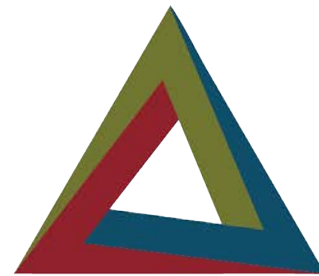


Essentials of Customer Discovery & Developing a Value Proposition



APIOix
Innovation Transfer

About SBIR/STTR Assistance

The Nevada Governor's Office of Economic Development provides assistance to companies in the preparation and submission of SBIR/STTR proposals

The goal is to increase the number of proposals submitted and grants awarded under the SBIR/STTR program to Nevada technology-based small businesses

APIO Innovation Transfer (APIOiX) works in partnership with UNLV's SAGE program (<https://www.unlv.edu/econdev/sagesouth>) to assist technology-based small businesses (<https://apioix.com/sbir-assistance>)

- Assessment of the business concept
- Guidance for registration of the company
- Review and input on project pitches and proposals
- Assistance in submitting the proposals

About APIOiX

Programs, Services, and Solutions to Accelerate Innovation Ecosystems

APIOiX accelerates innovation through business development, training, and technical assistance to innovators and inventors at universities, small businesses, and government entities across the globe.



Eligibility for SBIR/STTR Funding

“America’s Seed Fund”

Technology based

Diverse portfolio

Commercial application

Non-dilutive funding

STTR requires partnership with a research institute

The Nation’s largest source of early stage/high risk funding for start-ups and small business

- In the words of program founder Roland Tibbetts: "to provide funding for some of the best early-stage innovation ideas; ideas that, however promising, are still too high risk for private investors, including venture capital firms."



Brief Overview of SBIR and STTR

The Nation's largest source of early stage/high risk funding for start-ups and small business

- In the words of program founder [Roland Tibbetts](#): "to provide funding for some of the best early-stage innovation ideas; ideas that, however promising, are still too high risk for private investors, including venture capital firms."

Eligibility requirements:

- American-owned
- Organized as a for-profit entity
- Have less than 500 employees
- Structure and staff to focus on aggressive commercialization of the product/service

The Goals of SBIR and STTR Grant Programs

Stimulate technological innovation

Leverage small business to help meet Federal R/R&D needs

Facilitate academic technology transfer through formation of research-based startups and collaborations between researchers and entrepreneurs

Foster and encourage participation of socially and economically-disadvantaged small business and those that are 51 percent owned and controlled by women

Increase private sector commercialization of innovations derived from Federal R/R&D, thereby increasing competition, productivity, and economic growth

Customer Discovery

What is Customer Discovery?

“Customer discovery is all about questioning your core business assumptions. Performed correctly, customer discovery is a customer-centric, scientific process that puts evidence behind an assumed product-market fit”

- Brant Cooper

Customer discovery is part of the Lean Startup process – utilizing customer input and feedback to develop the business.

The founder takes on the role of a scientist to get evidence validate a solution without bias. It follows traditional scientific methodology:

- Observing and defining a phenomenon (problem or market need)
- Developing a hypothesis about a solution to the problem (business idea)
- Conducting an experiment to test the hypothesis (getting “out of the building”)

Stages of Customer Discovery

Do your research

What are your assumptions

- Is the problem actually a problem?
- Does your solution address the problem?
- What is the market that has this problem?
- Will the users/customers in the market segment pay for your solution?

Define your value proposition

Create a list of individuals that you will contact

- Hypothetical customer profile

Create a list of questions

Test your value proposition

Analyze, refine, and re-test

Unmet Need

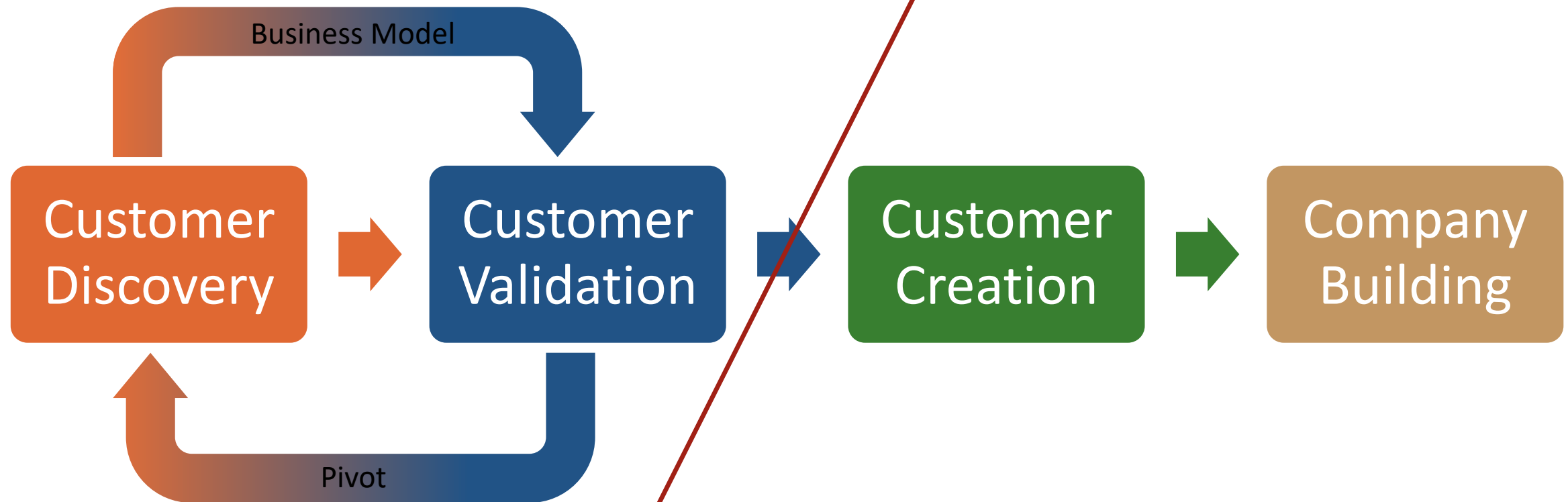
Customer discovery creates focus:

- What need does the innovation fulfill
- Is there an identified problem?
- Does the innovation provide a solution to the problem?
- Key benefits
- Will potential customers buy our products?

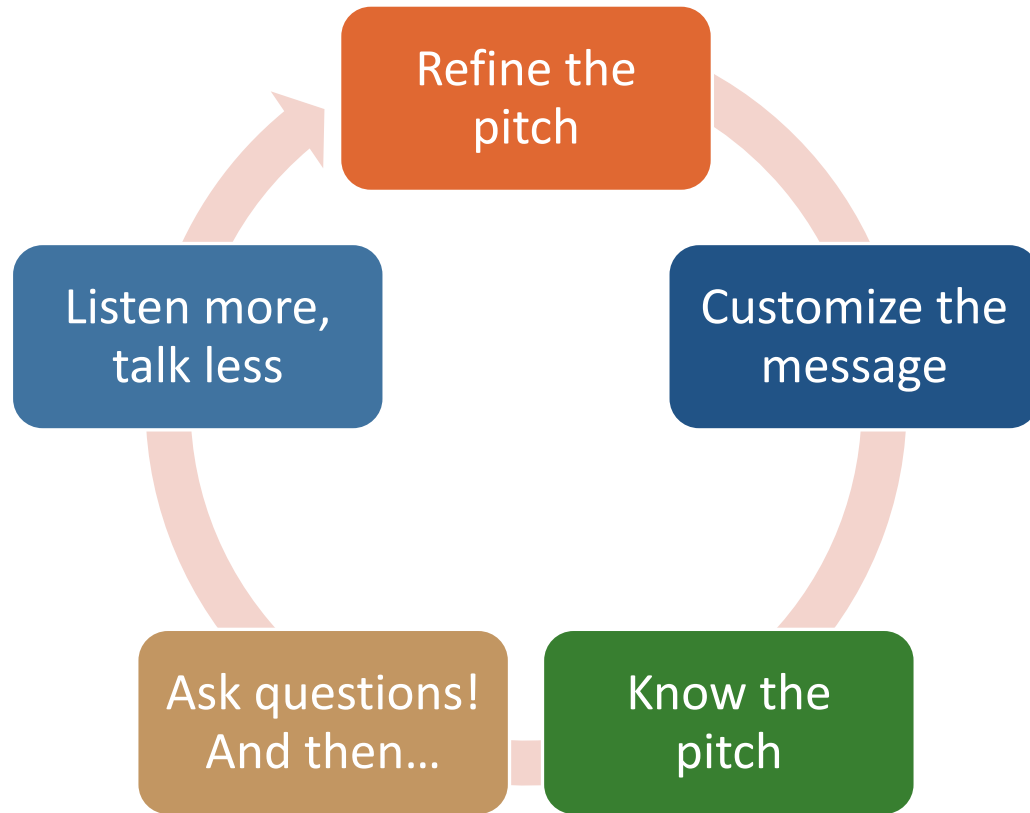
Based on an analysis of 101 startup post-mortems



Validate / Pivot



Speaking Your Customer's Language



Relate your resources and technologies to the customer's needs.

Understand their problem and offer a solution.

Background Research

Secondary Research

Often called “desk research”

Original data collected by someone else

Usually cheap & quick

Data might be old and/or not specific to your needs

Examples:

- Journals
- Market reports
- Databases



Secondary Research Example

Global E-Learning Market to Reach \$325 billion by 2025 at a CAGR of around 7.2% - Research and Markets Feb. 06, 2017

Prominent trends:

- learning through gaming
- implementation of IT security
- cloud based solutions
- rapid growth in online content & digitization
- innovations in wearable technologies are flourishing the e-learning industry
- learning management systems are switching over to cloud-based systems

Market is categorized academic e-learning and corporate e-learning

Market is segmented into Learning Management System (LMS), mobile e-learning, application simulation tool, rapid e-learning, podcasts, learning content management system, virtual classroom knowledge management system and other technologies.

Market is classified into service providers and content providers

Market is segregated into higher education institutions, K-12 schools and other end users.

Primary Research

Original data collected by you

Specifics to your needs

You control quality & outcomes

Examples:

- Interviews
- Surveys
- Focus groups
- Observational Data



Primary Research

Primary research interviews are focused on learning about the inner workings of an industry.

Find companies that develop related products.

In this case, we are looking at online teaching tools that train foreign languages.

Develop open ended questions to gather insider information and test assumptions.

ASK YOURSELF >>>



?

What assumptions am I making about my invention?



?

Can I prove/disprove these assumptions?

Assumptions

Problem

Define the problem being addressed by your product

Is this the actual problem that customers/consumers encounter?

How do the potential customers address the problem now?

What alternatives (competition) are available to your potential customers?

Customer

What is your customer profile?

Who is the intended customer?

Who is the consumer?

What would they be willing to pay?

What benefits will the customer/consumer receive from your product?

Value Proposition

Value Proposition

Derives from the NCS

Target a specific audience

Uses

Experience them as much as possible, good and bad!

- Competitions
- Shark Tank

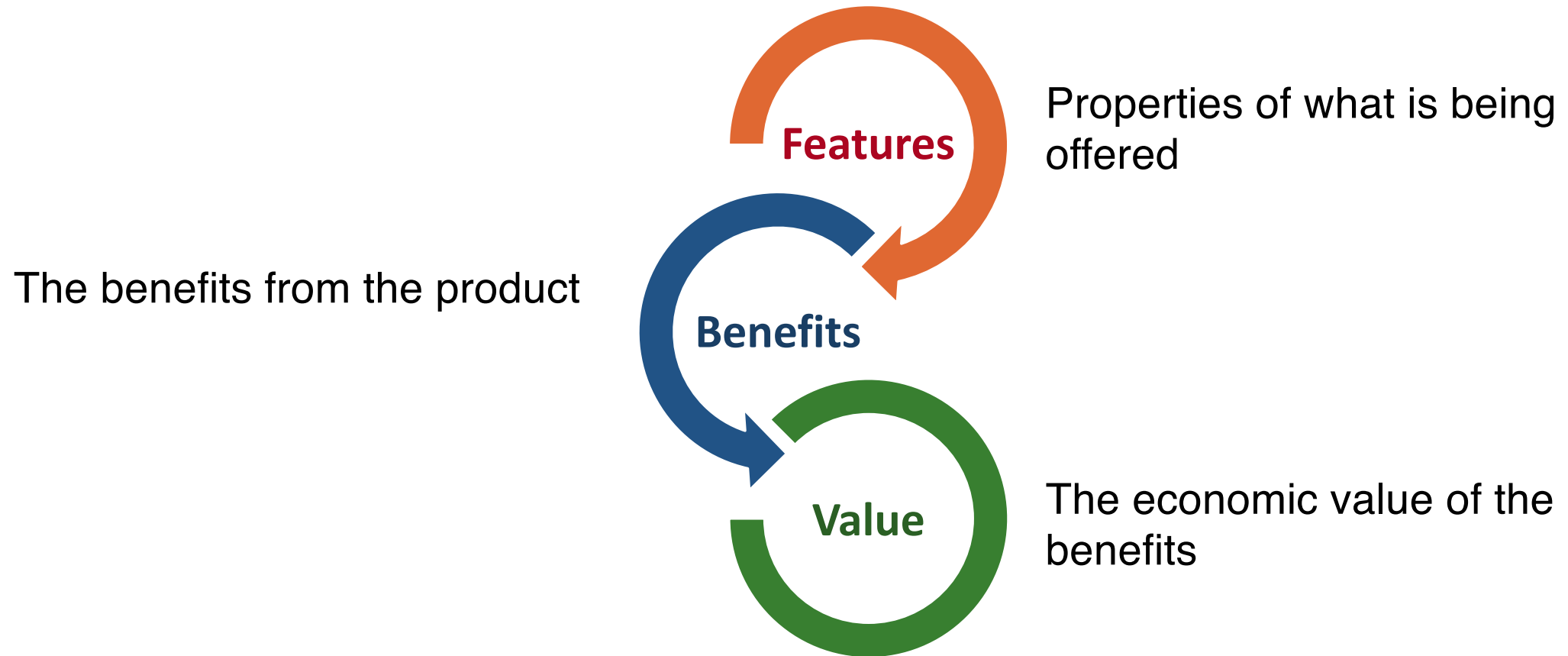


Background for Value Propositions

Technology Assessment Canvas

Classifying the Innovation				
Product Application	Market size Market Saturation	Customer Discovery Unmet Need	Intellectual Property	Stage of Development
Key Benefits	Addressable Market (s)	Competition	Industry Environment	Encumbrances
VALUE PROPOSITION				

Value Proposition



Value Proposition

A good value proposition provides customers with a clear picture of what you have to offer.

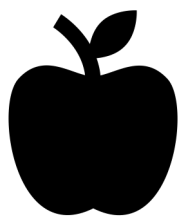
- How your product or service solves/improves problems
- What benefits customers can expect
- Why customers should buy from you over your competitors



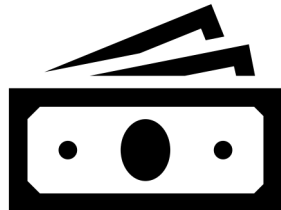
Customer Profile

Customers and Consumers

- The customer buys what you are selling
 - Customers make the purchasing decision
 - Who the customer is can vary
- A consumer is the end user of what you sell
 - Steve buys an apple and eats it. He is both the customer and consumer.
 - Jane buys an apple and gives it to Steve to eat. Jane is the customer; Steve is the consumer.



Product



Purchase



Customer

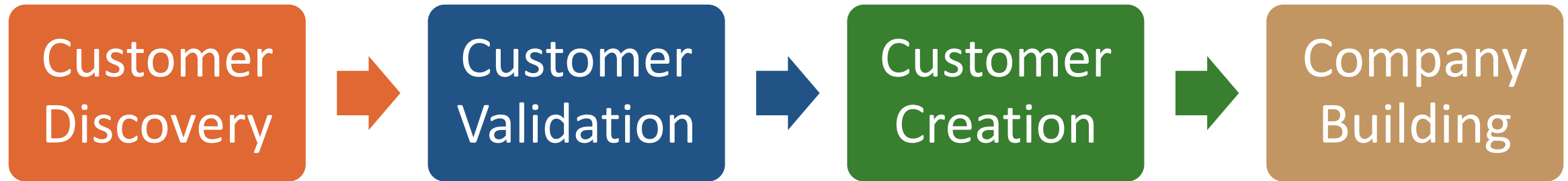


Product Use



Consumer

Identify Your Customers



Interview Your Customers

Tell me how you currently do

_____.

How is that process working for you?

If you could do anything to improve your experience with _____, what would it be?

What's the hardest part about _____?

What do you like/dislike about _____?

Multi-Sided Market

Patients

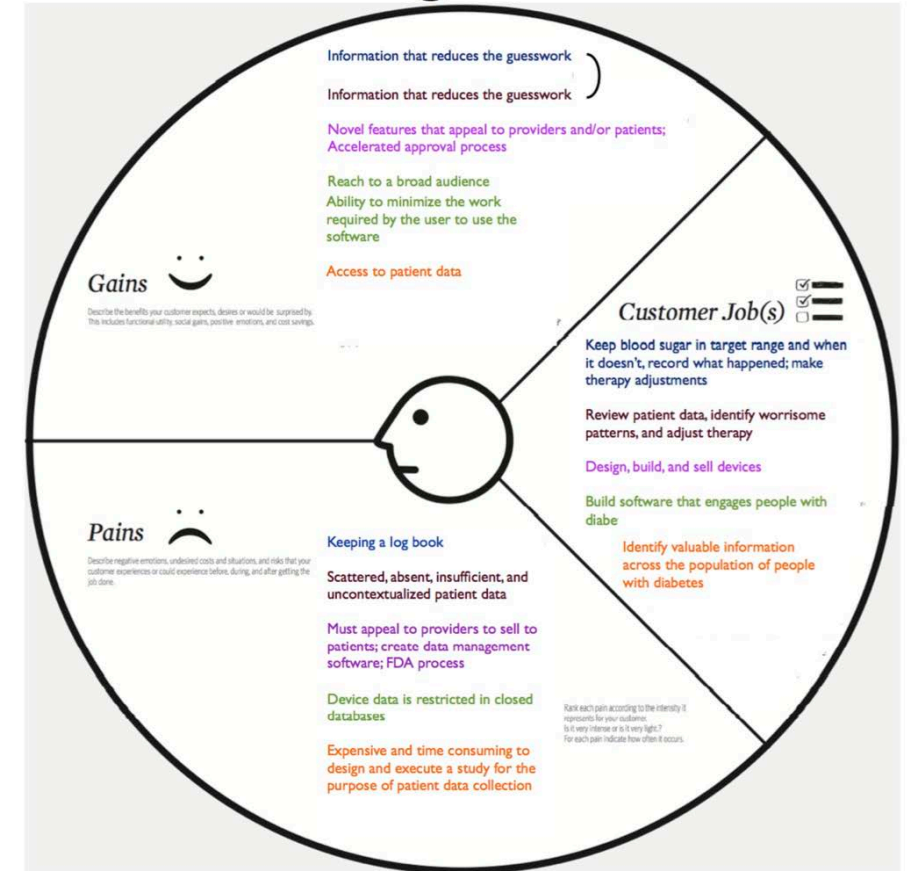
Providers

Device Manufacturers

3rd Party App Developers

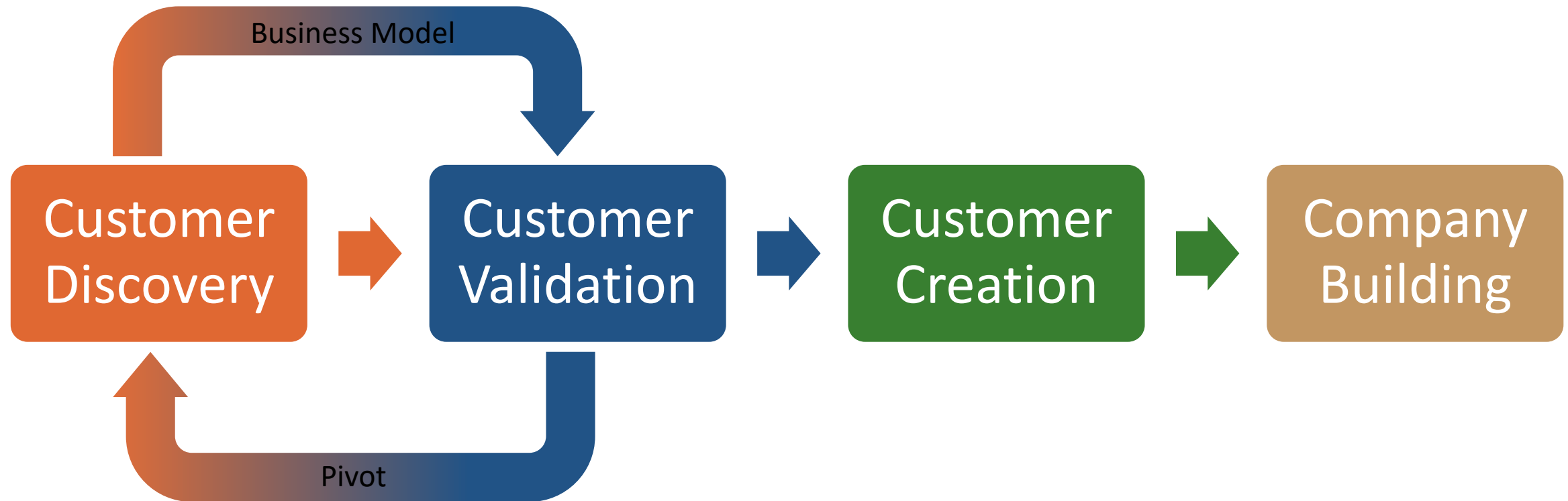
Researchers

Customer Segments Canvas



Analyze-Refine-Retest-
Build

Validate / Pivot



Resources

APIOiX Small Business and Technical Assistance: <https://apioix.com/sbir-assistance>

- Provide general information and email link to obtain additional information

SBIR / STTR Tools & Resources: <https://apioix.com/tools-resources>

- Links to finding grant solicitations, examples of successful proposals (Phase I, Phase II, Fast Track), NSF Project Pitch rubric, budget templates for NIH and NSF Phase I proposals, budget justification templates for NSF and NIH

APIOiX Learning Center: <https://apioix.com/learning-center>

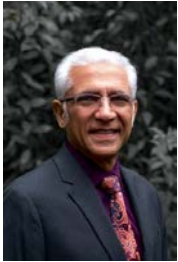
- Access to presentations on SBIR/STTR topics such as budgeting basics, subcontracting, how to write a winning proposal, basics of customer discover, and agency specific requirements.

SBIR presentations and slides: <https://www.sbir.gov/tutorials/accounting-finance/>

Salary validation: https://www.bls.gov/oes/current/oes_nat.htm#11-0000

NIH annotated SF424: https://grants.nih.gov/grants/ElectronicReceipt/files/Annotated_Forms_SmallBus_forms-e.pdf

Thank You



Arundeeep S. Pradhan, MS Pharm Ad., RTTP has been engaged in technology transfer for over 30 years; was at the forefront of creating the biotech burst in Salt Lake City; helped develop the first biotech roadmap for Colorado; and, helped create the first biotech incubator and the first translational research development center in Portland, Oregon. Mr. Pradhan served on the AUTM Board, was the AUTM President in 2009, and AUTM Foundation President and Board Chair in 2011. He was the interim CEO of a research tools startup and currently serves as the president of Apio Innovation Transfer (APIOiX) and as the CEO and the vice-president for business development of Practical Biotechnology, an oncology therapeutics startup. Mr. Pradhan managed technology transfer offices at the University of Utah, Colorado State University Research Foundation, and Oregon Health and Science University. He continues to work with clients across the globe. arundeeep@apioix.com



Ray Wheatley, MS CLP(E) is former Director for Technology Commercialization in the Office for Technology Development at the University of Texas Southwestern Medical Center, retiring in 2015 with 31 years of service. Mr. Wheatley and his staff evaluated over 2,500 new invention disclosures which led to more than 650 issued US patents and hundreds of foreign patents. These efforts resulted in more than 900 negotiated option agreements, license agreements and intellectual property management agreements generating more than \$178 million in license revenues. In addition, over 30 start-up companies were created. He has worked with US and foreign companies, including major pharmaceutical companies, venture capital firms and leading medical device manufacturers. He has been an invited speaker at many national and international meetings and has spoken on a variety of topics, most notably on negotiation skills and advanced licensing topics. ray@apioix.com



Michael Batalia, PhD is a serial entrepreneur and an expert in academic technology commercialization. He is also a member of the Mission II Team for the Perlan Project, an effort to fly engineless aircraft to the edge of space. He has over 16 years of experience in academic technology transfer, intellectual property management, and licensing at Wake Forest University as executive director of commercialization and North Carolina State University as associate director then director of technology transfer. Dr. Batalia is active regionally and internationally in support of technology transfer and biotechnology. He has served on the Boards of the Association of University Technology Managers, the North Carolina Biotechnology Center, the Biotechnology Advisory Committee of Piedmont Triad, and the North Carolina Center of Innovation for Nanobiotechnology. He is a co-founder of Wide Eyed Technologies and the CSO for Arctic, Inc. michael@apioix.com