

Blockchain Technology: An Emerging Issues Forum

Thursday September 13, 2018

#aaaBC2018



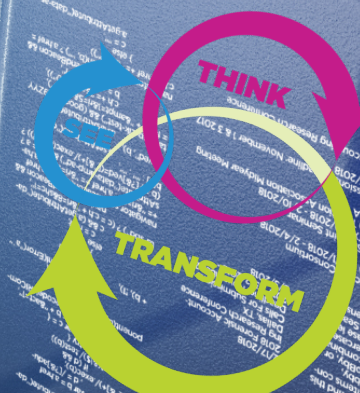
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Sustainability and Internal Control Issues

Robert Hirth
Protiviti

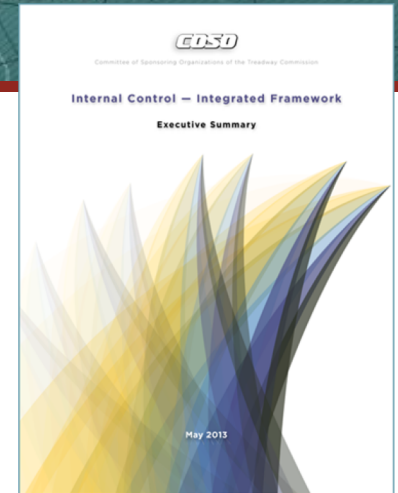




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Principle 9: The Organization Assesses Change...

- External, Internal, Business Model, Leadership



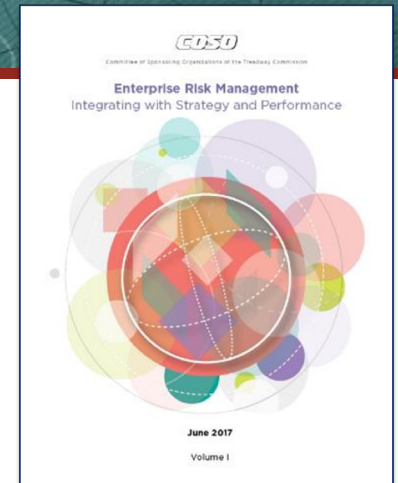
“Technology innovation creates both opportunities and risks... It may increase complexity, which makes identifying and managing risk more difficult...The principles presented in this framework do not change with the application of technology... it affects how an organization designs, implements, and conducts internal control, but the same principles remain suitable and relevant.”



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Principle 15: Assesses Substantial Change

“When innovation is introduced, risk responses and management actions will likely need to be modified”



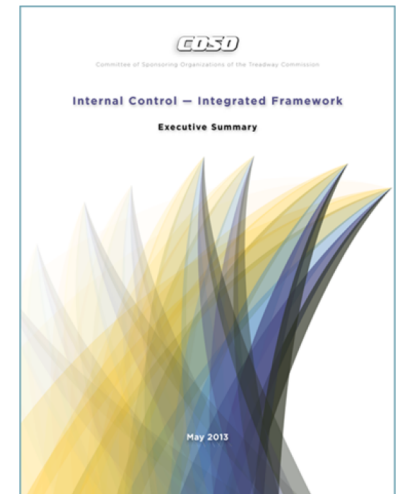
Blockchain Internal Control Issues

Issues

- **NEW** technology, processes and controls
- Security, availability, privacy
- Lack of standards
- De-centralized
- Irreversible, unalterable
- MORE...

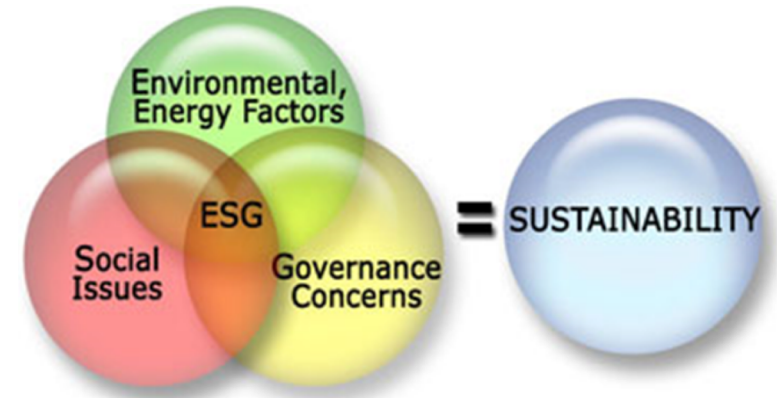
Positives

- Strong Audit Trail
- Immutability
- Faster
- Automated controls, execution
- Irreversible, unalterable
- Reduces counterfeiting
- MORE...



Definition of Sustainability and ESG Factors

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”





Blockchain Sustainability Issues

ISSUES

- Energy use and source
- Data security and privacy
- Availability, continuity
- Adoption time horizon and inclusion
- MORE...

POSITIVES

- Lower cost?
- Faster settlement, verification
- Validation of energy source
- Other supply chain sourcing validations and increased visibility, traceability
- Industry collaboration
- MORE...