BLOCKCHAIN TECHNOLOGY AND LAST WILLS

GALA PRESENTATION DATE 11.05.2021 CREATED BY ANNIKA HANSEN, PIRMIN ÖZDEMIR, NICO BORN

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burckhardt

Burckhardt AG deals with the process of filing last wills. Our task is to find a solution using a blockchain application to make the process more straightforward and secure.







Existence

Safekeeping & Reveal





Legal Validity

Genuineness



Traditional will



Handwritten will and notarized will



Legal validity: original paper will required

3

Newer wills overwrite old ones

Will maker



Lawyers





Legal limitations



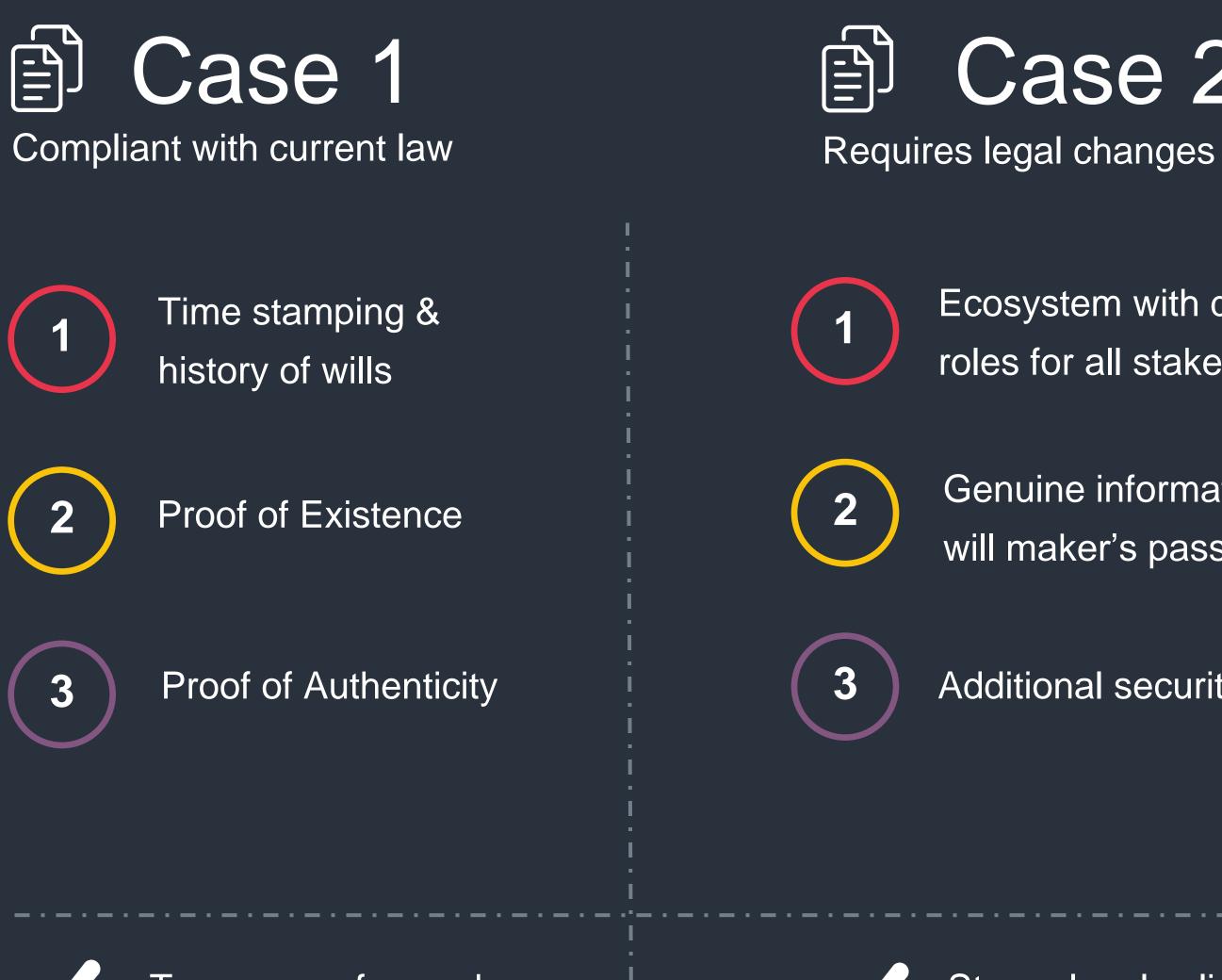
Paper will required



Multiple wills













Case 2

Ecosystem with defined roles for all stakeholders

Genuine information about will maker's passing

Additional security features



Hypothetical: Tokenized assets

3

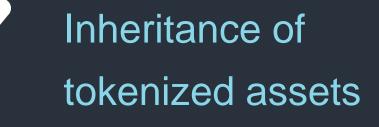
Smart contract wallet

2

Interoperability ERC20 & ERC721

Automatic on-chain asset distribution

Strong legal validity Safekeeping & Autoreveal

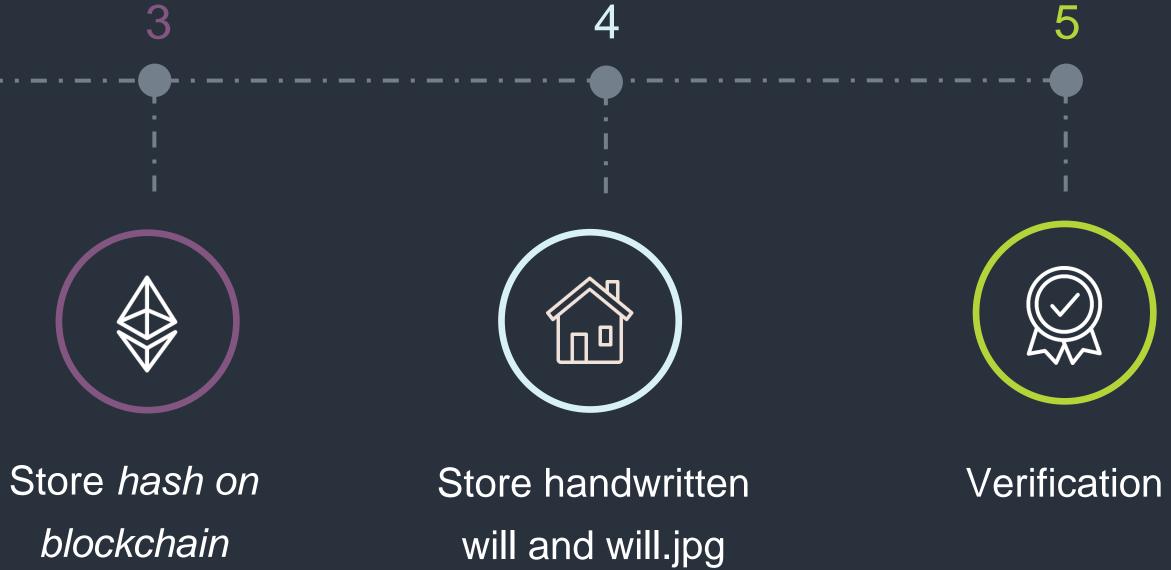




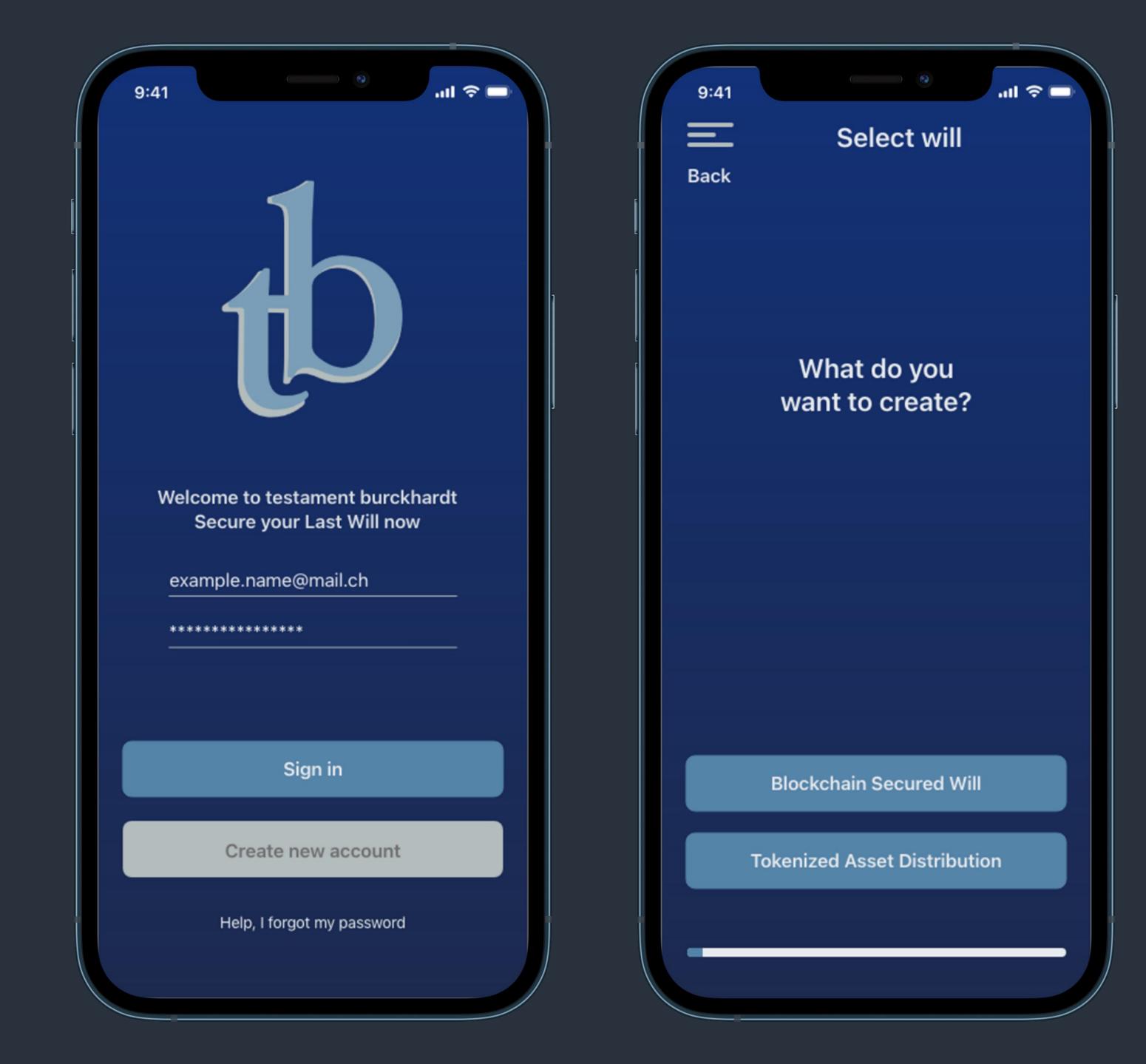


Case 1: Procedure









Back Please provide a high-quality photo of your last will What do I need to consider when writing a legally valid last will? Tell me more Camera ÍO. \bigotimes Gallery Document

9:41

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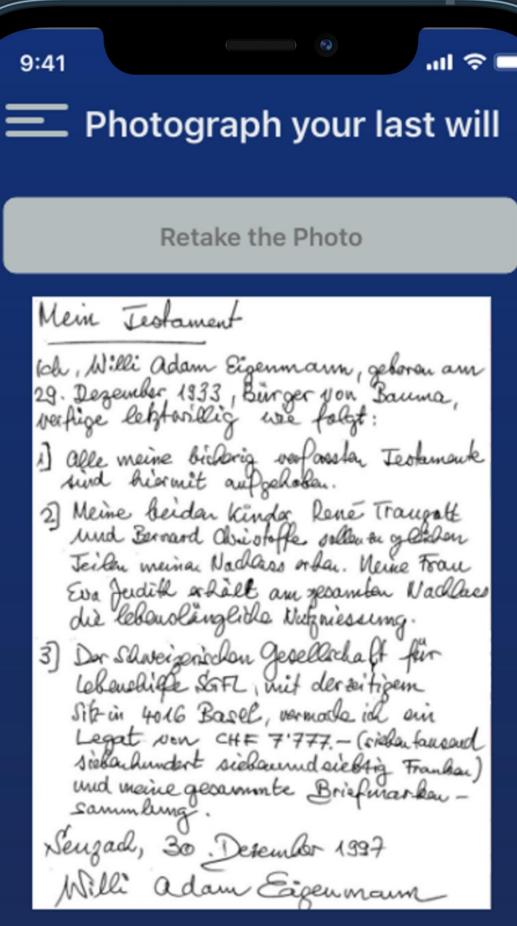
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Provide your last will

ա 😤 🗖 9:41 Photograph your last will Back Mein Jestament Mein Testament 10h, Willi adam Eigenmann, geboren am 29. Dezember 1933, Bürger von Bauma, verfüge lehterillig wer folgt: 1) alle meine bickorig verfasster Jeokamark sind hiermit aufgeholen. 2) Meine beiden kinder Rene Traugatt und Bernard abristoffe sollense glächen Jeilen meinen Nachass orbar. Meine Trau Eva Judith och all an gesamber Wachles die lebeuslängliche Wahriessung. 3) Der Schweizenischen Gesellschaft für Lebenehige StiFL, mit der seitigem Sikin 4016 Basel, vermade ich ein Legat von CHF 7'777. - (siabar fausard siebachundert siebaund eiebtig Frankan) und meine gesammte Briefunarkan -sammlung. Samulang Seuzad, 30 Detember 1997 Will' a dam Eigenmann



Document hash (digital fingerprint): ce329196ebebb641136af3435e43120b f2b60af54efe376 92e99cb1ae5ec0326

Confirm

Success

9:41

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Your will file's digital fingerprint has been recorded on the blockchain.

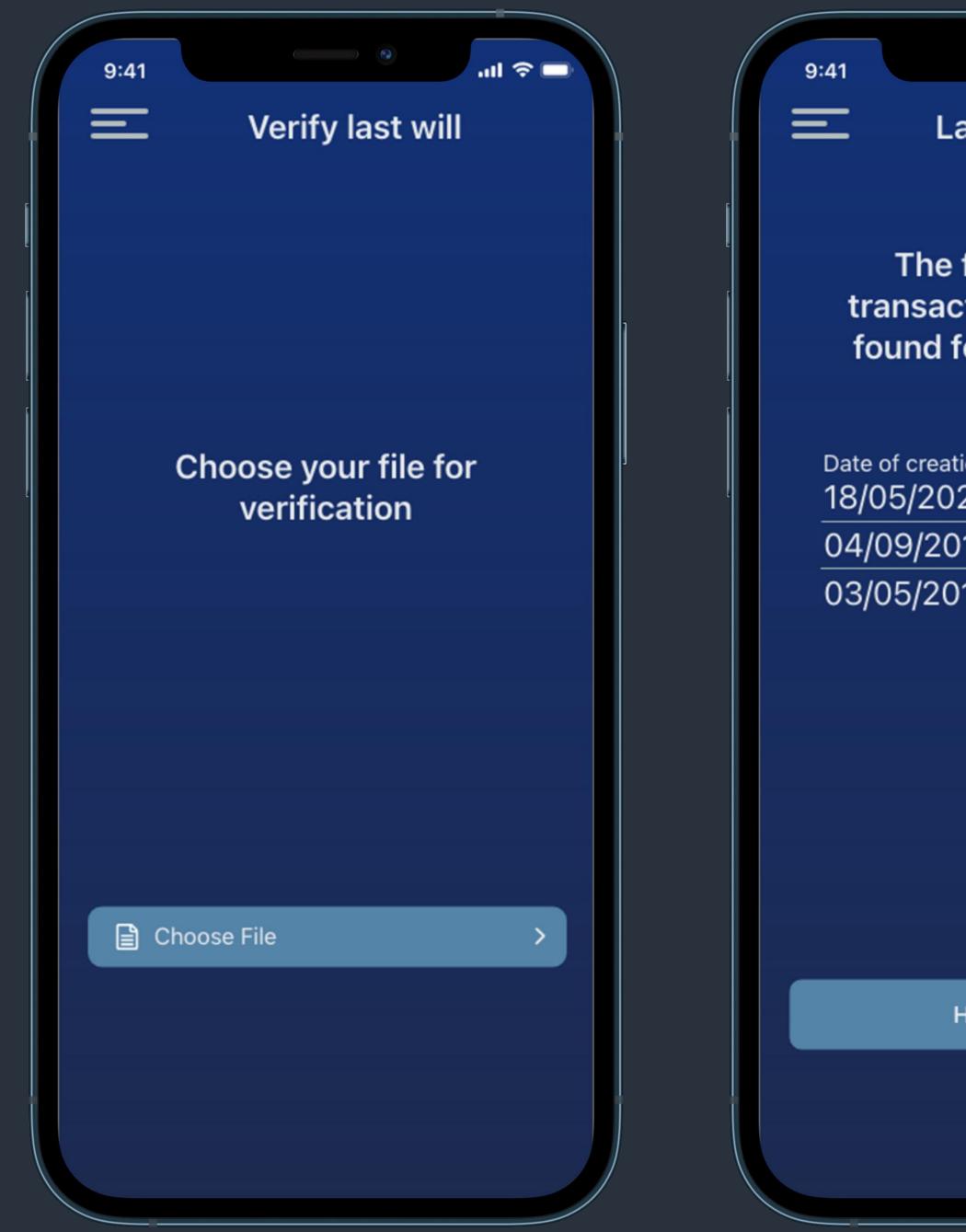
Document hash:

ce329195ec...0326

Transaction hash: 0x35b25e36...da13

Caution! Make sure that your will.jpg is stored safely for it to be revealed after your passing.

Continue



all 🗢 🗖

Last wills found

The following will transactions have been found for this address.

tion	Status
20	active
016	inactive
015	inactive

Home Screen

9:41

Last will details

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Back

Proof of Existence found.

TX Hash:0x35b2...5da1Block number:12361656Testator:0x48c3...b41dDate:03/05/2021Statusinactive

Document hash: ce329195ecgc808...0326

Show all wills saved for this testator

Back to menu

Case 2: Legal limitations



Blockchain secured digital wills



Opt-out



Case 2: Ecosystem





Case 2: Procedure





Case 2: Additional security features



Proof of Life



Key Loss Protection



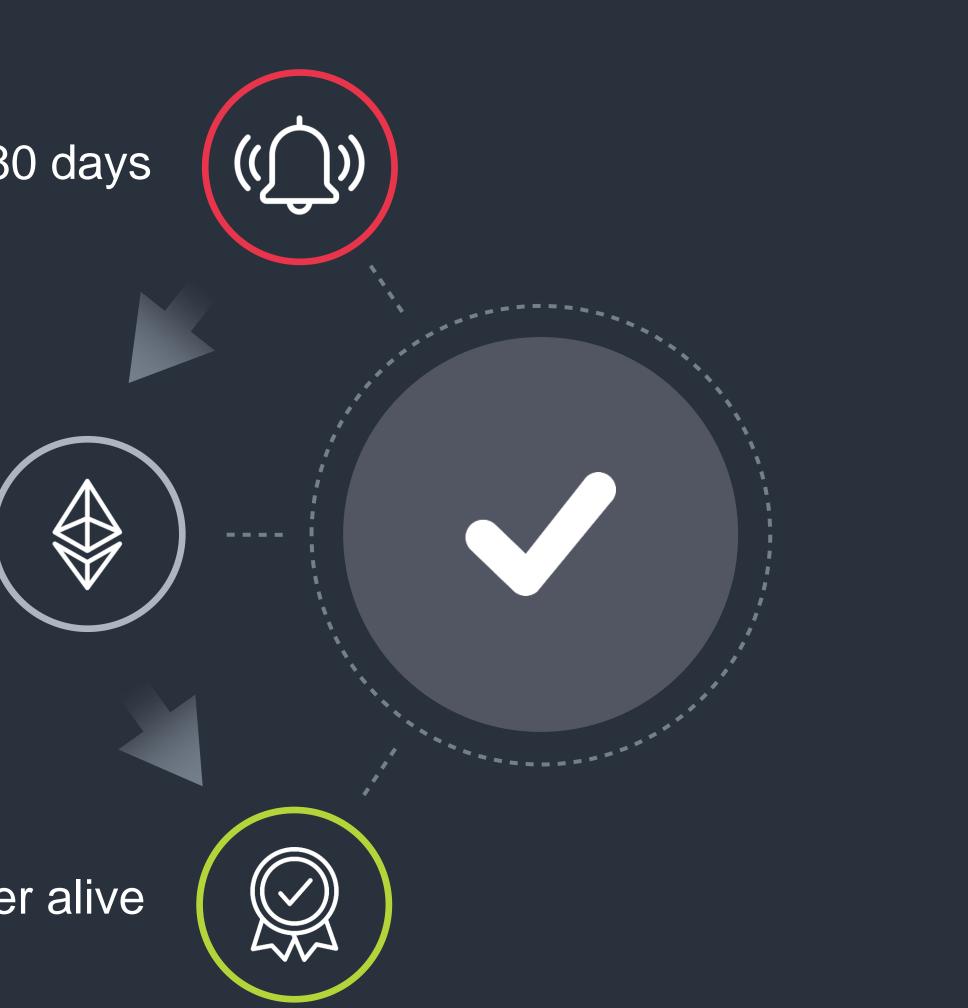
Genuine Information Propagation



Case 2: Proof of Life

Notification each 180 days



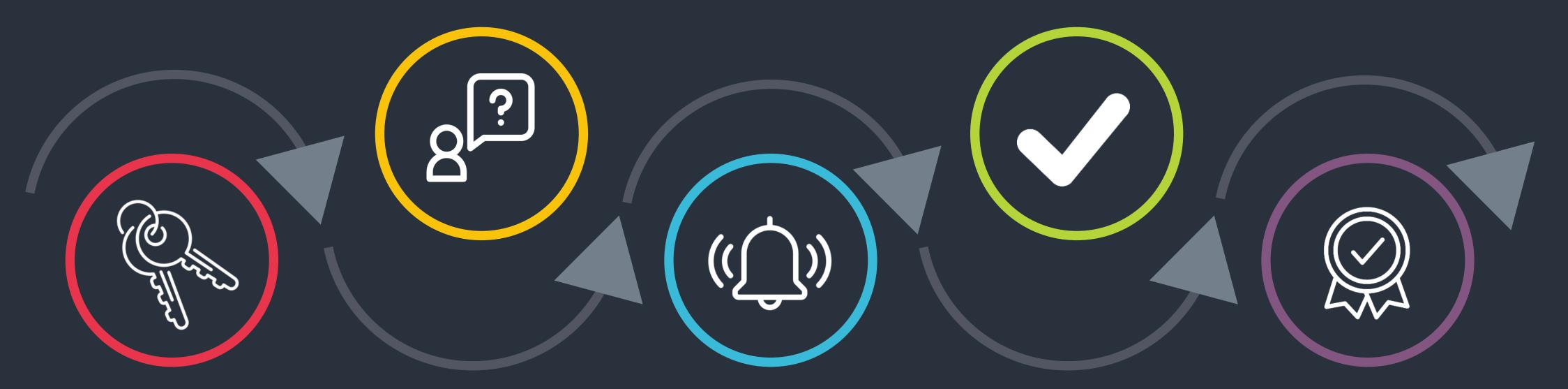


Will maker alive



Case 2: Key Loss Protection

Revoke request



Private keys lost

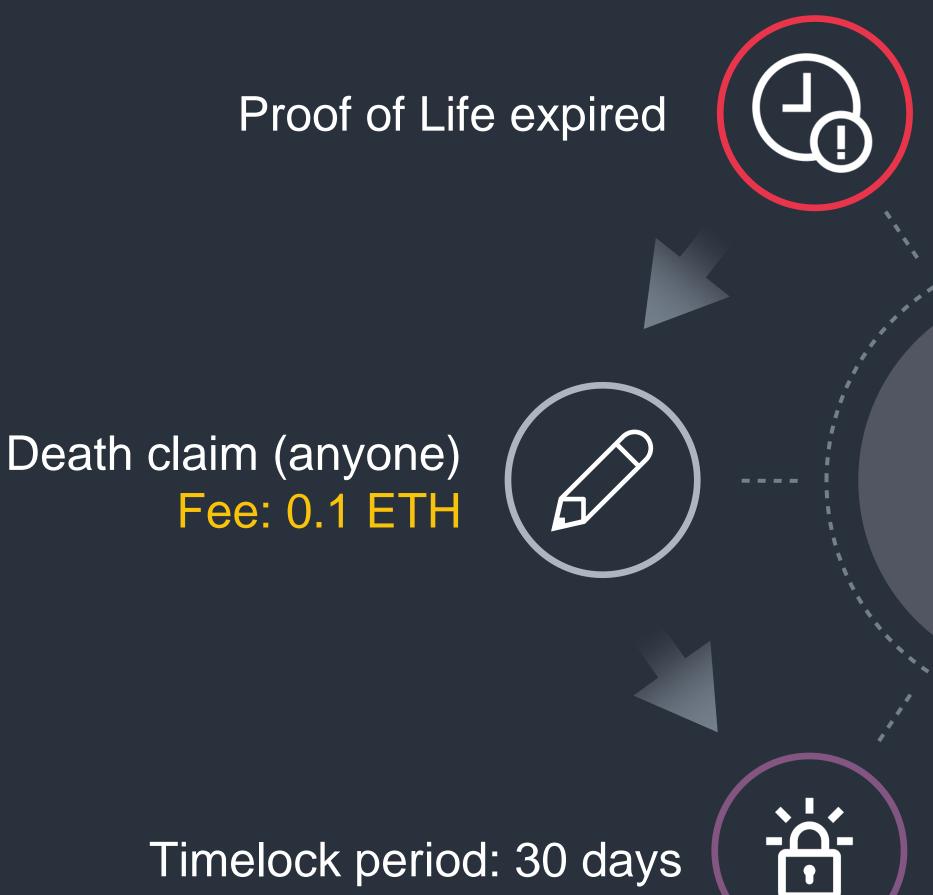
Stakeholder notification



Will is revoked



Case 2: Genuine Information Propagation

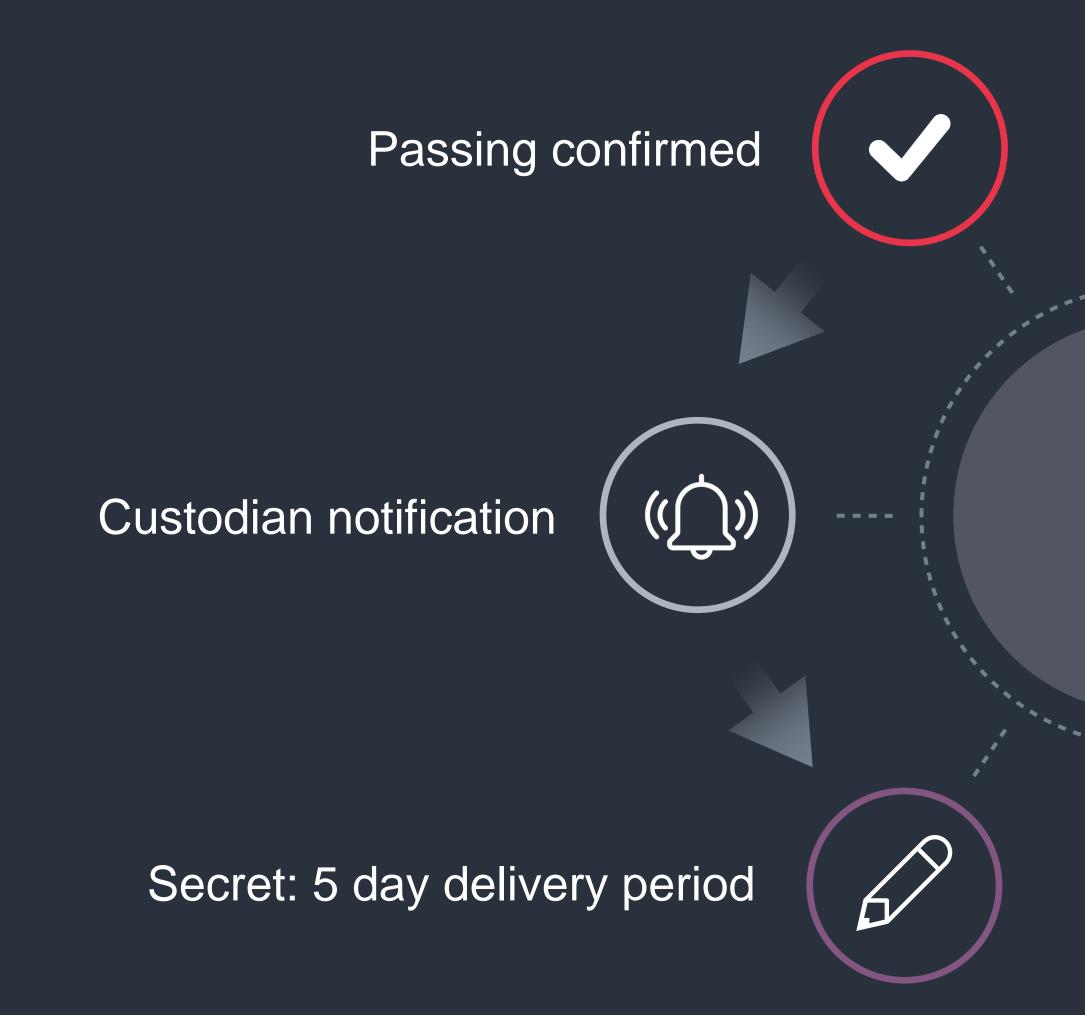


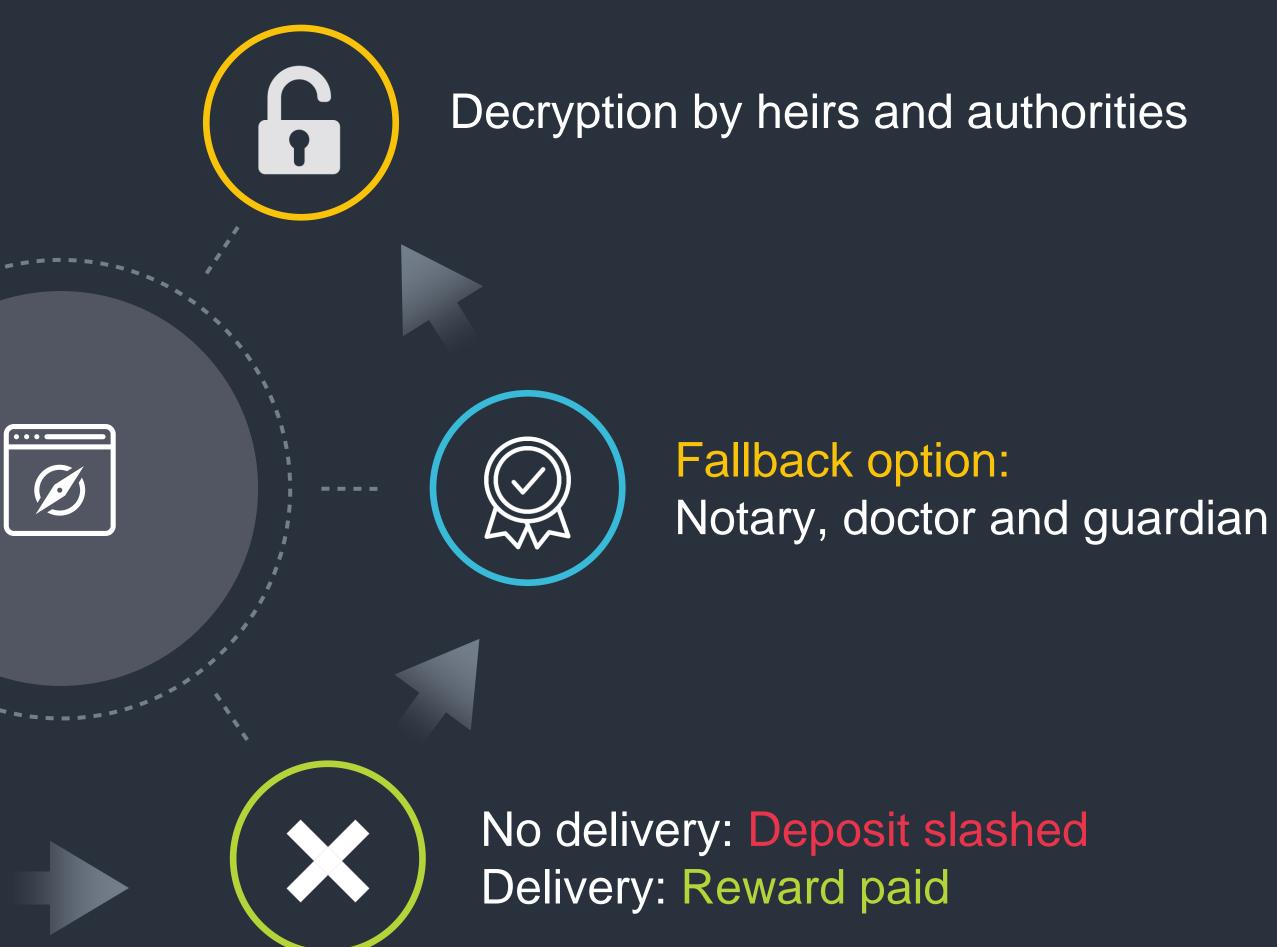
Timelock period: 30 days



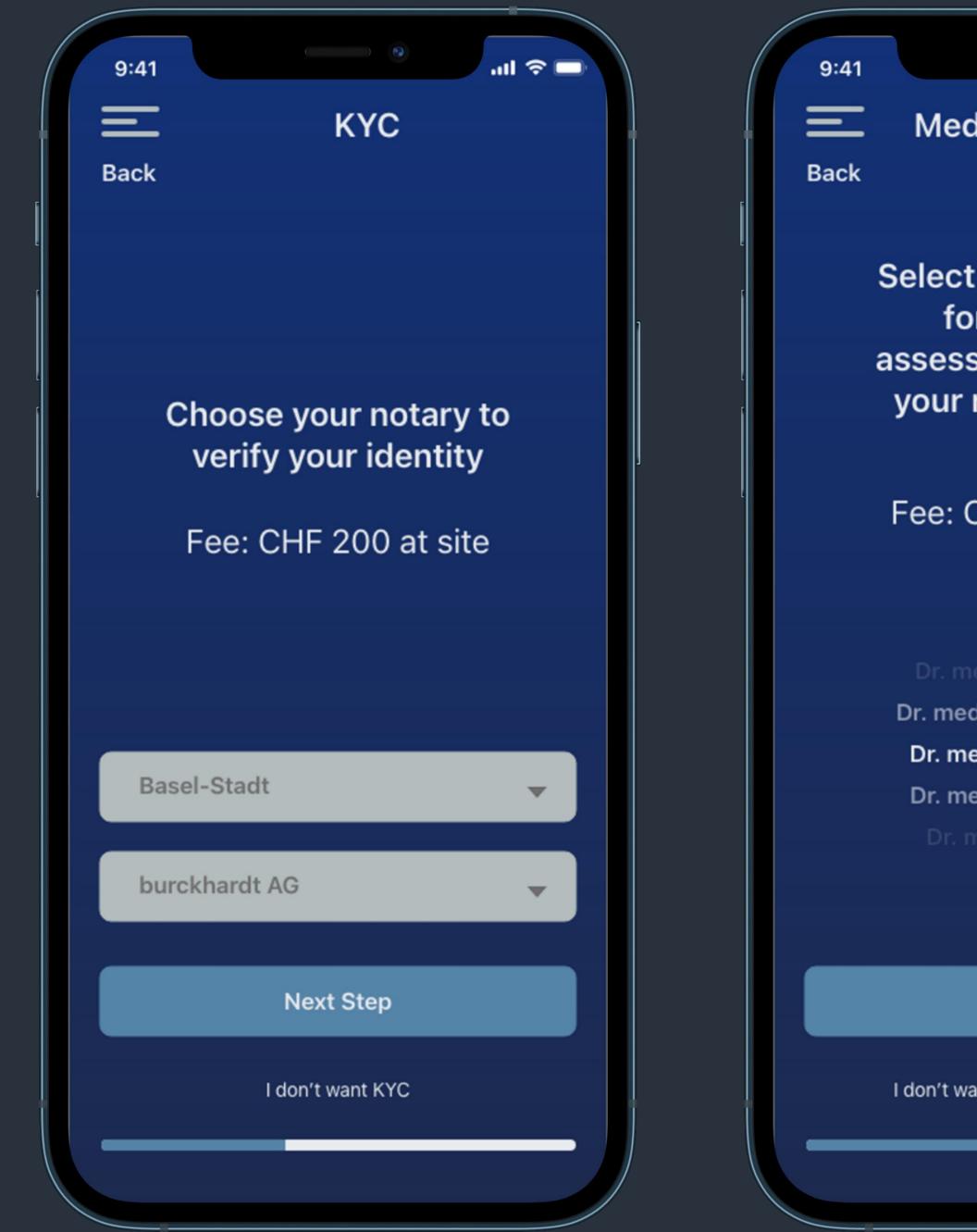


Case 2: Autoreveal











Medical assessment

Select your Physician for a medical assessment to certify your mental health.

Fee: CHF 200 at site

Dr. med. Anna Barmetti Dr. med. Markus Dubacher Dr. med. Sylvia Flammer Dr. med. Michael Gerten Dr. med. Wolf Lorster

Confirm

I don't want a medical assessment

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Custody and auto reveal

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Back

For maximal redundancy and confidentiality make use of our will custodian and automated will reveal solution

Your heirs and the government will receive an encrypted version of your last will.

After your passing, the secret to reveal your will is going to be published.

Yes, I want my last will to be stored safely and to be automatically revealed after my passing

No, I will take care of this myself

Back AlternativeCu BrightMinds (Data Security ValueVaultsC XYZ Company Yet Another C

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Custodian settings

Choose your Custodian to safely store your will and the encryption secret

Fee: 0.5 ETH

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GmbH	>
Services	>
ustodian AG	>
у	>
Custodian GmbH	>

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Auto reveal

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Activity Proof of Life



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You will have to file a transaction every 180 days as a Proof of Life. If you fail to do so, you will be regarded as dead and your heirs as well as the government will receive the secret to reveal your last will.

Key Loss Protection



If you lose your private key, two parties (your notary, doctor, or guardian) will be required to revoke your last will.

Enter your Guardian's Ethereum address

Enter your Guardian's email address

Confirm

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Additional security

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Protect your last will from being falsely revealed in case you are unable to refresh your Proof of Life.

Coma Protection

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This is a coma protection and genuine information propagation. Fee: 0.5 ETH

After 180 days of inactivity, anyone may indicate your passing by staking ETH. If two out of three parties (notary, doctor, guardian) confirm, the staker is rewarded for genuine information transmission. If the information provided was incorrect, the stake is slashed.

Confirm

9:41

You have now reached the last step of securing your last will on the blockchain.

KYC:

Safe storage:

Proof of Life ac Key Loss Prote Automatic reve Coma Protection & Genuine Information 🥪

Guardian: 0x532...38a

Total Fees: 1 Custodian: Coma Pr.: Operation:

> Proceed to Desktop App and

Secure my last will now

Secure my last will

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Selected Services:

burckhardt AG Medical assessment: Dr. med. Wolf Lorster XYZ Company

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guardian.number.1@mail.ch

ETH	CHF 400	
5 ETH	KYC Notary: CHF 200	
5 ETH	Doctor: CHF 200	
5 ETH		

9:41

Wednesday, April 21

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NOW

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Status of your last will

Congratulations! Your last will has been secured. Please send the encrypted file to your heirs.

Add-on: Case 3 - Tokenized Assets



Vision for the future

- Tokenized Assets as ERC20, ERC721, ERC1155
- No keys \rightarrow Lost assets



Case 2 as basis

- Proof of Life
- Key Loss Protection
- Genuine Information Propagation



Solution

- Smart contract wallet
- Distribution table
- Automatic distribution to heirs



Automatic asset distribution requires genuine information





Advantages



Compliant with current law



Proof of Existence





History of wills





High legal security

Definitive history of all wills

No physical paper will required

High redundancy and security, confidentiality

Automatic revelation

All advantages of case 1



Hypothetical: Tokenized assets



Automatic distribution of on-chain assets



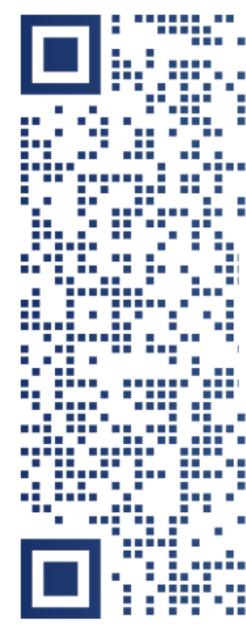
All advantages of case 2











Clickable Demo

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