

# Asset Management & Reliability



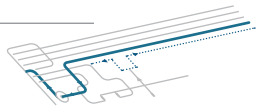
## WORLD CLASS ASSET MANAGEMENT = COMPETITIVE ADVANTAGE

CAI works with you to ensure the right maintenance is performed at the right time, with the right people, so your assets contribute their maximum value to your operation - Improving your bottom line!

### DESIGN

LOWER LIFE CYCLE COSTS

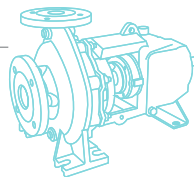
- Design for Reliability (DfR) Consulting
- Asset Criticality Analysis (CA) Establishment
- Life Cycle Costing (LCC)
- Maintenance Prevention Consulting



### BUILD

IMPROVE MAINTAINABILITY

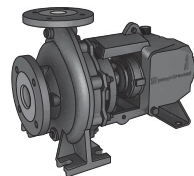
- Asset Policy Development
- Asset Hierarchy Design
- Metrology Program Development
- CMMS Implementation and Optimization
- Initial Space Optimization
- Capital Project Management
- Maintenance Procedure Development



### TEST

ACHIEVE VERTICAL START UP

- Commissioning and Qualification
- Safety Evaluations
- Idle/Interim Maintenance Program Development
- Early Equipment Management (EEM)
- Asset Management Plan



### OPERATE

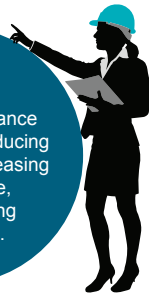
WORK SMARTER  
REDUCE/ELIMINATE SHUTDOWNS

- Maintenance Optimization, Planning, and Scheduling
- Best Practices Coaching
- Work and Storeroom Management
- Operational Excellence Program Evaluation
- Total Productive Maintenance (TPM) Consulting
- World Class Manufacturing (WCM) Consulting



Additional up-front planning increases the overall value over the life of an asset.

Proper maintenance adds value by reducing repair costs, increasing asset up-time, and decreasing time to ROI.



An extended asset life adds even more value.



## TYPICAL VS. WORLD-CLASS MAINTENANCE & RELIABILITY

With CAI's world-class maintenance & reliability, thoughtful design and planning, decreases the overall cost and increases the overall value over the life of an asset.

● Typical M&R

● World-Class M&R

Labor Utilization (Wrench Time)

>20% increase



Major Plant Wide Shutdowns

80% reduction  
1/yr vs 1/5 yrs



Overall Equipment Effectiveness (OEE)

>35% increase



Total Maintenance Cost

5-30% reduction

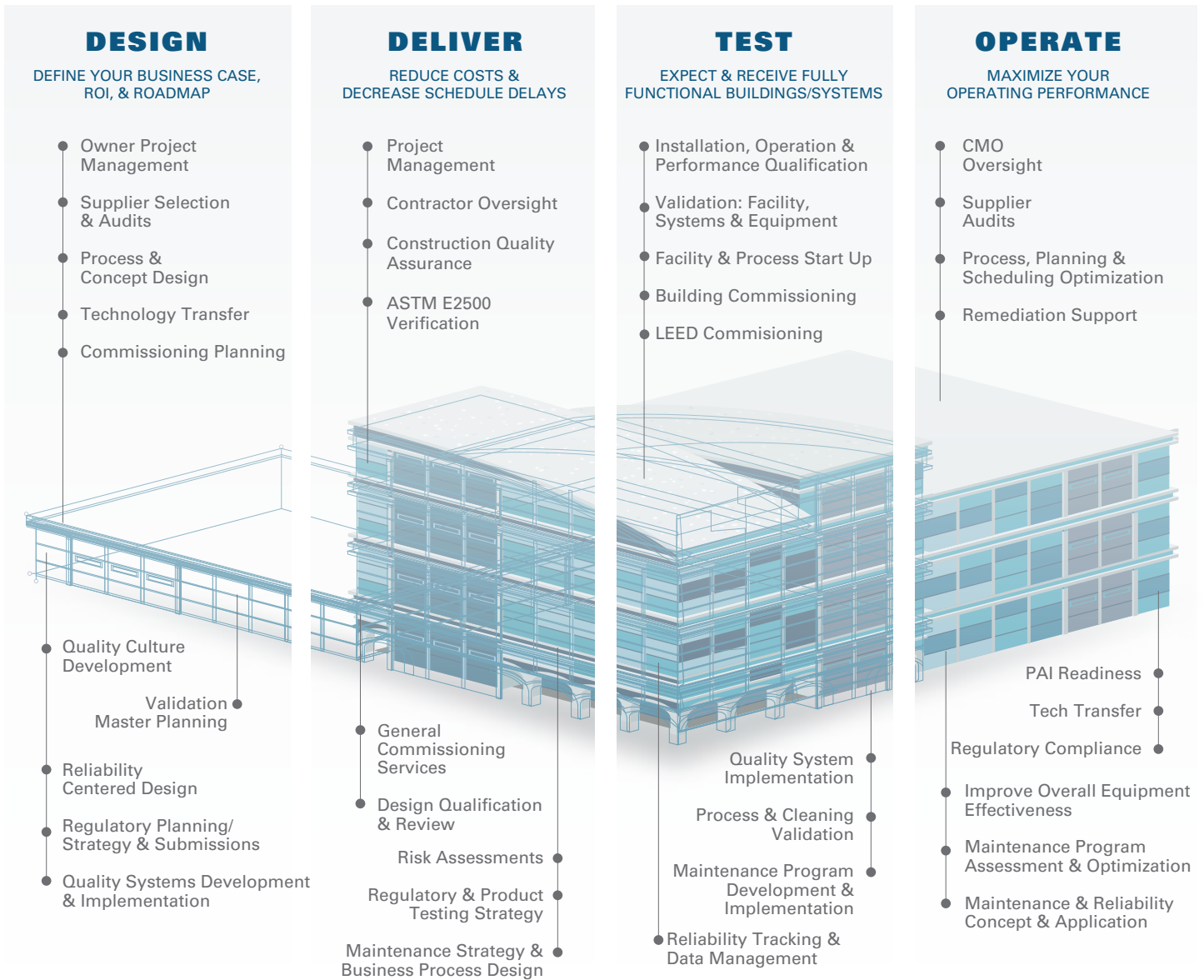


Reduction In Intrusive Maintenance

60-80% reduction



Apply our collective insight to every phase of your project; enhance the performance, reliability, & efficiency of your facilities, systems, & processes.



## GLOBAL PROJECT DELIVERY

Biotech • Pharmaceutical • Data Center • Medical Device • Laboratory • Personal Care • & More