

ASURE
AUTONOMOUS INSURANCE

@ETHBerlin hackathon

DEZENTRALIZED PENSION SYSTEM

www.asure.io

WHY? AND WHY DECENTRALIZED PENSION SYSTEM?

- We want to improve people lives
- Positive impact on the society
- Lot`s of opportunities to improve social security systems
- Globalization

decentralization and crypto is awesome!!!

PAYG / Redistribution Scheme

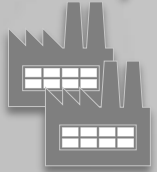
Employee



Contributions to the pension fund from current salary

Pension points for later retirement

Companies



Employer's contribution to pension



Country



Tax subsidy

Pensioner



Monthly pension payment

Pros

- Inflation save
- Connected to current salaries
- Government protects you against risks

Cons

- Must be mandatory

Idea

- Tokenization of pension points => DECENTRALIZED PENSION TOKEN (DPT)

INCENTIVATION MODEL

Join early and profit

$$f(x) = 1.5 - \log(0.12 * x)$$

Pay longer - receive longer (40 years)

$$ReciveTimeInMonths = \frac{(\sum PaymentMonth)^2}{12*40years}$$

Pay more ETH - receive more DPT

$$DPTs = 1 + \frac{amount - amount_{max}}{TargetPrice - amount_{max}} * DPTFactor$$

Pension smartcontract

```
contract Pension {
```

```
    deposit(uint256 amount) public payable returns (bool)
```

```
    claim(uint16 year, uint8 month) public returns (bool)
```

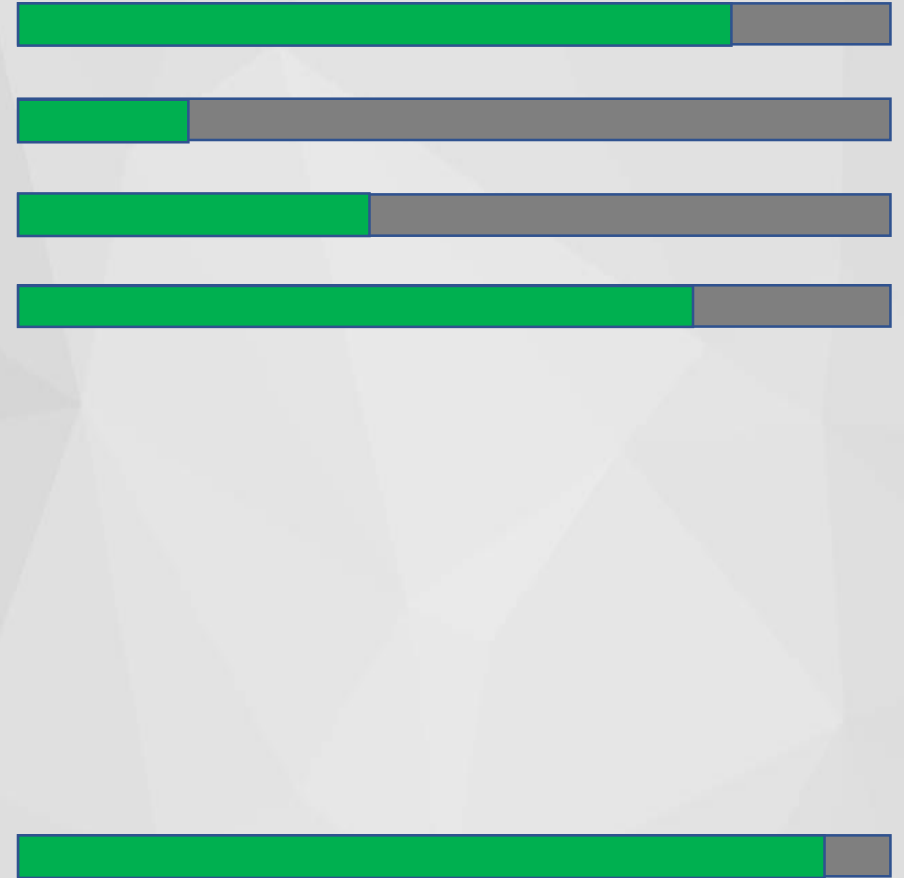
```
    retire(uint256 amount) public returns (bool)
```

```
    withdraw(uint16 year, uint8 month) public returns (bool)
```

```
}
```

WHAT IS DONE

- Smartcontract structure
- dApp
- Simulation
- Pensions Components
 - Payment
 - ✓ Early Access incentivation
 - ✓ Longterm incentivation
 - ✓ Pay more incentivation
 - Payouts
 - ✓ Zero game payouts
 - Leave last incentivation
- Deployment



Lessons learned

- People must only participate once
- People who leave the system last are at a disadvantage
- Hackathon is the best place to start with ideas
- ...

THANK YOU



ETHBERLIN

HACKATHON / WORKSHOPS / TALKS

Demo: <https://ethberlin.asure.io>

GitHub: <https://github.com/AsureFoundation/ETHBerlin>