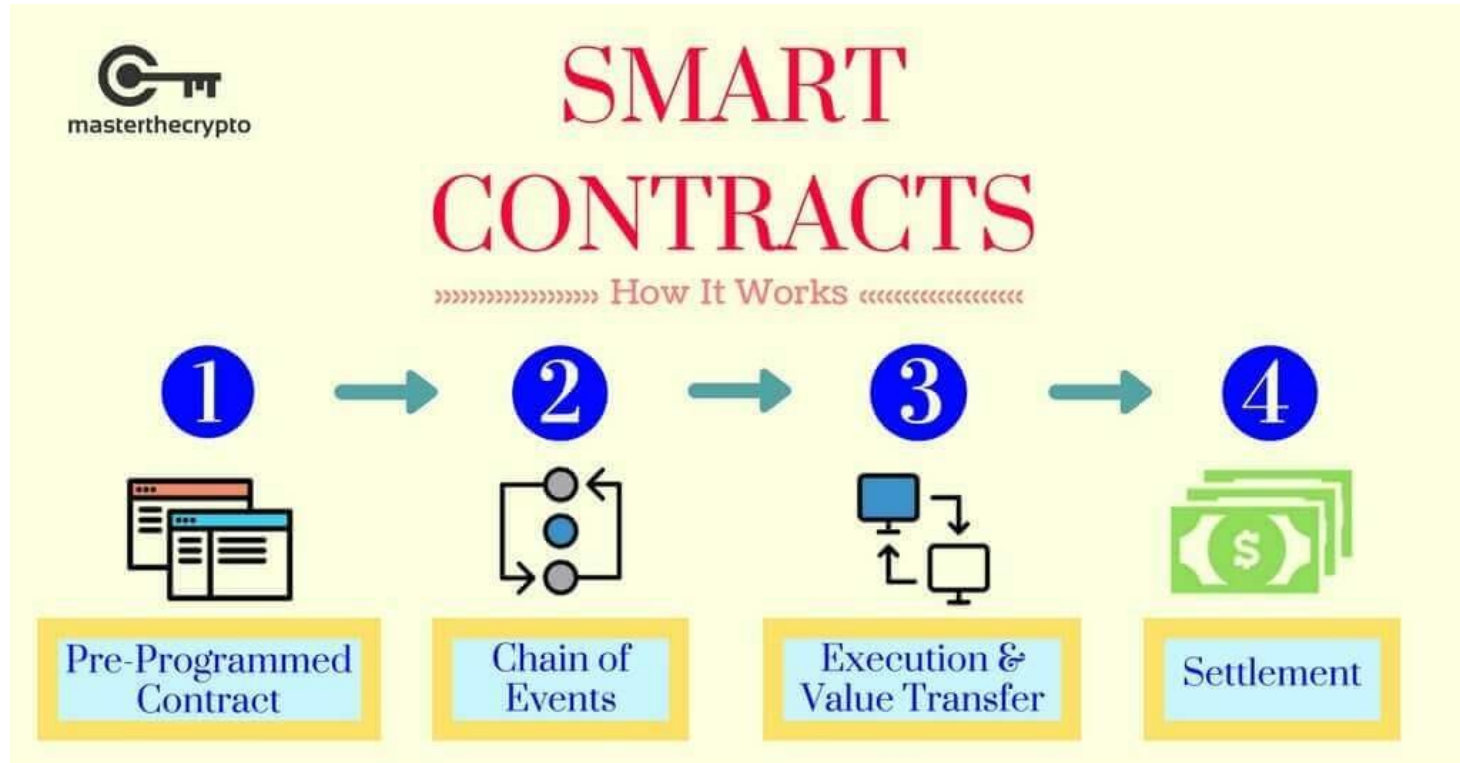# Smart Contracts

Smart contract

```
1   contract MetaCoin {
2     mapping (address => uint) balances;
3
4     function MetaCoin() {
5       balances[tx.origin] = 10000;
6     }
7
8     function sendCoin(address receiver, uint amount) returns(bool sufficient) {
9       if (balances[msg.sender] < amount) return false;
10      balances[msg.sender] -= amount;
11      balances[receiver] += amount;
12      return true;
13    }
14
15    function getBalance(address addr) returns(uint) {
16      return balances[addr];
17    }
18  }
19  |
```
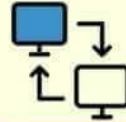
Smart contract

masterthecrypto

SMART CONTRACTS

»»»»»»»»»»» How It Works «««««««««««««

1 → **2** → **3** → **4**

Pre-Programmed Contract

Chain of Events

Execution & Value Transfer

Settlement

Physical Object   Digital Twin

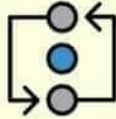# Token economy

Energy ?

- Local Energy Communities

- Demand Side Management / Demand Response

- Product/Service Systems