-- Human Systems Overview --
Community of Interest (COI)

Mr. Jack Blackhurst
Air Force Rep
Human Systems Community of Interest

National Defense Industrial Association
Human Systems Division Workshop
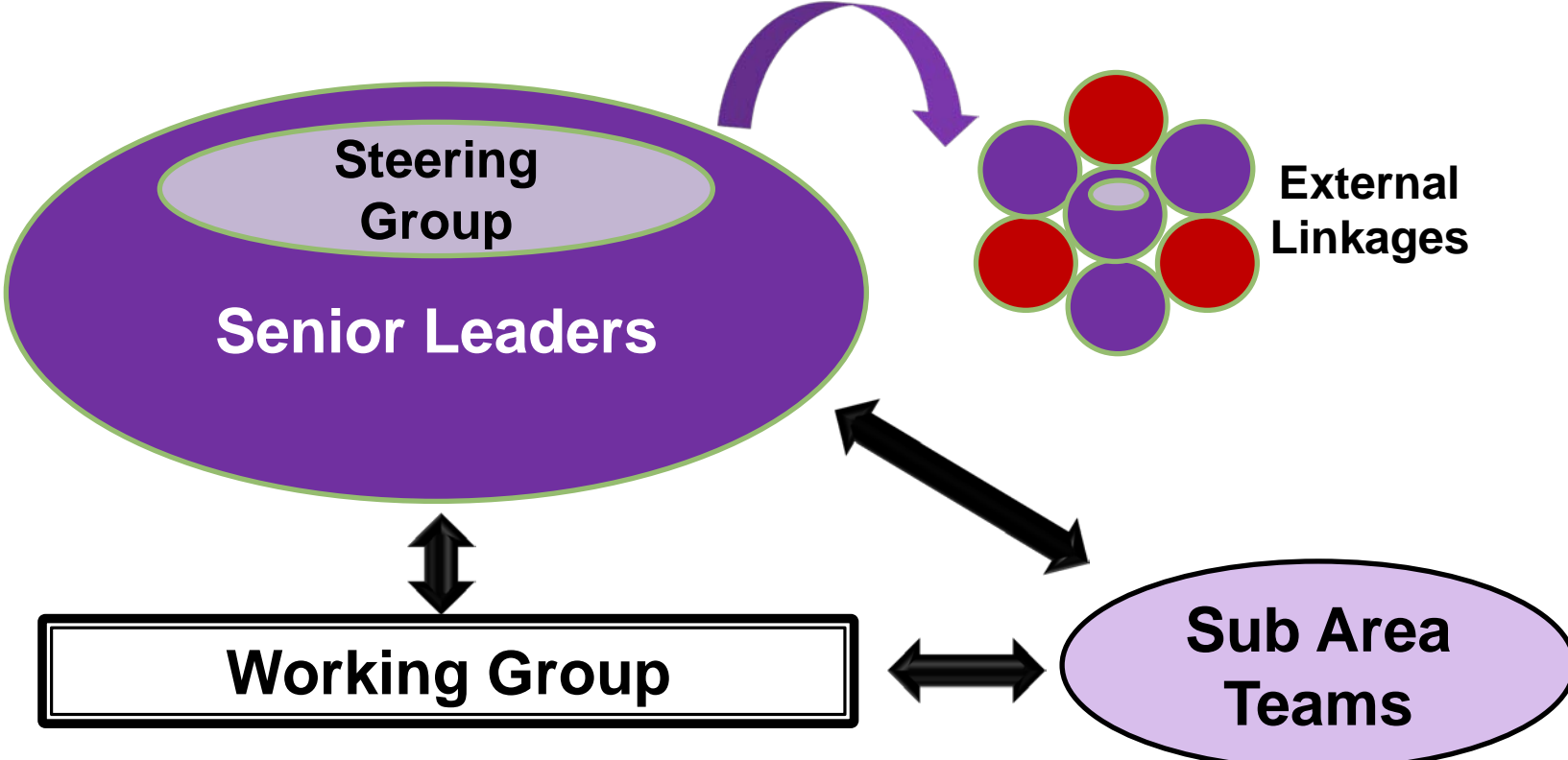
3-4 Feb 2014

Human Systems
Community of Interest

- ➢ **OSD goal: Make COIs the "go-to" source for DoD S&T expertise, leadership and coordination -- deliver maximum impact for the DoD's Science & Technology (S&T) dollars**
  - Transition from primary focus on information exchange/awareness to collaboration and joint planning
- ➢ **COI: Provide framework for DoD Components DoD Executives, Scientists, Engineers, & Human Systems Integration experts to:**

  - Share information, ideas, and best practices

  - Identify opportunities to leverage external investment & expertise

  - Identify gaps and issues; make recommendations to DoD S&T execs

  - Report on state of the health of the Human Systems Defense Technology Area and related S&T

Human Systems COI
Organizational Structure

Steering Group

Senior Leaders

External Linkages

Working Group

Sub Area Teams

➢ *Multiple service/agency participation*

➢ *Breadth across disciplines*

➢ *Links to other Communities of Interest*

Human Systems COI
External Linkages

NATO

HFE TAG

C2 & OI Community of Interest

Human Systems Community of Interest

TTCP

Conferences (e.g., I/ITSEC)

ASBREM Committee

North Atlantic Treaty Organization
Command, Control and Other Information
The Technical Cooperation Program
Human Factors Engineering Technical Advisory Group
Armed Services Biomedical Research Evaluation and Management
Interservice/Industry Training, Simulation and Education Conference

Human Systems COI
Primary Organizations

- **Army Research Laboratory – Human Research & Engineering Directorate**

- **Army Research Institute for the Behavioral and Social Sciences**

- **Army - Natick Soldier Research, Development, and Engineering System Center**

- **Office of Naval Research – Warfighter Performance Department**

- **Air Force Research Laboratory – 711 Human Performance Wing**

- **ASD(R&E) – Human Performance, Training, & BioSystems**

Human Systems COI
Participating Organizations

- **Army – MANPRINT Office**
- **US Army Medical Research & Materiel Command**
- **Navy – Human System Integration Engineering**
- **Navy – Naval Air Systems Command**
- **Navy Medical Support Command**
- **Air Force Human System Integration Office**
- **Air Force Medical Service**
- **ASD(HA) – Force Protection & Readiness**
- **NATO Human Factors & Medicine Panel**
- **DoD Human Factors Engineering Technology Advisor Group**
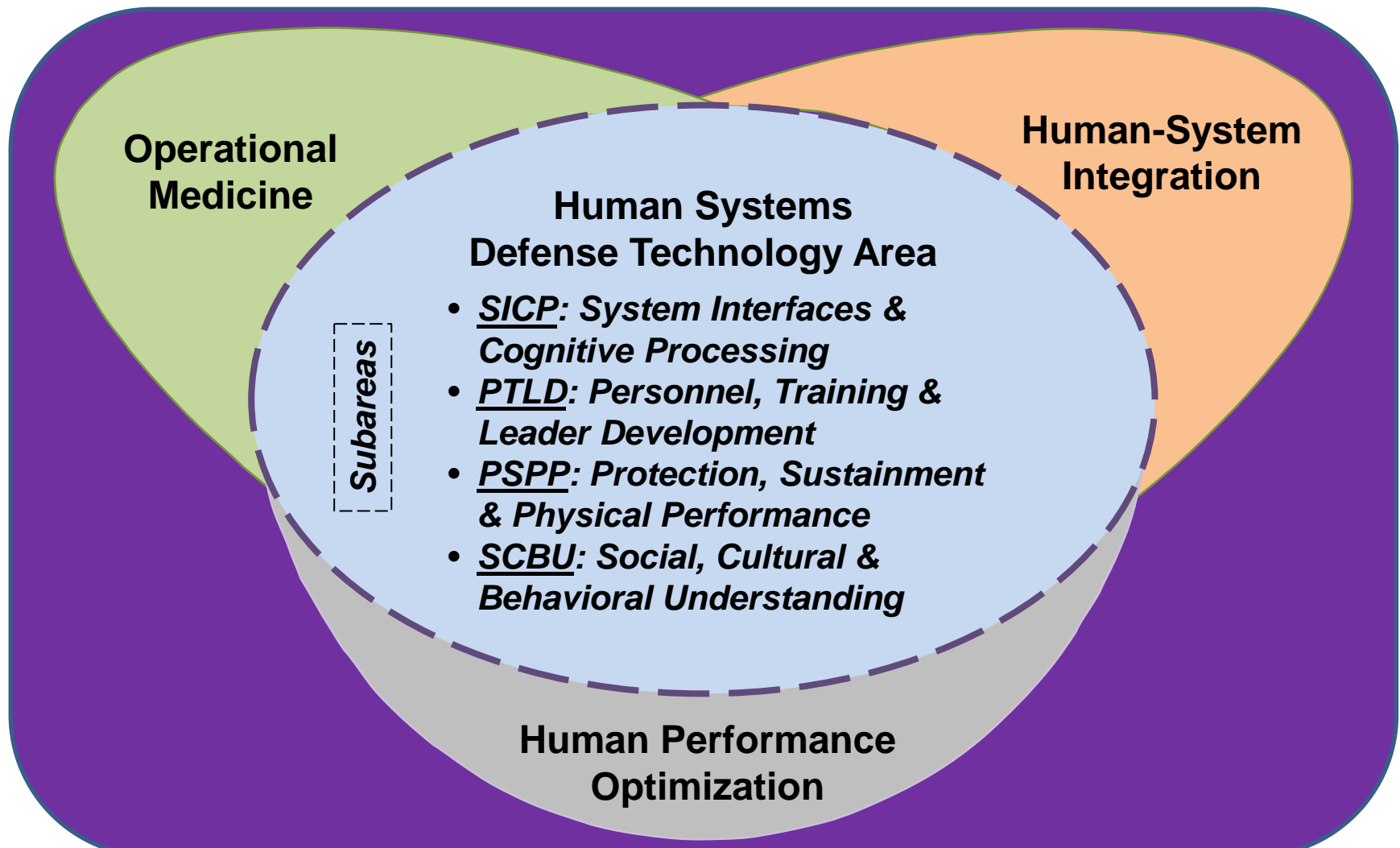- **Defense Threat Reduction Agency – Chemical/Biological Technologies**

Human Systems
Operational Capability Scope

Human Systems Community of Interest

Operational Medicine

Human-System Integration

Human Systems Defense Technology Area

Subareas

- *SICP: System Interfaces & Cognitive Processing*
- *PTLD: Personnel, Training & Leader Development*
- *PSPP: Protection, Sustainment & Physical Performance*
- *SCBU: Social, Cultural & Behavioral Understanding*

Human Performance Optimization

Human Systems
Science & Technology Scope

System Interfaces

- Human-Machine Interfaces
- Human cognitive process modeling
- Decision-making models
- Human state modeling
- Applied Neuroscience
- Trust
- Metrics & measures of effectiveness

Personnel & Training

- Force management & modeling
- Selection & Classification
- Theory of learning
- Adaptive, tailored instruction
- Live, virtual, constructive sims
- Realistic immersive training
- Training methods, tech, & media
- Education & training strategies
- Innovative leader development
- Metrics & measures of effectiveness

Social & Cultural Understanding

- Cultural situation awareness
- Socio-cultural models & synthetic entities
- Socio-cultural data in denied areas
- Social network analysis
- Building partnerships
- Metrics & measures of effectiveness

Protection & Sustainment

- Extreme environment protection
- Combat clothing & protective equipment
- Extended combat rations & field feeding equipment
- Physical aiding
- Performance enhancement
- Vehicle escape & crash safety
- Survival & rescue
- Aerial delivery
- Warrior-System integration
- Metrics & measures of effectiveness

FY13 Accomplishments/FY14 Plans

FY13 Accomplishments

- **Participated in technical conferences & workshops**
  - ☑ **I/ITSEC (December 2012)**
  - ☑ **IR&D Technical Interchange (Summer 2013)**
- **Operationalized initial Human Systems Marketplace**

FY14 Plans

- **Participate in technical conferences & workshops**
  - ☑ **I/ITSEC (December 2013)**
  - ☑ **NDIA Conference (Feb 2014)**
  - o **Human Factors TAG (Sep 2014)**
- **Brief HS COI portfolio to ASD (R&E) staff (May/Nov 2014)**
- **Continue IR&D discussions with Industry**