



U.S. Customs and  
Border Protection

# Automated Commercial Environment Overview of Agile in Cargo Systems

**Trade Support Network Webinar**

**February 27, 2013**

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**U.S. Customs and Border Protection**



# Agile 101: Today's Goals & Agenda

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## ***Objectives of the Session: Understand...***

- ▶ What is Agile Software Development? How will it be used to accomplish ACE implementation?
- ▶ How is it different than the previous process?
- ▶ What is the SME role, and how has it changed from the traditional process?

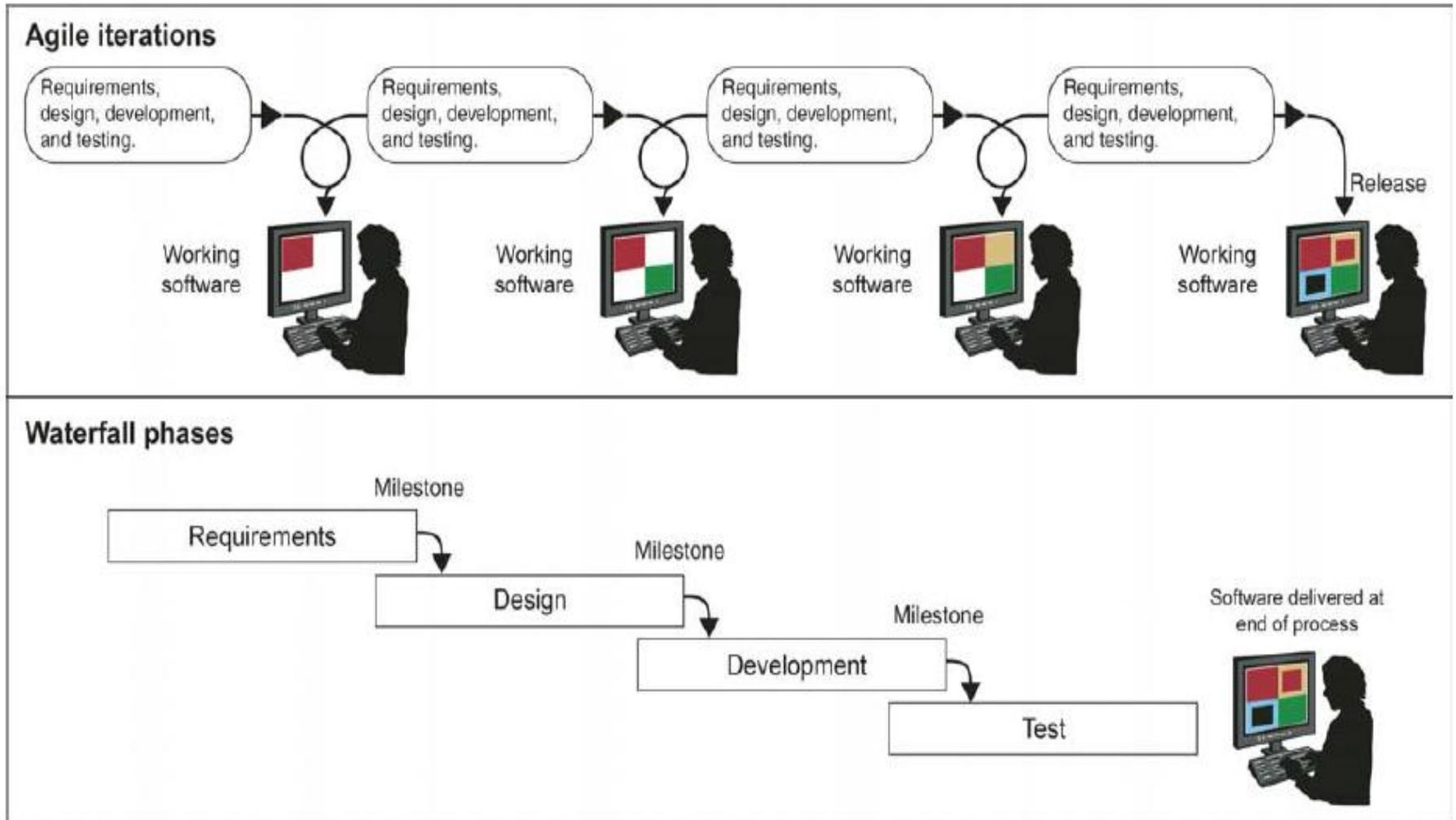
## ***Topics Covered:***

- ▶ Agile vs. Waterfall Methods
- ▶ Terminology & Concepts
- ▶ CSPO Agile Teams – Roles & Responsibilities
- ▶ Team Process Overview – Release Planning & Sprints
- ▶ User Stories – a new way to define requirements



# Comparison of Agile and Waterfall Development

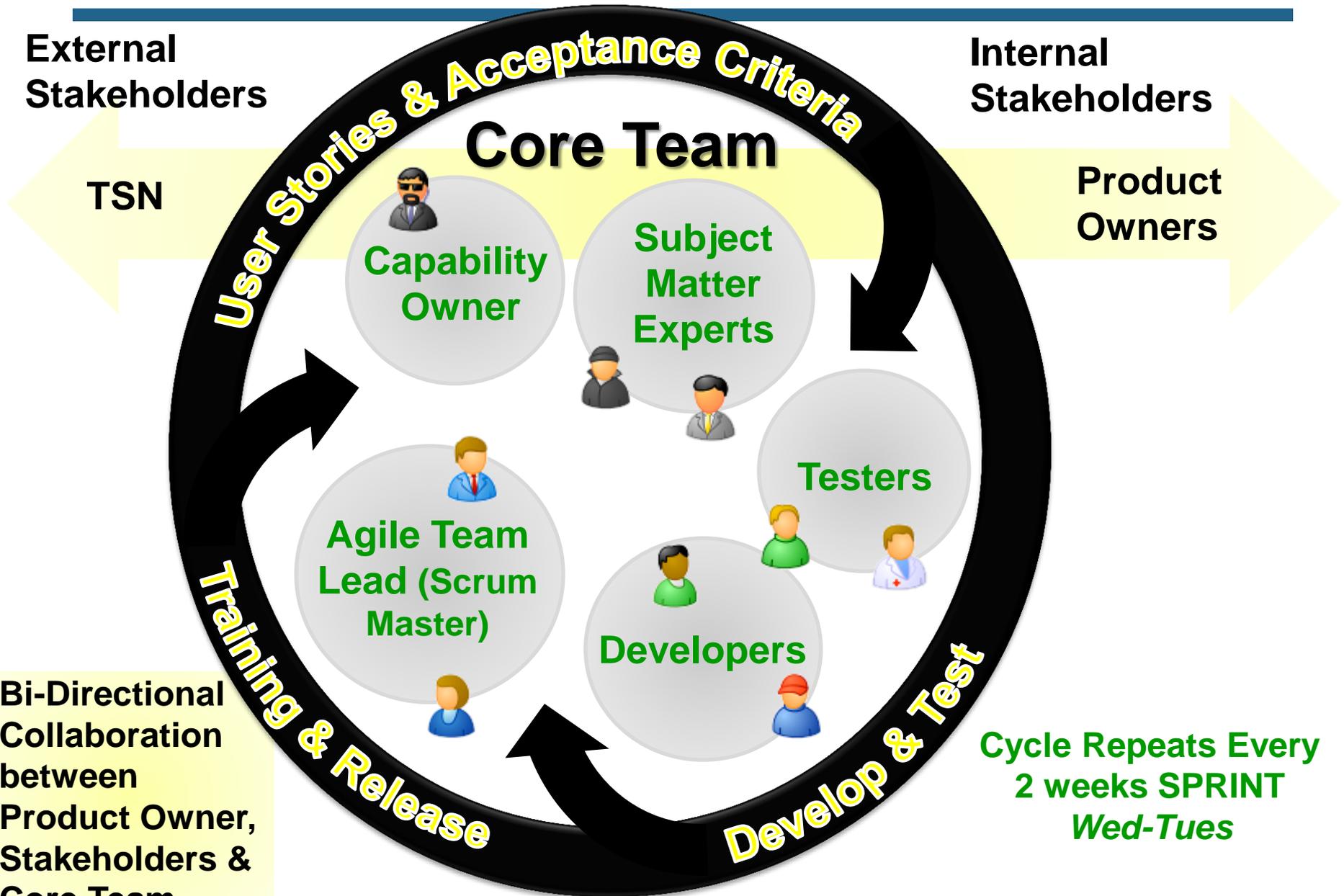
Figure 1: Comparison of Agile and Waterfall Development



Source: GAO.



# An Iterative Process



Bi-Directional Collaboration between Product Owner, Stakeholders & Core Team



# Core Agile Development Team - Roles

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- ✓ *Each core team is self-organizing and self-directed.*
- ✓ *All team members share accountability for team results*
- ✓ *Teams have necessary competencies for developing potentially shippable software increments*



## Team Capability Owner

- Serves as the voice of the Product Owner within the Teams
- Receives Direction from Product Owner
- Prioritizes Work for the Team
- Defines Product Backlog
- Aids teams in providing Acceptance Criteria, Generating Test Cases, and making requirements decisions during the Sprint



## Agile Team Lead

- Provides Day-to-Day Guidance to team members
- Facilitates daily activities and serves as primary point of escalation
- Guides the team in Agile implementation – Sprint Planning, Sprint Kickoff, Sprint Reviews/Demo, and Sprint Retrospectives
- Protects the team from unnecessary distractions
- Facilitates meetings, Status Reporting, and Risk Tracking
- Functions as a “servant leader” to ensure impediments are removed



# Core Agile Development Team - Roles

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## Subject Matter Experts – Technical/Business/Operational User Experts



- SME's embedded within each team to answer questions and provide user feedback to address technical, business, and operational user concerns
- Provide rapid feedback to enable teams to move forward efficiently
- Participate in user testing during Sprints
- Help prepare user documentation and training materials
- Reach back into their organizations for additional information and support as needed



## Developers



- Write code and unit tests to implement functionality represented by User Stories
- Work closely with team members to achieve Definition of Done for each story
- Collaborate daily with SME's, testers and Release Team members who perform support activities



## Testers



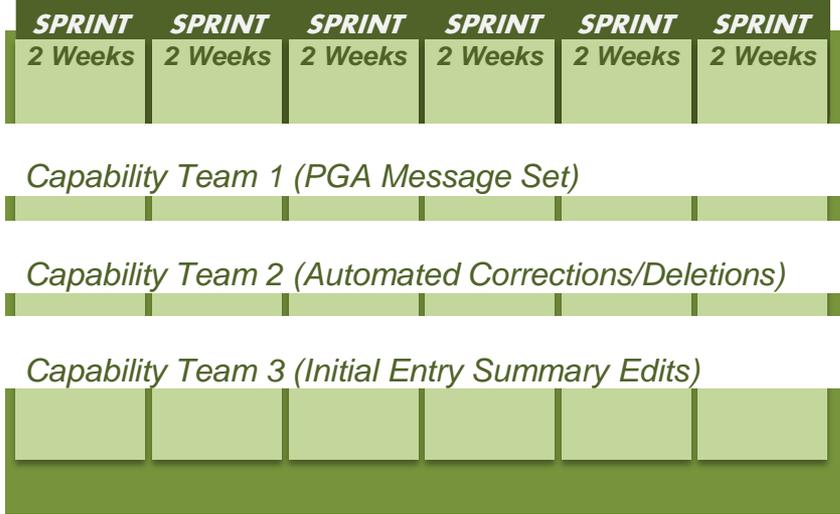
- Review and validate user stories as part of the development process
- Help define acceptance criteria, develop and execute test cases (including all automated integration and regression tests) and provide feedback during Sprint Planning
- Perform other testing such as ST&E, 508, and performance testing during Sprints



We develop the “epics” listed in the Roadmap with teams that work within a fixed schedule and use agile practices

## RELEASE (AGILE PILOT)

### 12 Week Time Box

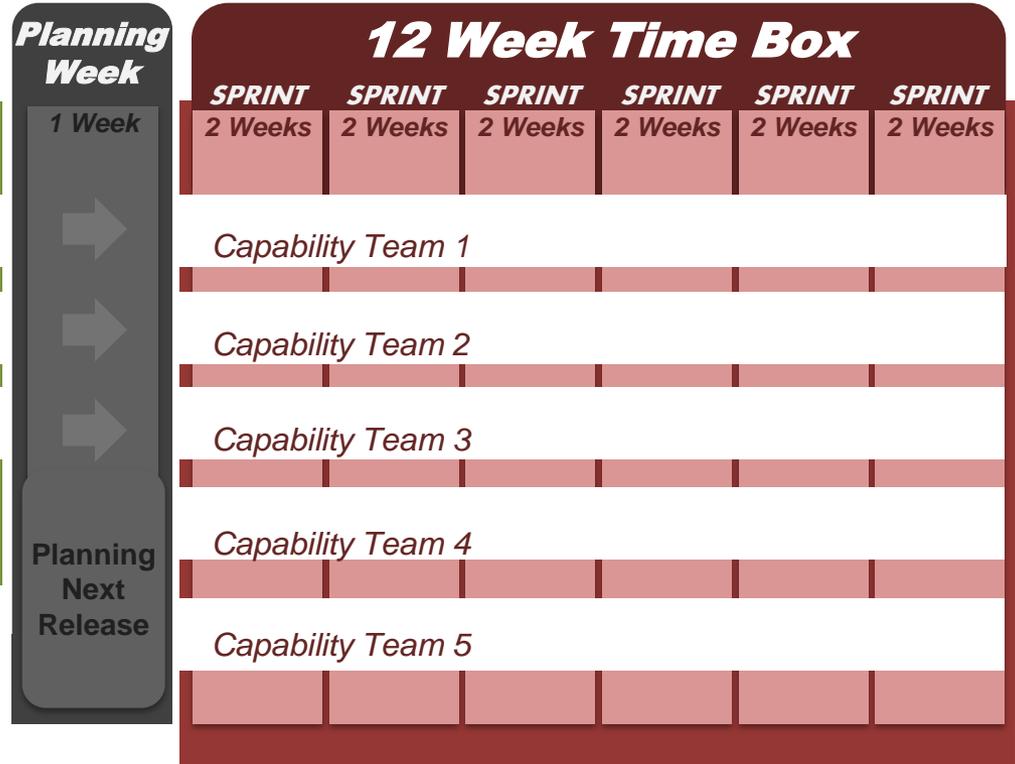


Pilot...establish agile practices using three teams for the first 12 weeks



## NEXT RELEASE

### 12 Week Time Box



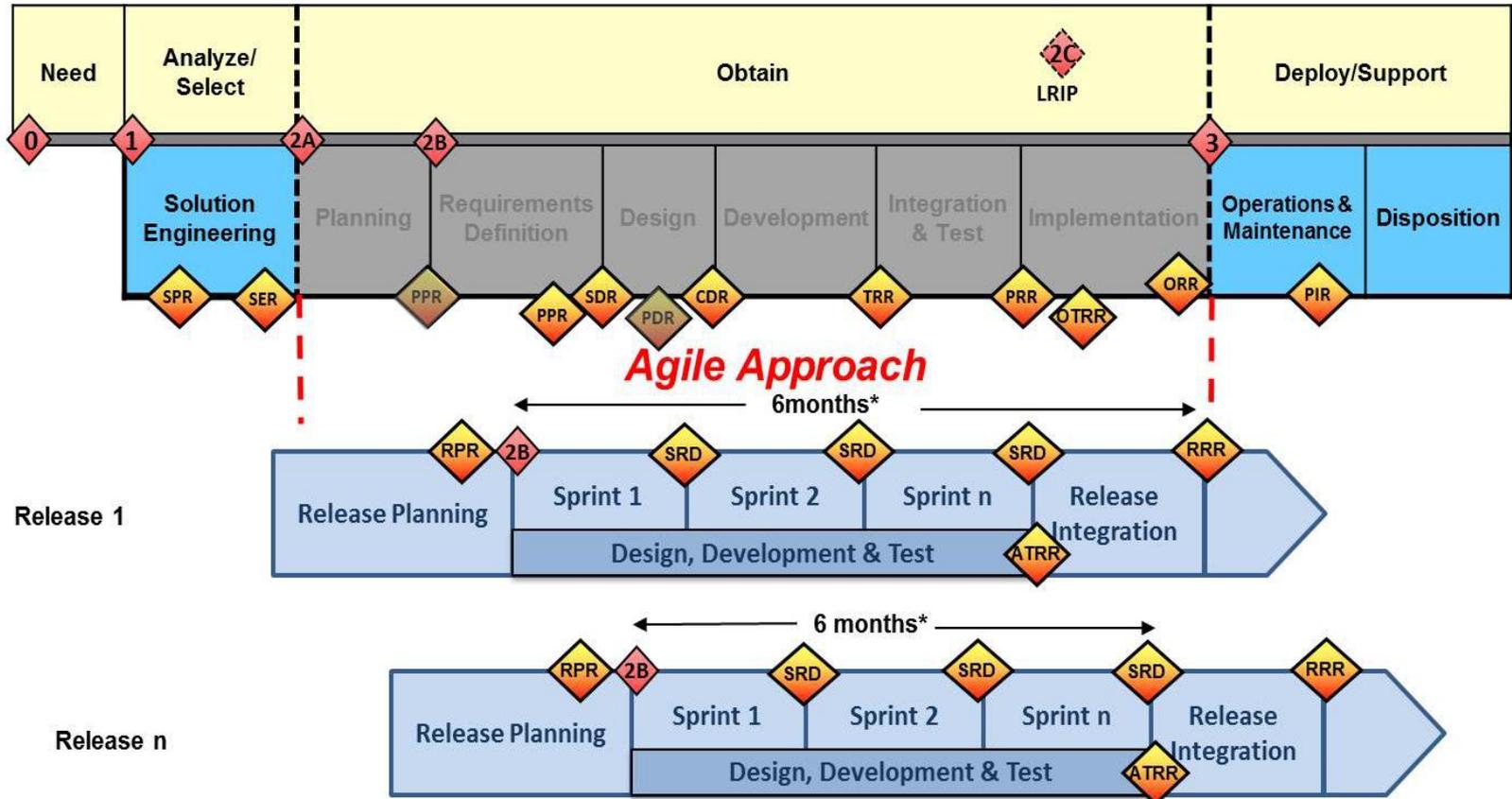
Post-Pilot...establish additional agile teams in subsequent releases on the established 12 week cadence



At the end of each release, we have a Potentially Shippable Increment (PSI)



# ACE Going Forward: Project Execution



\* Notional timeline



## How:

### GIFs

Great Idea Forms (GIFs) are reviewed and continued to be mapped to specific development teams

### Expertise

At specific touch-points in development cycle, TLC will be asked to deploy trade representatives to participate in development teams

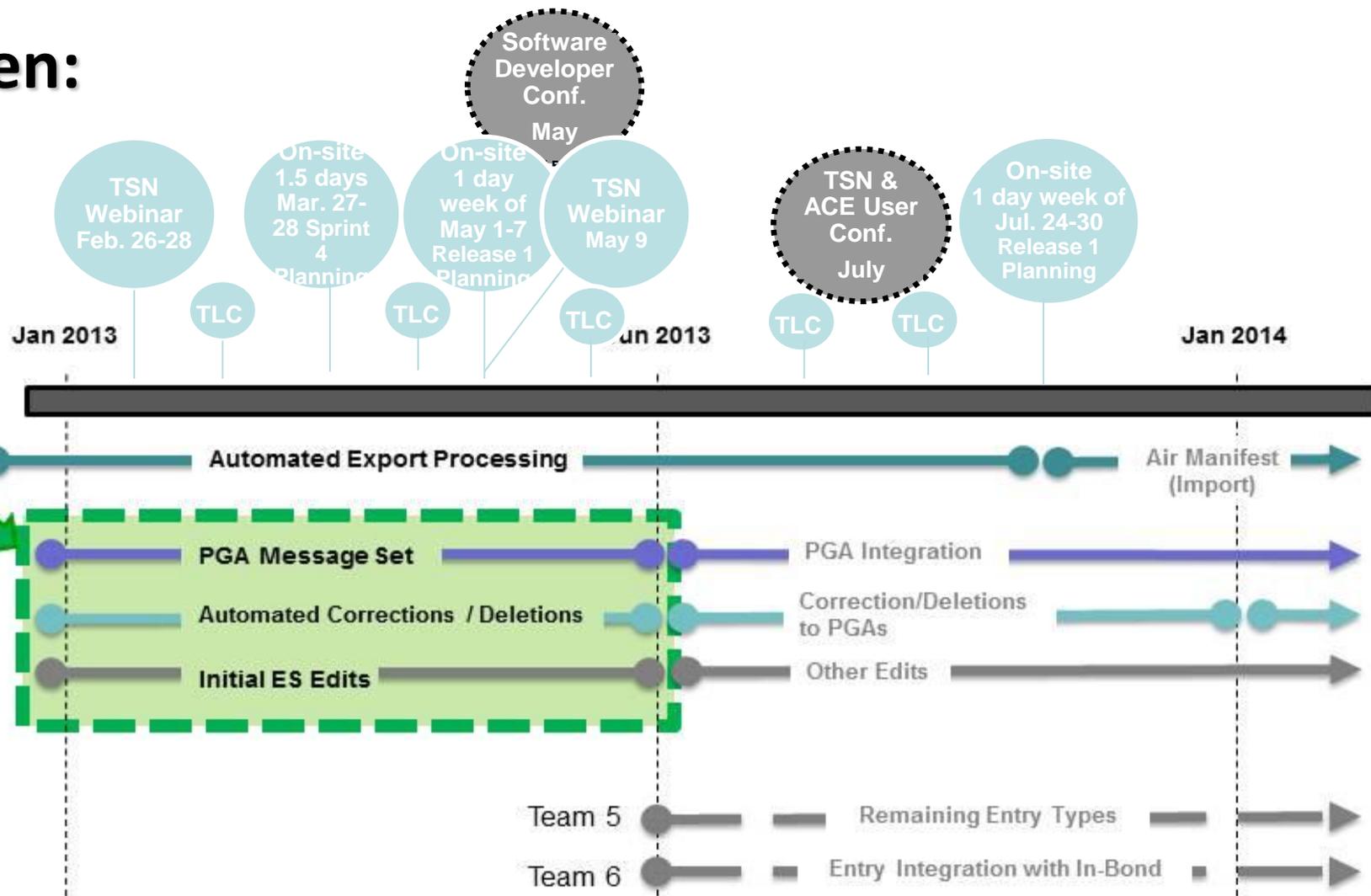
### TLC Meetings

Monthly conference calls will continue between CBP and TLC to discuss strategic input, progress, and development plans

### TSN Webinars

CBP will conduct regularly scheduled webinars with the full TSN membership to discuss progress, status and plans

## When:





# U.S. Customs and Border Protection