

FAST INNOVATION: THE ROLE OF EPPM IN NEW PRODUCT DEVELOPMENT FOR AEROSPACE AND DEFENCE MANUFACTURERS

The opportunity of uncertainty

For Aerospace and Defence manufacturers, we're in a climate of complexity and financial pressure.

Overall global defence spending is declining, but 2014 is forecasted to bring double digit growth in commercial aerospace subsector¹.

These new measures of economic value that are emerging make the supply chain a key indicator of growth². Recovery is heavily reliant on the creation of true value, as only manufacturers know how.

Innovation is the critical issue. As the new economic landscape unfolds, manufacturers that can accelerate their new product development (NPD) processes, and reduce time to market, will establish strong and sustainable leadership positions.

There are opportunities to apply the accelerator at every stage of the NPD cycle. Enterprise Project Portfolio Management (EPPM) can help to clarify exactly where and when those opportunities can be found, and how to take full advantage of those offering the greatest value. Helping you to deliver innovation and value together.

Stage 1

Identify

Stage 2 Select



Stage 3

Allocate



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Stage 5 **Deliver**



Stage 6 **Measure**

CHALLENGE

Surfacing innovation

Processes are required for capturing innovation from across the organization.

SOLUTION: EPPM

Improved visibility

Enable closer collaboration, enforce standard processes and give decision makers early visibility of opportunities for innovation and evaluation of risk.

CHALLENGE

Evaluating opportunities

Decision makers need a true understanding of the value within each opportunity, so they can give priority to those most likely to succeed.

SOLUTION: EPPM

True data

Apply 'apples to apples' comparison, what-if modelling and insightful analytics to find better, faster and cheaper ways to analyze project schedules and reduce time to market.

CHALLENGE

Applying the right resources at the right time

Tough decisions, such as killing a project or putting it on hold, are needed at every step, to ensure that resources and funds are committed to the most likely winners.

SOLUTION: EPPM

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End-to-end insight at every step

Gain a single view of the truth across a complete project portfolio, reflecting the reality of complex interdependencies, allows the right resources to be allocated at the right time.

CHALLENGE

Assess risk and value, and plan accordingly

Each project plan must allow for continuous measurement, with critical points of assessment to allow for C-suite review.

SOLUTION: EPPM

Early warning of problems

Make effective time-cost-scope decisions, spotting potential problems and trends in time to correct them. Minimizing late penalties and budget overruns.

CHALLENGE

Effective execution

Program, project managers and senior strategic decision makers need current, complete and objective data about the progress to date of each project.

SOLUTION: EPPM

Adaptable, endto-end EPPM

Increase productivity by making team members more accountable for achieving project deliverables; make stage-gate decisions easier and reduce latency in the NPD process.

CHALLENGE

Learn and improve

Organizations need to learn lessons and capture best practice from every execution.

SOLUTION: EPPM

Capture excellence

Measure project performance consistently with objective evaluation metrics; capture practices that worked and establish governance to make future projects successful.

¹http://www.deloitte.com/view/en_US/us/Industries/Aerospace-Defense-Manufacturing/f203f16d5cbd2410VgnVCM3000003456f70aRCRD.htm

²www.forbes.com/sites/realspin/2013/11/29/beyond-gdp-get-ready-for-a-new-way-to-measure-the-economy/





VISIBILITY, COLLABORATION AND CONTROL FOR NPD

Stage 1

Identify

Capturing innovation across the organization

You need a process for unlocking the innovation lying untapped all over your organization and putting it to work.

- The number of ideas you need to generate for one of them to succeed is increasing: 7.2 in 2004, 8.7 in 2012.
- Getting your NPD working well

 including surfacing fresh ideas
 efficiently can reduce that
 number by half.
- The best organizations in the NPD stakes only need 4.5 ideas to bring one to market, with a success rate of 82.2%.
- Incremental innovation –
 evolution, rather than revolution
 – is often more successful in
 terms of profit contribution.
 Incremental projects generally
 contribute more to total
 profit than do radical or more
 innovative projects.

Stage 2

Select

Understand the value within each opportunity

The more data you have about an idea, the more tools you have for measuring it against previous successes, failures and other benchmarks. Then you can make the hard choices with a greater chance of backing winners.

- The number of NPD projects screened out before going to market has hardly changed since 2004 – from 32% to 33% in 2012.
- The 'mortality rate' the percentage of products actually getting to market – dropped from 24% in 2004 to 19% in 2012.
- Your NPD process must allow you to bring together disparate silos of valuable data and then make sense of it all.
- It must also allow you to apply your own criteria for progressing or abandoning a project at each stage, again based on complete and up-todate information.

Stage 3

Allocate

Applying the right resources at the right time

- More organizations are using a structured process for managing their portfolios of new product projects.
- The best NPD performers are more reliant on project portfolio management as an essential NPD tool.
- Systems like these need to be adaptable, presenting relevant data in the right format to different stakeholders.
- Senior decision makers need to access relevant summary information via simple, graphical representations, so they can analyze performance against budgets, risks, time lines, and strategy.
- Portfolio and project managers want to model different scenarios to keep early stages of key portfolios or projects on track, and to minimize the likelihood of adverse impacts to the timeline.

Stage 4

Plan

Assess risk and value, and plan

While the global economic environment remains volatile, organizations must be able to react quickly to changes in the risk profile and other factors affecting their project plans.

- Full visibility across the entire supply and value chain helps to avoid errors, reworks, delays, disruptions or any unexpected events.
- Senior decision makers and operation teams can determine confidence levels for product success and develop contingency and risk response plans.

Stage 5

Deliver

Stay on track with current, complete and objective data

Senior decision makers need visibility across the enterprise to encourage collaboration between separate teams.

Increasingly, this includes delivering key updates and status reports via mobile applications.

- Key stage-gate decisions can be made at the right time with greater confidence, and everyone can access the information they need to stay on track.
- A clear, end-to-end view also allows organizations to continuously review and refine their NPD processes.
- Nearly half of the companies with the best track records in NPD say they redesign their NPD processes on an ongoing basis, compared with less than a third of those with less successful records.

Stage 6

Measure

Learn lessons and capture best practice

Areas that Aerospace and Defence companies can develop more value are in the reductions of product lifecycle cost and maintenance. Also, in the transformation of current business models.

Other key measures of success include:

- Net margin ROI
- Product lifecycle reductions in cost and maintenance
- Project cost vs. budget
- Business model transformation

As well as applying these key measures to evaluate overall project success, organizations need to capture learnings from every stage of the process.

- Each stop-go decision must be based on pre-determined measures, and additional information gathered from events that have unfolded as the project progresses.
- These key lessons must also be captured so they can be applied further along the process, or to future projects.

ORACLE PRIMAVERA

Portfolio Management

An enterprise portfolio 'investment' management software solution. From data entry forms for business case/investment, idea through to benefit realization

P6

An integrated Enterprise PPM solution for prioritizing, planning, managing and executing projects, programs, resources and portfolios

Primavera Analytics

A project business intelligence solution, providing complete project life cycle reporting including drill through capability

Risk Analysis

A full lifecycle risk analytics solution integrating cost and schedule risk management for determination of confidence levels for project success, contingency and risk response plans

AutoVue

AutoVue solutions deliver visualization, digital annotation and real-time collaboration on a variety of engineering, product and asset documents and information, and can easily be integrated into any content management, PLM or enterprise application

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