit to all users and economical actor aiming to join it. This prosperous base of objects and services is designed to snowball by attracting even more newcomers and and objects.

Damn, it has detected that the asymmetric private key is invalid against the blockchain... Even the legit manufacturer can't access any valid private key because it's generated internaly by the microchip. Cannot access this data without destroying it!

I managed to extract a legit microchip, but it detects opening attempts, and the unique sealing cannot be duplicated. I could make only one copy, it's detected as fake anyway, and the legit product has lost its value without the original microchip, d'oh!

And even if I manage to duplicate it, it will detect inconsistencies between the time and place the objects are scanned...

I managed to make valid signatures with another identity, but the decentralized legitimation system flags me as illegitimate. It would be easier to launch my own legit brand!



Technological advance

Strong identification

Most technologies that pretend to address counterfeiting issues are in fact “supply chain” frameworks that use basic identification technology (bar code, QR Code, RFID or weak NFC) that can be duplicated. Daat's microchip uses strong cryptography that sends a new mathematical challenges to the microchip in real time each time it is scanned, only the legit microchip is able to solve it.

Asymmetric cryptography

Most technologies that perform real time cryptographic checks are using symmetric cryptography algorithms, which can be hacked and designed upon a centralized architecture. These weaknesses and centralization do not offer enough guarantees to brands and customers in terms of security, independence and durability. Especially for items that are kept very long time such as art, precious metals and wine. We need to make sure that the service will be up and running forever, regardless of the good will of any entity. That's why Daat's microchip relies upon asymmetric cryptography, which cannot be hacked like symmetric cryptographic microchips, and does not rely on central servers. This guarantees security, independence, neutrality and is blockchain compatible which enables a plethora cutting-edge technological possibilities.

Apple support

The crucial real time mathematical cryptographic challenge sent to the microchip for authentication has been locked by Apple on its products. However, Daat has developed a unique solution that enables real time cryptography on iOS, providing the same level of authentication strength as on Android, which is a crucial requirement regarding the number of iPhone owners, particularly in luxury circles which are especially subject to counterfeiting.

Private keys

Many technological medium that carry off-line sensitive information such as asymmetric private keys (e.g. crypto-currencies “cold wallets”) are generated and written into the medium by the manufacturer. Which is a severe concern in terms of trust and security. That's why Daat's microchip is able to self-generate cryptographic keys and random numbers, which remain inside a dedicated confined memory of the microchip, avoiding any leak hasard.

Real decentralization

All other technologies that rely on asymmetric cryptography such as Daat use centralized root certificates for authentication, and some of them even use centralized databases. Which jeopardizes the advantages of the decentralization made possible by the asymmetric cryptography coupled with the blockchain. Bringing their ecosystem back to square one, like any centralized technology using symmetric cryptography. Daat ecosystem is full decentralized. The “remunerated legitimation” system allows wallet owners to get revenue for identifying the legitimate actors of the ecosystem. Thus, forming a decentralized Web of Trust, optionally backed by third party audit services. Finally, the critical keys of the ecosystem will be managed by a neutral, smart-contract base Decentralized Autonomous Organization (DAO).

Tamper-proof

Even if some microchips are made impossible to duplicate, it often remains possible to extract it from the original object in order to move it to a fake one. Daat's visual inspection security layer allows to seal microchips into sealings that are physically and visually irreversibly destroyed. Each sealing is made unique with random pattern (glitter dust, paint splashes, colored fibers, etc.), then have a picture taken and uploaded on the network. Therefore, each sealing can be visually inspected against its original picture. Daat's microchip also has the ability to detect opening attempts.

Blockchain cryptography

Daat's microchip is the first one offering asymmetric cryptography algorithms used by most popular blockchain technologies such as secp256k1 (Bitcoin and most derived alt-coins) and keccak-256sum (Ethereum, derived blockchain and ERCxxx tokens). Which enables native support for bridging the microchip with blockchain's services. And allows the creation of electronic physical medium (banknotes, legal documents, bearer bonds, etc.) for an easy and secure way to store and exchange the ownership of objects, digital goods or crypto-currency wallets registered on any blockchain.

Easy programming & Open Source

Interacting with NFC microchips requires the development and installation of dedicated smartphone applications for each service. Which is a tedious task and a bottleneck for the adoption of the technology. Daat is the first platform providing an easy programming interface, accessible to anyone who has the skills to create a basic web page. This easy and secure access to the microchip (and to user's wallet) catalyzes the development of new services (e.g. insurance, recycling, after sale, community, etc.), and revenue streams for the actors of the Daat ecosystem. All Daat's software and libraries are provided as Open Source, in order to ensure the neutrality, independence, security and durability of the ecosystem.

Spatial copy detection

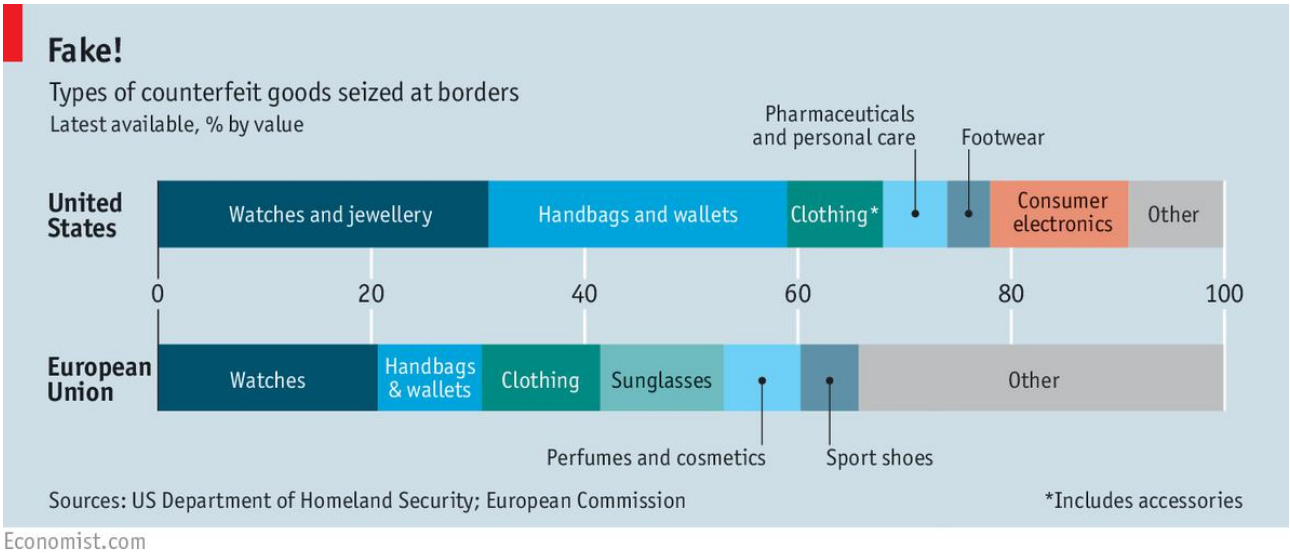
Daat optionally allows users to anonymously publish their geographical position at the moment they scan an object. This allows to implement an extra layer of anti-counterfeiting, which detects inconsistencies between the time and space of the scans. In case it follows multiple paths or is scanned in a short delay between a too long distance.

Note: this feature can also be coupled with Daat's unique sealing pattern visual inspection layer of security, strongly enforcing anti-counterfeiting of cheap low-tech tags which can otherwise be easily copied (e.g. QR Code). For object that do not worth spending hi-tech microchip on.

Market

Daat is currently negotiating partnerships with companies in various industrial sectors, such as fashion, beverages, pharmaceuticals and milk powder.

Some existing projects presents similarities with Daat, such as WaltOnChain, WaBi or VeChain. However, these projects focus more on supply chain than anti-counterfeiting. As Daat's expertise and flagship technology is anti-counterfeiting, our solution is way more advanced than the ones used by these projects on that domain, while supply chain information is simply an extra modular third party service among the infinity of services made possible by Daat (audit, marketplaces, lost+found, etc.). Therefore, there is more room for cooperation than competition with these existing projects. No one can be an expert in every domain, that's why Daat has already initiated dialog for cooperation with one of these three projects, in order to make them benefit from our technology, and bring to the actors of our ecosystem higher external expertise on supply chain information. Also, these projects have a B2B/B2C traditional top-down structured approach of the market, where Daat's approach is more bottom-up P2P and organic. Thus, both market approaches are more likely to be complementary than opposed. Regarding VeChaing token's market capitalization performance, which went from $0,15 billion to $2,6 billions in only 5 weeks, we can barely evalutate the tremendous growth potential of this dawning market.



Invest

Budget Prior to public release (8 months)	
Establishing Daat company	3 000,00 €
Travel expenses	100 000,00 €
Legal expenses	60 000,00 €
Staff (6 persons)	400 000,00 €
Consulting	50 000,00 €
Offices	15 000,00 €
Furnitures, hardware, computers, etc.	50 000,00 €
R&D for developing Daat's core	1 200 000,00 €
Whitepaper + translations	50 000,00 €
Producing first batch of microchip	2 000 000,00 €
Marketing, social medias, advertising, etc.	500 000,00 €
Website	10 000,00 €
Payment systems + KYC	20 000,00 €
Misc & contingency	200 000,00 €
Total	**4 658 000,00 €**

Option 1: shares of the Daat company

For investors who favor traditional method of investment, Daat proposes them to buy shares in the company, please visit the website for pre-registration.

Option 2: Daat token

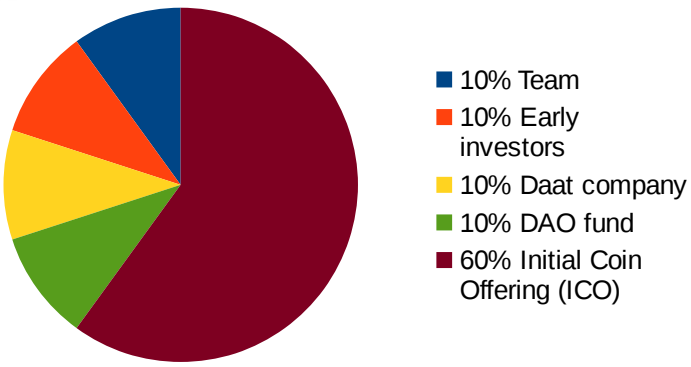
In order to run the its ecosystem, Daat will have to deploy it's own blockchain, as well as a coin for the miners that secure the network. Regarding the poor quality of the coins thrown in the public's face because of the ICO fame, Daat made a significant effort to propose a very valuable coin. Both in terms of utility and security (see the token's page). Amongst these features, the coin is backed by shares of the company, thanks to a SAFE agreement (Simple Agreement for Future Equity). Please visit the website for pre-registration.

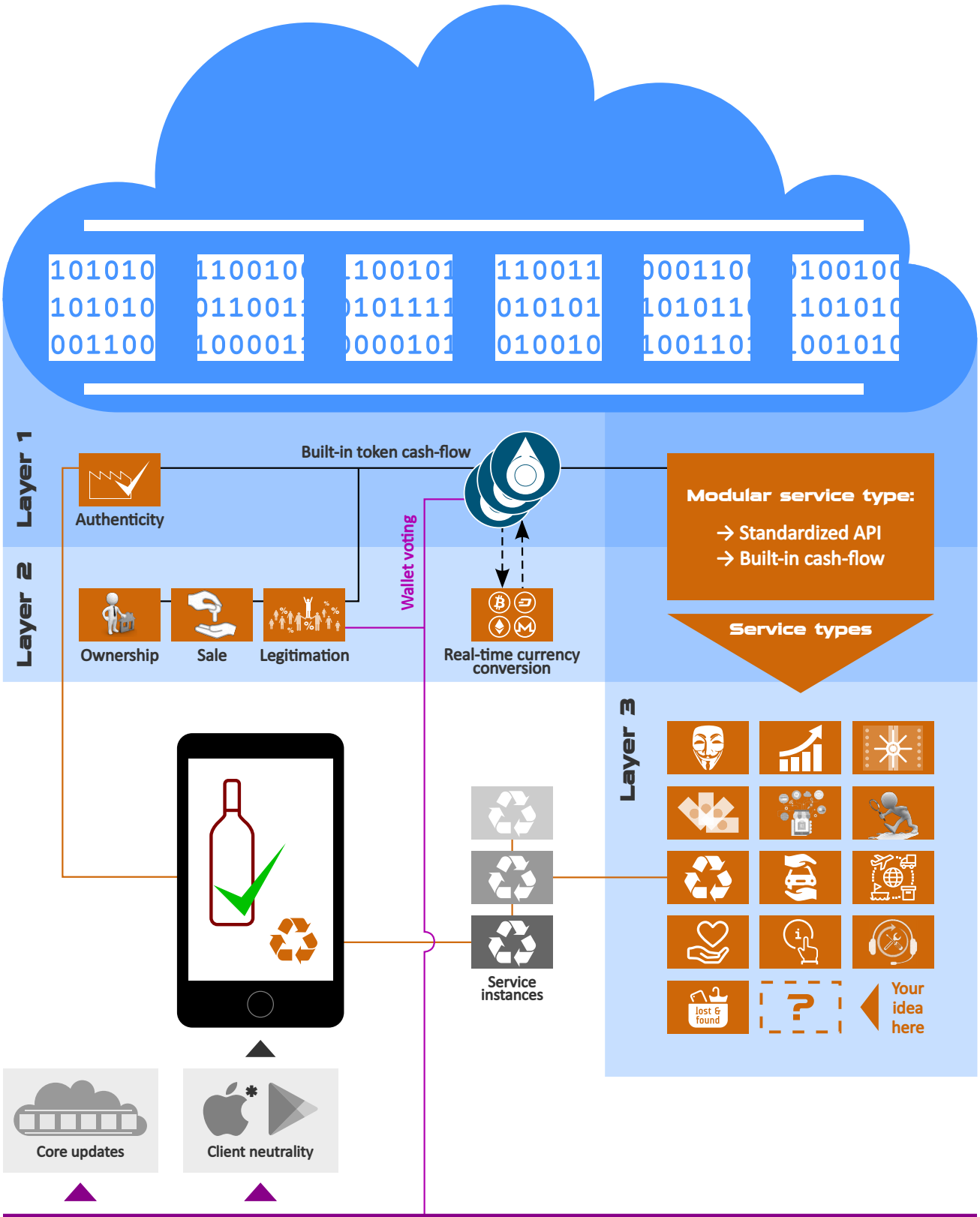
Token

The Daat token (ȡ) is the standard cash-flow backbone of the whole ecosystem, it is not limited to the use of Daat's services, it is also the vehicle for the economy of the objects themselves (buy/sell). Any other (crypto)-currencies/commodities can be transparently “shapeshitfed” on-the-fly from and to Daat (ȡ). Daat wallets allow users to vote for the Decentralized Autonomous Organization (DAO), as well as to be remunerated for identifying the legitimate actors of the ecosystem. Additionally, each Daat (ȡ) is backed by shares of the Daat company. The token will later on become a real coin when migrating to its own blockchain.

Daat company will propose internal products and services. These products can be purchased in priority with Daat tokens at their fixed price at the time of sale (ȡ1 for €1, after pre-ICO discount), regardless of the Daat token exchange rate when purchasing the product. Therefore Daat token owners have the option to HODL or buy real products and services without loss of value. Manufacturers will have the possibility to purchase audit and R&D services for their anti-counterfeiting challenges, as well as microchips and secured packagings. The public can buy original gold coins and Bitcoin SatoriCoins secured by Daat.

Total token supply will be of ȡ77,700,000.





* Daat has an exclusive solution allowing asymmetric cryptography level of security on iOS despite Apple's limitations.

Team

Camille Harang – Chief Executive Officer

Passionate about computing since he got his first Atari in 1989, Camille is a self-taught software engineer. He graduated in Plastic Arts at Toulouse University in 2000, and was then hired at La Ménagerie studios for developing stop motion animation software. Until 2005, when he went to live in Korea, working at Systematic Information Research Institute, for developing robotic Computer Vision scanning solutions. Since 2007 until today Camille lives between France and Thailand as a freelance developer, working around the world with NGOs, universities, companies, startups, etc. (OECD, European University Institute, National Center for Scientific Research, Pivotal Labs Singapore, INRIA, University of Toulouse, University of Paris, French Press Agency, Minister of Economy, etc.). He has heavily applied all his knowledge and experience in cutting edge technology and emancipator y software solutions, such as P2P and Open Source. He invented Daat with the objective to provide a fair prosperous ecosystem of trusted products to the world.

Damien Legave – Chief Operating Officer

After graduating with a master in IT Management & Business (Dalian Polytechnic & EPITECH, 2007), Damien spent 8 years in China doing international business (BNP Paribas). He worked on a solution to solve counterfeit goods early on but let the working system idle since the end user market wasn't ready. After being the CTO of several IT companies (Eurekapps & 94Studio), he's now key account manager and senior architect in charge of EMEA area for an IT Chinese company (Hinacom). Damien is sharing his experience in business and operation to bring Daat to the world.

François Gatto – Chief Technology Officer

Graduated in Software Engineering (Polytech', Chambéry-Annecy, 2010), with a strong scientific background, and years of collaboration with laboratories on Distributed Intelligent Systems. François has strong professional experience working for Internet of Thing (IoT) related companies (BnextEnergy & GreenFlex). Passionate about distributed technologies, cryptography, blockchain and cutting edge IoT technologies. François provides the robust technological foundations required for the realization of the Daat framework.

Carole Fabre – Business Intel & Digital Communication

After graduated a Master 2 in Fine Arts and Communication (Sorbonne University, Paris, 1986-1992), Carole acquired a long professional experience in antique trading. Beside her expertise about counterfeited goods, she has always been at the avant-garde of technology. She disrupted this old-school market by opening the first French antique website in 1996, then the first antique platform in 2001. She kept on accumulating great experience in business, team management and digital communication, graduated with distinction a Master 2 in Management of Virtual Communities and Collective Intelligence via Digital Networks (Limoges University, 2007). Then she provided consulting and training in Digital Communication, Web Marketing and Business Intelligence for professionals, while being involved in P2P, crypto-currencies and monetary matters.

Stéphane Rossignol – Partners Account Manager

In 20 years Stéphane and his partner turned a lost stone beach next to Monaco into Anjuna, which is known as the most expensive beach in the world. The international cosmopolitan population of the French Riviera allowed Stéphane to build an impressive network of talented and successful people around the world, in various domains such as industry, arts, finance, luxury, show-business, etc. Because of the high potential of our solution for many actors of his network, Stéphane devotes himself in this strategic position for bridging the technology in synergy with its legitimate partners.

Stanley Claisse - Legal

Lawyer at the Toulouse Bar, graduated Master of Advanced Studies in Information Systems and Law of Economics and Communication, as well as Master of Private Right, and mentioned a specialist in Intellectual Property and Digital Rights and Communication (Toulouse University). Stanley has a strong national and international experience, in crucial key sectors required to deploy Daat's ecosystem, as well as ICO regulations.