

## Department of Veterans Affairs: Veterans Health Administration Innovation Program

*Inspiration, incubation, illumination*



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# Innovation Program: Overview

- A collaboration initiated in 2008 between the Veterans Health Administration, Office of Health Information and the Office of Information and Technology
- Allows critical health care innovations reliant on Information Technology to:
  - Emerge from the field
  - Evolve based on constructive and collaborative review
  - Be piloted in a safe harbor environment

# Governing Principles

- Low Bar for Entry: Allows innovative ideas to emerge from the field and from other sources such as vendors, open source, and academic organizations
- High Bar for Exit: Promotes standardization, ensures security and operating performance; and mitigates risk to mission critical systems by providing an appropriate barrier between the innovation environment and production systems

# Governing Principles (Cont.)

- **Full Transparency:** Makes all work, lessons learned, and documentation readily accessible to any member of the organization; ensures consistent and ongoing coordination with customers; and continuous assessments of potential innovative solutions
- **Business Driven:** Supports strategically directed and field-based initiatives

# Culture of Innovation

- Business Focus Group Results: How to Value Innovations
  - Improve patient care (e.g., safety, quality, or access)
  - Improve efficiency (e.g., clinical workflow, cost/benefit)
  - Affect numerous Veterans, staff, or other stakeholders
  - Address unmet needs rather than incrementally improving existing methods
  - Help meet organizational requirements (e.g. Joint Commission or congressional mandate)

# VHA Innovation Portfolios

- Bottom Up: Field innovators identify clinical and business opportunities, propose innovative solutions, and compete for resources to develop those solutions
- Top Down: Field innovators and commercial/private sector develop solutions to strategically targeted VHA business opportunities identified by VA leadership

# VHA Innovation Portfolios (continued)

## ■ Laboratories

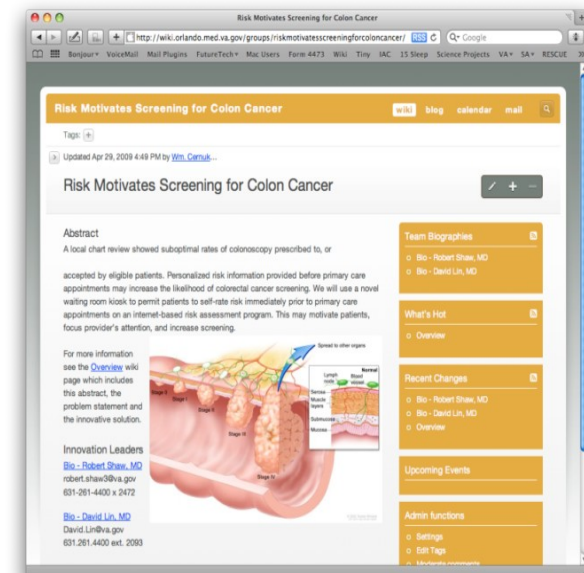
### • Collaboration Tools:

Technologies used to advance innovation and

encourage the building of communities of interest

### • Innovation Sandbox:

Virtual software development environment



# Innovation Initiative Process

- 1 . Innovative idea competition
- 2 . Competition winners acquire hardware and programming resources as needed
- 3 . Innovation and development
- 4 . Testing and certification
- 5 . Deployment
- 6 . Repeat Process



# Top Down



# Top Down Process

- 1 . Solicit and select leadership for problem /business improvement opportunity and selection
  - Veterans Integrated Service Network, Directors and Chief Officers
  - Reviewed and “graded” by Veterans Health Administration Peer Review Team
  - Top rated topics move forward based on funding and resource availability

# Top Down Process (Cont.)

2. Use fast-paced, collaborative methodologies to accelerate scope/prototype definition

- User-centered design process
- Analysis of the strategic topic
- Design functional requirements and prototype



# Top Down Process (Cont.)

## 3. Develop Innovation Project

- Acquire contractor development resources
- Build a joint Veterans Health Administration and Office of Information & Technology innovator team
- Design functional requirements and prototype
- Rapid, agile software development methodologies produces many



# Top Down Process (Cont.)

## 4. Conduct analysis for each high priority

area :

- Current State
- Shared Vision
- Proposed Solution
- Stages of Innovation
- Questions for Users



## ■ **Web-based Idea Management Software:**

- Easy, convenient, electronically safe
- Encourages participation and enables collaboration

## ■ **Employees:**

- Submit ideas to improve the current process
- Strengthen and challenge others' ideas by posting comments
- Vote for ideas they believe will have the greatest impact
- Recruit other employees to participate

# Bottom Up Overview (cont.)

- Six Categories for Idea Submission
  - Engage Veterans
  - Aid Providers
  - Increase Transparency
  - Improve Workflow
  - Continuous Improvement
  - The Babe Ruth Category

# Bottom Up Overview (cont.)

- Thousands of ideas narrowed and developed into 100 full proposals
  - Crowdsourcing results used to identify the 75 most popular ideas
    - Ideas voted up, voted down or commented on
    - Incentives offered for top participants
  - VHA Under Secretary for Health designees select 25 additional “gems” that were not identified by the voting process




# Bottom Up Overview (cont.)

- 100 full proposals narrowed to 25 funded projects
  - Six committees randomly assigned innovation idea packages to rate using established evaluation criteria
  - Packages will include written proposals and an optional 5-minute video
  - The highest rating innovations will be recommended for funding
    - Average funding is estimated to be \$500,000 per innovation
    - Total funding: \$10-12 Million

# Bottom Up - Screenshot

## VHA Innovation Initiative




**new idea** +

**Categories**

- All (2304)
- Engage Veterans (347)
- Aid Providers (291)
- Increase Transparency (57)
- Improve Workflow (586)
- Continuous Improvement (847)
- Babe Ruth (176)

**Profile**

- My Profile
- My Ideas (0)



[« Back To VHA Innovation Initiative](#)

**Babe Ruth**

Top Rated (176)Recent (176)

Vote Up

243

Vote Down

Your chance to hit it out of the park! Think of a new HIT idea, large and creative, completely new and out of the box, that would help us improve service to Veterans.

### "Hands free" devices in restrooms increases disease control!

**Jonathan.Hall**

Increase infectious disease control and hand sanitation in VA facilities through the implementation of door openers, motion sensor activated toilet and urinal flushers, motion sensor activated water faucets, and motion sensor activated paper towel dispensers. The use of a door opener that is located inside the restroom that can be activated by pushing against it with an elbow or touching it with a foot avoids the touching of the door handle. Motion activated flushing, water dispensing, and paper towel dispensing also decreases points of contact and reduces risk of transmitting infectious diseases. There is a cost in retrofitting older restrooms and in ensuring that all new construction uses "hands-free" equipment but there is a huge payback in the increase in disease control by mandating these improvements.

Comments (0) | Babe Ruth

232

### Smart Cane For Legally Blind Veterans

**Devendra.Sankar**

Working at the VA we have all seen blind veterans, walking around, sometimes lost and struggling to find their destination. They have the white canes that they use to navigate their way around the hospital, and the rest of the world. The cane (while useful) is a very passive device. Given our advances in technology, I would like to propose that the VA invest some resources in making these walking canes more useful for our blind veterans. What I would like to see is a walking cane equipped with a motion sensor, and GPS. The technology exists to make this happen. The motion sensor would alert the vet, either verbally, or even with specific sounds, when there is an object in front of them. The GPS can be used, perhaps with an ear piece of some sort to let veterans know where they are, when traveling on a public street, and can be designed with layout maps of VA facilities. In addition with a GPS system, it may also be possible to have a live assistance service that can be activated via the cane when a blind vet needs help or assistance. This would be similar to the OnStar service that is more commonly found in cars.

I think this is a worthwhile investment that would drastically improve the quality of life experienced by our blind vets.

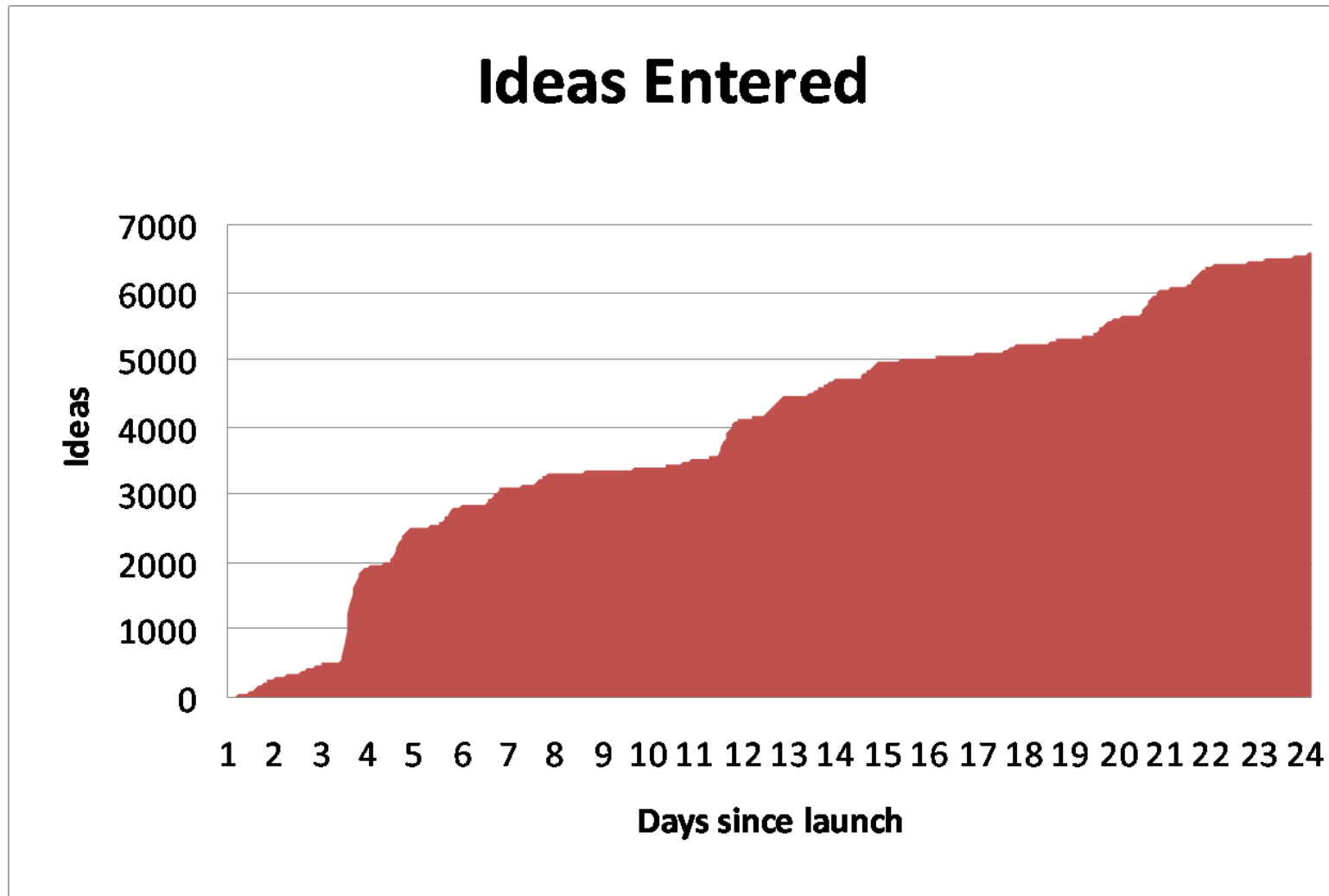
Thank you.  
Deven Sankar

Comments (8) | Babe Ruth

Veterans Health Administration | Office of Health Information

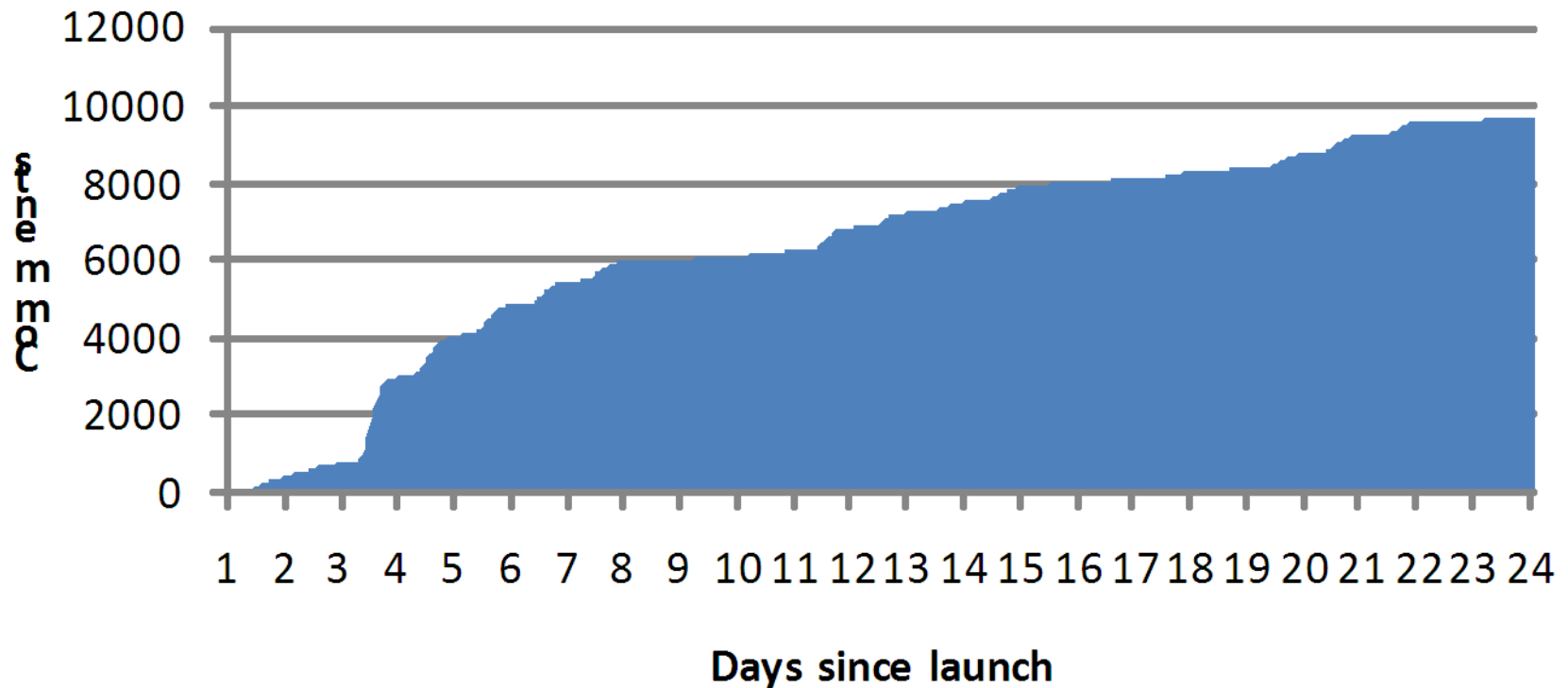
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# Bottom Up Usage Statistics 2/5 – 2/28/2010



# Bottom Up Usage Statistics 2/5 – 2/28/2010 (Cont.)

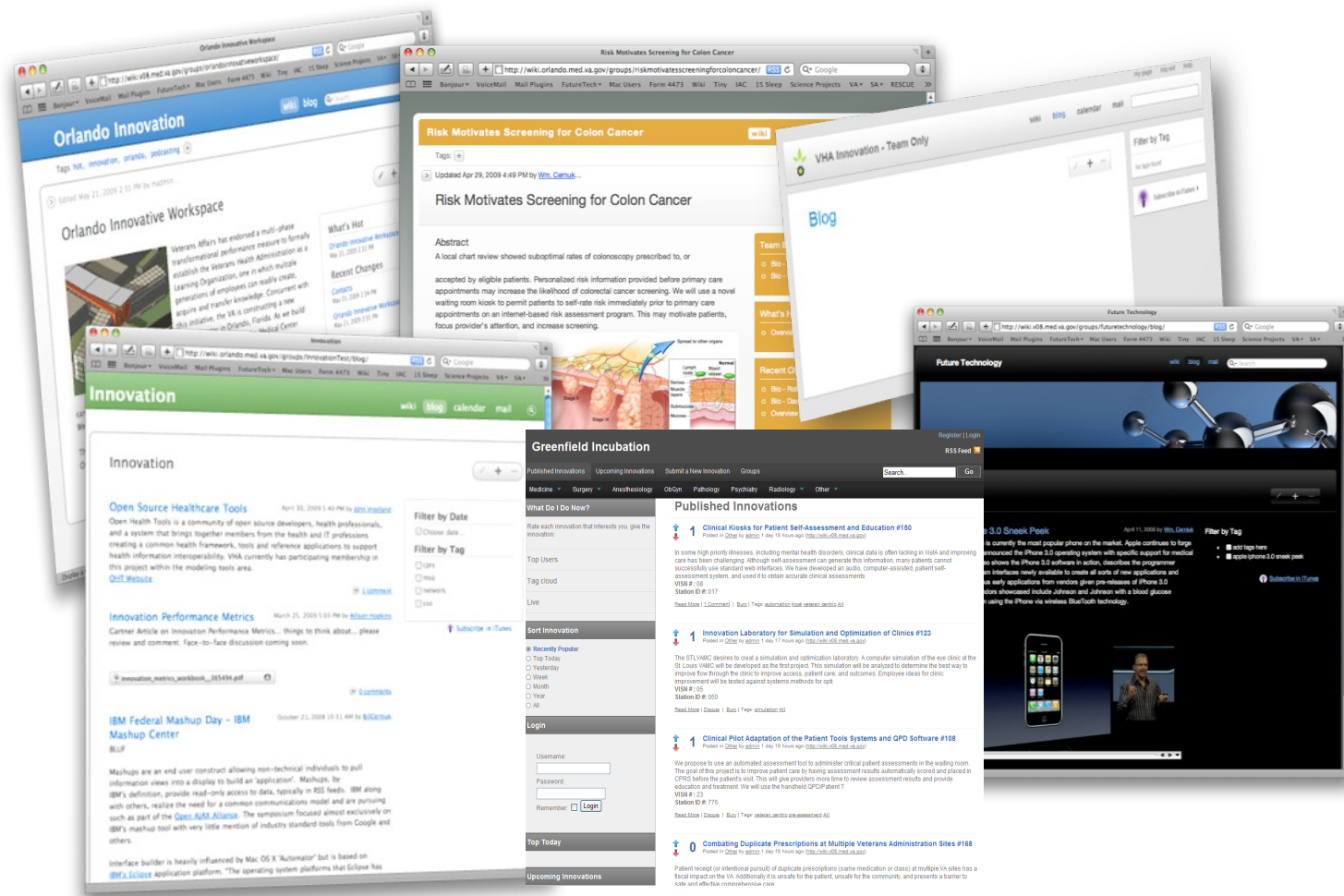
## Comments Entered



# Bottom Up Statistics 2/5 – 2/28/2010 (Cont.)

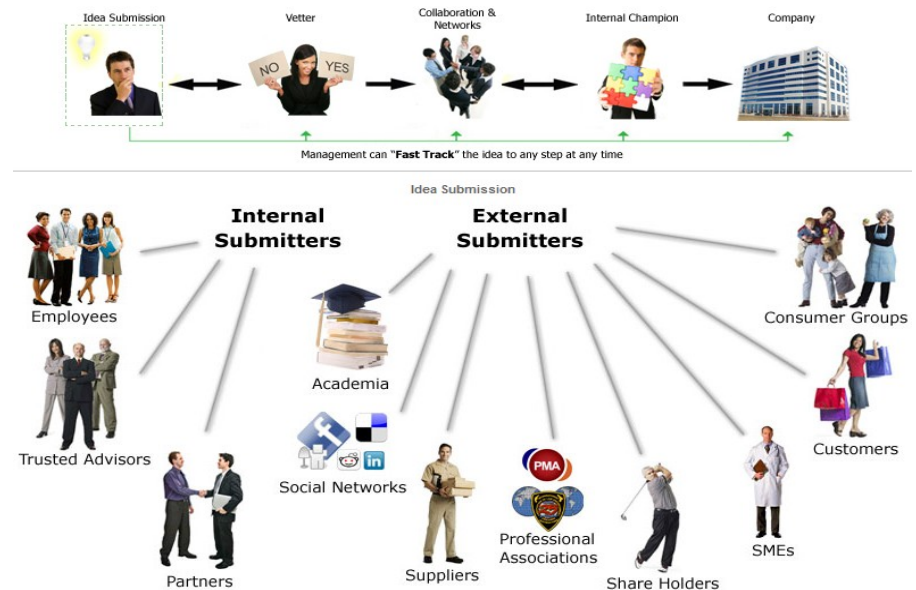
|              |         |
|--------------|---------|
| Ideas        | 6,552   |
| Comments     | 9,727   |
| Participants | 44,110  |
| Votes        | 552,606 |

# Laboratory - Collaboration Tooling



# Laboratory - Collaboration Tools: Future...

- **Idea management:**  
structured assessments,  
workflow, monitoring
- **Knowledge sharing:**  
search and browse  
innovation knowledge  
base
- **Code management:**  
software project functions  
such as configuration  
management, assignment  
tracking and bug reporting





# Laboratory - Innovation Sandbox





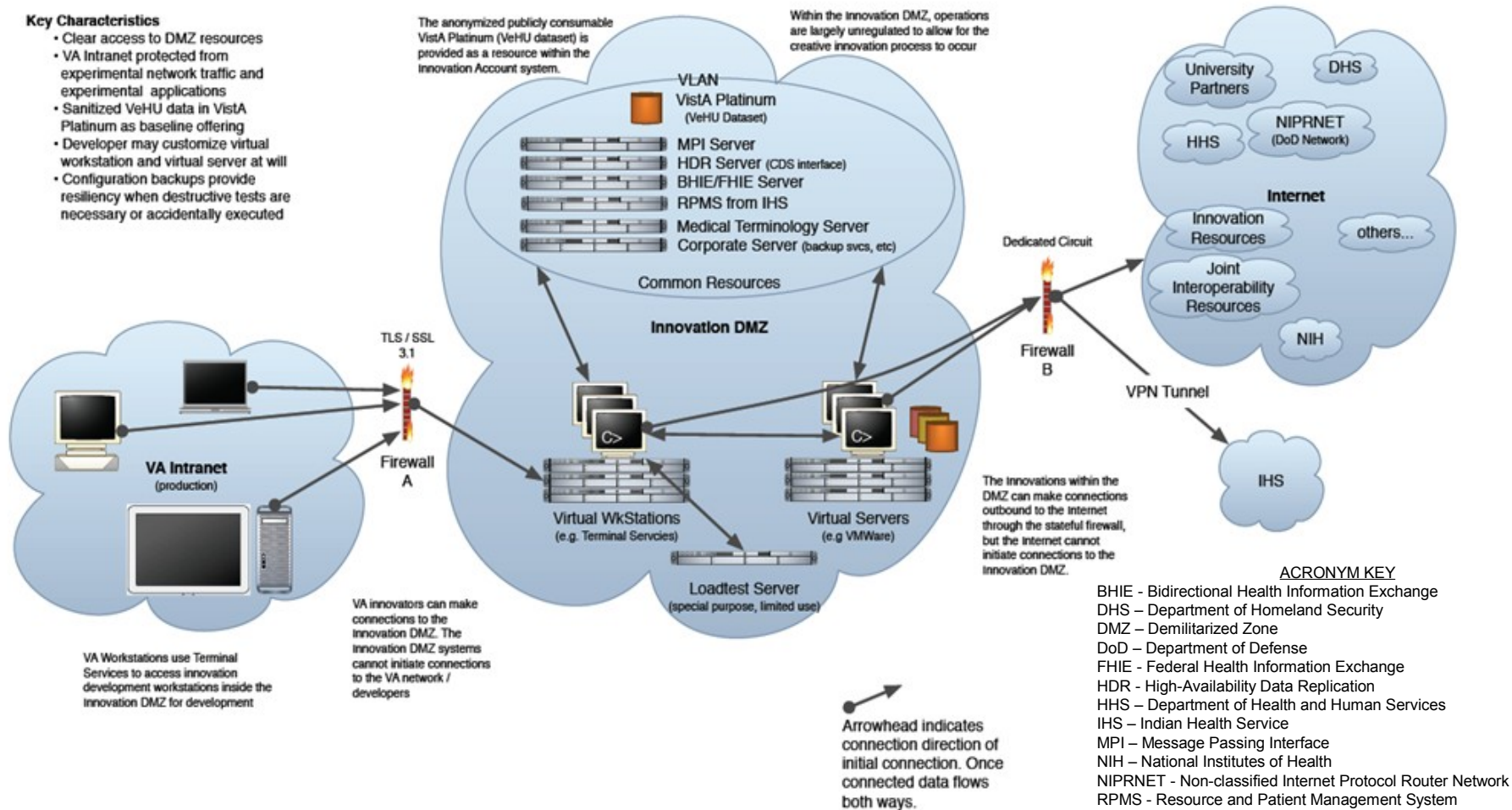
# Laboratory - Innovation Sandbox (Cont.)

- The Innovation Sandbox is a:
  - Software development environment
  - Virtual space for people to collaborate, innovate, and develop ideas and requirements
  - Geographically limitless solution to the historic challenge of locally bound development efforts
  - Collaborative effort between Veterans Health Administration and the Office of Information & Technology
- The Sandbox is intended for anyone wishing to contribute ideas to VistA development

# Laboratory Innovation Sandbox (Cont.)

## Key Characteristics

- Clear access to DMZ resources
- VA Intranet protected from experimental network traffic and experimental applications
- Sanitized VeHU data in Vista Platinum as baseline offering
- Developer may customize virtual workstation and virtual server at will
- Configuration backups provide resiliency when destructive tests are necessary or accidentally executed



# Innovation Program Summary

- Transition the local innovation environment of the past to a virtual innovation community of the future
- Establish Veteran Health Administration and Office of Information & Technology Innovation partnerships
- Foster innovation lifecycle from incubation to bedside
- Recognize innovation as a critical element of the workforce
- Create, connect, and empower innovators

**We are already successful!!**

## Innovation...

*"The people in the field are the closest to the problem, closest to the situation, therefore, that is where real wisdom is."*

*(Former Secretary of State Colin Powell)*

# Innovation

