

National Center of Excellence for First Responder Technologies (NCEFRT)

Unique Applications for
Technology Transfer
Via A University Intermediary

- IEE OVERVIEW
 - SBDC
 - business planning
 - market research
 - access to federal funding assistance
 - training programs
 - FEC
 - protect, preserve, and promote closely-held family-owned businesses throughout southwestern Pennsylvania
 - provide insights into pivotal issues that affect a family business through leading-edge educational programs and peer advisory activities
 - EFC
 - provide innovative, practical, interactive, and action-oriented management education programs
 - PLW
 - provide resources and expertise to move innovations from the laboratory to first responder, commercial and military applications

National Center of Excellence for First Responder Technologies (NCEFRT)

- In 2004, the nation's first Department of Defense (DoD) Technology Transfer and Commercialization National Center of Excellence for First Responder Technologies (NCEFRT) was established at PantherlabWorks
- NCEFRT was created to increase the rate at which research is transferred to the marketplace
- Also aims to support the growth and competitiveness of U.S. manufacturers and small businesses
- NCEFRT will support DoD transition technology from laboratory to market by conducting:
 - initial technical reviews
 - market analysis
 - identification of potential industry partners

National Center of Excellence for First Responder Technologies (NCEFRT)

- There are nearly three million federal, state and local "first responders"
 - firefighters
 - law enforcement
 - emergency medical personnel
- Today, their role includes not only providing basic safety to U.S. citizens, but also securing our nation's home front
- Thus, their need for the best available technologies and equipment is more critical than ever

TOP TWENTY USER NEEDS

- First Responder Focus Groups
- Industry Experts
- Think tanks
- Western Pennsylvania Region 13 Command
 - national model for regional cooperation

TOP TWENTY USER NEEDS

- **Detection prior to event/release**
 - Chemical, biological, radiological, explosive agent detection
 - Bomb detection
 - Concealed weapon detection
 - *Criteria:*
 - Non-intrusive, Stationary devices
 - Devices worn by first responders
 - Devices integrated into vehicles

TOP TWENTY USER NEEDS (Cont'd)

- **Warning/identification devices**
 - Real time identification of type of chemical release
 - Real time identification of type of biological agent

TOP TWENTY USER NEEDS (Cont'd)

- **Personnel Protective Equipment**
 - Personnel protective equipment for first responders that provides protection against chemical, biological and radiological agents
 - Ballistic resistant clothing
 - Explosive resistant clothing
 - *Criteria:*
 - Allows for dexterity of movement
 - Lightweight
 - Puncture/cut resistance
 - Inexpensive
 - Does not stress the body
 - Detect human presence through walls/floors
 - Detect cadavers under rubble or water

TOP TWENTY USER NEEDS (Cont'd)

- **Tracking devices**
 - Real time physical tracking of response personnel
 - Bio-medical tracking (vital signs, temperature, etc.) of responders
 - Victim and personnel tracking

TOP TWENTY USER NEEDS (Cont'd)

- **Post event technology**
 - Real time chemical, biological, radiological effect modeling and simulation
 - Real time GIS capability
 - Assessment of structural integrity of buildings
 - Chemical, biological, radiological decontamination of responders
 - Mass decontamination capability
 - Portable, on scene victim isolation/treatment equipment
 - Chemical, biological, radiological, explosive, device disposal

WHAT WE'RE DOING

- Current Efforts

- Licensing Agreements

- 1 AFRL
- 2 NSA

- CRADA's

- 1 AFRL
- 1 DoE
- 1 DTRA
- 2 NGIA

- Near-Future

- CRADA-AFRL
- CRADA-ARL

Air Force Research Laboratory

Teradata
a division of  NCR



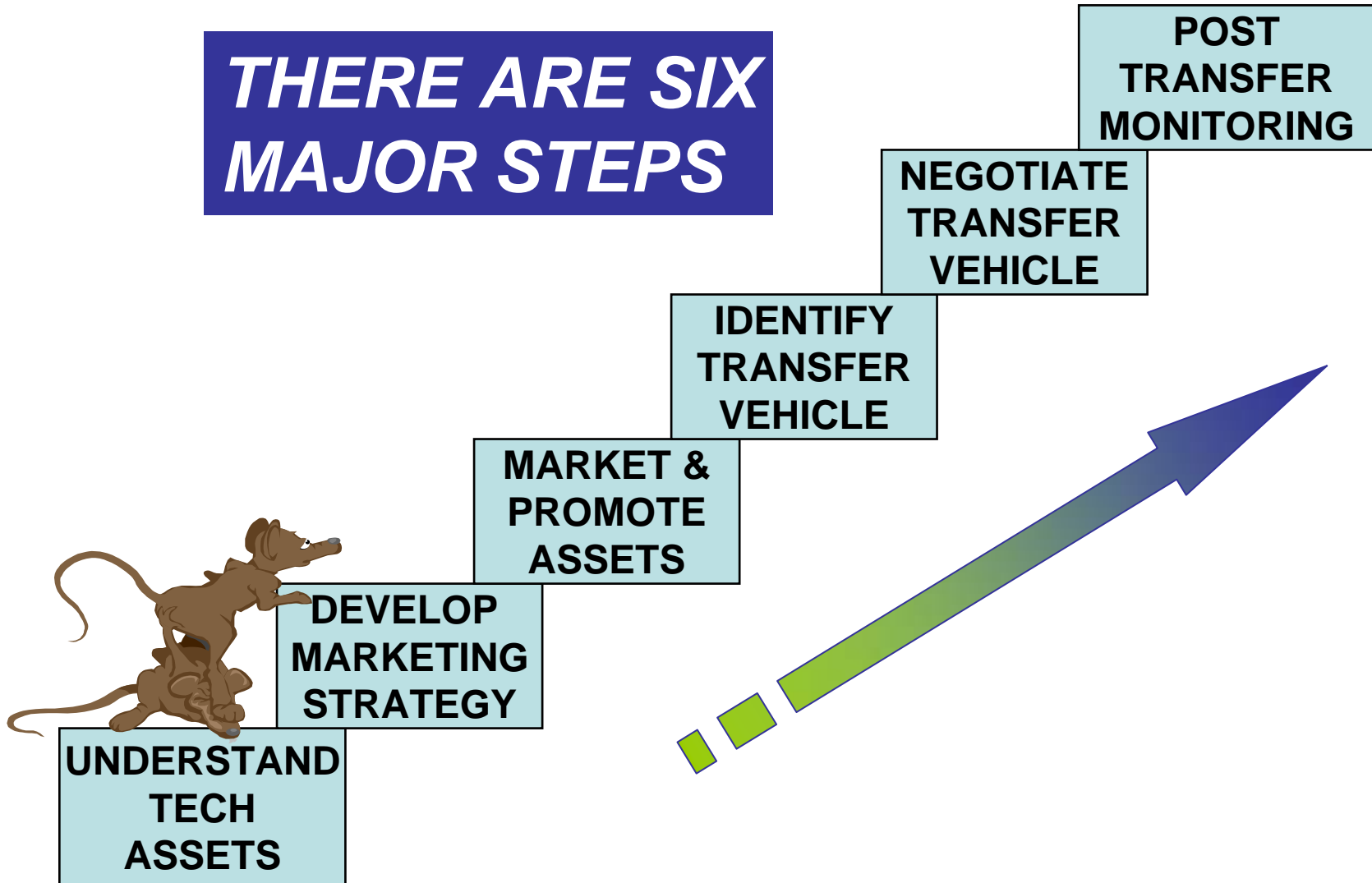
CASE STUDIES

- **OsINTa**
- **Envirotek-Solutions**



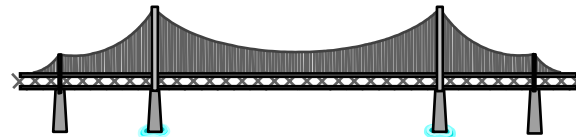
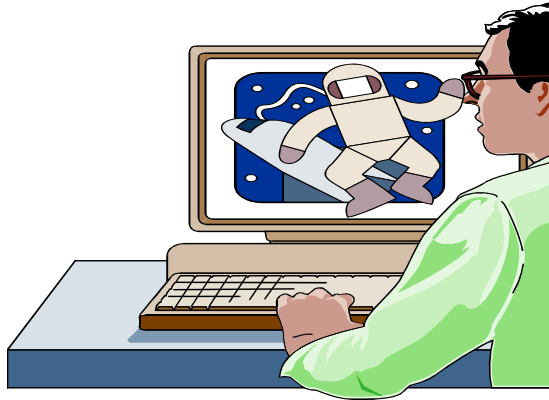
The Master Process

THERE ARE SIX MAJOR STEPS



THE MISSION...

The Bridge Between Technology and The Marketplace



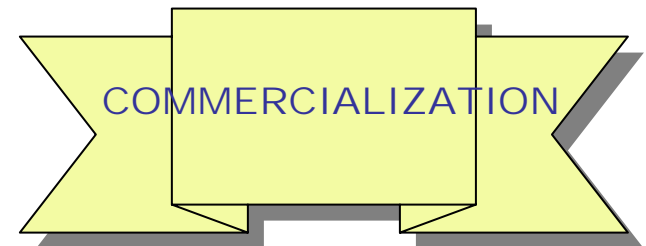
Laboratory Resources

- Technology
- Expertise
- Facilities
- Equipment
- Data



Industry

- Private Industry
- Public Sector
- Academia



Keys to Success

- Establish technology transfer strategy complementary to investment strategy
- Promote technologies with commercial potential
- Concentrate resources on targeted audience
- Determine an optimal technology transfer strategy
- Accomplish transfer
- Implement effective post-transfer effort

