



RICE ALLIANCE

for TECHNOLOGY and ENTREPRENEURSHIP

A View of the Commercialization Journey

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Welcome ~ Welkommen

As part of the Rice Alliance, I focus on bringing graduate science and business students together in learning Entrepreneurship by physically starting a technology company. This includes all dimensions of planning and launching a real company.

Tom



Highly Ranked Tier 1 University

- 1400 PhD candidates at Rice – 1/2 have entrepreneurial interests
- Rice University Business Plan Competition
- Rice Alliance Commercialization Fellows
- Rice Flagship Accelerator ~ OwlSpark
- 156 successful startups through Rice Alliance have raised \$844 Million in investments.
- 1028 Start-ups at Rice Alliance Technology Venture Forums have raised more than \$2.1 billion in investments and created 15,880 jobs
- 69% still in business



Assumptions and Plan of Presentation

- All prior issues of risk with respect to health or environmental hazards are resolved
- Single “discoverer”
- All patent signatures and agreements signed
- Know How and Trade Secrets protected
- No prior licenses WITH FIELD OF USE RESTRICTIONS
- No prevailing commercial or sponsorship rights
- Freedom to Operate ~ FTO



FTO analysis involves identifying and analyzing the patents of others that may subject your company to patent-infringement liability.

By performing FTO analysis before developing and launching a new product or before acquiring a new company, your company can limit the risk of future litigation and avoid unnecessary expense.

FTO analysis done early in the process of product development provides starting companies the opportunity either to modify the design and avoid infringement before reaching the point of no return, or to take a license.



- Commercialization Potential
- Opportunity Assessment
- Planning
- Execution and Funding



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Discoverer's Choices

OPTION A: CONTINUED RESEARCH OR RESEARCH AND DEVELOPMENT

We see the process of research reveals more work can beneficially be done. Improvements in process. Better features or attributes

OPTION B: PUBLISH

The need for a rather quick publication is felt

OPTION C: FILE A PROVISIONAL PATENT APPLICATION

Make a decision to keep it all trade secret and know how or file a provisional patent.

OPTION D: MAKE A COMMERCIALIZATION ASSESSMENT

Does this discovery have any real commercial merit and where or how is this true?



Preferred Conclusion

Do Option D. Make a Commercial Assessment first, at least to some extent because :

1. It can shape focus, redirect, or re-prioritize research
2. It can enrich publication.
3. It can help form the basis of a patent strategy



Commercialization Potential ? What does it really mean?

To assess the Commercial potential is to ask:

Is it investable ?

- Could your solution be used now, as is ?
- Is the need real and now ?
- Has the need been validated?
- Does your idea have features that meet this need ?
- Are there known Features and Benefits ?
- Do you know and understand the Process into which the need fits ?
- Can the benefits fully address the need(s) ?



Commercialization Potential ?

What does it really mean ?

- Is there a definable customer segment?
- Is there a Value Proposition that ties the benefits to the need for the defined customer segment?
- Have all of the above been validated ?
- Is the addressable market believable and big enough ?
- Are the current alternatives known ?
- Have you checked patents that relate to how need is addressed now ?
- Have you estimated costs and time for required Federal, State or other approvals ?



After you have assessed the Commercialization Potential, the following point should be clear:

The idea **IS** Investment worthy (Investable).

If it is Investable, you should determine the key facts that are part of the Opportunity Assessment that should follow.

OR

The idea **IS NOT** investable.

If not, then the licensing or Tech Transfer Office should consider licensing to an industry or entity in the business.

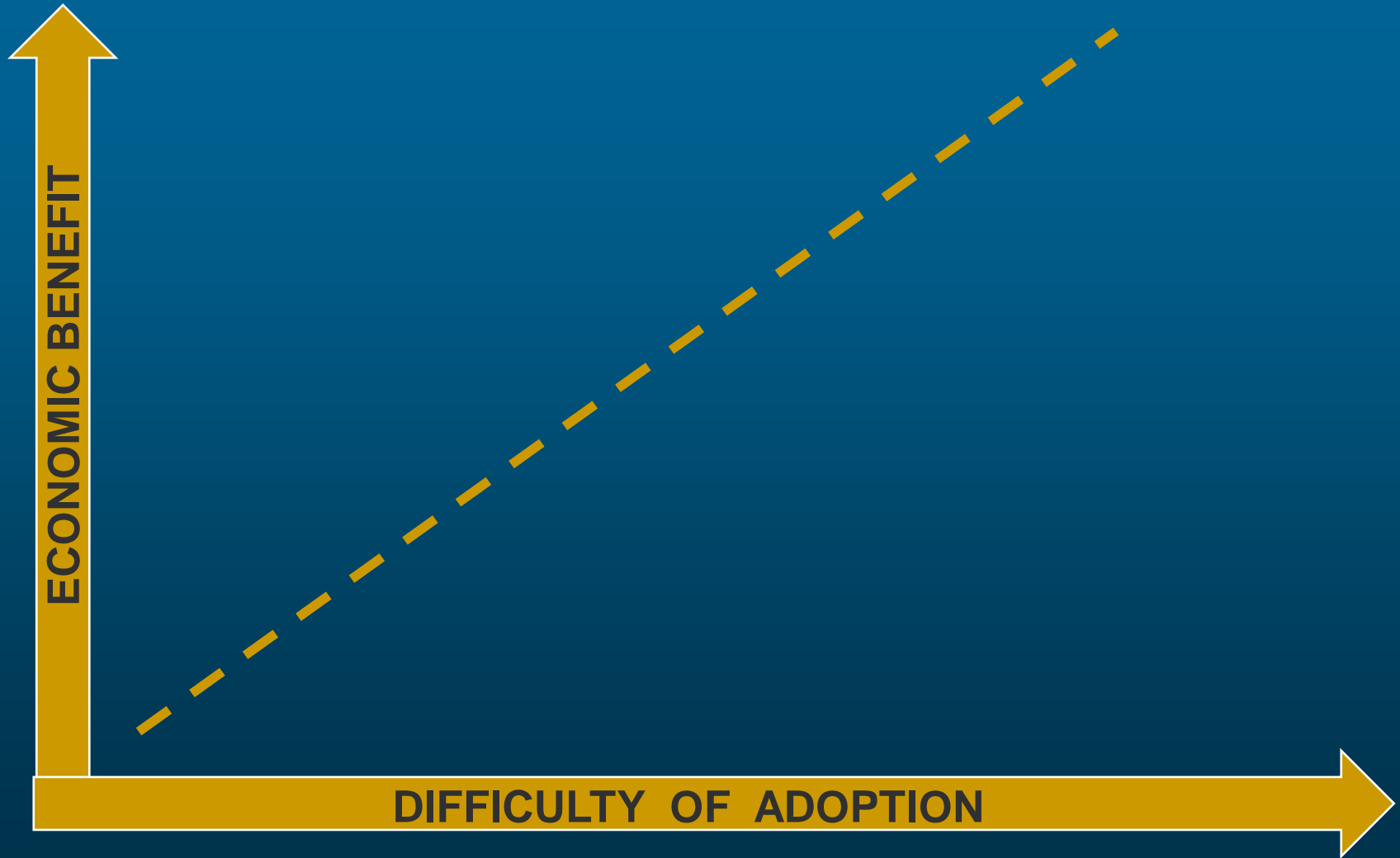


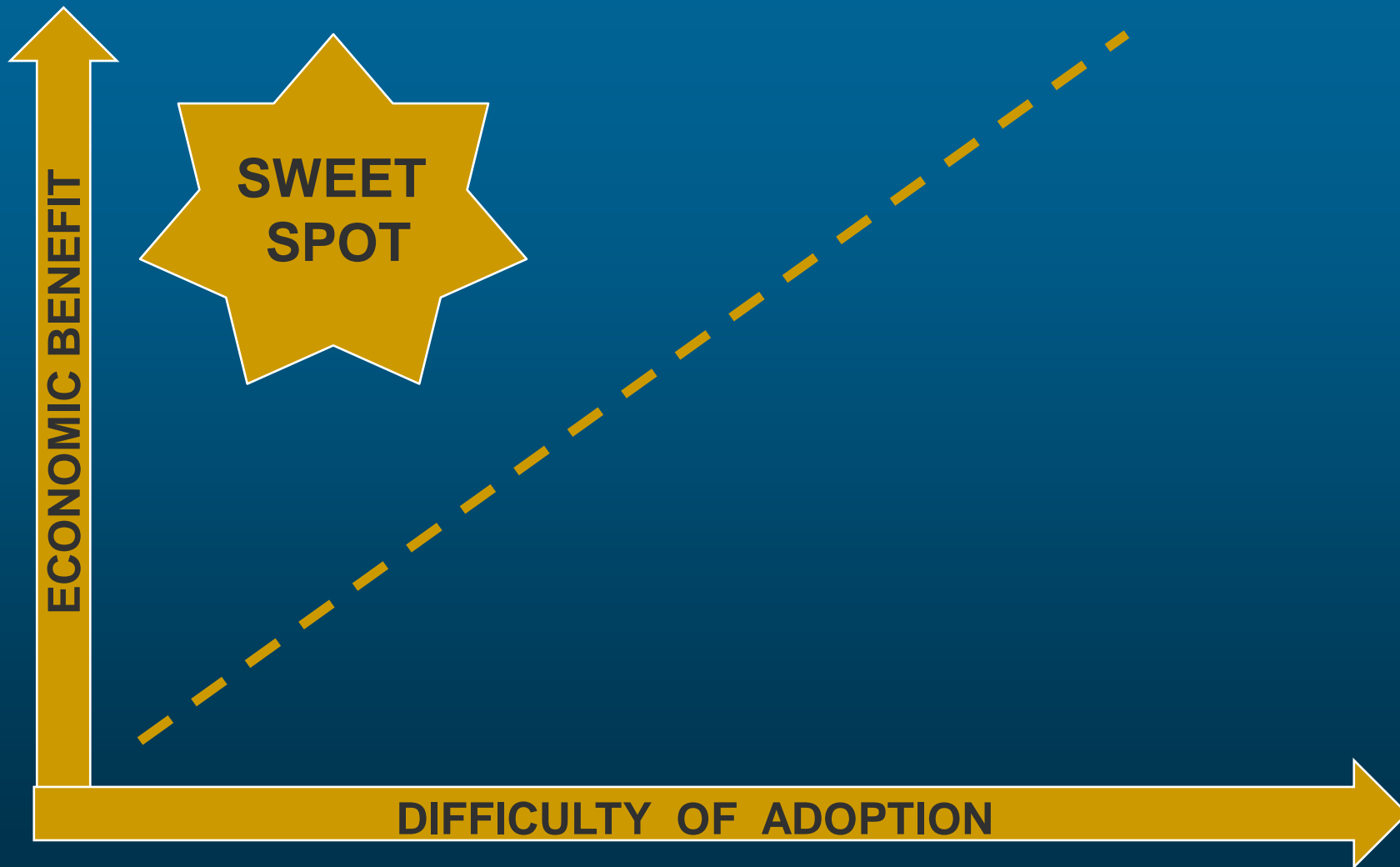
Opportunity Assessment

1st Opportunity Assessment Question

Is the opportunity real ?

Sweet Spot Check !







Opportunity Assessment

2 nd Opportunity Assessment Question

*Are you above C Level and part of the
Opportunity ?*

C Level Check !



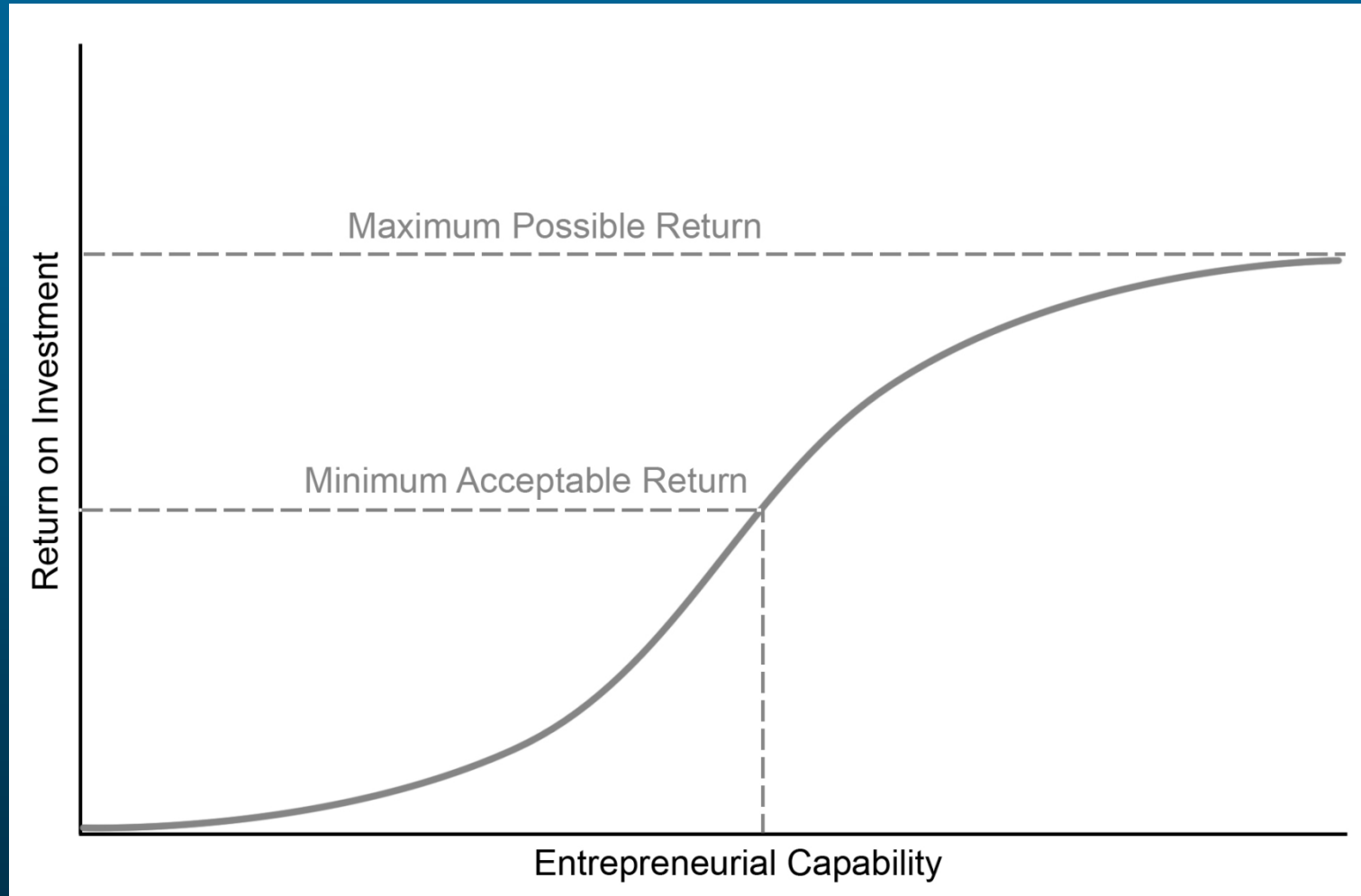
In our Rice Alliance experience, a potential investor looks at the possible ROI based on the following:

- Knowledge of the product “space” and associated influences
- Their personal or observed experience of comparable deals
- The size of investment required
- Time to first sale
- Breakeven point
- All the commercialization assessment information collected and presented by the requesting team (e.g. market size)

From this knowledge the following ROI curve is envisioned



ROI



C Level Score



- C₁. Coachable
- C₂. Knowledge of Core Competencies
- C₃. Willing to step aside
- C₄. Cash Flow Savvy
- C₅. Passion (versus Infatuation)
- C₆. Acting and Behaving Like Success
- C₇. Basic Values
- C₈. Concept of Exit
- C₉. Right Stuff



The C-Level (or Capability score) is based on 9 variables and coefficients.

The 9 variables or capabilities (c_1, c_2, \dots, c_9) are all important to success and investment.

The 9 coefficients (a_1, a_2, \dots, a_9) weight the nine individual capabilities relative to the specific project or product or business.

Your C-Level score is the sum of all $\{a_i c_i\}$ $i = 1 \dots 9$.

“a’s and c’s all have values 1 through 10”



The answers to these questions below determine the “Right Stuff”.

- Do you want to be King / Queen or rich?
- Are you concerned with “fairness”?
- What should salaries, equity, or incomes depend on?
- Who should control your new company?
- How do you react to ambiguity and uncertainty?
- Do you look at what everyone else looks at, but you see something different?



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Transition

Assuming your C-Level score is strong and you are aware of weaknesses, there are a few more steps before you launch a new business.



- There must be a business model and a business plan.
- Is product or service in the Sweet Spot?
- Better Enough and Matters?
- Growth potential and direction change options?
- Validated metrics and measures?
- Capital required known?
- Team and CEO capability checked.



The Research View

The Good

- Innovation Synergies
- Special Equipment Access
- Complementary skills and resources
- Shared Experience
- Higher probability of getting grants

The Bad

- Patent process more difficult
- Patent process more complex, more time and more costs
- Less control of new and derivative ideas



The Business (Commercial) View

The Good

- Faster and easier production
- Faster and easier selling
- Faster and cheaper distribution
- Shared sales and distribution expenses
- Smaller part of bigger pie
- A measure of validation
- Could be source of funding

The Bad

- Potential conflicts in focus and attention
- More market vulnerability
- Patent value diluted
- Less margin
- Less flexibility and control – for growth and Exits



- **Have a careful, thoughtful explanation of collaborations planned or in process.**
 - **Your Leadership Skills must be evident**
It almost always starts with you. YOU ARE MORE IMPORTANT THAN YOUR IDEA !!!
 - **There needs to be a capable team**
You're only as strong as your weakest link . So your top level team gets the same scrutiny. Always seek to improve the capabilities and awareness.
 - **3. Start getting traction with customers**
You must be able to evidence that you have engaged customers with your ideas.
 - **4. Lean Start attention**
 - **5. Research and pick most appropriate potential investors**
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Thanks for listening

I will be available during the break

You can always reach me at

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