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DEPARTMENT OF DEFENSE

# **DoD Biometrics Fusion Center Overview Brief**

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<http://www.biometrics.dod.mil>



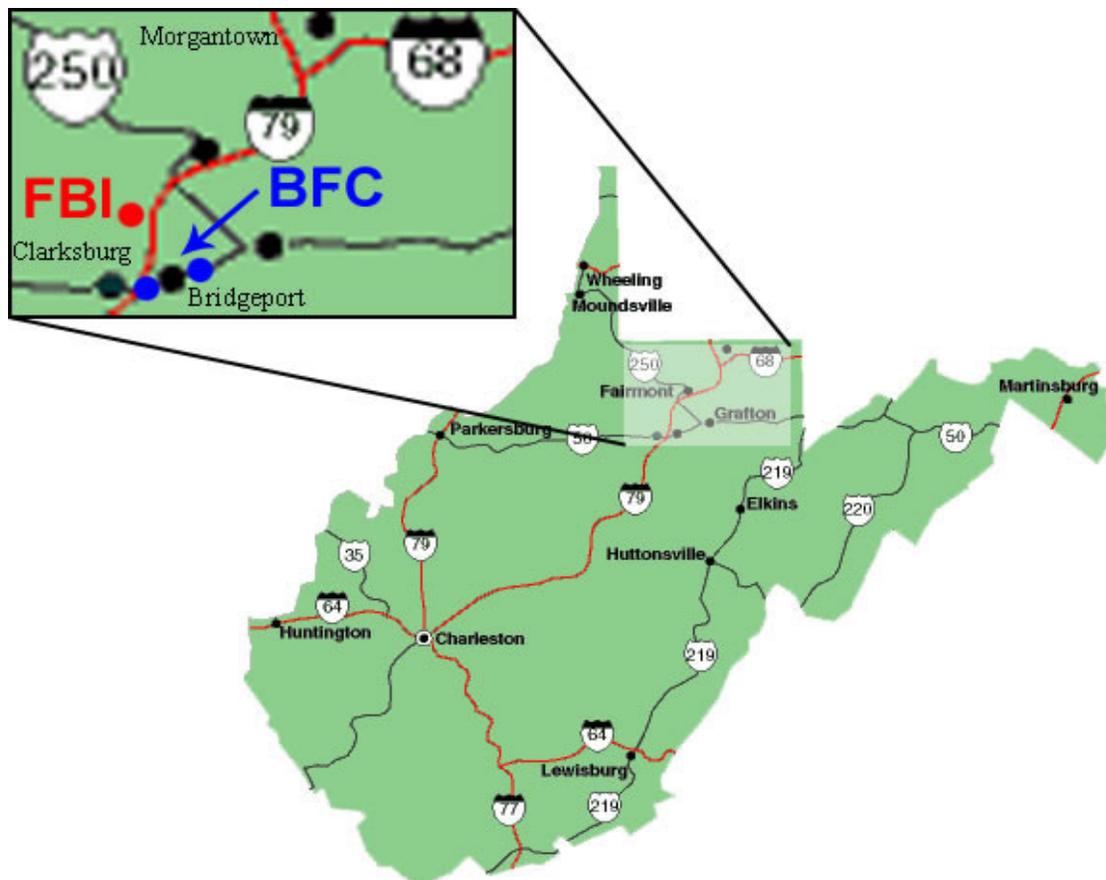
## Purpose

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**To provide an overview of the DoD  
Biometrics Fusion Center**



# BFC Location





# Agenda



## **BFC Mission**

## **BFC Core Functions**

Market Research

Test and Evaluation

Implementation Support

Data Center

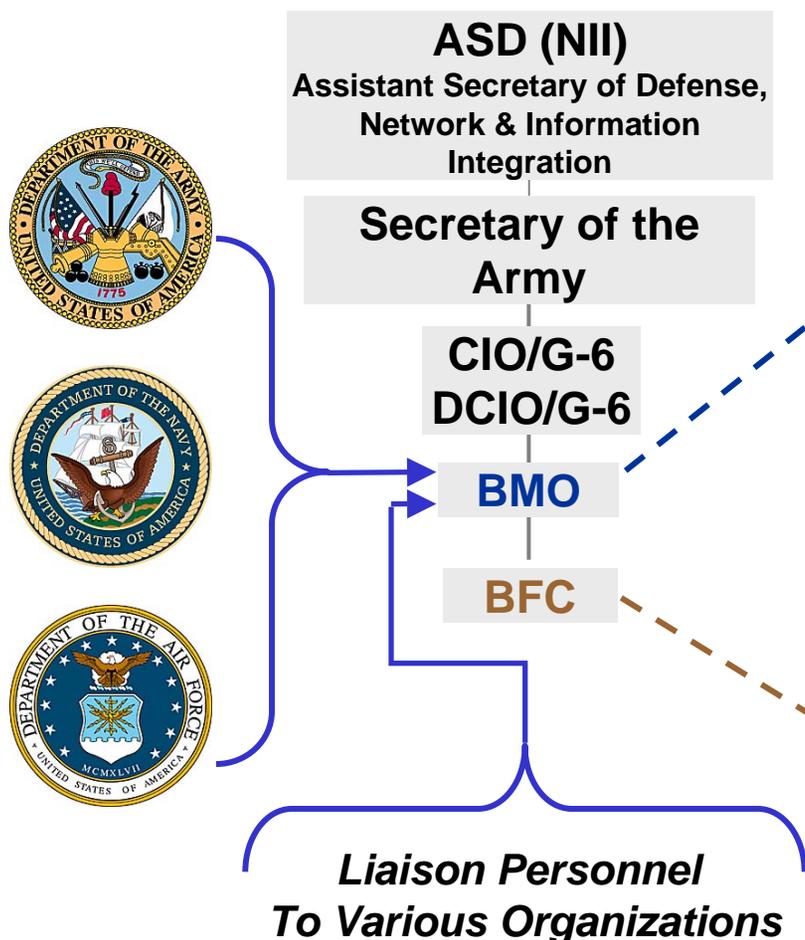
## **Road Ahead**



# DoD Biometrics Structure



## Chain of Command



### BMO - Biometrics Management Office (DC)

- ❑ Oversight
- ❑ Planning / Budgeting
- ❑ Policy & Standards Development
- ❑ Acquisition Process
- ❑ DoD Requirements Gathering
- ❑ Public Outreach
- ❑ Liaison with Other Organizations

### BFC - Biometrics Fusion Center (WV)

- ❑ Test & Evaluation
- ❑ Biometric Knowledgebase
- ❑ Biometric Product List Development
- ❑ Repository Management, as required
- ❑ Industry/Academia Interface
- ❑ Common Access Card (CAC) Support
- ❑ Technical Expertise



# Biometrics Fusion Center Mission

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## **Operational Arm of the BMO**

Conducts industry and product market research

Serves as the eyes and ears for DoD

Tests and evaluates COTS/GOTS products

Provides implementation/integration support to DoD customers

Provides education and training

## **Strives to be DoD's Biometrics Center of Excellence**

Interacts with industry, academia, and government

Provides Subject Matter Expertise

Conducts, pilots, demos – documents lessons learned

Facilitates implementation of biometric technology for the warfighter



# BFC Core Functions



## **Conduct Market Research**

Biometrics products, research initiatives and DoD implementations  
Generate reports on select implementations to provide lessons learned  
Research and coordinate T&E activities of other organizations

## **Test and Evaluation**

Test/evaluate biometric products (COTS and GOTS)  
Publish test results to the biometric knowledgebase for access to .mil  
and .gov customers

## **Implementation Support**

Support DoD organizations in implementation of biometrics

## **Data Center Operations**

Help Desk – 24 X 7  
Develop/manage biometric repository and test databases  
Maintain web-based biometric knowledgebase



# Test & Evaluation

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## Objectives

- Ensure that products perform as promised and meet DoD requirements
- Mitigate risks associated with biometric implementations
  - Security, financial risks
- Identify gaps between what is commercially available and what DoD needs

## Outputs

- Test reports published to biometric knowledgebase

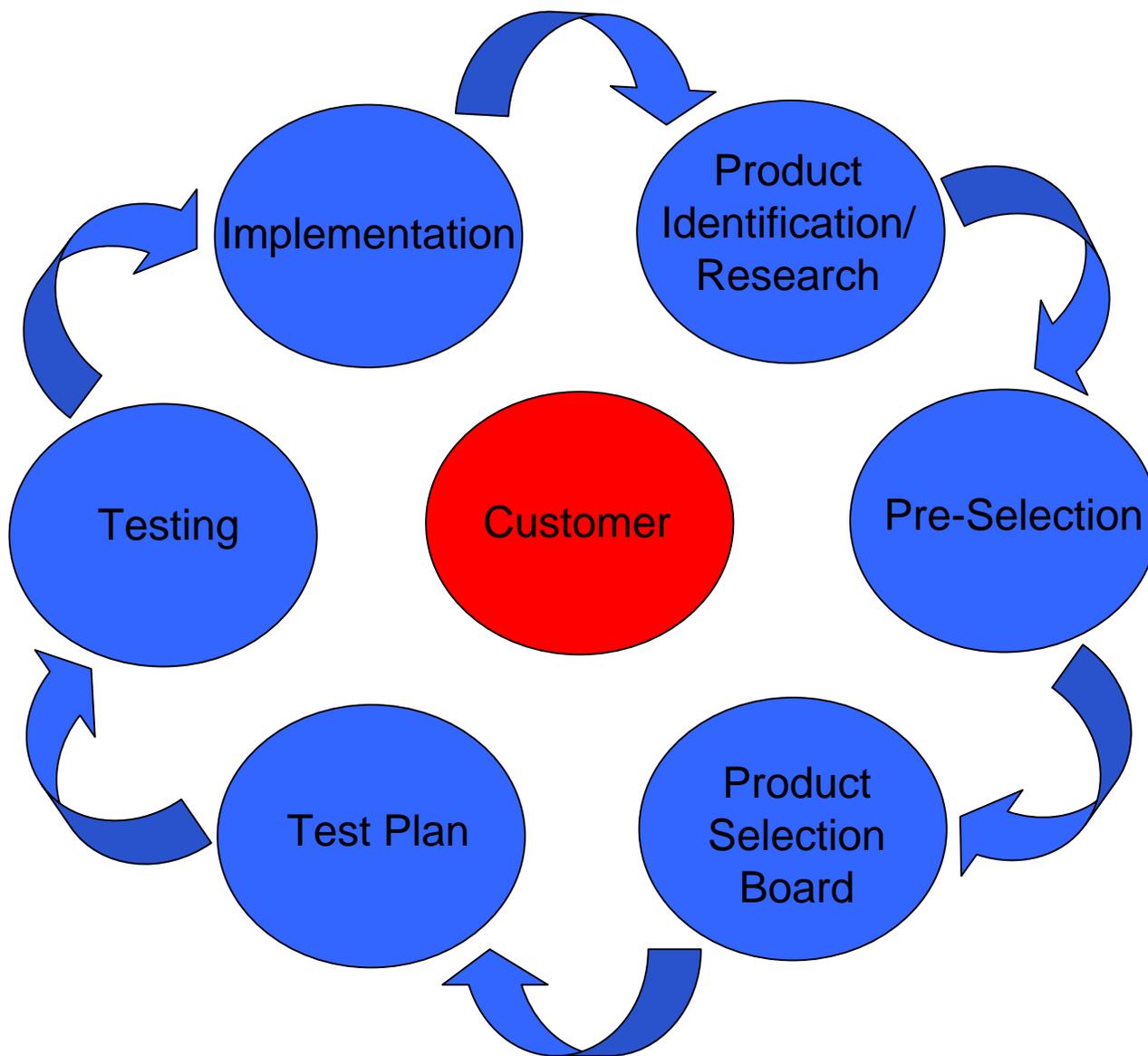
## Examples

- Conducted three Common Access Card (CAC) Technology Demonstrations
- Established Test and Evaluation Work Group



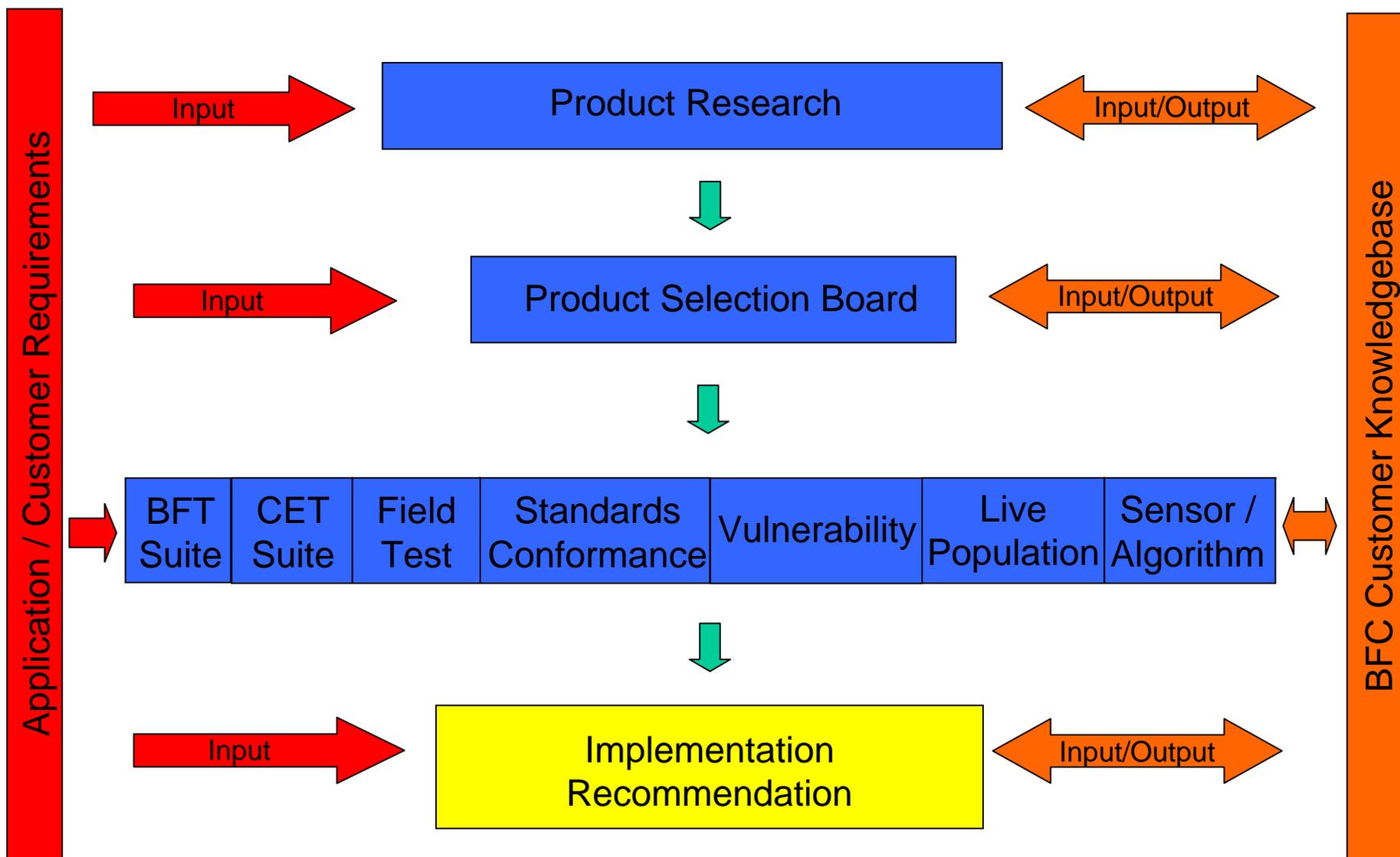
# Customer-Centric Activity

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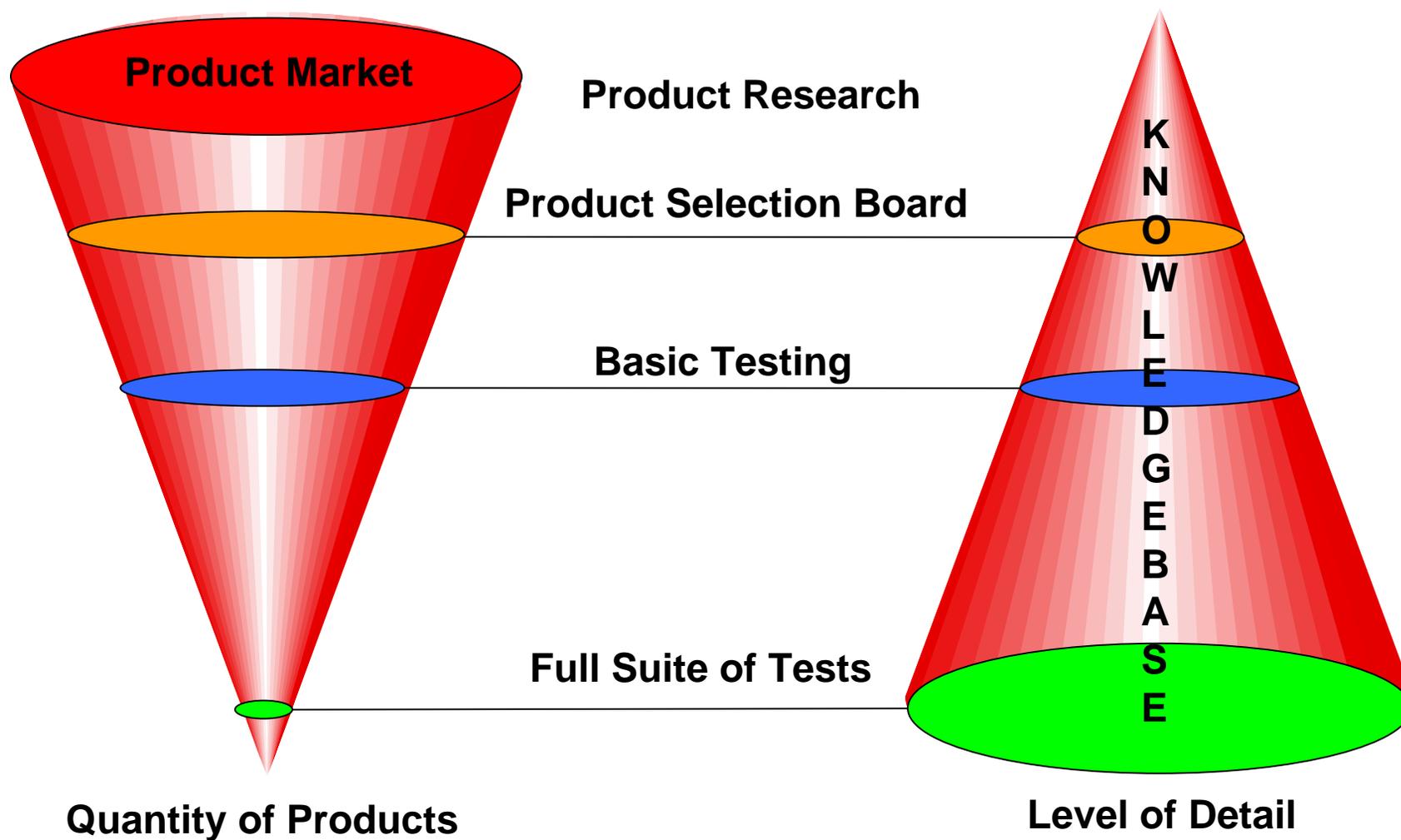


# Testing System Life Cycle





# Knowledge Acquisition Process





# T&E Biometric Working Group (BWG)



## Objectives

- Leverage resources to establish biometrics testing best practices
- Solicit customer needs
- Design testing practices for a “Purple” audience

## Outputs

- Enhanced communication across DOD testing community
- Less redundancy, shared knowledge/expertise

## Examples

- Participate in life-cycle of biometric implementation into the DoD
- Participate in BFC Basic Functional Tests (BFTs) to understand and validate procedures
- Participate on BFC Virtual Product Selection Board



# T&E BWG Members

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Defense Manpower  
Data Center

Defense Information  
Systems Agency



Army Information Systems  
Engineering Command



National  
Security  
Agency



Army Test and  
Evaluation Command

Marine Corps Systems Command



**DoD Biometrics Fusion Center**



PM SET-D

National Geospatial-  
Intelligence Agency



Air Force Communications  
Agency

Joint Interoperability  
Test Command



Marine Corps Network  
Operation Security  
Command



# Basic Functional Test

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## Objectives

- Verify Vendor Claims of product functionality
- Assess product suitability for DoD
- Answer basic question, “Does it work?”

## Outputs

- Basic functionality the product possesses/lacks

## Examples

- 71 tests performed since Jan 2001
- Biometric experts input to testing methodology and procedures



# Conformance Testing

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## Objectives

- Verify vendor conformance to national, international, and industry standards
- Promote interoperability between products and provide minimum security requirements

## Outputs

- Pass/Fail results of whether or not product conforms to tested standard(s)

## Examples

- As a standard is approved, BMO will plan for testing and develop Conformance Test Suite
- BioAPI Conformance Test Suite (estimated completion Sep 04)



# Controlled Environment Test



## Objective

- Measure biometric devices' ability to operate in selected environments

## Outputs

- Documented assessment of environmental affects on device operation and sustainment
- Defined operating ranges for devices

## Examples

- High/low temperature/humidity
- Electrostatic discharge
- Power quality
- Blowing sand/dust
- Rain/blowing rain
- Shock/drop



# Sensor/Algorithm/Population Testing



## Objectives

- Independently assess matching performance
  - Sensor/algorithm, controlled live population, field testing
- Determine appropriate summaries for statistical inference
  - Test for required false accept/false reject rates
  - Compare error rates across devices

## Outputs

- Predictable results of device operation under specified conditions

## Examples

- How well does one algorithm work compared to another
- Predicting performance in a large complex environment



# Vulnerability Testing



## Objective

- Identify and exploit weaknesses in biometric systems that could compromise system or facility security

## Output

- Assessment of risk associated with using a particular product for a particular purpose under given conditions

## Examples

- Open source vulnerability testing as part of BFT
  - Play-Doh fingers, face, and iris photos



# Data Center Operations



## Objectives

- Develop and host biometric databases for Test and Evaluation
- Provide and maintain online biometric knowledgebase website
- Research, evaluate, and demonstrate repository solutions (e.g., AFIS)
- Help Desk

## Outputs

- DoD Biometrics Website (DBW)
- Biometrics Collection Systems and resultant Test Database

## Examples

- Launched DBW (<http://www.biometrics.dod.mil>)
- Evaluation of biometric collection systems and AFIS systems to support GWOT



## The Road Ahead

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### FY04 Priorities

- Support interoperability/standardization of biometric collection systems
- Increase interagency coordination
- Develop more thorough test procedures
- Increase warfighter support
- Migrate closer to warfighter
- Support GWOT



## Point of Contact

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