CYBAGE
Delivering Value. Scientifically.

# Dynamics at Product Engineering 2.0

## Does Industry Domain Expertise Matter?

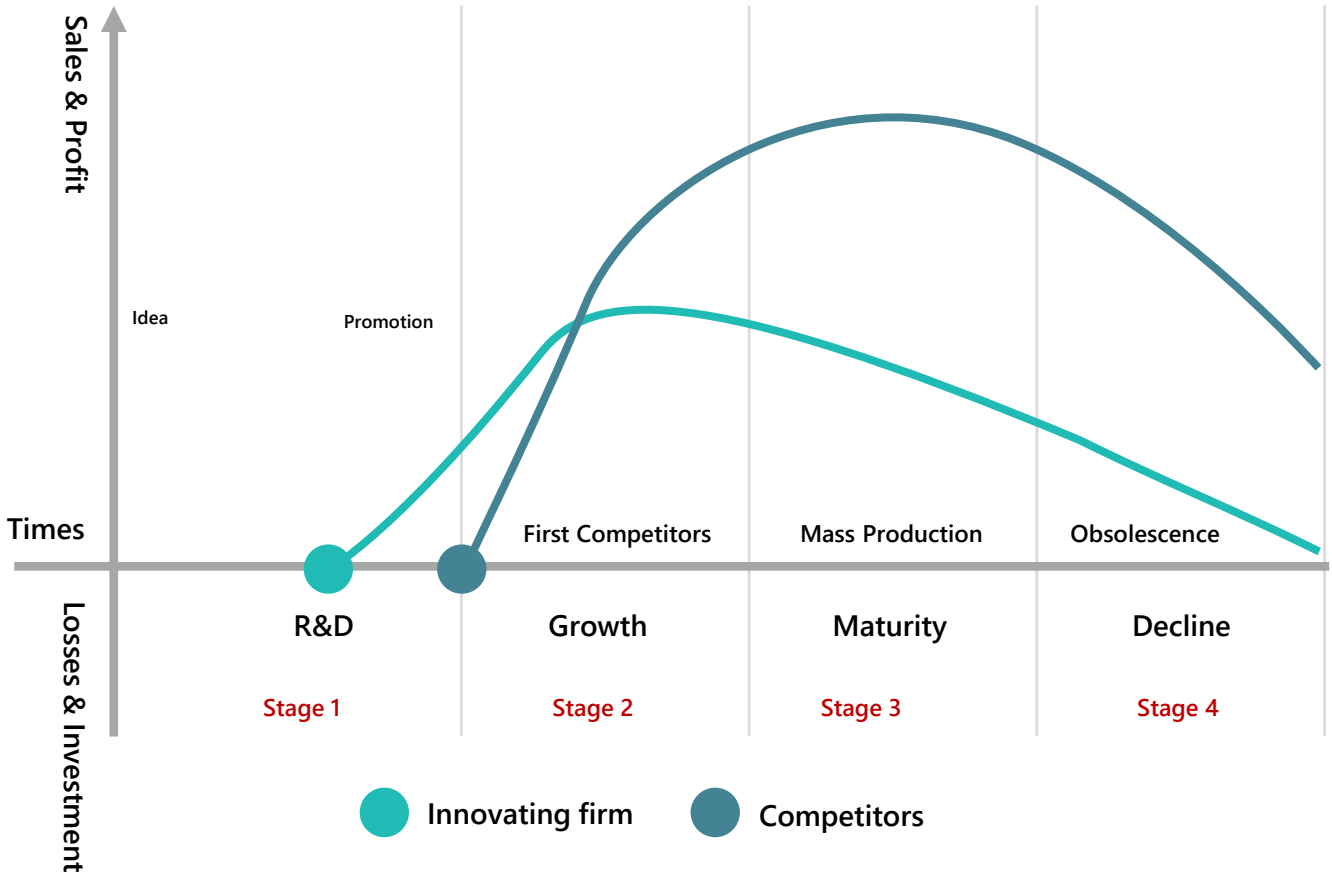
# Table of Contents

# Introduction

Digital Product Engineering Services (DPES), as we call them today, have been industry for over 25 years. Ever since the inception of DPES, they underwent several changes with changes in buyer behaviors, priorities, and technology innovations. With the value proposition of services providers in the DPES space starting to mature, there were good synergies in the ecosystem where everyone is winning.

As we look at DPES 2.0, the buyers, primarily the Independent Software Vendors (ISVs) themselves, underwent many changes as dictated by changing priorities of end-users of enterprise software. As there was a need for ISVs to adapt to the evolving changes, so were the DPES providers. Even today, as we stare at the new technology innovations disrupting the DPES space, certain important dynamics are seen at Product Engineering 2.0, which are still relevant today.

One important dynamic was the need for DPES providers to know the industry domain where their target ISVs are operating. The logic is easy to decipher. ISVs are busy automating and optimizing the business workflows of certain target industries. Suppose the ISVs and DPES providers are to collaborate in a partnership model. In that case, it may be necessary for the DPES provider to understand the industry domain and offer an integrated value proposition to the ISVs.



## How Does the Logic Work – the Integrated Value Proposition

The IT industry has witnessed a gradual surge in partnerships between the DPES providers of different sizes and their partnerships with ISVs of various sizes. Towards to end of the 1990s, there we hundreds of such partnerships. The motivation of ISVs behind striking such partnerships was limited to needs to cut the cost down, and/or to optimize the time to market, and/or embark on rapid scalability as demanded by their businesses.

There was a logic in the inherent value proposition. The ISVs serve the end-users of technology which are companies under different industries. These companies need to adopt IT (and innovation in IT) to get more efficient and/or to automate their business processes and/or get closer to their customers. The end-users of technology are often confronted with changes in consumer behavior, government regulations, competition, or matters beyond their control, such as the Covid19 pandemic. When confronted with such changes, they need to adapt to them, which may increase or decrease their technology spending. These have a direct impact on the ISVs' top and bottom lines. To minimize the ill effects or maximize the good effects, these ISVs often need to partner with the specialist DPES providers, who can help them adapt to these changes by controlling the cost and need for new resources.

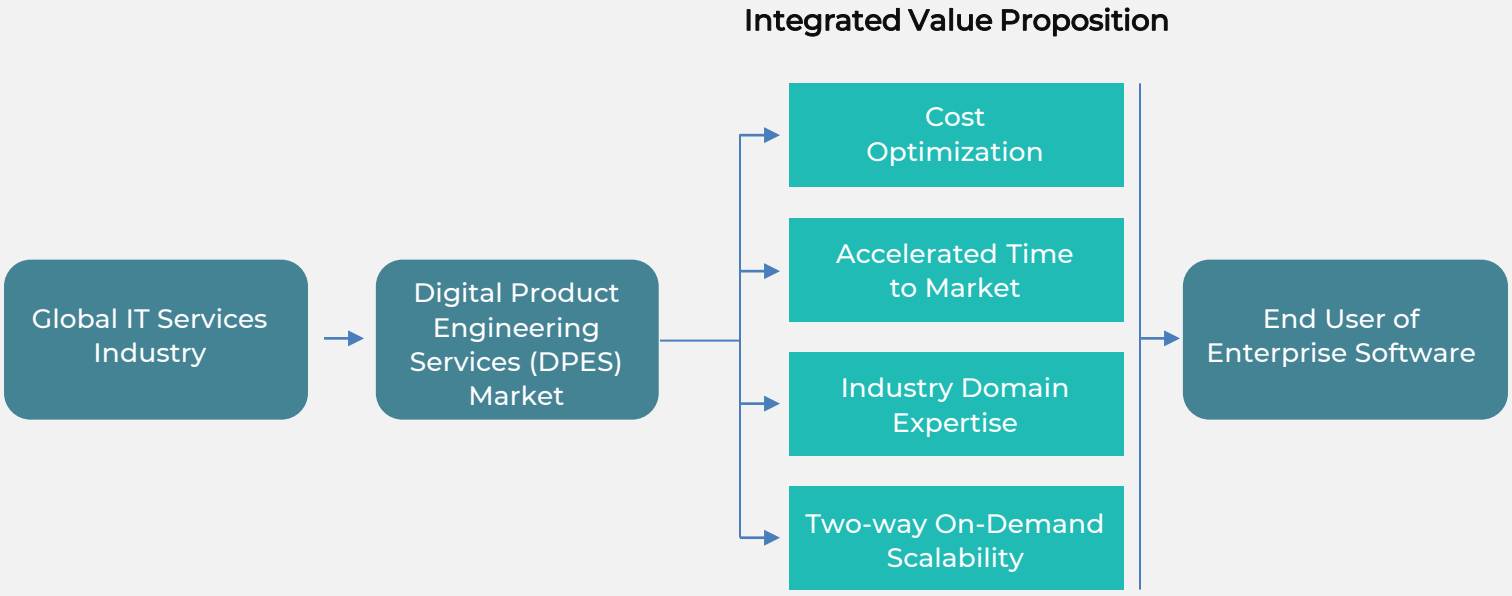
This logic behind the partnership and collaboration of ISVs and DPES providers continued for several years. Everyone was benefitted in the process, and as it appeared, there was no look back on these tracks. However, when too many DPES providers jumped into the business from countries like India, the ISVs had many choices at hand when they felt a need for partnerships. While it is easy to guess the chaos, something good happened in the process – men were separated from boys!

ISVs gradually started adapting to a scientific rationale behind striking such partnerships. When everything was similar in these services providers' value proposition, ISVs said we want to partner with someone who understands our customers' pain points—the advent of the need for integrated value proposition from the DPES providers.

The integrated value proposition had a simple yet subtly deep attribute – the DPES providers were expected to "understand the customers of ISVs." This required understanding can come only if the services provider understands the business workflows of that industry. It created a lot of shuffles in the provider space, as not every DPES provider was good at understanding the end-user industry. Although many financially sound services providers embarked on the mergers and acquisition route to overnight fulfill this need of the ISVs, many providers simply struggled to get new customers and retain and grow the existing customers.

The important point is that the DPES providers quickly responded. They started hiring business experts directly from those industries to fulfill the need to catch up with the industry domain knowledge. Soon the integrated value proposition the mainstream and de facto requirement to grab any mid to large deals of partnerships with the ISVs.

ISVs benefitted substantially with this improvisation of an integrated value proposition. These DPES providers ready to use industry domain knowledge became the virtual extension of their own engineering and technology teams. With the traditional advantages of partnerships, like scalability, cost, and time to market continuing, the resultant combination worked tremendously for ISVs. Importantly ISVs had the freedom to scale down on-demand with little to no obligation. DPES providers grew, giving a massive rise to DPES space with over $150 billion market potential!




## The Matrix Effect – Identifying the Point of Convergence

To fine-tune the market forces and competition, a few prominent and futuristic CEOs of DPES providers came up with a concept called the Matrix Effect. What this meant was that there was an infusion of more science and more structure to the industry. The matrix effect narrows down the focus that a DPES provider brings to the table.

The matrix effect involved the creation of a matrix structure whereby along with the X-axis industry was plotted as a vertical and along with the Y-axis areas of technology, where the DPES provider was strong, was a plotter. The point of convergence of X and Y axes was the market where the DPES provider offered the closest match to the ISVs.

Matrix Effect helped the DPES provider to focus and allowed ISVs with a framework to evaluate if the provider really understands the customer base of the ISV. There was a rapid acceptance of the concept in the industry, and soon it became a de facto standard amongst the best-of-breed partnerships that the industry has seen till now.

| Technology Horizontals | | Industry Verticals | | | |
|---|---|---|---|---|---|
| | | Healthcare | Banking and Financial Services | Hi-tech | Retail and Distribution |
| | Cloud Computing | | | | |
| | CRM | | *Point of Convergence* | | |
| | RPA | | | | |
| | AI/ML | | | | |

## Vulnerability to Commoditization

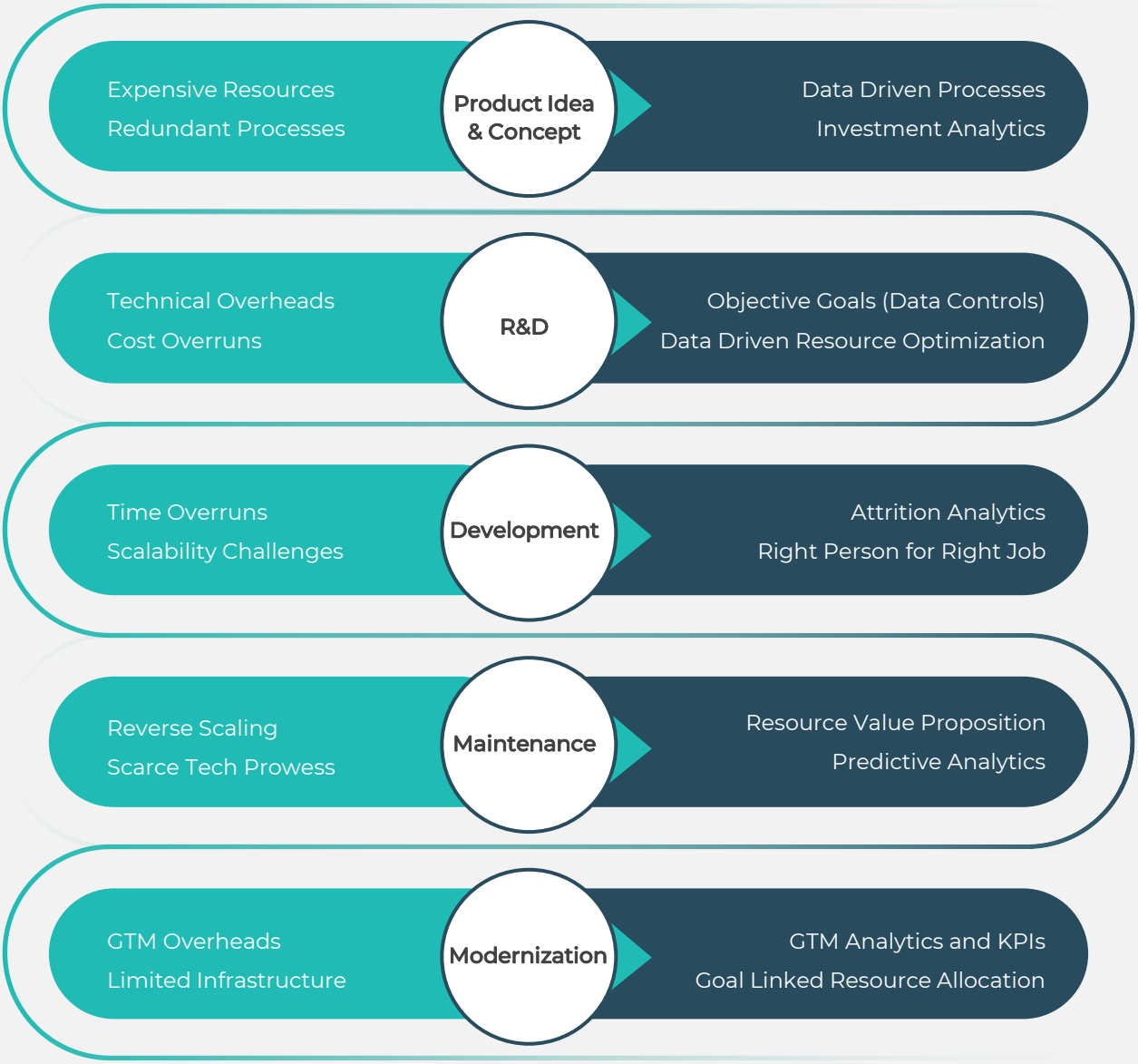
The matrix effect brought a lot of meaning, science, and structure to the DPES industry. It started to make a lot of sense for ISVs to invest in partnerships for a longer period. The strategic advantage to the ISVs was that they were building for the future – that is, they were getting ready for the future without jeopardizing a lot of resources and investments, as the risk of substantially mitigated through these models of partnerships.

The global markets were increasingly getting attracted to the DPES space. Many players from the providers' space started creating the capacities and required de facto skills to catch up to the bandwagon. With the traditional model of Product Engineering 1.0 continuing in several patches of the industry, the sudden invasion of global players with capacities started to create a problem of plenty. So many services providers jumped in that the DPES was soon becoming a commodity service even with deep industry domain knowledge requirements.

Just as the industry feared the commoditization of the space, there was the emergence of another trend that stole the limelight from the industry domain expertise. Along with all the factors that we discussed in the industry as far as expectations of ISVs were concerned (from their strategic partners), ISVs started to demand "delivery excellence," which ensured them that products would be developed with the right process and will be delivered successfully on time within budget.

Delivery criticalities remained at all stages of the evolution of the DPES ecosystem, but in the early 2000s, ISVs were looking for a 'tangible and reasonable assurance' about the successful deliveries. While there cannot be any guarantees in business, matured DPES players with a modern outlook started bringing more predictable science to the deliveries.

We have talked about this phenomenon of delivery as a science for excellence in product delivery in our other white papers, which you can access from www.cybage.com; we would like to show you in the graphic below that how delivery can be science handles the critical aspects of delivery leading to the transformation of ISV baseline business. So, it is a dual advantage value proposition from the leading DPES providers.



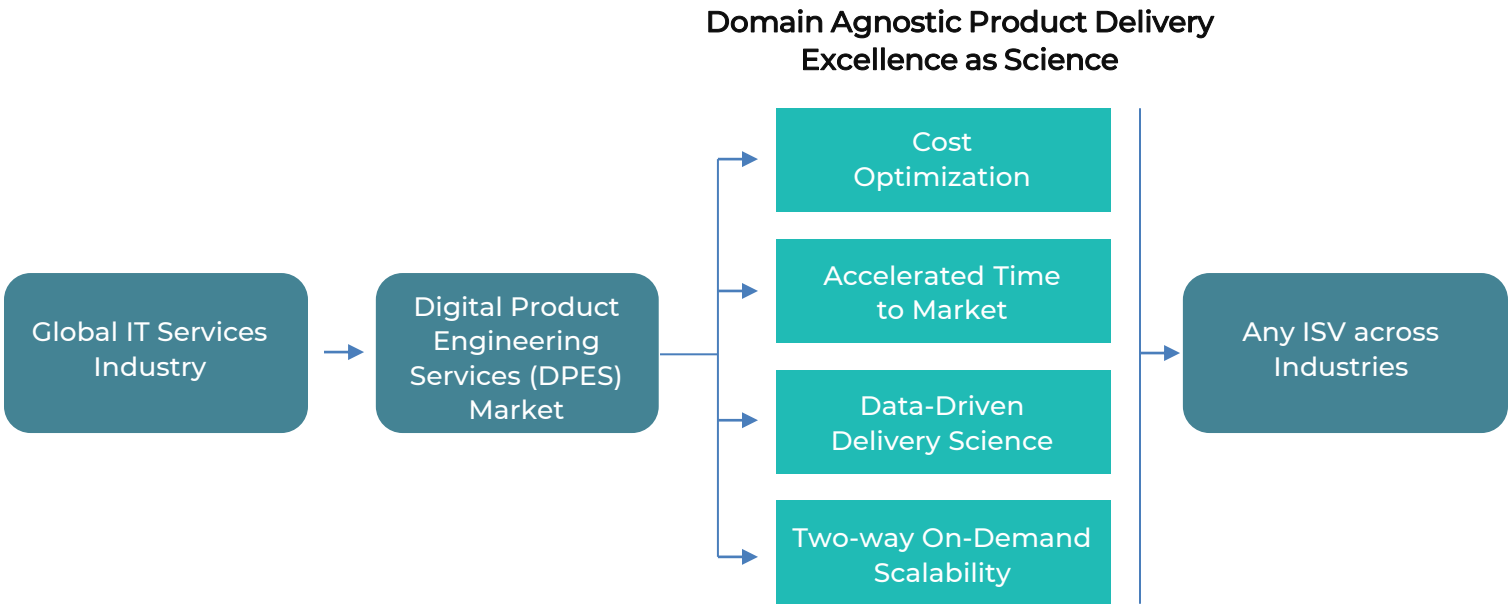
# Disruptions of Product Engineering 3.0 – Negating the Whole Need?

Digital transformation is around us. In the previous section (and more in detail in our other white papers), we briefly discussed how ISVs' businesses could be transformed by matured DPES providers with a modern outlook towards delivery science. As we enter through Product Engineering 3.0 with attributes like delivery excellence as science, product intensive engineering frameworks, and all other advantages of traditional DPES, there is a renewed thought process that -is industry domain knowledge really playing a winner's role in the new age partnerships or is it that pioneering DPES providers have perfected the science of delivering a product – no matter which industry is it from?

While there is no clear answer to this question, it appears that the industry itself will come up with a solution in the coming few years. While as we discuss this, the ISVs are 'playing safe' with their risk profiles and investing more in the DPES providers who understand their target industry, the new age internet companies (like Search Engines, FinTech's, E-commerce players) who are agnostic of industry are seen investing heavily in these partnerships as well. So, there are instances of both the ecosystems flourishing together.

The entire premise of successful product delivery without adequate industry domain understanding comes from the fact that product delivery as a whole has emerged as a structured science. There are clear inputs, clear processing, and clear outputs. The entire game is about what it was earlier, impacting the bottom line of ISVs. If that can be delivered through remaining thin on business process knowledge of the industry, can it be really delivered with right time to market priorities and right customer expectations is something that remains to be seen.

The industry is starring at the prominent players in the DPES space to bring some insights into this intriguing question. The data point that these prominent players are waiting for is to see how buyers' behavior and decision-making change when they are stuck at the old framework of domain-led partners. Maybe they have data points to some extent and waiting for the right macro-economic indicators to facilitate the new practice of domain agnostic delivery excellence as science.



## Summary

Digital Product Engineering Services (DPES) has evolved over the last 25 years, and currently, we are at what we call Product Engineering 3.0 age. The dynamics at stage 2.0 were dominated by the fact that there is a clear need for DPES providers to possess strong industry domain knowledge where the ISVs operate to offer them tangible value. There was an emergence of integrated value proposition at stage 2.0 which is challenged by a novel thinking of stage 3.0. This novel thinking says that if product delivery excellence is a science, then the industry domain knowledge may take a back seat.

It is not clear which doctrine would survive in the long run, but the industry is probably starring at matured players who have specialized in DPES over the last two decades to come up with insights into this. And these players probably have data points, but they are probably waiting for the right macro-economic indicators to shape the maturity in the global DPES market.

## A Case in Point

A North America-based global ISV with revenues of upwards of $1.2 Billion in 2020 was looking at partnering with a DPES provider to develop and manage one of their enterprise software products in the Enterprise Content Management (ECM) space.

The product had inbuilt capabilities to do Document Management, Web Content Management, Digital Asset Management with easy to configure workflows connected to a central repository. The product was pretty much applicable to any company in any industry looking for ECM. Still, the ISV chose to focus on Media and Entertainment industry and the Banking industry.

Given their choice to focus specifically on certain industries, the Vice President of Engineering decided to scout for a partner who understands the business workflows and processes of the Media and Entertainment industry. They wanted to see certified business analysts with the DPES provider, a referenceable track record of having worked with the same or similar product, and a scalable engineering team.

ISV's initial scouting took them around to large players as they were reasonably large. However, they found these large players offering several services, and that DPES is one such service. Beyond that, while offering a good brand name and references, these large players were very expensive because of the overhead scale they operate. There was a debate within the ISV's board room on the right partner for them. It was not an easy decision since the large players also brought significant industry domain expertise, which was one of the key decision points in their minds.

Certain senior executives bought into the thought that their product is quite an industry agnostic and can be offered to any company. However, to have a competitive advantage, the VP Marketing and VP of Engineering had plans to develop certain ready-to-use workflows and frameworks directly applicable to the Media industry straight out-of-the-box, which offered to save on the cost their customers were likely to incur in the product deployment, implementation, and related professional services.

Finally, it was decided to choose a player who offers the most de-risking proposition. Along with a fairly good industry domain, the prospective partner should exhibit a track record of rolling out successful products across different industries and offer reasonable assurance to their priorities of having a competitive advantage through the right time to market and usage and creation of bleeding-edge technology.

They found a DPES partner with about $ 300 million of turnover but an unmatched track record of developing enterprise software as a true engineering partner to many media companies. This DPES provider had a framework in place to view every decision on the product pragmatically and empirically. For instance, how the project hierarchies should be, how attrition could be handled, and so on. These factors are critical to delivering a large enterprise software requiring large teams.

This DPES provider came up to the ISV's expectations. The product was delivered in record 13 months with teams of both sides working on a collaborative platform of pragmatic delivery management and the right size of domain knowledge at the right price.

CYBAGE
Delivering Value. Scientifically.

[An ISO 27001 Company]
Tel: 9120 6604 4700 |Fax: 9120 6604 1701
India|USA|UK|Netherlands|Germany|Australia |Japan|Canada|
Ireland|Sweden|Singapore
www.cybage.com