

# Innovation & Business Exercise, IB4

## Enterprise Blockchain ROI, Do You Even Need a Blockchain?

Digital Finance, BSc Course

Prof. Dr. Joerg Osterrieder

Companion to “Enterprise Blockchain ROI” | 18 min | Groups of 3 to 4

**The necessity gate.** Answer in order; the first “No” is your verdict.

- Q1.** Do *multiple* parties need to write to the same shared state? (No ⇒ **central database**)  
**Q2.** Do those parties *mutually distrust* each other? (No ⇒ shared DB with access control)  
**Q3.** Is there *no* neutral third party they all trust (or is one too costly / a single point of failure)? (No ⇒ use the trusted operator)  
**Q4.** Do you need a tamper-evident, append-only record *no single party controls*? (Yes to all ⇒ permissioned chain)

**Your task.** Run each scenario through the gate, write the verdict, then judge the TCO. Roles: **scribe**, **skeptic**, **presenter**.

**A.** One bank tracking its own internal loan ledger. Verdict: \_\_\_\_\_

**B.** Five rival banks financing the same shipments, each fearing double-financing fraud, with no neutral operator they all trust. Verdict: \_\_\_\_\_

**C.** One company wanting an immutable audit log of its own internal approvals. Verdict: \_\_\_\_\_

---

### Cost / benefit line

---

**TCO check (rate each H/M/L).** When does the consortium option actually pay?

Build + per-party integration

Ongoing nodes / governance overhead

Cross-party reconciliation & fraud savings

---

**Your output (present this).** Presenter, **90 seconds**: the verdict for A/B/C and the *one* condition under which a consortium chain’s ROI is positive.