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# Organizing For PBL

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- What Type Of Business Entity?
- Flowing Down PBL Requirements To Suppliers
- Variable Versus Fixed Costs
- Attributes Of A Hi Performance 70-30 Organization
- Outsourcing To Obtain 70-30
- Define Supplier Profit Strategy & Price Of Offering
- Supplier Financial Modeling Of PBL Offering

# What Type Of Business Entity?

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- Prime contractor/subcontractor relationship may not always be the right answer
  - Government directed work splits
  - Level risk
  - Depth of pockets
  - Interdependencies of products with other related products that you don't control
  - Complexity of scope
    - System of Systems
    - Multiple systems within a system of systems
    - Single system
    - Subsystem
    - Component of Subsystem

# What Type Of Business Entity?

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- Selecting the type of business entity needed to best execute PBA is complex
  - Must consider the scope of PBL that is being offered
    - The more complex the scope the more you must look to a variety of organizational options
  - Must consider profit objectives and desire for control
    - Do I want 100% of the profits and 100% of the risk?
  - Must evaluate sensitivity to performance and investment risk
    - Should I spread the risk and investment or accept it all?
  - Must evaluate customer metrics by which performance will be measured
    - Are the metrics attainable given the scope of the program?
  - Must consider transparency to warfighter
    - Will my approach to organization provide a single face to the warfighter?

# What Type Of Business Entity?

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- Example
  - Government wants to maintain industrial base
    - Directs that two contractors split development of 10 different system equally. Systems have different missions
    - C4ISR managed under a separate contract from the platform
  - Government desires that 90% of the components of the systems be common between the 5 vehicles that contractor "A" build and the 5 built by contractor "B"
  - Contractor A and B have been traditional competitors with a bad track record of collaboration. Different cultures, different profit objectives, share risk aversion in common
  - Both want to control the products that they build
  - Government has mandated that  $A_o$  of 95% or greater is required
  - Early indications that investment in contractor infrastructure and materials will between \$200M to \$300M over 8 year period

# What Type Of Business Entity?

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- Company A / B issues
  - How do I achieve the availability target?
    - Company A / B each desire to support the products that they build respectively
    - A key subsystem (C4ISR) that impacts availability is not within either contractors scope
  - How do I maintain commonality over time?
    - Each contractor is motivated by own self-interest
    - Who will have the last word when it comes to design changes to common components
    - Risk to commonality is high

# What Type Of Business Entity?

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- How do I maintain transparency to the warfighter?
  - Different design philosophies
  - Different processes
  - Different view of customers
- We both hate risk?
  - Same requirements and metrics
  - Huge initial investment required
  - Don't control all of the work

***CLEARLY A PRIME/SUB  
RELATIONSHIP WON'T WORK***

# What Type Of Business Entity?

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- Other options for teaming
  - Each Contractor is responsible for their system. Form a joint unit to manage the common items
  - Form Joint Venture for systems and common components
  - Form and Limited Liability Corporation
  - Form a separate corporation
  - Operate using Memorandum of Understanding
  - Others

***EACH OPTION HAS DIFFERENT  
BENEFITS AND BURDENS***

# Organizational Strategies for PBL

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- PBL cannot be successfully implemented within a current support organization construct that is recommended to have:
  - Separate Customer Focused PBL Team with full accountability for PBL execution
  - Flat organization
  - Well compensated because they will be making decisions on potential millions of \$ of company owned assets
  - Multi-disciplined personnel who understand the PBL business model, the interrelationships of processes, and decision triggers

# Organizational Strategies for PBL

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- Types of people required is driven by the complexity of the PBL offering and the level of accountability of personal managing the customer relationship
  - Program Manager manages PBL relationship with customer
    - Understands customer
    - Understands performance and financial risks
    - Understands the interrelationships of key PBL processes
    - Fire in the belly
  - Material Asset Planner (Industrial Engineer)
    - Builds maintenance induction forecasts (dependant demand planning)
    - Makes BER decisions
    - Makes asset acquisition decisions
    - Monitors repair supply chain for redesign triggers
    - Fire in the belly

# Organizational Strategies for PBL

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- Types of people required is driven by the complexity of the PBL offering and the level of accountability of personal managing the customer relationship
  - RAM-T Engineer
    - Analyzes failed assets for design deficiencies
    - Manages obsolescence/DMS issues
    - Initiates redesign efforts
    - Plans and implements introduction of design changes into the supply chain
    - Fire in the belly
  - Business Planner
    - Performs managerial accounting support to Program Manager
    - Identifies market for excess assets
    - Manages the sale of excess assets
    - Fire in the belly

# Compensation Strategy For PBL

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- Current HR compensation strategies will not support high performance on PBL offerings; Unique job descriptions for each position are required
  - PBL requires different types of job skills than found in traditional manufacturing or support organizations. A material planner from Manufacturing does not have the skills to handle dependant demand planning
  - Pay-for-team performance rather than individual heroics
  - Pay at risk with large upscale potential
    - 12 % pay at risk, 24% upscale potential
    - Salaries allowed to erode until 12% threshold is met
  - Bonus payouts quarterly
  - Team performance appraisals

# Flowing Down PBL Requirements To Suppliers

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- Flowing down PBL requirements to the supply chain makes good business sense
  - Dependant relationship (If you fail, I fail)
  - Commitment to shared goals for weapons system
  - Long term supplier contracts
  - Higher supplier margins
  - PSP risk spread to broader supply chain base

# Flowing Down PBL Requirements To Suppliers

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- Picking the right suppliers to flow down PBL requirements to requires careful consideration
  - Vendors who should receive PBL requirement
    - High cost products likely to remain in use throughout the life of the system
      - Engines
      - Structures
      - Transmission
    - High risk technologies where no substitute can be found such as software

***REMEMBER,  
IF THINGS GO WRONG AND A PRIME WANTS OUT OF  
THE RELATIONSHIP,  
IT IS DIFFICULT TO CHANGE IF THEY HAVE SHARED  
YOUR RISK.  
YOU WILL NEED A LAWYER***

# Flowing Down PBL Requirements To Suppliers

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- Picking the right suppliers to flow down PBL requirements to requires careful consideration
  - Vendors who should not receive PBL requirements
    - Vendors with mature products or technologies that can be replaced by new technologies
    - Vendors of commodity items

# Attributes Of A Hi-Performance 70% Variable-30% Fixed (70-30) Organization

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- Outsourcing non-core activities
- Retaining core activities
  - Asset supply chain management
  - Systems and RAM-T engineering
  - Business analysis
  - Managerial accounting
- Compensating for performance...these are not legacy logistics and financial positions
  - Fluctuating demand, in which objective is to reduce demand
  - Large asset base
  - Large amounts of data
  - Extensive financial knowledge for all
  - Cash flow
  - Risk Management to protect investment

# Rigorous Financial Modeling Of PBL Offering Is Required: Income Statement

<b>Proforma Income Statement</b>		
A	Revenue	Time of revenue recognition, quantity, unit price
B	Cost Of Sale (aligned with revenue and use of accruals)	Period direct labor costs
		Period direct material costs
		Other direct
		Capital investment allocation of depreciation, or period expense when leased (goods, software, facilities)
C	Gross margins	(A-B)
D	General & Administrative	Allocated from parent company or acquired as a service
E	Impairment	Inventory obsolescence, capital investment depreciation, revenue disputes, warranty, others
F	Earnings Before Interest & Taxes (EBIT)	C-(D+E)

**“Our business is now being driven by actuarial science,”  
GE Product-Services**

# Remember...There Are Three Ways Of Reporting Financial Information

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- Managerial
  - Creates behavioral cues for management
  - Is used for internal purposes only
- Tax
  - Rate can have material impact upon enterprise value
  - Primarily focuses on cash flow
- GAAP (Generally Accepted Accounting Principles)
  - Attempts to align expenses that are out-of-period with revenues
  - Primary means of reporting financial information to financial community

**All the above must be reviewed as to their impact upon the income statement, cashflow and balance sheet**

**....and the incentive program of executives: EBIT, ROI, Cashflow & Others compensation drivers**

# Rigorous Financial Modeling Of PBL Offering Is Required: Balance Sheet

<b>Proforma Balance Sheet*</b>		
A	Current Assets	Cash
		Inventory (repairable service parts should be fixed assets)
		Accounts receivable
B	Fixed Assets	Capital goods
		Software
		Facilities
C	Current Liabilities	Accounts payable
D	Long Term Debt	Debt (internal/external)
E	Net Assets	$(A+B)-(C+D)$

\*Excludes equity

# Rigorous Financial Modeling Of PBL Offering Is Required: Cashflow

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<b>Proforma Cashflow</b>		
A	Inflow	Revenue
		Loans
B	Outflow	Labor
		Consumables
		Other direct
		Inventories
		Capital expenditures
C	Net Cashflow	A-B