

# Agile Development and GIS

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**Presentation to the ESRI SWUG**



# Overview

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- **What is agile development?**
- **Why agile works for GIS development?**
- **Example of how agile can be applied to GIS Tools/Software**
- **Starting with Agile**



# What is Agile Development?

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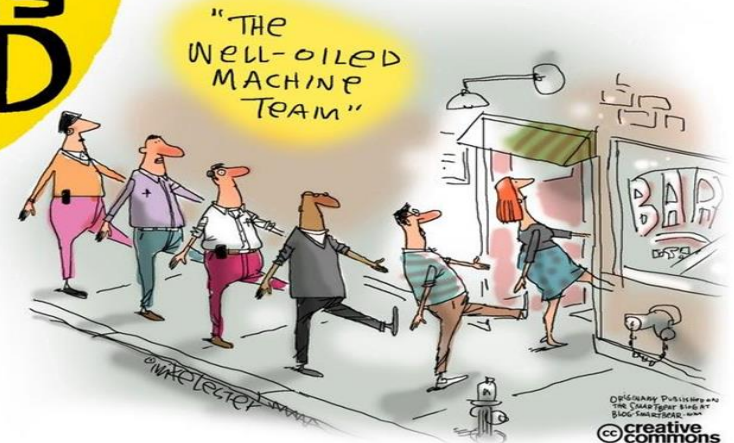
- Individuals and Interactions *over* Process and Tools
- Working Software *over* Comprehensive Documentation
- Customer Collaboration *over* Contract Negotiation
- Responding to Change *over* Following a Plan



# Agile/Scrum Teams



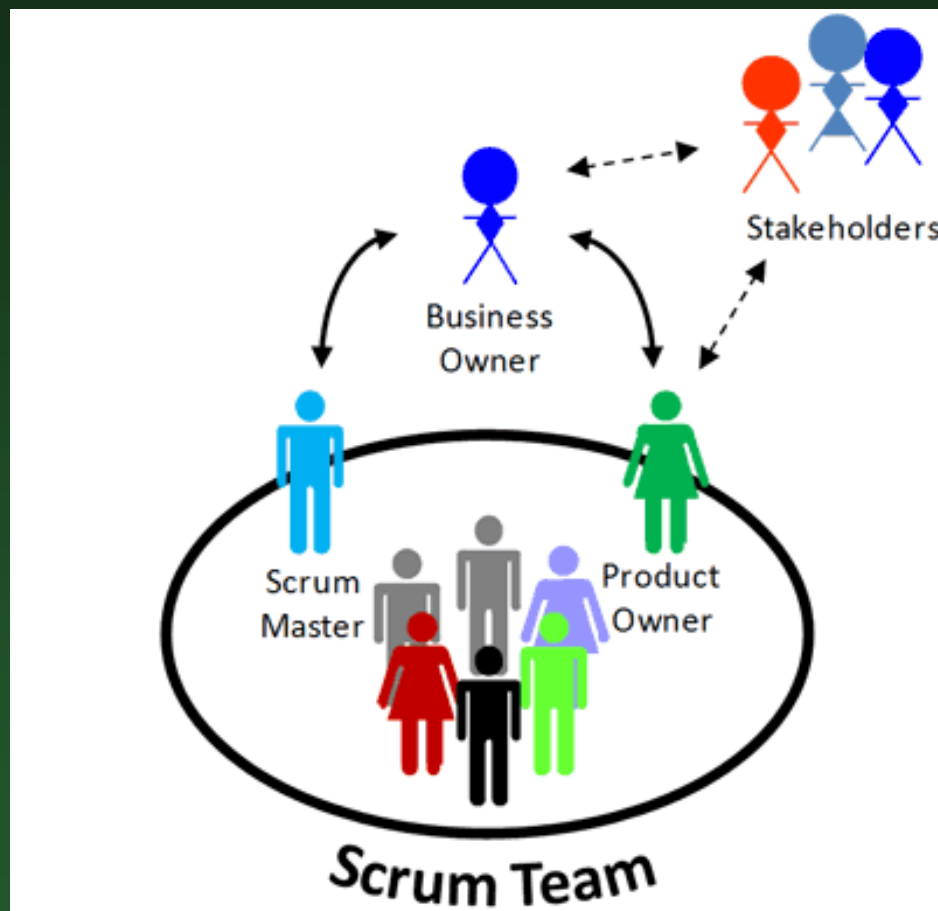
## TYPES OF AGILE TEAMS TO AVOID





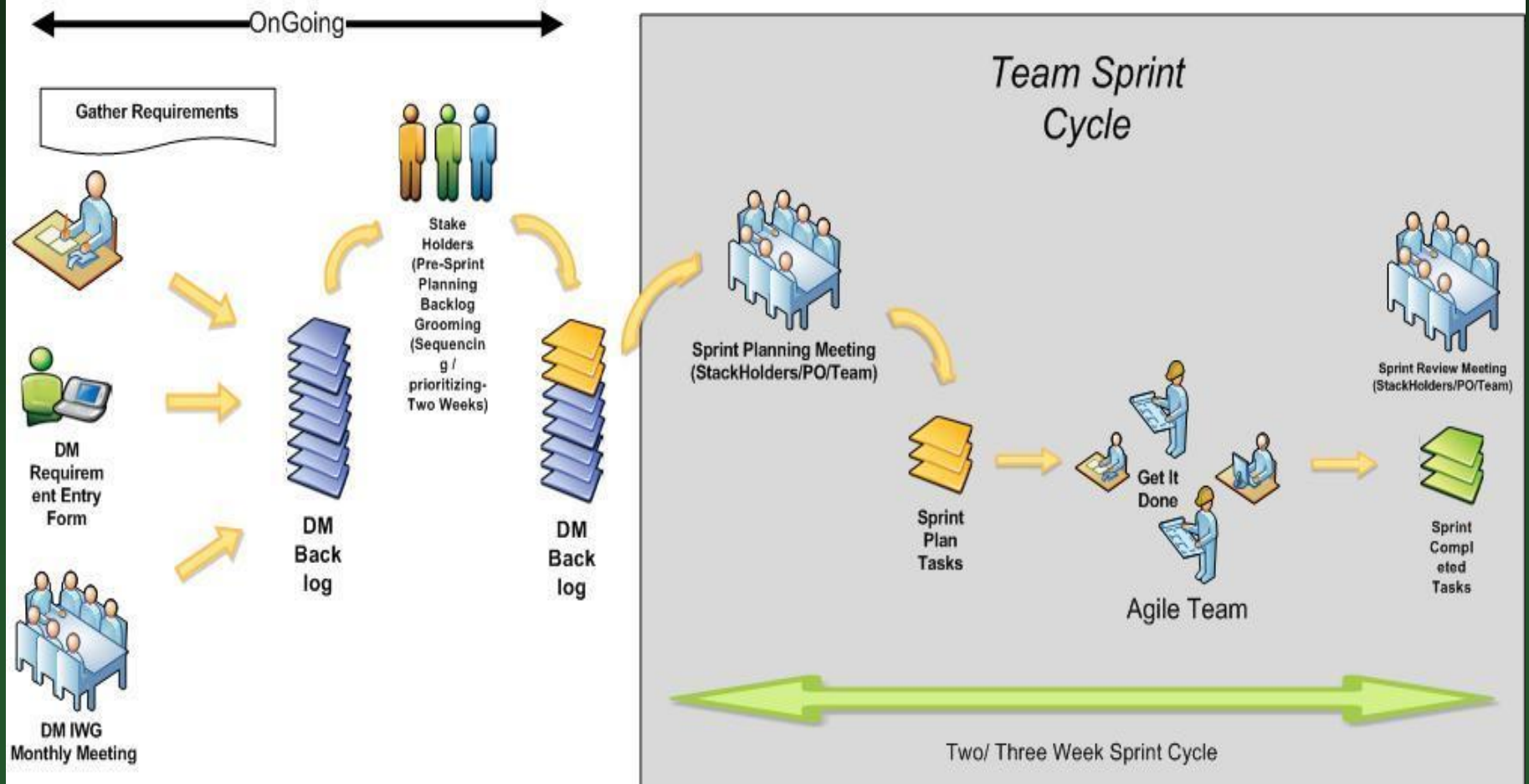
# Agile/Scrum Team

- Usually small (3-10 people)
- Goal is to provide useful products and results for stakeholders.





# Sprint Workflow





# Why Agile works for GIS

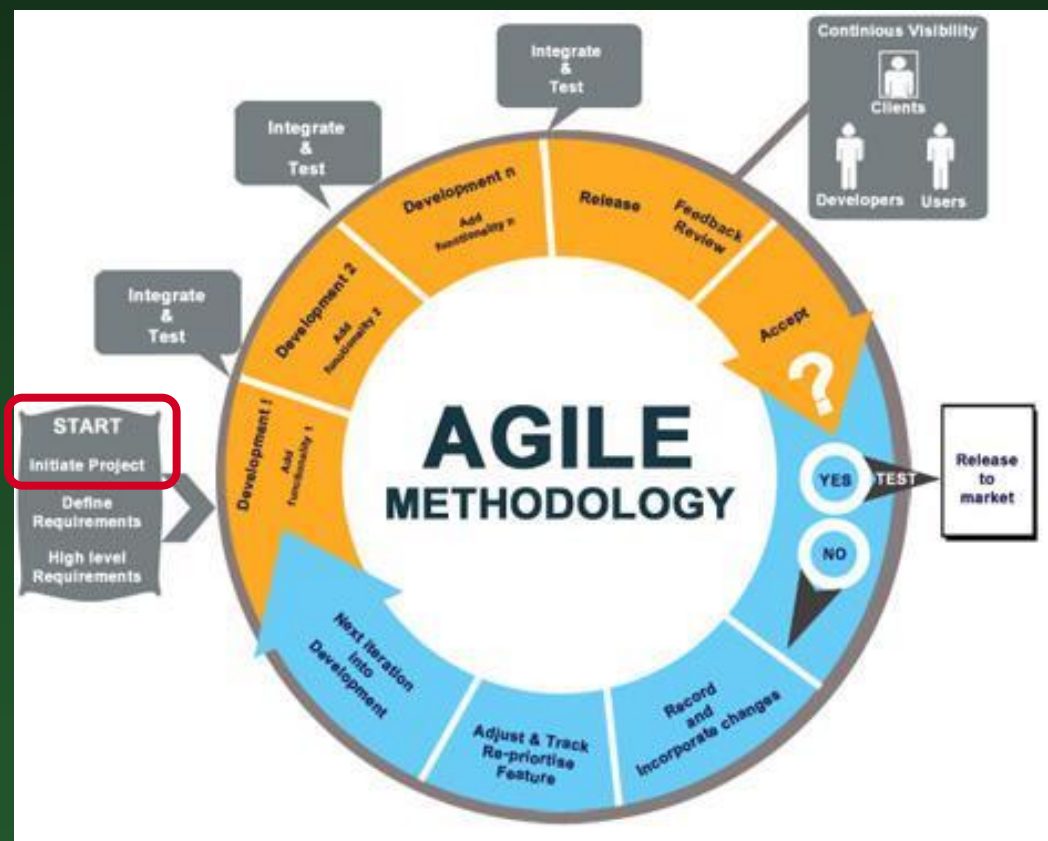
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- **Multipurpose**
- **Comprehensive view of goals/objectives**
- **Emphasis on improving**
- **Designed for resource sharing**
- **Trusted**



# Example-Metadata Viewer

- Initiation
- User Story: As a National Hydrography Dataset (NHD) user, I want to be able to click on a feature and see it's metadata.





# Example-Metadata Viewer

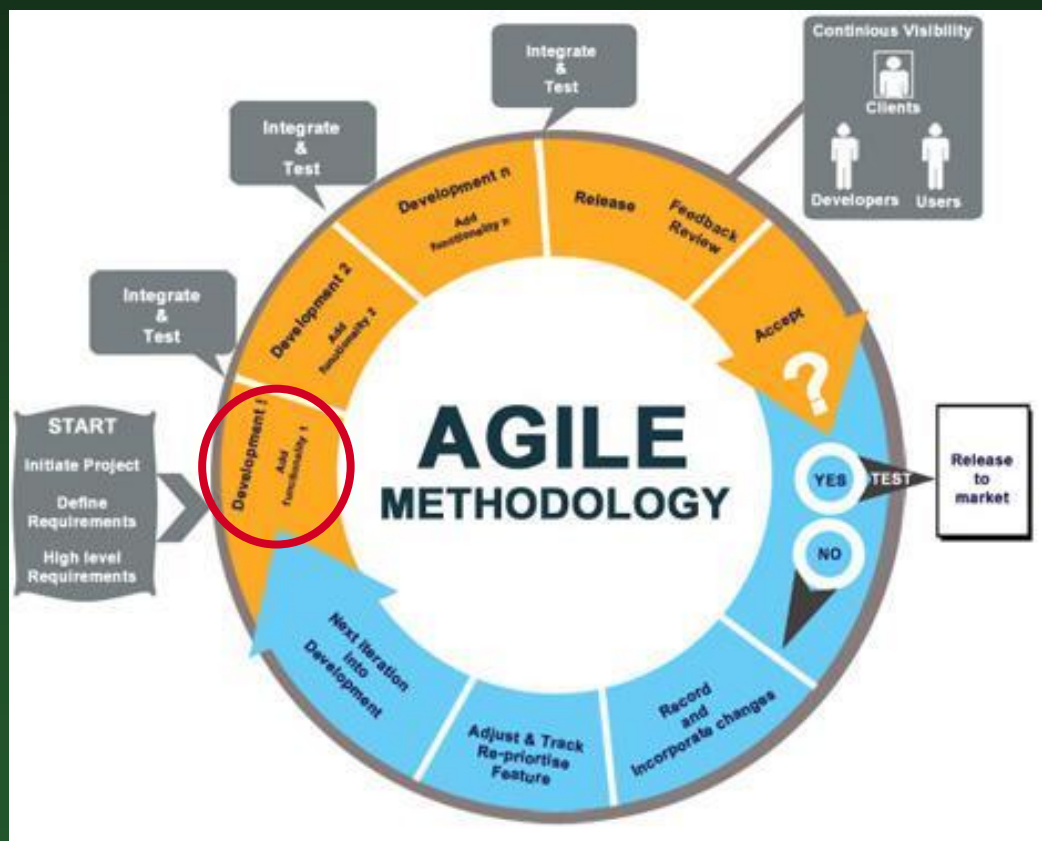
- Planning Phase
- Desktop/Web?
- Just NHD or other themes?
- File gdb, personal, shapefiles, replicate checkouts?
- What information should be displayed?
- How does the user interact with the tool?





# Example-Metadata Viewer

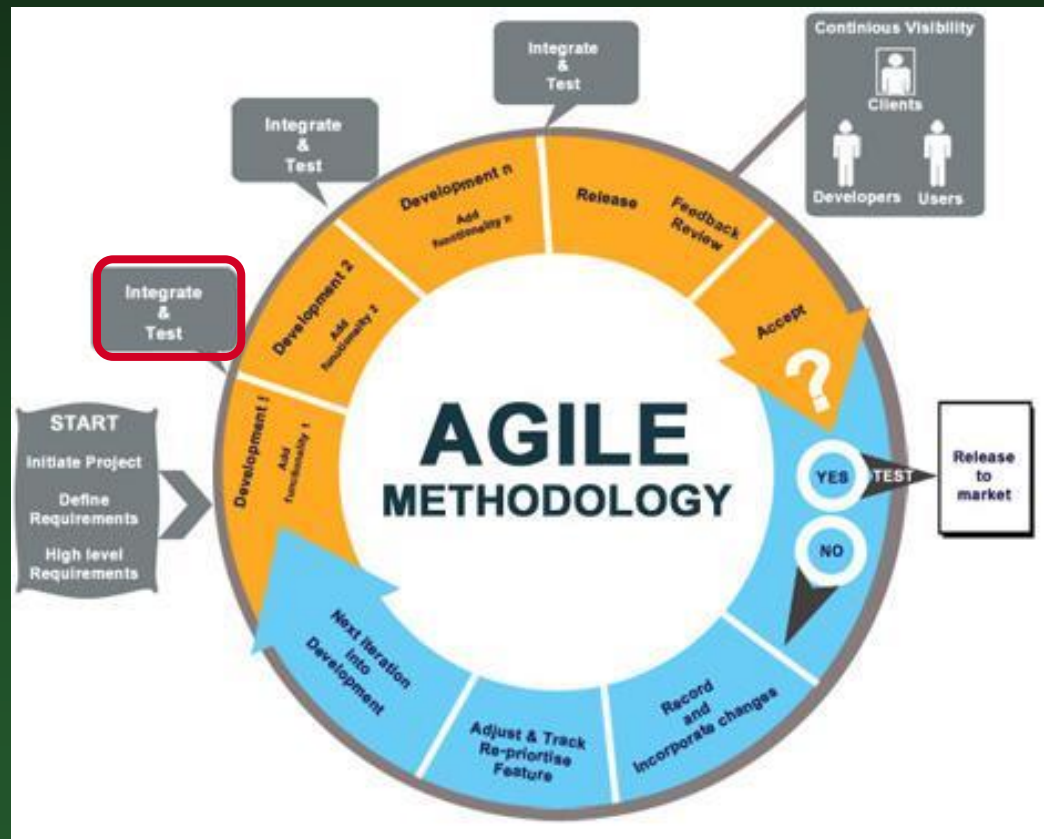
- Execution
- Desktop
- Just NHD
- Geodatabase, replicate checkouts
- Display all Metadata and Source Information
- Interact by click and get a pop-up





# Example-Metadata Viewer

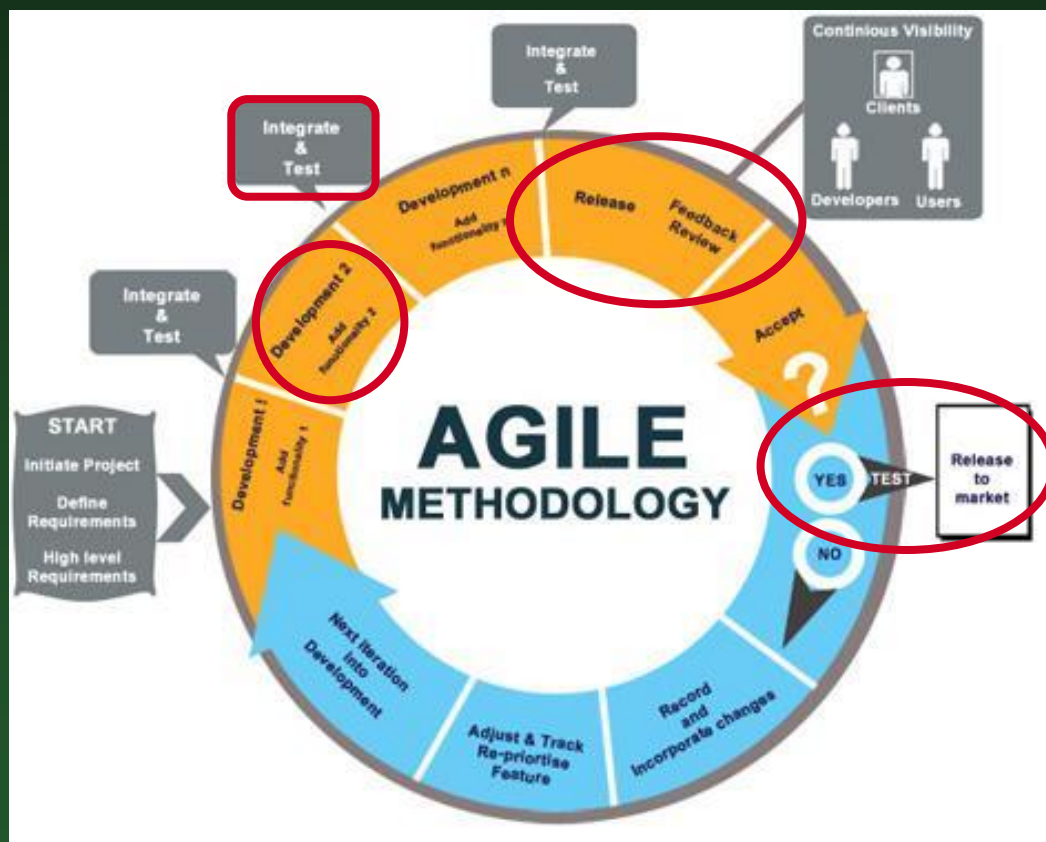
- Review & Test
- Immediate feedback from PO and Stakeholders
  - Select multiple features
  - Make it look/behave like the identify tool
  - Tooltips
  - Automatic field sizing
  - Hierarchy of fields
  - More obvious highlighting





# Example-Metadata Viewer

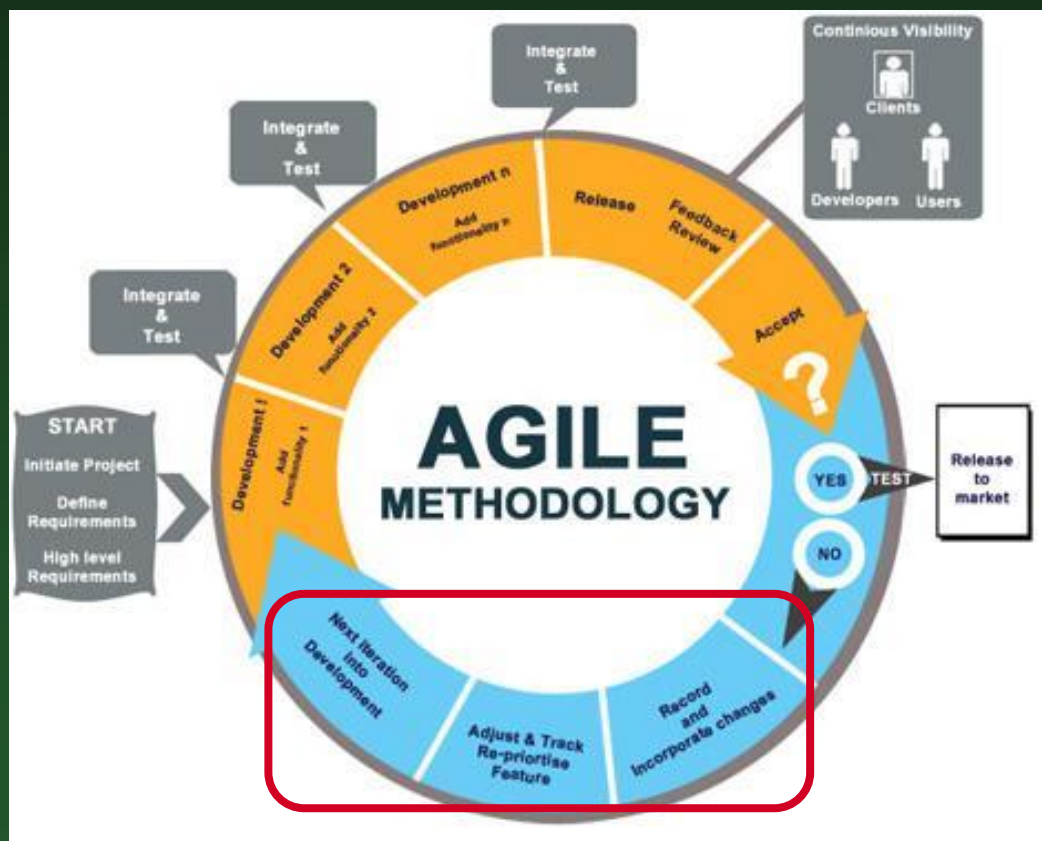
- Execution
  - Addressed all new/updated requirements
- Review & Test
  - Acceptance!





# Example-Metadata Viewer

- Closing?





# How to start with agile (Start small build up)

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- Pick a small project
- Get key player(s) on board
- Show Repeated Success before you move on to larger projects
  - Sell the success story's
  - Sell the strengths of Agile (flexibility, stakeholders plugged in, etc.)
  - Learn and Improve the Process



# How to start with agile (Start small build up)

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- **Extend to larger projects**
  - **Have stakeholders/product owners advocate to other folks in the Org**
  - **Overlap projects (Use sprint defined projects)**
  - **Break out to other teams if necessary**
  - **Build it! They will come!**



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**Questions????**

**Comments????**

**Feedback????**