Life Cycle Cost Estimating

TruePlanning® 2016 Deep Dive Webinar Series

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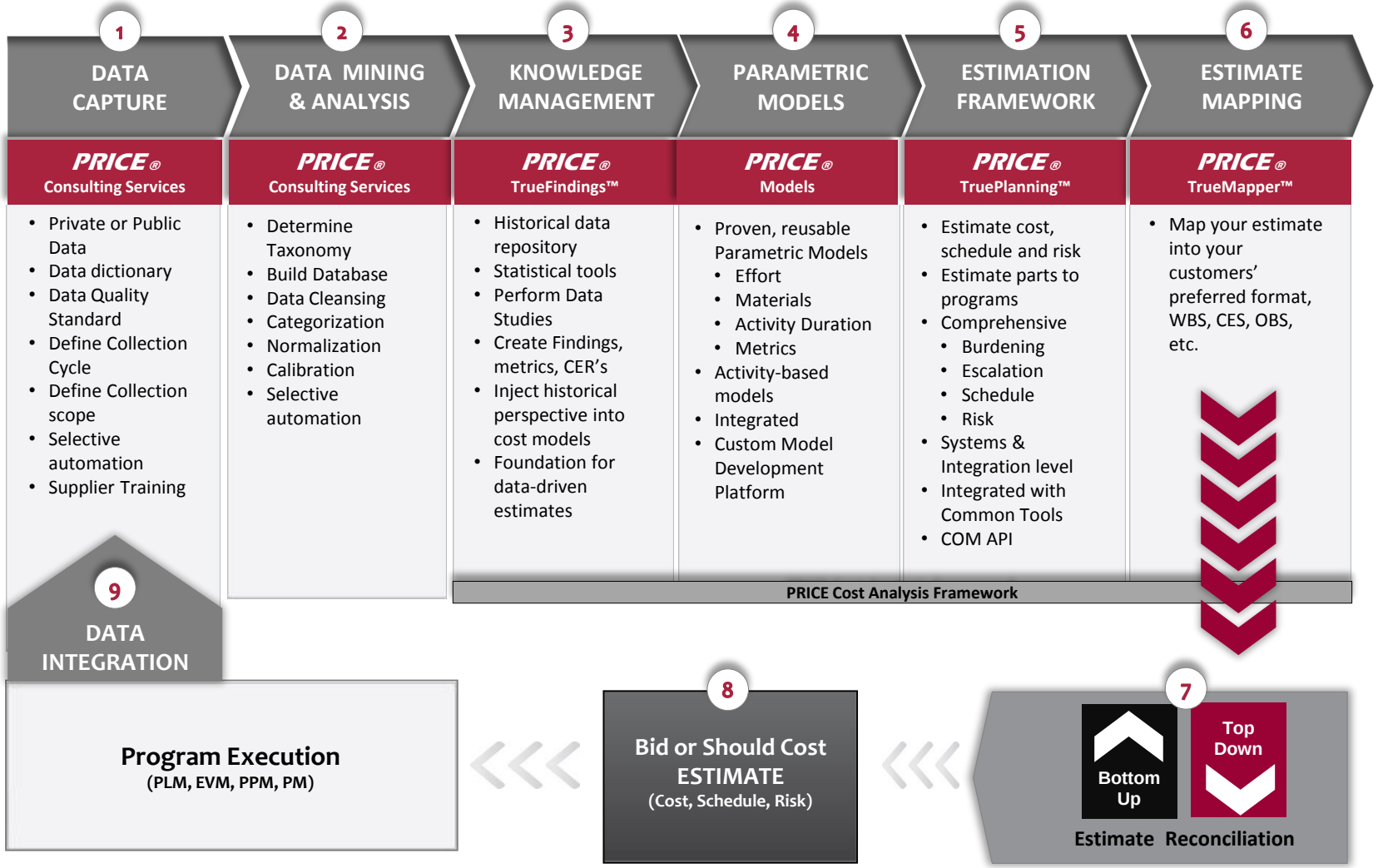
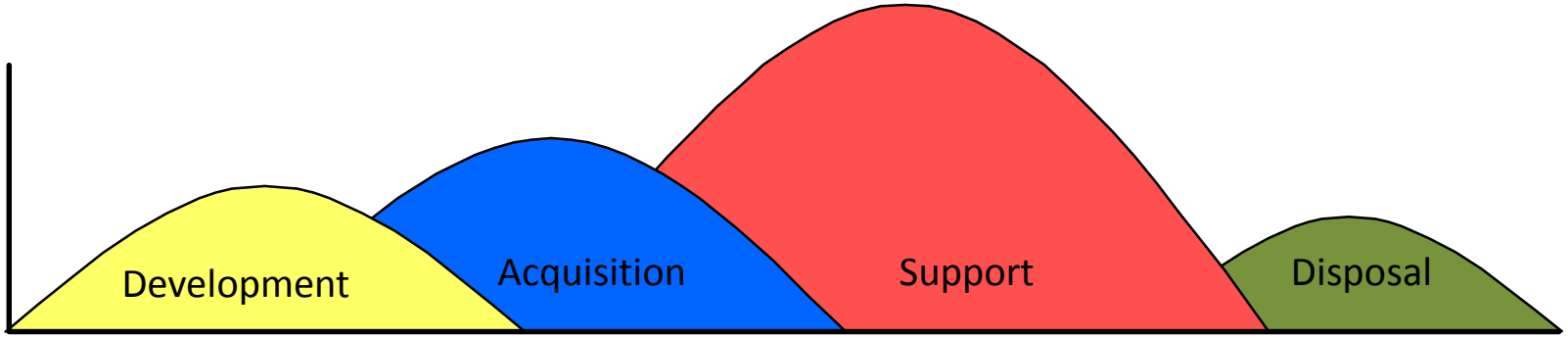
PRICE Cost Analytics Framework



 | *Decades of Cost Management Excellence*

Life Cycle Cost Definition

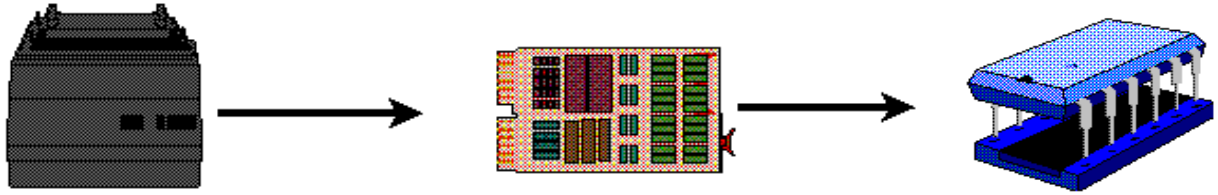
- The total cost to the Government or organization of the Acquisition and Ownership of a system over its complete Life Cycle
  - LCC includes the cost of Development, Acquisition, Support, and, where applicable, Disposal*



** SCEA Glossary*

 | ***Decades of Cost Management Excellence***

TruePlanning® Equipment Hierarchy



Line Replaceable Unit (LRU)

Module (Shop Replaceable Unit (SRU))

Part

- Possible combinations:
  - LRU
    - *LRU only*
    - *LRU made of Modules only (no Parts)*
    - *LRU made of Parts only (no Modules)*
    - *LRU made of Modules made of Parts*
  - Module
    - *Module only*
    - *Module made of Parts*
  - Part
- Equipment modeled depends on two TruePlanning® inputs
  - Number of Module Types
  - Number of Part Types

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Maintenance Locations / Levels

- **Locations**
  - On-Equipment
    - *Maintenance performed on the end item (i.e., airplane, ship, tank)*
    - *Maintenance Actions*
      - Remove / Replace LRU
      - Remove / Replace Module
      - Remove / Replace Part
  - Off-Equipment
    - *Maintenance performed off the end item, usually in a maintenance repair facility*
    - *Maintenance Actions*
      - Remove / Replace Module
      - Remove / Replace Part

- **Levels**
  - Equipment
    - *On-Equipment Maintenance*
    - *No Work Shop*
    - *Often performed by crew*
  - Organization (Direct Support)
    - *Performed by organization on its assigned equipment*
    - *"Back shop" support*
  - Intermediate (General Support)
    - *Facility with Controlled Environment and Automated Test Equipment*
  - Depot
    - *Government or Contractor*

Types of Spares / Support Equipment

- **Spares**
  - Initial
    - *Initial stock required to fill maintenance pipeline or supply chain for 2 years*
    - *Produced concurrent with mission equipment*
    - *Quantity based on repair cycle times and failure rates*
    - *Production cost*
  - Replenishment
    - *Spares needed to replenish initial stock*
    - *Also known as Balanced Consumed spares*
    - *Total spares minus initial spares*
    - *O&S cost*

- **Support Equipment**
  - Common
    - *Items found in common usage across multiple systems*
    - *Not estimated by TruePlanning®*
  - Peculiar
    - *Items used by a specific weapon system with no operational value to other weapon systems*
    - *Estimated by TruePlanning®*

Life Cycle Cost Drivers

- Number of Operational Hours
  - Operating hours per month
- Mean Time Between Failure
  - Determines number of failures
- Mean Time To Repair
- Maintenance Concept
  - Determines
    - *Initial Spares*
    - *Replenishment Spares*
    - *Support Equipment Acquisition and Setup*
    - *Support Equipment Maintenance and Calibration*
    - *Maintenance Labor*
    - *Maintenance Contractor Support*
    - *Transportation, Spares Storage*
- Number of supply / maintenance points

Life Cycle Input Parameters

System Cost Object Input Sheet

		Value	Units	Spread	Notes	Analyzer
1	Start Date	1/1/2013				
2	Quantity Per Next Higher Level	1.00				
3	Number of Production Units	0				
4	Number of Prototypes	0.00				
5	Number of System Deployments					

Hardware Component Cost Object Input Sheet

40	**Life Cycle Deployment User Input**					
41	Maintenance Concept	No Maintenance				
42	Equipment Supply Points	0				
43	Organization Supply Points	0				
44	Intermediate Supply Points	0				
45	Depot Supply Points	0				
46	Organization Maintenance Points	0				
47	Intermediate Maintenance Points	0				
48	Depot Maintenance Points	0				
49	Number of Operational Hours	0.00				

Life Cycle Key TruePlanning® Hardware Drivers

1. Number of System Deployments
2. Maintenance Concept
3. Supply / Maintenance Points, as necessary
4. Number of Operational Hours

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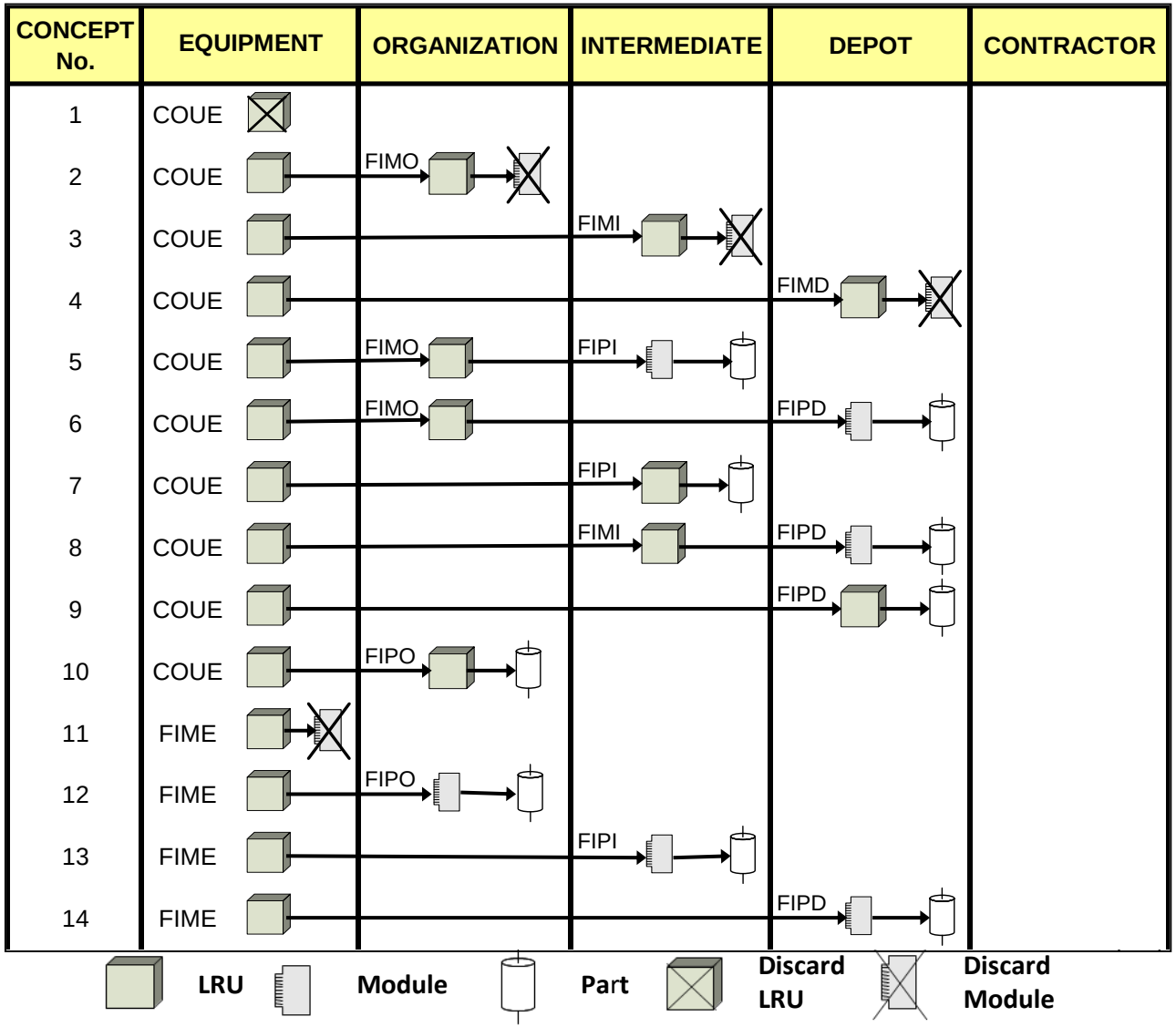
Maintenance Concepts



Maintenance Concepts