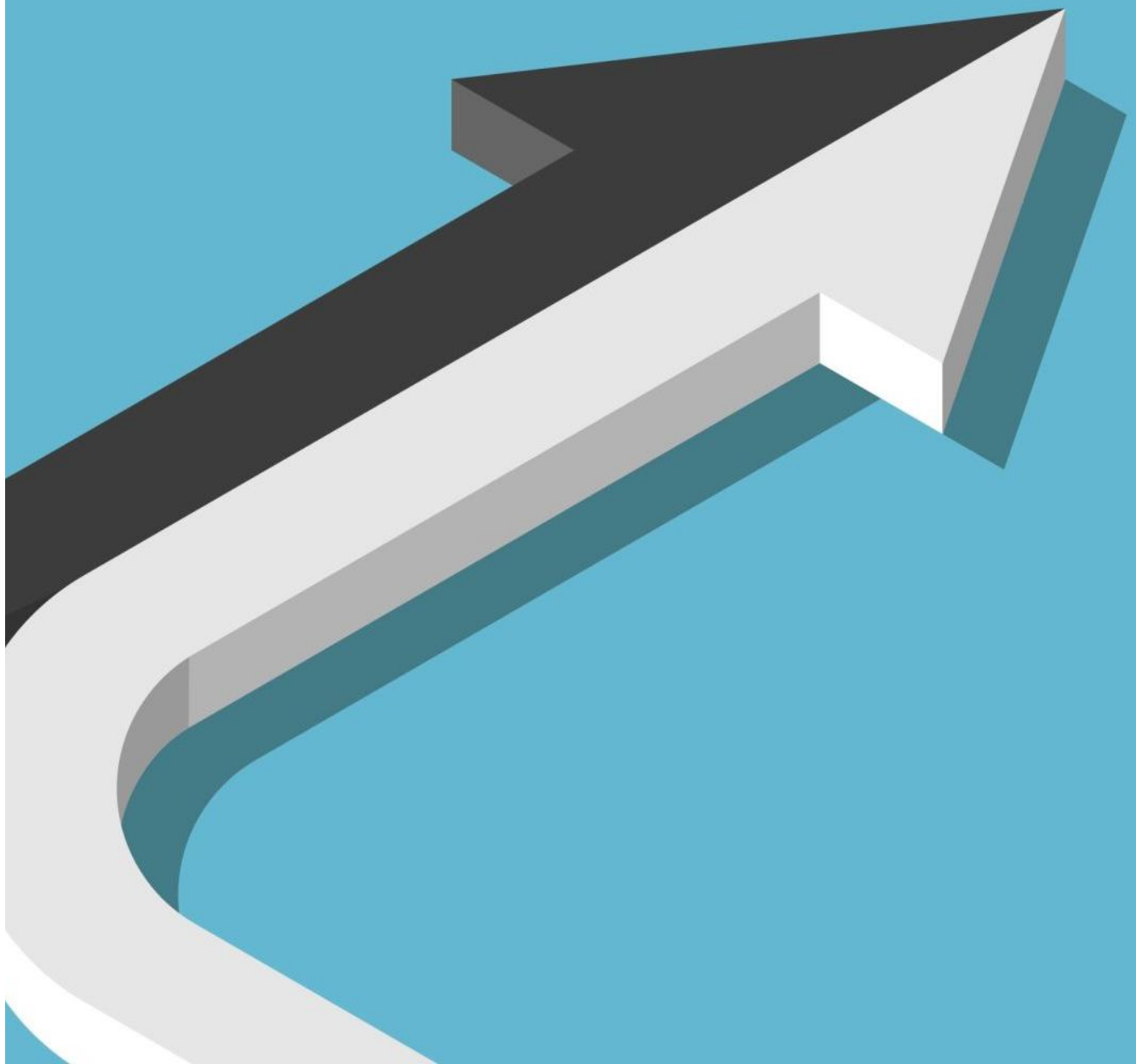
SMART VOTING

Luxembourg

Public

Blockchain

by stampify




Stomatologia

PUBLIC ELECTIONS PROBLEMS

- Lack Trust and Transparency
  - > 59% of Americans (USNEWS, 2020)
- Time & Money consuming
  - > 11.000 working days (Estonia, 2020)
- Paper is too complex
  - > 4% of error (Paperjam, 2020)
- Electronic systems are unreliable
  - > “Unsafe source code” (PWC, 2014)

smart voting

FASTER

TRUSTED

TRANSPARENT

USER-FRIENDLY

REDUCE COSTS

Operational feasibility

Smart ID

Citizen private & public keys

Accessible

From any electronic device

Voting

Anonymous and secured

smart voting

Design and technical implementation

smart voting

The Smart Voting contract allows to manage :

- **Voting time**
- **Data encryption**
- **Voting secrecy**
- **Voting validation**
- **Voting results**

55 lines (47 sloc) | 1.19 KB

```
// SPDX-License-Identifier: MIT
pragma solidity >=0.4.22 <0.8.0;

contract Meeting {
  address public owner = msg.sender;
  uint public time_begin;
  uint public time_end;
  mapping(address => string) public cyphered_votes;
  uint public votes_for;
  uint public votes_against;
  uint public votes_empty;

  modifier restricted() {
    require(
      msg.sender == owner,
      "This function is restricted to the contract's owner"
    );
    _;
  }

  modifier open() {
    require(
      block.timestamp > time_begin && block.timestamp < time_end,
      "This function is restricted to an open contract"
    );
    _;
  }

  modifier after_end() {
    require(
      block.timestamp > time_end,
      "This function is restricted to a finished contract"
    );
    _;
  }

  constructor(uint tb, uint te) public {
    time_begin = tb;
    time_end = te;
  }

  function get_vote_cypher(address addr) public view returns (string memory) {
    return cyphered_votes[addr];
  }

  function set_vote(string memory vote) public open {
    cyphered_votes[msg.sender] = vote;
  }

  function set_result(uint vf, uint va, uint ve) public restricted {
    votes_for = vf;
    votes_against = va;
    votes_empty = ve;
  }
}
```

Inventiveness and originality

smart voting

A Universal Smart Contract

to operate a Trusted and Inkless Democracy.

"Les jeunes DP plaident pour l'e-voting dès 2028"
Paperjam, 21SEP20.