# DESIGN  METHODOLOGY

• TOOL KIT •
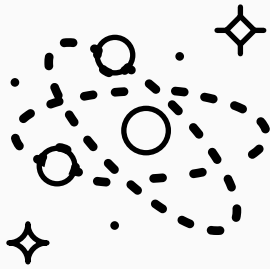
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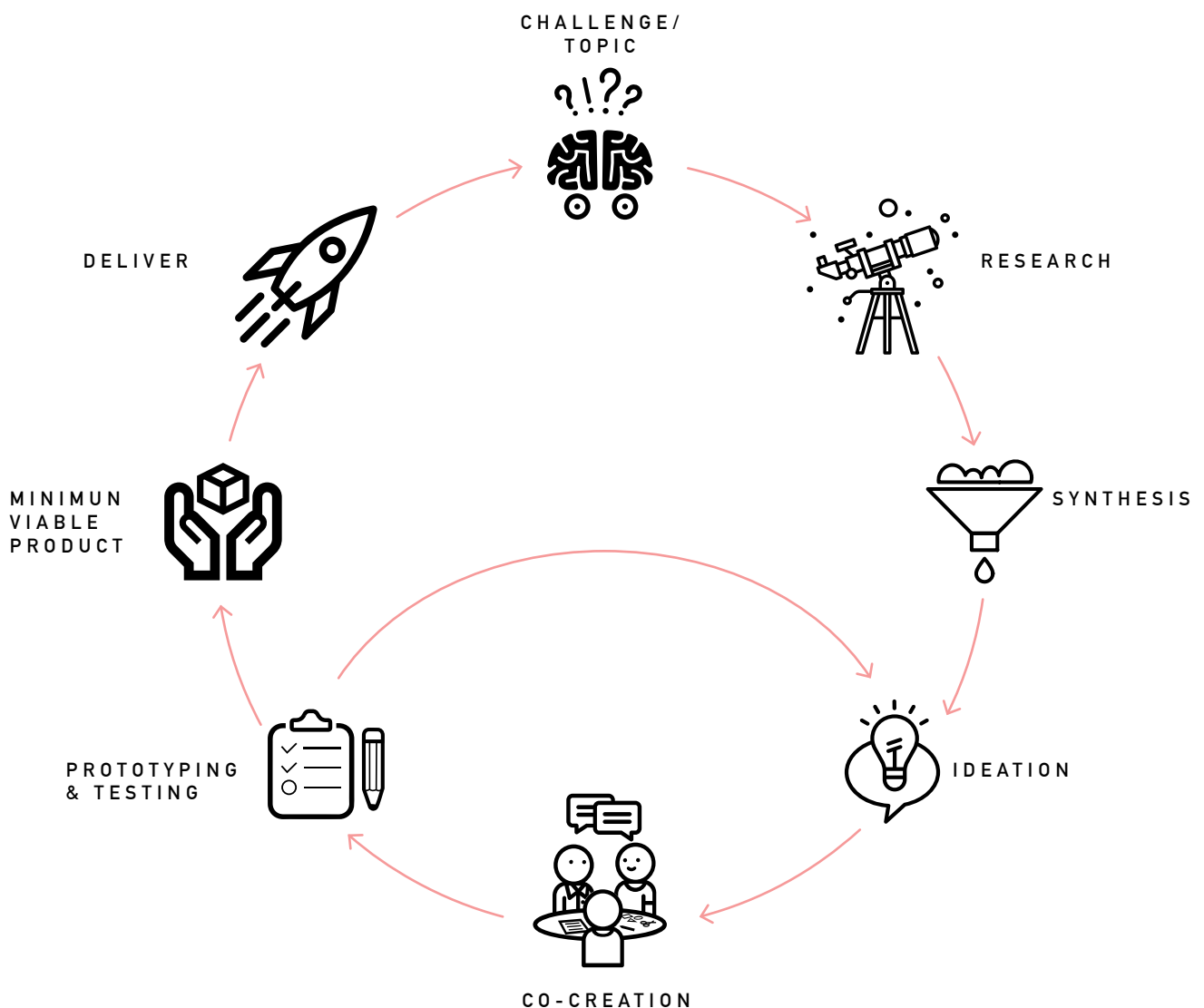PARSONS, THE NEW SCHOOL

# WHAT IS THE DESIGN APPROACH?

## MINDSET

Design has been evolving as a key mindset to address problems within any organization and has become an essential part of a business. Today design is a key element for a cultural change.

Is also our responsibility as design thinkers to embrace complexity and integrate a holistic approach to challenges to understand the bigger picture. I believe design methods are a key resource to face problems from another point of view and here I present the ones that I used during my own design thinking process plus other topics and resources to integrate them into a toolkit.

CHALLENGE/
TOPIC

RESEARCH

DELIVER

SYNTHESIS

MINIMUN
VIABLE
PRODUCT

IDEATION

PROTOTYPING
& TESTING

CO-CREATION

# METHODS OF RESEARCH

## Quantitative & Qualitative Research

Quantitative: Measuring sets of variables or quantities and their relationship to another. Ex. Numbers + Logic + Objective Data

Qualitative: Understand the qualities of a specific field of inquiry. Ex. Words + Images

## Primary & Secondary Research

Primary: Original research that is conducted by an organization for it's own use.

Secondary: Reviewing collection of data or findings that have previously been published by and outside party.

## Formative + Summative Research

Formative: Exploratory research used to gain insight into an area of study. Aids in problem identification and problem solving.

Summative: Conclusive research is use to frame and decipher the outcome of an investigative process. Did I make it better?

### TO KEEP IN MIND

Ability to understand people from their own perspective.

Write a research plan:
1. Overview (Project context and aim of research)
2. Key Questions
3. Logistics
4. Methodology (purpose, approach, output)

# RESEARCH STRATEGIES + TACTICS

## COMPETITOR ANALYSIS:
Evaluate the strengths and weaknesses of an organization's competitors.

Competitive Intelligence: Secondary Source tools of competitor analysis with primary research. Ex. Informants.

### TACTICS

Literature review*
*(Starting point for other research strategies)
Surveys + questionnaries
Focus groups

## ETHNOGRAPHIC RESEARCH:
Link between human behaviors and culture.

Internal Perspective > Emic perspective: cultural phenomena though the perspective of the community under study.

External Perspective > Etic perspective: define cultural phenomena through the perspective of an individual who is not a participant in the community under study.

### TACTICS

Photo ethnography
Visual anthropology
Observational research
Literature review
Surveys + questionnaries
Focus groups

**MARKETING RESEARCH:**
Understanding human behaviors as it applies to a market-based economy.

Qualitative or quantitative
Several different tactics give more accurate information

# RESEARCH FOR INSPIRATION

**4 QUALITATIVE WAYS**

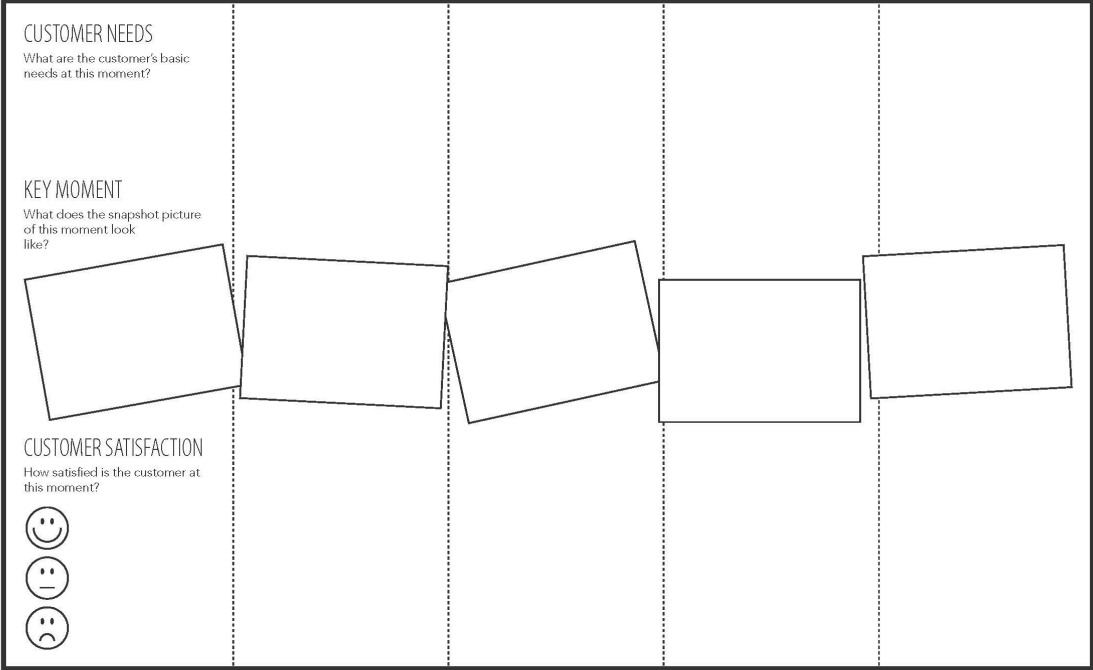| | |
|---|---|
| **ASK** | Engagement<br>• Conversations in context provide a rich understanding of a person > Keep Looking / Keep Asking<br>• Drawings can help unearth what's hard to put in words<br>• Extreme users are able to better articulate what many feel |
| **LOOK** | Observation<br>• Observations help identify what people do intuitively |
| **TRY** | Immersion<br>• Putting yourself in the shoes<br>• These activities run new results<br>• Role-playing reveals details that conversation doesn't |
| **BORROW** | Analogies<br>• Analogous experiences from other scenas |

# 12 DESIGN RESEARCH METHODS

12 DESIGN RESEARCH METHODS

1. User Interview
2. Expert Interview
3. Extreme Interview
4. Group Session
5. Expert Pannel
6. Analogous Experience
7. Empathy Experience
8. Desk Research
9. Data Mining
10. Behavior Tracking
11. Surveys
12. Guerrilla Research

# JOURNEY MAPPING

Gain a detailed view of the customer's service journey.

## CUSTOMER JOURNEY CANVAS

**CUSTOMER NEEDS**
What are the customer's basic needs at this moment?

**KEY MOMENT**
What does the snapshot picture of this moment look like?

**CUSTOMER SATISFACTION**
How satisfied is the customer at this moment?
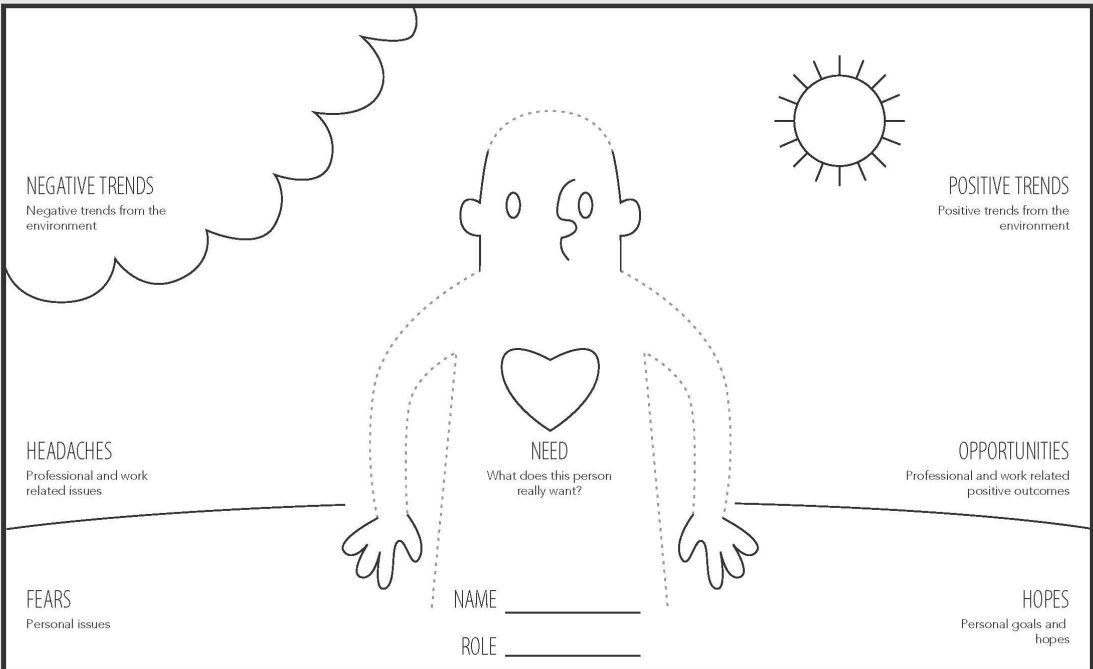
# PERSONA

Describe the customer in different areas.

## PERSONA CANVAS

**NEGATIVE TRENDS**
Negative trends from the environment

**POSITIVE TRENDS**
Positive trends from the environment

**HEADACHES**
Professional and work related issues

**NEED**
What does this person really want?

**OPPORTUNITIES**
Professional and work related positive outcomes

**FEARS**
Personal issues

NAME _____

ROLE _____

**HOPES**
Personal goals and hopes

# SYNTHESIS

## TRIANGULATION

### CONFIRMING RESEARCH FINDINGS

Triangulation is the process of combining several different research methods to illuminate one are of study.

There are different ways to triangulate information. Here are some examples.



Investigator 2

Investigator 1

APPARENT TRUTH

Investigator 3

Literature Review

Ethonagraphic Research

User Testing

Triangualted Literature Review

Triangualted Ethonagraphic Research

Triangualted User Testing
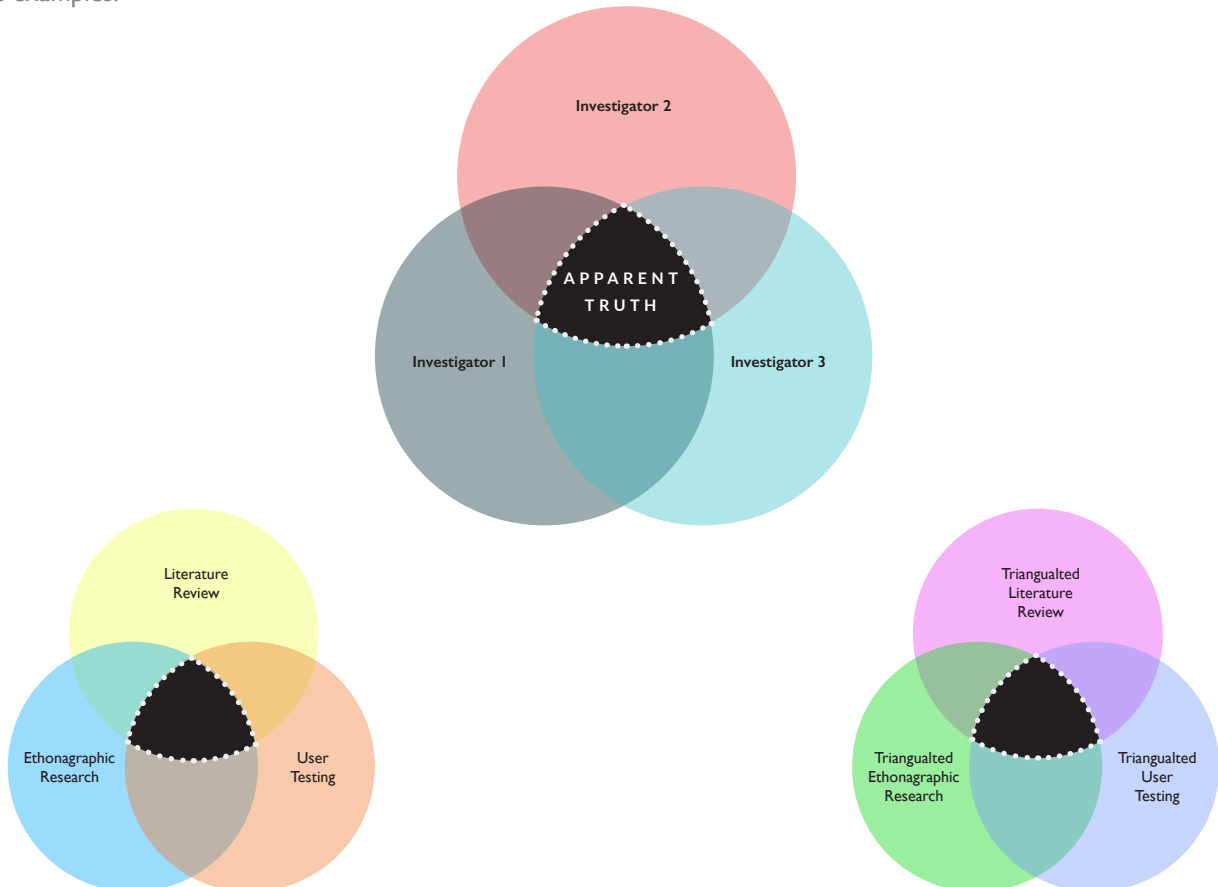
### GRAPHIC ORGANIZERS

Research finding visualized / Tools to organize information

## KWHL

> What do I Know
> What do I need to find out?
> How am I going to find the information I need?
> What have I Learned

| K | W | H | L |
|---|---|---|---|
|   |   |   |   |

# IDEATION
# COCREATION
# PROTOTYPING
# TESTING

## UNIVERSAL METHODS OF DESIGN

**A/B Testing:** Compare two versions of the same design to see which one performs statistically better against a predetermined goal.

*Behavioral/Quantitative/Adapted/Evaluative/Design Process*

**AEIOU:** Organizational framework guide Activities, Environments, Interactions, Objects and Users.

*Behavioral/Qualitative/Innovative/Exploratory/Observational*

**Affinity Diagramming:** Process used to externalize and meaningfully cluster observations and insights from research.

*Behavioral/Qualitative/Adapted/Generative/Design Process/Attitudinal*

**Artifact Analysis:** Systematic examination of the material, aesthetic, and interactive qualities of objects contributes to an understanding of their physical, social, and cultural contexts.

*Behavioral/Qualitative/Adapted/Exploratory/Observational/ Attitudinal*

## JOB TO BE DONE

Identifying Jobs to Be Done — 5 Questions for Uncovering Jobs

1. Do you have a job that need to be done?
2. Where do you see non consumption?
3. What work-arounds have people invented?
4. What tasks do people want to avoid?
5. What surprising uses have customers invented for existing products?

## PROJECT CHARTERS

| Current Situation | Initial Situation | Assumptions |
|---|---|---|
| What is the problem? | (Achieve) | 3 |
| 1 | 4 | |

| Why this project exist | Success Metrics | Constrains |
|---|---|---|
| Why now? | (Numbers) | (Limits) |
| 2 | 4 | 3 |

| | | Risks |
|---|---|---|
| | | (Budget) 3 |

# PROJECT MANAGEMENT

| Design Brief | Formalizes the growth project<br>Defines goals, resources, timelines, etc.<br>Serve as a "North Star" throughout the project |
| --- | --- |
| Design Criteria | Sets criteria to evaluate alternative designs (derived from study of user needs and business requirements)<br>Becomes part of the design brief |
| Napkin Pitch | Crystalizes communication of solution concepts (after brainstorming and concept development)<br>Describes each of the best few (3-5) solutions that meet the design criteria in a template that allows for apples-to-apples comparison |
| Learning Guide | Defines an affordable level of resources to invest in learning wether (or not) the top 2-3 concepts are feasible |

## TO KEEP IN MIND

Are you solving the right problem?
Remeber to always reframe the problem.

7 Practices for effective reframing

1. Establish legitimacy
2. Bring others into the discussion
3. Get people's definitions in writing
4. Ask what's missing
5. Consider multiple categories
6. Analyze positive exceptions
7. Questions the objective

# BUSINESS MODEL

**Validate the go-to-market strategy.**

There are different type of business models that we can use to test our business.
Here are two examples from IDEO.
We have ti used this tool as a periodical exercise to prototype and test our business based on the results in the real market.

BUSINESS MODEL

Now, fill out the canvas below for your venture. Do this periodically to see where your venture is strongest, what things you still need to design or prototype and what questions come up for you and your team. This tool works hand-in-hand with your Venture Story Madlib.

### CUSTOMERS
*Who are the people you're designing for? What are their attitudes, beliefs, behaviors? What unmet needs do they have?*

CONSUMERS
- uninformed about product disposal options
- looking for convenience
- looking to make an impact

BUSINESS
- want to join the circular economy
- want a better image
- engage with consumers
- expand their market

### EXPERIENCE
*How and where will people experience your venture? How does it make them feel? What are the defining moments of your brand and your experience?*

CONSUMERS
- online platform or mobile app
- connects B+C through an easy and reward-based model to incentivize them to reduce, reuse, recycle

BUSINESS
- easy and simple partner website
- support their circular economy journey
- increase consumer engagement

### PRICING
*How will you make money? Who will pay? How much and how often?*

- monthly fee based on company scale ($100 to $1000/month)

### PROMISE
*What value are you creating for people? What emotional and rational benefits does it offer? How is it unique?*

WE ARE SUPPORTING BUSINESS AND CONSUMERS IN THEIR JOURNEY TO BECOME MORE SUSTAINABLE, BY PROMOTING AND INCREASING THEIR OPTIONS TO CLOSE THE LOOP

### COSTS
*What are your major fixed and variable costs?*

FIXED:
- app and platform development
- lawyers

VARIABLE:
- operations
- marketing

### TEAM & CAPABILITIES
*Who is on the team? What systems and capabilities do you have in place to consistently deliver value?*

K + F + ML:
- UX design
- business administration and management
- community outreach
- user research

NEEDED:
- engineering
- waste experts
- advisors

### PARTNERS
*Who are your key suppliers and partners, and what do they bring?*

1. Companies: (Large + SMEs, with different levels of sustainability)
2. Middlemen: (recyclers, charities, logistics, apps)
3. Investors

IDEO☐ *Venture Canvas- Venture Design Toolkit*     © IDEO 2015. ALL RIGHTS RESERVED.

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THE CIRCULAR DESIGN GUIDE

WORKSHEET

## Business Model Canvas

🖨 A3 or bigger

The business model canvas has been developed by Osterwalder & Pigneur (strategyzer.com). You might have filled one of these in before - here we have added some prompts and questions that you might find helpful in the context of the circular economy.

If you need more space, create your own canvas using post-its.

www.circulardesignguide.com

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IDEO

### KEY PARTNERSHIPS
*How might you strengthen your partnerships with organisations across the value chain to benefit from circularity (flows of materials, information and capital) in the system?*

*What might be the positive externalities (i.e. the consequences of your actions on others) of your activities? And how might you monitor and design out any negative externalities?*

*What new or unexpected partnerships can you form to grow circularity within your organisation and the system?*

### KEY ACTIVITIES
*What activities might best help you achieve your value proposition?*

*What might be the positive externalities (i.e. the consequences of your actions on others) of your activities? And how might you monitor and design out any negative externalities?*

*How might you create new forms of human, natural or financial capital?*

### KEY RESOURCES
*How might you build a multi-disciplinary team within or across organisations to create value in a circular economy? How might you embrace connectivity?*

*What capabilities do you need to enable circular flows and feedback mechanisms and run your organisation successfully in the short and long term?*

*Where will your resources come from (renewable or finite source) and what will happen to them after use?*

### VALUE PROPOSITION
*Start by asking yourself: what are the needs you are aiming to meet? Is it a product or is a service required to fulfil these needs?*

*Is there anything associated with your product/service that has potential value to others?*

*How will you create a compelling story about your value proposition?*

*How might you enhance your value proposition from the outset by designing for adaptability and continuous evolution?*

### CUSTOMER RELATIONSHIPS
*What feedback loops will you build in with your customers to become more nimble and adaptable to their feedback?*

*How might you connect customers with other parts of the journey of your product/service or materials?*

### CHANNELS
*How might you redesign your relationship with your supply chain?*

*How might you build feedback loops directly into your product/service that allow you to identify new opportunities?*

*What role could you play in the reverse logistics chain?*

### CUSTOMER SEGMENTS
*Who will be the main customers or users of your product/service?*

*Who else might benefit from or will be effected by your materials/product/ service? Also consider beneficiaries beyond your immediate value chain and industry.*

### COSTS
*Which costs could be shared or lowered through other users and partners?*

*Could you shift from an ownership model of under-utilised assets to payment for access and usage?*

*How might you reduce cost volatility and dependence on the use of finite resources? What can you do to mitigate risk?*

### REVENUES
*How might you diversify opportunities to increase resilience, growth and innovation?*

*How might "growing the pie" through value creation elsewhere in the system) impact favourably on your own future success?*

*How might your business model help create other types of value? Human, social or natural capital?*

*How might new services increase revenue from existing products, assets or your delivery systems?*

# STORYTELLING

A method of creating imagery, emotions, and understanding of events through an interaction between a storyteller and an audience.

Practice Your Pitch: Six Different Ways
There are three ways to learn and perfect the six pitches:
Practice, practice, practice. Here's a place to begin.

1. One-Word Pitch
Write a fifty-word pitch. Reduce it to twenty-five words. Then to six words.
One of those remaining half-dozen is almost certainly your one-word pitch.

2. The Question Pitch
Use this if your arguments are strong. If they're weak, make a statement. Or better yet, find some new arguments.

3. The Rhyming Pitch
Don't rack your brain for rhymes. Go online and find a rhyming dictionary.
I'm partial to RhymeZone: http://www.rhymezone.com

4. The Subject Line Pitch
Review the subject lines of the last twenty e-mail messages you've sent.
Note how many of them appeal to either utility or curiosity.

5. The Twitter Pitch
The best pitches are short, sweet, and easy to retweet. Limit your pitch to 120 characters so that others can pass it on.

A few examples...

Once upon a time there was a widowed fish, named Marlin, who was extremely protective of his only son, Nemo. Every day, Marlin warned Nemo of the ocean's dangers and implored him not to swim far away. One day, in an act of defiance, Nemo ignores his father's warnings and swims into the open water. Because of that, he is captured by a diver and ends up in the fish tank of a dentist in Sydney. Because of that, Marlin sets off on a journey to recover Nemo, enlisting the help of other sea creatures along the way. Until finally, Marlin and Nemo find each other, reunite and learn that love depends on trust.

Once upon a time there was an education crisis haunting our schools and communities across North America. Every day, large percentages of our children were not achieving proficiency in vital literacy skills to the point that some in our community even doubted whether they ever could. One day, we developed a simple and shared definition of what children had to know to be ready for school. Because of that, our early childhood centers and parents became better at helping all children enter kindergarten ready to learn. Because of that, teachers were free to work more on skill development for each individual child. Until finally, every child, irrespective of ethnic or economic circumstance, became a proficient reader by the end of third grade.

Your try:
Once upon a time _____
Because of that, _____
Because of that, _____
Every day, _____
One day, _____
Until finally, _____