

WORKSHOP C: R&D/ SALES/ENGINEERING

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Overall Comments: significant difference in outlook and perceived problems in those providing services to the Military and in those providing similar product services to the commercial world.

General Workshop: Good opportunity to share viewpoints, opinions, experiences in the problem areas discussed.

Identified problem areas which impede communications between Sales, R&D, and Engineering:

1. External Problems

- Customer uncertainty
- Need for customer education
- Cost problems
 - Timing on funding

2. Internal Problems

- No control on specifications
 - Ownership not defined
 - No product champion
- No common language
- Cultural differences

3. Product Problems

- “The Perfect Product” vs “Good Enough”
 - “Good Enough” defined as what the customer really wants/needs

1. Possible solutions to external problems

a. Customer education

- Seminars, technical articles, workshops
- Anticipate the customer’s need
 - Unsolicited proposals
- Sharing data with customer, even some proprietary

- Make the customer part of the problem and solution
 - Provide input on specifications
 - Joint development when appropriate
- Customer visits to factory

b. Staff Education

- Direct contact with customer by R&D and Engineering
- Staff rotation into all Sales/R&D/Engineering functions
- QFD (Quality Function Deployment)
- Core Teams

2. Possible solutions to internal problems

a. Abolish silos

- Core Teams
- Combined Meetings
- Concurrent engineering – Design for Manufacturing
- Co-location
- Self-elected planning group
- Self-empowerment
- Interactive brainstorming
 - Combined Sales/R&D/Engineering group
 - Unstructured, but with defined goals

b. Other areas that may impede communication

- Use system engineering to tie project together
- Importance of testing
- Human engineering factors
- TQM – impact of ISO 9000
- Reaching the right person

3. Possible solutions for the “Perfect” vs “Good Enough”

- Communication with customers on options
- Knowing what the customer really wants
 - Verifying with customer
 - Communicating customer preferences to all
- Good specifications

- Consider customer costs
- Don't try to meet multiple customer needs with a single product
 - No killer general purpose solutions
 - Costs too much – Low customer value
- Design for manufacturing – manufacturing engineers on core team

