

Optimise Performance with Effective Project Portfolio Management

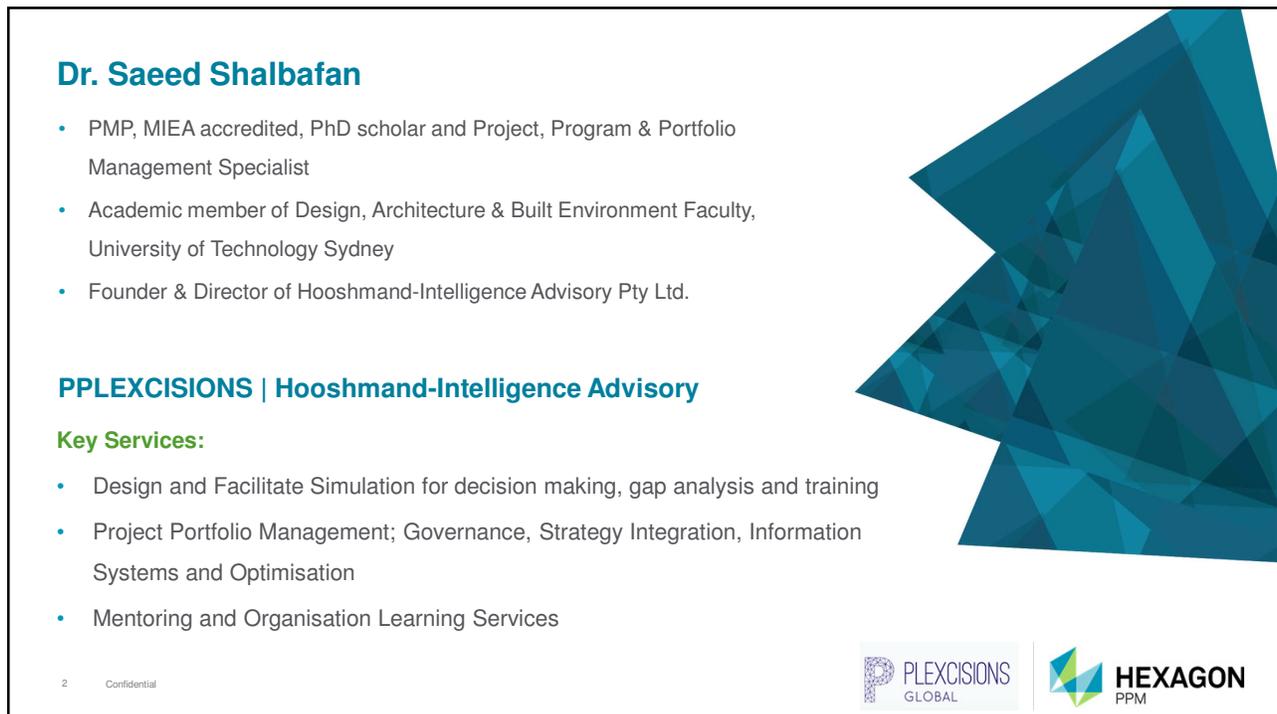
Program Governance & Controls Symposium | August 2018

Dr. Saeed Shalbafan, PPLEXCISIONS Global
Mario Paglia, Hexagon PPM

1 Confidential




1



Dr. Saeed Shalbafan

- PMP, MIEA accredited, PhD scholar and Project, Program & Portfolio Management Specialist
- Academic member of Design, Architecture & Built Environment Faculty, University of Technology Sydney
- Founder & Director of Hooshmand-Intelligence Advisory Pty Ltd.

PPLEXCISIONS | Hooshmand-Intelligence Advisory

Key Services:

- Design and Facilitate Simulation for decision making, gap analysis and training
- Project Portfolio Management; Governance, Strategy Integration, Information Systems and Optimisation
- Mentoring and Organisation Learning Services

2 Confidential




2

Characteristics of Multiple Projects Organisations

- Project-based organisations are able to cope with emerging properties in production and respond flexibly to changing client needs
- The task of the project-oriented organisations is, to lead the organisation properly, so that the right projects are carried out, that these projects receive competent project managers and project staff, the project results are used sustainably, and the value creating objectives of all stakeholders of the project-oriented organisation are achieved.

(Reference: Gemünden, Lehner, and Kock 2018)

3 Confidential



3

The Model for Project Oriented Organisations



(Adapted from Gemünden, Lehner, and Kock 2018)

4 Confidential



4

Definition of Project Portfolio Management



Portfolio management is a multi-disciplinary function that enables executive management to meet organisational strategy and objectives through efficient decision making concerning projects, programs and operations ”

— Project Management Institute, 2013a., p.21

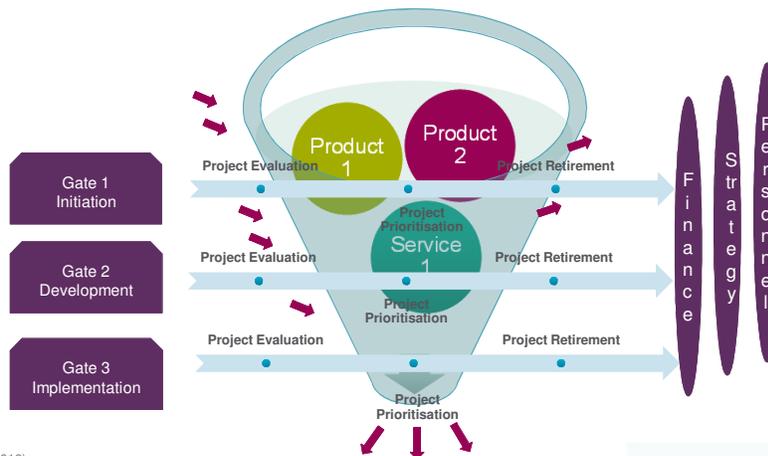
5 Confidential



5

The Funnel Model for Integrated PPM

How should decision makers select and monitor the project portfolios to manage unintended consequences after facing unexpected events?



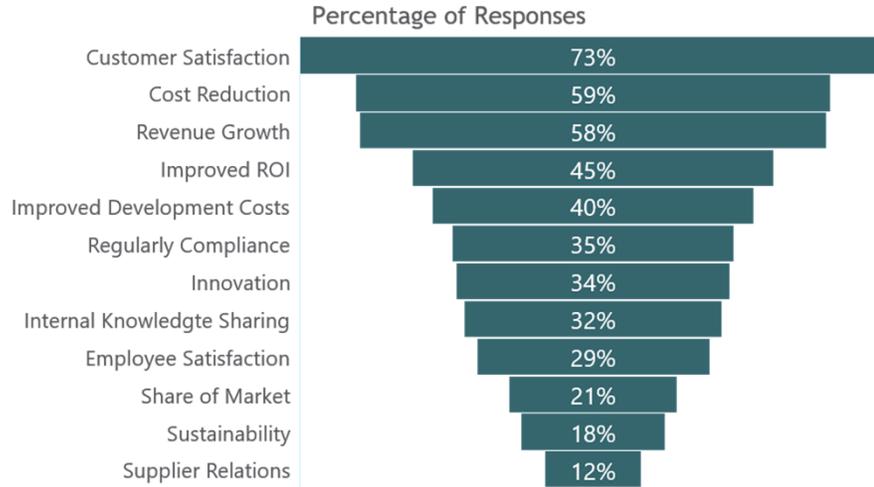
(Reference: Shalbafan et al. 2016)

6 Confidential



6

Why Do Organisations Need Portfolio Management?



(Reference: PMI, 2014)

7 Confidential



7

Key Decision Criteria in Project Portfolio Management Model



8 Confidential



8

Critical Success Factors in PPM

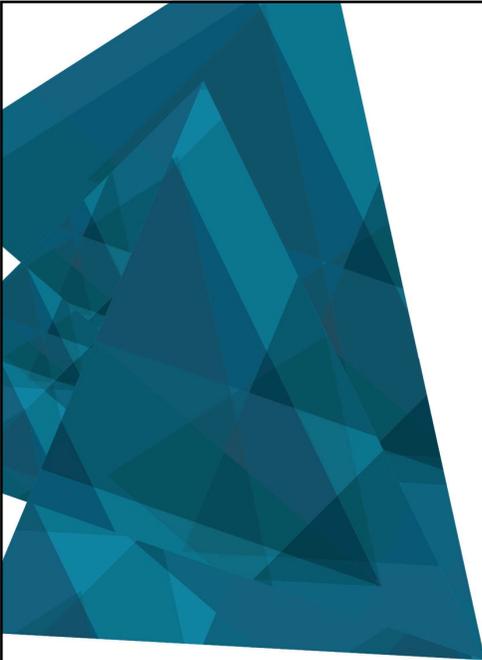
1. Stakeholder Involvement
2. Strategy Clarity
3. Business Case Monitoring
4. Agility

(Reference: Kock and Gemunden, 2016)

9 Confidential



9



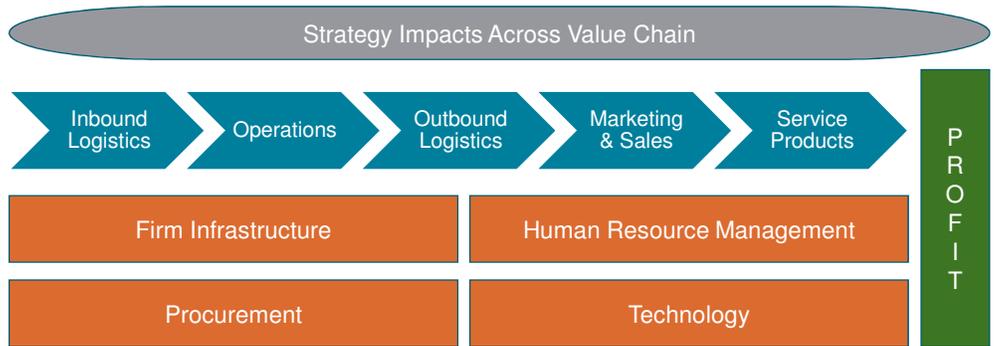
Our Proposed View

A Facilitated Route to Maturity



10

Strategic Integration and PPM



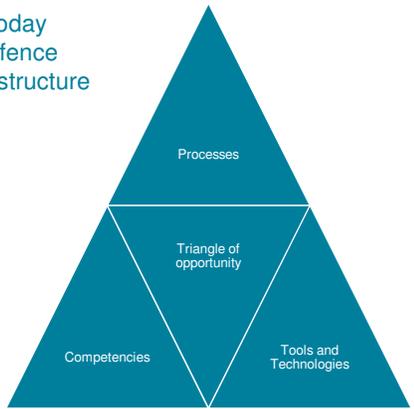
(Reference : Porter 1985)
11 Confidential



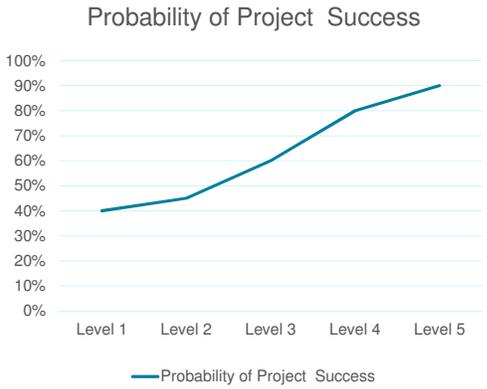
11

Organisational Capability Building in PPM

The fact of today
\$200 b – Defence
\$75b – Infrastructure



OPM Standard – PMI (2018)



(Reference: May 2018 Federal Budget)
12 Confidential



12

Organisational Capability in PPM

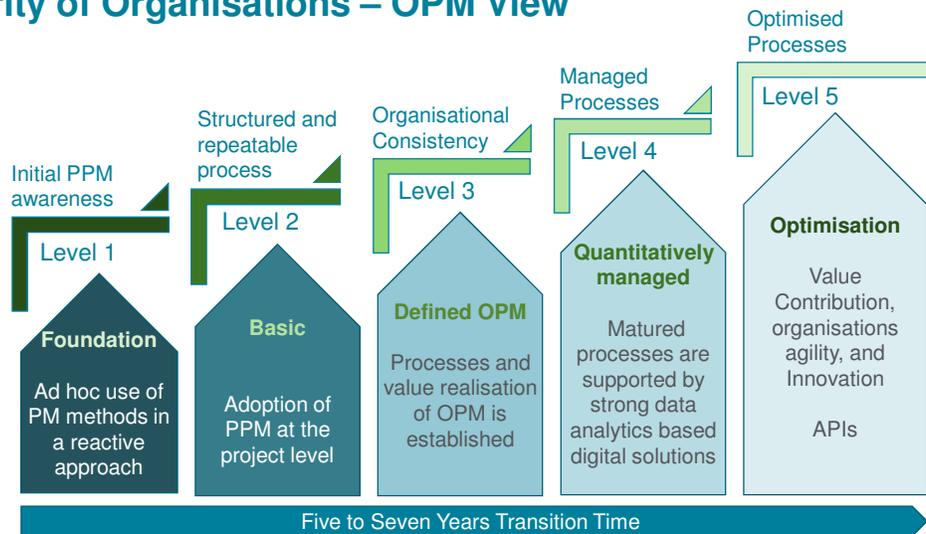
- ✓ Adaptability to changes and unexpected events
- ✓ Future oriented leadership
- ✓ Innovative organisations
- ✓ Infrastructure and processes to support quick response to change
- ✓ Team work, leaders competences to manage uncertainty

13 Confidential



13

Maturity of Organisations – OPM View



14 Confidential



14

PPLEXCISONS Global - Current Thinking

Your potential issue	Our customised solution	Benefits / Impacts
Ill- prepared decision making for selection, and prioritisation of projects	Screening and making sense of maturity of organisations, Action Groups to establish managed processes for organisational project management, Establish team cognition measures for better decision making based on evidence	Responsiveness to changes, alignment among projects, programs and portfolios, management of uncertainty
Strategy mis-alignments	Assessment to identify bottlenecks across value chains, design of customised simulation, facilitate sensemaking in role play simulation, narrative analysis, deployment of Action Learning to integrate strategy into operations	Stakeholder engagements, executive awareness of real-time impacts, leadership competency building, customer satisfaction

15 Confidential



15

PPLEXCISONS Global - Current Thinking

Your potential issue	Our customised solution	Benefits / Impacts
Visualisation and Real-time reporting	Integrated Digital Platform / Customised Information and Communication Systems	Improved information sharing for executive decision making
Asset / Resources under-utilisation	Integrated Project Portfolio Road Maps, Financial Risk Assessment, Technical Assessment, Mathematical Optimisation for project selection and prioritisation	Improvement of productivity, customer satisfaction, services efficiency

16 Confidential

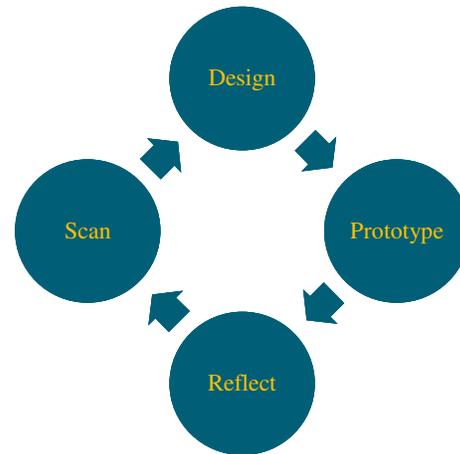


16

Definition of Action Learning

Action Learning (AL) is a structured method that enables small groups to work regularly and collectively on complicated problems, take action, and learn as individuals and as a team while doing so.

SDPR Cycle



(Reference: Serrat, 2017, p. 589).

17 Confidential



17

Core Competencies

- Group Decision Making without being trapped in Abilene Paradox or Groupthink through SMART processes
- Leaders 'preparedness to direct teams under changing condition and limited time and information
- leader's understanding of leadership styles in different domains of knowledge
- Organisation capacity to utilise team members' tacit knowledge for making strategic decisions under uncertainty
- Organisation capacity to provide visibility of strategic impacts on all entities across its business value chain
- Organisation learning, knowledge management and risk based optimisation of investment

18 Confidential



18

Hooshmand 1

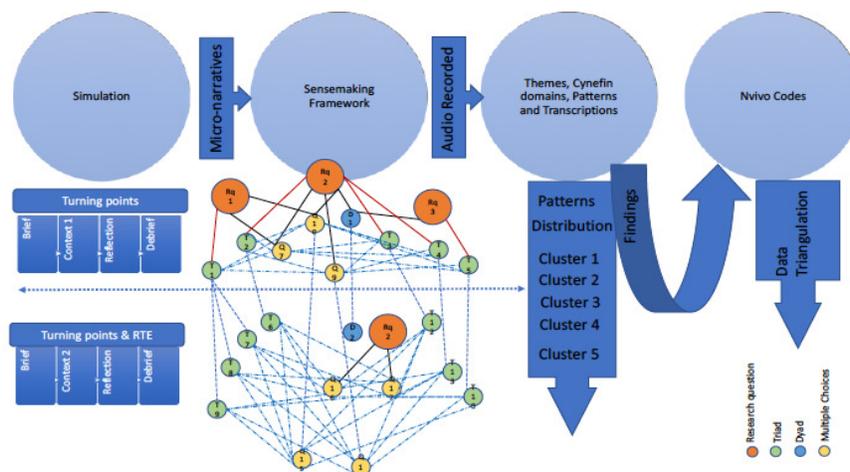
- Uses real-world case studies for decision making in PPM to generate scenarios
- Simulates situations in complicated and complex domains for study of decision makers under changing conditions
- Uses groups of three roles (PPM Leader, two business unit leaders) with role descriptions, scenarios and assignments for each member
- Workshops were held with two to four groups
- Uses SenseMaker© software for collecting and analysing data
- Key Applications : Case Study research on decision making in uncertainty

19 Confidential



19

Multiple Methodology - Process



20 Confidential



20

Multi Methods

- The data was collected from 33 active and practicing project practitioners and senior managers that are in Australia and Iran;
- 17 queries were developed to assess the micro-narratives from simulation participants in context 1 and context 2 of Hooshmand-1;
- Triads , Dyads and Multiple Choice queries were design in Software SenseMaker
- Multiple stage data collection and analysis followed by data Triangulation provided seven findings in relation to three research questions.

Q11. How do you perceive the centre of assigned task for context 1 of this simulation?

Team  Individual

Q10. Biggest challenges for your group to make final decision is (Pick up to three)

- Decision making process
- Individual experience
- Team work
- Apply portfolio road map as a tool
- Understanding your role in the team
- Informal communication

T1. Criteria of decision making in your team tends to

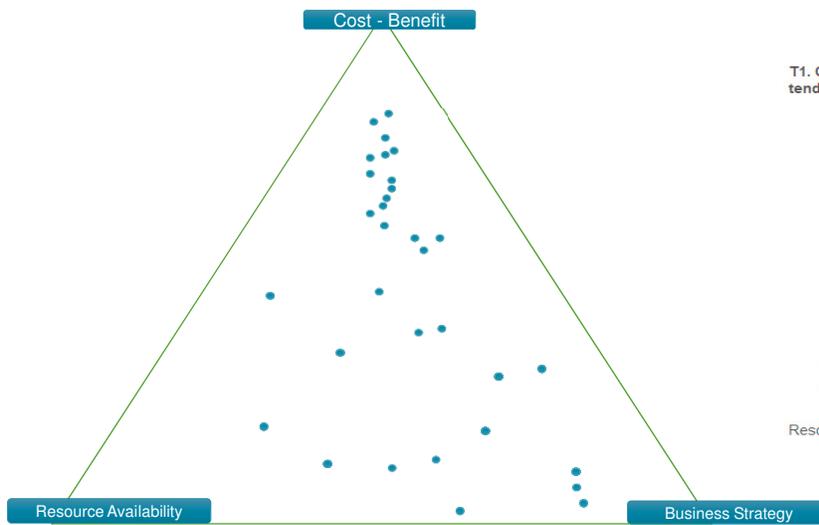


21 Confidential



21

How would you explain the loss of focus on resource availability in real world decision making for PPM?



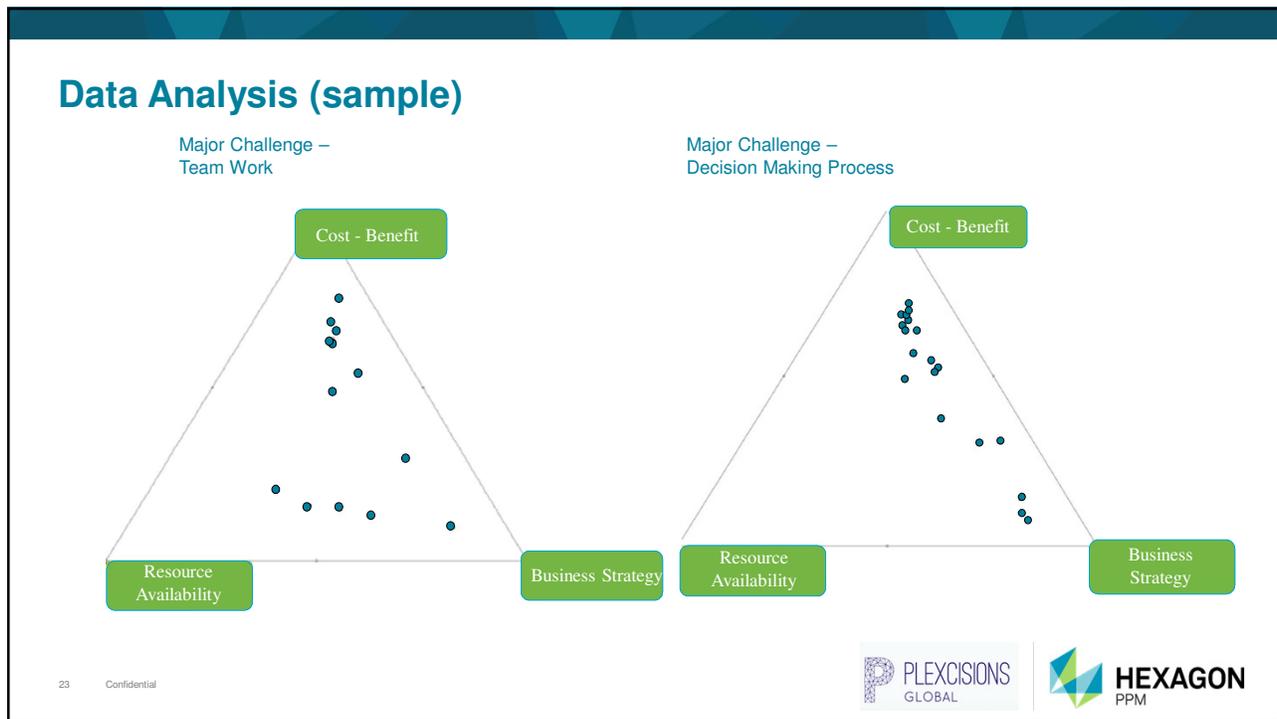
T1. Criteria of decision making in your team tends to



22 Confidential



22



23

Team Cognition: Key Factor to Organisation Resilience

What is team cognition ?

- Team Cognition concerns approaches in which team members exchange or hold the knowledge during a group decision making exercise

Why is it important to PPM?

- Use of group decision making is a proven approach for organisations to de-risk their decisions particularly in response to uncertainty.
- Team Cognition with collective efficacy helps organisations to understand team work dynamics in strategic decision making (Huey-Wen , et.al. 2012)
- Team Cognition can be used as an indicator for quality of decisions and strategy integration in organisations

How can organisation benefit from TC?

- Team Cognition Measurement helps organisations to understand their team performance in group decision making and plan to improve their team works in strategic decision making

24 Confidential

24

Use of Simulation to Measure Team Cognition

Challenges	Solutions
Measures applicable to heterogeneous teams	Heterogeneous knowledge metrics (e.g. role-specific referents)
Measures that capture emergent cognition	Holistic measures taken at the team level (e.g. consensus ratings)
Holistic, embedded, real-time metrics	Communication pattern analysis (Hooshmand-1) Cynefin Domains Movements (Hooshmand-1)
Measures of emergent team situation awareness	CAST: Coordinated perception and action of team members in the face of change.

(Reference: Shalbafan, 2018)

25 Confidential



25

Information Systems: A Mature PPM Solution

- Automation, information and communication technologies are crucial supports to quick response through successful implementation of PPM exceeding level 3 of maturity
- PPM Software help to automate processes and streamlines decision making and reporting
- The tool or software needs to be compatible and integrate with other information systems which are used by business units, e.g. SAP for HR, Oracle P6 for Project Controls

26 Confidential



26

Key Selection Criteria for Choosing PPM Tools

- Project Lifecycle Management
- Financial and Project Risk Management
- Advanced Resource Management
- Dashboards
- Reporting and Analytics

27 Confidential



27

Benefit Realisation for Successful Implementation of PPM

1. META Group reported that implementation of PPM has resulted in 20 -30 percent reduction of spending on their projects without negative business impact
2. Gartner forecast that organisations which implement and sustain a PPM solution can save between 10% and 30% of total portfolio value p.a.

(Reference: Jenner 2016)

28 Confidential



28

Introduction to EcoSys – Enterprise Project Performance

Mario Paglia
Project Delivery Solutions, Hexagon PPM

HEXAGON
PPM

29 Confidential

29

EcoSys Capability

EcoSys Portfolios

- Dashboards
- Project Selection
- Funding
- Risk Management

EcoSys Projects

- Project Setup
- Budgeting
- Change Control
- Performance
- Forecasting

EcoSys Contracts

- Contract Setup
- Contract Analysis

30 Confidential

HEXAGON
PPM

30

About Hexagon

31 Confidential

31

Hexagon at a glance

Technology Solutions Provider

- Established leader in **information technologies**
- Solutions drive **productivity** and **quality** improvements

R&D Focused

- 10-12% of net sales invested in R&D
- 3,400+ employees in R&D
- 3,200+ active patents

Global Reach

- Broad range of vital industries served
- More than **16,000** employees in **46** countries

Strong Financials

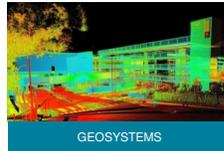
- 3.0 bn EUR** in sales

32 Confidential

32

Hexagon's primary divisions

Our divisions serve three primary landscapes – manufacturing, engineering and geospatial. Each is committed to pioneering innovations in business processes, value chains and information exchange.



33 Confidential



33



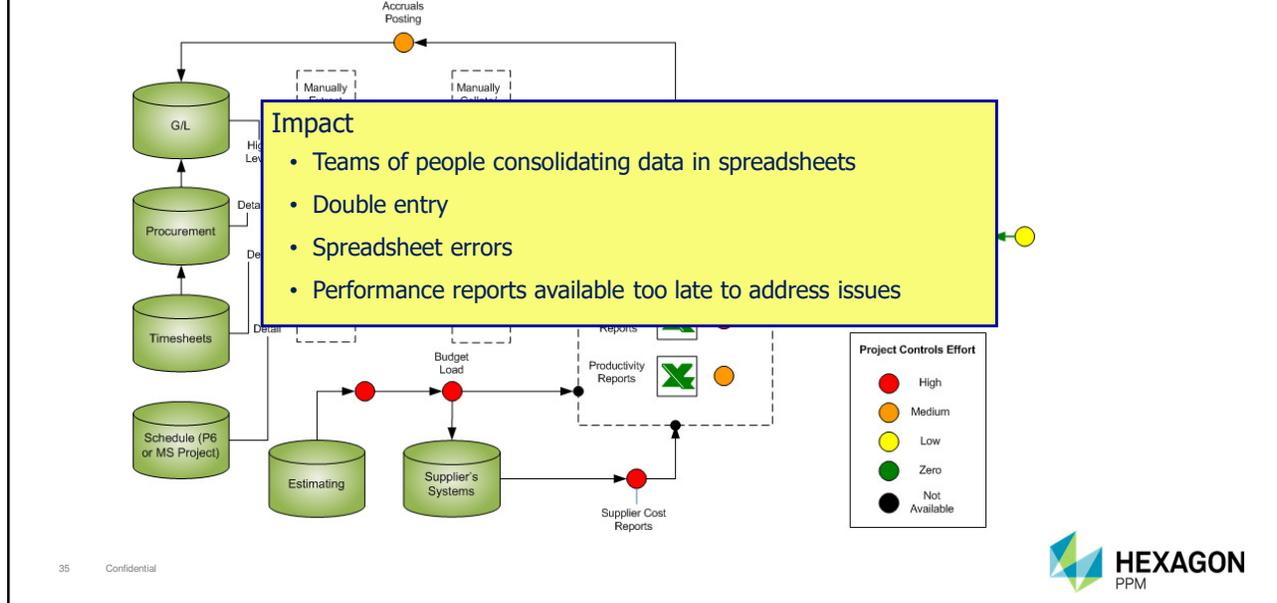
The Current State of Project Controls

34 Confidential



34

Excel - Non-Integrated Project Controls



35

Before and After EcoSys

EcoSys project objectives



EcoSys Cost Improvements

- 13% Collating internal / external reports
- 12% Manual Downloads
- 15% Monitor and Control Costs (half of the 30%)
- 4% Labour Coding Corrections (quarter of the 16%)
- 15% Fixing ERP Issues (three quarters of the 20%)

- ✓ Man-hour effort reduced by 59%
- ✓ Existing resources can manage increase in workload

36

Disconnected Systems and Manual Processes

Departmental Budgets

Project Budgets

Project Forecasts

Design & Engineering

AFEs /Funding

Procurement

Construction

Finance

Labour Intensive

Inefficient

Version Control

37

Disconnected People & Systems

Schedule

Visibility Challenge

Who approved this change and why?

Which projects are underperforming and why?

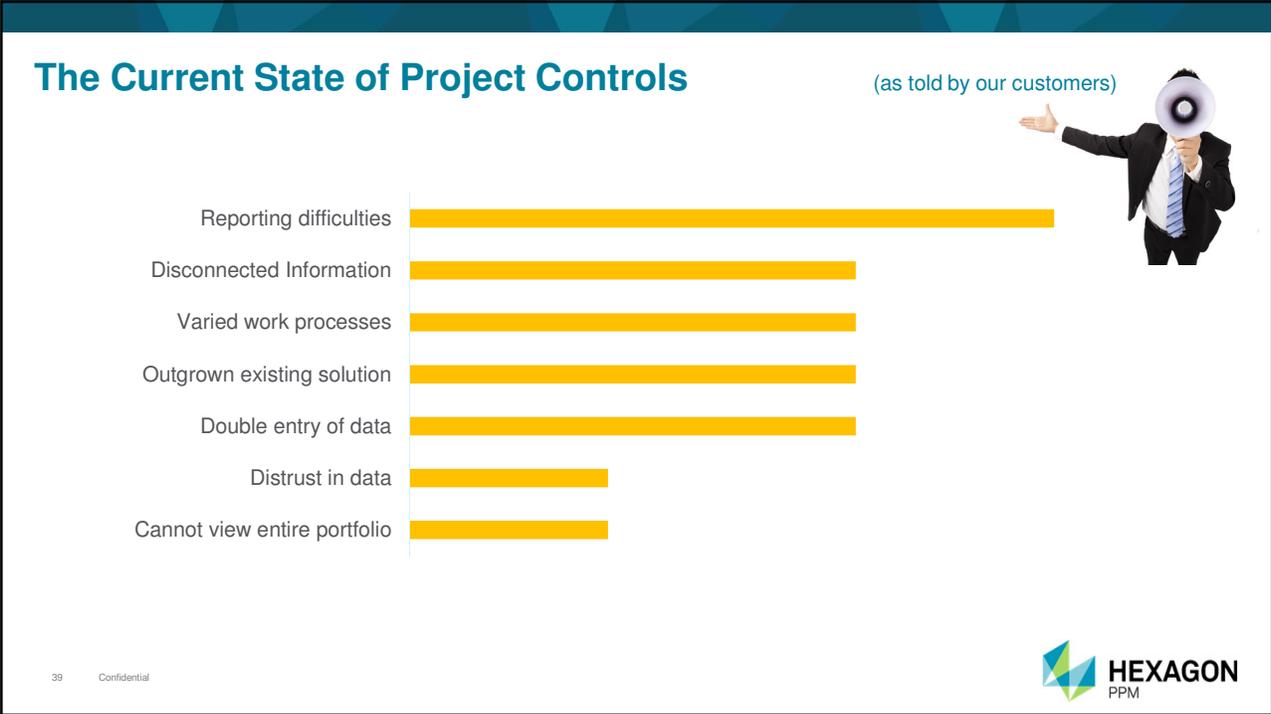
What do we expect our final costs to be?

Cost Data

Communications, Changes

HEXAGON PPM

38

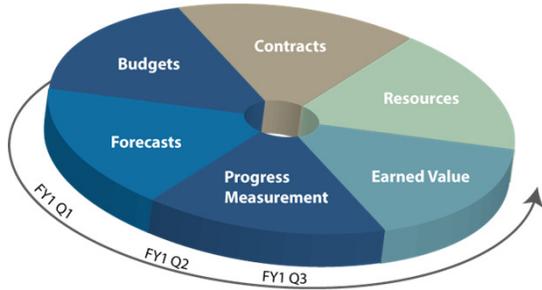


39

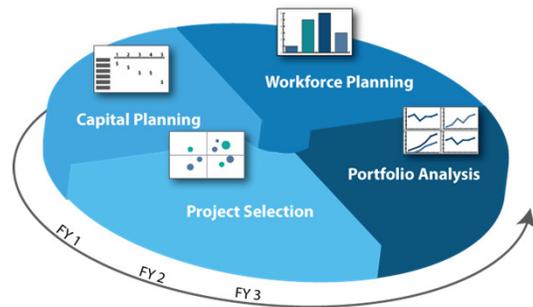


40

What is Enterprise Project Performance?



Comprehensive tools and processes for effective tactical project execution



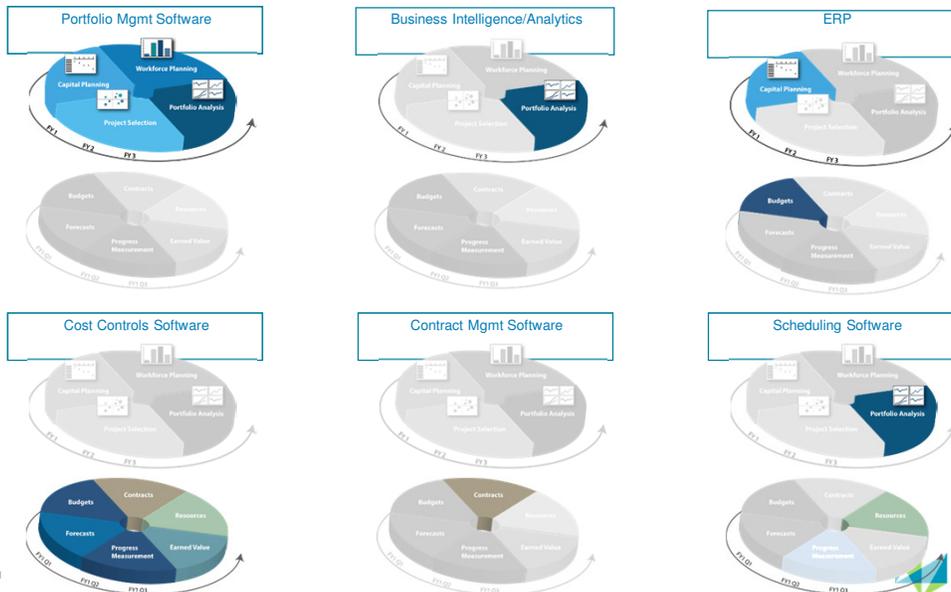
Controls for strategic planning and portfolio optimization

41 Confidential



41

Traditional Commercial Solutions



42 Confidential



42

What is Enterprise Project Performance?

Consistency

in project planning and execution

Visibility

into all project data

Alignment

of enterprise level strategy and day-to-day execution

HEXAGON PPM

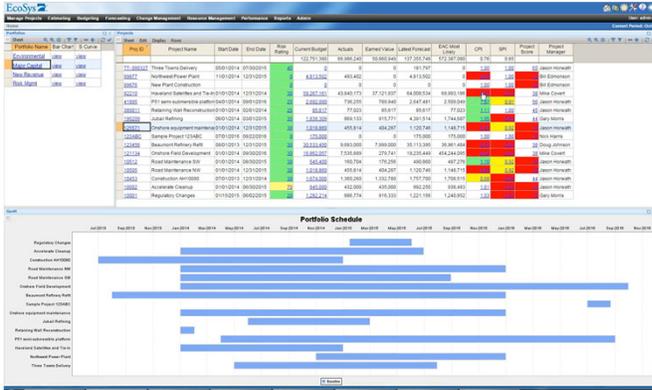
43

EcoSys - Achieving Enterprise Project Performance

HEXAGON PPM

44

State of the Art Analytics



Off-the Shelf, Configurable

Graphical Charts & Dashboards

Dynamic Business Intelligence

Drill-Down to Any Level of Detail

Output to Multiple Formats (PDF, Excel, Word, XML)

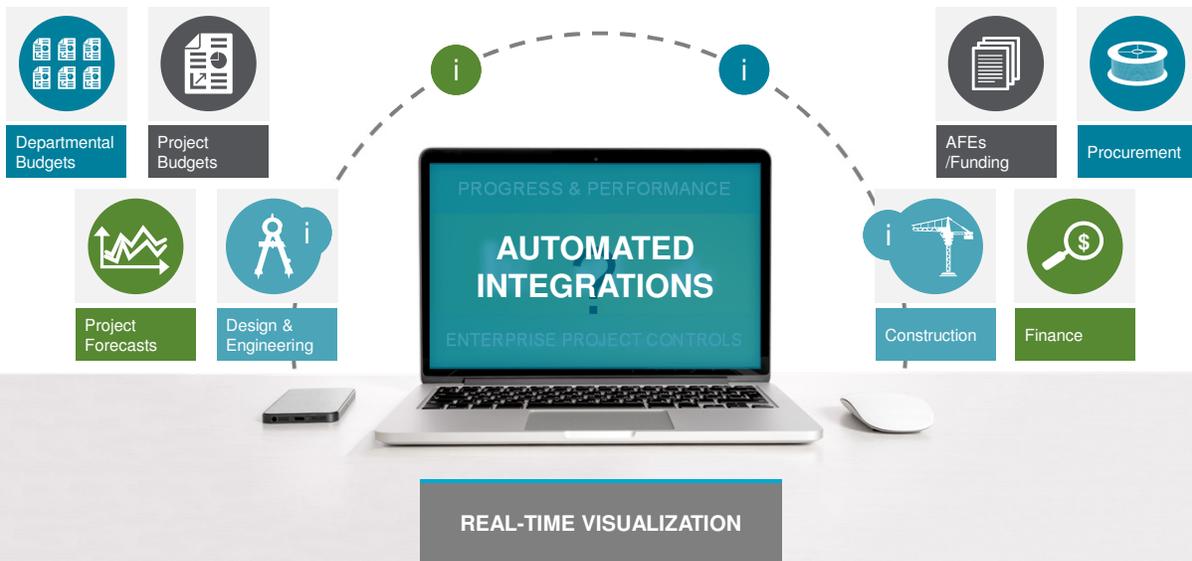
Automated and User-Initiated Reporting

45 Confidential



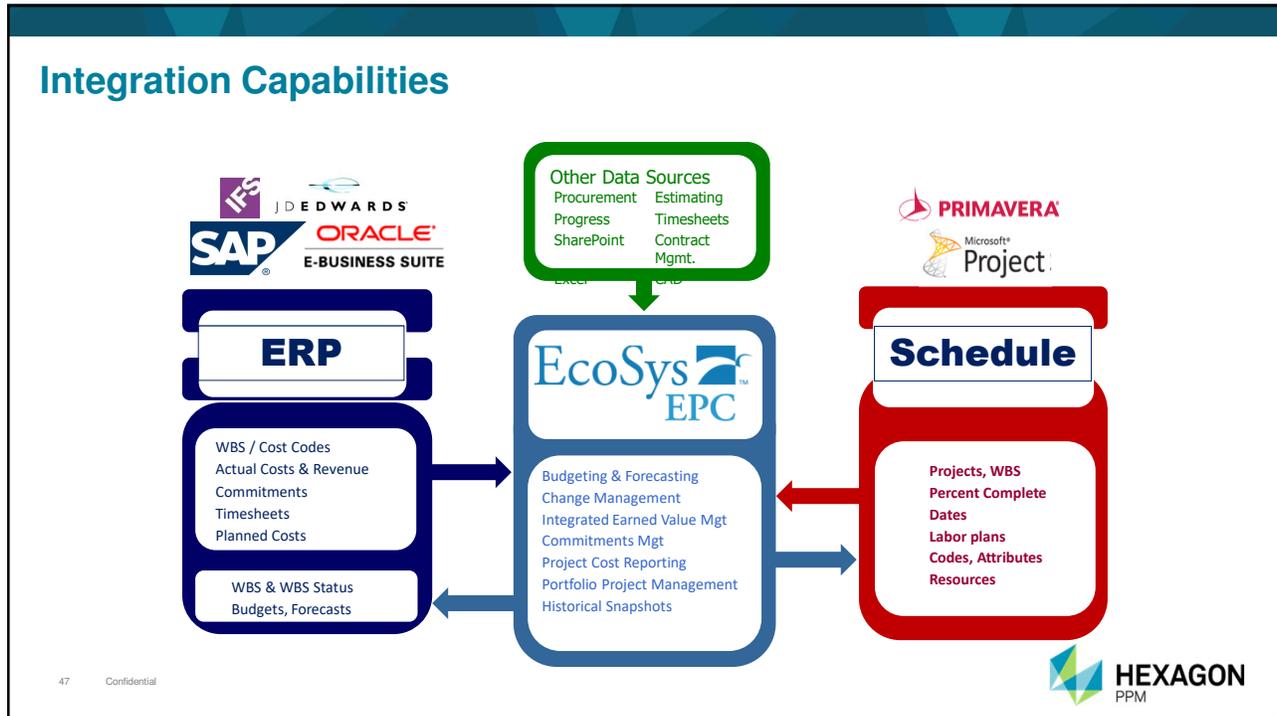
45

Fully Integrated Project Data

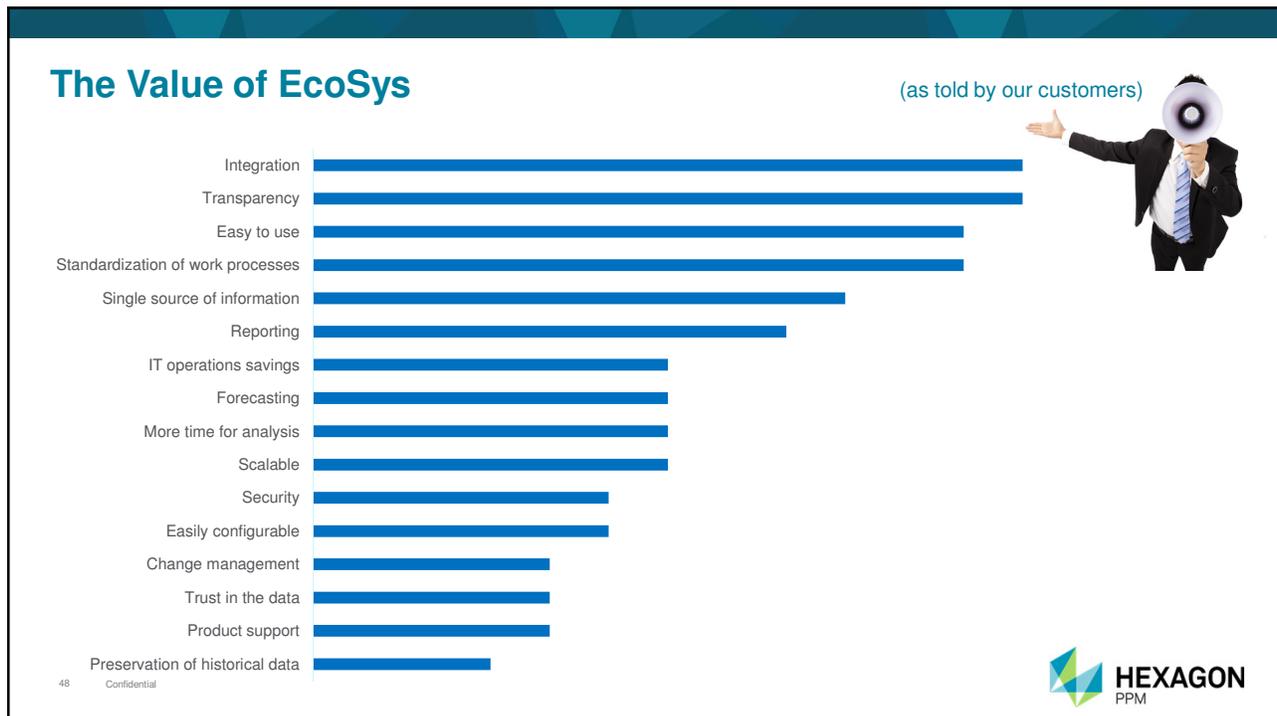


REAL-TIME VISUALIZATION

46



47

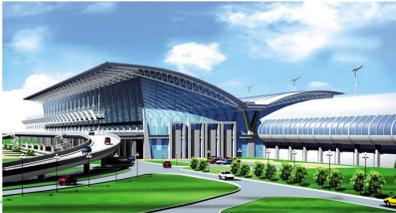


48

Conclusion:

Industry leaders are embracing **Enterprise Projects Performance** processes & tools

- ✓ Planning and execution of all projects with consistent processes
- ✓ Visibility of project issues and status
- ✓ Active collaboration with all project stakeholders
- ✓ Effective decision making based on the latest information
- ✓ Provides project based companies with better internal controls for financials



49

Q & A

50 Confidential




50