



# **ADVANCED WORK PACKAGING “BACK TO BASICS” for MANAGING ENGINEERING**

**BEST PRACTICES CONFERENCE - 2015**

**Presenter:  
Glen Warren**

**Co-Chair - COAA AWP/WFP Committee**

# **AWP – BACK TO BASICS**

## **AGENDA**

1. Basics of AWP – some definitions
2. Flowchart of AWP Packaging
3. Barriers to Implementation
4. Owners – what you need to key on
5. Owners – what is different from traditional?
6. Wrap-up and Q&A



# **AWP – BACK TO BASICS**

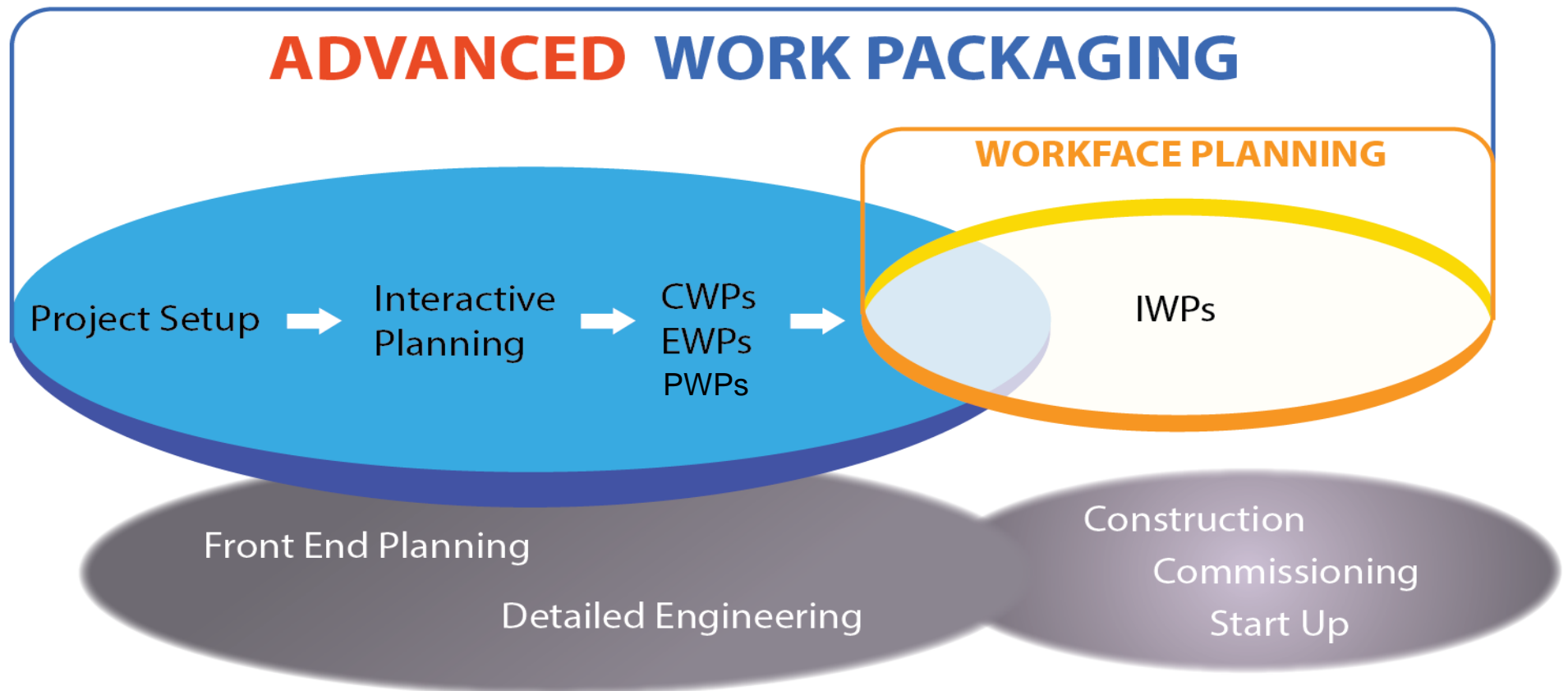
**AWP in simple terms is the formalization of the “packaging” process for all:**

- **Construction Work Packages (CWPs)**
- **Engineering Work Packages (EWPs), and**
- **Procurement Packages (PWPs)**

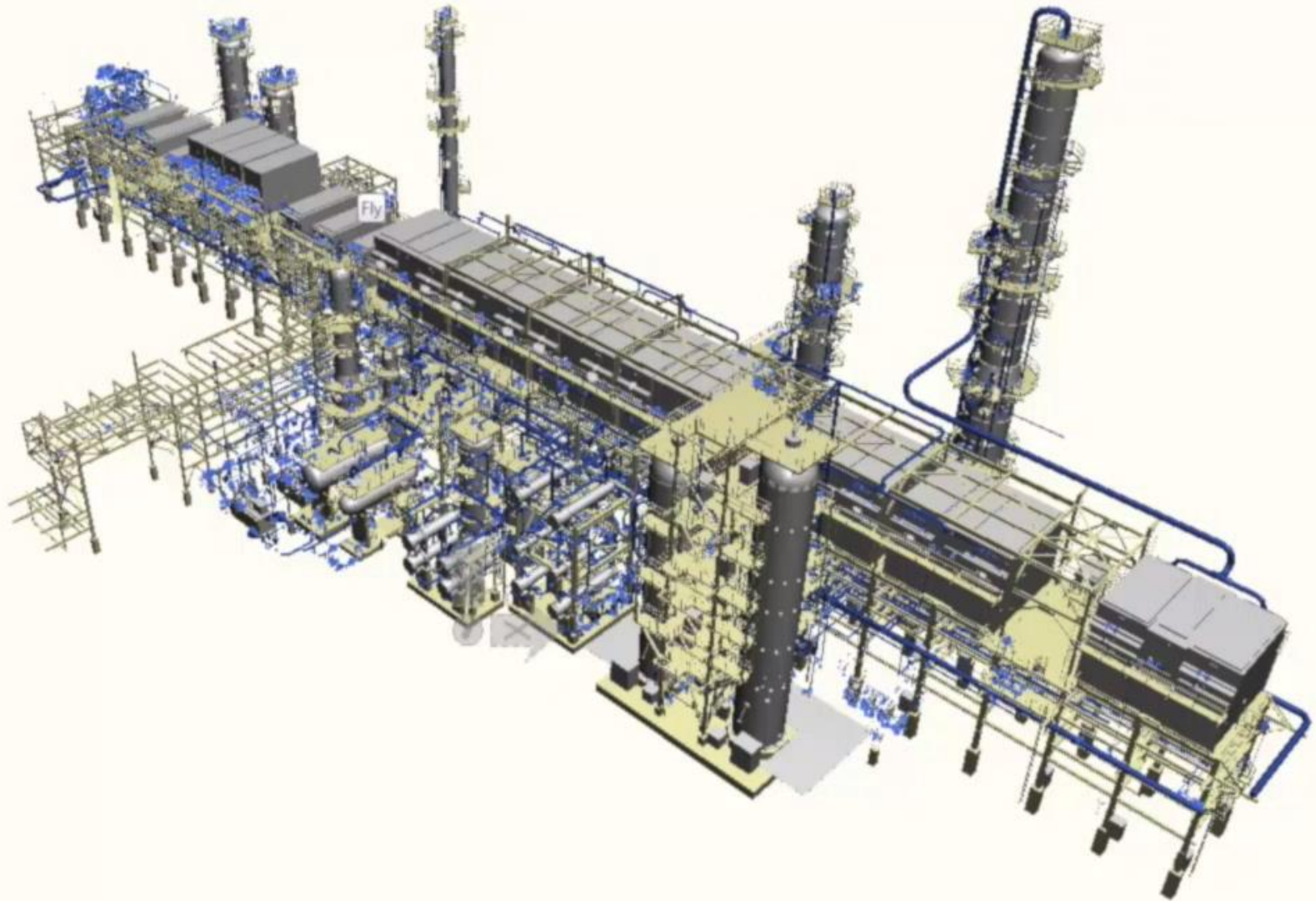
**To support safe, efficient, and productive**

- **Installation Work Packages (IWPs).**

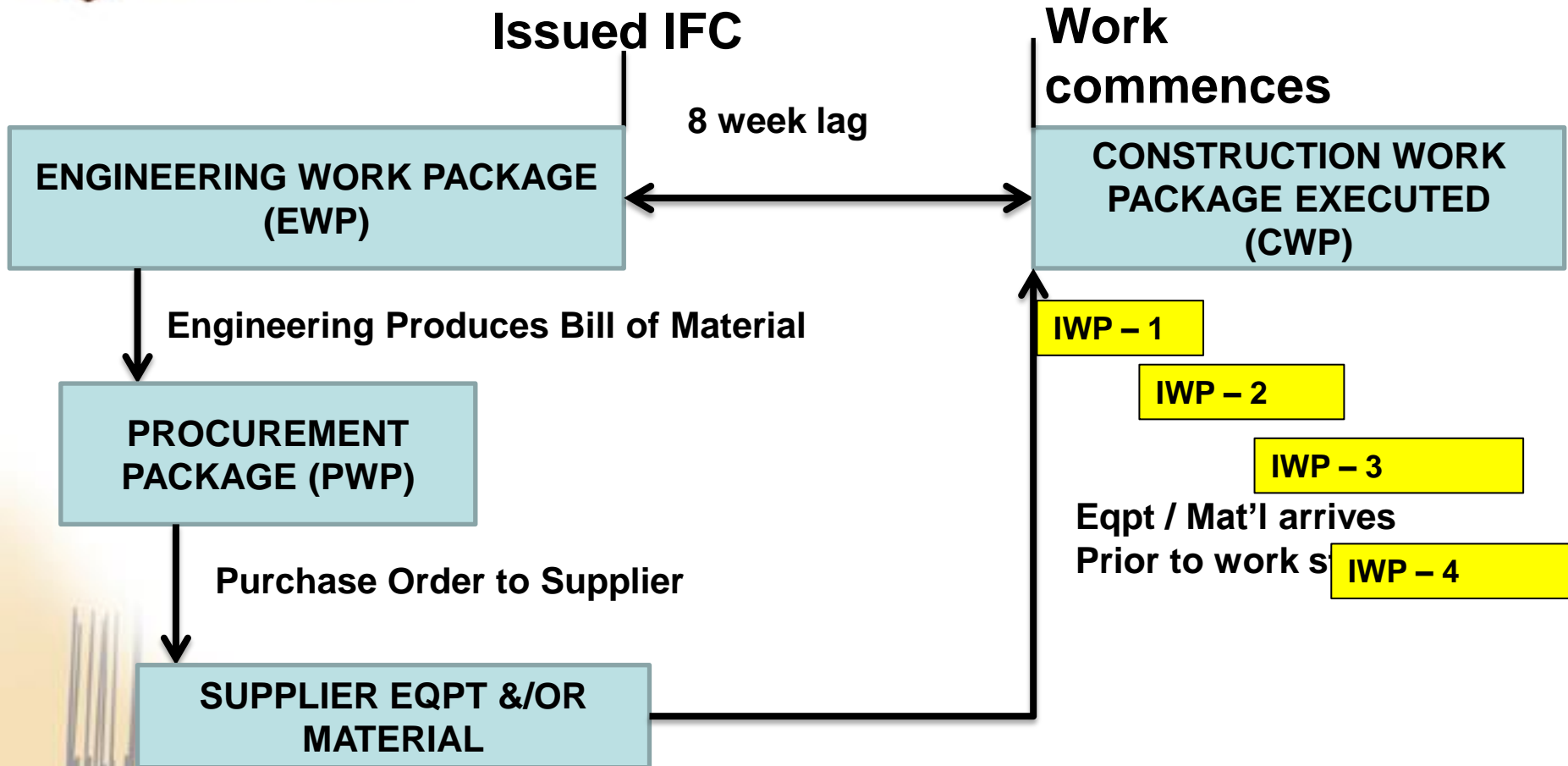
# AWP – BACK TO BASICS



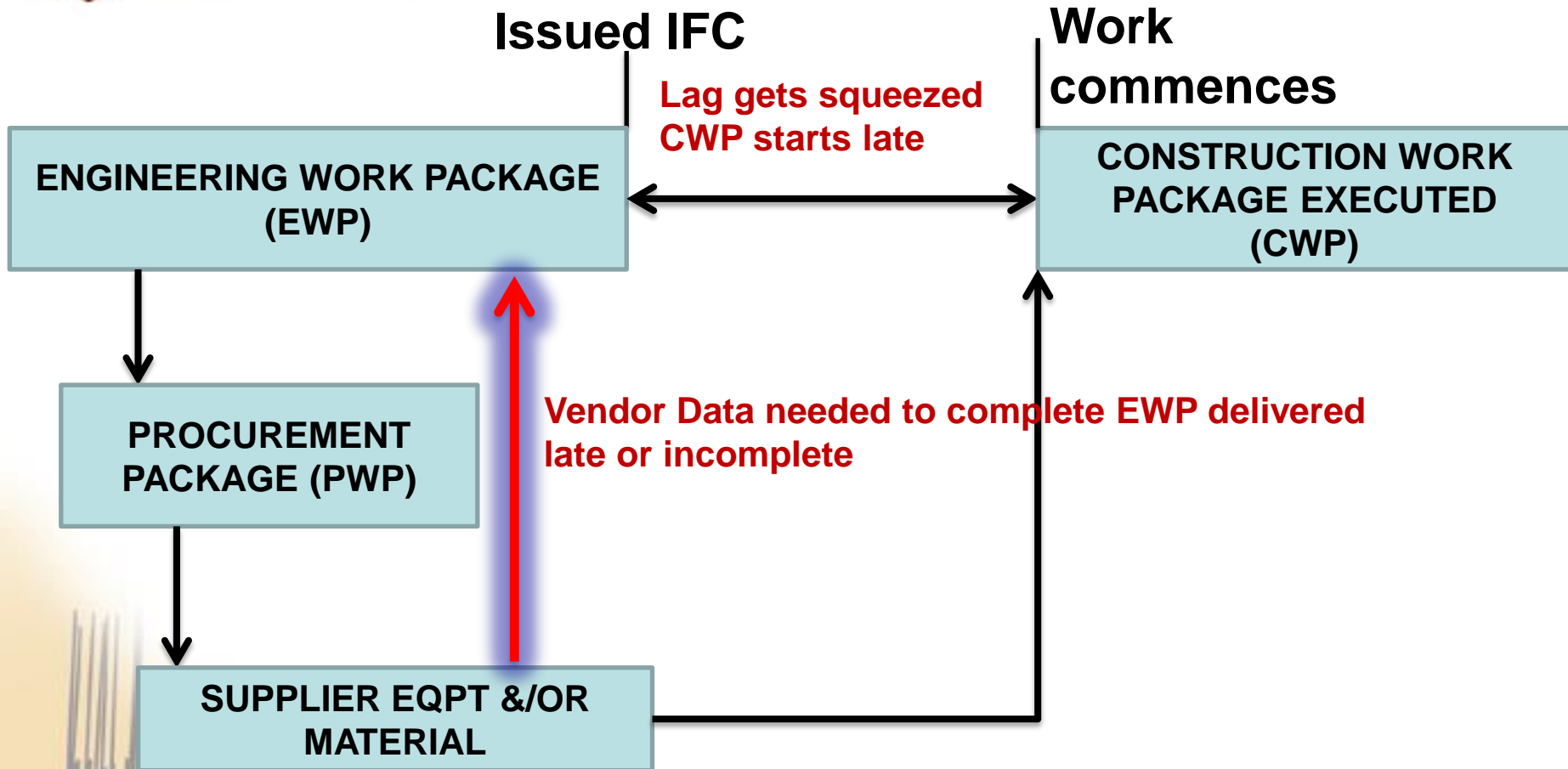
# **AWP – BACK TO BASICS**



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# **AWP – BACK TO BASICS**

## **Barriers to implementation:**

**Benefits not clear (not enough case studies)  
- which makes buy-in more difficult**

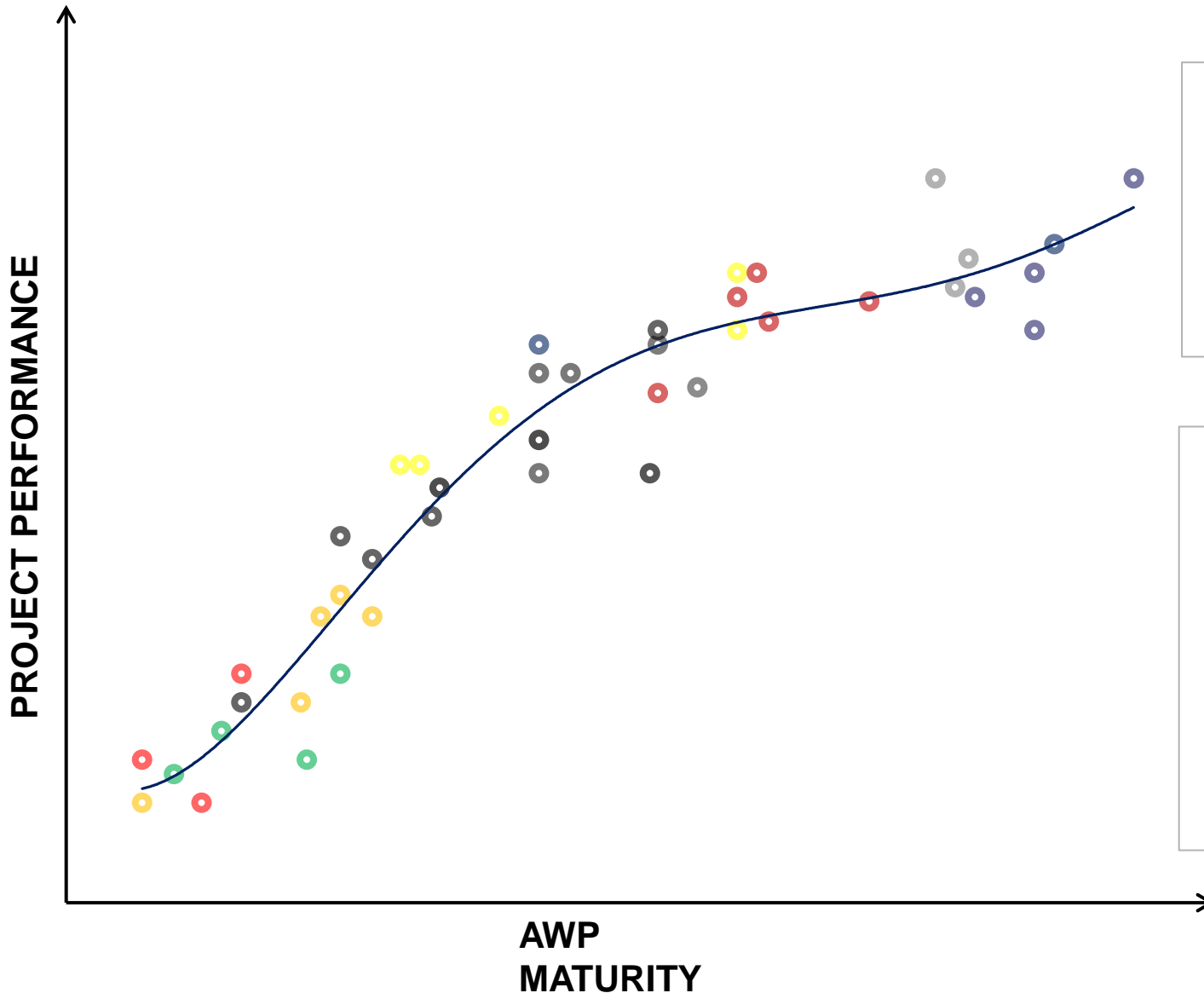
**Too much effort involved in Front End**

**Moves additional costs into Front End**





# Maturity Model



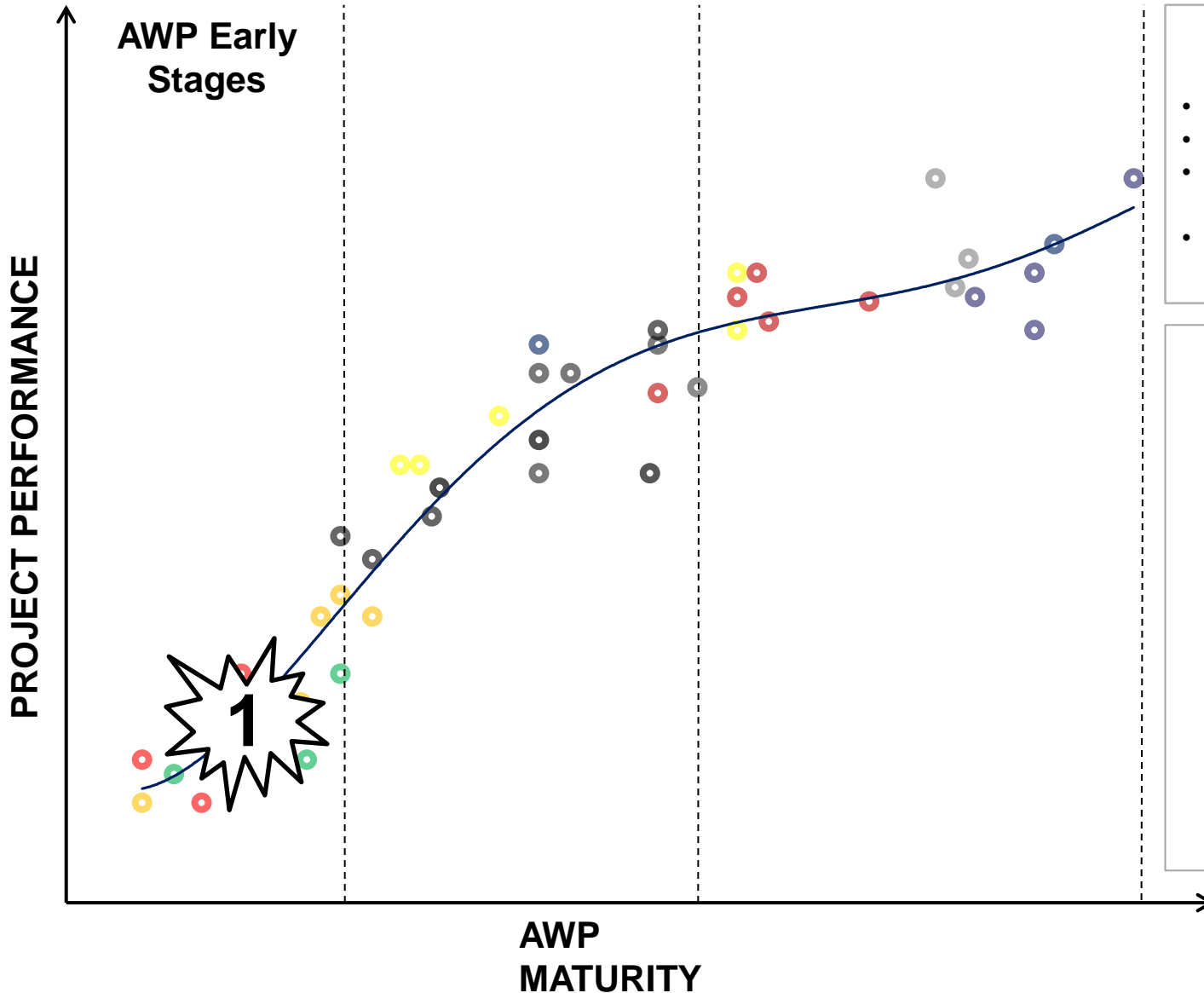
## AWP Maturity

1. Process Adherence
2. Organizational Alignment
3. Contract Integration

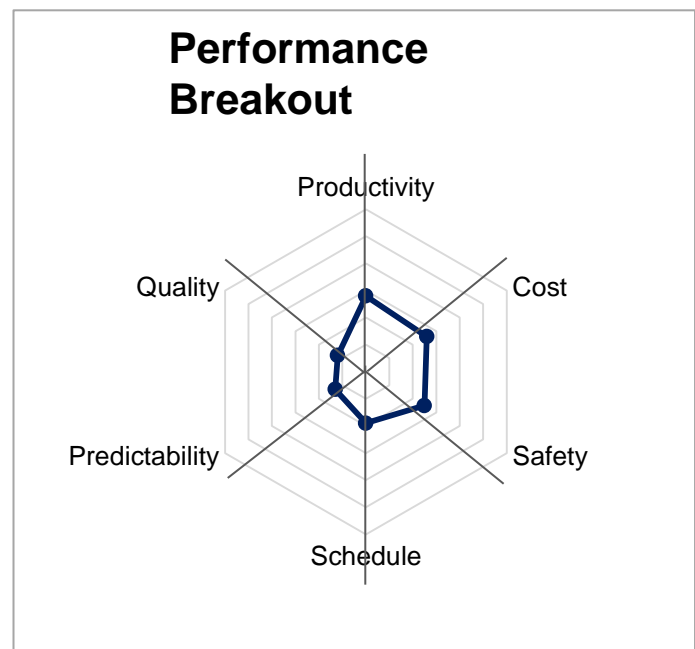
## Project Performance

1. Productivity
2. Cost
3. Safety
4. Schedule
5. Quality
6. Predictability

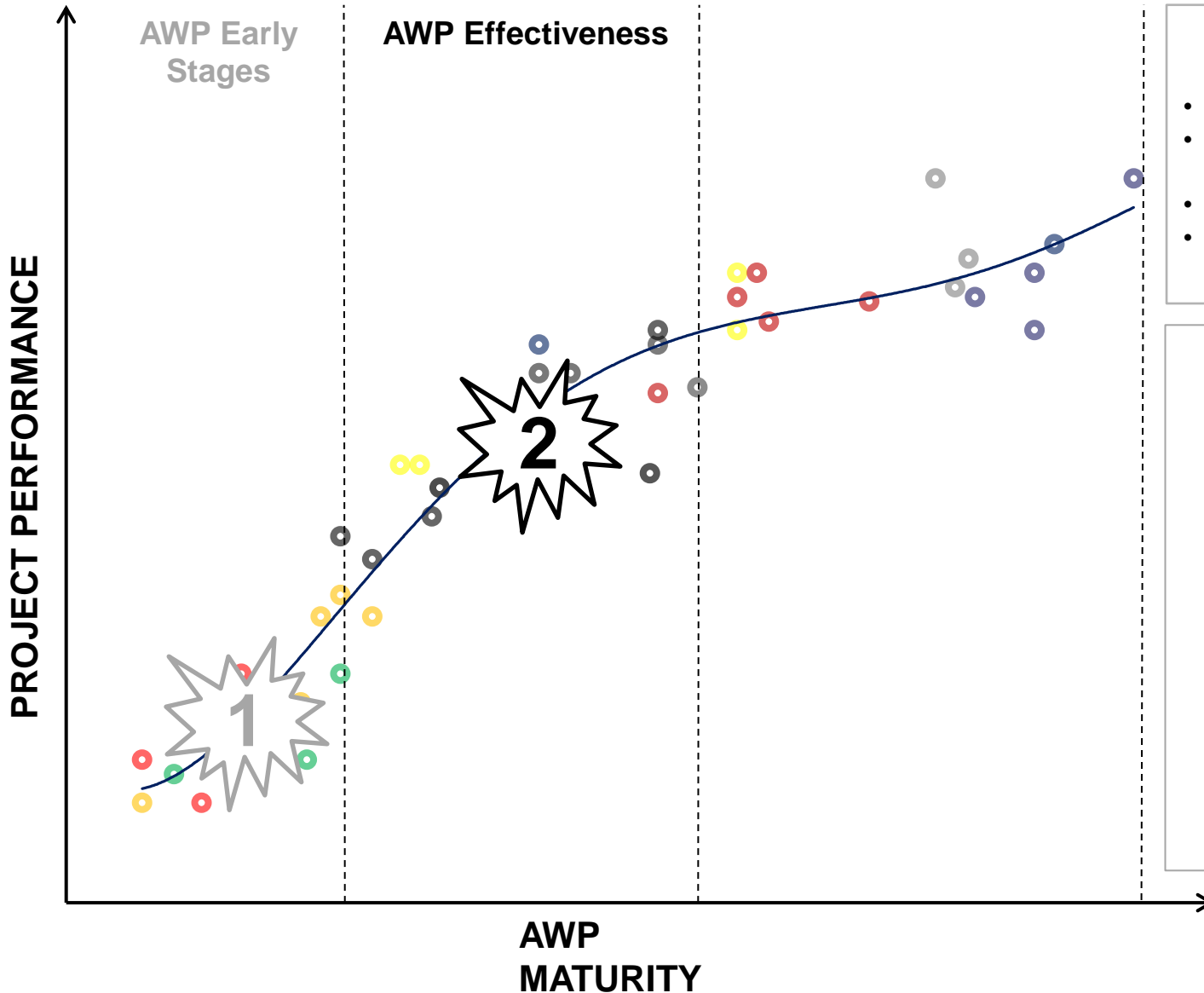
# Maturity Model



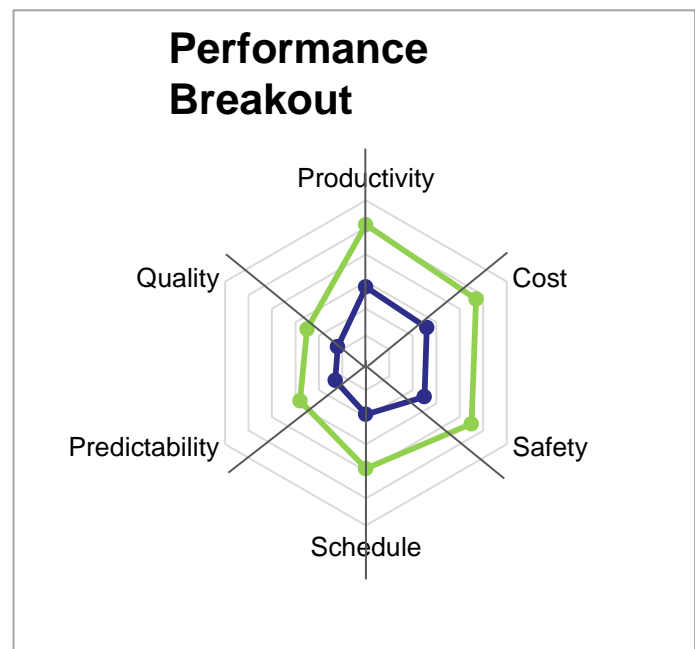
- ### AWP Early Stages
- Set small project goals
  - Allocate adequate budgets
  - Identify key roles to drive AWP implementation
  - Perform intensive training



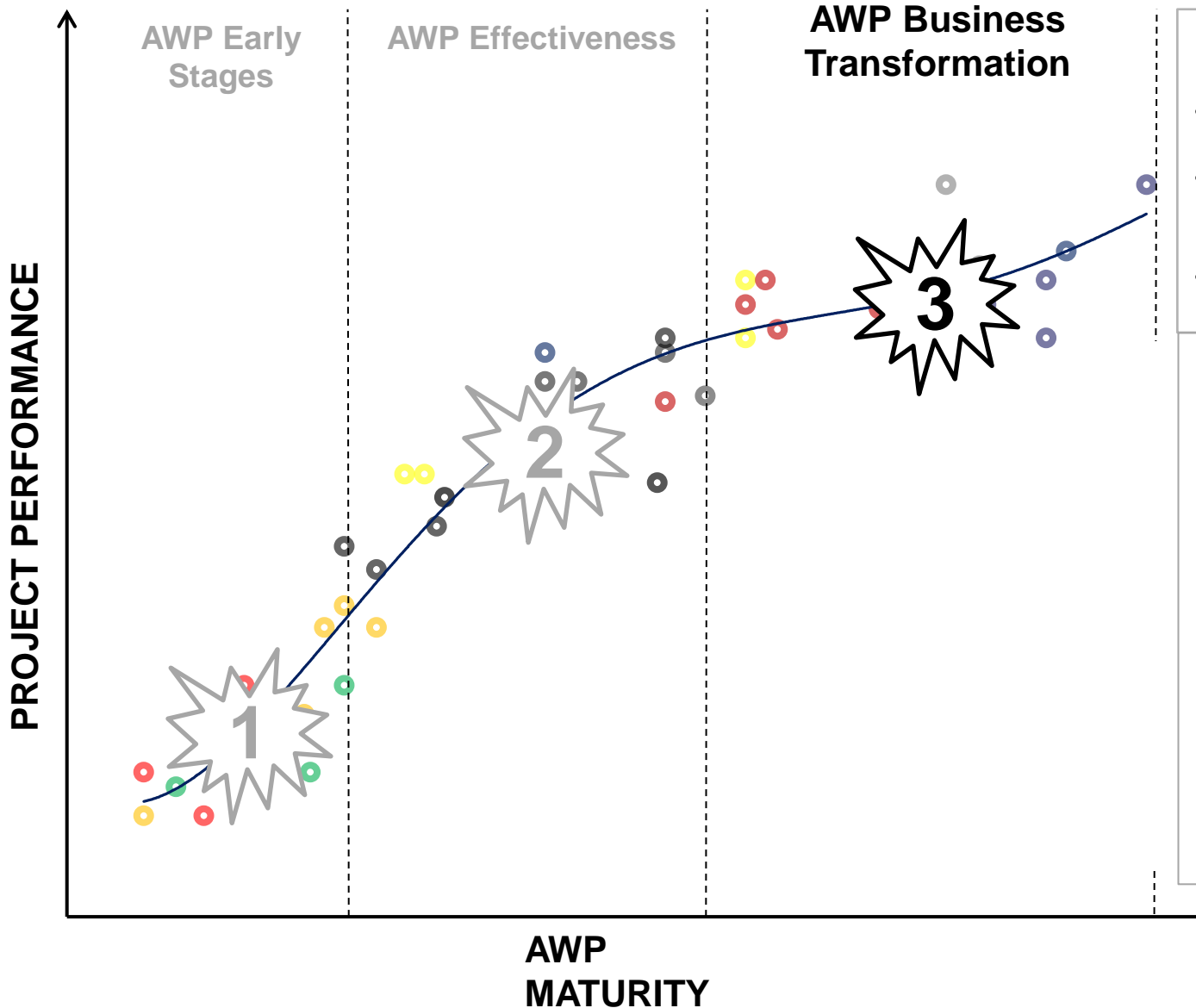
# Maturity Model



- ### AWP Effectiveness
- Set ambitious project goals
  - Prioritize incremental improvement projects
  - Watch out for complacency
  - Attain to AWP guidelines



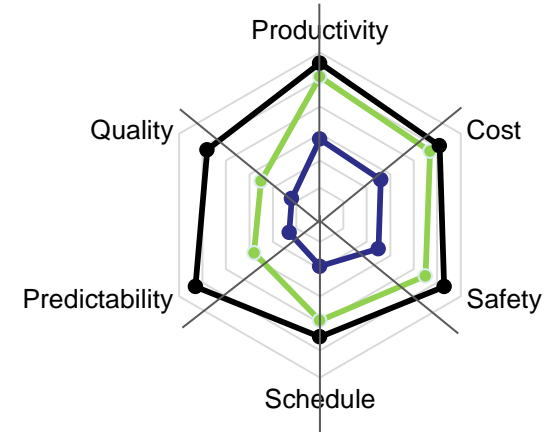
# Maturity Model



## AWP Business Transformation

- Continue investing in AWP implementation
- Increase the flexibility of Project Managers to evolve/adapt AWP processes
- Export the project as “world-class” benchmark

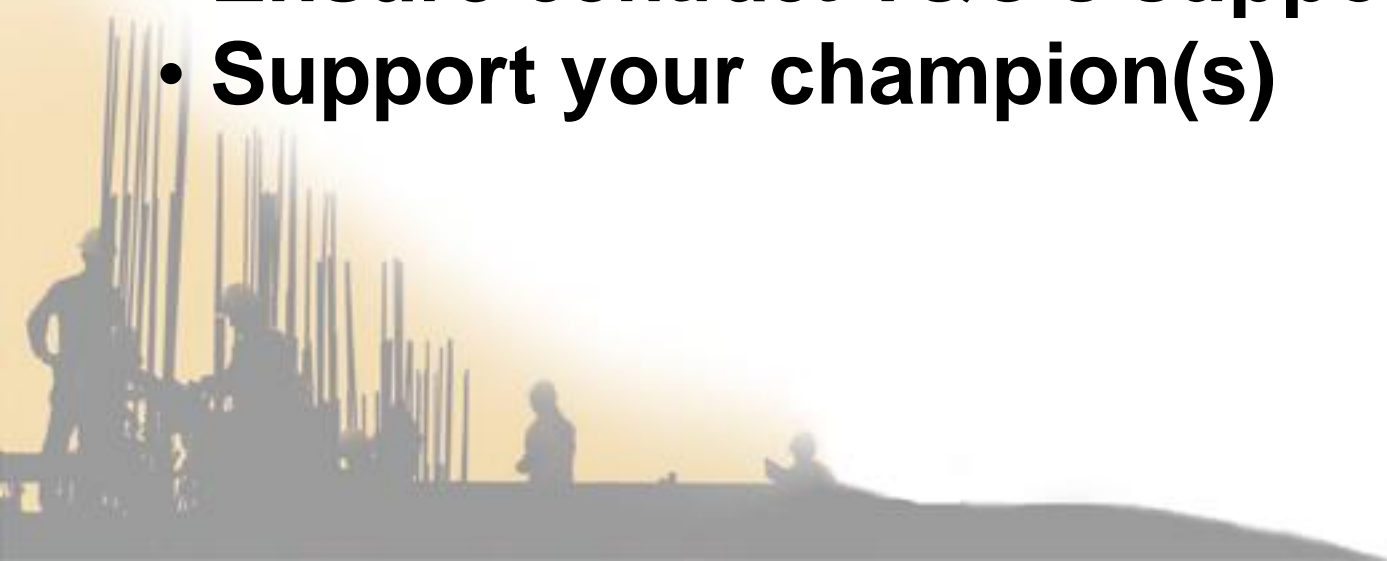
## Performance Breakout



# **AWP – BACK TO BASICS**

## **Owners – What you should be doing**

- **AWP/WFP – This should be a key project strategy. Announce it. Support it. Tell the stakeholders your expectations!**
- **Prequalify your EP and C (or EPC)**
- **Ensure contract T&C's support AWP**
- **Support your champion(s)**





# **AWP – BACK TO BASICS**

**Owners – What you should be doing**

**Clarify Scope**



# **AWP – BACK TO BASICS**



# **AWP – BACK TO BASICS**

**Owners – What you should be doing**

## **Review Project Management**

- **Confirm templates for CWP, EWP, and PWP**
- **Confirm data requirements (content, format and schedule for all deliverables)**
- **Confirm Rules of Credit for CWP, EWP and PWP for progressing and forecasting completion dates**







**COAA**  
Construction Owners  
Association of Alberta

# Implementation

## Setting Controls

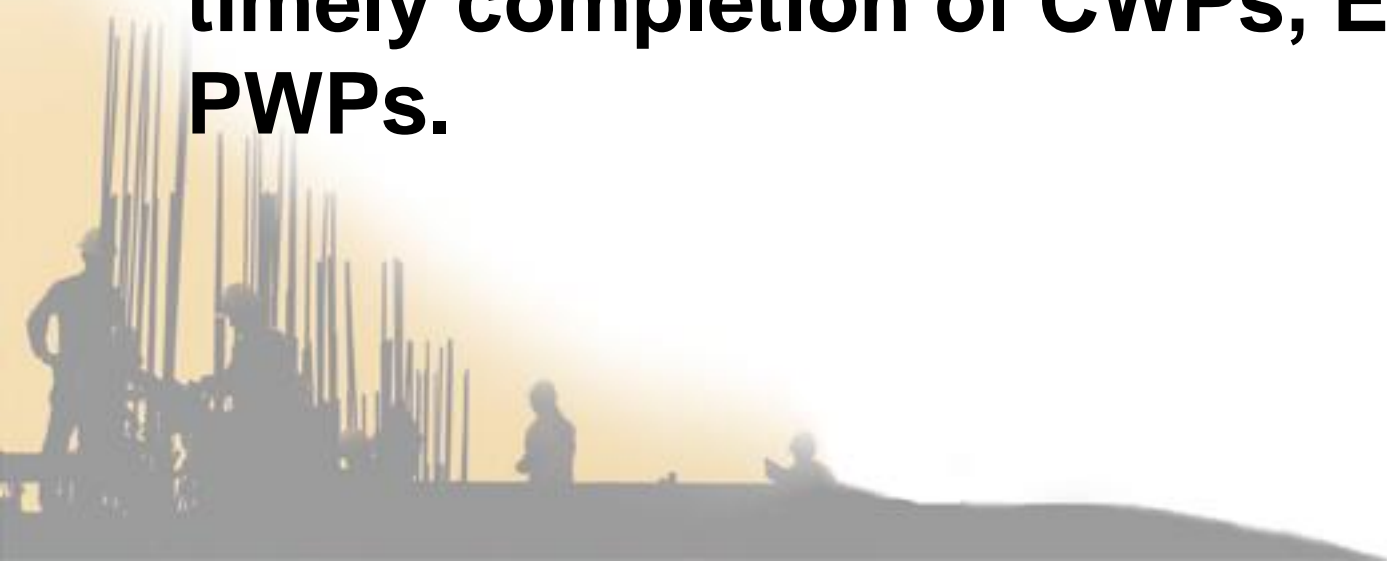


# **AWP – BACK TO BASICS**

**Owners – What you should be doing**

## **Contractual Issues**

- **Prequalify stakeholders on ability to support AWP implementation.**
- **T&C's support AWP and have incentives for timely completion of CWPs, EWPs, and PWPs.**



# **AWP – BACK TO BASICS**

## **Owners – What you should be doing** **Review Model of Record**

- **Boundaries of each CWP/EWP clear (no overlaps)**
- **Attributes of all items (spools, bulks and tagged equipment) tied to EWP and also support system identification**
- **Clarify use of model for engineering design construction planning, project progressing etc?**

# **AWP – BACK TO BASICS**

**Owners – What you should be doing**

## **Review Schedule**

- **Each CWP supported by predecessor EWP(s)**
- **Dates for associated vendor data tied to each EWP.**
- **Adequate lag from scheduled EWP IFC date and associated start of CWP.)**



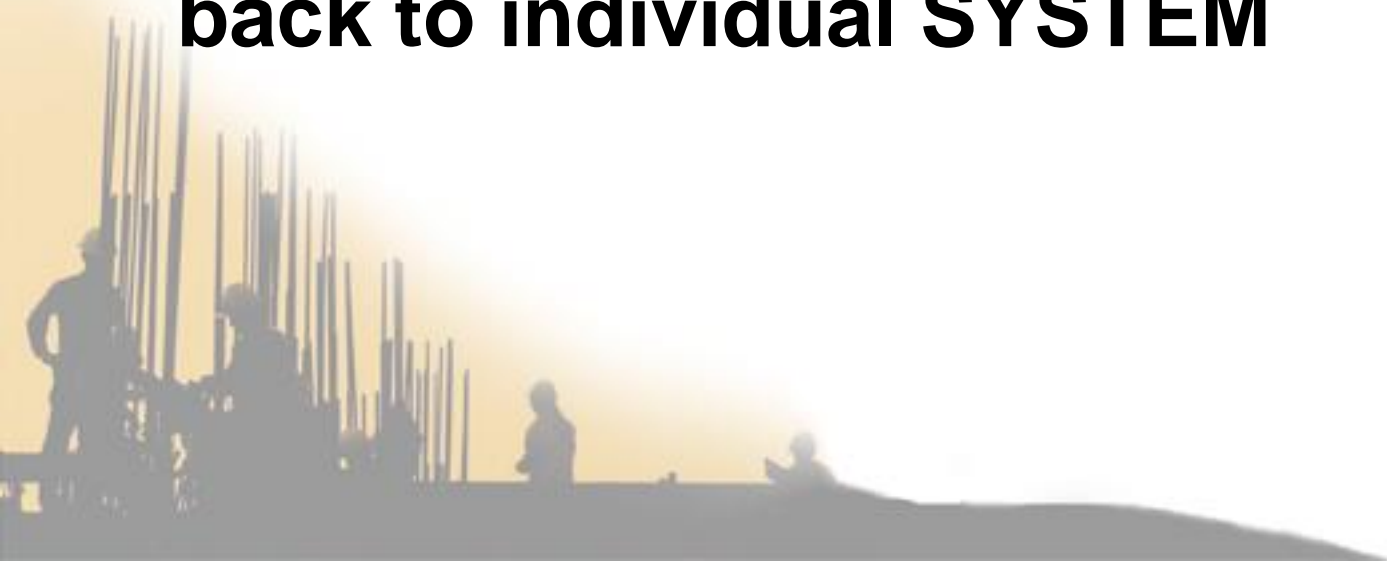


# **AWP – BACK TO BASICS**

**Owners – What you should be doing**

## **Review Procurement Packages**

- **ALL materials / equipment can be traced back to individual EWP**
- **ALL materials / equipment can be traced back to individual SYSTEM**

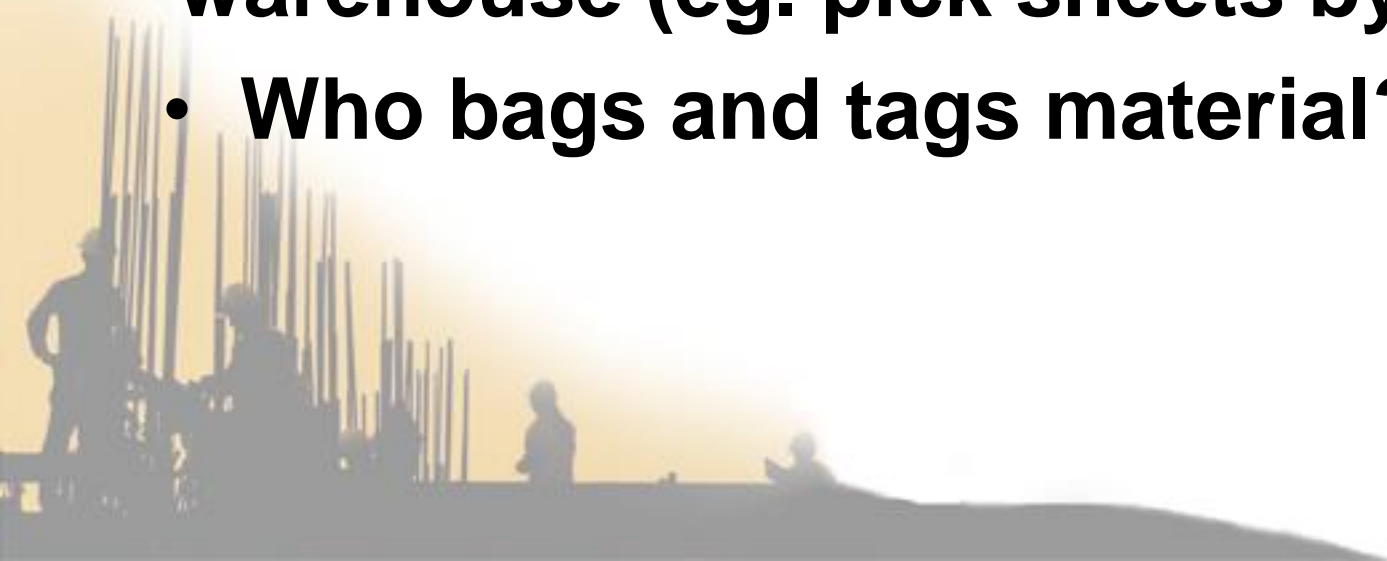


# **AWP – BACK TO BASICS**

**Owners – What you should be doing**

## **Review Material Management Process**

- **Clarity of who receives / warehouses material**
- **What is process to get material from warehouse (eg. pick sheets by IWP or EWP?)**
- **Who bags and tags material?**



# **AWP – BACK TO BASICS**

What is needed – and is it new?

1. Clear correlation between content and schedules of CWP and EWP releases.
2. Clear definition of package boundaries
3. Defined templates for packages
4. Procurement packages mapped to EWP/CWP
5. Strategy for vendor data deliveries
6. Process to progress / forecast EWPs/CWPs
7. Prequalify stakeholders for AWP/WFP
8. Expectation clear in contract language
9. Defined materials management processes



# **AWP – BACK TO BASICS**

## **Q & A**







**THANK YOU**

