

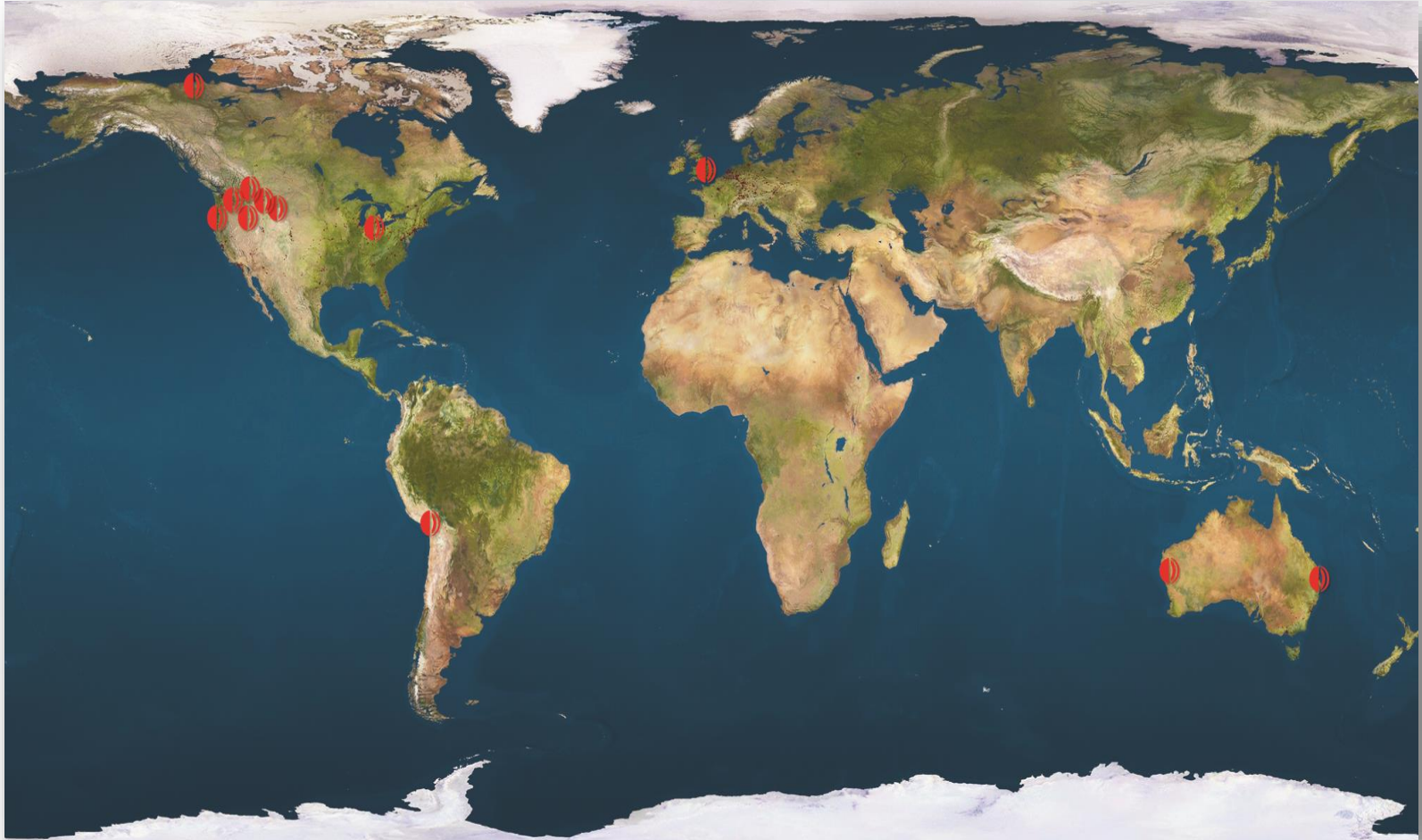


**Chief Executive Officer
Klohn Crippen Berger Ltd.**

Introducing KCB

- Predecessor geotechnical firm started in 1951
- Merged with multidisciplinary civil firm in 1991; became Klohn Crippen
- Louis Berger Holdings purchased half of firm in 1999
- Growth from 200 to 500 people since 2005
- Most revenue from private clients
- Most revenue as prime consultant
- Global practice but two-thirds from Canada

KCB Locations



Recent KCB Projects



San Francisco – Oakland Bay Bridge, California



Calgary Bow River Weir, Alberta

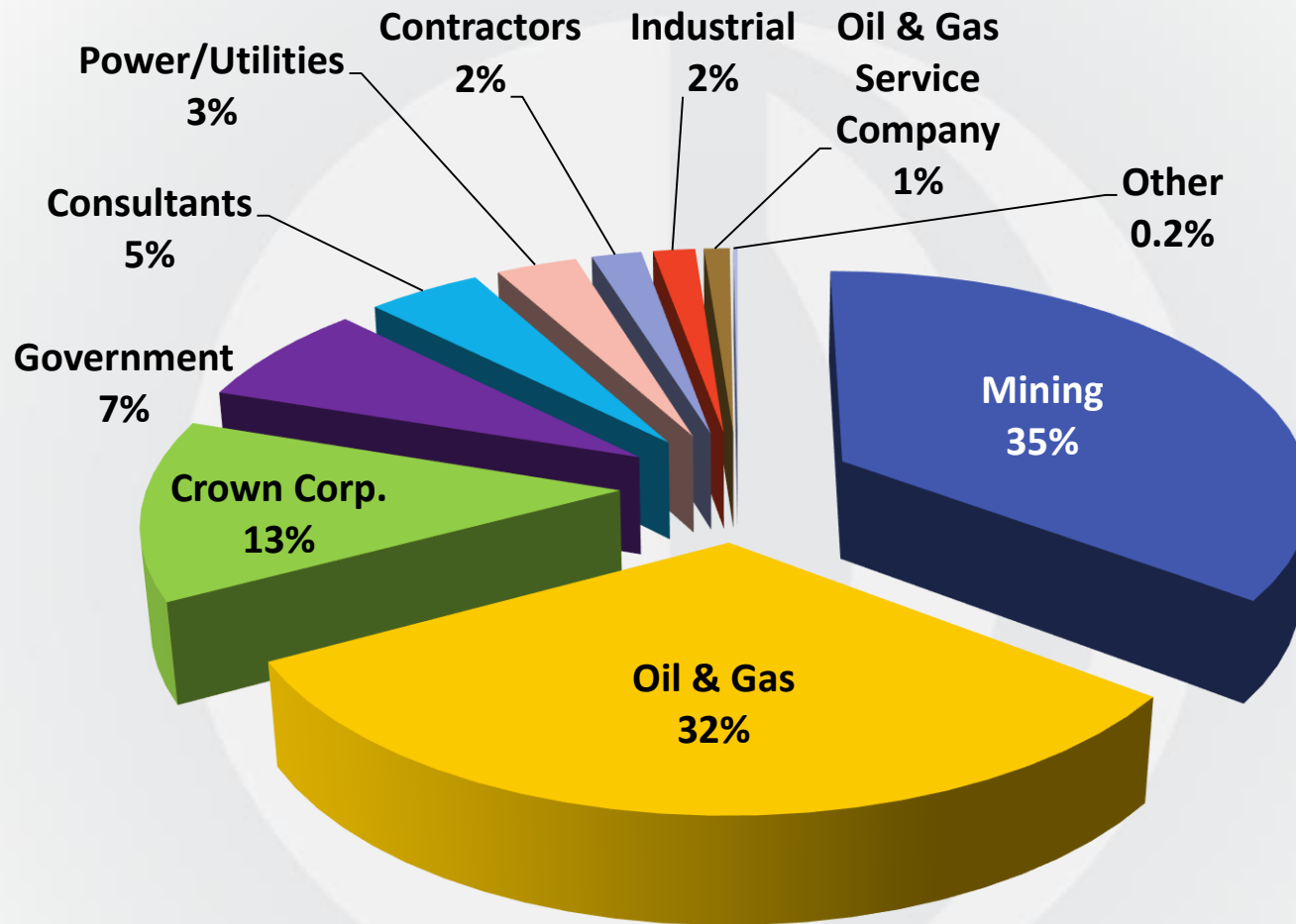


Snoqualmie Falls Hydro Redevelopment, Washington

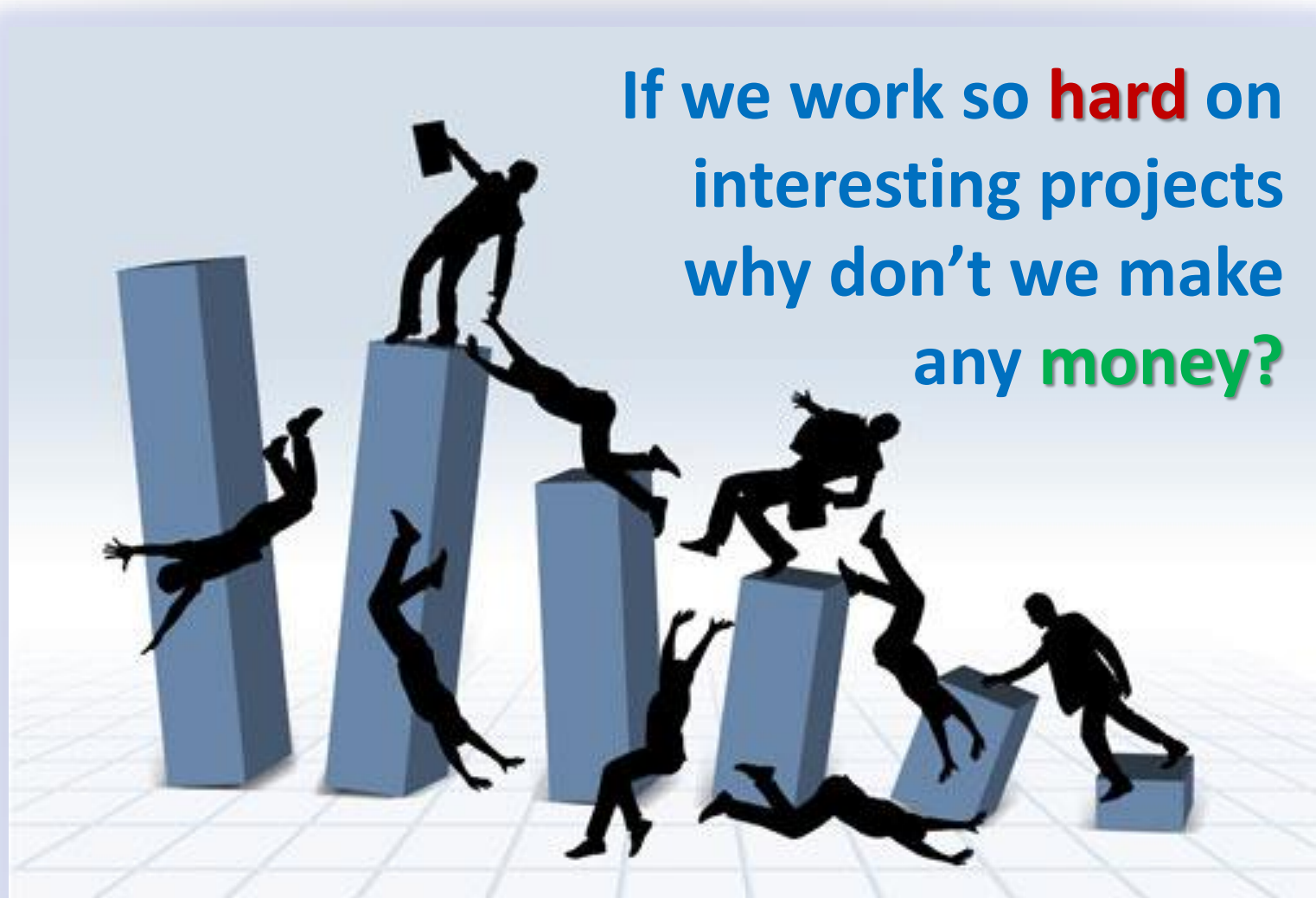


Hidden Valley Mine, Papua New Guinea

Revenues by Client Type



KCB before QMS



If we work so **hard** on
interesting projects
why don't we make
any **money**?



Variable project management



Significant project write-offs



Weak financial performance



Uninsurable!

Our Quality Management System

- Initiated in mid 1990s in response to retirement of first/second generation senior engineers
- QMS designed to reduce claims arising from poor communication, and errors and omissions e.g. incorrect surveys and volume calculations
- Revised our VP Engineering role to a reduced technical role, with a primary focus on QMS management, review of contracts, and monthly project oversight
- KCB became ISO-registered in 1999 to give QMS credibility with our staff; not our clients!

What is ISO?

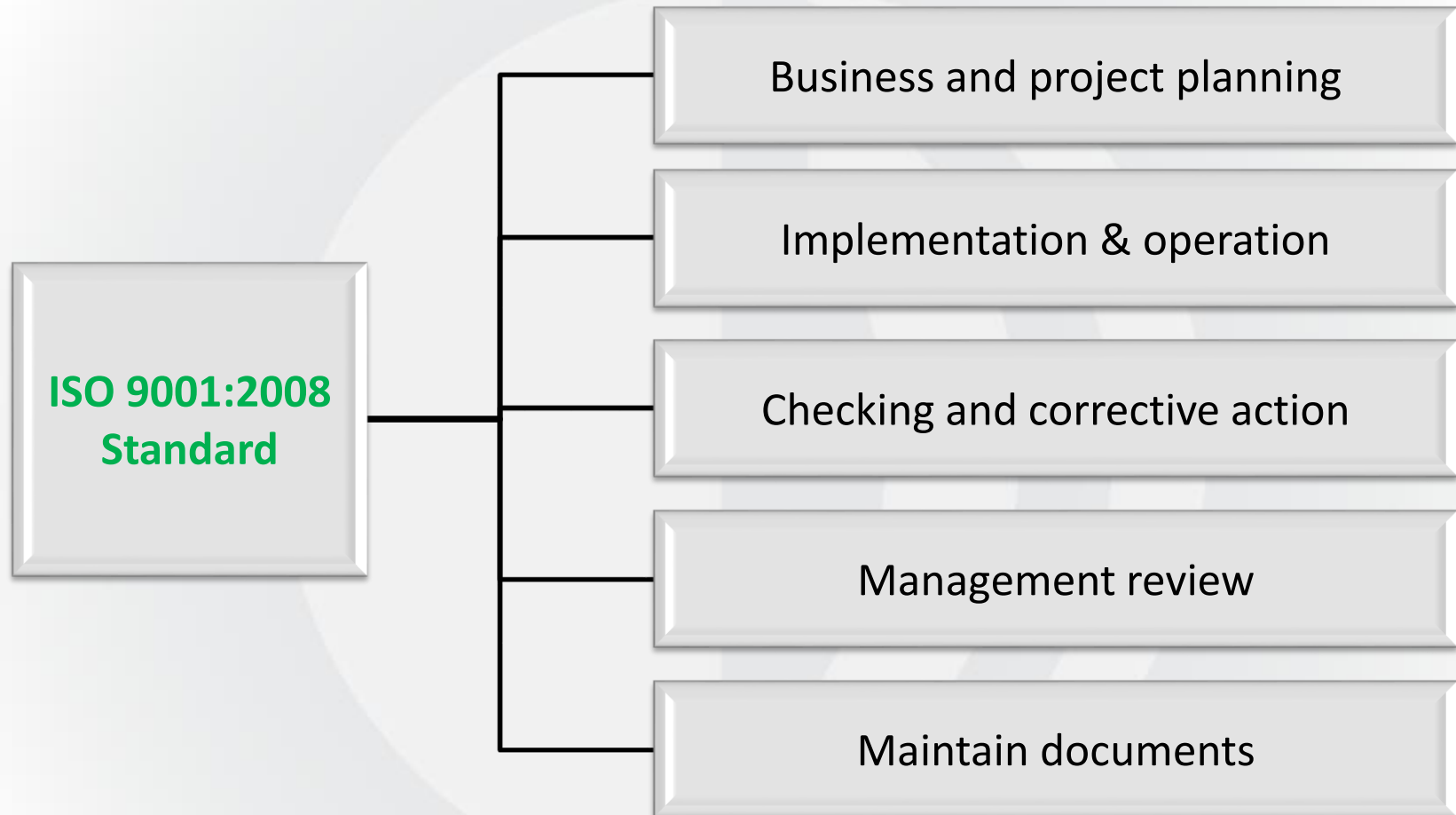


International Organisation for Standardisation

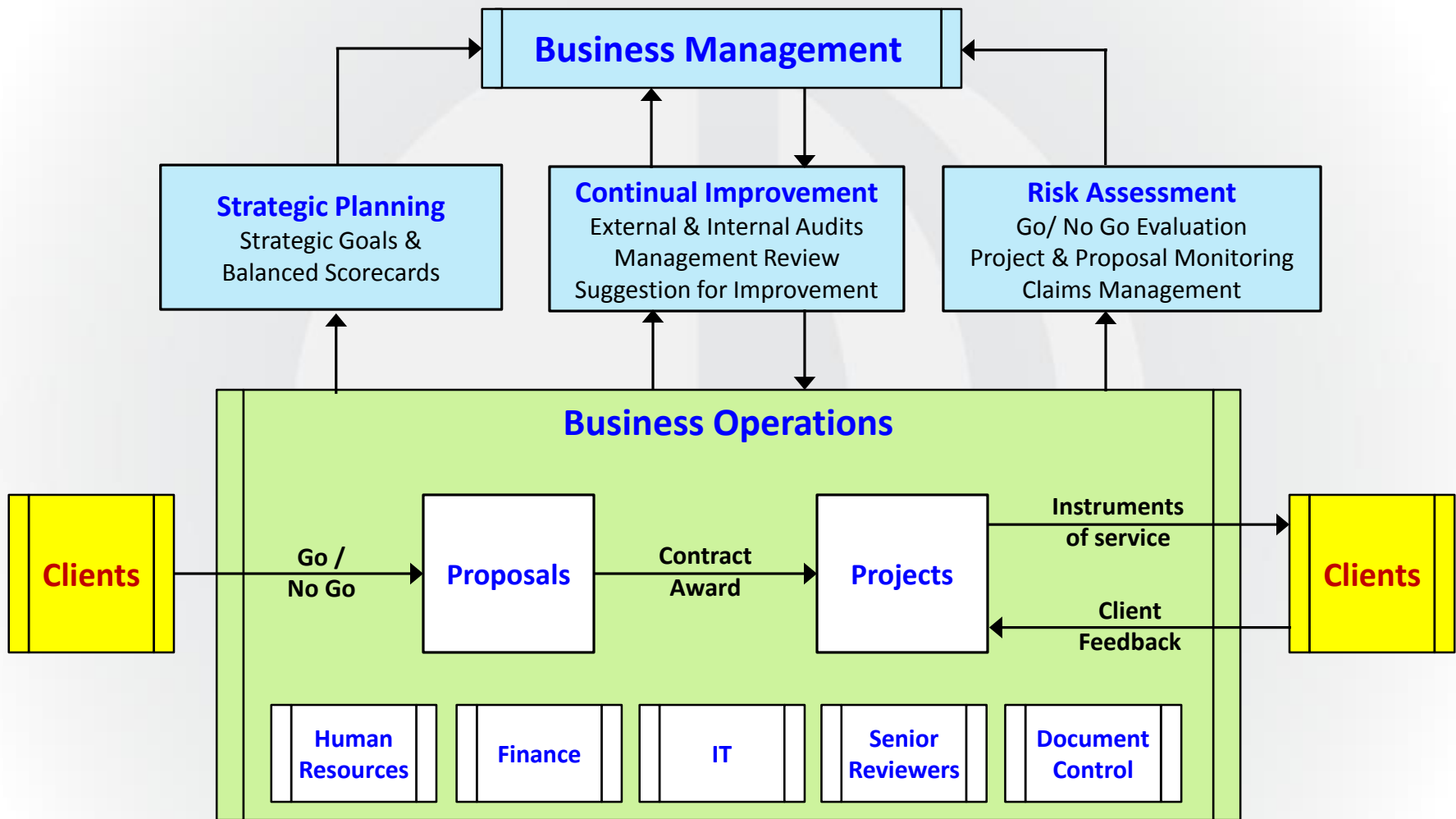
- Non-government organization located in Geneva
- 158 member countries
- Developer and publisher of international standards
- Industrial and business standards include ISO 9001 (quality) and ISO 14001 (environment)

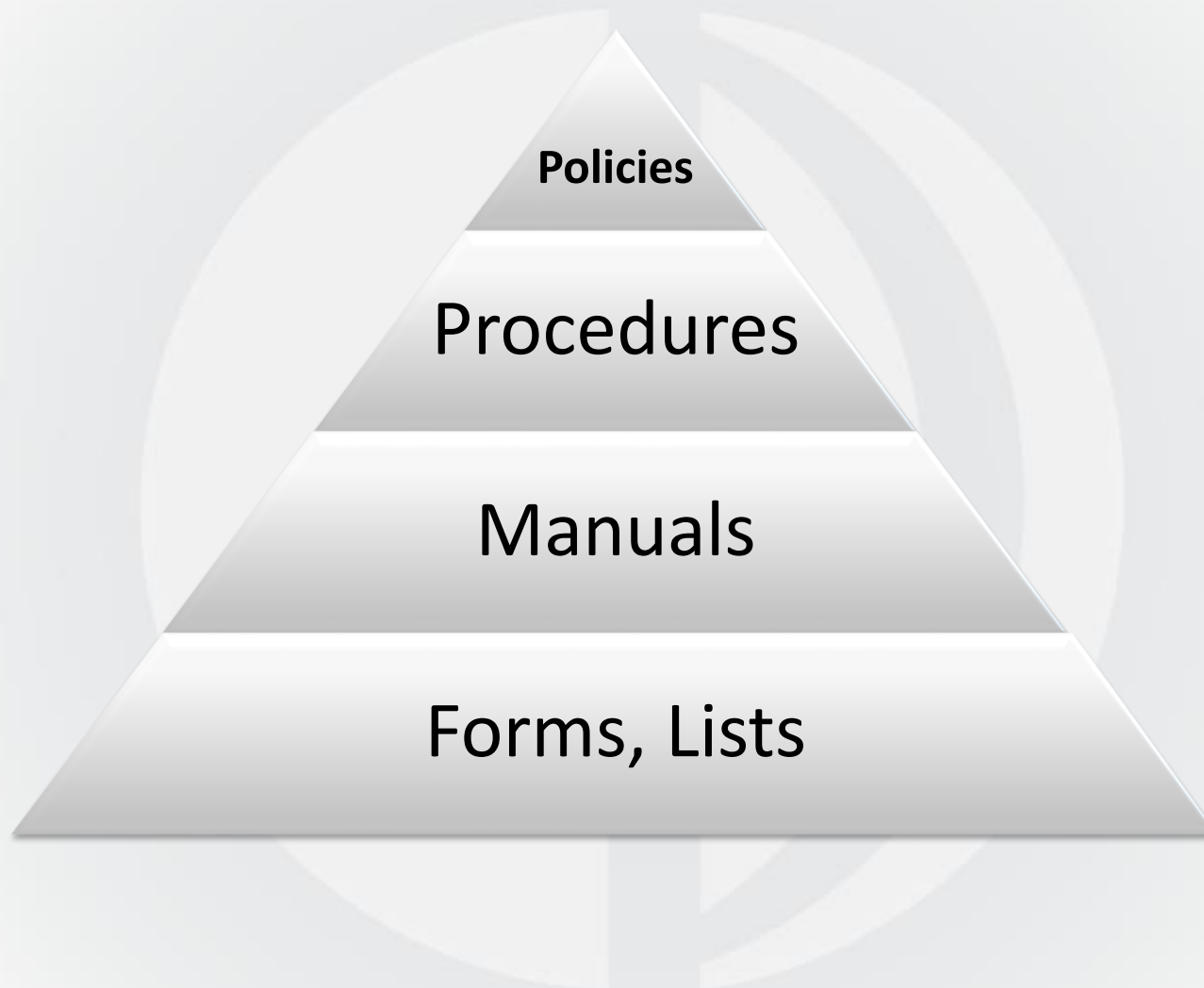


ISO 9001:2008 at KCB



QMS Integrated into Business Flow

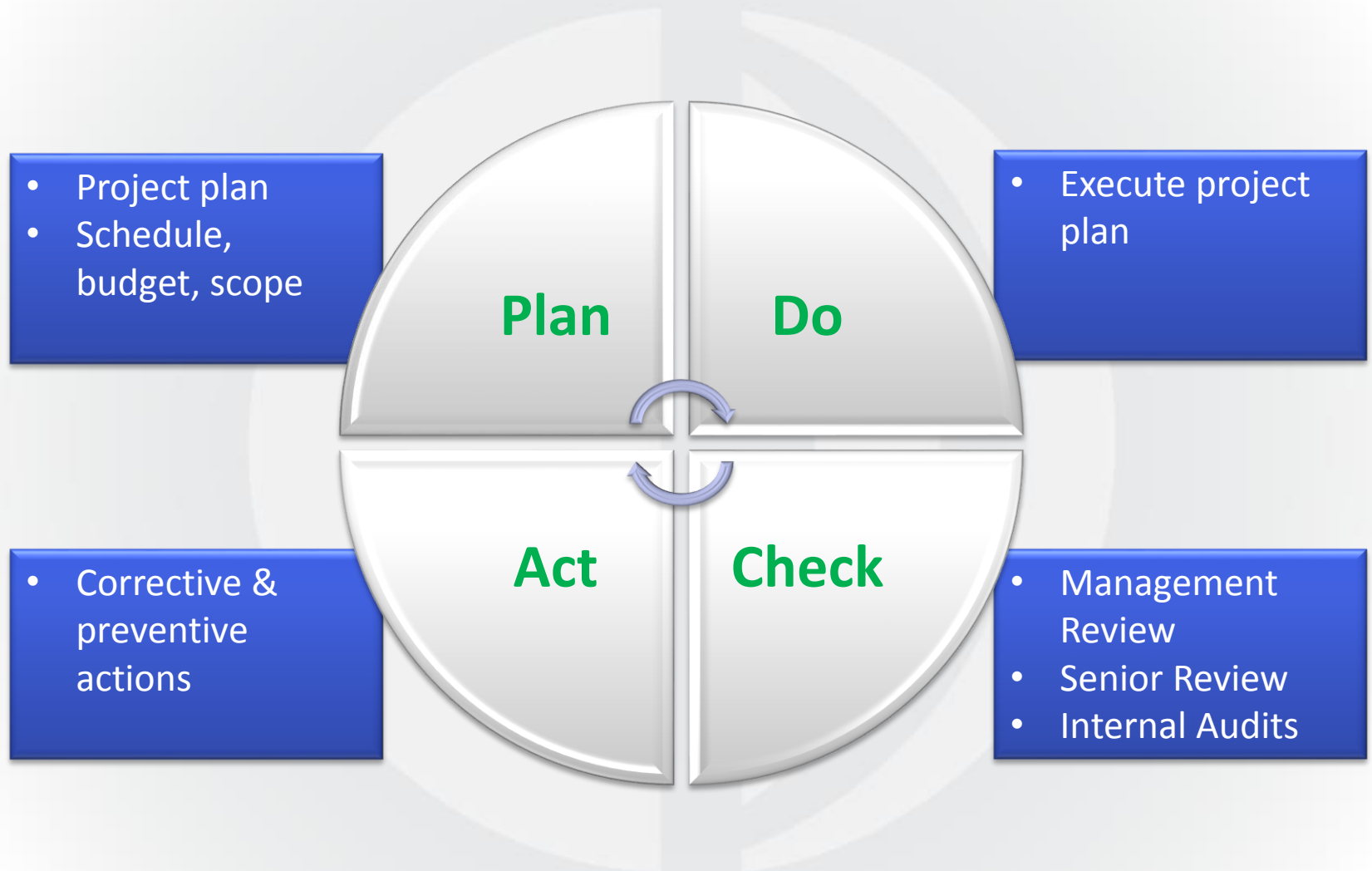




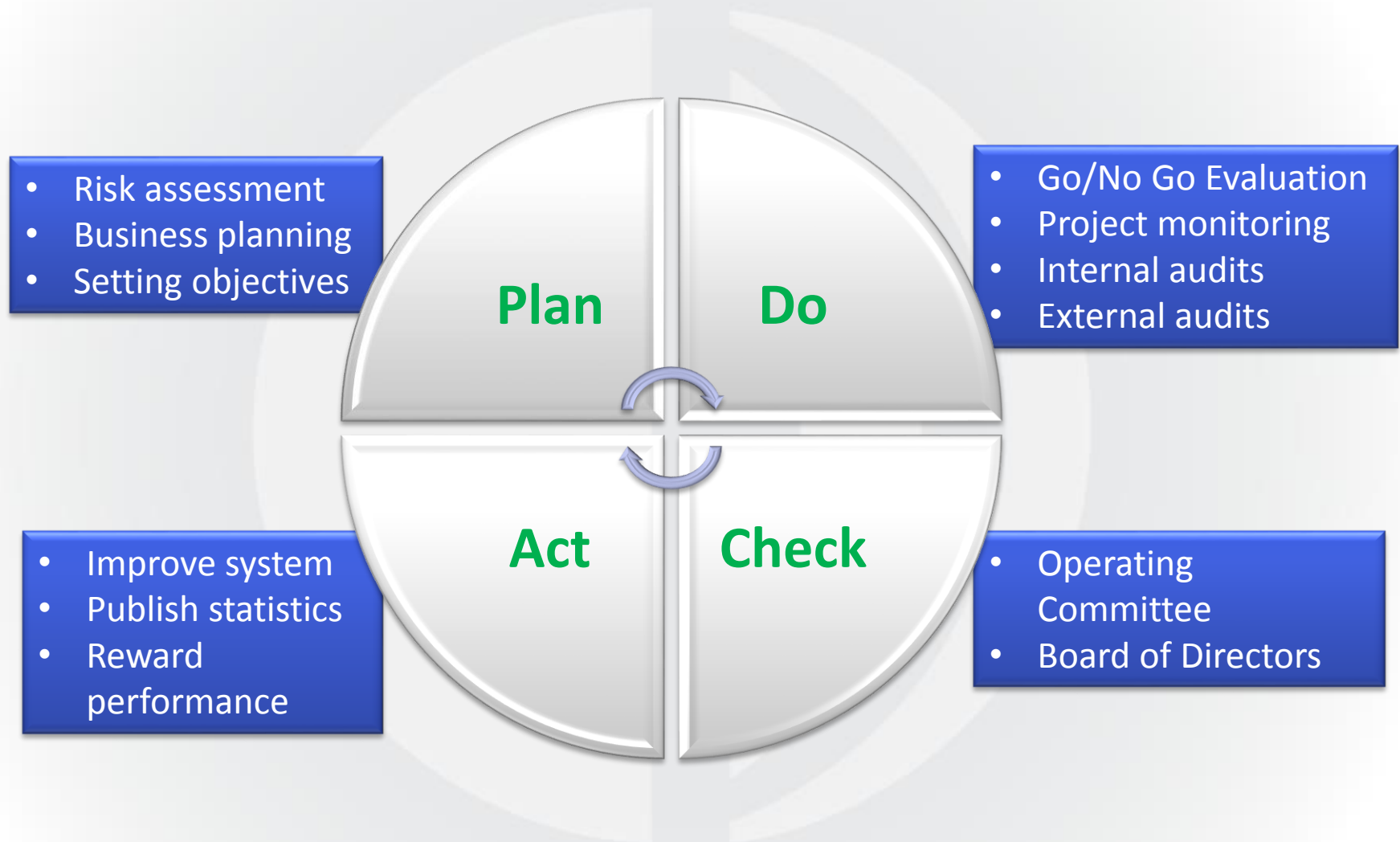
QMS Implementation

- Manage QMS with a dedicated team
- All staff must complete QMS training within 3 months of joining firm
- Implemented QMS trigger points, for example:
 - No proposal number without signoff on Go/No Go
 - No project number without signed contract
- Before buying shares, new shareholders are audited to demonstrate compliance and commitment with QMS

Project Execution Process



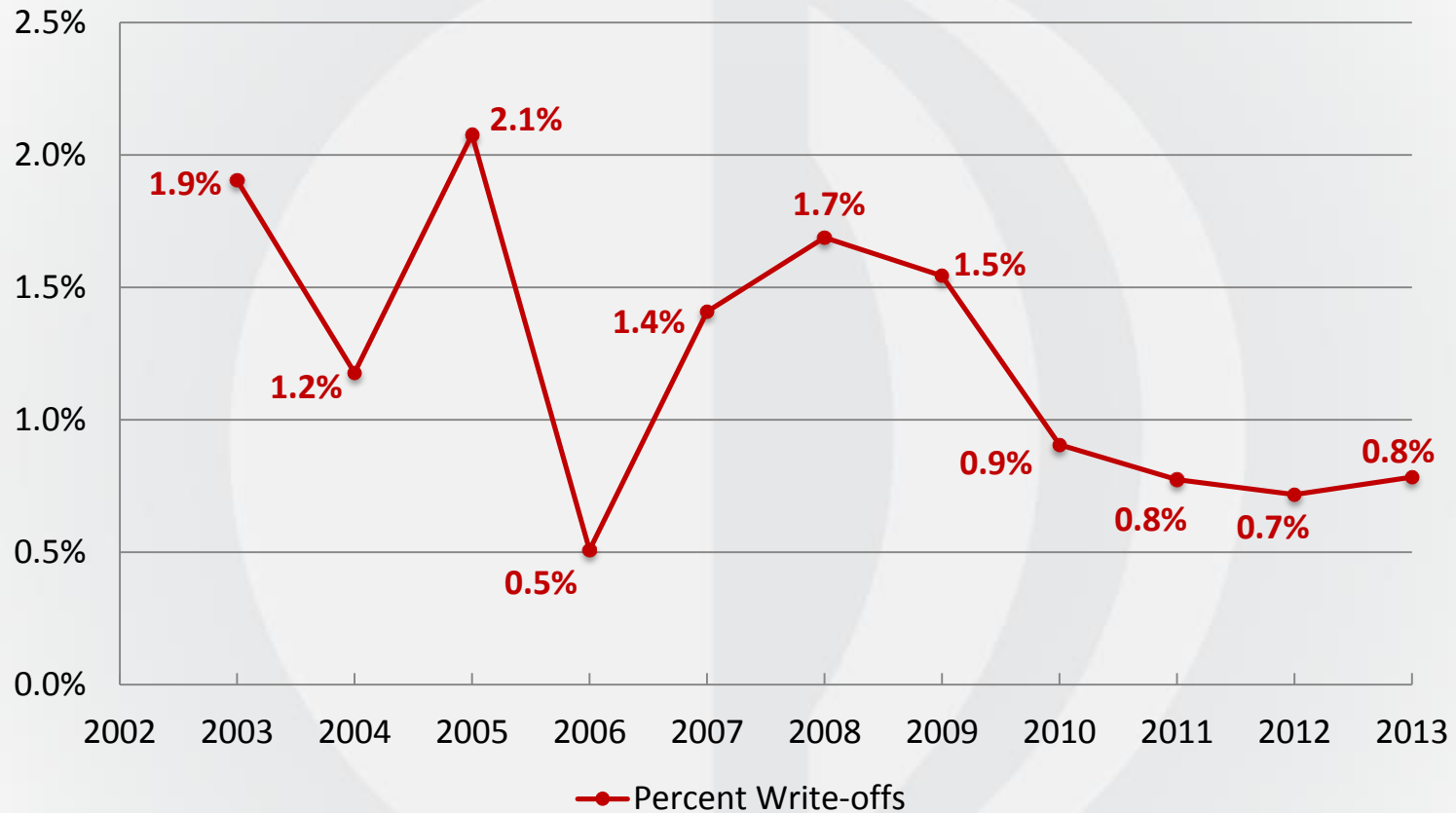
Management Process



Financial Measurement of QMS

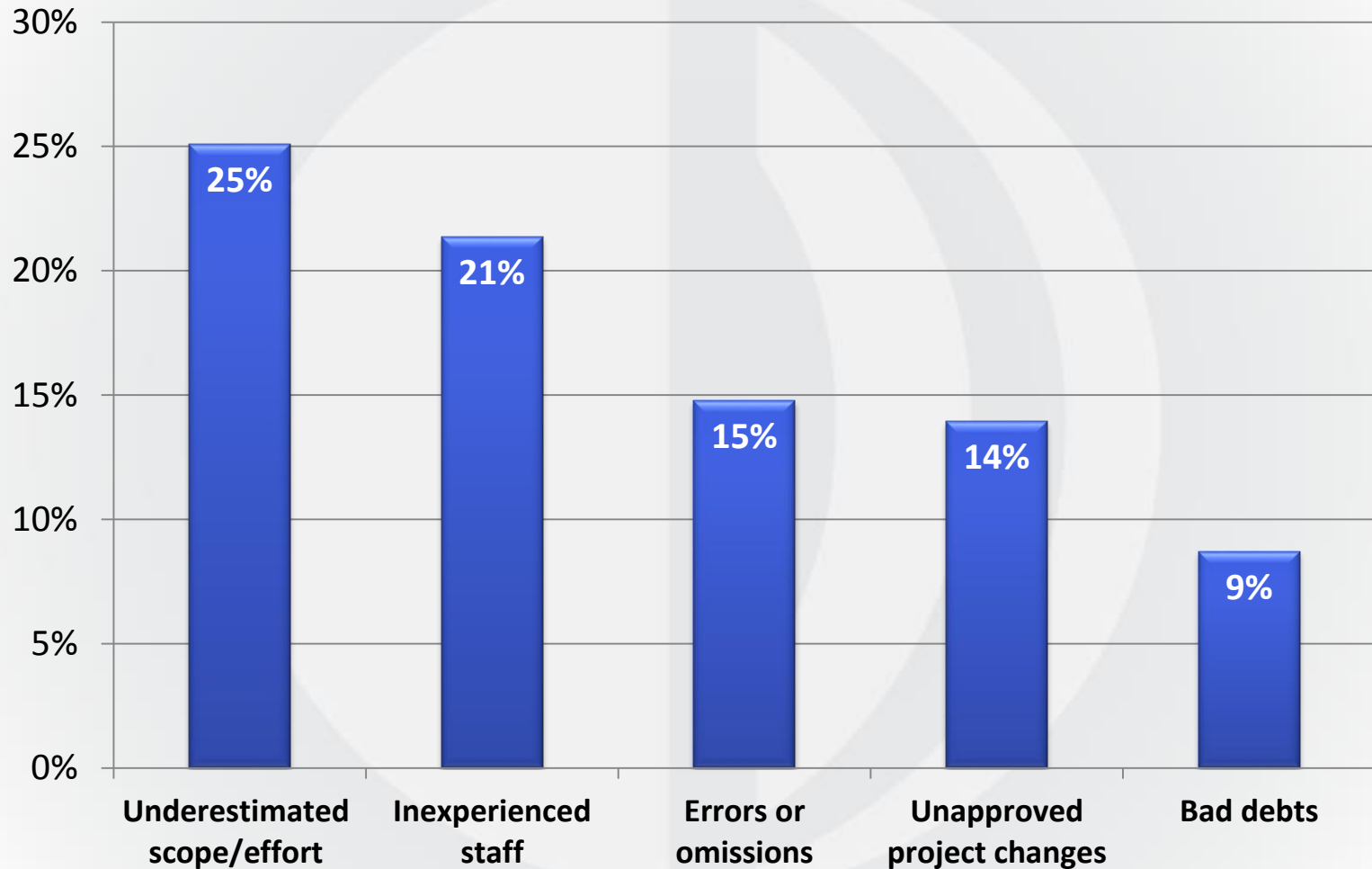
- Good project management improves the quality of revenue; not necessarily the profitability which is affected by market conditions and client type
- Quality of revenue can be measured by:
 - Type of non-conformances identified during audits
 - Write-off percentages
 - PLI loss ratios and our annual premium
 - Client Retention

Annual Project Write-offs



Causes of Project Write-offs

Top 5 Causes as % of total 2001-2013 Project Write-offs



From Practice Focus to Business Focus



Consistent project management



Minimal project write-offs



Award-winning firm



Lessons Learned on Profitability

1. **Be proactive, not reactive:** all conversations; contract negotiations, scope changes, personnel changes, mistakes, etc., should be acted on early
2. **Improve business acumen:** All senior engineers, especially shareholders, must have financial training so that they understand balance sheets, income statements, cash flow, WIP and AR
3. **There's no secret sauce!** Management oversight of QMS must be relentless. Resistance is futile, you will be assimilated. No exceptions!
4. **Reward top performers:** Reward staff with substantial bonuses/dividends. They must understand that they benefit directly from improvements in project quality