



PROJECT, PRODUCT OR PLATFORM?

METAPHORS TO EVALUATE PATHS TO THE MARKET

REF. – JOURNAL OF COMMERCIAL BIOTECHNOLOGY

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UPDATE ON BOOTCAMP 2.0 COMING IN Q3 2019



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Metaphors - paths to the market

- **Project** → license it to someone else
 - (competitive landscape tough, "rent the business model from someone else)
- **Product** → build it or to sell
 - (it's a niche business, build product(s) - rent most of the business model)
- **Platform** → build a sustainable business with multiple product potential
 - IPO potential, but M&A more likely in biotech space
 - the partner is most often essential especially in the early/clinical stages → feeding the BioPharma pipeline!

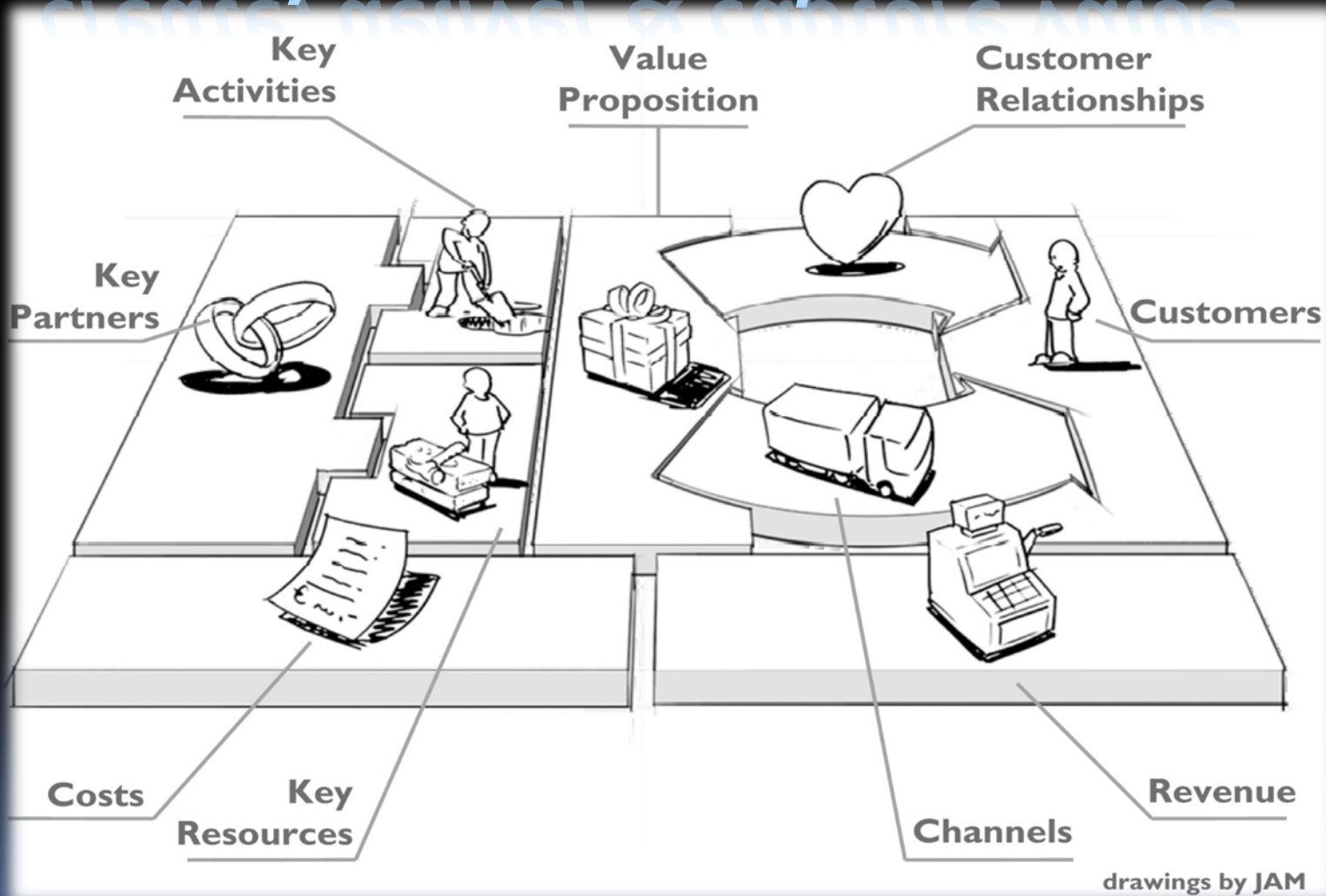
Where can you create & capture the most value?

- Where does the most value accrue?
 - Generally in the sale of a product or service
→ in “the exchange” (the one who delivers the value)
 - Who has the power in the negotiation?
 - to the one who has the business model to deliver value to the customer?
 - to the one who invents or creates the product?

Concept 1 - The Value Chain



Concept 2 – The Business Model Canvas create, deliver & capture value



Capturing Value from IP

- Value of IP is captured from the business model.
 - Create and build a business model appropriate for the innovation
 - New venture
 - Extend your own business model (build it and deploy it)
 - Or, spinoff a new venture
 - Rent (or lease) parts of a business model from a partner for your technology
 - Employ open innovation by leveraging partnerships
 - License the technology/IP



Get out of the building!

■ Understand the market

- Define the unique, differentiable and sustainable value you create and need in the market
- Customer development (patients, physicians, providers, payers, regulators → talk with them!

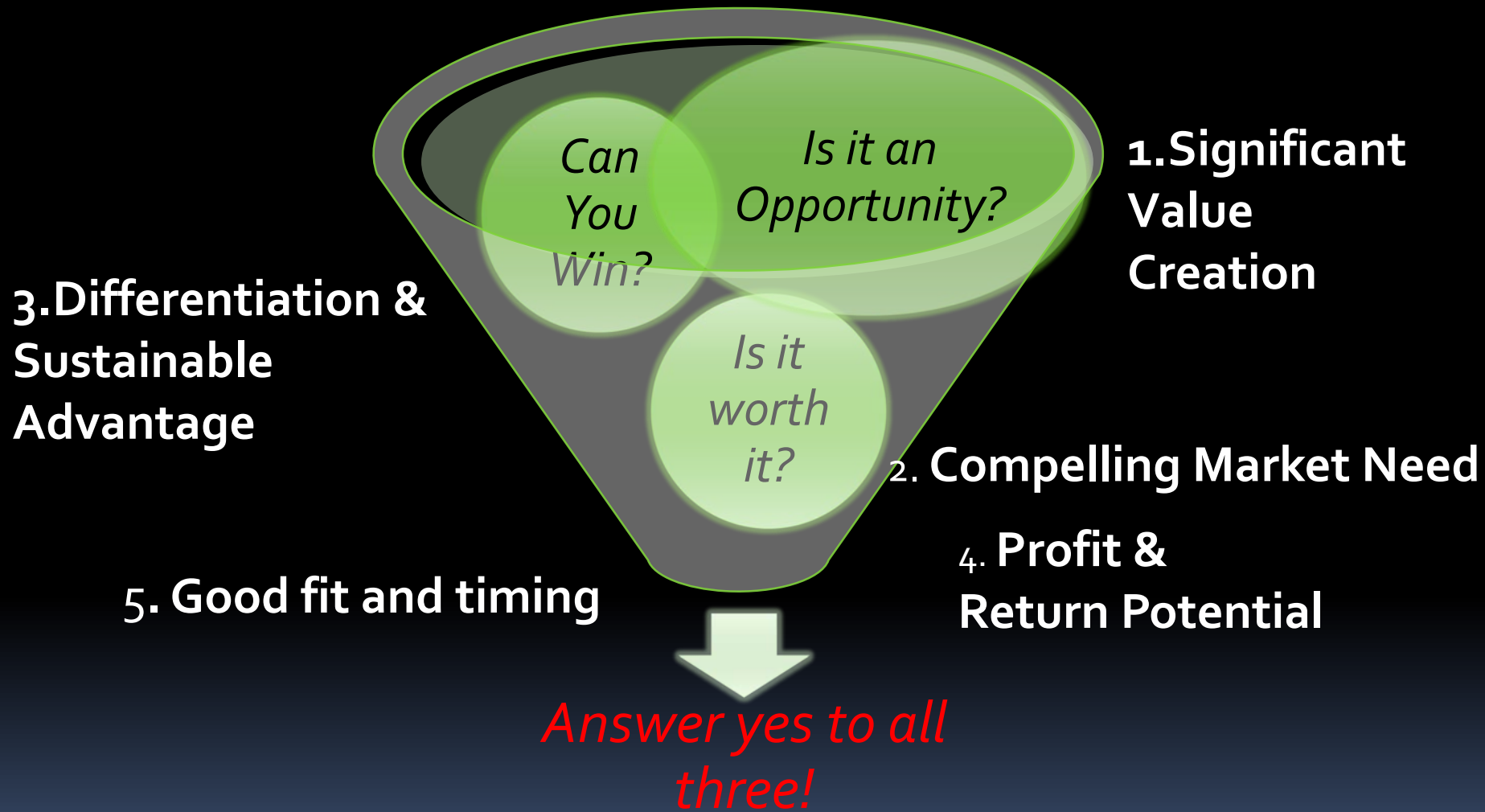
■ Understand the risks, and how they will be reduced over time (technology, market, team, regulatory, reimbursement)

- Explore different business model options

■ Develop a capital efficient path forward

- Market/Customer development +Product development
 - Iterative process using lean startup methodologies to validate product/market fit
- Be prepared to respond to market input and feedback (pivot as dictated by the market)

Concept 3 - The Quick Screen



Does it fit the Five Anchors of a Good Opportunity?

Other Big Questions?

Where is the fit - founders & reality

- Reconcile your objectives vs. what is possible in the marketplace
 - Create a therapeutic company (FIPCO) and attract management to grow it?
 - Start a RIPCO, tool company or diagnostic, and leverage partnerships to reach the market?
 - Commercialize a technology that is useful for biotech drug discovery, and create niche service or product business(es)
 - Advance R&D and commercialization and then “rent a business model to advance it

Some Facts

- A company (startup or existing) is required for commercialization → can't be done in academia
- A NewCo may (or may not) be required to achieve your objective
 - Think about what you can and cannot achieve in a startup vs. a partnership/license to an existing company
 - Single product companies don't live long lives (even if they can get funded)

Two Sides of Innovation

→ reality lies between

- Technology Push → application of disruptive technology drives change in the market
 - Radical Innovation - Genomics, CRISPR
- Market Pull → market need and changing conditions attracts innovations and applications
 - Business Model Innovation - Personalized medicine, digital medicine with AI/ML

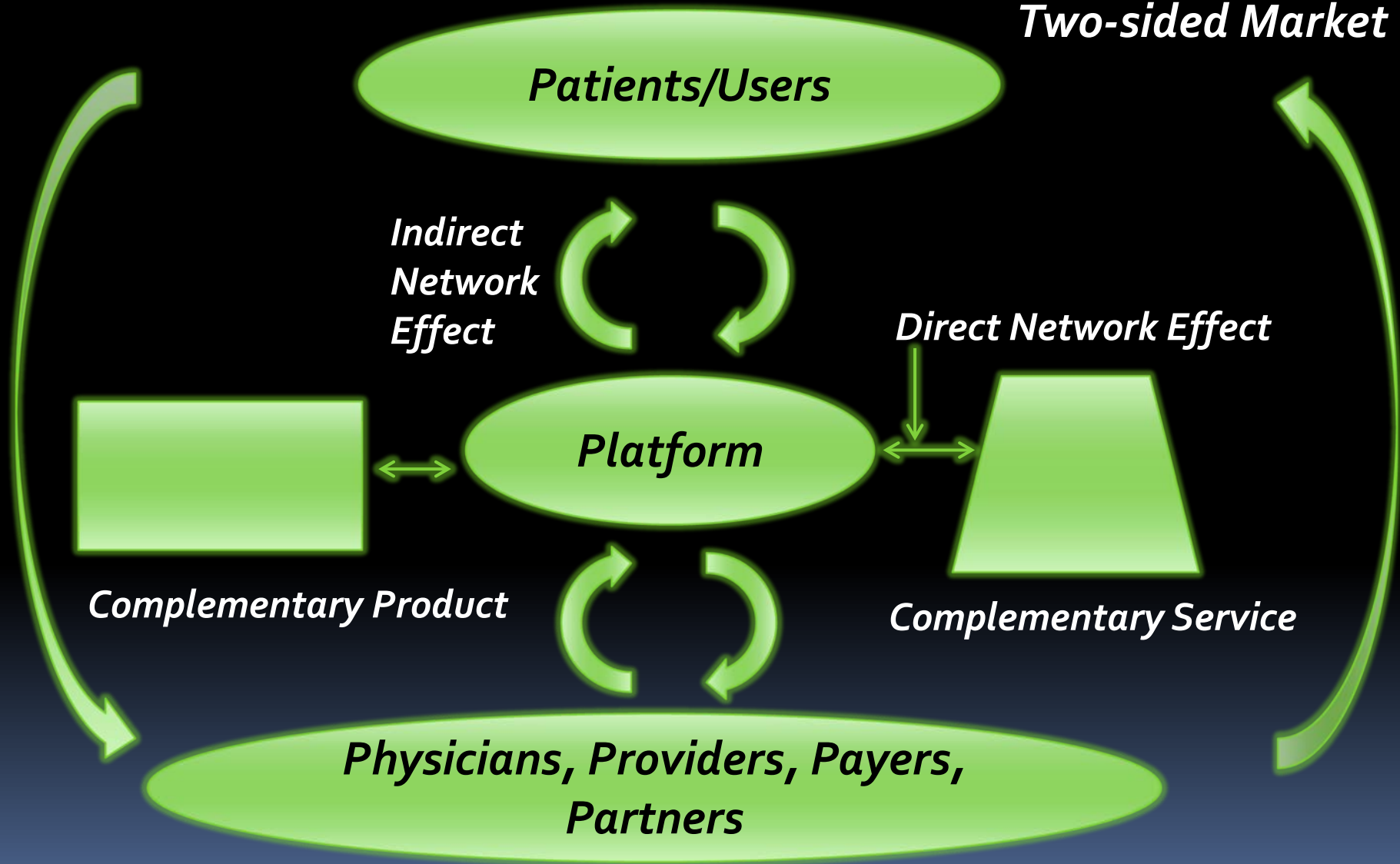
Concept 4 – The Platform

- A common (technological) base from which one can create a family of products (and services), each targeted at different customer segments
 - enables the creation of products and processes that support present and future development
 - permits the evolution of various products without the expense of replicating the base

Ecosystem of platforms, complementers, & network effects

Adapted from Cusumano, Staying Power (2010)

Two-sided Market



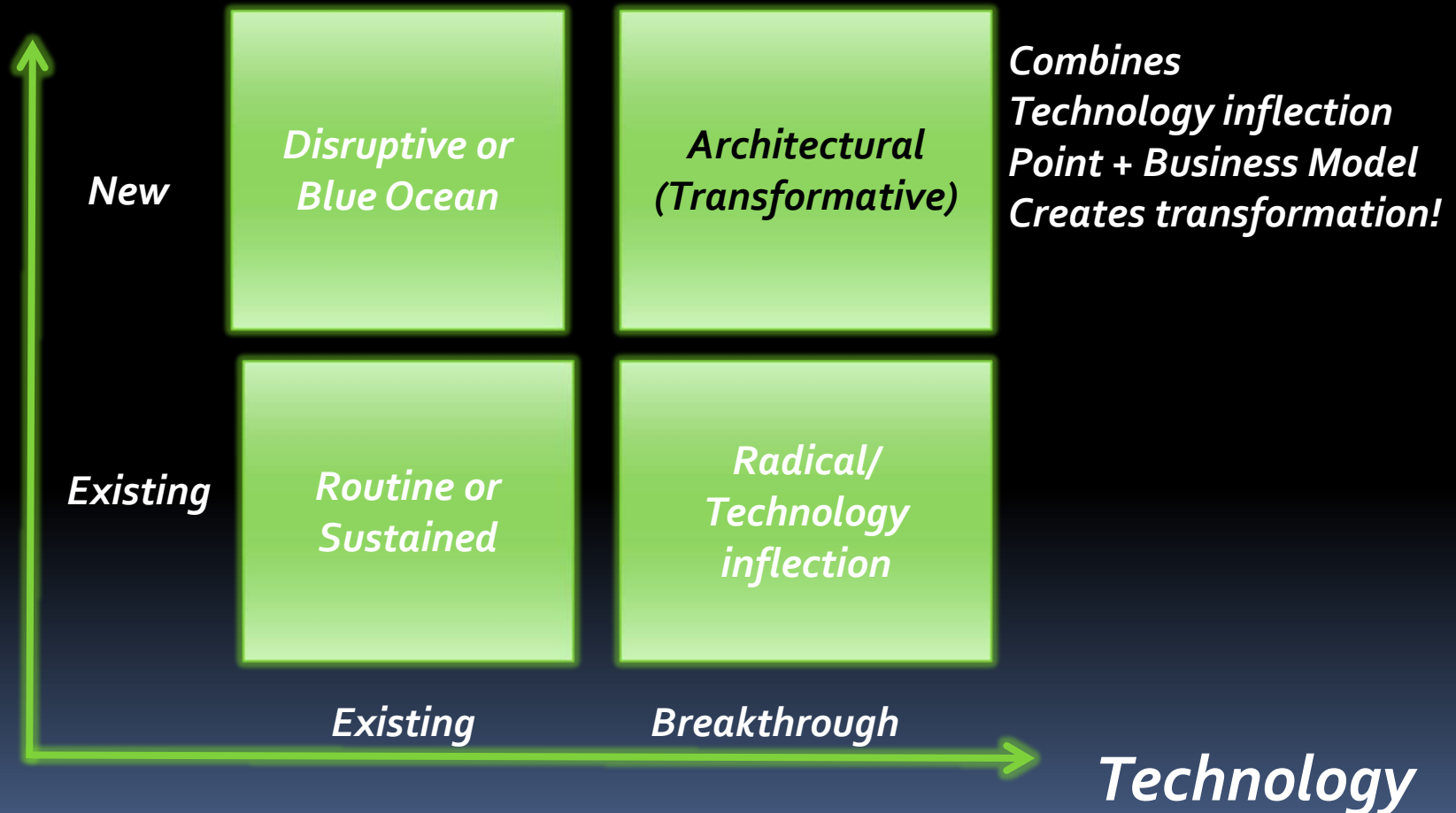
You Need a Business Model!

- Commercialize your product by understanding your technology and your market
 - Invention deals with technology
 - Innovation deals with business
- Business Model – Creating, Delivering and Capturing Value.
 - Customer facing side
 - Company facing side
 - Which parts do you rent, and which parts do you build?

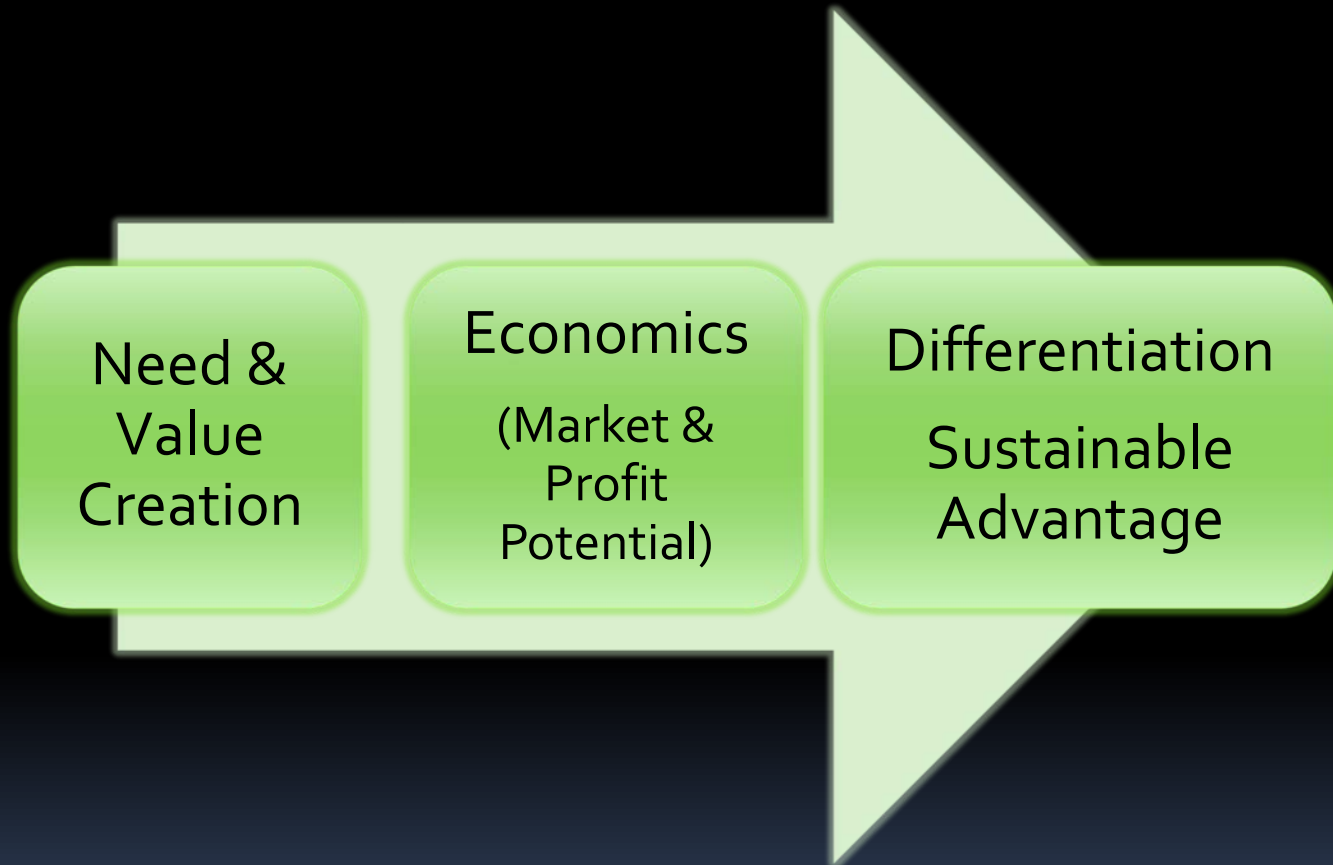
Concept 5 – The Innovation Map

Ref. Gary Pisano (HBR , June 2015)

Business Model



The Business Opportunity Screen



Follows Quick Screen for more in depth analysis

Business Issues → Financing Strategy (see Appendix A for more detail)

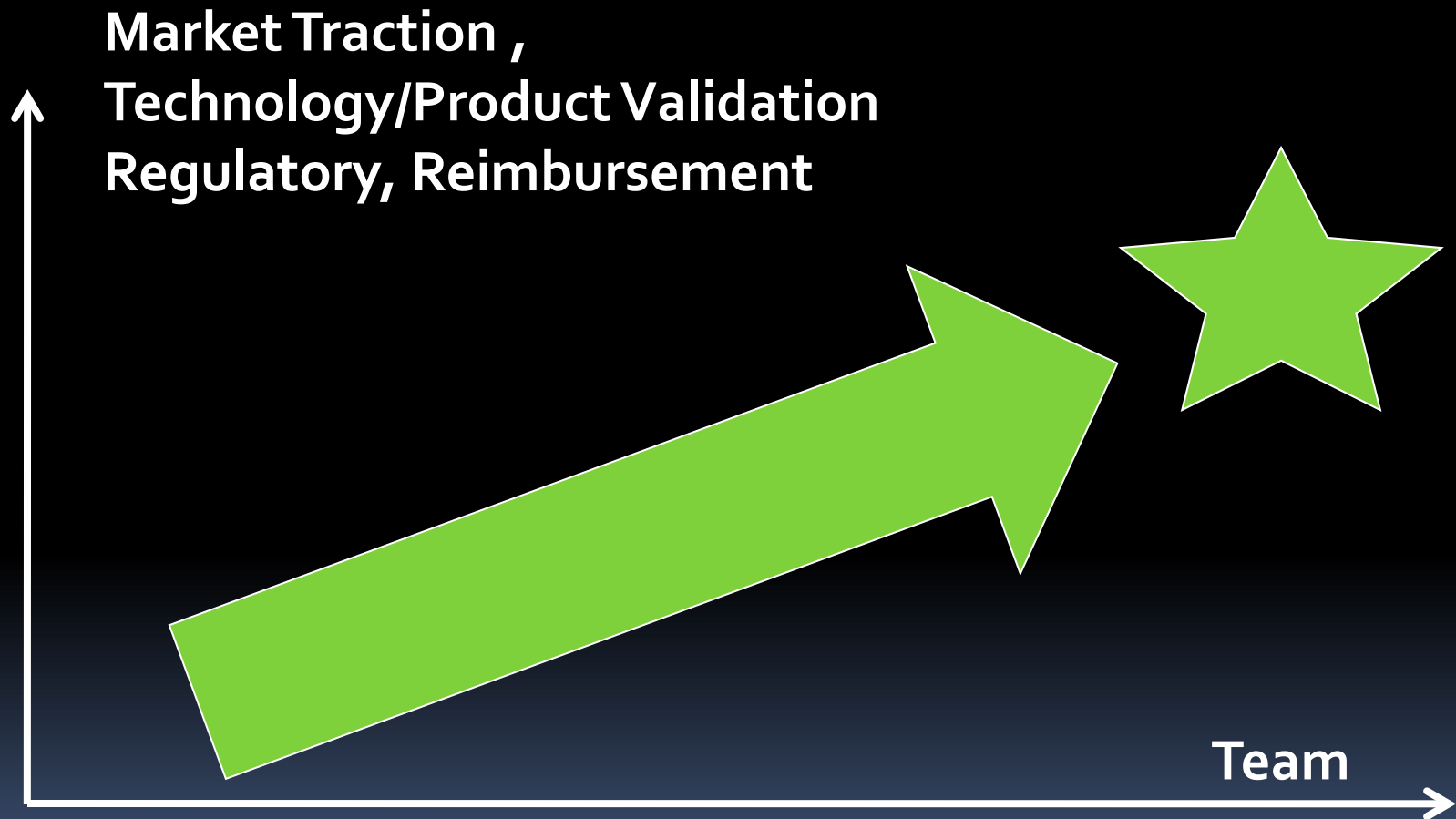
Business Issues

- A Three Dimensional Screen
 1. Opportunity for Unique Value Creation and Strong Customer/User Need
 - Is it an opportunity?
 2. Monetary (Economics)
 - Can/how you make money?
 - Can you make enough money to pay back investors with good IRR?
 3. Differentiation/Competitive Advantage
 - Can you win? Competitive advantage and differentiation.

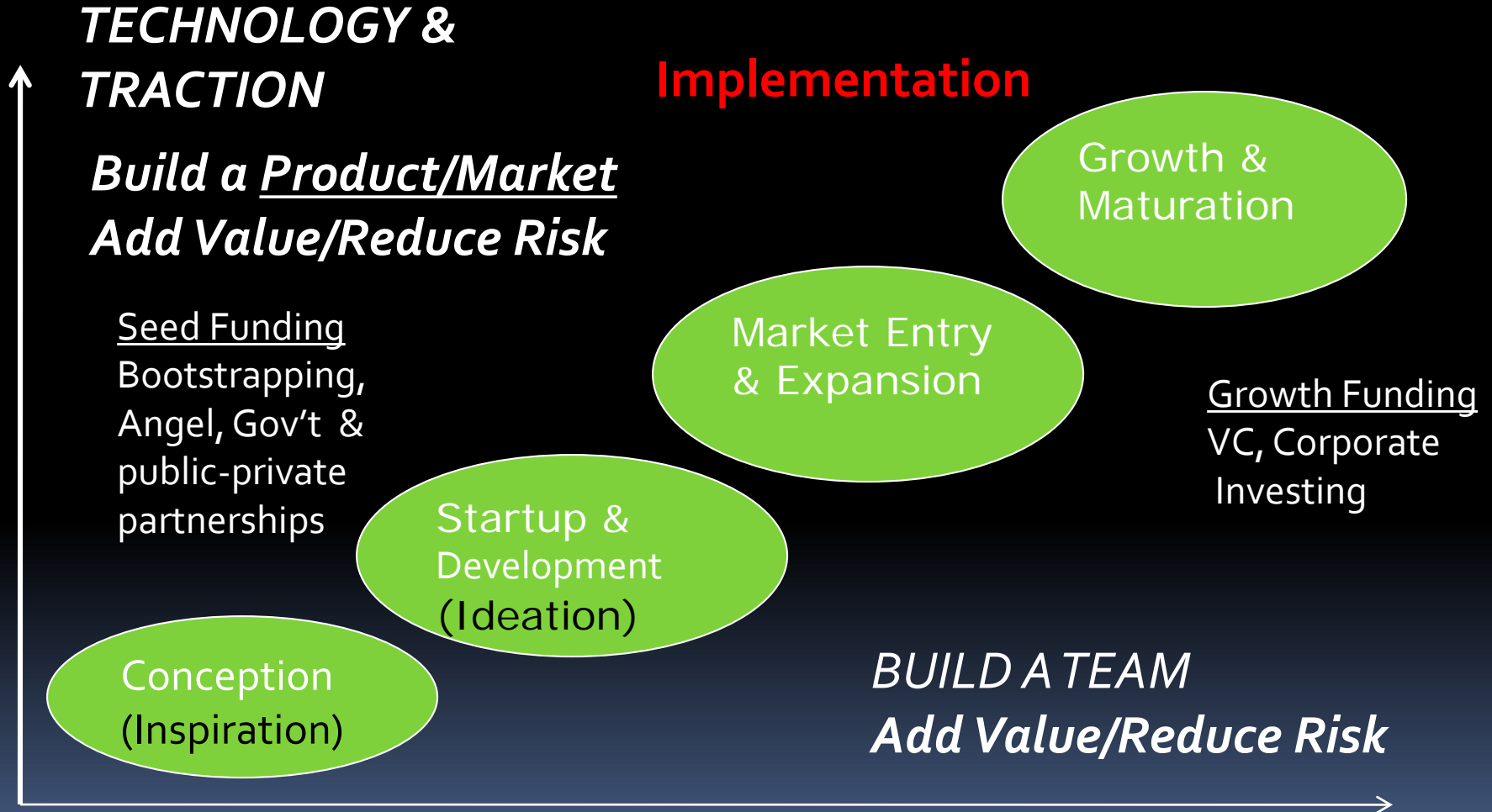
Financing Strategy

- Considerations include:
 - How big can business become?
 - How much return on investment?
 - How long to positive cash flow?
 - How much money is needed
 - How long to exit/return?

Increase Value - Reduce Risk

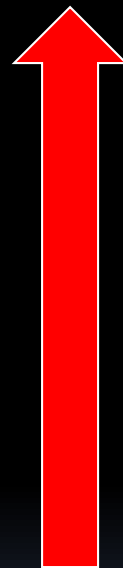


Innovation/Company Life Cycle



Positioning Matrix

Uniqueness



Product
(Only part of solution)

Platform



Find your next research project!

Project
(Competitive issues)



Value to Customer/User

Commercialization isn't easy & biotech is really hard?

- “Entrepreneurs must lack the prudence gene.”
 - Geoffrey Moore, author of “Crossing the Chasm”



Appendix A

Details on screening for Project, Product,
Platform



Project

■ Opportunity - low

- Small market
- Value to customer not compelling

■ Monetary – low

- Money making potential insufficient to provide ROI

■ Competitive Advantage - low

- Competitive companies
- Other possible solutions
- IP possible but limited claims, and freedom to operate limited

■ Approach

- License to existing company
- Fund development via government and partner
- Earn money via royalty, fees and milestones

Product

- Opportunity - medium
 - Niche market
 - Single product, not complete solution
- Monetary - medium
 - Small but appealing
 - Relatively low investment
- Competitive Advantage-medium
 - Complementary solution to market leaders
- Approach
 - Launch company to develop product
 - Fund via government and/or partnerships
 - Possible angel funding
 - R&D in university and company
 - Company continues or exits via M&A
 - Single product companies don't last long!
 - Consider acquiring other players to build more significant opportunity

Platform

- Opportunity - high
 - Compelling solution to major problem in growing market > \$200M addressable
- Monetary - high
 - Potential for significant revenues and profits
 - Good risk/reward ratio
 - VC and partner fundable and modest amounts
 - Exit potential in investor time horizon with high IRR > 30%
- Competitive advantage - high
 - Unique, differentiable solution
 - Sustainable competitive advantage with strong IP
- Approach – build a sustainable organization with multiple product potential (a platform)
- Advance the science and IP to demonstrate the potential (reduce the risk)
- Build a fundable team
 - Balance science with business (marketing, strategy)
- Line up winning funding sources
 - Angels for risk reduction
 - Strong VC syndicate early
 - Partnerships

New Special Editions of Journal of Commercial Biotechnology

- “The Business of Commercialization and Innovation”, Vol. 24, No. 1 (2018)
 - Part One – Industry Agnostic Overview
 - Part Two – Overview of Biotech, MedTech, and Digital Medicine and Mini Case Studies
- “Transforming technology into high-value solutions for compelling biomedical needs: BIO Entrepreneurship Boot Camp 2.0” - in press for Q3 2019