



Technology Transition The End Game of R&D



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Technology Transition Starts with the Proposal

Promises, Promises





Expectations





Results





Technology Transition

- Objective: Affordable Operationally Suitable Technology in the Hands of our users.
- Planning is an integral part of R&D process
 - Starts with the proposal
 - Continues throughout development
 - Requires Periodic Deliverables
- Prepares US for the unexpected
- We provide assistance with issues.
- Teamwork makes US all successful.



Tech Transition

Today's Presentation

- Customers – Ours and Yours
- Transition Planning – What's it All About?
- Things you will want to know
- Issues and Answers
- Tools to help you plan.
- Questions



Our/Your Customers

- **Military Services**
- **Federal Agencies**
- **State and Local**
 - Emergency Responders
 - Public Safety





Our/Your Customers

- **Business and Industry**
 - Transportation
 - Energy
 - Communications
 - Construction
 - Infrastructure





Transition Planning

- **Is a Disciplined Teamwork Process**
- **Starts with Proposal Review**
- **Parallels Development Process**
- **Leverages all Markets and Applications**
- **Encourages User Evaluation and Input**
- **Fosters Affordability and Supportability**
- **Facilitates Availability to All Appropriate Users**
- **Protects Government Investment**
- **Enables a Win-Win-Win**



Not Planning





Things You will Want to Know

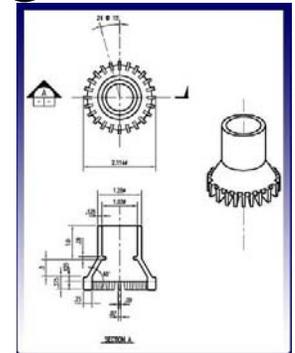
- Who is my Government Advocate?
- What are my IP Rights? - Who owns what?
- Will the government take over my work?
- What goes into a Test Plan?
- What regulations and standards apply?
- Do I have a liability problem?
- Do I produce it or license it?
- Can I continue to use the prototype?
- What about Security?
- Can I export the product?





Transition Planning

- Requirements
- Applications
- Intellectual Property Ownership vs Rights
 - Hardware (Design) & Process Patents
 - Data Rights
 - Software Rights – (They're different).
 - Rights vs Deliverables
 - Licensing Fees and Royalties
- Fear of Government Takeover!





Transition Planning

FAR/DFARS Govt. Rights vs. Developer Assertions

Funding	Government	Mixed	Private
Ownership	Developer	Developer	Developer
Hardware Patent	Non-Exclusive License	Non-Exclusive License	Non-Exclusive License
Data Rights	Unlimited	Govt Purpose	Limited
Software Rights	Unlimited	Govt Purpose	Restricted

You invent it – you own it. We get to use it



Govt Rights vs. Reality

- We want you to be a success!
- If you develop it and want to produce it, we will encourage you in every way we can.
- If you can't produce it - we will help you.
- Government Intervention – A last resort.





Transition Planning

- **Regulatory Issues Analysis**

- **FCC**

- **FDA**

- **FAR/DFARS**

- **EPA**

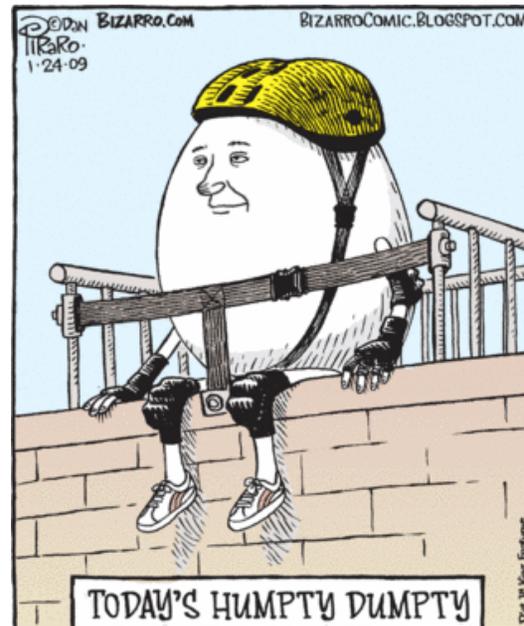
- **NRC**

- **DOE**

- **DOT**

- **OSHA**

- **ATF**



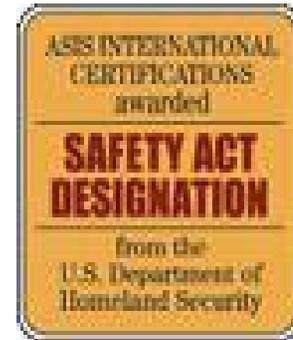


Transition Planning

- **Standards Identification**



- **Liability Risk Analysis**



- **Security Issues**



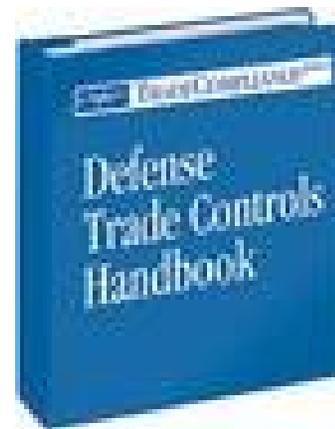
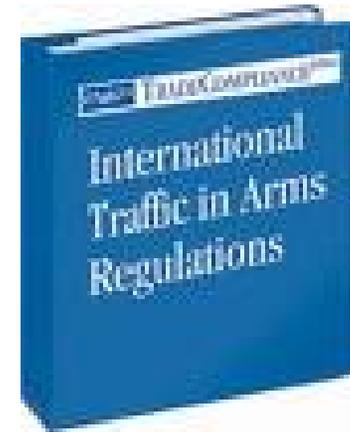
- **Publications**





Transition Planning

- **Export Control**
 - **Commodity Jurisdiction**
 - **Commerce – State – DOD**
 - **Export License**
 - **Universities - Foreign Students**
 - **Green Card Employees**
 - **Deployment of prototypes overseas**
 - **Foreign Testing**
 - **Importing for test**



MCTL
Militarily Critical Technologies List



Transition Planning

- **Market Analysis - Federal Sector**

- Agency Proponent(s)

- Do you have a User Task Manager?

- If you build it, **WILL THEY COME?**

- Are they **BUDGETING** for it?



- **Market Analysis - Private Sector**

- Your job - we may be able to help.

- Larger market = lower costs and lower prices.

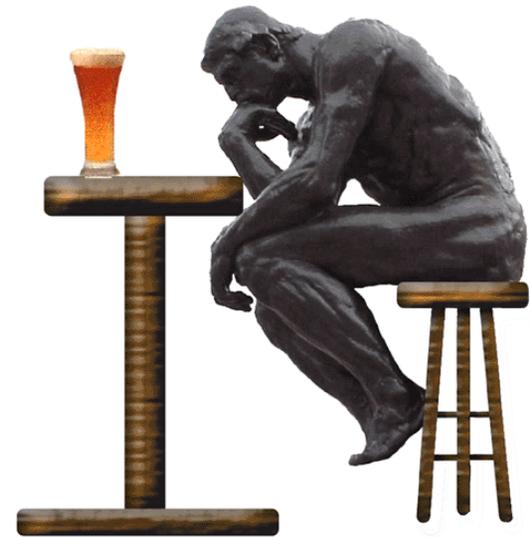
- **Everyone Benefits**





Transition Planning

- **Transition Strategy**
 - **Venture by Developer**
 - **Partnership**
 - **License to Producer**
- **Transition Resourcing**
 - **Federal Acquisition**
 - **Sponsored LRIP**
 - **Investment Capital**





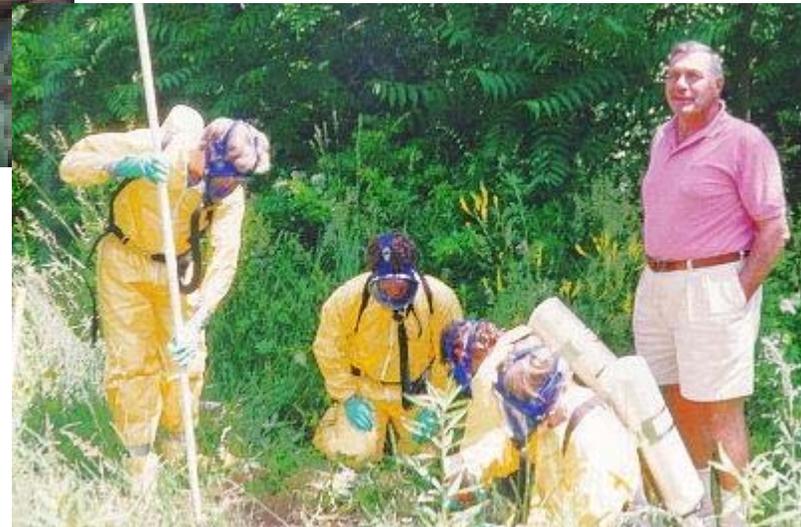
Test & Evaluation



Development
Testing



Operational Testing



Realism



It Must Work!





Transition Planning

- **Supportability & Sustainability**
 - Designed in
 - Operations Manual
 - Training
 - Sustainment
 - Logistics
 - Service
 - Warranties





Transition Planning

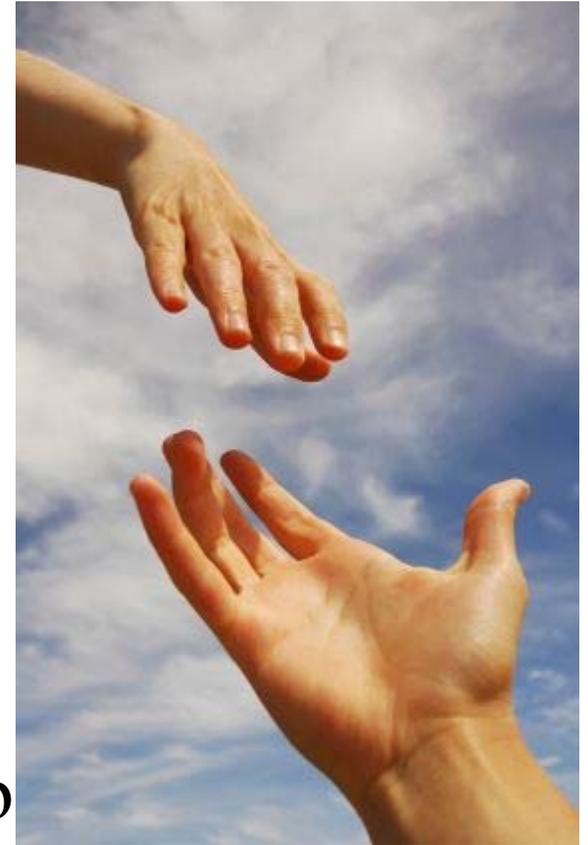
- **Outreach to Federal Users**
- **State and Local Government Users**
 - **Web Notices**
 - **DHS Responder Knowledge Base**
 - **DOD 1401 Program**
- **International Partners**
- **Use of Prototypes for further development**





Assistance

- Transition Plan - LIVING DOCUMENT
- Test Plan – We have Guidelines
- Fact Sheets – Export Control, Liability...
- Licensing Recommendations
- Federal Lab assistance via CRADA
- Outreach via FEDBIZOPS and Web





On Line References

www.cttso.gov

- Transition Plan Guidelines
- Radio Frequency Spectrum and Emissions Management
- The DOD Intellectual Property Guide
- Technology Readiness Levels – definitions
- Safety Act and Application Kit
- Test and Evaluation Planning Guide
- Off Line References via e-mail
 - Introduction to Tech Transition
 - 10 Steps to Reducing Liability during R&D
 - Export Control Guidance
 - LRIP Cost Analysis Model

CTTSO - Technology Transition

CTTSO Programs Search

COMBATING TERRORISM TECHNICAL SUPPORT OFFICE

CTTSO

CTTSO PROGRAMS

Technology Transition

Transition planning is the key to successful development, otherwise a developer has no market, and our users have no product. Don't let your project become homeless, plan ahead for transition.

Tech Transition Program Manager

CTTSO supports national combating terrorism objectives by providing technology transition assistance to planners, developers, and users throughout the development cycle. Technology transition planning is integrated into the development phase of each project to identify and mitigate potential barriers. This process results in a smoother transition from prototype to an affordable, operationally suitable system for the user community.

Questions regarding technology transition should be e-mailed to TechTrans@tsawg.gov.

Intellectual Property Management References

Regulatory Agencies

Standards References

Export Control References

Funding Source Links

SAFETY ACT CERTIFIED

DHS SAFETY ACT: Apply to certify your product

Transition Planning Resources

These reference materials are provided to assist in the preparation of a Technology Transition Plan; issues that may arise throughout the planning process are also addressed.

Implications of Buy American Act on Transition This document explains issues that can arise when developers use foreign made components in their development efforts.

Technology Transition Guide The DOD Technology Transition Guide Provides an overview of the processes, communities, programs and challenges associated with technology transition.

Radio Frequency Spectrum and Emissions Management Who controls Spectrum Management. Also includes how to learn about regulations and procedures.

Technology Readiness Level Definitions Technology Readiness Levels descriptors (from Best Practices).

2008 CTTSO Review Book (PDF)

Technology Available for Commercialization

Review developed technologies that are ready for commercialization or incorporation into existing products.



Avoid Surprises





Teamwork is the Key

- **Close Coordination and a Win-Win Approach**
 - **Project Manager**
 - **Contracts Officer**
 - **IP Counsel**
 - **Developer /User**
 - **Transition Manager**
- **Transition Plan**
- **Communication**





Plan Ahead!

Don't Let Your Technology Become
Homeless





Questions?





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Technology Transition Program

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