An Introduction to Front End Innovation

iP2BIZ®
The fast track from idea to industry.

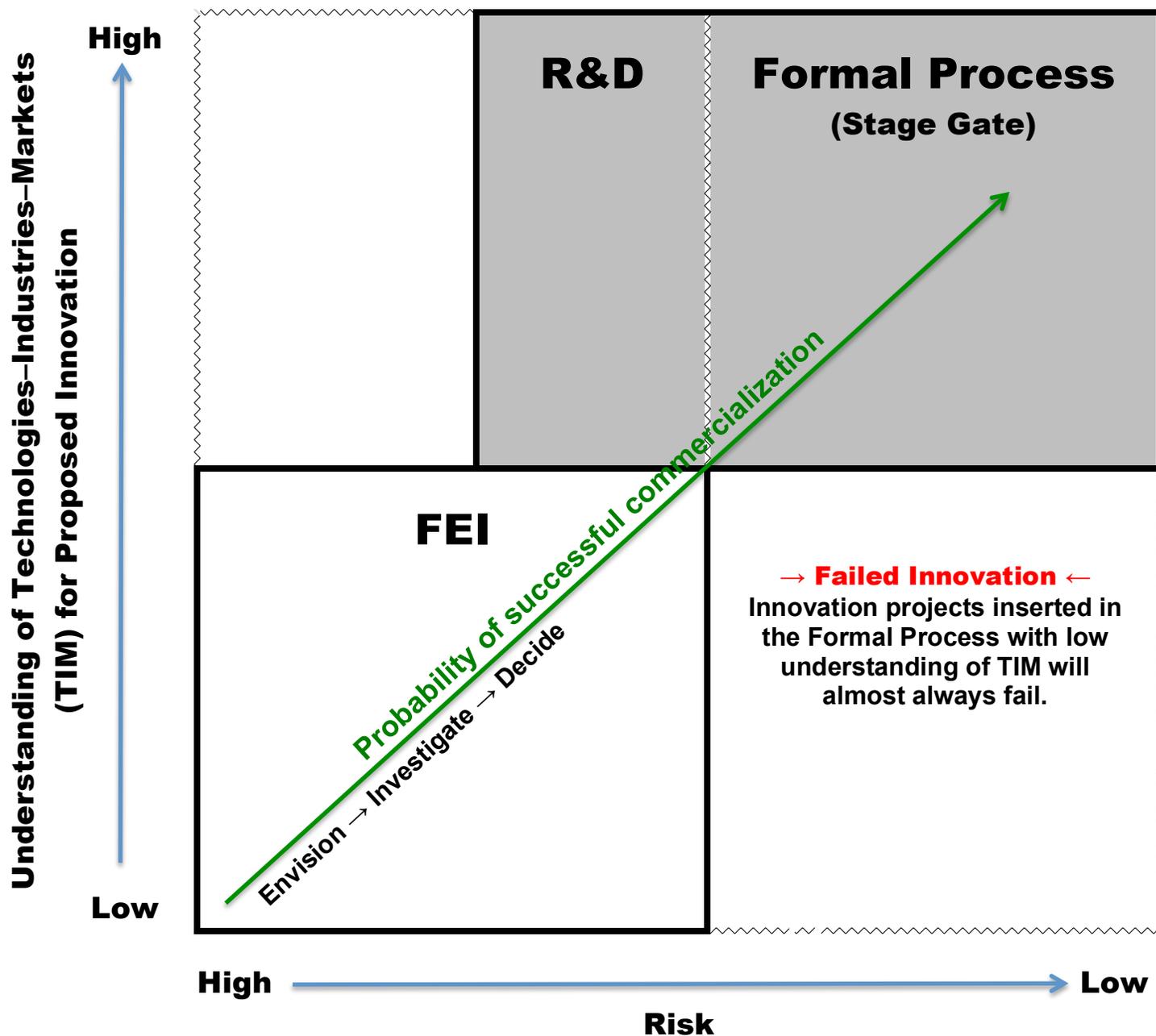|	
Front End Innovation	▪ Your **Formal (Stage Gate) Process** is specifically designed to get **Sustaining Innovations** to market efficiently. These are the innovations driven by customer demand and market intelligence that you must make to keep the market share you already have. ▪ **Breakthrough and Disruptive Innovations** arise from a different process: **Front End Innovation (FEI)**. These are the innovations that let you increase your market share (Breakthrough) or define entirely new markets and—in the process—destroy existing competitors (Disruptive).
What defines FEI?	▪ FEI is the essential work that must occur to evaluate a new product, process or market before an accurate business plan can be developed, budgets can be set and ROI can be calculated. ▪ Because Sustaining Innovations are incremental improvements to existing products, you have a complete understanding of the **Technology, Industries and Markets (TIM)** in which that innovation will launch. This allows you to calculate an ROI and move forward with confidence; **there is little uncertainty in launching a Sustaining Innovation.** ▪ If, on the other hand, you <u>lack</u> a complete understanding of TIM as it applies to your proposed innovation, you are in **Front End Innovation: the uncertainty surrounding the proposed innovation is so high that you can't complete a basic business plan.** ▪ Large companies generally do Sustaining Innovation well but struggle with Breakthrough and Disruptive Innovations because the "certainty of success" level of FEI projects falls well below the tolerance threshold of the Formal Process.
What do I need to do FEI well?	▪ You need to **develop a complete understanding of TIM** for the proposed innovation so that you can make rational predictions about its possibility of successful commercialization. Great Technology will not yield a return unless there is demand for it in an Industry and Market. ▪ **Innovation projects inserted in the Formal Process with a low understanding of TIM will almost always fail** because the uncertainty surrounding their ROI will cause the organization to (appropriately) starve them of resources in favor of projects with a higher probability of success.
How does FEI work?	▪ FEI is an iterative, three-step process: **Envision→Investigate→Decide**. ▪ The Investigation phase is where you develop your understanding of TIM for the proposed innovation, and this—in turn—allows you to rapidly reduce uncertainty. ▪ FEI quickly discovers and discards ideas that will not be successful. ▪ Ideas that make it through FEI are supported by a newly-developed, complete understanding of TIM achieved rapidly and at minimal expense; translational R&D work on these ideas is money well-spent.
Why manage FEI differently?	▪ Even if your team understands FEI, existing staffing levels were designed to support the important demands of the Formal Process, and team members don't have the time or resources to attack innovation ideas that don't follow the same rules. ▪ Existing team members (in the form of ad-hoc teams) can do the job if they get outside assistance from FEI experts to augment their understanding of TIM for proposed breakthrough ideas.

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Understanding of Technologies–Industries–Markets (TIM) for Proposed Innovation (vertical axis: Low → High)

Risk (horizontal axis: High → Low)

R&D

Formal Process (Stage Gate)

FEI

Probability of successful commercialization

Envision → Investigate → Decide

→ **Failed Innovation** ←
Innovation projects inserted in the Formal Process with low understanding of TIM will almost always fail.

✓ Commercialization only happens through the Formal Process.

✓ Because of low TIM understanding in FEI, it must be managed differently.

✓ Managing FEI properly keeps the Formal Process efficient and yields a much higher percentage of breakthrough and disruptive innovations.