How to use the Real Estate Smart Contract

Steps

Account	Action
Gov	Deploy contract Property ID: Switzerland1 Symbol: CH1 MainOwner: Choose an address Tax: Choose a tax rate
Gov	addStakeholder (different address from the main owner)
MainOwner	Transfer X tokens to stakeholder (to verify, use “showSharesOf”
MainOwner	canPayRent (to add a tenant)
MainOwner	setRentper30Day (in wei)
Tenant	payRent (# of months, then the value of the tx must match #months * rent in wei)
Any	Revenues (check revenue of Gov, must be % of tax rate)
Any	accumulated (check how much rent is accumulated, pending distribution and withdrawal)
Gov	distribute (to distribute the accumulated ETH)
Stakeholder	withdraw (to withdraw own funds, a stakeholder can be an investor or the main owner)

Optional

Account	Action
Gov	banStakeholder
Gov	seizureFrom
Gov	setTax
Stakeholder	claimOwnership
Gov	setAvgBlockTime
MainOwner	limitAdvancedRent

Real Estate Smart Contract

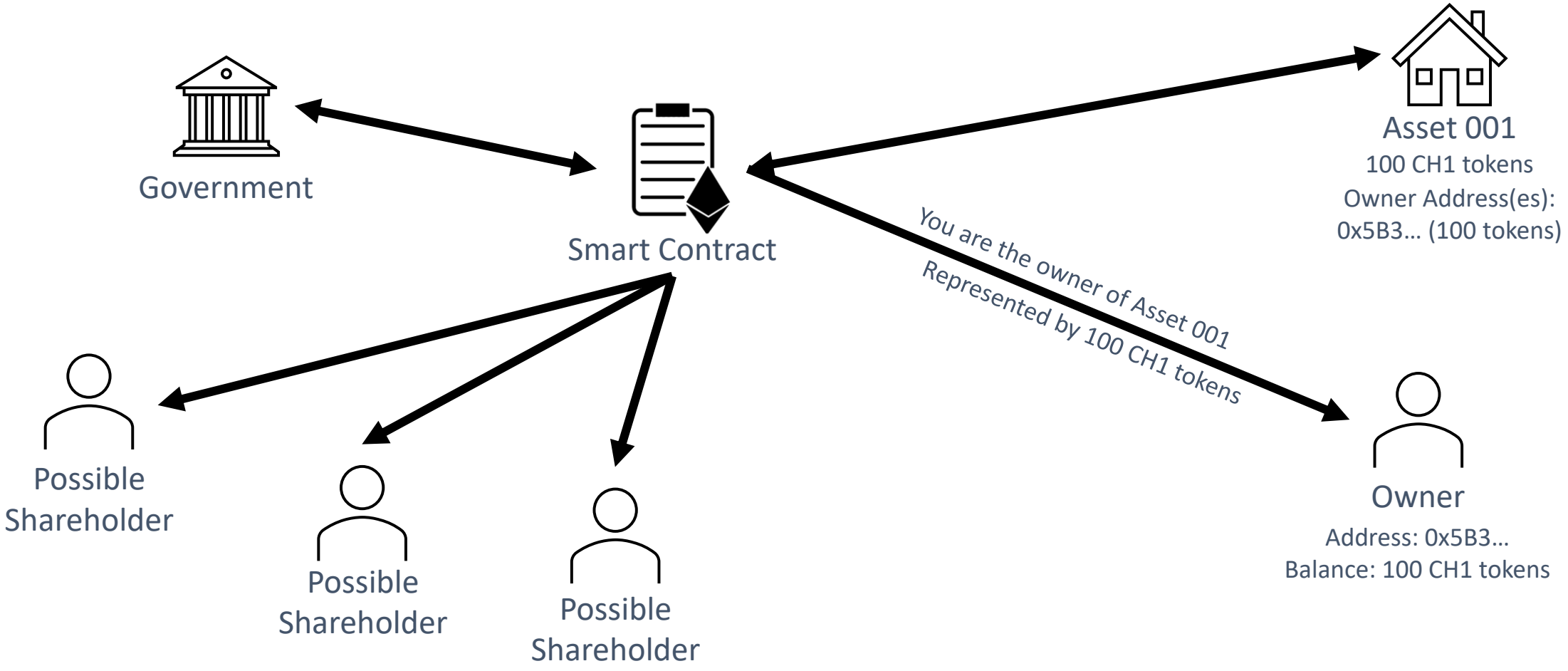
Presented by: Pirmin Can Özdemir and Manuel Baez

Mission

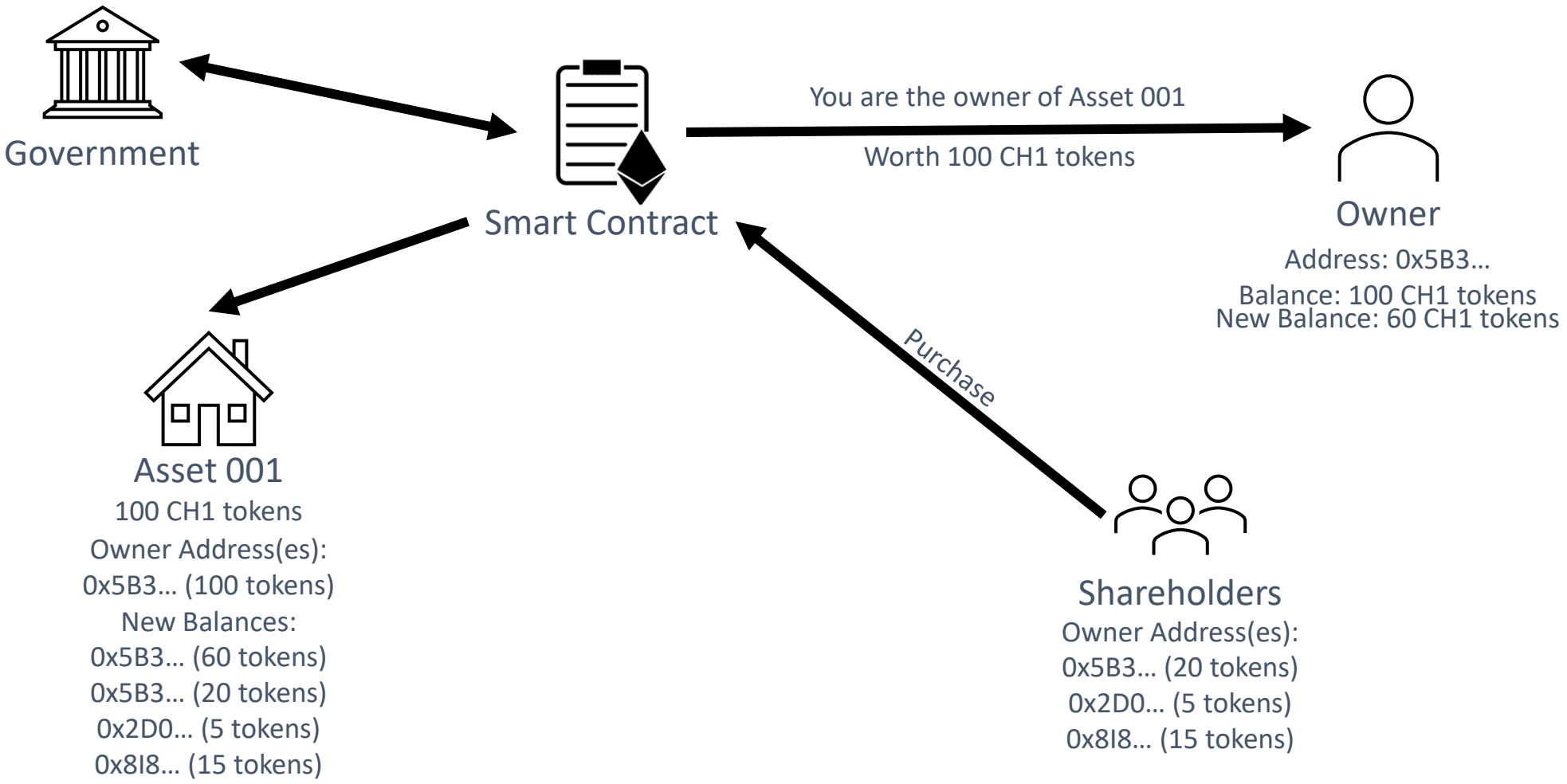
Provide micro-REIT with Property Management

One contract, one home

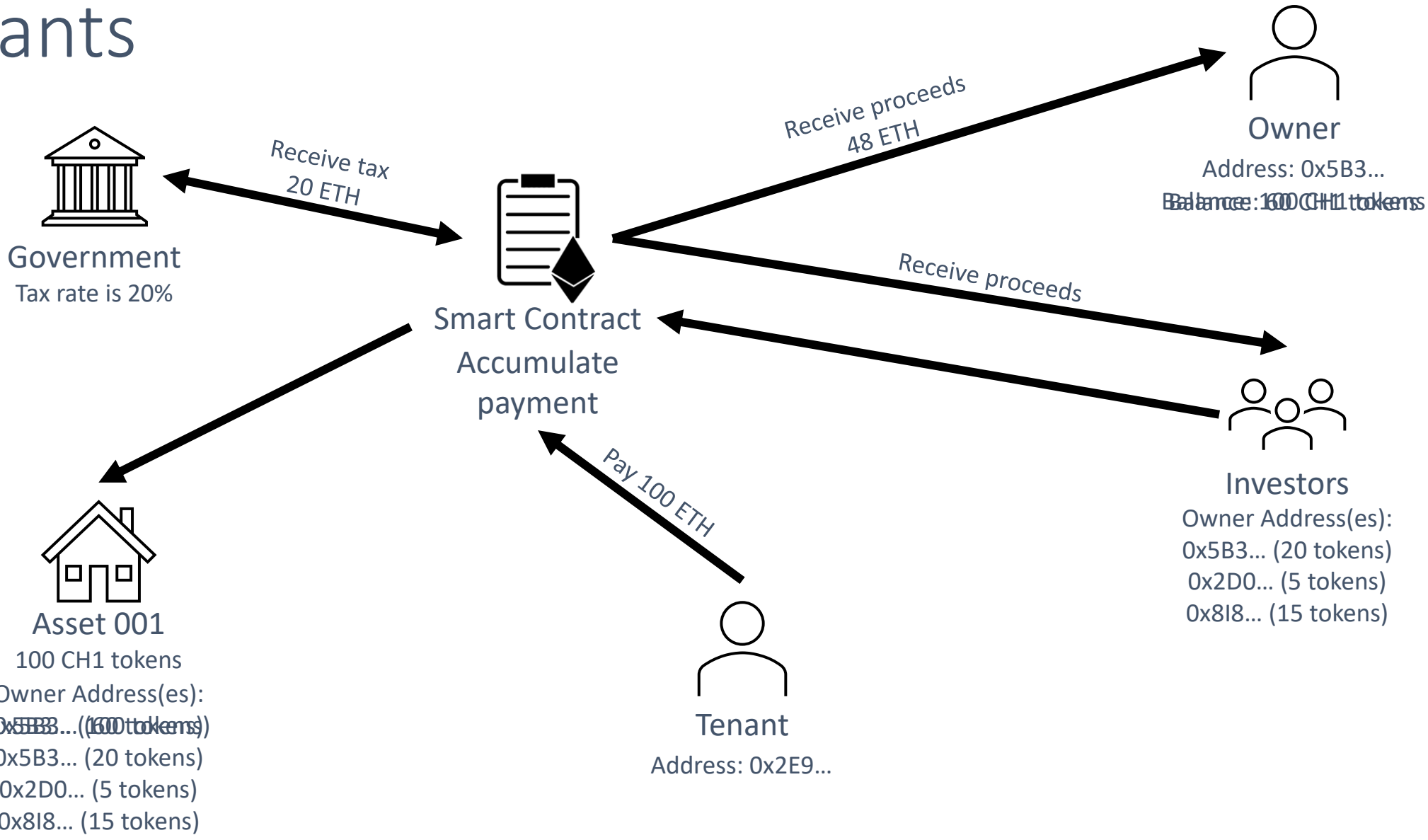
How does it work?



Shareholders



Tenants


Government
Tax rate is 20%
Receive tax
20 ETH
Receive proceeds
48 ETH
Owner
Address: 0x5B3…
Balance: 100 CH1 tokens
Receive proceeds
Smart Contract
Accumulate
payment
Investors
Owner Address(es):
0x5B3… (20 tokens)
0x2D0… (5 tokens)
0x8I8… (15 tokens)
Pay 100 ETH
Asset 001
100 CH1 tokens
Owner Address(es):
0x5B3… (20 tokens)
0x2D0… (5 tokens)
0x8I8… (15 tokens)
Tenant
Address: 0x2E9…

The Smart Contract

- Tokenizes real estate
- Allows property rental
- Taxes are automatically deducted from incoming rent payments
- Revenue is distributed to shareholders based on percentage of ownership

Roles and Capabilities/Restrictions

Government

- Add stakeholders
- Ban stakeholders
- Distribute accumulated funds
- Seize assets of shareholders
- Set average block time (default 13)
- Set tax rate

Tenant

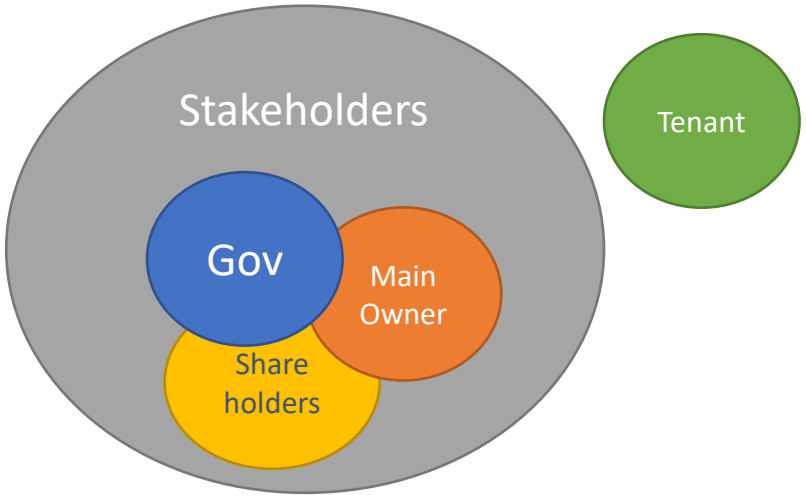
- Can pay rent

Main Property Owner

- Decide who can be a tenant
- Limit how many months rent can be paid in advance (default 12)
- Set rent price per 30 days

Any Stakeholder

- Claim ownership (if owns 51% or more)
- Transfer shares to other owners
- Withdraw funds



Demo