



# Project Controls

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**Project Controls Expo – 17<sup>th</sup> Nov 2017**  
**Emirates Stadium, London**

**BASIS**

**Next Generation Planning for Mega Projects**  
*A Case Study*

Dr. Dan Patterson, PMP  
BASIS CEO & Founder

# Dr. Dan Patterson, PMP

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Globally recognized project analytics thought leader and software entrepreneur. With 20+ years of experience and several highly successful Project Management software companies under his belt, Dan has a unique combination of solution innovation combined with extensive project management experience including advanced scheduling, risk management, project analytics, and artificial intelligence. The culmination of this experience has lead Dan to create a new predictive planning software, BASIS, producing achievable plans, faster through active benchmarking and expert feedback.

Dan drives a reputation for making complex business challenges simple, and this is reflected in his passion for software usability and innovation. Dan was recently awarded Project Management Innovation of the Year. Prior to BASIS, Dan founded Acumen which was acquired by Deltek in 2013. Acumen achieved a high ranking on the Inc. 500 Fastest Growing Companies list as well as being recognized as one of the fastest growing companies in Austin, Texas.

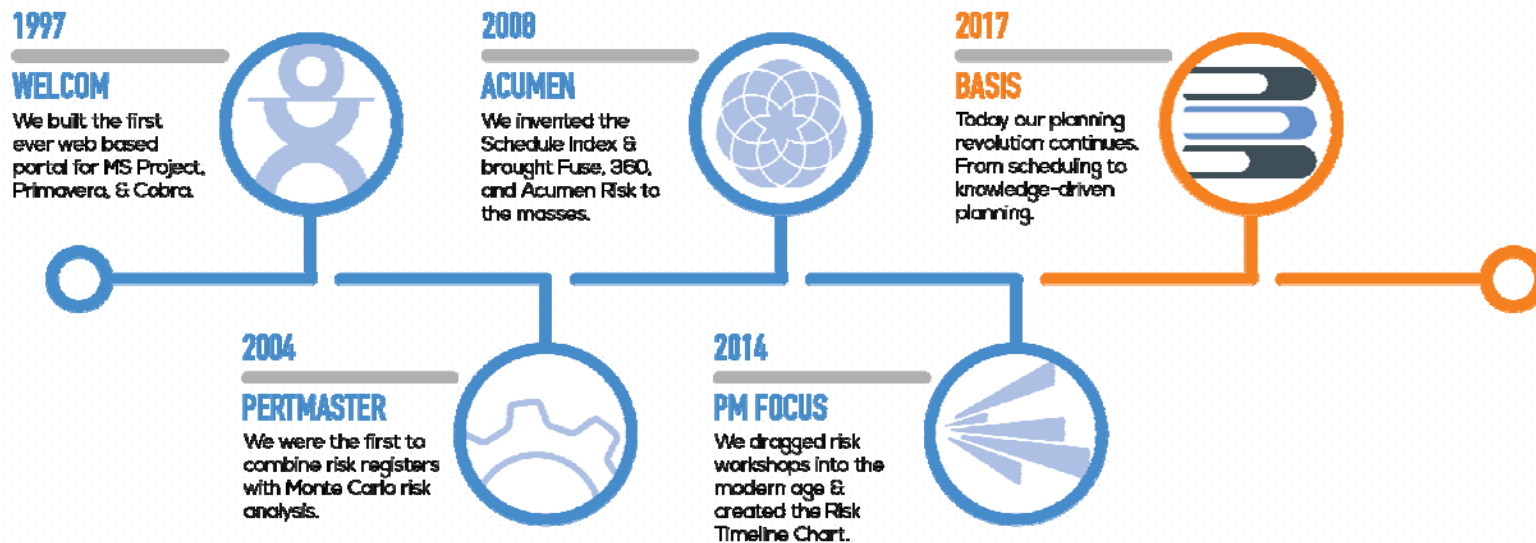
# Next Generation Planning for Mega Projects: *A Case Study*

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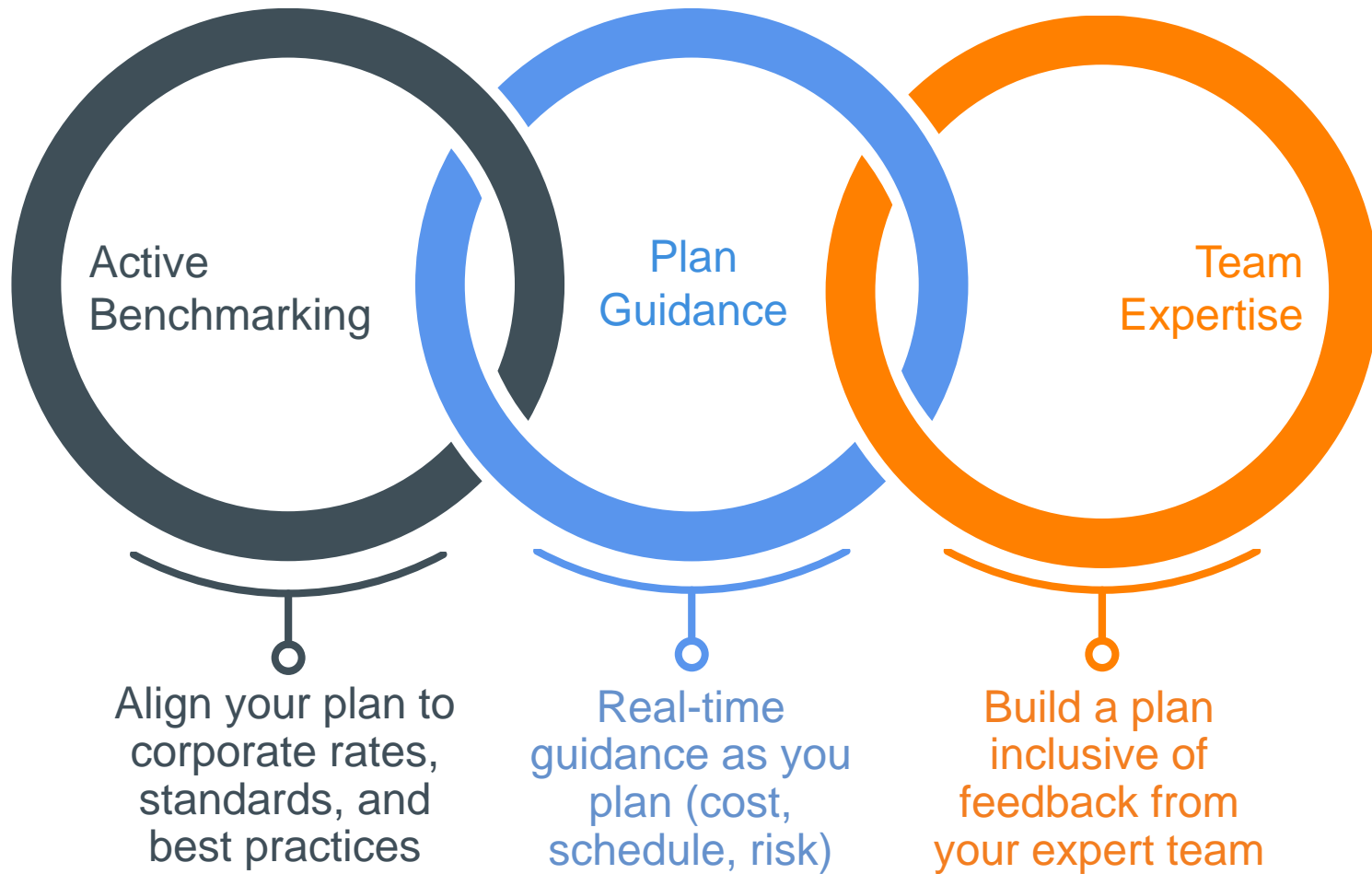
- Introduction & Background to BASIS
- Case Study: The Challenge
- Solution: How BASIS Solved the Challenge
- Live Walkthrough of the Solution

# BASIS Background

- ❑ Science of planning has been slow to evolve
- ❑ Scheduling tools don't provide predictive planning assistance
- ❑ CPM schedules lack stakeholder buy-in and trust



## Predictive Planning with BASIS



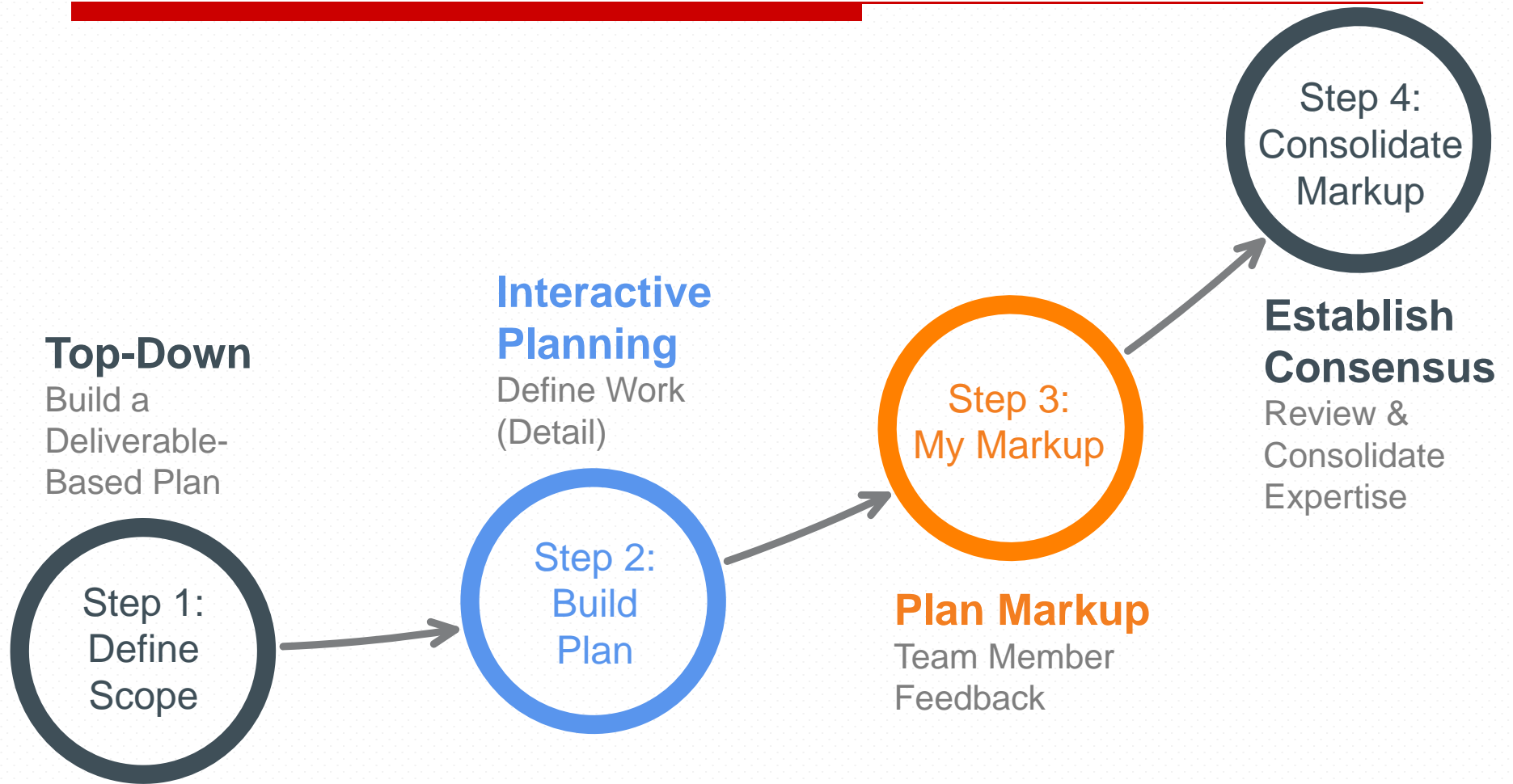
# Case Study Introduction

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- Energy Sector
  - US\$500MM > US\$5B CAPEX projects
- Mature scheduling organization
  - Early adopter of risk-adjusted planning
- Identified competitive advantage factors
  - Corporate planning knowledge
  - Early project-lifecycle analysis (concept select/pre-planning)
  - Reliability of project forecasting drives corporate strategy
- Identified benchmarking as key
  - Historical as-builts & standards
  - Team-member validation

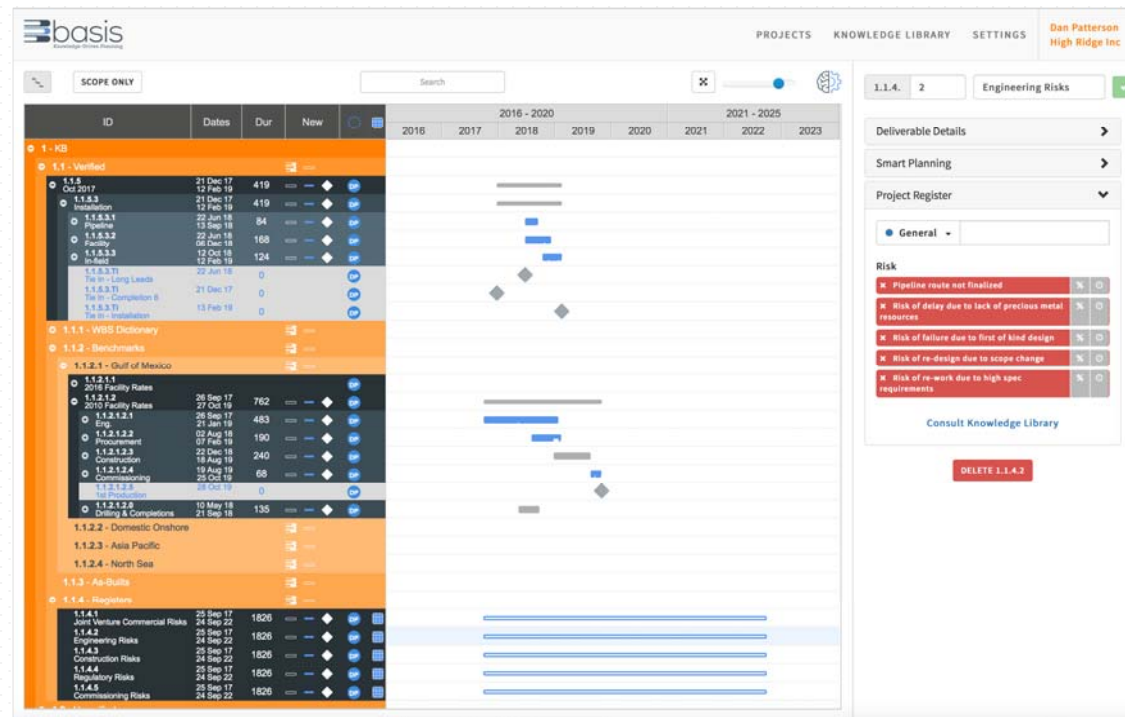
# The Adopted Methodology

## 4 Simple Steps



# Capturing the Organization's Knowledge

- WBS Dictionaries
  - Standardization
- Historical As-Builts
  - Track-Record
- Benchmarks
  - Targets
- Register Templates
  - Risk Events

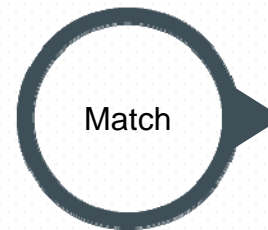




# Leveraging Knowledge During Planning

## BASIS Artificial Intelligence & Benchmarking

- Real-Time Guidance
  - BASIS suggests as you plan
  - Automatic addition of common risks
- Plan Knowledge
  - Durations
  - Sequence of work
- Rate Knowledge
  - Time & cost
  - Man-hours
- Self-Learning
  - Feedback loop



Automatic smart search



Interrogate rates, durations, cost, etc.

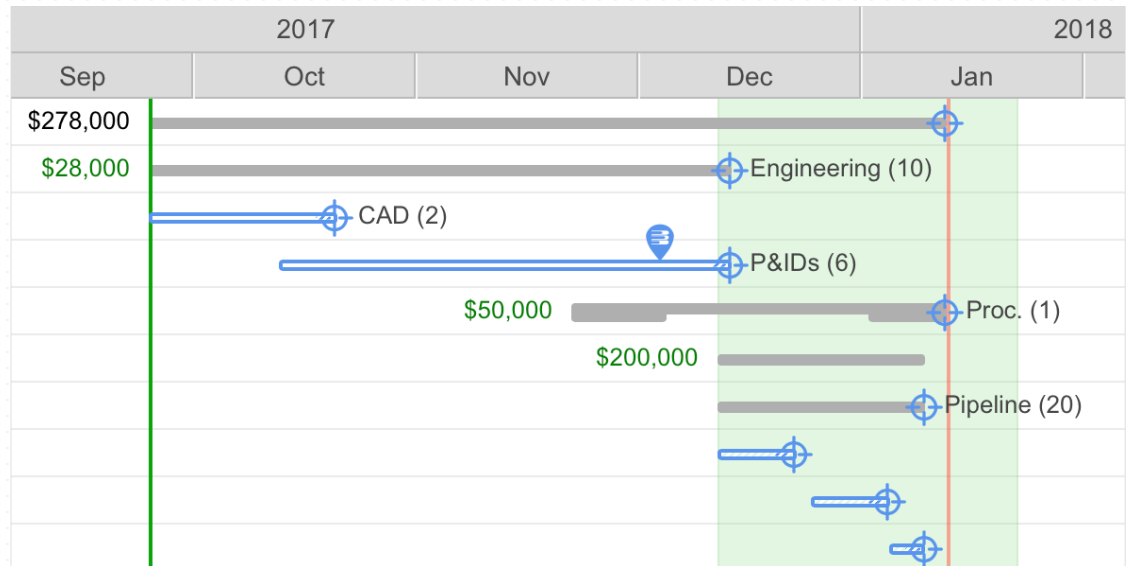


Adjusted benchmark based on quantities

# Top-Down

## Step 1: Build a Deliverable-Based Plan

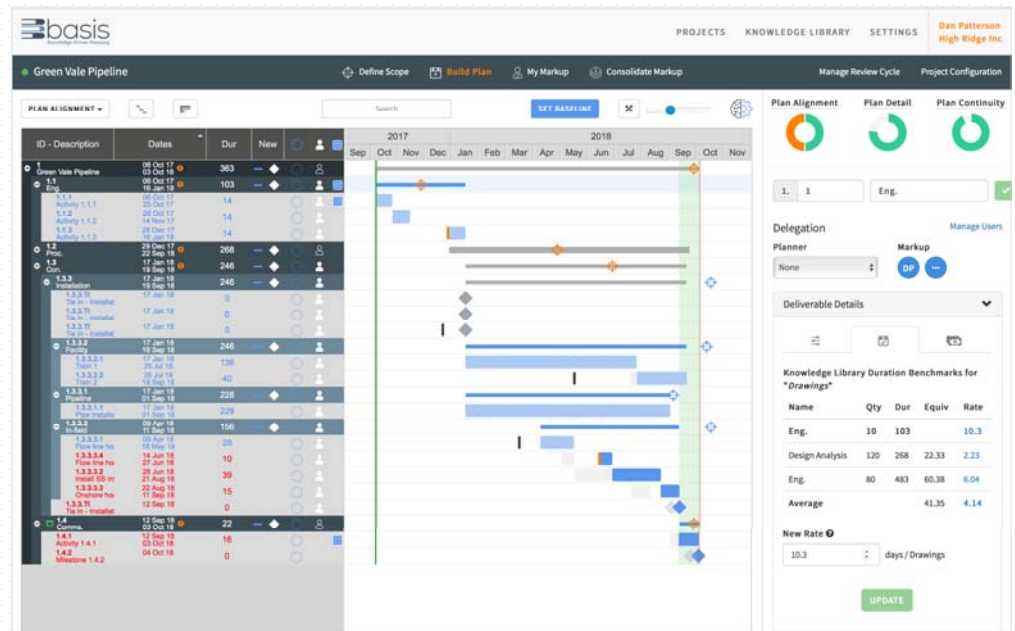
- Define Deliverables
  - Planning Packages
- Estimate Timelines
  - Planning Windows
- Set Expectations
  - BASIS Targets
- Benchmark
  - AI Guidance



# Interactive Planning

## Step 2: Define Work

- ❑ Build Work / Sequence
  - Work Packages / Activities
- ❑ Leverage Prior Experience
  - Knowledge Library
- ❑ Delegate
  - Shared Planning & Markup
- ❑ Analyze Achievability
  - Plan Alignment



# Plan Markup

## Step 3: Team Member Feedback

- Listen to Those who Know
  - Team Member Input
- Buy-In / Push Back
  - Accept or Offer Suggestions
- Dates & Durations
  - Timing & Achievability
- Annotate
  - Raise Risks, Issues, & Concerns

1.1.1.2 - CAD 2

BASELINE DURATION: 6

ACCEPT

or

-50% 100%

Duration Preferred Start ?

7 Days

CHANGE

Idea Perhaps outsource design?

Risk

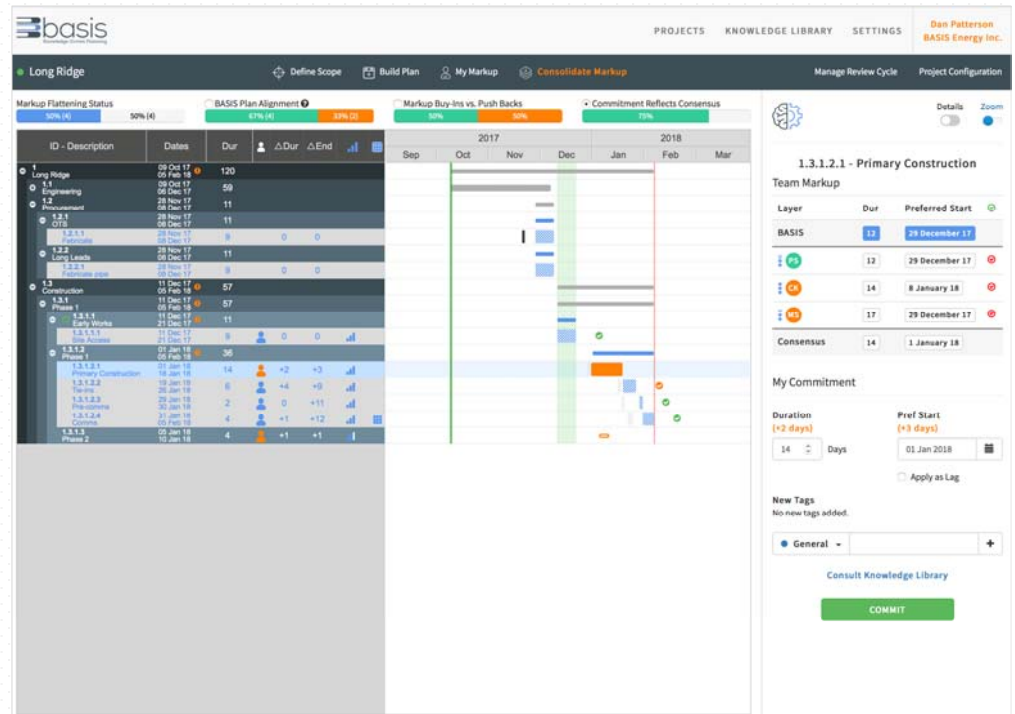
x POB limitations 25% 180

Consult Knowledge Library

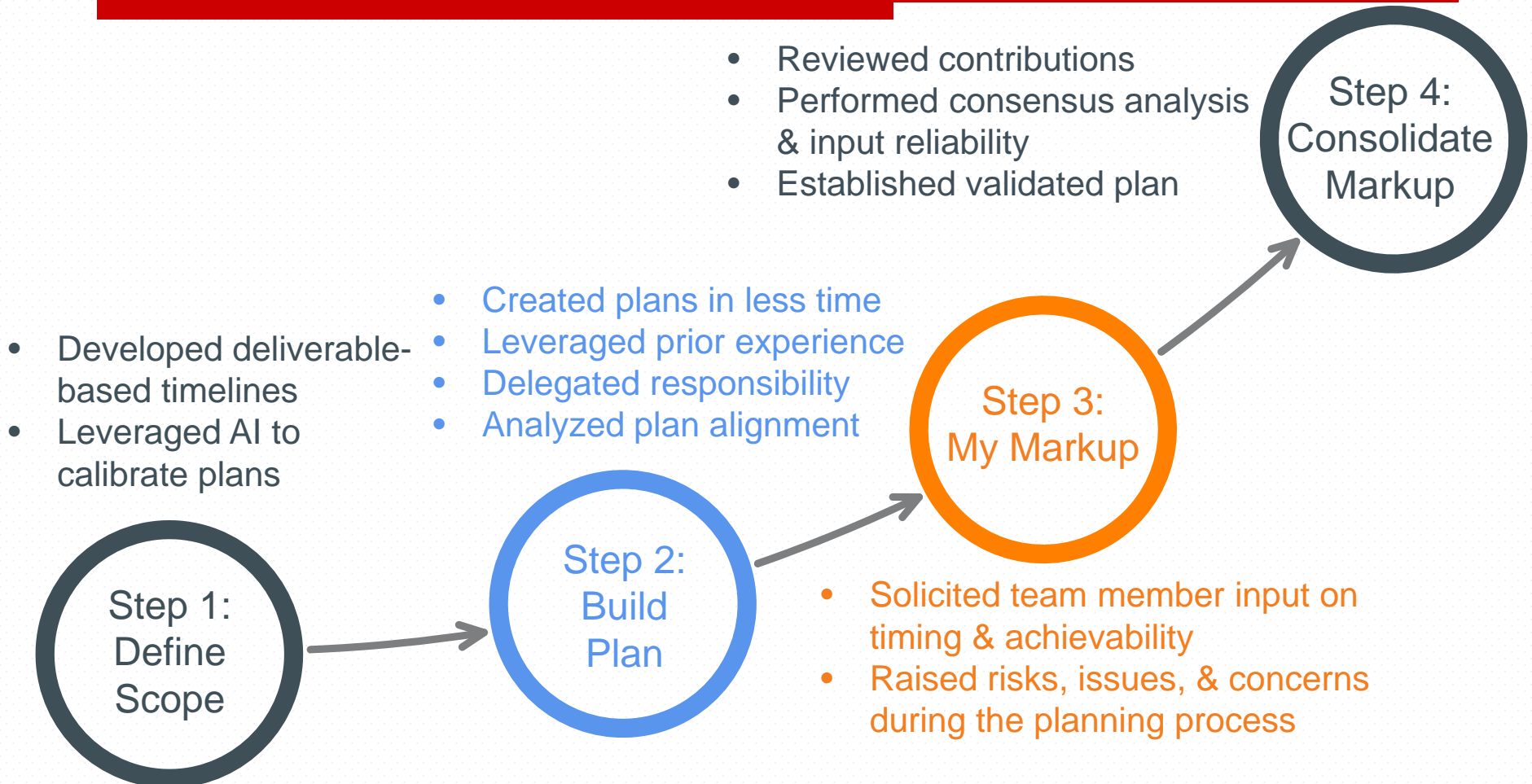
# Establish Consensus

## Step 4: Review & Consolidate Expertise

- ❑ Review Contributions
  - Team buy-in or push back?
- ❑ Consensus Analysis
  - Team member agreement?
- ❑ Input Reliability
  - Team member voice?
- ❑ Establish Validated Plan
  - Ready to execute.



# The Results





### PRE-PLANNING

Active benchmarking & team expertise results in a realistic plan.

MS Project  
Primavera

Deltek Acumen  
Risk Register

Deltek Cobra  
EcoSys

### SCHEDULE

Publish achievable plans to your scheduling tool of choice.

### RISK

Base risk analysis on input from your expert team.

### COST

Confidence that the plan your cost is derived from is accurate.



**Project Controls**

**EXPO**

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[www.basisplanning.com](http://www.basisplanning.com)