OUR VISION AT SOLVENTURE

Including product management into your S&OP cycle?

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INCLUDING PRODUCT MANAGEMENT

At Solventure we take pride in being experts in designing and implementing Sales and Operations Planning. Companies that have a good S&OP process can't imagine how to live withoutit. It is the key instrument for the CEO to navigate the business along the budget towards its strategic targets. In this position paper we show how to involve product management in the S&OP cycle and why it is essential.
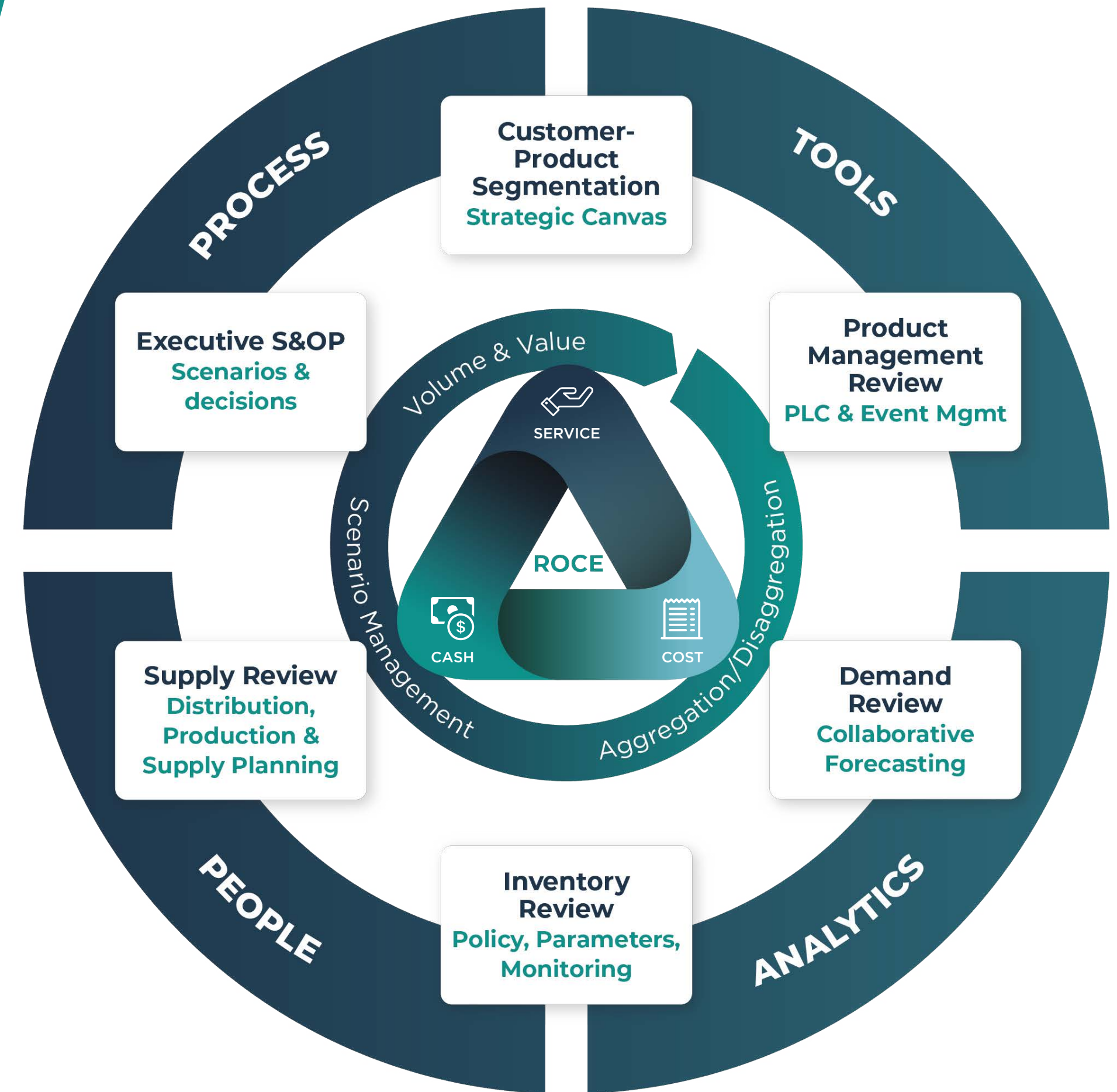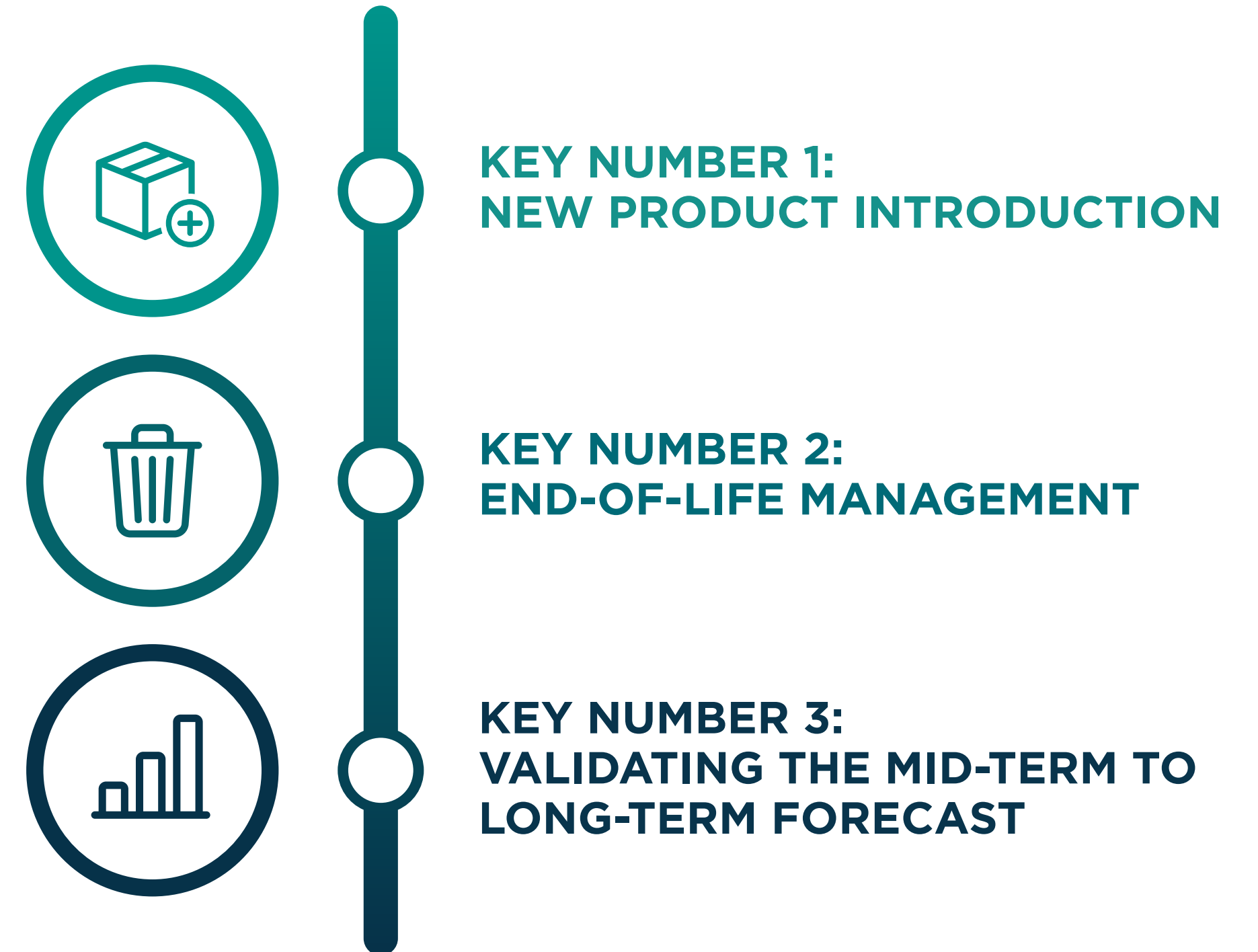
PRODUCT MANAGEMENT HOLDS 3 IMPORTANT KEYS

We typically start a workshop on 'product management' or 'product life cycle management' with the following two statements:

> 7 out of 10 NPI's (New Product Introduction) are overstated
> We are very good at introducing new products, but very bad at taking old products out

I would say these statements resonate with 9 out of 10 companies. They summarize the first 2 keys that are being held by product management: introduction of new products, and controlled complexity by an effective end-of-life management.

Next to lifecycle management, we see that in many companies product management is key in validating the mid- and long-term forecast. Where for the next 3 to 6 months we heavily rely on sales, we may need to rely on product management to validate the longer term expectations. This is a third important key that is being held by product management. Let's review 3 keys in more detail.
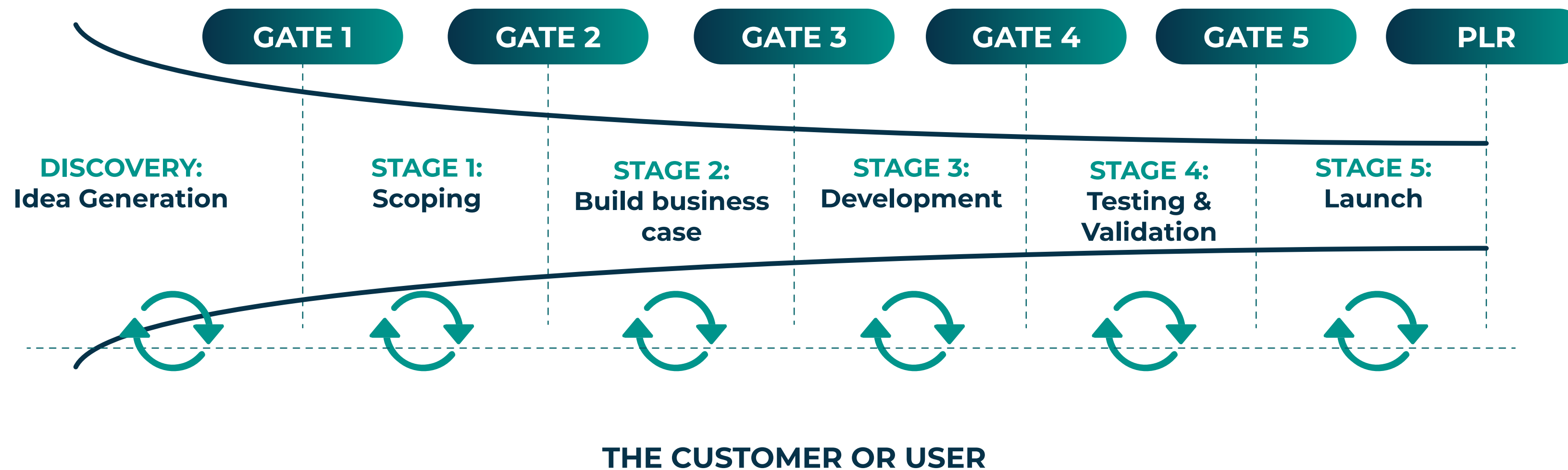
KEY NUMBER 1:
NEW PRODUCT INTRODUCTION

KEY NUMBER 2:
END-OF-LIFE MANAGEMENT

KEY NUMBER 3:
VALIDATING THE MID-TERM TO LONG-TERM FORECAST

NEW PRODUCT INTRODUCTION

Many companies manage their NPI's through some kind of stage-gate process as shown below. The stage-gate process has been described by Robert Cooper in his iconic book "Winning at new products". Ideas are managed through a series of stages separated by gates.

At each gate some ideas are killed and some make it to the next step. Some steps are more relevant to supply chain, others like development are more technical in nature. A first key stage to discuss is the "business case" stage.

The iconic 'Stage-and-Gate' process as originally developed by Robert Cooper

| GATE 1 | GATE 2 | GATE 3 | GATE 4 | GATE 5 | PLR |

DISCOVERY:
Idea Generation

STAGE 1:
Scoping

STAGE 2:
Build business case

STAGE 3:
Development

STAGE 4:
Testing & Validation

STAGE 5:
Launch

THE CUSTOMER OR USER

THE BUSINESS CASE

This is where we are hit the first time where 7 out of 10 NPI's are overstated. In the business case a higher forecasted volume typically lowers the cost per unit and has a positive effect on the margin per unit. If 7 out of 10 NPI's are overstated, many business cases will later turn out to have been unrealistic. Given the uncertainty on the forecast, you should never go with 1 figure but instead work with scenarios. Think about what seems the minimum, the most likely and the maximum volume you are going to sell. Take your decision based on the expected margin and the risk appetite you have in the envisioned segment. Already be aware at this stage that at the minimum volume supply chain savings will not be able to correct for the sheer lack of volume.

Follow-up business cases at regular intervals after your product launch. Cooper has defined this as the 'PLR' gate, the 'Product Launch Review'. Try to learn from mistakes. An idea to improve the NPI forecasts is to use the Delphi method which asks multiple stakeholders to submit a forecast and their comments in a blind process. By reviewing different forecast and different assumptions in multiple iterations, companies typically come to a more refined estimate of the minimum, most likely and maximum volume.

LAUNCH

A second key step (for supply chain) in the NPI process is the launch phase. Critical steps here are the selection of the supplier of key components and raw materials, the terms of the contract with elements like MOQ's and price breaks, but also lead times and upside/downside flexibility.

In general, purchasing contracts are still primarily negotiated based on cost. Assume that you as a supplier are under pressure to reduce cost, what's your reaction? You'll ask for guarantees on minimum volumes, try to impose certain MOQ's, try to guarantee a sufficiently long lead time, and try to minimize the upside/downside flexibility. All things that are interesting from a cost perspective, but not necessarily from a supply chain perspective.

Given that 7 out of 10 NPI's are overstated, MOQ's and minimum batch sizes are a primary driver for excess inventory in the early stage of a product lifecycle. 3 out of 10 NPI's will be understated. If you have negotiated the contract on cost, the limited flexibility will kill you. You may be confronted with service issues and supply shortages, leading to reputation damage and lost sales. Depending on the supply chain it may take weeks or months to fully recover. It's common to overreact and be stuck with too much inventory in the following phase. In practice it make take a year, or even years to stabilize the supply chain.

THINK IN SCENARIOS AND LEARN FAST

Again, as supply chain, you should stimulate thinking in scenarios. What's the minimum, most likely and maximum volume. Instead of focusing on cost, how can we manage the risk of having either too much (leading to excess inventory or even worse to write-offs) or too little (leading to lost sales)? Can we start with buying or producing smaller lots at a higher cost? Can we quickly adapt to the first real sales signals and scale-up fast in case required? Can we fly stuff around if we need to, to protect market share and turnover? What are the options? What is the plan?

Think in scenarios and learn fast based on the first real demand signals. In this stage it is crucial to follow-up closely with product management. Try to define a typical cut-off when it seems safe to hand over the forecasting of the new product from the product managers to the sales team. As key customers start buying and using your new products, sales people will increasingly be important in making the forecast. In some companies that can go fast, let's say after 2 or 3 months. In your company it could be slower. In any case, ensure clarity on who is in the lead for forecasting which type of products.

Ensure that your supporting toolset allows the easy identification of new products, the creation of scenarios and the quick follow-up and identification of which scenario is being realized.

END-OF-LIFE MANAGEMENT

As mentioned in our introduction, in general we are good at introducing new products ... but less good at taking products out. As you have a stage-gate process for introducing new products ... you should extend it into a life cycle management process with stages and gates that define how to take products out. In his book, Robert Cooper does define some gates like 'start of phase-out', 'end of phase-out' and 'end-of-life' or 'product terminated', cfr. the picture above. The key question is 'when and how to trigger that gate 7!

| GATE 7 | GATE 8 | GATE 9 |

STAGE 7: Phase-Out **STAGE 8:** Termination

THE CUSTOMER OR USER
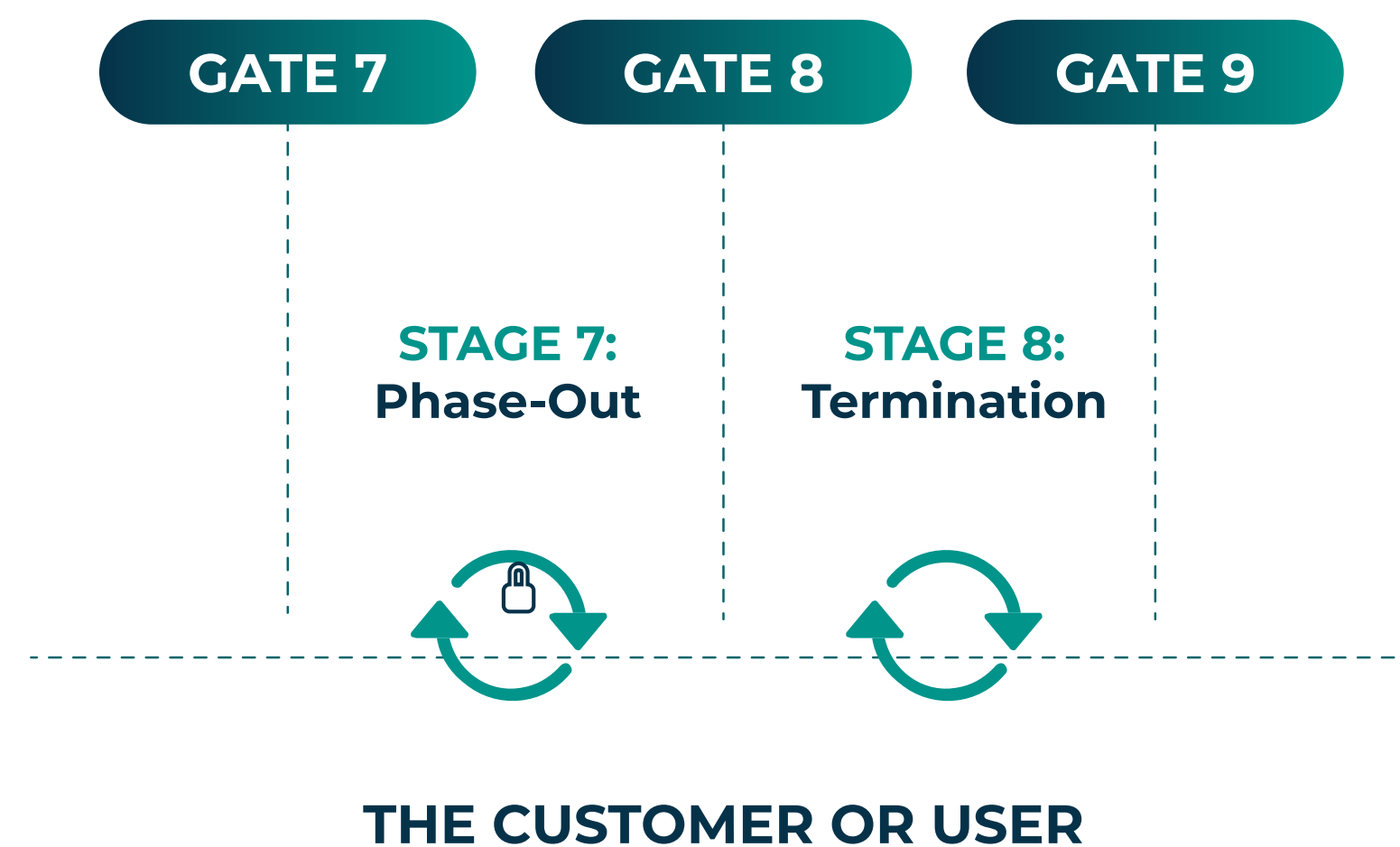
WHEN TO STOP?

We see that companies struggle with the question of 'when to stop a product'? If I'm in sales I will object to any reduction of SKU's. Typical arguments are 'if you cut this product we will lose that customer' or 'you can't just cut these SKU's ... the customer expects us to offer a range of products, if you start trimming, we will be out of business'.

You should start by acknowledging that 'yes, if we cut SKU's, we will lose sales'. You should also be aware that anything impact the top-line will get push back from sales and/or product management.

The key twist is that you should say that "sales in itself is not the objective". This links back to our discussion on the supply chain triangle where we say the following. Service or top-line is not a goal in itself. As an investor I'm more concerned about the EBIT it generates, or more specifically, the EBIT it generates per invested $. If 2 companies generate 100Mi of EBIT, one requires 100Mi of cash and the second only 50Mi, than I'd rather do the second investment twice. In financial terms this is the 'Return on Capital Employed' or the 'ROCE'. In plain American English it is the 'bang for the buck'. Let's apply that 'bang for the buck' principle to the end-of-life phase.

When a product is getting near the end-of-life, we typically expect the following. Sales start slowing down. We get competition from low cost players, which is eroding the margins, so that margin is slowing down even faster. At the same time, because volumes our dropping and are getting more erratic, we require more inventory to keep the same level of service. So we get less margin and require more inventory.

So for end-of-life management it is key to look at:
> The evolution of sales
> The evolution of margin
> The evolution of inventory
> The evolution of the generated margin per inventory $

We typically rank products (or product groups) on the 'margin per inventory $'. Start by discussing and cleaning up the tail of the distribution. If you can't cut SKU's, then look at product group or the customer level. If you are launching new product or new product ranges, try to define targets for the 'sales', the 'margin' and the 'margin per inventory$'. Ask yourself whether you will 'extend the current portfolio' or whether it's a good moment to take some less performing stuff out.

Prepare for this discussion at least once every quarter. The best frequency may depend on the typical product lifespan. If your products last for only 18 months, then a monthly cycle may be required. Ensure that your toolset supports this type of reporting. It will be key in keeping your complexity under control.

HOW TO STOP?

Once you've decided to stop, the actual phase-out requires extra planning steps like 'announcing the last time buy' to your key customers, the proposal of alternatives (if any), ensuring the sell-out of the existing inventory (in any case before any new or substitute products are being offered). While stopping a product is complex as well, our experience companies struggle more with the first question 'when to stop'. However, ensure that your supporting toolset has capabilities like 'phase-in/phase-out' profiles, allows the 'realign' the history of the old product with the new product to support statistical forecast.

VALIDATING THE MID-TERM TO LONG-TERM FORECAST

In many companies, a significant part of the demand is driven by promotions, projects or tenders, which more generally we would call 'events'. On the short term, sales is typically the best one to capture these, as in that horizon the events are linked to specific customers. Beyond that horizon, we believe product management has a much better position to estimate the 'typical' or 'expected' promo/project volumes. You may not have information on a specific customer level 6 months out. Or even when you have it on a customer level, it may not be reliable. Not estimating the mid- to long-term impact would result in a forecast that is dropping after a couple of weeks or months as customer specific info is getting sparser. Getting these longer term promo and project volumes right is crucial if you want to do a proper demand-supply balancing on that same horizon!

FORECASTING ON AN AGGREGATED LEVEL

A key to keeping forecasts accurate on the longer term is allowing people to work on an aggregated level. Ensure that product managers can validate promo-forecasts on an aggregated level. You can allow them to increase or decrease expected promo or project volumes by working with dummy promos or projects on a lower level. If they increase or decrease the aggregated volume, you typically don't want to impact customer specific promos or projects at a lower level. However you do want to be able to see the expected impact on capacity or key resources in your rough-cut-capacity-plan. Using 'dummy' or 'typical' promos or projects will allow you to model those effects while keeping the forecast part easy and manageable. Ensure that your supporting toolset can handle this type of complexity.

IN SUMMARY

In summary, including product management in your S&OP cycle is crucial in ensuring we effectively manage new product introductions:

> Manage the risk of 'overforecasting' and 'excess inventory' or even 'write-offs' for 7 out of 10 products

> Manage the risk of 'underforecasting', 'service issues' and 'lost sales' for 3 out of 10 products

Second we need to ensure that we 'control our complexity' by monitoring the 'bang for the buck' (or margin per inventory dollar) for our end-of-life products or product groups.

Third, we need to ensure we correctly estimate the medium to long-term volumes that will go into promotions, projects, tenders or more generally in 'events'. Where sales is best positioned to provide that info on the short term, as these are linked to specific customers and opportunities, product management is best positioned to provide that on the medium to long-term, as it is linked to 'how the market is expected to evolve'.

We still see too many companies that have not structurally included the product managers in the S&OP cycle. Doing it easily pays off. It is required in improving the service-cost-cash balance in your supply chain triangle.

ABOUT THE AUTHOR

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As CEO, since 2009 Bram has led the Solventure Group to transform organization's sales & operations planning processes into a competitive advantage using his innovative Supply Chain Triangle® and Strategy-Driven approach.

As an adjuct professor at both Vlerick Business School and Peking University, Bram bridges the gap between academia and industry practice.

As an author, he has encapsulated his experiences into elegant and practical frameworks in his books, Supply Chain Strategy and Financial Metrics and The Strategy-Driven Supply Chain, evangelizing strategic thinking for cohesive alignment of strategy, supply chain, and finance within organizations across all sectors. Bram is also founder of The Strategy-Driven Supply Chain Institute.

ABOUT SOLVENTURE

As Solventure we proud ourselves of being experts in designing and implementing Strategy-Driven S&OP. We do that through a unique combination of people, processes, tools and analytics. Solventure is Arkieva's, OMP's and Kinaxis's implementation partner.

Check us at www.solventuregroup.com or contact us at contact@solventure.eu for more info.