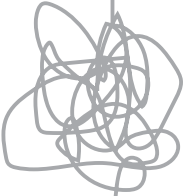
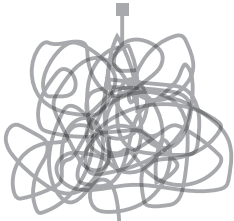


COMPLEX PROBLEM



SIMPLIFIED SOLUTION

Concept Development

WHAT DOES SUCCESS LOOK LIKE?

- Defined operating goals
- Defined production goals
- Starter block flow diagram

OUTCOME
Clearly defined project goals

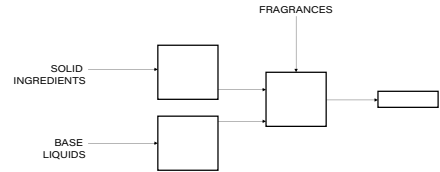


FEL 1: Cost & ROI Estimate

IS IT POSSIBLE TO BUILD THIS PROJECT & WOULD IT BE WORTH IT?

- Evaluation of technology and alternatives
- Process chemistry and technology defined
- Block flow diagram complete
- Process performance defined at a high level
- High level cost and return-on-investment calculations

OUTCOME
Project viability verified

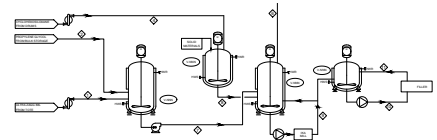


FEL 2: Basic Engineering Package

WHAT WILL THIS ROUGHLY LOOK LIKE & COST?

- +/-30% cost estimate
- Design basis that clearly defines performance requirements
- Process Flow Diagram (PFD) - defines all relevant process equipment, controls and instrumentation
- Starter equipment list
- Heat and energy balances
- High level project schedule

OUTCOME
Basic plans with unknowns, budgetary pricing

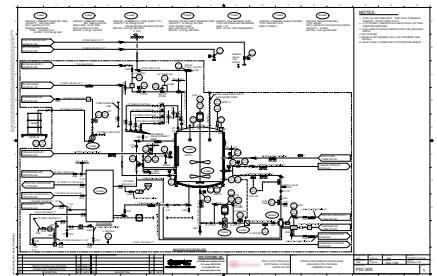


FEL 3: Detailed Engineering Package

WHAT WILL THIS EXACTLY LOOK LIKE & COST?

- Design basis
- Complete PFDs
- Finalized heat and energy balances
- Utility summary defining utility requirements
- Effluent summary of waste and vent outputs
- Preliminary 3D model
- Construction plan
- 60% finalized design work, including:
 - P&IDs
 - Equipment list
 - Equipment data sheets
 - Instrumentation list
 - Automation design basis
- Testing plans
- Project schedule

OUTCOME
Clear plan, fixed pricing; Project is ready to go



EPIC Design Build Process

EPIC TAKES FULL RESPONSIBILITY FOR YOUR PROJECT

- Turnkey Project Management
- Finalized Design
- Controls & Automation
- Fabrication & Assembly
- FAT/SAT Testing
- Installation & Startup
- Training & Support



OUTCOME
Project completed on-time and on-budget



