# **ENGINEERING, PROCUREMENT & CONSTRUCTION PROJECT MANAGEMENT FORUM**

Enhancing Predictability to Achieve World-Class Project Performance



# **About the Speaker**



#### Degree: Civil Engineering



#### **Experience:**

Business Development EcoSys - Central Europe Director AACE International Benelux Section

More than 20 years of industrial experience in consulting various industries such as oil & gas, petrochemical, power, mining & materials, chemicals, construction and pharmaceutical





#### This is Hexagon PPM



**Awarded Solutions Provider** Ranked No. 1 12 consecutive years, 7 different categories recognized by the ARC Advisory Group



**Global Presence** More than 2,800 employees, with offices in 60 countries



**R&D** Focused 18% of total revenue invested in 2018



Innovative More than 100 patents issued worldwide

Hexagon PPM brings capital projects execution, fabrication, and operations. to the Hexagon portfolio

Our solutions are used by nearly all of the Fortune 500 Owner Operators as well as the majority of **EPC** companies within our industry segments



EcoSys 2

### **Solutions for the Entire Plant Lifecycle**



# Enterprise Project Performance





### **Company Overview**

Market Leadership



- EcoSys founders were the original developers of Primavera P6
- First to market and industry leader in enterprise project controls
- Deep portfolio & project management expertise

#### Business Momentum



- Largest user adoption in project controls industry
- Global presence users in 20+ countries
- An Intergraph Company since 2015

#### Loyal & Growing Customer Base



- 500+ clients globally
- Strong partnerships: SAP, Oracle, SAP, Microsoft, Accenture, IBM, and more



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#### **Global Customer Base**



SV. AEP AMERICAN ELECTRIC POWER **Ameren** Thames 🔨 隆 ALSTOM **Tideway Tunnel** Creating a cleaner, healthier River Than Bruce Power LA DWP **edf** Mining AngloAmerican

**HEXAGON** 

PPM

**bhp**billiton

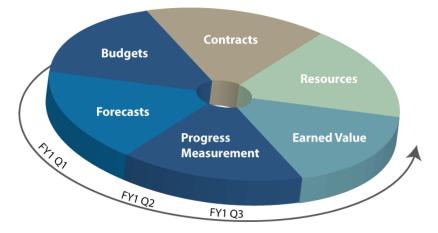
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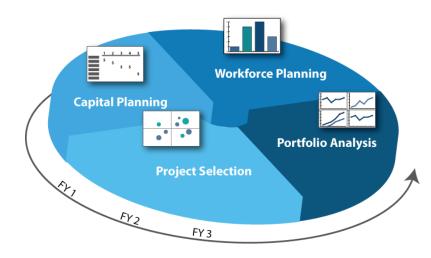
Utilities

Confidential 7

### What is Enterprise Project Performance?



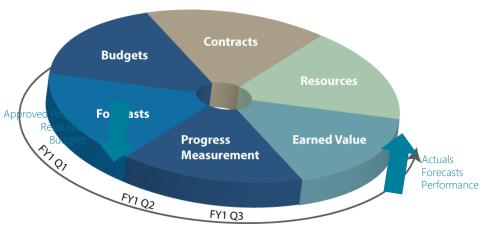
Comprehensive tools and processes for effective tactical project execution

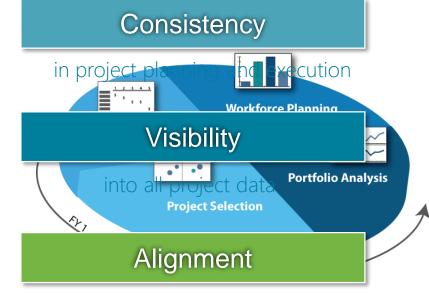


Controls for strategic planning and portfolio optimization



#### What is Enterprise Project Performance?





of enterprise level strategy and day-to-day execution



#### **Best of Both Worlds**

EcoSys 2

#### **Excel-like Usability**



Easy to Learn/Use Very Flexible

**Powerful Analytics** 

Power of an Enterprise System **Standardization** 

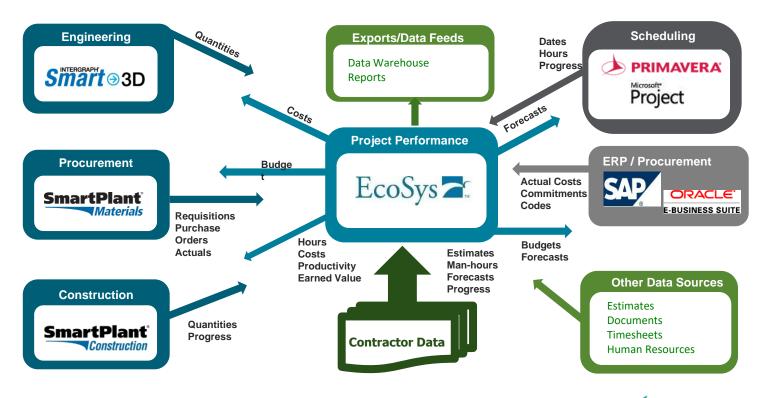
Enterprise Scalability

**Role-based Security** 



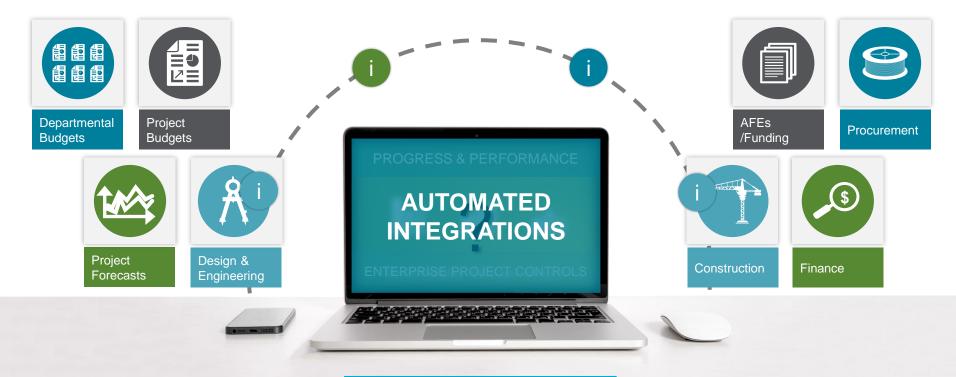


#### **Integrated Solution for Enterprise Project Performance**



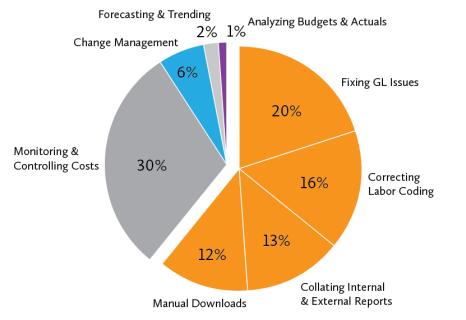


### **Fully Integrated Project Data**



**REAL-TIME VISUALIZATION** 

#### **Project Controls Challenges - Inefficiencies**

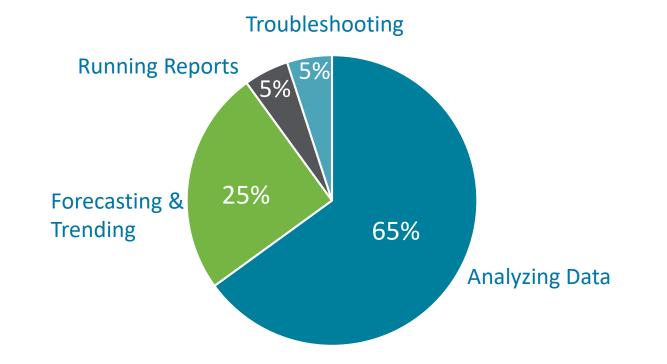


Cost Analysts Spent 61% of Their Time on "Wasteful" Activities

Source: EcoSys Customer Internal Survey



#### **Client Case Study**





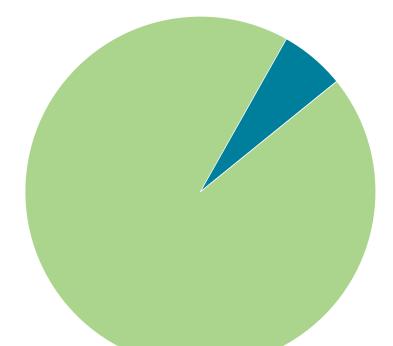
Source: Internal Study by EcoSys Customer



# **Introduction to Predictability**



#### **Poor Predictability Across All Sectors**



of projects deliver planned financial returns



# 98%

of megaprojects see cost overruns greater than 30 percent

Sources:

\* Construction Industry Institute

\* McKinsey: The Construction Productivity Imperative

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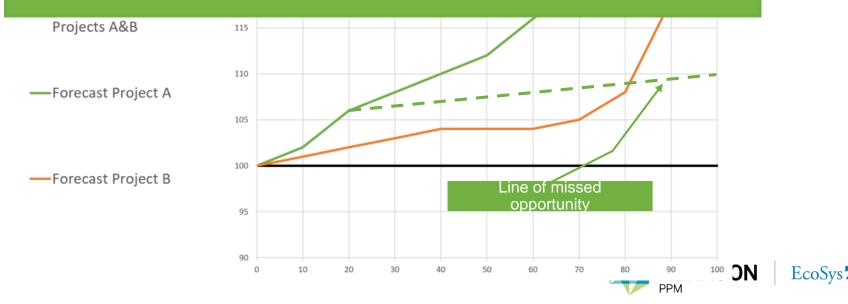


#### What is Predictability?

Both Projects have \$100M Original Budget and \$120M Actual Cost

Which is better and why?

# A: The average point in time at which the project forecast becomes accurate



#### **CII RT 291 Conclusions and Recommendations**





# "

Early predictability adds value by enabling the proper response to surprises and changes.

**Construction Industry Institute** 

# 70% of Projects

report ZERO budget variance prior to 50% project duration

On average, variance reporting starts at 65% duration

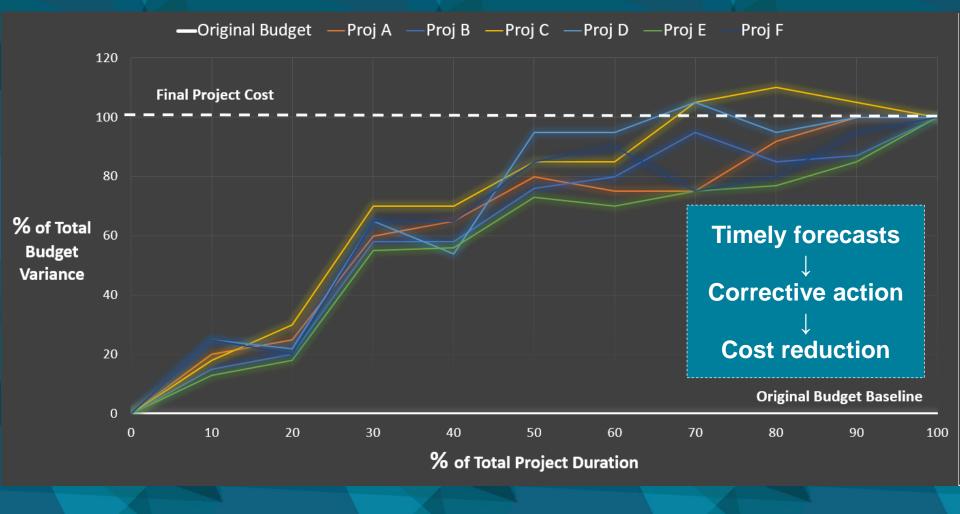


### **Common Causes of Low Predictability**

Insufficient Effort or Attention	Low Maturity
Identifies areas for ad people, processes	
	platform (rife use of Excel)
Optimism Bias	Poor Transparency and Accountability
Identifies issues with organizatio	

### **Benefits of High Predictability**

Proactive/Corrective Decision-Making	Cost and Schedule Reduction
<ul> <li>Early warnings of overruns stimulates corrective action:</li> <li>Value engineering</li> <li>De-scoping</li> <li>Modifying the business case</li> <li>Killing the project</li> </ul>	<ul> <li>Early corrective action or scrutiny can and should reduce overall cost and schedule</li> <li>Avoids opportunity cost</li> </ul>
Management Confidence/Trust	Heightened Capital Efficiency
<ul> <li>Increased likelihood of retention / promotion</li> <li>Award of future projects</li> </ul>	<ul> <li>Optimized ROCE and fiscal year performance</li> <li>Avoids finance charges due to poor cash management and surprises</li> </ul>
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#### Portfolio Management Performance **Predictability Project and Contract Project and Contract** Management Controls Management Measurement **Opportunity Scoring /** Time-Phased Iterative Planning / Native and Automated **Predictability Indices** Ranking Estimating Integration Performance Baselines Integrated **Multi-Source Progress** Incentives Based on **Options Analysis** Communication and **Cash Flow Management** Measurement Predictability Collaboration **Integrated Change Currency Variance** Multi-Dimensional Concept Estimating / **Productivity Analysis** Benchmarking Management Workflow Analysis and Trending Analysis Financial / Resource Secure End-to-End Integrated Risk / Issues The "Living Forecast" **Corrective Actions** Optimization Management Transparency **Timely Reporting and Project Development Integrated Claims** Multi-Method Continuous Stage Gate Workflows Forecasting Management Communications Improvement **Enterprise Productivity Platform** Flexible Setup **Real-Time Analytics Enterprise Standards** HEXAGON EcoSys a

PPM

#### Pillars of Predictability – People, Processes, Technology

#### Conclusions

<u>World-Class</u> Enterprise Projects Performance can only be achieved by:

Adopting ALL of the Pillars of Predictability, enabled by an Enterprise technology platform Combines out-of-the-box best practices with customercentric data and business processes Automate integration and predictability analytics **Promote transparent, proactive behaviors** 







