



# Project Controls Expo – 18<sup>th</sup> Nov 2014

## Emirates Stadium, London

**Enterprise Project & Risk Analysis in practice**

***Safran: A Passion for Projects***

# About the Speaker

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**Speaker: Richard Wood, VP International Development for Safran**

**Richard has spent many years focussed on improving asset performance in asset intensive industries. Previous roles include work for performance optimisation in Oil & Gas and E&C companies with software specialisations in Asset Management (Maximo); Project Management (Primavera and Clarity); and now the latest innovation in Project Controls, Enterprise Project & Risk Analysis (Safran).**

# EPRA: Enterprise Project & Risk Analysis

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Safran Software Solutions

*A Passion for Projects*

Richard Wood, VP  
International

*[Richard.Wood@safran.com](mailto:Richard.Wood@safran.com)*

+44 7799663101



# AGENDA

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- A new approach:
  - What is an Enterprise Project & Risk Analysis (EPRA)?
- Why would you be interested?
- An example of real benefit in practice....
- Technology options
- Summary and Q&A



# What is Enterprise Project & Risk Analysis?

## Basic risk parameters

| Activity ID | Description                    | Risk Optimistic Duration | Normal Duration | Risk Pessimistic Duration | Risk Contribution |
|-------------|--------------------------------|--------------------------|-----------------|---------------------------|-------------------|
| EPCI Demo   | Demo of EPCI plan              | 10.95                    | 42.8 w          | 148.4                     |                   |
| T           | Top Side                       | 10.95                    | 42.8 w          | 148.4                     |                   |
| A           | Management                     | 30.3                     | 214 d           | 148.4                     |                   |
| 00380       | Administration                 | 160.5 d                  | 214 d           | 267.5 d                   | 1 Square          |
| E           | Engineering                    | 246                      | 20.5 w          | 516                       |                   |
| 00043       | Main Process Flow              | 4.5 w                    | 6 w             | 7.5 w                     | 2 Triangle        |
| 00190       | Main structure engineering     | 7.7 w                    | 10.27 w         | 12.83 w                   | 2 Triangle        |
| 00270       | Electro-Instrument Engineering | 8.9 w                    | 13.2 w          | 16.5 w                    | 2 Triangle        |
| 00280       | Heatlock Engineering           | 3 w                      | 4 w             | 5 w                       | 2 Triangle        |
| 00400       | Charge Order 001 Engineering   | 3 w                      | 4 w             | 5 w                       | 2 Gauss           |
| 00120       | Pipe diameters                 | 5.2 w                    | 12.27 w         | 19.32 w                   | 2 Triangle        |
| 00310       | Architectural Engineering      | 6 w                      | 6 w             | 10 w                      | 2 Triangle        |
| 00140       | Electro-Instrument Engineering | 8.45 w                   | 12.6 w          | 15.75 w                   | 2 Gauss           |
| 00230       | Drilling Module Engineering    | 4.5 w                    | 6 w             | 7.5 w                     | 2 Triangle        |
| 00240       | Electro-Instrument Engineering | 4.5 w                    | 6 w             | 7.5 w                     | 4 Taper           |
| 00130       |                                |                          |                 |                           | 2 Triangle        |
| 00200       |                                |                          |                 |                           | 2 Triangle        |

Schedule Risk Setup

General | Undefined P Fields

Number Of Iterations: 1000

Use excel values for random change

Latin Hypercube

Activate Risk Analysis

Always perform Risk Analysis at each

Perform Risk Analysis after each standard Analysis

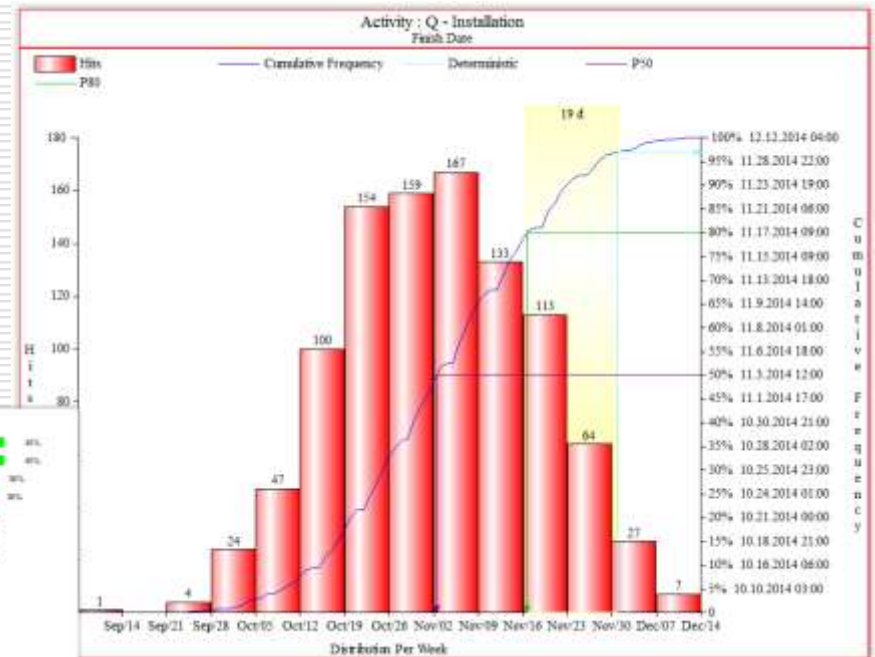
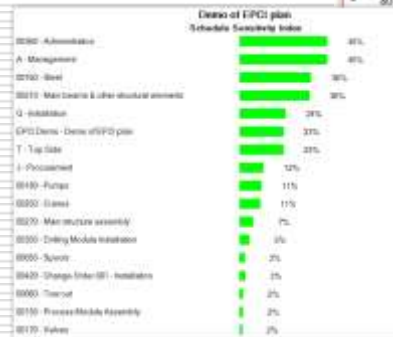
Deterministic Duration: Always Equal Activity Duration [w]

Last risk analysis performed at: 6/9/2014 13:50

Elapsed time of last risk analysis: 1 seconds

OK Cancel

## Overall parameters



# EPRA - The Core of Project Controls



# EPRA - The Core of Project Controls

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*Planning & Scheduling*

*EVM*



*Project Delivery*

*Planners Engineers*

*Skill: Knowledge Base Variation Control*

*Status Reporting*

*Risk*

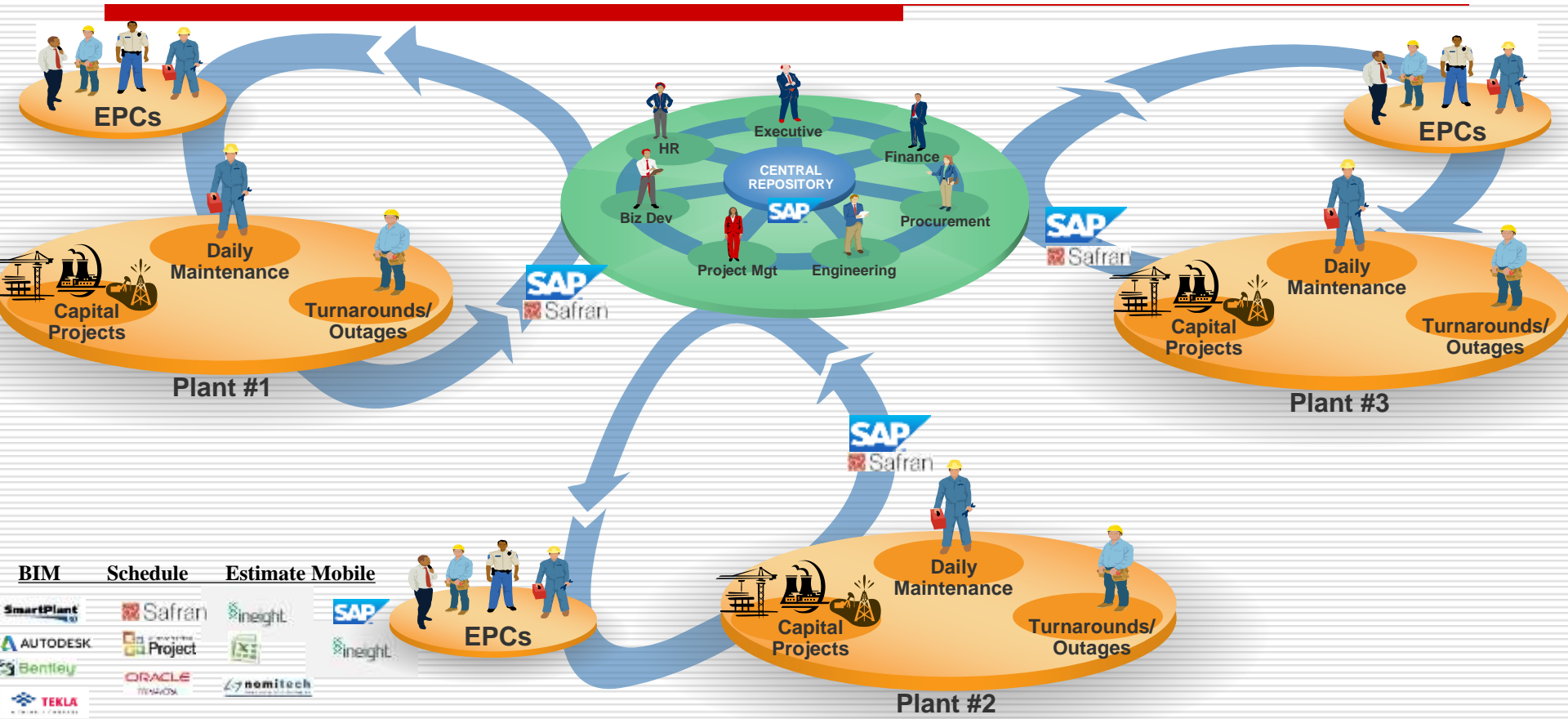


*Owner Executive*

*Stake Holders*

*Contractor*

# Integrated Platform for Capital Projects & Operations





# Consequences of superficial risk analysis

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- ❑ Modelling and analysis does not reflect reality, but presented as gospel
- ❑ At best misleading, at worst dangerous to the venture

Setting contingency

Scheduling vessels

Selecting concept

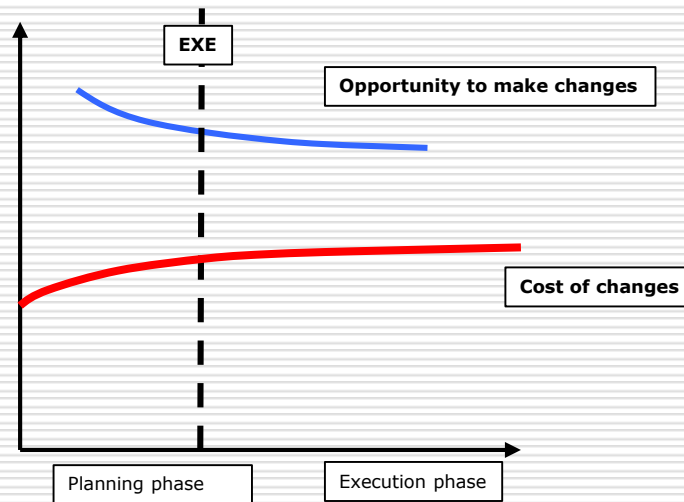
Evaluating and  
choosing contractors

Publishing  
expectations



# Influence on cost and schedule

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*The importance of early recognition and mitigation*

# Problems with non Integral Risk Analysis

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- Schedules may not be risk ready and thus risk analysis will be inaccurate.
  - This creates a considerable loss of credibility for the risk management process and leadership team.
  
- Risk modelling itself may be too simplistic or too complex.
  - If too simplistic then loss of credibility from senior stakeholders
  - If too complex then no real understanding or buy-in from senior stakeholders
  
- No structured way to “manage-up” critical project risks in near/real time.
  - If certain risks become issues they can have a catastrophic effect on multiple schedules and risk managers today don’t have a simple and clear way to manage this up to the right stakeholders in near/real time.



# The Solution: Embedded Risk

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- ❑ All schedules are “risk-ready” before any analysis takes place.
- ❑ By combining schedule, costs, discrete risks and risk factors powerful and meaningful models can be built very quickly.
- ❑ Risk reporting is integral and simple to understand and produce, providing communication and collaboration around the risk management process in near and real time.



# Why Would you be interested?

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- ❑ Minimal product integration
  - Reduced Risk in deployment
  - Faster Roll out – earlier value realised
  - Significant Cost Saving
- ❑ Single User Interface
- ❑ Improved User Adoption
- ❑ All you need for Mid Tier Project Governance
- ❑ Procurement Cost Saving
- ❑ Single point of integration into core Controls
- ❑ Faster Processing
- ❑ Combined Reporting across Project and Risk



# Optimising Assets: Integrated Planning & Managing Risk



## COMPANY

Statoil is an international energy company present in over 35 countries around the world, from Norway and the UK to Venezuela and the Bahamas.

Statoil's Kårstø processing plant is a facility north of Stavanger, Norway. It plays a key role in the transport and treatment of gas and condensate (light oil) from important areas on the Norwegian continental shelf.

## CHALLENGES

Operational management are responsible to ensure that all activities within their facility are executed in a safe and secure manner. To achieve this, they need to know: Who, What, When, and Where.

Statoil has developed a Total Risk Assessment (TRA) methodology for the Kårstø plant, which requires standardized input of planning information. It is vital the input is as correct as possible, so the TRA method requires one, integrated planning tool to supply consistent data from across the project portfolio.

## SOLUTION

Statoil uses Safran Planner to create and integrated master schedule and calculate risk across that integrated schedule.

"Firstly, we were able to communicate effortlessly and share project information across our common interface. Secondly, we could engage in discussions and problem solving in a manner that we only dreamed of before. But most importantly, we became confident that our contractors were using a reliable project management tool that we could understand." explained Bjørn Rosland, lead planner.

Bjørn Rosland  
Lead Planner  
Statoil

## BENEFITS

- Using Safran to create a master integrated plan for Kårstø gives an overview of all activities on a plant. Enabling Statoil to analyze:
  - Total activity level
  - Total simultaneous activities
  - Total risk activities
- Using Safran Project's portfolio management tools all individual Safran Project files are mapped into one large network, with data carefully analyzed to ensure consistency.
- The data is fed into an analysis tool to give senior management a true picture of risk across their portfolio of projects, for the first time.



# Safran the Company

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We provide world-class enterprise project management software. Over 20 years of successful project delivery experience in some of the most demanding markets. Our solutions are proven & trusted by thousands of project management professionals around the World.



# Some of our Customers....





# EPRA from SAFRAN



# Parallel Product Positioning

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The Best of Both Worlds.....



Plan, manage, and control complex projects with additional schedule risk analysis and fully-integrated reporting.

**Safran Project™**

Core functions for Risk management by Operations teams  
Seamlessly included within Safran Project for fast processing  
Aimed at Project Managers and delivery teams  
Single User Interface for ease of use  
Integrated analysis and reporting



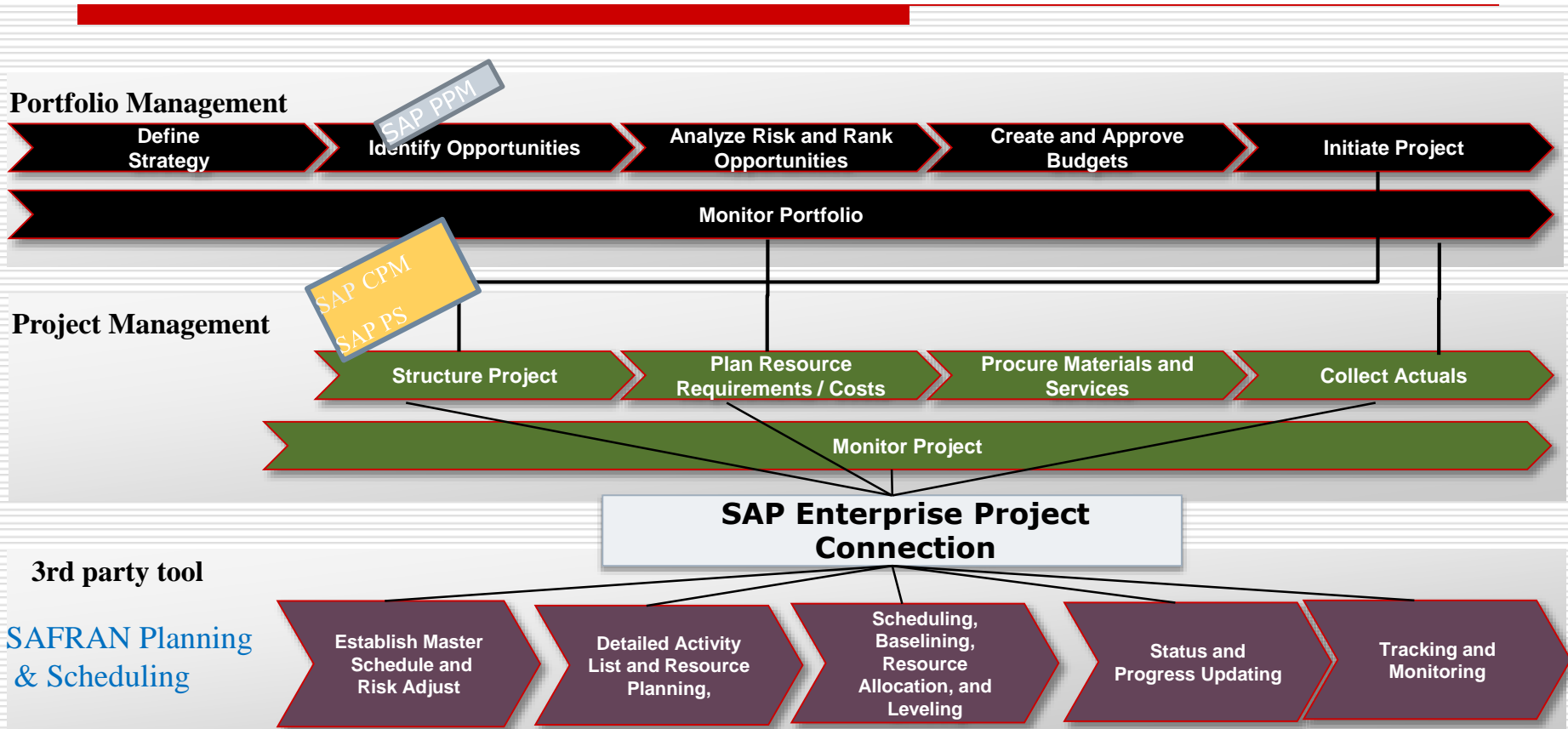
Coming soon: Comprehensive Risk Analysis functionality for Risk Managers.

**Safran Risk™**

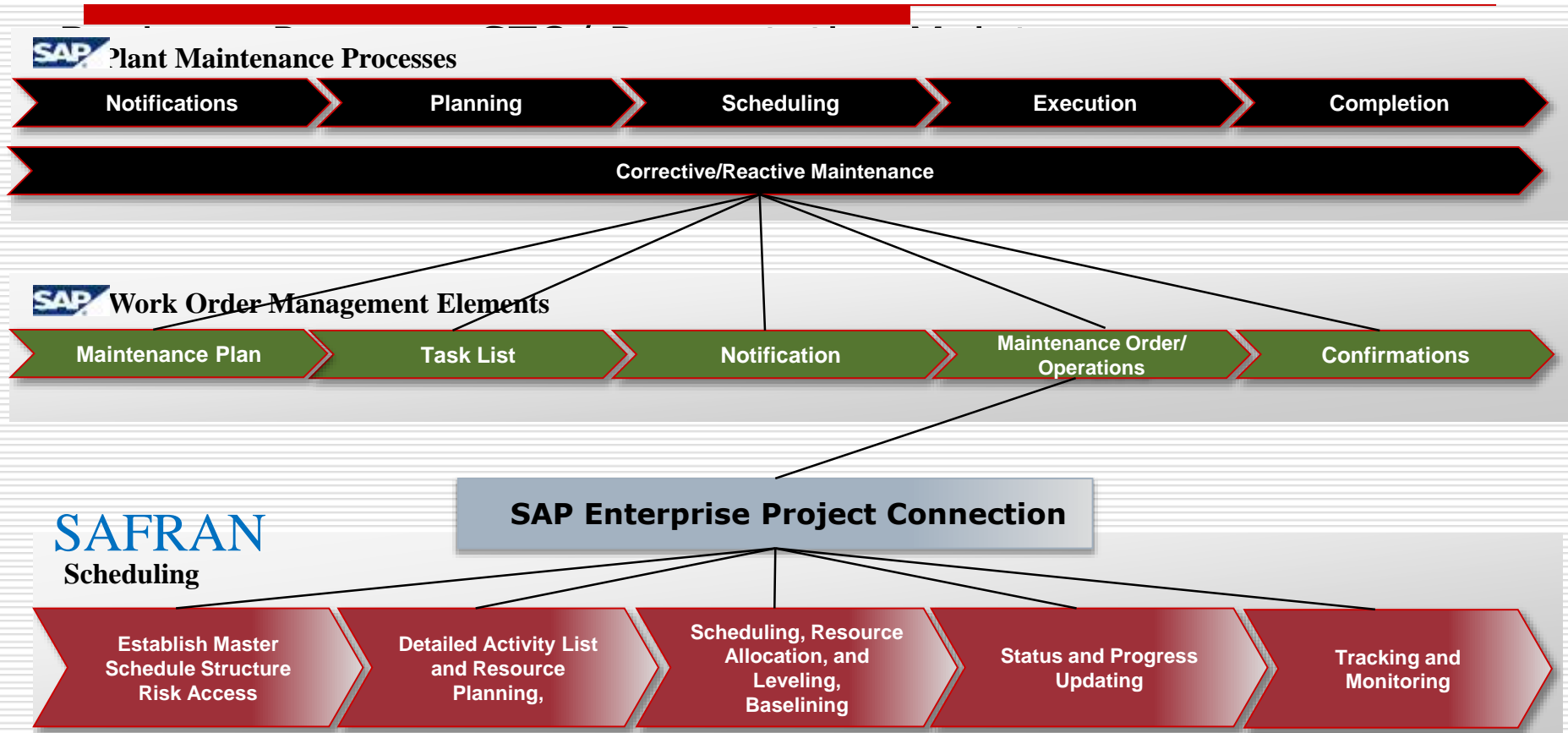
Industrial strength Risk Management  
Stand alone dedicated application  
For dedicated Risk Managers  
Fullest Functionality available  
Seamless integration to P6; Safran Project



# SAP/ Safran integration for Capital Projects



# SAP/ Safran integration for Operations



# *A Passion for projects*

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QUESTIONS

Q & A

ANSWERS

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Please contact:

Richard Wood, VP International

*[Richard.Wood@safran.com](mailto:Richard.Wood@safran.com)*

+44 7799663101

or visit:

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