Multi-Generational Product Plans Vs. Product Line Strategies and Roadmaps

by Paul O'Connor

I’m often asked, “What’s the difference between Multi-generational Product Planning and Product Line Strategizing and Roadmapping?” The answer needs a short discussion. And exploring the differences and similarities is insightful.

Multi-Generational Product Planning (MGPP) and Product Line Strategizing and Roadmapping (PLSR) are different. But MGPP and PLSR are also closely related. To understand, let’s first look at each and see how they relate. Then we must explore how MGPP, when set into PLSR, can add significant value to product lines.

Both MGPP and PLSR lay out a timeline of work related to a product line. MGPP does this from a project management and design engineering perspective. PLSR, however, does it from a product line strategy view. You may also see how PLSR applies to all product lines whereas MGPP only applies to certain product line types. In good practices, all that goes on with MGPP should also happen within PLSR. But PLSR has a broader and deeper view of the product line.

Preventing Scope Creep
MGPP divides a product offering into logical “generations.” This is useful for a few critical reasons. Most important, it helps product development through control or management of scope-creep. By freezing specification, development teams push a product’s possible new features into a “next-generation” development project.

PLSR goes beyond MGPP. It adds targets for future products into project planning. This helps lessen project risk. It does so by helping contributors to collaborate during both ideation and
development. MGPP’s role in this dynamic is to help teams carrying out day-to-day work and achieve product delivery goals. And even though MGPP must be sensitive to strategy issues, its purpose is to freeze specifications. It’s specification freezing that helps project management and design engineering.

MGPP also suggests the purposeful retirement of older products. With multi-generational plans, organizations will look to retire products based on old platform-levers when they launch a new generation. The retirement timing may be delayed from the new platform-lever’s launch, but product closeouts are a foregone conclusion. In time, the company will stop producing and servicing products related to the old platform-lever. Such continuous renewal can be very healthy for the product line. The only caution is that new offerings must continue to match customers’ needs while also being competitive.

Mostly, new platform-levers have an advantage when they enable products that target the same segments served by an older platform-levers. That’s because the products are already aligned with how the organization interfaces with customers. It reduces uncertainties and speeds market diffusion for the new offerings. The result is that MGPP platform-lever sequencing helps mitigate project and commercial risks. And it does this while speeding gains.

Teams may also apply MGPP to individual products while keeping the same platform-lever. Such incremental innovations reflect advancements in technology building blocks, not the platform-lever. While helpful, too many incremental products can grow to burden the line. That’s because sunk cost economics can obscure the need for more impactful strategy moves and pivots. The problem is that it often appears economically favorable in the near term to keep an old product linked to an existing platform-lever. With time, though, the line can be weighed down by product proliferation. Unknowingly, teams may be using MGPP while promoting the strategy mistake.

A Strategy Focus
PLSR focuses on creating and carrying out the product line’s strategy. PLSR work and thinking will probe deeply into all topics related to the product line. This includes MGPP. But PLSR does not focus solely on project management or engineering. Therefore, product line teams will carry out MGPP as part of PLSR. This is because crafting the product line’s strategy almost always reflects multiple generations of products and platform-levers.

Those involved in product lines should also recognize how a “Strategy-Essence,” a central part of PLSR, is absent from MGPP. This means advancing the product line strategy’s core is not part of MGPP. Yet, the Strategy-Essence is fundamental to a product line’s moves and pivots. And it’s vital to a line’s success.

For some product line teams, it’s natural to plan platform-levers over multiple generations. This is where we see platform-lever generation X followed by generation X+1. For other product lines, though, it may make no sense. MGPP’s lean engineering and project management orientation makes it suitable for product lines with hardware design and software-type platform-levers. When you hear about the launch of a new generation of a product, it’s likely to be about a new design or software platform-lever. It’s less likely to be about advancing another platform-lever type.
Consider smartphones. From its origin, Apple’s design platform-levers were the iPhone, the iPhone 3, then 4, and so forth. Each spawned only a few variant products. Similarly, Samsung’s platform-lever generations were the Galaxy S, II, III, 4, and so on. Because these are design platform-levers, using MGPP makes perfect sense.

![Diagram: PLSR creates both the strategy and the roadmap to carry out the strategy. This diagram is a roadmap display of key milestones related to technologies, platform-levers and technology building blocks.](image)

**Not all Product Lines, Not all Platform-levers**
But MGPP may not fit as easily with other platform-lever types like intangible service, production asset, or modular platform-levers. This is because the nature of the platform-levers for some product lines is not conducive to MGPP thinking.

Consider production asset platform-levers like chemical reactors, papermaking machines, or food production lines. Coming up with a new generation production platform-lever is difficult. But yes, there can be new production asset platform-levers that replace the old. More likely, though, teams will sequence incremental improvements, not a complete generation renewal as done for design platform-levers.

MGPP may also fall flat when a platform-lever’s life cycle is longer than the organization’s planning time horizon. Why lay out a new generation of a platform-lever when you can’t address it within your planning horizon? It would only be speculative, not actionable.
Strategy-less MGPP

The key difference between the two methods boils down to project management versus strategy. MGPP stresses design engineering and project management, not the strategy. When carrying out MGPP, team members should be sensitive to strategy issues, market influences, and technology advancements. But the strategy and its moves are the directives others give to them, not for them to create.

PLSR, you can surmise, works specifically toward creating the strategy. It focuses on exploring, analyzing and selecting strategy moves and pivots. And, depending on the platform-lever types, PLSR may include rigorous MGPP as an important “Strategy Lens.” It helps to rationalize the milestones in the strategy execution roadmap. How much MGPP influences PLSR results, though, depends on the product line, its platform-levers, and the strategy.

For those who focus only on MGPP, embedding it into PLSR may seem wasteful. But that’s not the case. Instead, PLSR gives context to the multi-generational plan, and MGPP builds reality into the strategy. This combination is powerful.

To learn how to gain from smart product line strategies which include multi-generational product plans, please consider reading my book. It’s entitled The Profound Impact of Product Line Strategies. Find out more about MGPP and PLSR here.

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i MGPP is a design engineering and project management approach to freeze specification and advance product developments one generation at a time.

ii PLSR is an acronym for Product Line Strategizing and Roadmapping. It is an approach to improve a product line strategy and lay out a roadmap to execute that strategy.

iii Platform-lever — This is a common factor that cuts across multiple product that enables leverage (faster development and less costly delivery of attributes.)

iv Strategy-Essence — This is the core of a product line strategy. It has three parts. It includes at least one platform-lever with a matching organizational fulcrum. It also distinctly aligns with a business strategy “Chain-link.” Plus it matches product attributes to customer needs in specifically defined market segments.

v Design Platform-lever — This is one of several types of product line platform-levers from which a product line achieves leverage. A design platform-lever is a common component or component set used across products.

vi Platform-lever Types — Product lines may gain leverage from different platform-lever types. These include production asset platform-levers, design lay out platform-levers, and modular platform-levers. It also include service platform-levers, software/algorithm platform-levers, combined platform-levers, and matrixed platform-levers.

vii Strategy Moves and Pivots — These are action and milestones that advance the product line in driving greater customer satisfaction, improved cash flow and fending off competition.

viii Strategy Lens — These are work elements within PLSR. Teams may use many strategy lenses to explore, analyze and make judgments about product line strategies. MGPP is a PLSR strategy lens.