

FEI is the process whereby customer needs are established, opportunities are identified, and concepts are developed before entering the formal product development process.

**Learn Early and Learn Fast.
Agility in the Age of Rapid Innovation.**

A common criticism of front-end-of-innovation (FEI) assignments is that they are time-consuming and lack agility, which can cause frustration as Marketing and R&D teams are under pressure to generate new revenue and profit. Indeed, there are many ways that these assignments can “go off the rails,” leading to delayed launch deadlines, the loss of critical momentum, and even questions from senior leadership about the value of the investment. Fortunately, it doesn’t have to be this way.

We advocate for using the SCORE framework for managing the FEI; however, at each step in the process, there are watch-outs that, if not managed properly, will impact overall effectiveness. In this paper, we first discuss the various “killers of agility” common in FEI assignments and then introduce several strategies to navigate these landmines and increase the odds of achieving fewer but bigger product launches.

Killers of Agility in SCORE

SCOPE

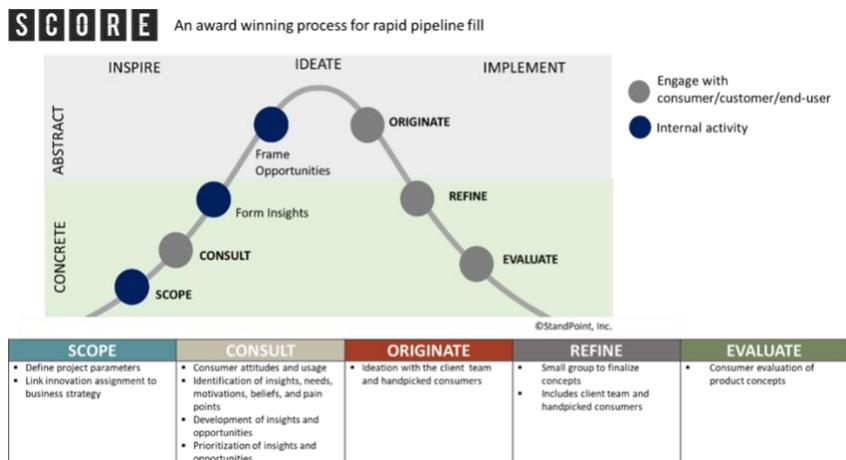
SCORE begins by scoping (SCOPE) the assignment and determining what is in-bounds and out-of-bounds.

The most prevalent “killer of agility” at this stage is misalignment between business strategy and innovation strategy. To achieve new growth, businesses have four options:

new products, increased penetration with existing products, market development, or diversification.

While most innovation assignments are focused on new products, greater penetration often yields bigger profits and can be achieved through the addition of new benefits. Reconciling the strategy from the get-go is critical to success, as it informs how to approach the assignment and prevents unnecessary delays later.

Determining project parameters is another important step during scoping. If the parameters are too narrow, teams run the risk of producing too many incremental ideas. If the lens is too broad and blue-sky, the outcome is not actionable.



Throughout this paper, we use examples from a fictitious manufacturer of pet chews and treats. Thus, an example of a specific and optimal parameter is as follows: *product innovations related to anything you would want to put in a cat's mouth that is not food and not a toy; a hybrid treat/toy is in-bounds*. Limiting the parameters to just cat treats is too narrow, increasing the odds of incremental innovation. The addition of a treat/toy hybrid opens many possibilities.

Because these assignments are complex and expensive, the natural impulse is to go really broad to get the most out of a single assignment, but there are potential pitfalls to manage during scoping:

- **Including too many target consumers, customers, and/or end-users in the learning phase.** A best practice is to aim for a deep understanding of the needs, pain points, beliefs, and motivations among a small number of groups rather than a shallow understanding of a larger number of groups. For our manufacturer of pet chews and treats, for example, the inclusion of dog owners and ideas around dog treats and chews would have been too broad for this assignment.
- **Focusing on too many types of innovation.** Because the mandate is for new growth, a common request is to explore innovations around services, new business models, packaging, merchandising, claims, and more. An understanding of consumer/customer/or end-user needs can certainly inspire more than product innovation; however, it is likely that separate tracks will be needed during ideation and concept-building.

In most cases, the best remedy for these potential pitfalls is planning, communication and the creation of a project plan to clearly define those parameters. In some cases, it may be beneficial to bring in an outside facilitator to manage the process. They are very skilled at bringing teams to consensus. ([Read more](#) about achieving cross-functional team alignment in the FEI.)

CONSULT

During the *CONSULT phase*, we engage the customer/consumer/end-user to better understand problems, needs, pain points, motivations and beliefs. From there, we form deep insights and frame opportunities into an innovation roadmap.

The most likely problem areas during this phase are two-fold:

- Research budgets are spread across too many segments, limiting the depth of discovery.
- New subgroups sometimes emerge that have unexpected needs and motivations. In our pet chews and treats example, suppose we identified a lot of consumers who reject certain ingredients in their cat treats? At this stage in the assignment, it is important to determine how much credence should be paid to this unexpected cohort. Important questions are: How prevalent in this cohort? How do we dig deeper with this group after the research plan has already been established?

To the extent possible, research efforts should be focused on a precisely-defined target consumer/customer/or end-user. Ideally, this would have been addressed during the SCOPE phase, but if something unexpected occurs, it may be necessary to re-evaluate who is included. If segment priorities are unclear, a segmentation study prior to the FEI assignment can bring needed focus.

Following the CONSULT phase, it is common to generate many needs, pain points, problems, motivations, and beliefs. This information is then used to frame opportunity areas that are used as a springboard for ideation. A well-executed research study can generate dozens of insights and a half-dozen (or more) opportunity areas. In most cases, this is too much to submit to ideation and concept building steps.

This is often where we recommend an investment in quantitative research, specifically an Opportunity Priorities study.

In our experience, people are horribly unreliable in telling you what they'd buy. They are, however, very capable of telling us if they have a need, experience a pain point, or share a belief or motivation with others. The benefit of a survey would be to determine how common the insights are among the target consumer/customer/end-user and the relative importance to each.

The principal benefit of the Opportunity Priorities study is its impact downstream. More specifically, the results can enable the following:

- Narrow down the number of opportunity areas to submit to ideation and subsequently limiting the volume of new ideas to manage downstream
- Bring more focus to ideation by limiting ideation to a more precisely-defined target consumer/customer/end-user. Relating back to our pet products example, by this point we would fully understand the scope of opportunity with the “Ingredient Rejectors” and assuming it is lucrative—focus the ideation on solutions for this group only. Other consumer segments could be addressed in later cycles.

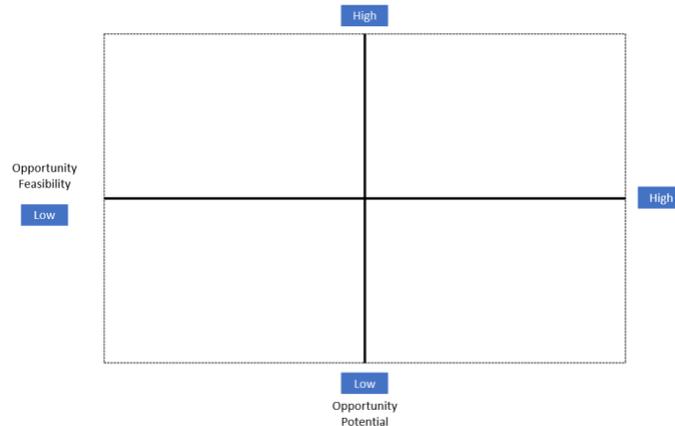
ORIGINATE

The next step is to create original solutions (*ORIGINATE*) via carefully-managed internal or external brainstorming. Even with a limited number of opportunity areas, hundreds of ideas and dozens of preliminary concepts (precepts) can result from a single session. As such, the biggest killers of agility associated with ideation include:

- No clear understanding of what is important to the target consumer/customer/or end-user before ideation. This has already been addressed but worth mentioning again. Opportunity areas are identified based on qualitative research techniques. In absence of quantitative research (or other prioritization techniques) it is difficult to know the relative importance of an opportunity area. Ideally, ideation should be focused on the OAs of greatest significance to the consumer, customer, or end-user.
- Idea generation is not a cross-functional effort. R&D and Marketing both need a seat at the table. Far too often, R&D generates ideas with no insights leading to an over-emphasis on new features to existing products. Marketing can be equally guilty of generating blue-sky ideas with no understanding of feasibility or other technology hurdles.
- Idea generation creates an overwhelming volume of ideas and precepts with no person or process to manage their flow in and out of the “idea vault.” Unfortunately, really good ideas get lost in the soup or are advanced based on internal popularity.

Obviously, it is not always realistic for the target consumer/customer/end-user to sift through every idea generated by an organization. But, it is necessary to narrow options following ideation.

An effective method is to categorize ideas in a 2 X 2 matrix based on the strength of the opportunity area (assuming you invested in the study) and feasibility. We find that most R&D teams are pretty good at judging overall feasibility at this stage.



Ideas with high potential and high feasibility are often fast-tracked. (For items in this quadrant, the chances are high that a competitive product is already on the market. At some point, all ideas should be evaluated against the competitive set to ensure differentiation.)

Often, the new-to-company and new-to-world ideas fall in the high opportunity and low feasibility quadrant. Because these are the highest risk projects, it is recommended to continue evaluating them in the next steps of the SCORE process.

Post ideation, a common exercise is to prioritize ideas based on consensus voting.

We are not big fans of consensus voting as a method to advance ideas. Sometimes it is unavoidable, but it is nothing more than a popularity contest. One way around this is to include select consumers/customers/end-users in your ideation sessions and give them the strongest voice in the room. In addition to their opinions, their intensity of reaction to various ideas can be very telling.

Another option is an idea-screen. This entails presenting ideas and precepts to the target consumer/customer/end-user via additional qualitative research or a survey. There are upsides and downsides to each approach but is often necessary if significant uncertainty exists in the actual potential of individual ideas.

In idea screens, a common occurrence is that everything is a good idea. Methods exist to force the consumer/customer/end-user to make choices giving more discrimination between options.

Regardless of how you approach it, the goal is to significantly cull down the ideas to be advanced making concept building more agile and efficient.

REFINE

The *REFINE* process involves working with internal teams or consumer/customer/end users to develop more complete product concepts using the output from ideation. The primary risk at this phase is debate and indecisiveness as to what top features and benefits to include or exclude in the concept, which then leads to pricing debates.

Additional feedback can help guide these decisions, especially around feature prioritization, benefit prioritization, and understanding price expectations. We often recommend the following tactics:

- Organize a co-creation workshop. That is, establish a face-to-face interaction with the consumer/customer/end-user. Do the sessions one-on-one, and not in a group. Ask the consumer/customer/end-user to judge the proposed solution based on how well it addresses a need, solves a pain point or frustration, and whether it is consistent with motivations and beliefs. The feedback should be used to improve how the concept is presented.
- In these face-to-face meetings, it is acceptable to ask questions about expected price relative to the benefits the concept delivers, to competitive offerings, to substitutes, and to the amount of switching costs (or effort) to realize the solution.
- Quantitative research can also establish priorities for features and benefits. In these surveys, each time a feature is selected there is an associated change in price. Through several iterations, priorities and price sensitivity can be established.

EVALUATE / EXPERIMENT

The last and final stage is designed to make go/no go decisions and decide what concepts will go into development. This usually requires another engagement with the customer/consumer/or end-user, and more rigorous data is often required to justify bigger investments.

There are many techniques to choose from at this stage, and no single best approach. In our experience, the biggest killer of agility is when the data is questioned after its collected. This can create significant delays or even stop the project.

The best workaround is to understand the strengths and drawbacks to various methods and be open-minded to emerging techniques.

In consumer-packaged goods (and other industries), the traditional approach has been to do a final concept test among 3-5 variants and measure “purchase intent.”

Over the past few years, however, this model is under scrutiny because the predictive power is low. There are several theories to explain this:

- In a traditional concept test, you obtain feedback on an abstract concept. Three-quarters of the U.S. adult population are highly sensory in that they primarily take in information through what they can see, touch, taste, hear, and smell. Concept testing uses only one sense—sight. So, the odds are very high that you are asking people to give you feedback on something that is completely counter to how they normally take in information.

- Too many concepts are evaluated at one time. There is ample evidence that surveys exceeding 10-minutes have significant data quality issues. It's difficult to get a thorough evaluation on more than 3-4 concepts in this timeframe.
- There is little discrimination in the results between concepts. People love choice and a common outcome is that reaction to all concepts is favorable thus making it difficult to "select a winner."
- Over-reliance on purchase intent. Asking whether someone would buy an abstraction can be useful to narrow options, but it is not a reliable indicator of future behavior.
- There is no good way to measure the intensity of reaction in a survey. Sometimes, knowing the intensity of reaction to a concept among a small number of people is better than a survey statistic.
- Lack of comparative benchmarks. In consumer-packaged goods, databases exist to compare concept reaction to other concepts and actual products. As far as we know, there are no similar benchmarks for medical devices and engines, for example. In those instances, is 30% top-box purchase intent good or bad?

There are, however, several emerging approaches worth considering:

Prototype Testing in lieu of Concept Testing

We strongly advocate putting something tangible in front of people as quickly as possible, even a low-fidelity prototype. This allows you to satisfy how most people take in information and observe the quality and intensity of their reaction.

In some B2B domains, prototyping is often the best option. The cost of scaling a survey to hard-to-reach audiences may be comparable to getting several end-users to experiment with the proposed solution.

In the food industry, for example, many firms are eschewing concept tests in lieu of testing small batches of product. Here, they may set up shop in a retailer to pass out samples or offer the product at a "promotional price." This provides a behavioral response to the new product while getting final feedback on package design.

Transaction Tests

If feasible, put the final concept on your website and measure response. This is a true behavioral response to your idea. There are downsides: you potentially expose your idea to competitors and it can be very difficult to convince others to use a sales channel as a testing platform. Another consideration, how do you handle if someone makes a "purchase"? There are workarounds to all of this, and it is certainly an option worth considering.

New Measurements

There are several new tools that measure implicit reaction and explicit reactions. Stated purchase intent is an explicit reaction. The time you spend reading a concept online, on the other hand, is an implicit reaction and may be more indicative of overall interest.

We've also had good results with "commitment questions." That is, in a survey ask directly: if this were available would you get in your car and go buy it today. This is a much higher hurdle than "purchase intent" and probably more telling of true interest. Another "commitment question" is to ask survey

takers if they would like to be one of the first to know when this product comes on the market. The actual number of sign-ups to receive this notification is a great supplement to the standard purchase intent question.

In closing

The FEI will be as agile as you allow it to be. The secret (if you haven't guessed already) is to build in cycles of convergence in the parts of the FEI that are naturally divergent. At the end of the day, the real value of a FEI assignment is ensuring focus on the highest-potential opportunities.

And, a few other words of wisdom:

In our experience, the quality of the feedback is more important than the quantity of the feedback. Internalize people's needs and pain points before you fall in love with your ideas. That way, you are sure to kill ideas that have low relevance.

Co-develop with end-users. Get their feedback as early and as often as you can. If your customer isn't forthcoming, talk to your customer's customer, or even higher in the food chain. Somebody's needs will drive the market. Share what you learned from your customer's customer to get your customer to cooperate.

Focus more on behavior, beliefs, and motivations versus opinion. Challenge your team: is this an insight or is this a fact?

And finally, use quantitative methodologies judiciously. They are measurement tools. They are not tools to identify insights or develop empathy.