smart**primes** - Advanced Information Security

Company & Product

Vision & Mission

Vision

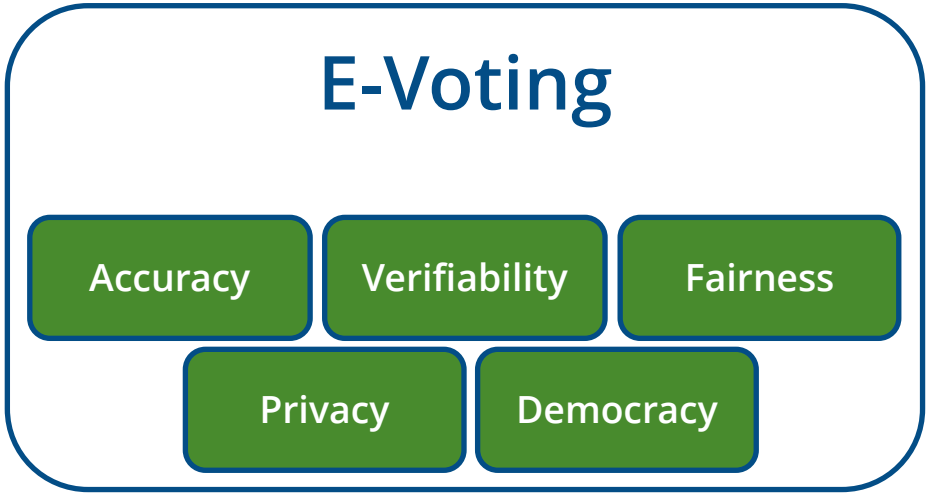
Leading provider of software solutions in crucial areas as e-Voting – information security pushed to a new level!

Mission

By applying modern cryptography we engineer software solutions for secure and verifiable processes.

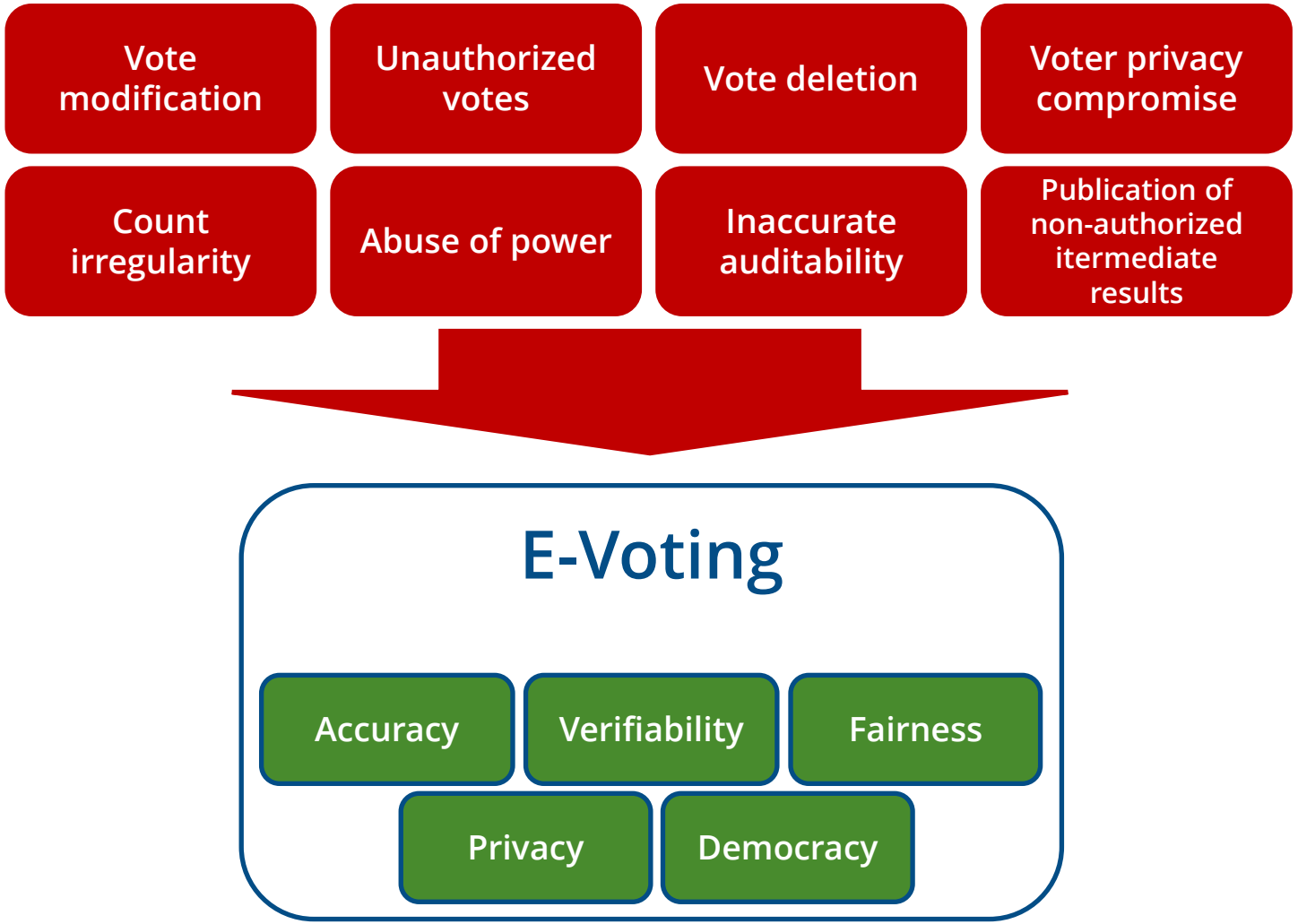
Requirements for a Voting System

- **Accuracy** – Votes can not be modified (integrity) and not be deleted (completeness).
- **Democracy** – Only eligible people can vote and they can only vote once.
- **Fairness** – No intermediate results can be published.
- **Privacy** – Nobody sees, if and how somebody has voted.
- **Verifiability** – Anybody is able the verify the voting.

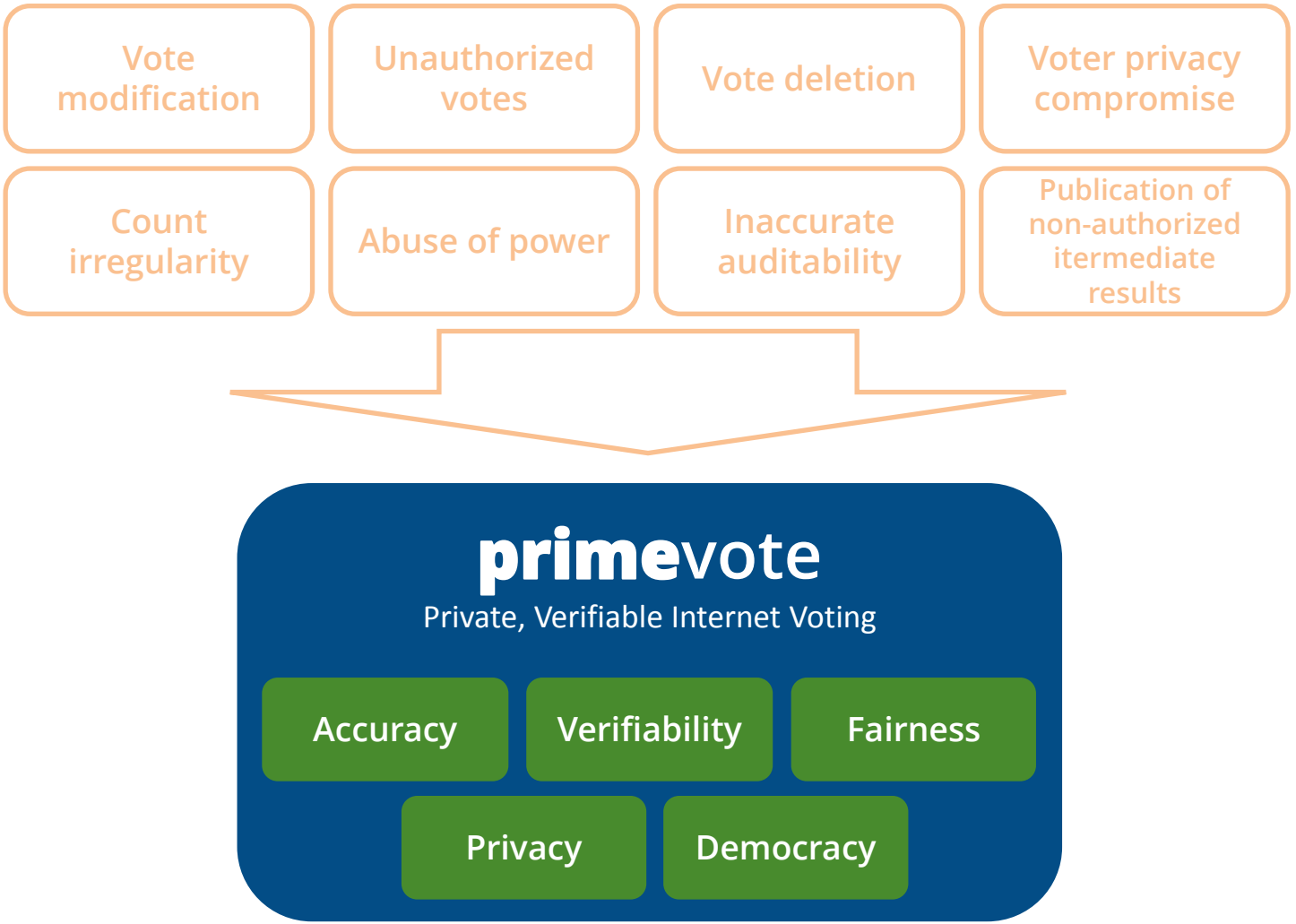


Requirements f

Threats


Vote modification
Unauthorized votes
Vote deletion
Voter privacy compromise
Count irregularity
Abuse of power
Inaccurate auditability
Publication of non-authorized itermediate results
E-Voting
Accuracy
Verifiability
Fairness
Privacy
Democracy

Solution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primevote
Private, Verifiable Internet Voting
Accuracy
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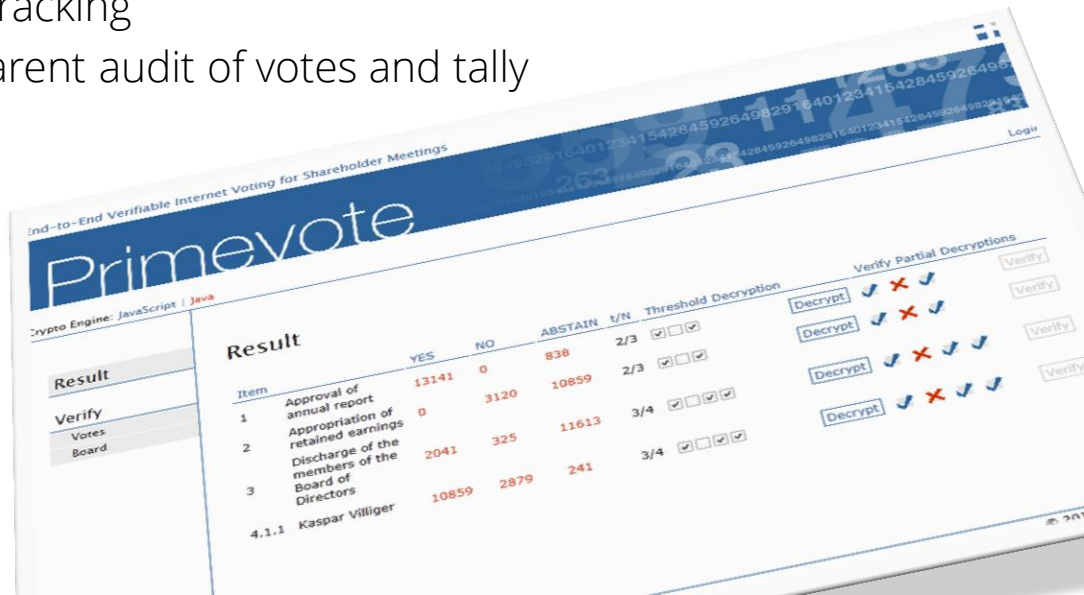
Democracy

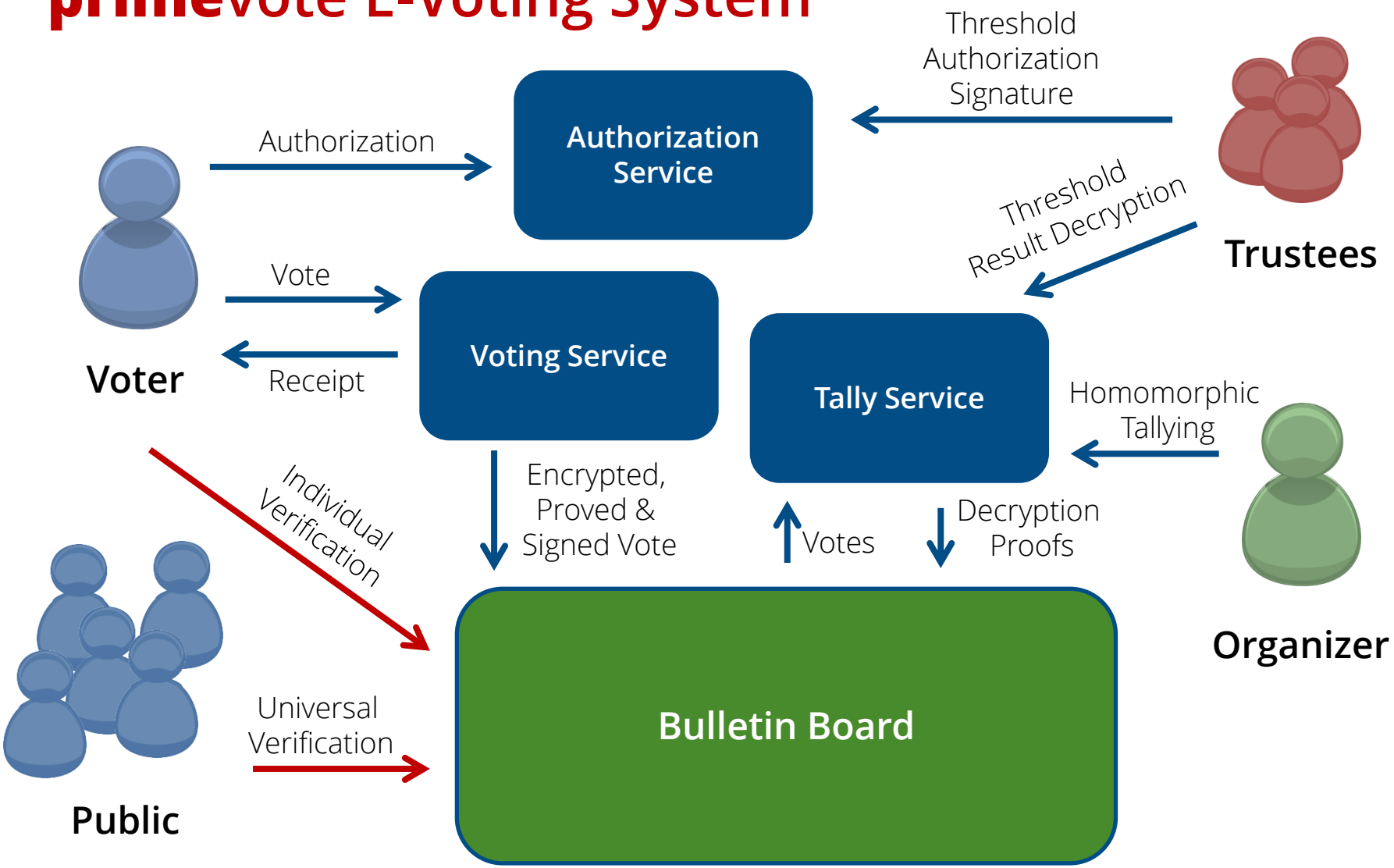
primevote – Private, Verifiable Internet Voting

- **Prototype developed during the MSE master thesis by Halm Reusser and Christoph Galliker**
- **Technology based on modern cryptographic protocols**
  - Privacy protection
  - Authority distribution
  - Robust against internal or external manipulation
- **End-to-End Verifiability**
  - Individual verifiability – Ballot tracking
  - Universal verifiability – Transparent audit of votes and tally

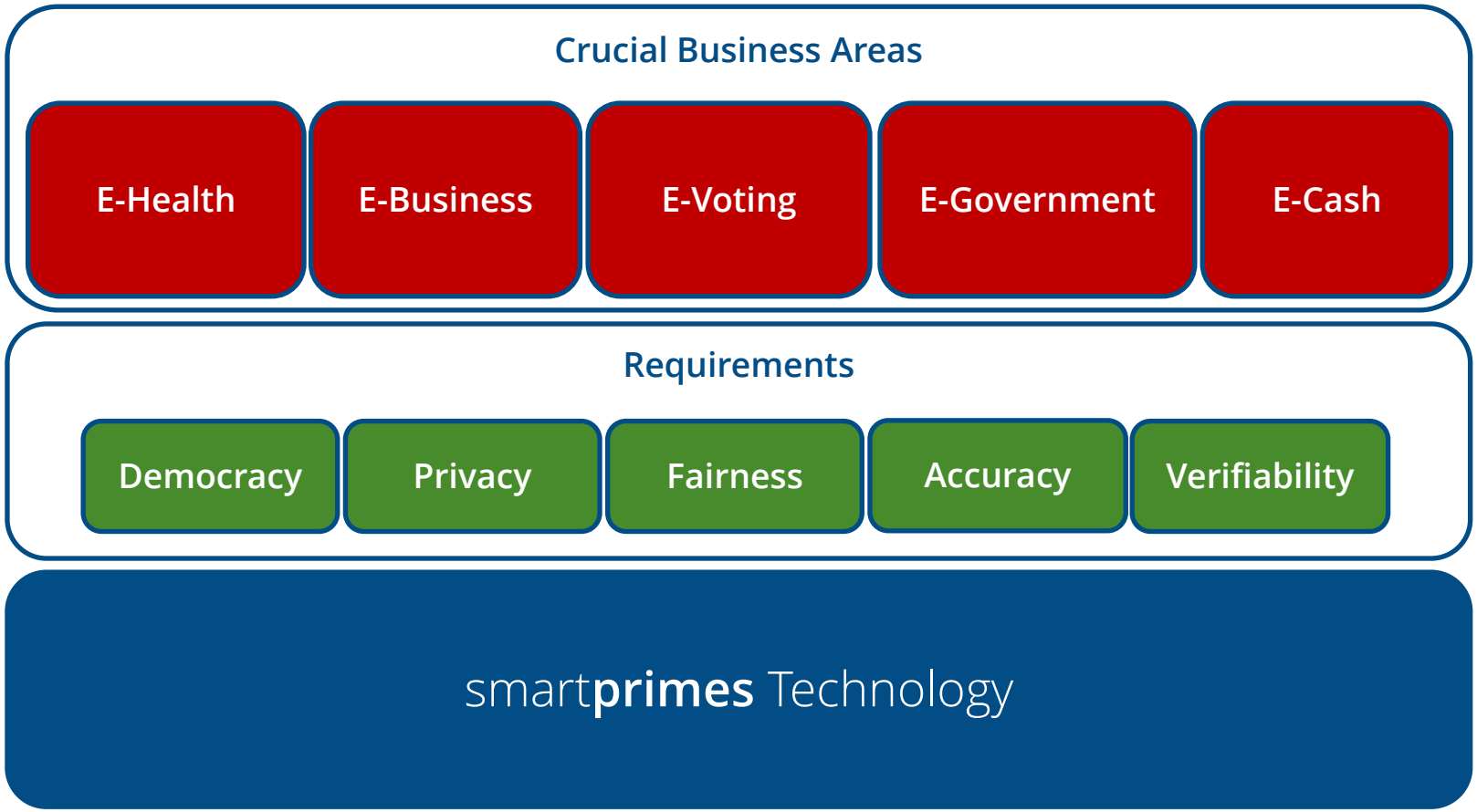
Due to the verifiability, people will trust more in primevote than postal voting.



primevote E-Voting System



More smartprimes Business Areas



Team

Halm Reusser

MSc in Engineering
Co-Founder

CEO
- Finance & Administration
- Human Resources
- Project - & Product Management

Christoph Galliker

MSc in Engineering
Co-Founder

Director
Business Development
- Legal
- Research
- Marketing & Sales

Dani Michel

MSc in Engineering

CTO

Advisory

UAS Rapperswil

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Dipl. El. Ing. ETH
Head of Institute for
Internet Security

CTI Start-up Coaching

Hans Oury
Dipl. El. Ing. FH
MAS Corporate Finance

E-Voting Competence Center

Prof. Dr. Eric Dubuis
Dr. sc. techn. ETHZ
Vice President


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