Industrial™ Research Institute

Creating Innovation
Leadership Solutions

Brown Bag Lunch Webinar

Identifying Innovation Landmines in Your Front End

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iP2Biz, LLC

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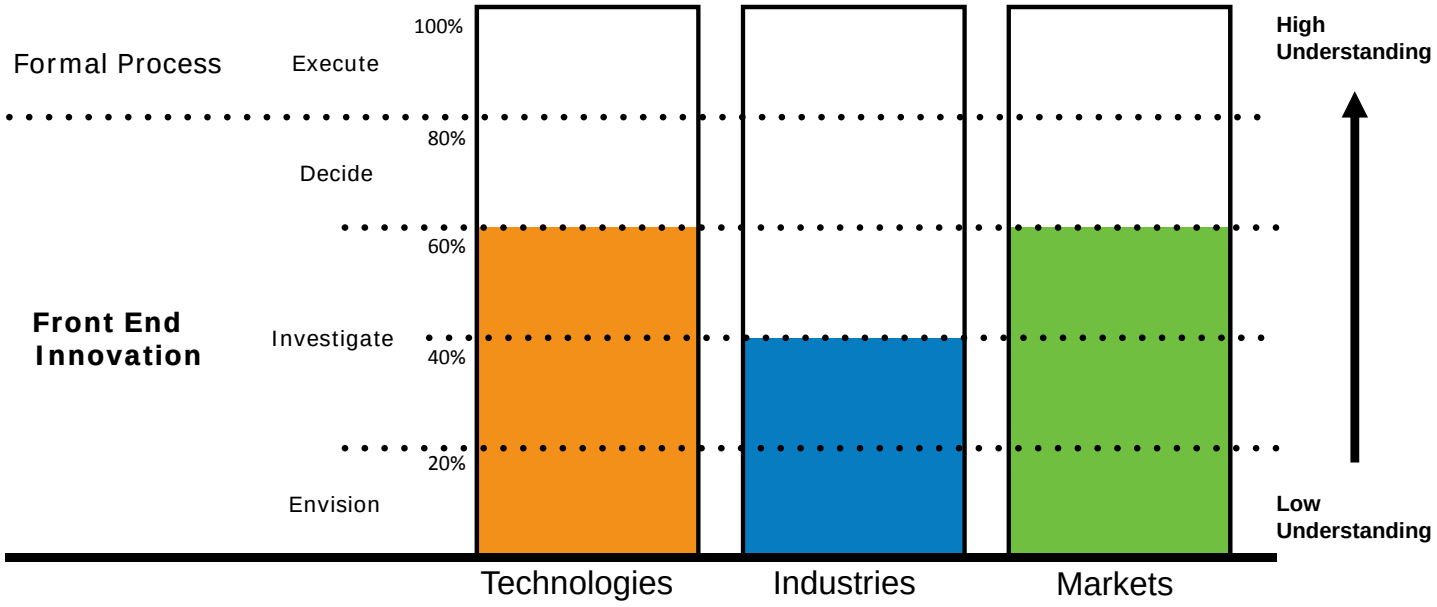
Warm-Up Poll

- What is your opinion of Donald Trump?
  1. A dangerous huckster
  2. A flash-in-the-pan with an entertaining haircut
  3. Just another egotistic celebrity
  4. A successful business man but not presidential material
  5. A serious presidential candidate

Defining a Common Innovation Vocabulary . . .

Type of Innovation	Definition
Sustaining Innovation	Sustaining innovations include cost reductions, improvements to existing products, additions to existing platforms and repositioning of existing products. Incremental and evolutionary innovations are alternate names.
Breakthrough Innovation	Breakthrough innovations are new to the company or new to the world and offer a significant improvement in performance, cost, price or combinations of those. Breakthrough innovations are normally sold to current consumers. Transformational and revolutionary innovations are alternate names.
Disruptive Innovation	Disruptive innovations create new markets, new value networks and new consumers but eventually go on to disrupt existing markets and value networks (even though the disruption may take years.)

How do you know when you are in the Front End?



What should you expect from an FEI project?

All FEI projects have the goal of reducing the uncertainty regarding additional investment in the innovation project.

- Envision Phase Expectations (100,000 foot view)
  - Do market segments exist that might value this product?
  - What are some potential adjacent uses for this technology?
  - Do technologies even exist to solve this unmet need?
- Investigate Phase Expectations (10,000 foot view)
  - What are the high level answers to a few specific go/nogo issues?
  - Any chance that this process can be scaled?
  - Can lower cost materials be substituted and still be effective?
  - What offerings do direct competitors have in this space?
- Decide Phase Expectations (1,000 foot view)
  - A complete understanding of TIM sufficient to develop a business case for additional investment.

Anchored Scales

- Derived from work done by the Industrial Research Institute in 1995 for the purpose of more comprehensively evaluating R&D portfolios.
- Each scale is a relative rating. The value of the anchored scales methodology is that it:
  - Is applicable to most types of innovation, and, in fact, most questions that will be answered by a group rather than an individual.
  - Can be used by multifunctional teams to achieve consensus and allow communication.
  - Requires relatively little effort to operate.
  - Utilizes numeric indicators associated with a set of words or phrases that help the respondent "anchor" his or her evaluation.
  - Is applicable at any stage of a project (but the rating categories will change).
  - Is quickly adaptable for use by anyone.
- We are discussing four important scales today, but this will not provide a complete view of your company's FEI capabilities.

How is FEI recognized and differentiated in your organization?

1. It isn't; we either don't recognize FEI, or it is fully embedded in our formal, stage-gate process.
2. We acknowledge FEI, we have separate processes to deal with aspects of it, but those processes have neither clarity nor widespread, consistent application.
3. We have well-defined processes for conduct of our Front End work, and we have teams who step out of their full-time operational roles to engage in FE project work as required.
4. We have well-defined processes for FEI, and we have a separate core staff of people who work only on FEI projects.
5. FEI is second nature to us, supported by our senior executive leadership. People from all functional disciplines understand how it operates and why it is important to support the FEI team.

How involved are your senior executives (C-level, business unit GMs, etc.) in the early ideation stages of FEI, and later follow-up?

1. Senior leadership doesn't know of the existence of FEI; they want to see projects which will produce revenues and profits quickly as they emerge from the formal development process.
2. As long as we don't ask for appreciable resources, senior execs will tolerate our ad hoc FEI teams and the evaluation of projects.
3. Our senior execs will approve limited expenses for FEI work, and they just want occasional updates on our progress.
4. Senior leaders understand that FEI is an important prelude to our subsequent formal development process; they budget for the resources to support it, and they are eager for frequent progress reports.
5. Our execs participate directly in our ideation sessions and the development of our innovation portfolio; they are personally involved in many of the iterative cycles as we move through triage and investigation of ideas. They often contribute high level business perspectives which are valuable.

Characterize the efficacy of the problem statements used to guide your FEI projects.

1. We do not use problem statements. Instead, our development and marketing teams just write the commercial goals and technical specs required.
2. We sometimes develop problem statements, but they relate only to each department; what will R&D do, what is product development's role, etc.
3. Each of our potential innovation projects has an associated problem statement that is created by the sponsoring department at the beginning of the process, and we stick with that for the duration of the project. Each team determines if they need to refer back to the problem statement.
4. Problem statements are developed for every project by the cross-functional teams that work in the Front End. Those are reviewed by a senior executive. After that, the team determines the need to refer back to the problem statement.
5. Senior executives recognize their involvement is critical to making the Front End work well; they contribute directly, stay involved and ensure that the team make-up is right for each project. As the project progresses, the problem statements are reviewed to see if emerging learning warrants any change in the problem statement.

Approximately what % of your innovation projects are properly characterized as sustaining?

- Sustaining innovations include cost reductions, improvements to existing products, additions to existing platforms and repositioning of existing products. Incremental and evolutionary innovations are alternate names.

1. 90% or more
2. About 75%
3. About 50%
4. About 25%
5. Less than 25%

Anchored Scale Discussion

- Is your company where you would like it to be in FEI understanding/capabilities?
- Do you feel the impact in areas where you rated your company low?
- In areas where you rated your company low, what drives the less than desirable performance?
  - Lack of interest?
  - Lack of understanding?
  - Lack of funding?
  - Pressure for short-term wins?
- Would most of your company peers agree with your assessment or are there competing opinions?

Discussion and Conclusions

- Do you have examples of senior management participation (or lack thereof) driving success (or failure) of an FEI initiative?
- As many studies have shown, the single most important factor influencing FEI success is sustained attention from senior management.
  - The executive must manage both innovation and commercialization; this is not easy.
  - The management of these diverse functions requires different behaviors. To be effective for any given initiative, the executive must understand whether it is in the Front End or is a sustaining innovation.
  - Execution of these functions by company team members also requires different behaviors; some people are good at both, but most excel at only one. The executive is responsible for making sure that for each function, the right people and processes are in place.

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