

MANAGING GIGA PROJECTS USING TECHNOLOGY

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OBJECTIVE

Developing a system augmented by technology to successfully manage & deliver complex projects of large magnitude.

Challenges

- Small versus large projects
- Complexity of layers of information
- Variety of systems/technology
- Distinction in Procedures
- Communication methodology
- Time constraints for information collection

Various Models Across Industry

- **Fragmented Project Management**
 - ✓ Segregated systems for all reporting types between contractors and client
- **Partially integrated Project Management**
 - ✓ Some systems integrated between contractors & client
- **Fully Integrated Project Management**
 - ✓ Integrated systems that provide end-to-end solution covering all areas of project management & information channelization between contractors & client

Fragmented System

- Isolated systems for
 - ✓ Engineering tools
 - ✓ Schedule management
 - ✓ Progress measurement
 - ✓ Cost Management
 - ✓ Accounting
 - ✓ Reporting
 - ✓ Document Management
- PMO/Client level
 - ✓ Disintegrated with the contractors
 - ✓ Paper based
 - ✓ Utilization of worksheets
 - ✓ Local Hard-drive usage

Partially Integrated System

- Integrated systems for contractors
 - ✓ Engineering tools
 - ✓ Schedule management
 - ✓ Progress measurement
 - ✓ Cost Management
 - ✓ Accounting
 - ✓ Reporting
 - ✓ Document Management
- Integrated systems for PMO/Client level
 - ✓ Some areas not fully integrated with the contractors
 - ✓ Electronic data transfer from contractor to client/PMO
 - ✓ Centralized databases
 - ✓ Centralized repository

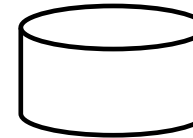
Fully Integrated System

Contractor 1

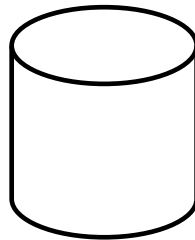
Contractor 2

Contractor 3

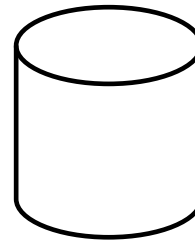
Contractor 4



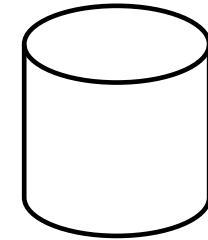
Reporting



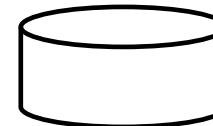
Unsecured :
 Schedule Management
 Cost Management
 Progress Reporting
 Document management



Secured :
 Schedule Management
 Cost Management
 Progress Reporting
 Document management

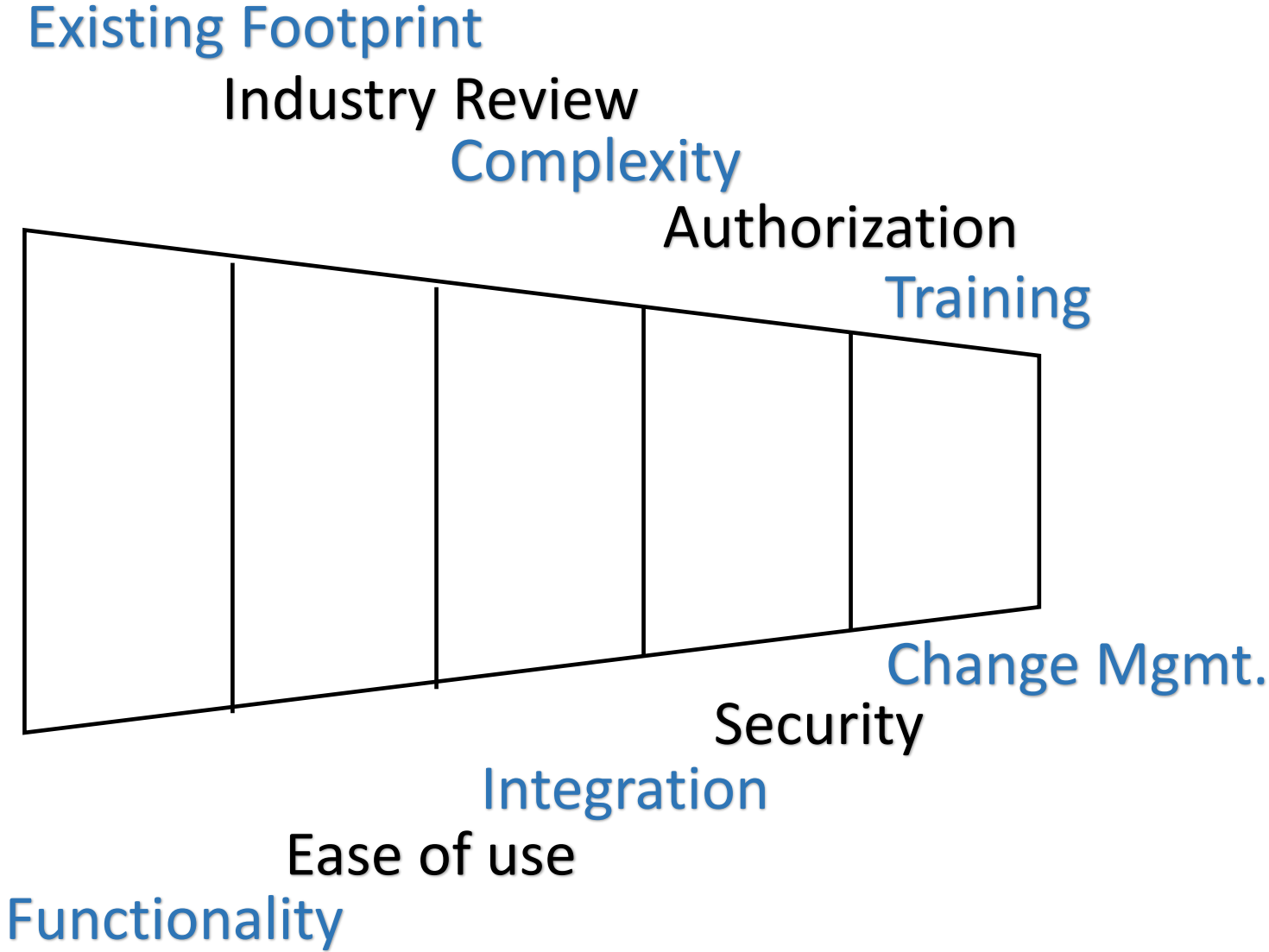


Accounting
 Material Management
 Payment
 Portfolio Management
 Quality
 Inspection
 Safety

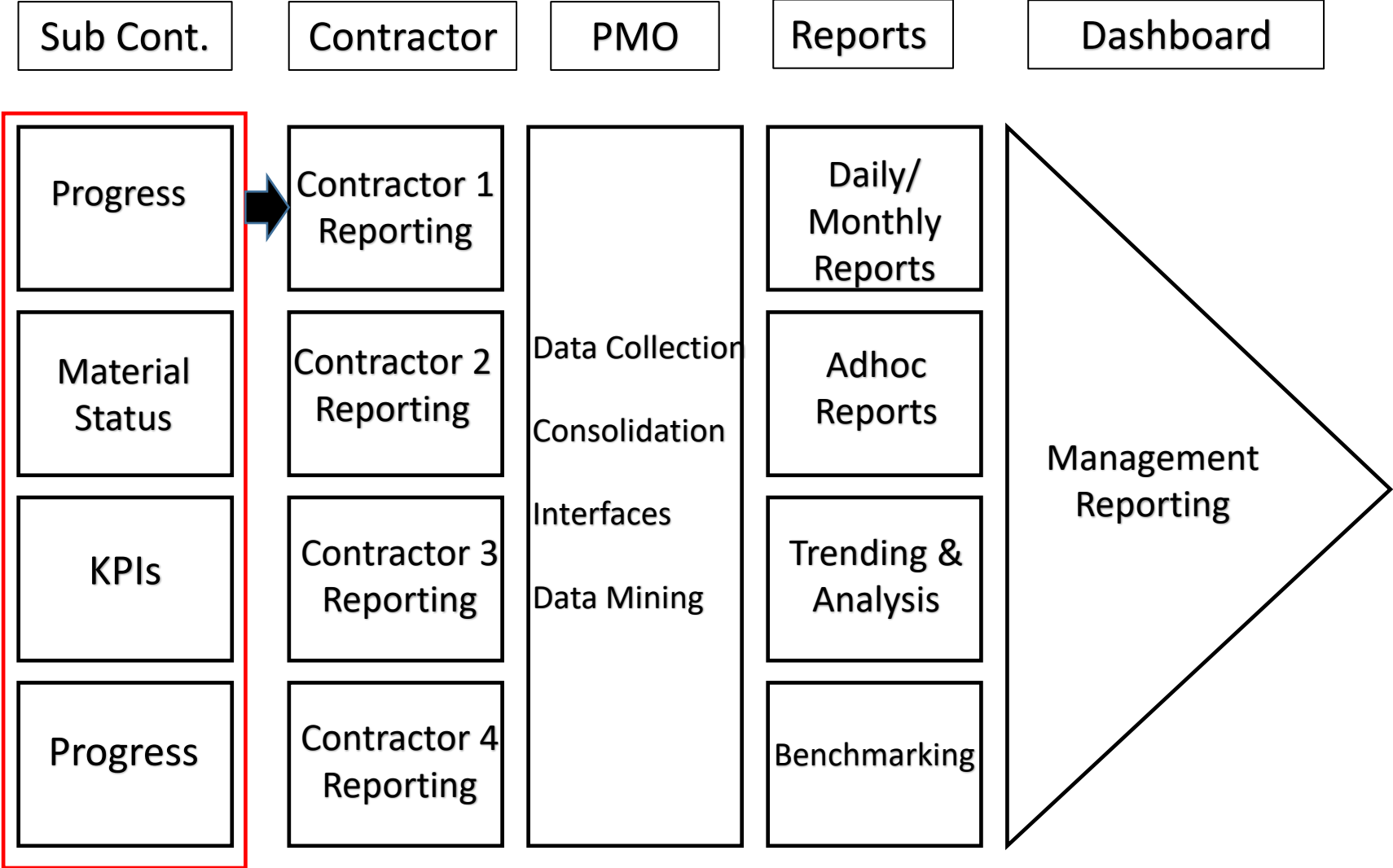


Document Management
 Workflow Management

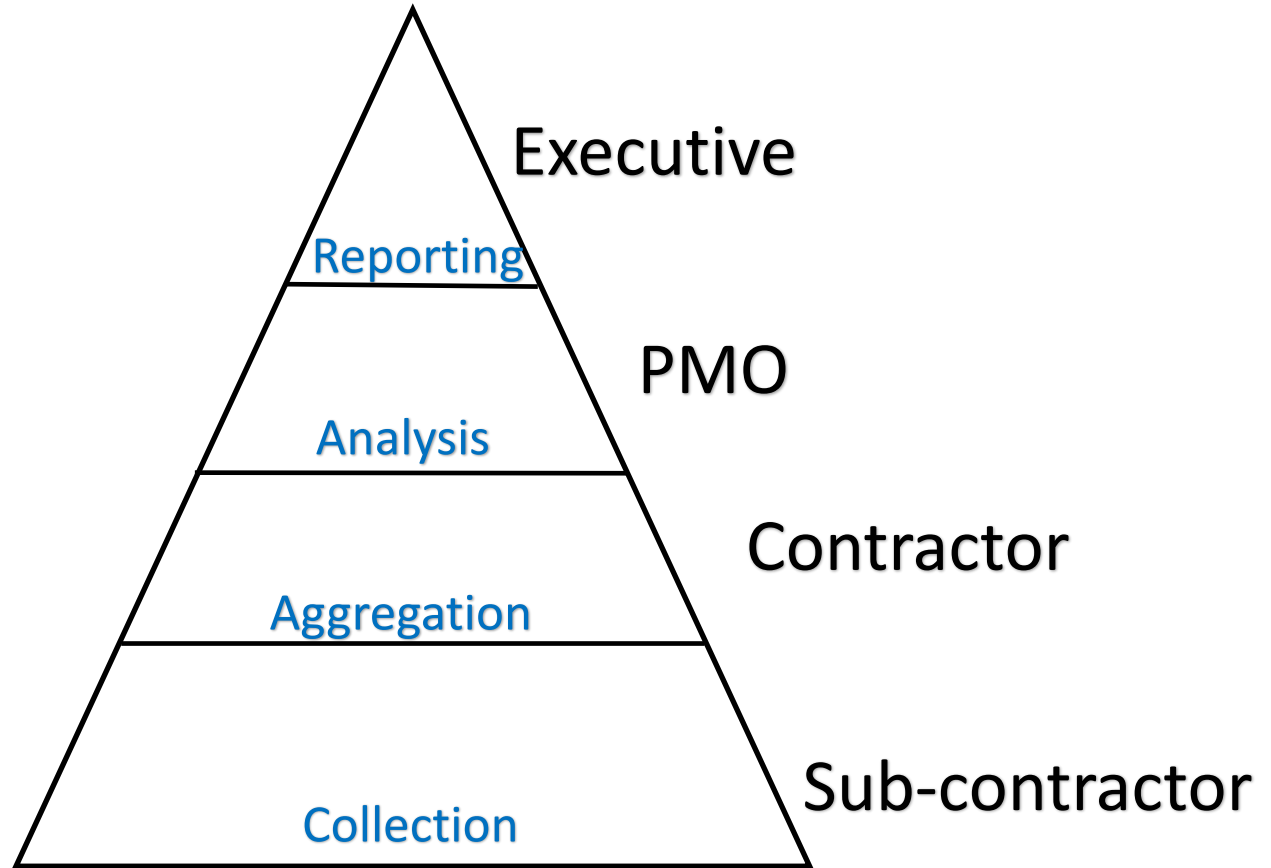
Software Selection – Funnel approach



Reporting Through Integrated System



Automated Roll-up



Typical Challenges

- Data-Date across all contractors
- Receiving Reports on-time
- Standardization
- Data Format
- Timely analysis
- Meaningful Leading Indicators
- Time consuming calculations

Reporting and Analysis

- 3D drawings integrated with Progress, Material Management & Construction systems
- Various constructions methodologies using variety of tools e-g AWP, PPM etc.
- SRA (Schedule Risk Analysis)
 - Creating 3 point estimate using A/I
- Trending & Forecasting using A/I
- Walkthrough exceptions using VR
- AWP (Advanced Work Packaging) using RFIDs/Barcoding
- Progress Measurement using, drones, RFIDs, AI & VR

Governance & Training

- Contract language
- Policies & procedures
- Desktop Guides
- Training Material & on-boarding
- Compliance auditing

Question & Answers