



The Top 5 Uses of TruePlanning®

ICEAA Technology Showcase Webinar Series

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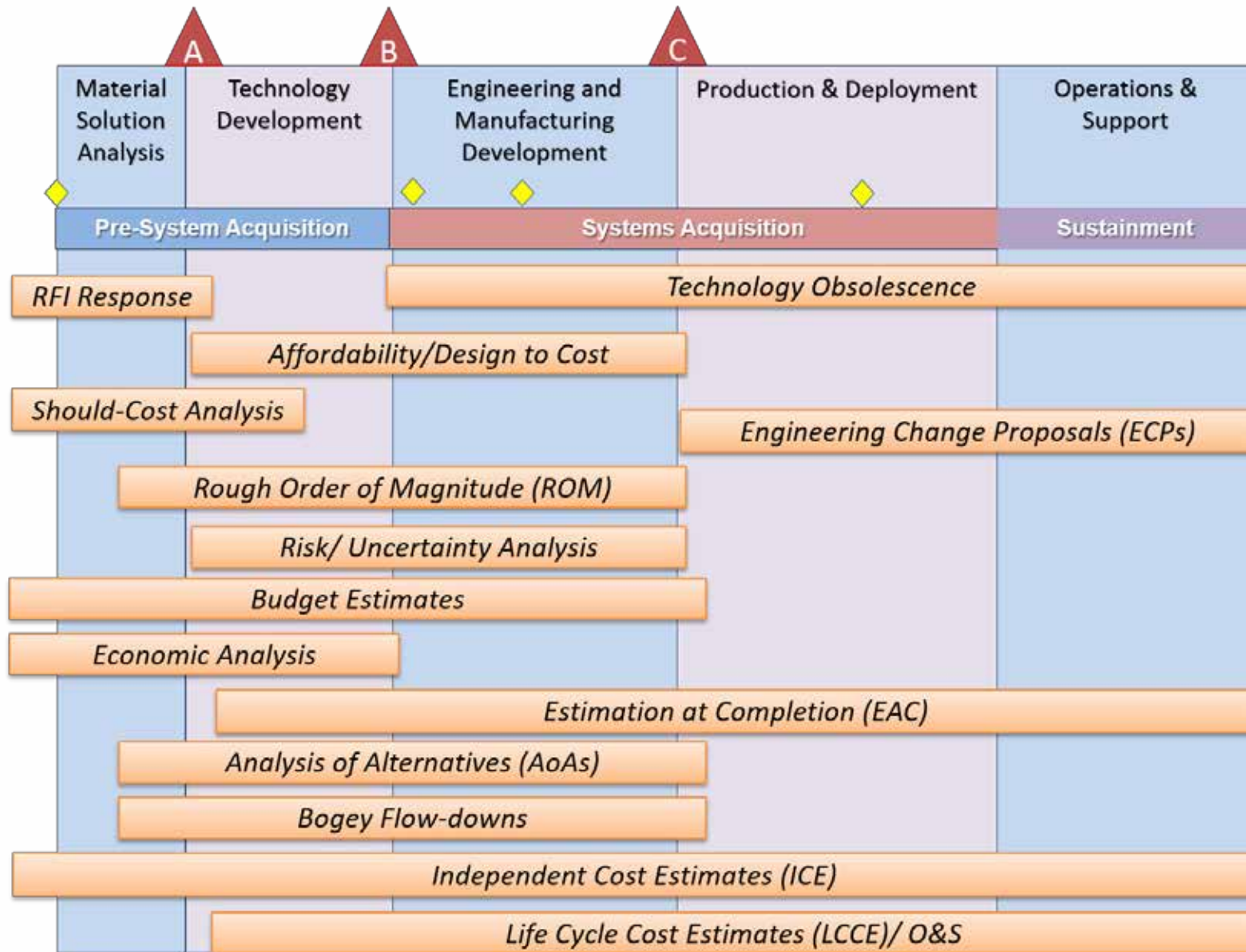
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- § Introduction
- § Predictive Cost Analytics aligned with the DoD-5000 Acquisition Process
- § Business Process Areas:
 - § Business Development
 - § Manufacturing
 - § Early Stage Conceptual Estimation
 - § Finance
 - § Program / Project Management
 - § Engineering
- § The Top 5 Use Cases

- Predictive Cost Analytics can be used for a wide variety of uses.
- In this Webinar, we will briefly talk about many of these uses, and demonstrate the Top 5 Uses of TruePlanning®

PRICE Cost Analytics – Lifecycle Application



Business Development

- Bid & Proposal
- Bid Validation
- Bid/No Bid
- Black-hat Reviews
- Business Case Analysis (BCA)
- Cost Benefit Analysis (CBA)
- Ghosting the Competition
- Price-to-Win Analysis

Finance

- Total Cost Management
- Target Costing
- Bogey Flow-downs
- Budget Estimates / Budgeting
- Economic Analysis (EA)
- Warranty/Spares Cost Analysis
- Cross-Check Estimation
- Future Capability Planning
- Independent Cost Estimates (ICE)
- Supplier Assessment

Program/Project Management

- RFI Response
- Risk / Uncertainty Analysis
- Estimation at Completion (EAC)
- Cost Control
- Cost & Schedule Analysis
- Program Trade Studies - AUPC assessment



Engineering

- Analysis of Alternatives (AoAs)
- Advanced Concept Studies
- Affordability Analysis
- Agile vs Waterfall Development Analysis
- Cost Estimation
- Engineering Change Proposals (ECPs)
- Life Cycle Estimates (LCCE)
- Technology Maturation Cost (TRL)
- Technology Obsolescence
- Value Engineering
- Custom Cost Model Development

TruePlanning® Use Cases

- § We will use the TruePlanning® Stryker IAV Test Case to model **the Top 5 Uses of TruePlanning®** featured in this Webinar.
- § The US Army has a desire to perform some upgrades on the existing Stryker Interim Armored Vehicle (IAV). We will use the TruePlanning® Stryker IAV Test Case to estimate the cost of these upgrades.

Use Case #1: Bid/No-Bid



- The Army has found that the existing hatches on the Stryker vehicle do not allow for easy enough egress with full gear, and has asked us to look at increasing the size of the hatch.
- New Hull must yield a Unit Production Cost equal or less than existing UPC of \$341,145

- We will increase the hatch size, and make the opening in the hull larger to accommodate the larger hatch

Use Case #2: Bid Validation



- The Army has provided an RFP for an upgrade to the Fire Control Subsystem on the Stryker vehicle from conventional controls and displays to Heads-up Displays.
- As in Independent Cost Estimator for the Contractor performing the bid, you have been asked to perform a Should Cost estimate to validate the Bottoms-up Bid.
- Note that in addition to the Control and Display Subsystem, it has been determined that the Fire Control Processor also needs to be upgraded to support the new Heads-up functionality.

Use Case #3: Engineering Change Proposal (ECP)

- The Army has asked us to estimate the cost of an ECP to improve the functionality of the current Command and Control software on the Stryker vehicle.
- They are adding requirements for updates to both the Command Interface as well as the Control Interface.
- Using the TruePlanning Fast Function Point Calculator we can estimate the increase in function points for these two new requirements, and the resulting Development Cost.

Use Case #4: Engineering Trade Study



- The Stryker vehicle must be able to be airlifted, and maximum weight limit for airlift is no more than 15,000 kg.
- The vehicle is currently overweight by about 300kg at 15,299 kg.
- The Army has asked us to investigate weight savings ideas that do not compromise the performance of the vehicle in any way.

- We believe that if we substitute Titanium axles for the existing Steel axles that we might be able to meet the vehicle weight budget, with a relatively negligible increase in Unit Production Cost.

Use Case #5A: Supplier Assessment – Make vs. Buy

- The US Army has a desire to perform a major upgrade the existing Stryker IAV.
- The current vehicle has eight wheels (4 axes), but the Army has found that it is somewhat unstable in certain circumstances, and it has been determined that the vehicle needs at least two more wheels to improve stability. (Req. #1)
- However, the Army needs to ensure that the vehicle is still agile and can still travel at ground speeds greater than 50 mph. (Req. #2)
- Also, the vehicle must be able to be able to accommodate a helicopter lift, so the maximum vehicle weight must not exceed 15,000 kg. An initial allocation of the vehicle weight to the engine is no more than 3000 lbs. (Req. 3)
- The overall unit production cost target for the new vehicle is \$3.4M (in as spent (TY) \$, allocated to the engine is less than \$3,000. (Req. 4)
- The minimum range requirement for the vehicle is 350 miles. (Req. 5)
- The engine must produce at least 200 Horsepower. (Req. 6)

- We can use our existing Engine Database to estimate both the cost of a new engine to meet the requirements, as well as search for existing COTS engines that will meet the requirements.

Use Case #5B: Supplier Assessment – Supplier Negotiation

- We note that the Engine Supplier who won the competition in the last Use Case is assuming a 15% Fee.
- Through a BAFO Negotiation we are able to negotiate this Suppliers Fee down to 12%.



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