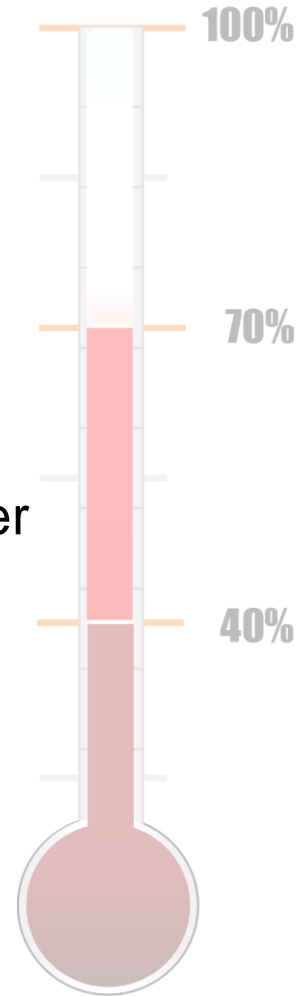# Work Control Process and Measuring Alignment

Presented by:

Mike Hughes, Bechtel National Operations Manager
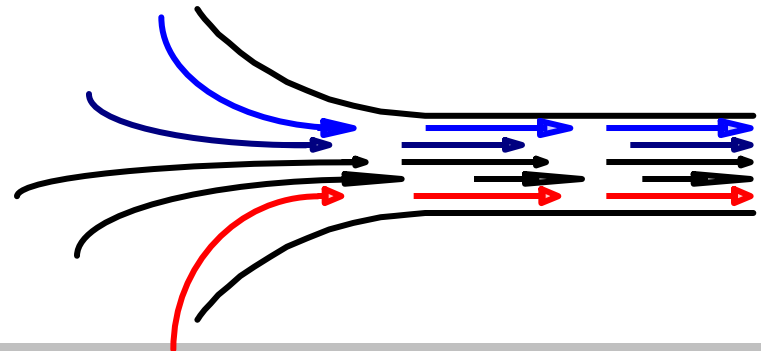John Mathis, Bechtel National Safety Manager

100%

70%

40%

Alignment is Critical to Project Success

Definition - The condition where appropriate project participants are working within acceptable tolerances to develop and meet a uniformly defined and understood set of objectives.

– A state of being; focused on objectives

– Must be fostered throughout the project life

– Must be readdressed as new participants added to project, or as objectives change

- **Skilled Craft**
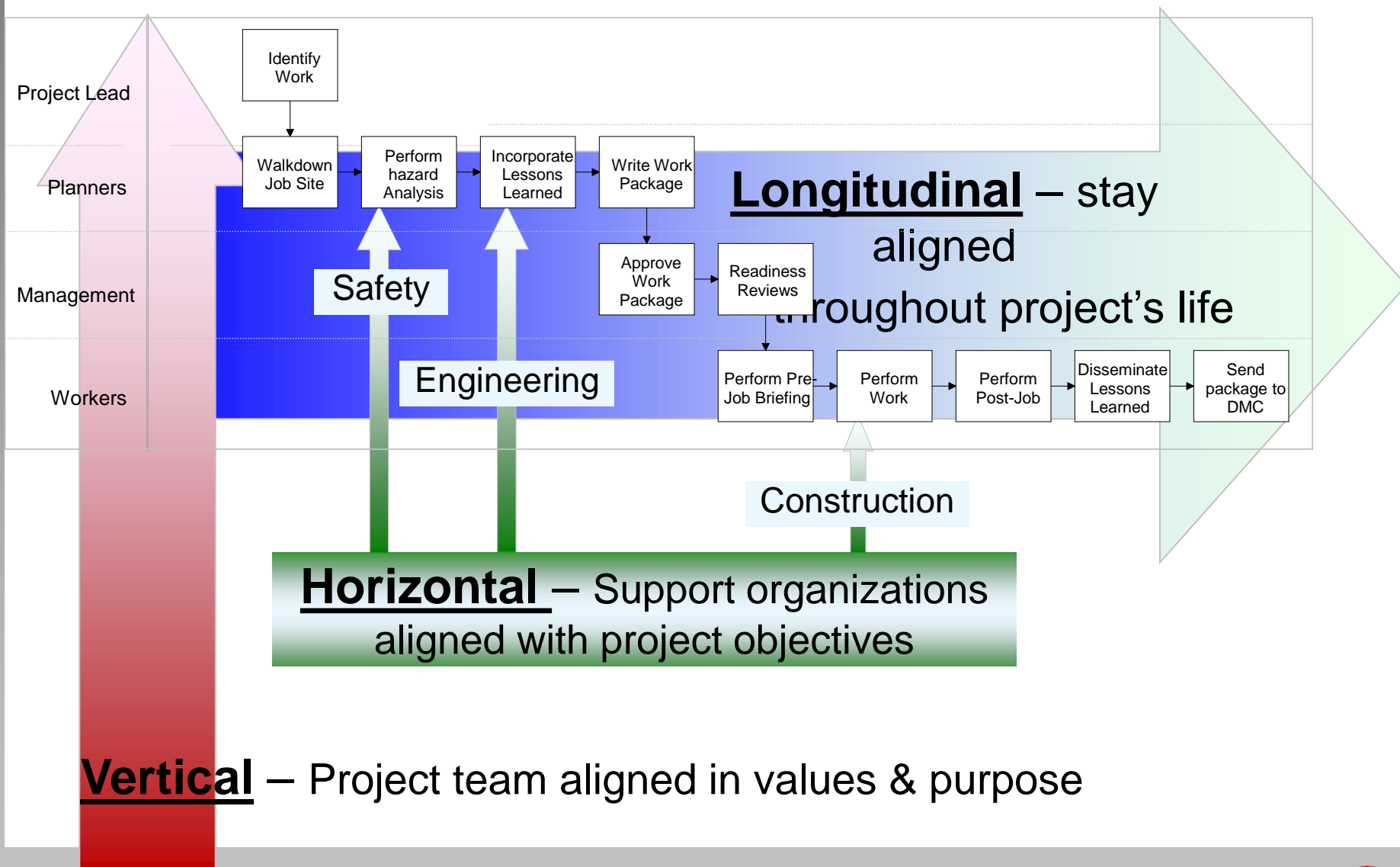- **Engineering**
- **Management**
- **Construction**
- **Safety**

Understanding the Alignment Challenge

- Projects have complex objectives – *sometimes they are in direct conflict*

- Mixed stakeholders cause project complexity

- Different work groups – *sometimes specialists tend to do their own thing*

- Multiple decision makers increase the need for communication – *both on the project and off the project*

- Project Dynamics – *scope, schedule, funding*

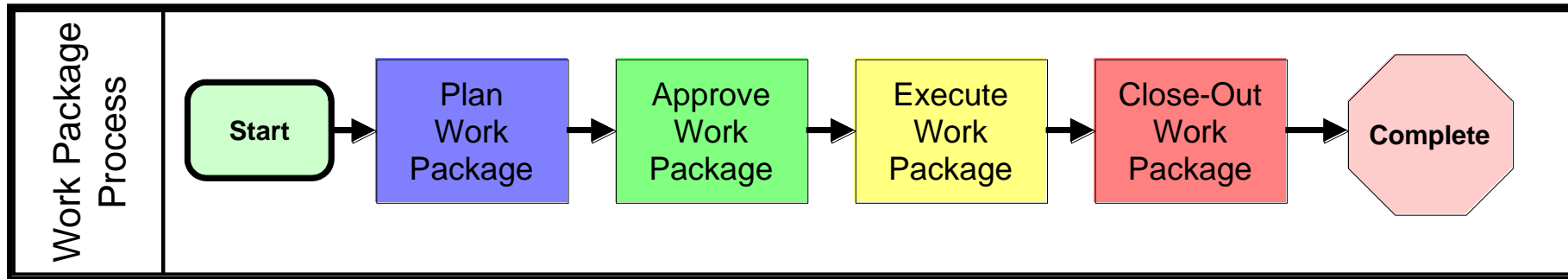# Alignment on Work Control Must Exist in Three Dimensions

Longitudinal – stay aligned throughout project's life

Horizontal – Support organizations aligned with project objectives

Vertical – Project team aligned in values & purpose

Project Lead

Planners

Management

Workers

Identify Work

Walkdown Job Site

Perform hazard Analysis

Incorporate Lessons Learned

Write Work Package

Approve Work Package

Readiness Reviews

Perform Pre-Job Briefing

Perform Work

Perform Post-Job

Disseminate Lessons Learned

Send package to DMC

Safety

Engineering

Construction

Examples of Barriers to Work Control Alignment

- **<u>Culture</u>** – No formal division of responsibility for work control - *all stakeholders not accepting ownership and not holding each other accountable*

- **<u>Execution</u>** – Workers not fully engaged in the work planning process - *management, non-manual, & craft workers not fully engaged in the work planning process*

- **<u>Communication</u>** – Lack of sufficient vertical & horizontal communication - *management-to-craft and craft-to-management, line management-to-functions and function-to-line management*

- **<u>Tools</u>** – Feedback & Lessons Learned not adequately collected or incorporated into the work control process - *doing the same thing over & over and expecting different results*

Examples of Barriers to Work Package Alignment

Work Package Process: Start → Plan Work Package → Approve Work Package → Execute Work Package → Close-Out Work Package → Complete

- **Plan** - Entire work team not engaged in the process

- **Approve** - Comment resolution is too cumbersome

- **Execute** - Work package is too complex

- **Closeout** - No feedback or feedback follow-through

Alignment Tool

Teamwork versus Team-Alignment?

- Teamwork reflects whether or not a team is working well together to achieve an objective.

- Alignment reflects whether or not a team is working on the same objectives in a collaborative manner and if those objectives are correct in terms of the organization's need or mission.

Alignment Thermometer: Where are we starting from?

- Measures the Project Team Alignment

- Identifies the Areas Needing Focus

- Assists in Tracking Toward Alignment

- Captures agreement/ disagreement among stakeholders

- Captures how well alignment issues are addressed on project

- Leads to pinpointed actions

100%

70%

40%

Comfortable Road to Success

Discomfort on the Road to Mediocrity

Stressful Road to Failure

Alignment Tool

Components

- Survey Sheet
- Survey candidates
- Excel Tool
- Administrator/Data Input
- Understanding of the graphs
- Sharing Results

Alignment Tool

Excel – Data Entry Tool

- Set up for 50 questions and 200 survey sheets

- Converts data into spider graphs

  - Range

  - Average

- Password protected cells

Steps 1 and 2 – Collect Survey Data

Work Control Alignment Survey (Project-Level)

INSTRUCTIONS - answer as follows:

1. Give the answer that represents your belief of what is the current practice in your organization (*the "as-is" process, not the "should-be"*).
2. Rank each statement on a scale of 1 to 5 ("Strongly disagree with this statement (1)" *to* "Strongly agree with this statement (5)").
3. Rank the statement 0 if it does not apply to you.

1) My role in performing the work stated in the work package is clear to me.

2) I am held accountable for my work in completing the work package scope.

3) My supervisor clearly communicates the objectives of the work.

4) My supervisor demonstrates commitment to the results of completing the work by – quickly resolving issues rel

5) My supervisor demonstrates commitment to the results of completing the work by – openly communicating with implementation.

6) I or my co-workers are involved in developing every work package.

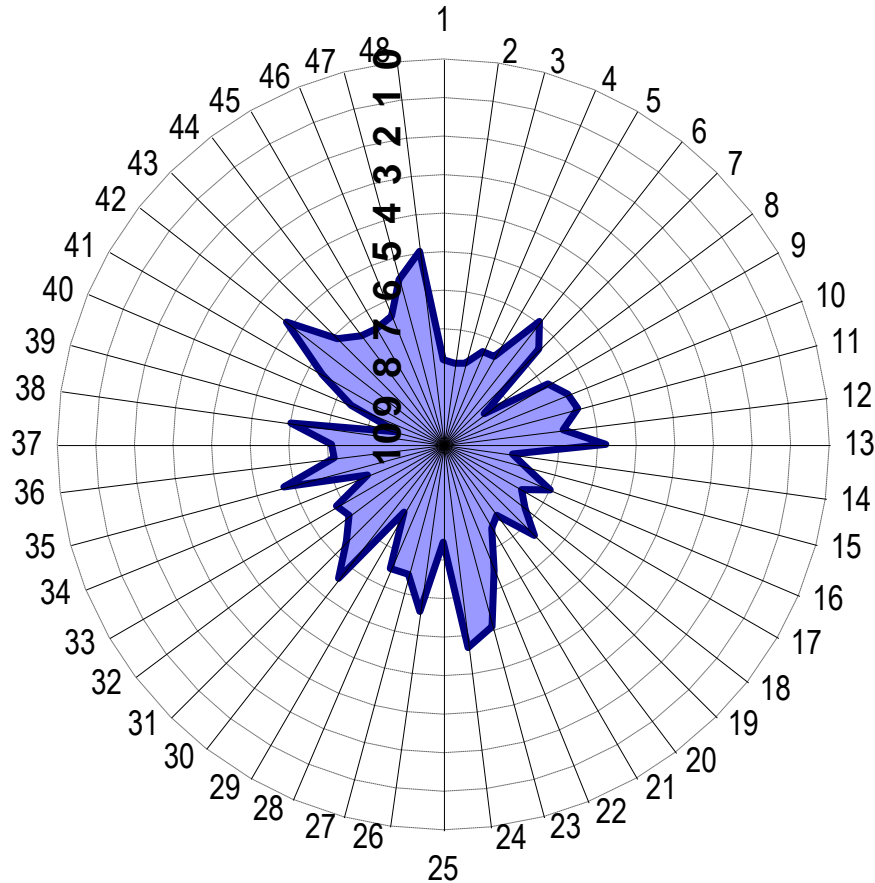7) I or my co-workers are routinely involved in walkdowns to plan work.

Survey	Weighting
0	Not Applicable
1	0
2	3
3	5
4	8
5	10

Legend: 1 = Strongly Disagree   5 = Strongly Agree

Steps 3 and 4 – Analyze Data (Spider diagram)

Average - Implementers

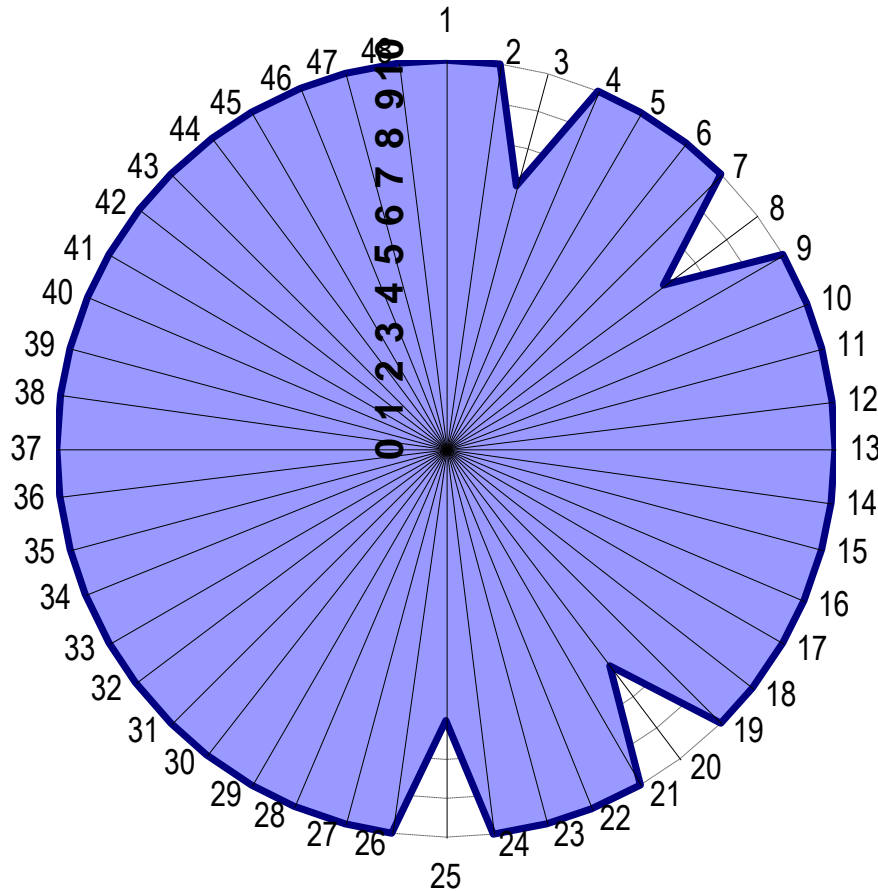Work Control Alignment - All Sessions

- **Average ranking of Work Implementers**
  - Each spoke is an alignment statement from the survey
  - Average for all respondents
  - The larger the "spider web" the more poorly aligned the team
  - Indicates alignment work to be done

Steps 3 and 4 – Analyze Data (Spider diagram)

Range - Implementers

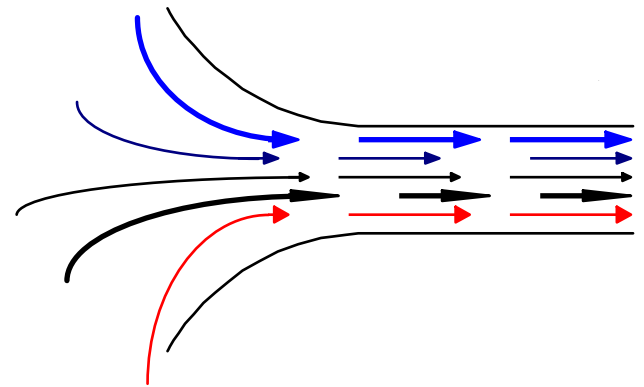Work Control Alignment - All Sessions

- Range ranking of Work Implementers

  - Max minus Min ranking for each of the alignment survey statements

  - The larger the "spider web" the more poorly aligned the team

  - 44 of 48 statements had a range of 10 (maximum mis-alignment possible)

Alignment Tool

Summary

- Measurement of alignment is difficult

- Appropriate stakeholder representation is critical

- Alignment is dynamic and key throughout project life cycle and must be addressed

- Skilled Craft
- Engineering
- Management
- Construction
- Safety

Disciplined Work Control Alignment

Summary

- Has to be a **Project Leadership Absolute!**

- Needs to be defined, measured, and tested early on in the Project

- Requires involvement and ownership by all members of the project team

- Is an essential element to Zero Incidents & Injuries

- Instills discipline in the approach to work

- Complements Integrated Safety Management

- Establishes "our" work control culture and expectations on the Project

- Needs to be maintained for the life of the Project

Some Key Questions to ask Regarding Work Planning & Control on Any Project

Summary

- How do we plan, approve, and get work done on this project?

- Can you show or describe the work planning and control process to me?

- Who is responsible and accountable for the various phases of the work planning and control process?

- How do we measure whether we are aligned?