

# Productization

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# Agenda

- ❑ Overview
- ❑ 3 General Steps in the Productization Process
- ❑ Writing Tech Briefs and Quad Charts
  - ❑ Sample Tech Briefs and Quad Charts
  - ❑ Titles
  - ❑ Applications
  - ❑ Features vs Benefits
  - ❑ More Examples

# Productizing Early Stage Technology



- ❑ Scientists send us raw disclosures:
  - ❑ Detailed science
  - ❑ Light on technology
  - ❑ Hints of a product
  - ❑ Devoid of a value proposition
  - ❑ No thought about scale-up
- ❑ Industry buys products:
  - ❑ User oriented
  - ❑ Need clear benefits
  - ❑ Must be competitive

# Step #1: Focus on the underlying value of the science



- ❑ Understand the technology  
(Requires meeting with the inventor or graduate student to grasp the problem(s) the technology solves, what it does, how it does it etc...)
- ❑ ...having an understanding of the technology will enable you to imagine what kinds of products can be created from it (sometimes different from inventor e.g., the DNA Extraction project) and to effectively communicate the value to others

# What Products and Services Result from an Invention?

- ❑ How do you work out what products will result from a technology?
- ❑ Some are obvious
  - ❑ You get a disclosure for a mAb that targets colon cancer
    - ❑ A colon cancer diagnostic
    - ❑ A colon cancer treatment
- ❑ Some are not obvious
  - ❑ You get a disclosure for a new semiconductor material
    - ❑ What types of devices will result?
  - ❑ You get a disclosure for a new sensor
    - ❑ What products / markets will it be used in first?

# What Products and Services Result from an Invention?

- ❑ Your first resource is the inventor
  - ❑ They've been thinking about this for a long time
  - ❑ They have ideas about what there technology will be used for
- ❑ Your job is to help them think through the uses of the technology
  - ❑ You may know more about potential applications than they do
    - ❑ They know way more than you about the technology itself
  - ❑ You need to have a broad overview of many areas of technology
    - ❑ “An inch deep and a mile wide”
      - ❑ They will most likely be a mile deep and an inch wide
  - ❑ Do some research before your first meeting with the inventor
    - ❑ So that you go in with intelligent things to say
- ❑ Then research the additional ideas that the two of you identify

## Step # 2: Give the customer a reason to buy



- ❑ Look at everything through the eyes of the customer
- ❑ The most important decision is the decision to buy
- ❑ To a customer, a product is a collection of need satisfying attributes
  - away from my family → need to talk to them
- ❑ **The challenge is to match the value of the science to the customer's needs**
- ❑ The more closely aligned the need is to your technology, the stronger the **value proposition**

## Step #3: Communicate the Value Proposition



- ❑ Briefly describe how the technology works
  - ❑ What is the product?
- ❑ Focus on the unique scientific merits of the technology that distinguish it from what currently exists
  - ❑ What is the unmet need?
- ❑ Avoid getting into great detail and using scientific jargon
- ❑ Don't give away all the enabling details
  - ❑ Talk about what the technology does
  - ❑ Not how it does it



# The Value Proposition

- ❑ Value = Benefits received / perceived by the customer
- ❑ The Customer defines and evaluates Value

# Who is the Customer?

- ❑ This is not always obvious.
  - ❑ The answer frequently varies by market and even by product type within a market
  - ❑ Following example looks at a healthcare product in the U.S.
- ❑ The Customer could be:
  - ❑ The person who **pays for your product/service**
    - ❑ The patient's insurer
  - ❑ The person who **uses your product / service**
    - ❑ The physician or surgeon for a new medical device
  - ❑ The person who **recommends your product/service**
    - ❑ The physician who prescribes a new drug
  - ❑ The person who **delivers your product / service**
    - ❑ The pharmacy that dispenses a new drug
    - ❑ The hospital that purchases a new surgical or radiological system

# The Value Equation

- ❑ The Value Equation:

$$\text{Value} = \text{Benefits} - \text{Costs}$$


- ❑ How can you increase Value?

# Developing the Value Proposition Framework

- ❑ You need to be able to construct a succinct statement as follows:
  - ❑ Our Target Customer(s) are (.....)
  - ❑ When they (do what we want them to do)
  - ❑ They receive (description of benefit experiences)
  - ❑ The value of this benefit are (experiences to them)
  - ❑ In order to receive the benefits they must (costs to them)
  - ❑ However, unlike (their alternatives)
  - ❑ Our solution enables them to (do what they want to)

# Communicating Your Value Proposition

You need to construct what you hope your customers will be able to say about your product:

- ❑ If I...
- ❑ instead of...
- ❑ the following good things will happen...
- ❑ I believe them because....