

# Tufts CTSI Common Metrics Implementation

Learning Session 1  
August 30, 2016



# Agenda

- Welcome and Introductions
- Opportunities to Advance Translational Science via the Common Metrics Initiative
- Indiana CTSI IRB Process Improvement Project

# Opportunities to Advance Translational Science via the Common Metrics Initiative

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NCATS



# Common Metrics Initiative

## August Collaborative Learning Session

### Indiana CTSI IRB Process Improvement Project

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## Learning Objectives: At the end of the session participants will be able to:

- Describe the uses of a process map.
- Describe how to create a process map.
- Explain how a process map can be used to depict the IRB approval process.
- Describe some common types of IRB approval process delays.

## Background to Indiana CTSI IRB Process Improvement Project

- Problem: How do we reduce approval times from date of submission to IRB until final approval letter is sent to the investigator?
- Prior to RBA training, we used Lean Six Sigma Methods
  - Project start up
  - Voice of the customer (getting process owners engaged early)
  - DMAIC (define, measure, analyze, improve, control)
  - Process mapping

## Indiana CTSI IRB Process Improvement Project

### Step 1: Engage Process Owners and Stakeholders

It is critical to engage the individuals who “own the process” early in the project and invite them to be part of the discussion

These individuals have:

- Detailed knowledge of the process
- Documentation of variation in process
- Source of improvement ideas
- Implementation of solutions



# Indiana CTSI IRB Process Improvement Project

## Project Start-up and Charter

<p><b>Issues to be Addressed:</b></p> <ul style="list-style-type: none"><li>• Ideal process map for new, full-board submissions to move through the IRB post-meeting system to final approval</li><li>• Variability in the IRB and HSO processes and outputs</li><li>• Variability in the experiences of researchers (customers)</li><li>• Analysis of current post-meeting processes to final approval</li></ul>
<p><b>Project Goal/Expected Results:</b></p> <ul style="list-style-type: none"><li>• Streamlined IRB meeting review, dissemination of communications/documents and approval processes</li><li>• Evaluate other AAHRPP-accredited HRPP organizational approaches</li><li>• Determine appropriate HSO organizational approach to maximize process improvements</li><li>• Maintain high quality review processes and protections for human subject research projects</li><li>• Track key metrics of HSO processes and benchmark them against best national standards</li></ul>
<p><b>Team Responsibilities &amp; Boundaries:</b></p> <ul style="list-style-type: none"><li>• Develop a process map of the current state best practices.</li><li>• Identify the inter-dependencies between sub-processes</li><li>• Produce a process map which meets the customer expectations</li><li>• Identify areas for improvement</li><li>• Implement improvements</li><li>• Analyze improvements</li></ul>
<p><b>Support/Resource People:</b></p> <ul style="list-style-type: none"><li>• 5-10% of team member's effort.</li><li>• Access to stakeholders</li><li>• Access to data/metrics of existing processes</li></ul>
<p><b>Stakeholders and Customers Impacted by this Project:</b></p> <ul style="list-style-type: none"><li>• Stakeholders: Dean, IU-SOM; Vice President for Research IU-SOM; IU-Research Compliance; Director, Indiana CTSI</li><li>• Customers: Researchers, Human Subjects, IRB members</li></ul>

# Indiana CTSI IRB Process Improvement Project

## Define the focus of the project and why it is important

1. **Project Charter:** used as
  - a. a “contract” between the Six Sigma Team, CTSI and HSO leadership to ensure support for the project.
  - b. for discussion and to create a problem statement, the issue(s) to be addressed, the goals of the project and rules and responsibilities of the team and the members.
  - c. a “living” document
2. **Value Stream Map:** way to understand the “voice of the process”, through a customer’s voice, expectations, preferences, comments, of a product or service.



## Measure the current process (steps in process and times)

3. **Current State Process Map:** used to understand some of the complexities and value/non-value added steps in the process.
4. **Data Collection:** collection of information related to process such as time for each step.
5. **GEMBA walk:** “walk the process” – observing the process and documenting it (i.e. “time-motion study”)

# Indiana CTSI IRB Process Improvement Project

## Types of Waste in Processes

### Lean Six Sigma: 8 Wastes



#### Talent

Underutilizing people's talents, skills, & knowledge



#### Inventory

Excess products and materials not being processed.



#### Motion

Unnecessary movements by people (e.g., walking).



#### Waiting

Wasted time waiting for the next step in a process.



#### Transportation

Unnecessary movements of products & materials.



#### Defects

Efforts caused by rework, scrap and incorrect information.



#### Overproduction

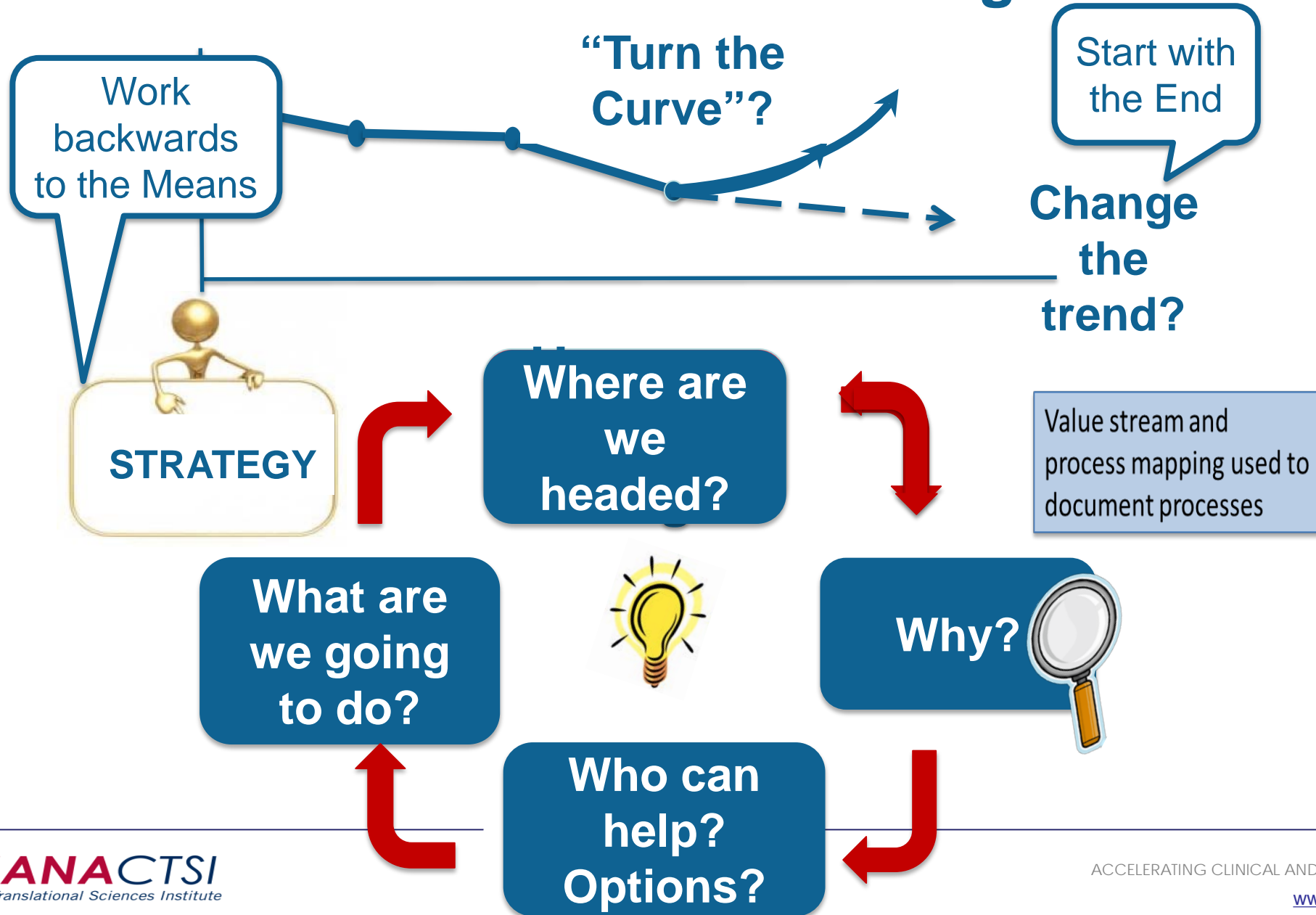
Production that is more than needed or before it is needed.



#### Overprocessing

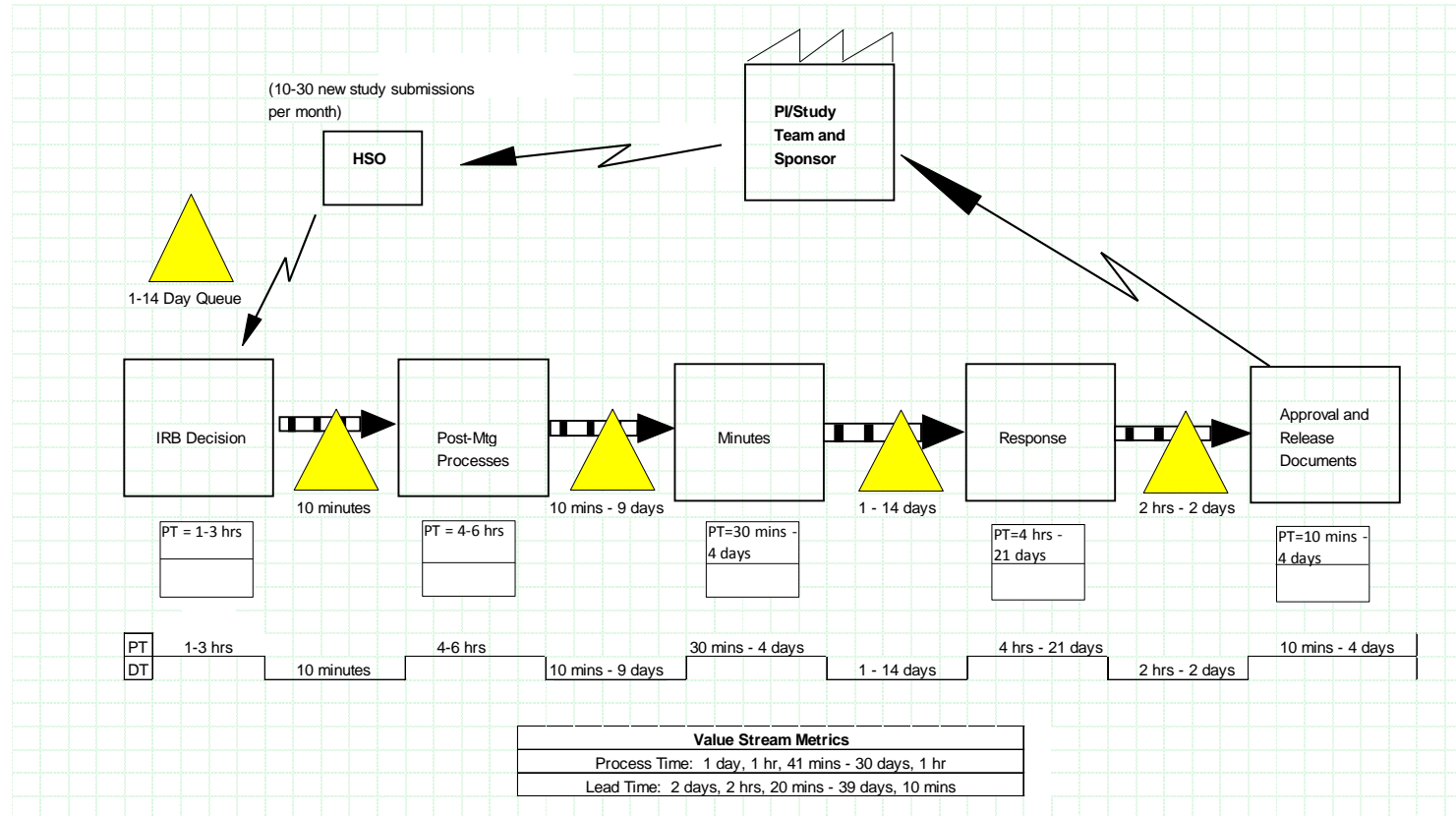
More work or higher quality than is required by the customer.

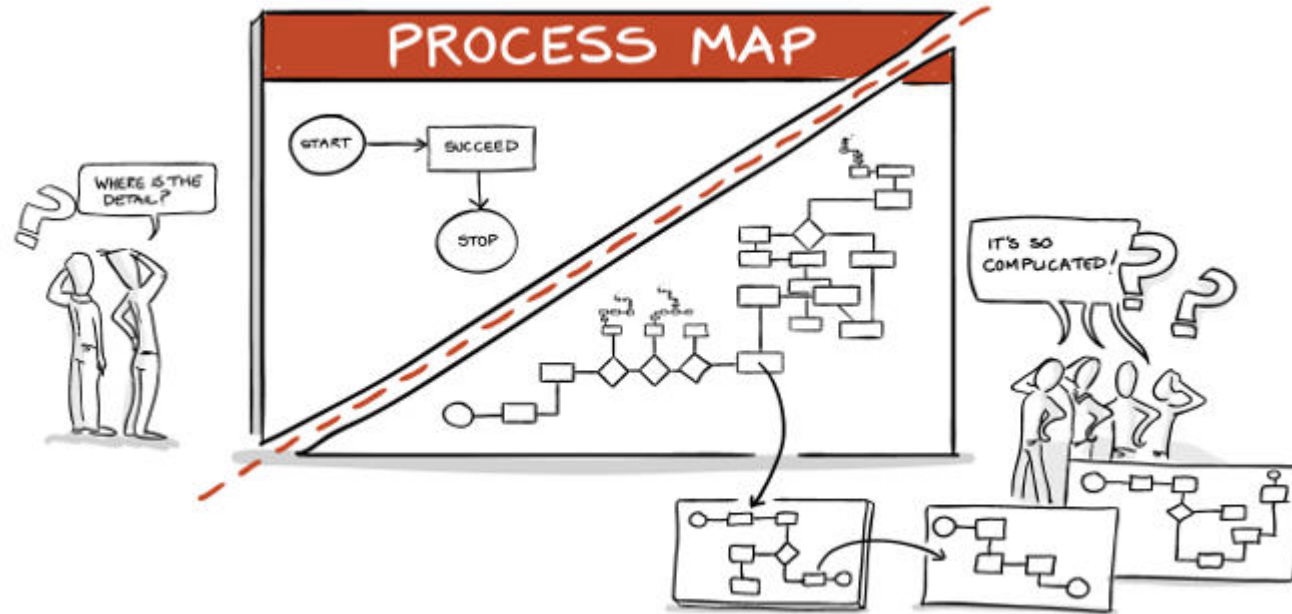
# Turn-the-Curve Thinking



# Indiana CTSI IRB Process Improvement Project

## Value Stream Map:





## Process Mapping Symbols



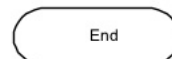
Action/Process



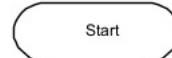
System Activity



Direction of Flow

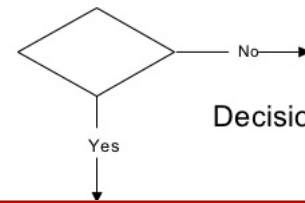


End



Start

Start or End



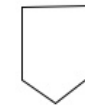
Decision



Document

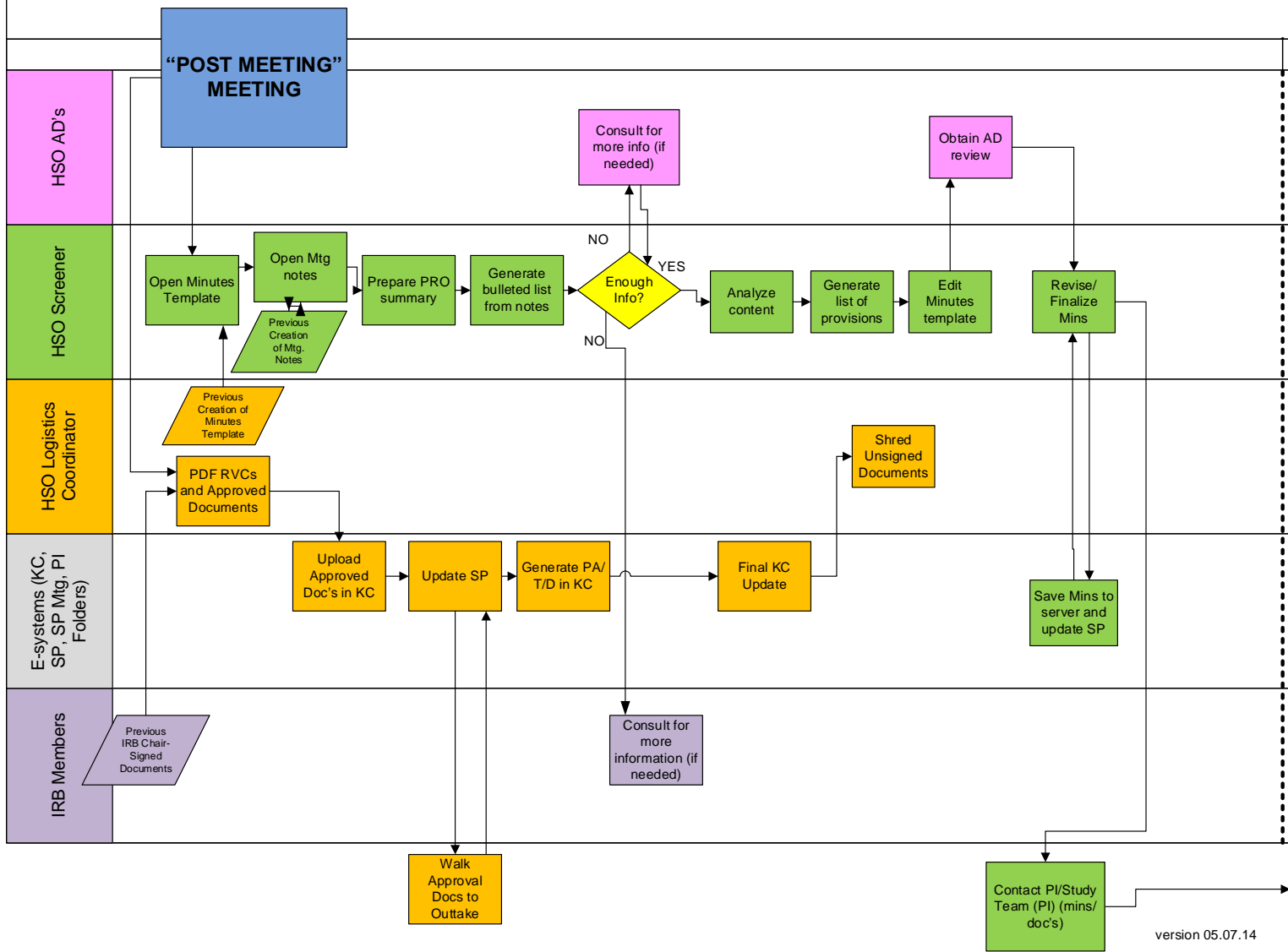


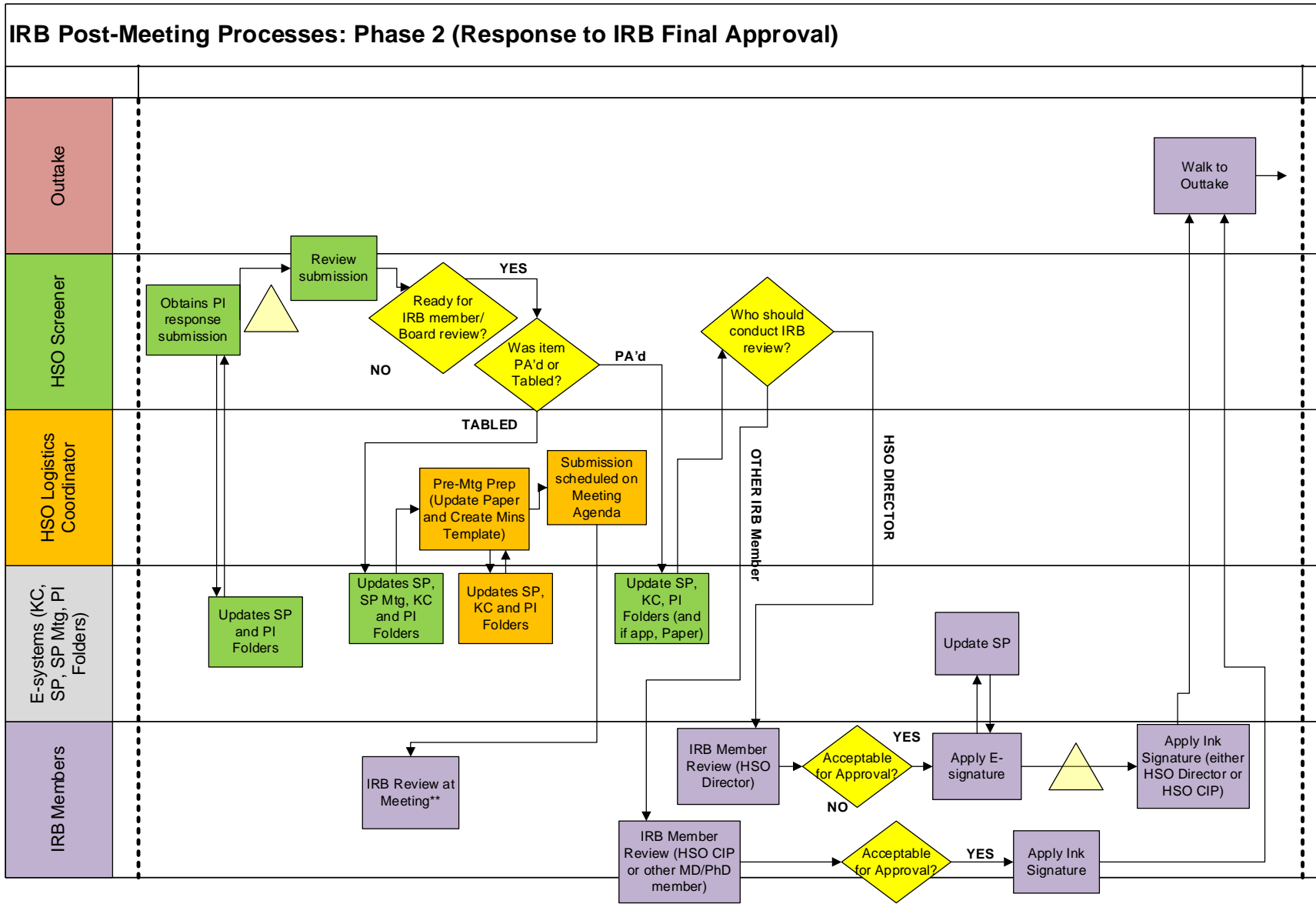
On Page Connector



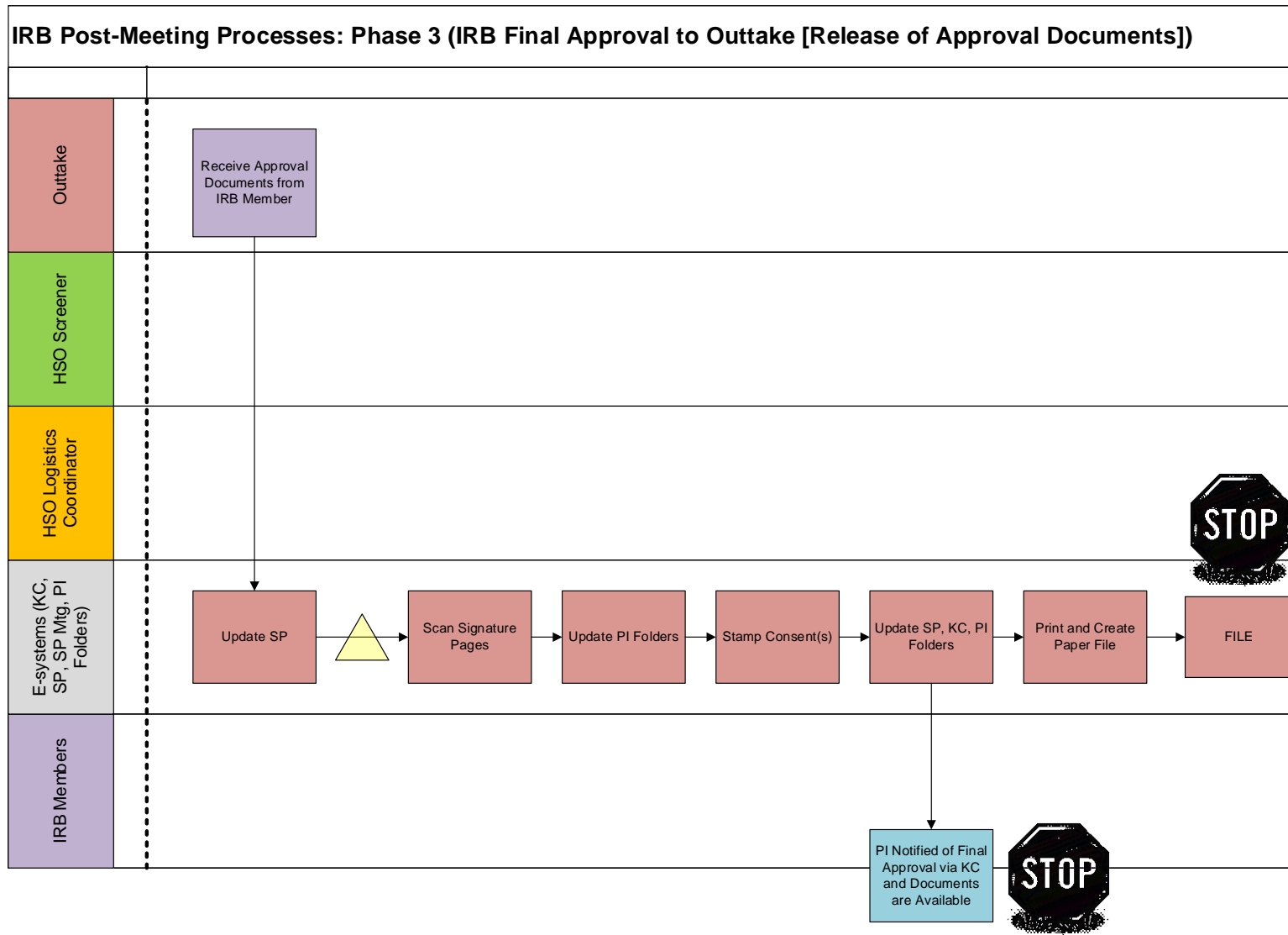
Off Page Connector

**CURRENT STATE: IRB Post-Meeting Processes: Phase 1 (Meeting to PI Notification)**













# Indiana CTSI IRB Process Improvement Project

WASTE	Examples of Waste Identified in IRB Project
 <p>Defects</p>	<ul style="list-style-type: none"> <li>• Staff inspects Reviewer Checklists from IRB members to look for missing information.</li> </ul>
 <p>Waiting</p>	<ul style="list-style-type: none"> <li>• Batching minutes (writing for review by AD; AD review)</li> <li>• Staff wait until entire meeting (and internal Post-Meeting Meeting) is complete before processing/minutes writing begins</li> <li>• Investigator submits response to IRB review and must wait for processing/approval</li> </ul>
 <p>Motion</p>	<ul style="list-style-type: none"> <li>• Staff have to physically walk to printers down the hall to pick up printed items</li> <li>• Must physically deliver wet-ink signature pages during post-meeting processing</li> </ul>
 <p>Overprocessing</p>	<ul style="list-style-type: none"> <li>• Review by Asst/Assoc Director prior to minutes being sent out to investigator.</li> <li>• Staff must inspect Reviewer Checklists from IRB members to look for missing information/regulatory determinations.</li> <li>• Any re-work per items not being approved – editing minutes, agendas, provisions, etc.</li> <li>• Scanning documents in early post-meeting phase when not really needed to be scanned until final phase (e.g., excess ‘inventory’ of documents prior to when they are needed)</li> </ul>

# Indiana CTSI IRB Process Improvement Project

**Analyze: identify, organize and validate critical outputs**

**Improve: develop and test solutions to process variation**

**Implementation Plan: This is where you implement solutions**

**Looking for “Ideal State”:** An ideal state was discussed so that the team could envision the process with reduced variation and waste. Characteristics of the ideal state included a reduction of “hand offs” from team member to team member, allowing a smaller number of people to “walk” a project through approval; completion of approval and minutes as close to the end of the IRB meeting as possible; reduction (if not elimination) of inspection of minutes

**Control: monitor performance change**

**Calculate new average for time from IRB review to final approval notification**

**Statistical analysis**

## Things to remember:

- Engage process owners early
  - Documenting process
  - Developing strategies to improve
- Thoroughly document process steps
- Collect data on each step
- Develop quick victories
- Sustain effort
- Monitor performance

## Possible delays:

- Clarification of decisions by IRB chair
- An approver is OoO or busy
- PI and/or team is non-responsive or slow to respond
- PI/team has to talk with sponsor first
- Backlogged due to number of studies processed and/or number and complexities of provisions

# Questions

# Next Learning Session



Tuesday Sep 27, 2016 3pm – 4pm Eastern