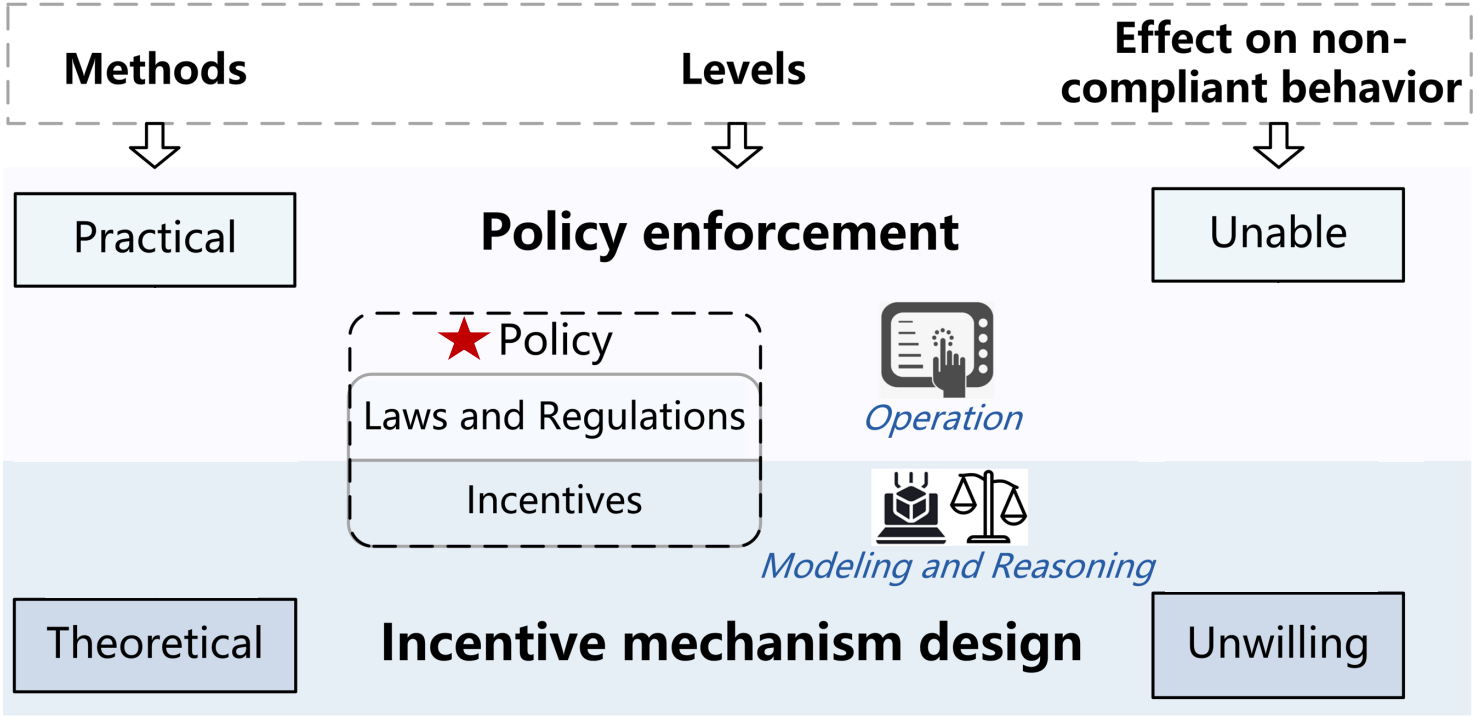
Policy Enforcement for Data Security

DL4LD Steering Committee Meeting
Speaker: Xin Zhou

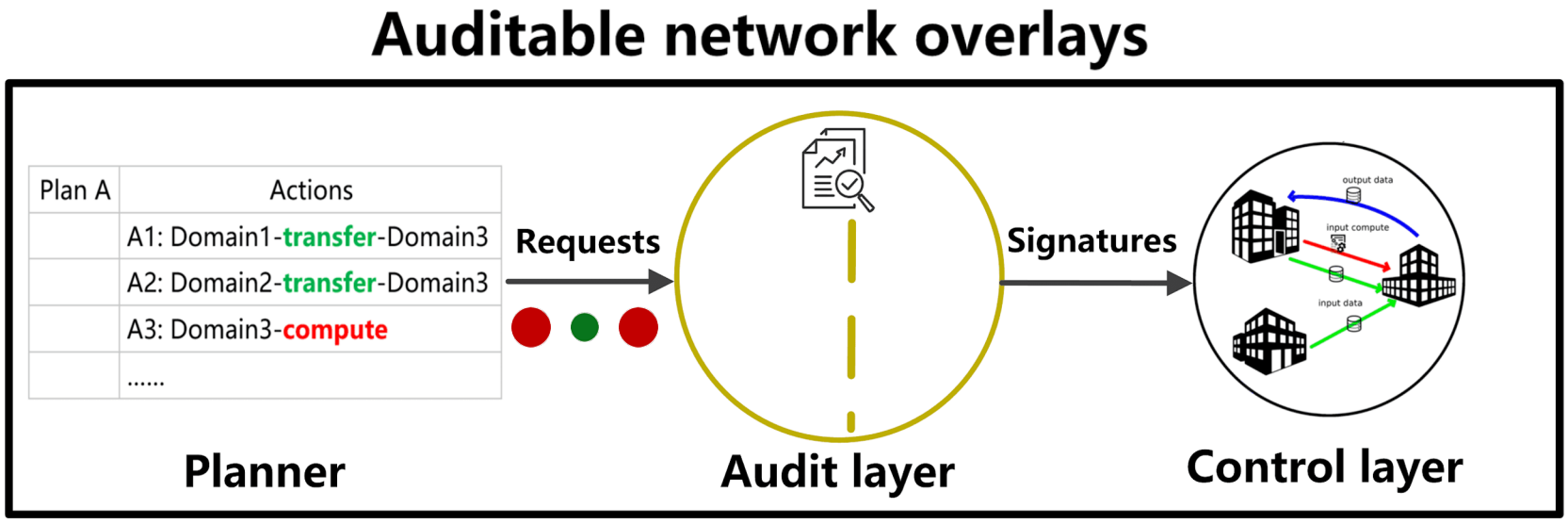
16th June 2022

Complex Cyber Infrastructure

Policy enforcement for data security



Work 1 Policy Enforcement for Data Sharing



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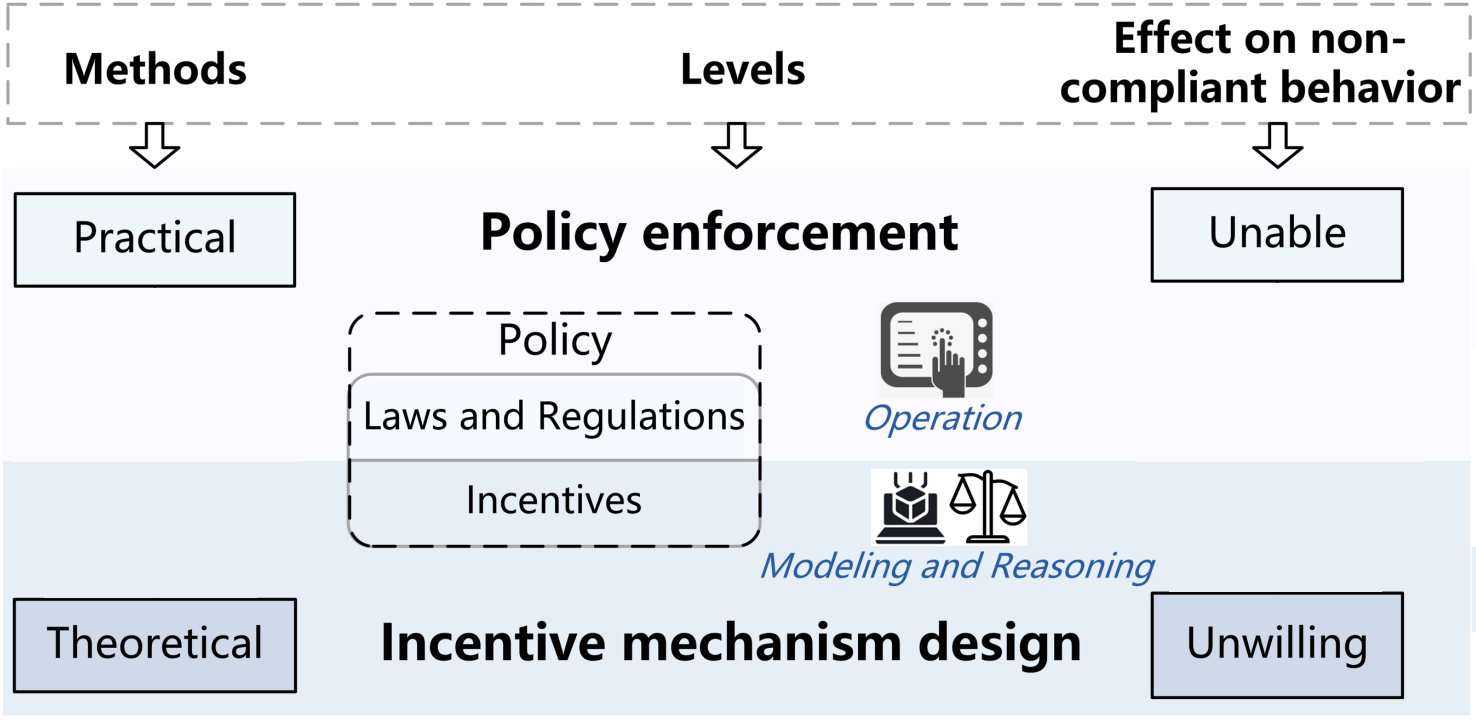
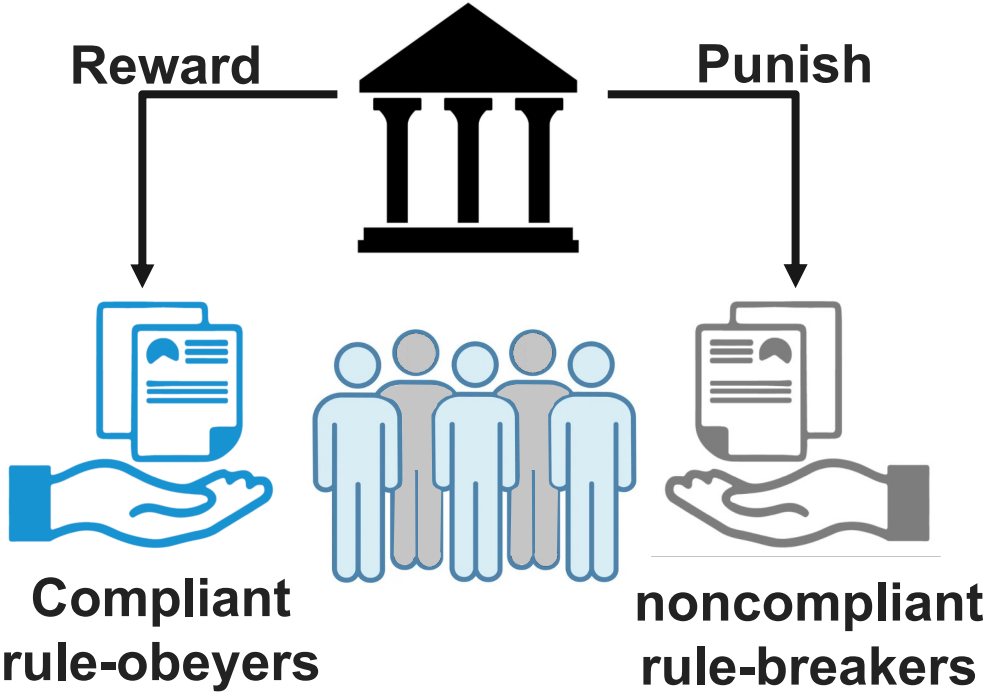


Work 2 Costly incentives design



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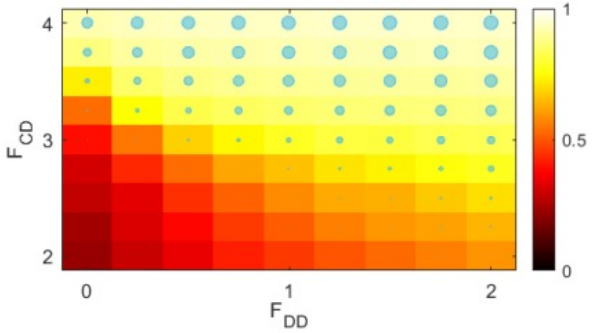
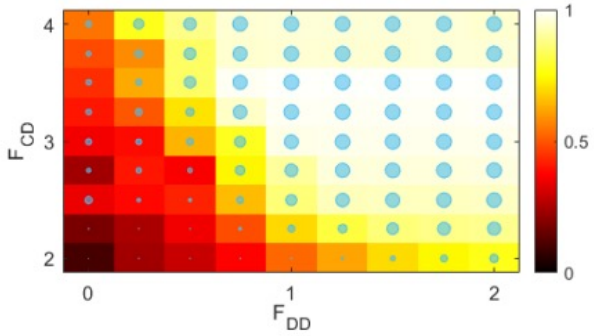
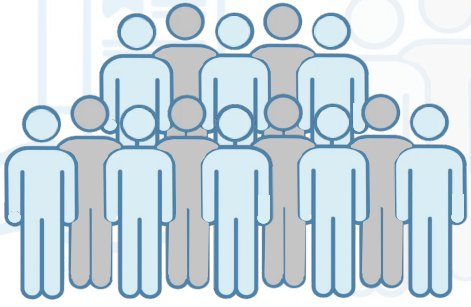
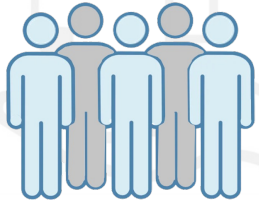


(d) Pure punishment, $\beta = 1$

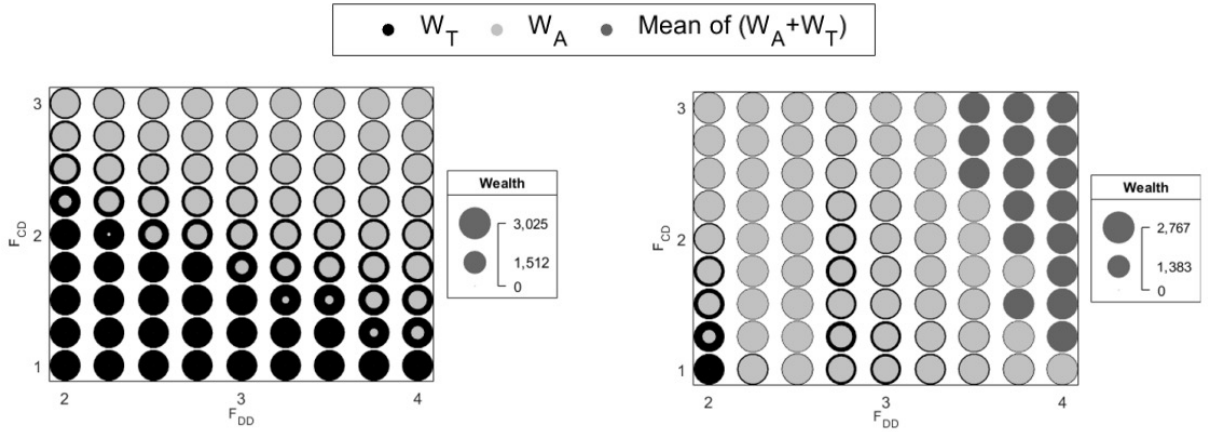


(e) Pure punishment, $\beta = 2$



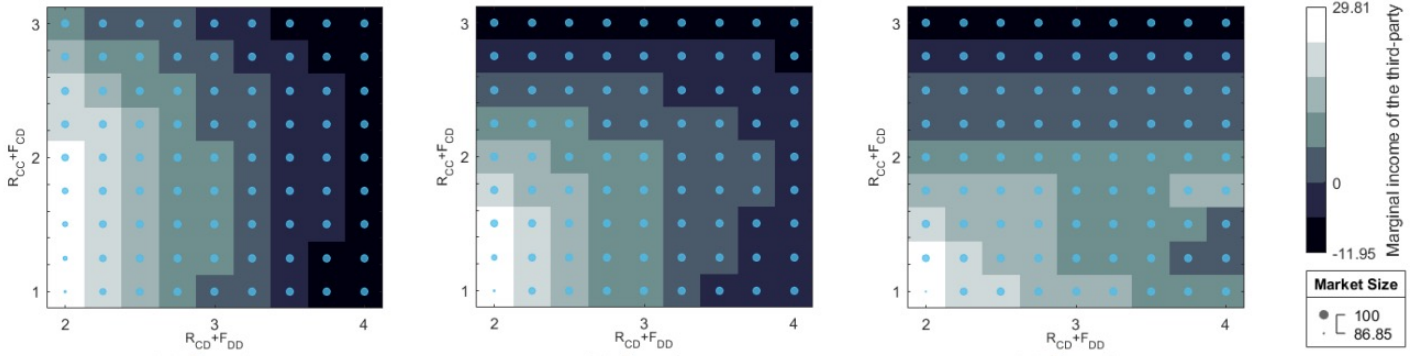


Work 2 Costly incentives design



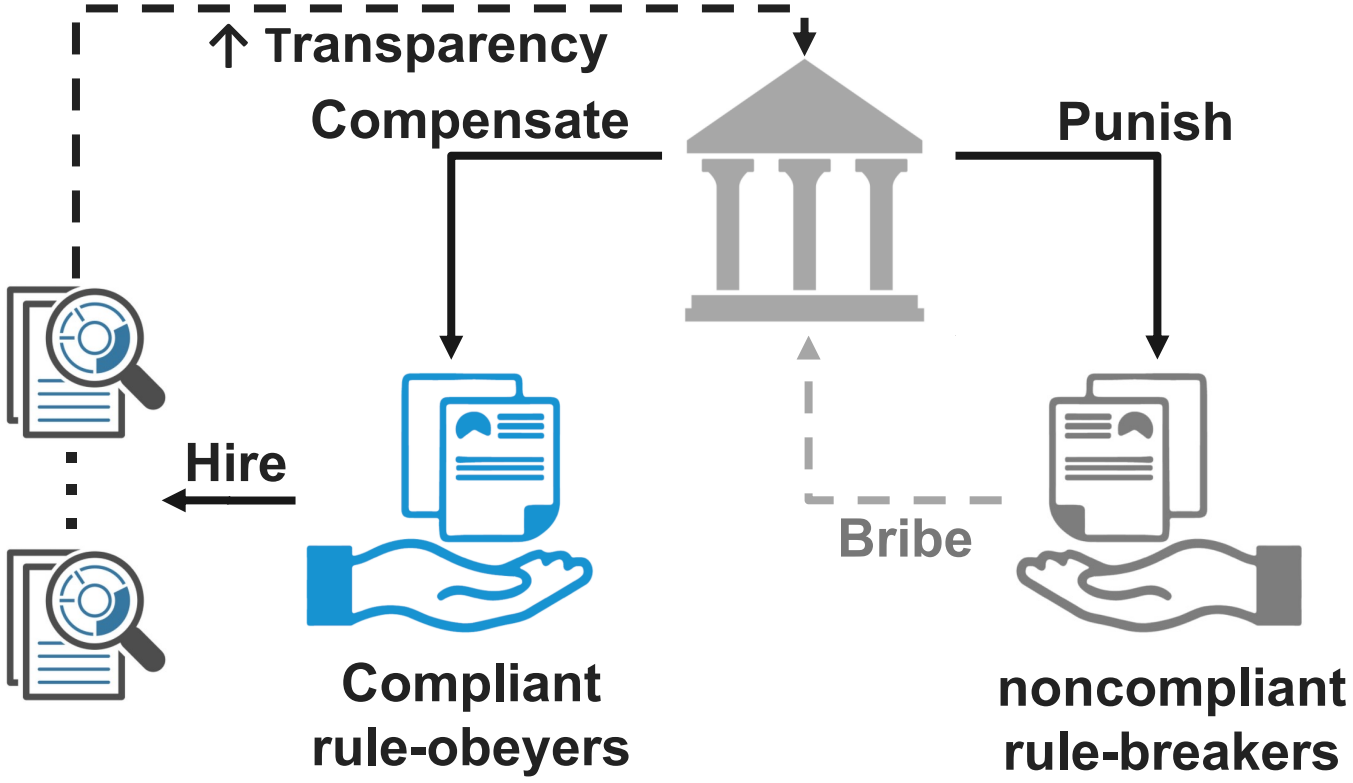
(a) $\beta = 1$ (b) $\beta = 4$

Work 2 Costly incentives design



(a) $\beta = 1$ (b) $\beta = 2$ (c) $\beta = 4$

Work 3 Auditors, a way out facing corruption



Work 3 Auditors, a way out facing corruption

Work 3 Auditors, a way out facing corruption

- To what extent can auditing contain corruption?
  - U_h U_c
- How many cooperators will select hiring an auditor?
  - C_a $C_{\bar{a}}$ D

Work 3 Auditors, a way out facing corruption

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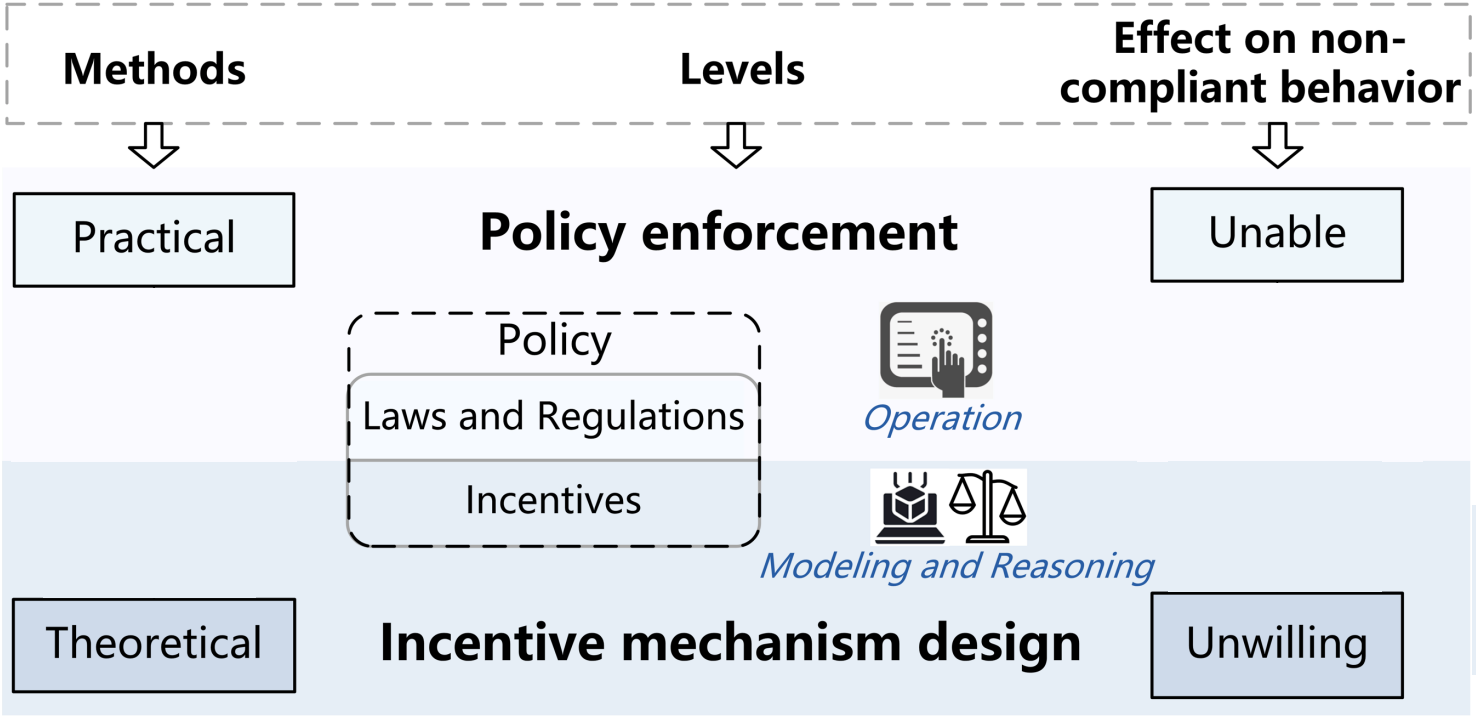
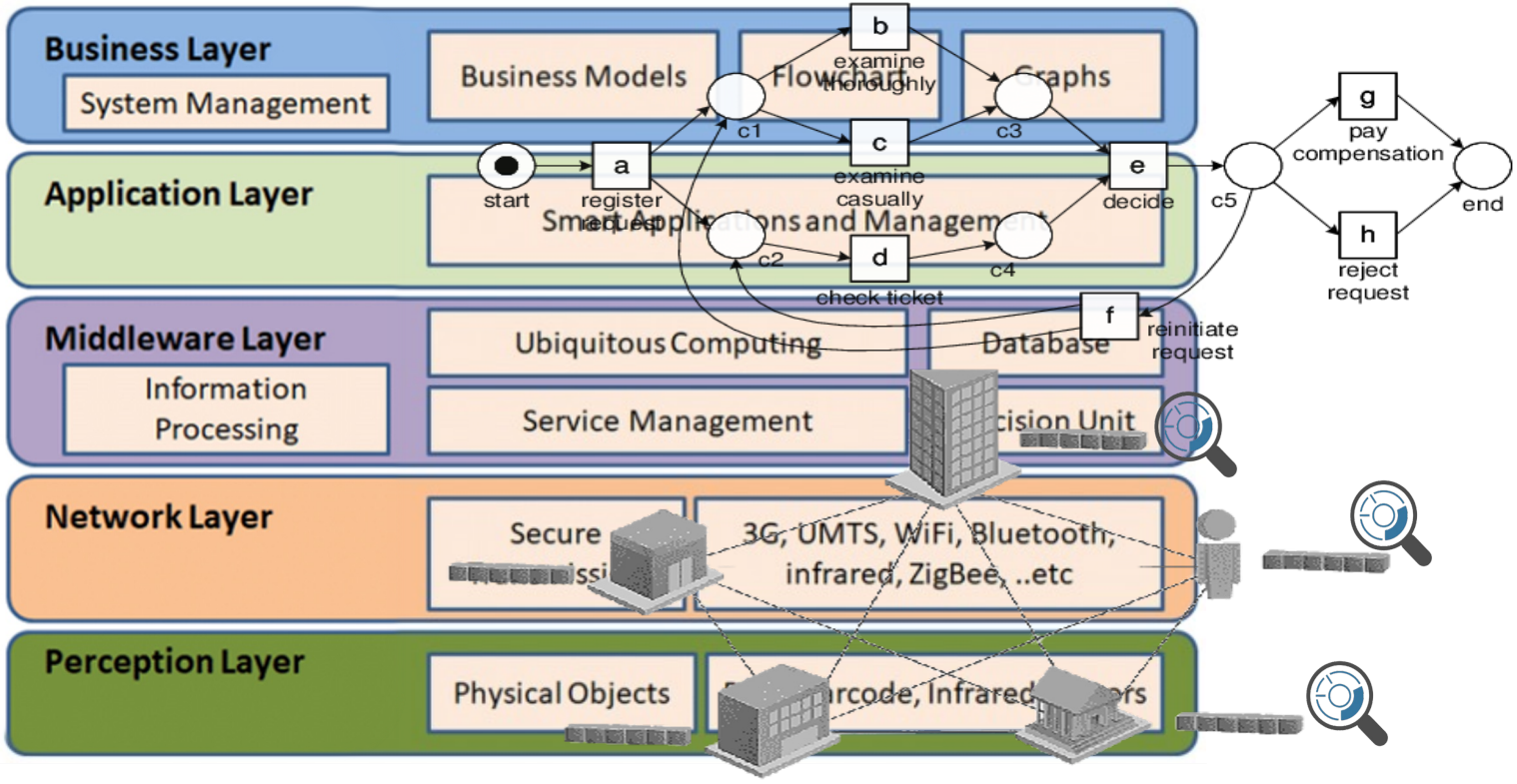


Work 4 Post-auditing by blockchain



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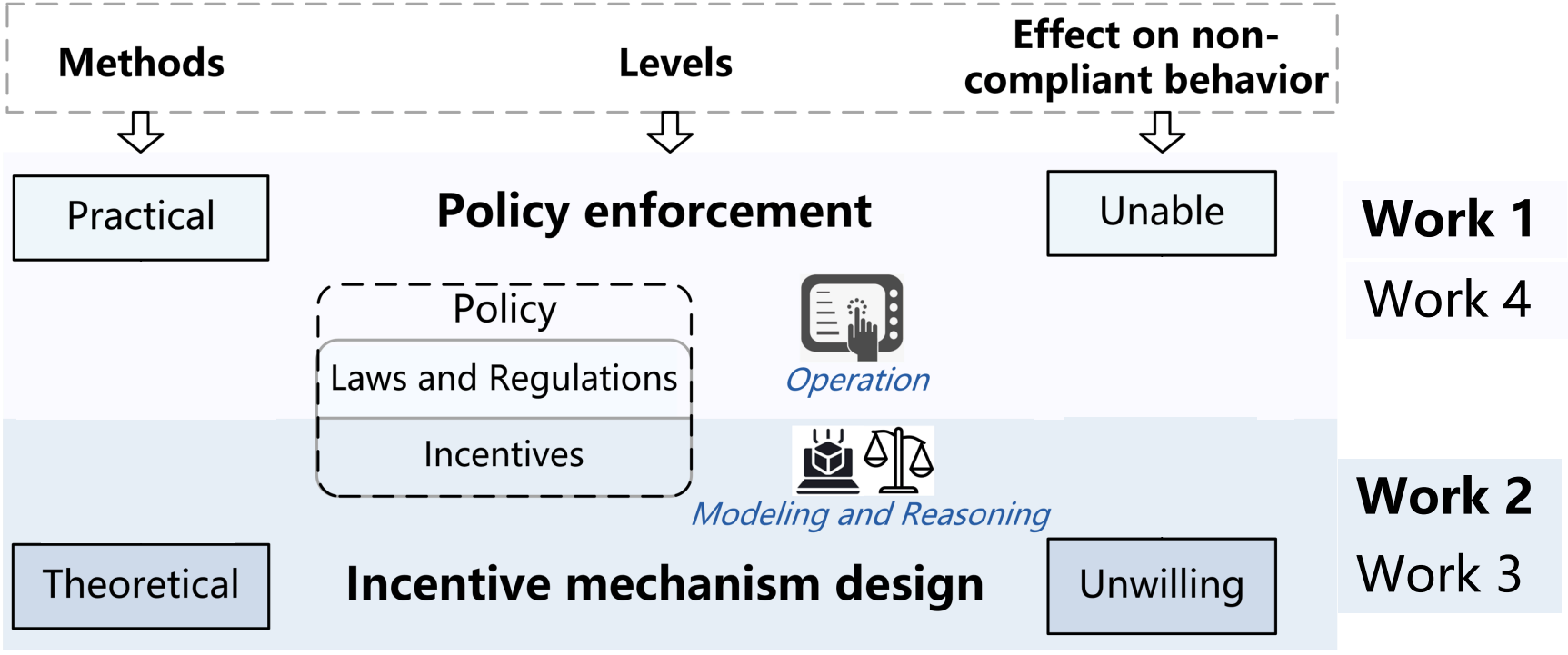

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