semco maritime

Toolbook

Innovation and digitalization

Revision 2 / 2019

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Innovation model

	Goal	Tools	People	Metrics
Searching inspiration	We have found inspiration that can generate ideas for the innovation process.	· Study trips · Desk research · Brand borrowing · Workshops	Company	Ideas generated
Validating Idea	We have an idea that has potential and is relevant to work on through an innovation process.	· »What if« questions · Scenarios · Inspirational visuals · Braínstorming · Lean canvas	Initiator from division Innovation room contact	Enthusiasm Division ownership
Valiating Problem	We have found a real, important problem that is poorly met by exist-ing alternatives.	· Personas · Problem situation / user problem · Exploratory interviews · Workflows	Problem owner Project owner and project manager cooperate in Innovation room	Qualitative feedback
Validating Solution	We have figured out how to solve the problem in a way that customers will use and pay for.	· Hypothesis* · Value proposition design · Business model canvas* · Mock-up prototyping · User testing · Use cases	Problem owner Project owner and project manager cooperate in Inno-vation room	As previous, plus sign-ups
Validating Business	We have built the solution, found a way to sell it and implement it at Semco.	· Roadmap* · Minimum viable product* · Experiments and tests*	Ongoing handoff from Innovation room to Division Project owner and project manager cooperate in division	As previous, plus Engagement rate Pre-orders Sales or revenue
Validating Scale	We have found a sustainable way to roll out the solution at scale and grow it.	· Hypothesis · Business Model canvas · Roadmap · Minimum Viable Product · Experiments and tests	Full division ownership or separate organi-sation	As previous, plus further engage-ment, revenue and cost metrics to drive scale

Team tools:
- Innovation model
- Agile principles
- Build - measure - learn
- Business case checklist
- Kanban
- Sprint
- Lighthouses
- ADKAR

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INNOVATION MODEL

Process overview

Goal Metrics People

1. Searching inspiration

- We have found inspiration that can generate ideas for the innovation process
- Ideas generated
- Company

2. Validating idea

- We have an idea that has potential and is relevant to work on through an innovation process
- Enthusiasm
  Division ownership
- Initiator from division
  Innovation room contact

3. Validating problem

- We have found a real, important problem that is poorly met by existing alternatives
- Qualitative feedback
- Problem owner
  Project owner and project manager cooperate in Innovation room

4. Validating solution

- We have figured out how to solve the problem in a way that customers will use and pay for
- Sign-ups
- Problem owner
  Project owner and Project manager cooperate in Innovation room

5. Validating business

- We have built the solution, found a way to sell it and implement it at Semco
- Engagement rate
  Pre-orders
  Sales or revenue
- Ongoing handoff from Innovation room to Division. Project owner and Project manager cooperate in division

6. Validating scale

- We have found a sustainable way to roll out the solution at scale and grow it
- Further engagement, revenue and cost metrics to drive scale
- Full division ownership or separate organisation

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INNOVATION MODEL

Tools overview

Tools

1. Searching inspiration

- Study trips
  Desk research
  Brand borrowing
  Workshops

2. Validating idea

- »What if …« questions
  Scenarios
  Inspirational visuals
  Brainstorming
  Lean canvas

3. Validating problem

- Personas
  Problem situation / user problem
  Exploratory interviews
  Workflows

4. Validating solution

- Hypothesis
  Value proposition design
  Business model canvas
  Mock-up prototyping
  User testing
  Use cases

5. Validating business

- Roadmap
  Minimum viable product
  Experiments and tests

6. Validating scale

- Hypothesis
  Business Model Canvas
  Roadmap
  Minimum Viable Product
  Experiments and tests

Team tools

- »Semco Maritime Innovation Model
  Agile principles
  Build – Measure – Learn
  Kanban
  Sprint
  Business case checklist
  Lighthouses
  ADKAR

Searching inspiration

SEARCHING INSPIRATION

Study trips

Why use Study trips?

Study trips will enhance the team to get inspired and make new ideas bloom by getting out of the office. Study trips are mainly organized to observe places, practices, culture, organizations or people in their natural environments. They aim at breaking the usual routine by immersing people out of their comfort zone. Study trips are extremely valuable for a team because by spending time outside the office they broaden their horizons to think "outside the box".

What is Study trips?

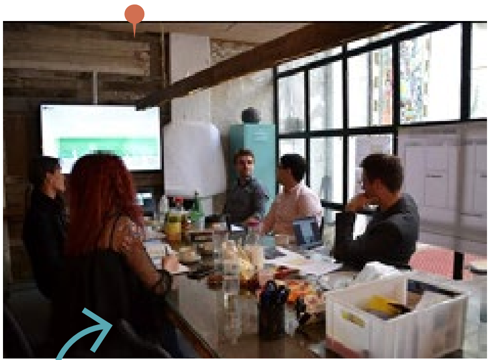
Study trips are usually a combination of visits, conferences, workshops, practice, meetings with experts, start-ups, investors or even competitors. They can happen on the other side of the globe or right next door.

How do you use Study trips?

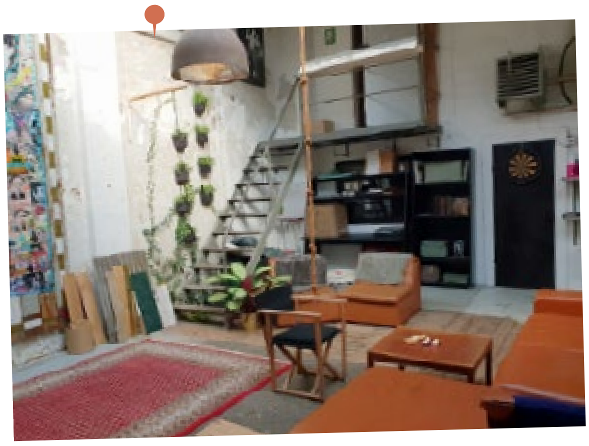
1. Set a specific and strategic objective
2. Pick the right place
3. Debrief promptly

Good advice

- Bring the "outside in" to innovate together - exposing your business to different places will help the team to get inspired by existing practices. Personal insights bring contributions to group innovation and finally strategic alignment.
- Strengthen team bounds in the "off" moments - one of the best benefit of a study trip is to build a network and create meaningful relationships within the team.
- Take a lot of pictures and make sure that at the end of the day you have written key points
- Send an e-mail at most a week after the presentation and ask to share their presentation
- Use the Knowledge Wall to share the most valuable findings



Example: Strategic Workshop Manpower on demand at Fabrikskompagniet



SEARCHING INSPIRATION

Desk research

Why use desk research?

Before carrying out a study trip, developing a prototype or mock-up or running a usability test, it makes sense to see what others have done in the past related with your project´s area. Although it is unlikely that anyone has researched the specific activity you are planning, someone has almost tried to answer related questions. Using desk research is the cheapest and quickest way to understand the specific domain.

What is desk research?

Desk research consist of gathering and analysing information already available. While it may not be able to answer specific questions, desk research can provide you with useful information. Finding the right information may take some effort, but it can help you to make informed business decisions.

How do you use desk research?

1. Select your search terms by focusing on your research question
2. Find relevant sources
3. Select the information that best suits your question
4. Process the gathered information to answer your question

Good advice

Make use of your colleagues! Your colleagues are valuable sources of information and expertise.

Validating idea

SEARCHING INSPIRATION / VALIDATING IDEA

Brand borrowing

Why use brand borrowing?

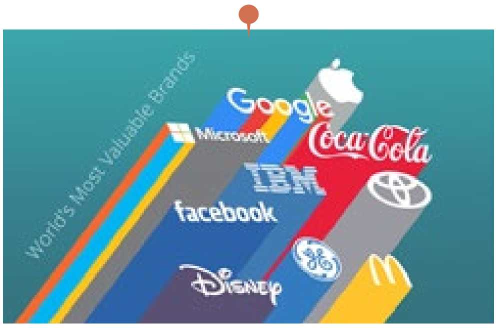
A brand is a collection of symbols, experiences and associations, which position and difference a product, a service, a company, an organization, a person or a place. Branding in relation to a product is about securing that the target group can recognize it compared to products from competitors. We borrow one or more brands and learn or generate ideas from them, because we remove all the things we cannot do from the equation.

What is brand borrowing?

In other words, we find one – or more brands – we like to learn and/or generate ideas from: "What inspiration can we get from X", "If we were X, what would we then do?", "If we were X, how would we think about our problem?"

The 10 most valuable global brands as of 17 Jan 2018:

- Apple
- Google
- Microsoft
- Facebook
- Coca-Cola
- Amazon
- Disney
- Toyota
- McDonald's
- Samsung



We can borrow from these – and even better from the variety all other brands, small, medium-sized, local, regional, etc. etc.

How do you use brand borrowing?

1. Define what type of inspiration you need OR
2. Define you problem = frame in which direction to look
3. Pick a couple of brands you like to learn from. Choose brands far away from each other to get the best result
4. Search the brand and be inspired
5. Write down your ideas

Good advice / example

- Brand borrowing can be used for getting inspiration (broader) AND for solving a defined problem (specific)
- Be open to less known brands – and don't hesitate to use brands from other industries
- You can use brands to easily explain your ideas
- Example: Team used Uber when developing the manpower app. They compared the driver with the electrician and the client with the one requesting a ride from A to B. When the team talked about matching, they borrowed the Tinder brand.

VALIDATING IDEA

»What If?« Technique

Why use the »What If?« Technique?

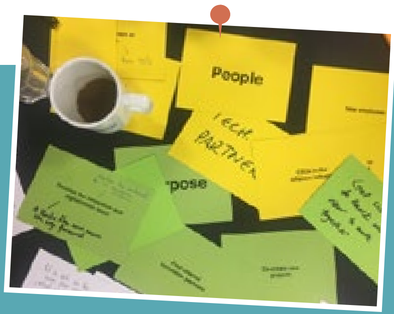
Spotting new opportunities can be difficult. Everyone are caught up in their own frame of mind. Therefore it can be necessary to force people to find new perspective. This is what the "What If?" Technique can help you do. Use it in a brainstorm session, a workshop or a meeting when you need to spot opportunities or come up with ideas from a fresh perspective.

What is the »What If?« Technique?

The "What If?" Technique is a game that forces you and your team to come up with as many opportunities as possible by creating "What if....?" questions around an agreed upon topic. The point is to be creative and not allow limitations or constraints to hinder your imagination.

How do you run the »What If?« Technique?

1. Decide the topic
2. Ask everyone to spend 3-5 minutes writing down as many »What if...?« questions as possible. The object is quantity – not quality at this point.
3. Everyone share their ideas
4. Repeat step 2 and 3 at least once, but preferably several times
5. Group ideas and find new insights, opportunities you had not seen before or relevant ideas to test



Good advice

- This is about finding new, different, even crazy ideas. So don't criticize ideas during the process. Remember that ideas are worth nothing, execution is everything – so no one knows which ideas will become the next big business opportunity!
- This session requires post-its, and lot's of them. Only write one idea on one post-it, so you can move them around and group them together.
- End off a »What If?« session by trying to formulate ideas or opportunities using this form: "There's an opportunity to provide [who] with [what advantage] that [fills a gap]!"
- The »What If?« technique is great to use for *brainstorming* or to use in combination with *visual inspiration*. Combine with these methods to give a group even more inspiration and input to coming up with ideas.

VALIDATING IDEA

Scenarios

Why use scenarios?

The future is uncertain. But how do you strategize or plan under uncertainty? Well, you imagine the future from a variety of perspectives in order to align perspective and agree on a preferred forward strategy. That is what scenario development is for.

What are scenarios?

Working with scenarios is to apply a list of different frames (i.e. possible future events) to uncover and discuss certain and uncertain future events. A frame consists of looking at the future from the perspective of a specific driving force, e.g. what would happen if it was decided to rid the world of fossil fuels by 2020, or if Google entered the offshore industry with a platform for asset management. By applying different, even forced, frames you challenge your own perspectives and the perspectives of others. Scenarios can be applied as part of a workshop, but is better to do as an ongoing process.

How do you use scenarios?

1. Choose the focal point to apply scenarios to and decide on the group of people to involve in developing scenarios
2. Brainstorm a list of driving forces that you want to discuss – they could be key factors such as demand, competition, technology or regulation.
3. From your brainstorm identify two critical uncertainties that have high impact on your focal point
4. Create a two-by-two matrix based on your two chosen uncertainties. This will generate four possible states of the future.
5. Name the four states of the future and create a coherent story of what that future will look like
6. Discuss possible opportunities, threats, possible actions connected to each of the four future states produced by the two-by-two matrix
7. Visualize the scenarios through images, headlines or the like.
8. Use the output as a backdrop to develop ideas, discuss possible strategies or test against.

Good advice

- Scenarios is one of those instances where the output is by no means as important as the process. The value lies in questioning, developing and aligning a variety of perspectives of the future together.
- The output of working with scenarios is better explained when visualized. The scenario spiderweb is one, helpful way to visualize.
- Typical frames to apply concern Semco, the competitors, the market and technological development.
- Shell is known for its division working with Scenario Planning. Check out the Oxford book based on their work called Strategic Reframing: The Oxford Scenario Planning Approach

SEARCHING INSPIRATION / VALIDATING IDEA

Inspirational visuals

Why use inspirational visuals?

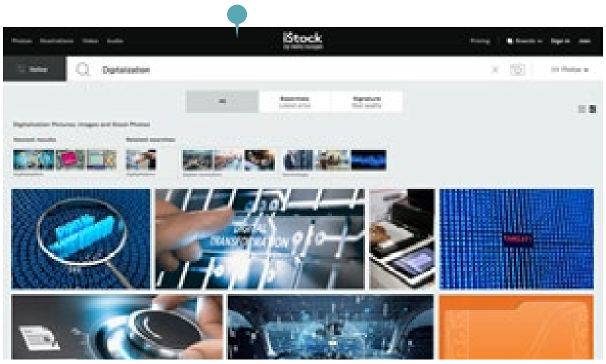
Visual thinking – or visual/spatial learning or picture thinking – means thinking through visual processing. It is common in approximately 60–65% of the general population. This is why the use of inspirational visuals as a group creativity tool makes a lot of sense – and can generate new inspiration and ideas.

What is inspirational visuals?

It is simply looking at existing visuals to generate new mental images - new inspiration or ideas.

Top 10 Websites For Visual Inspiration are:

- Behance
- Deviantart
- Ffffound!
- Pinterest
- From Up North
- Dribbble
- WhoDesingToday
- Piccsy
- Lost Type
- Webdesign Inspiration



How do you use inspirational visuals?

1. Define what type of inspiration you need OR
2. Define you problem - frame in which direction to look
3. Find a site that provides you with inspirational visuals; Use an existing inspirational photo deck OR Prepare your own inspirational photo deck
4. Pick the facilitator
5. Invite the right people
6. Set the agenda
7. Hold the session focusing on generating ideas, ie. express ideas, combine and improve and further build on – no criticism

Good advice / example

- Inspirational visuals can be used for getting inspiration (broader) AND for solving a defined problem (specific)
- Be open to different types and sources of inspirational visuals – and don't hesitate to "go wild"
- Inspirational visuals can be combined with other group creativity tools for better results

VALIDATING IDEA

Brainstorming

Why use brainstorming?

Brainstorming is a group creativity tool that generates and gathers a list of ideas related to a specific problem.

What is brainstorming?

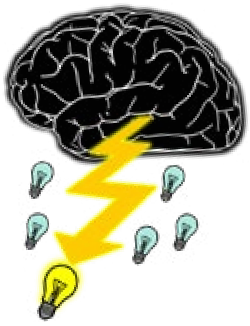
In other words, a group of people meets to generate new ideas and solutions around a specific defined problem. Brainstorming reduces social inhibitions among group members, stimulates idea generation and increases overall creativity of the group. It does so by focusing on four general rules:

1. Go for quantity
2. Withhold criticism
3. Welcome wild ideas
4. Combine and improve ideas

All ideas from the session are written down. The ideas are evaluated in a separate session after the brainstorming session. The father of brainstorming is Alex Faickney Osborn.

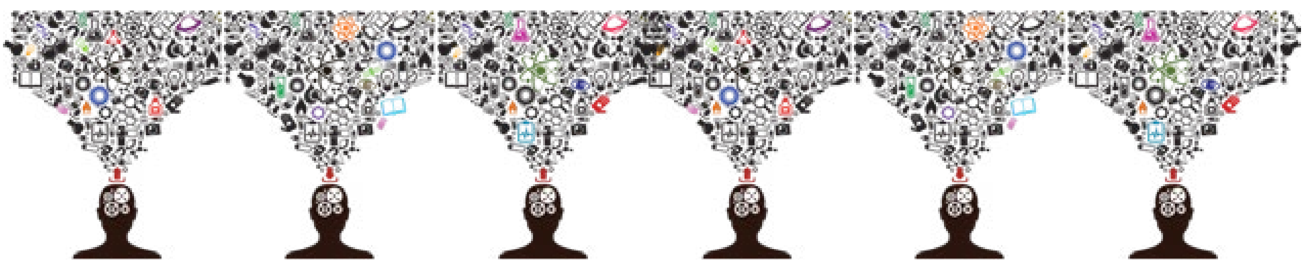
How do you use brainstorming?

1. Define the problem question that the brainstorming session will address
2. Lay out the context and definitions, if any
3. Pick the facilitator
4. Invite the right people
5. Set the agenda
6. Holding the session



Good advice / example

- Brainstorming should address a specific question and only one. Sessions addressing multiple questions tend to become inefficient
- The problem must require the generation of ideas rather than judgment; for instance possible names for a product
- Group size of no more than 12 participants
- Individual brainstorming is possible and may produces more ideas than group brainstorming
- Individual and group brainstorming can be combined
- Brainstorming can be combined with other group creativity tools, eg. but not limited to “what if”



Validating problem

VALIDATING PROBLEM

Personas

Why use personas?

It is a lot easier to identify the right problem or develop the right solution if you are thinking of a person than thinking of a faceless target group. Without a person in mind teams tend to let their focus drift, they have trouble identifying with the target group and end up project their own preferences or attitudes onto the target group. This is where personas can help you focus your team's efforts.

What is a persona?

A persona is a personal description of a fictional representative of your target group. The persona can have different foci, e.g. the user journey, problem scenarios, triggers that would make the person have interest in your solution or attitudes towards specific issues. The point is to give you a vivid image of the person in mind that speaks to the situation, problem or solution you are working on. You can use it for specific workshops as a tool for your team to orient towards the same issues or as a general tool throughout development.

How do you create a persona?

1. Agree on the purpose of your persona – what does it need to help you do?
2. Identify the segment of your target group you need a persona for
3. Develop hypotheses from your purpose about what experiences, user journey, attitudes or thoughts the segment has
4. Test your hypotheses by interviewing, surveying and otherwise researching representatives from the segment
5. Extract insights about your persona from the interviews
6. Write the persona – You can use the persona template or you can work from scratch
7. Print the persona and use it for workshops, meetings and development.

Good advice

- Interviews are an important base of personas. They provide you with in-depth information and personal touches to the persona
- You can start by creating a protopersona, where you haven't researched anything yet.
- A more robust persona requires more research. It's hard to provide a specific number of interviews needed, but some personas used time and time again in an industry can be based on more than 20 interviews
- Start the name of your persona with the same letter as the function that persona represents, e.g. Carina the Coordinator or Eric the Electrician. This makes it so much easier to remember
- Use personas as part of workshops, when briefing the project team, when discussing and developing value proposition or prioritizing features

VALIDATING PROBLEM

Problem situation

Why use problem situation?

The best way to develop a solution that someone will actually use and pay for is to have a specific person and that person's situation in mind. This is where problem situations come in handy. Instead of only stating a "need" a problem situation requires you to look more holistically at the situation the person you are designing for is in. This will help you better understand the specific problem and keep options open of different ways to solve the actual problem.

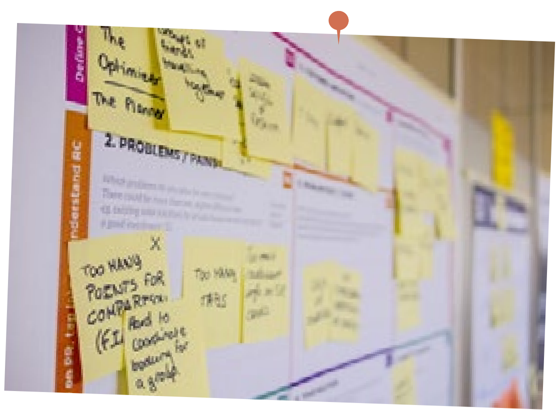
What are problem situation?

A problem situation is a description of the situation the person you are targeting is in, the desired outcome of the situation and what is preventing that person from reaching her/his desired state. Basically it is about identifying the problem that your person in mind experiences – and also the ways that the person is solving that problem today. Don't expect the problem you identify to be unsolved. Your goal is to identify a problem that is poorly solved and that you can solve better, or completely eliminate.

How do you use problem situation?

1. Use exploratory interviews to research how your target group in mind work today with whatever issue you focus on
2. Use questions about what is hard? and when do you experience frustration? to identify issues of importance
3. Identify the ways your target group solves these issues today Develop a coherent understanding of the situation and the job that your target group is trying to achieve
4. Write up or visualize the target group, the top problem situations and the alternatives that solve their problems today
5. Use your output as a foundation for ideation of solutions or for further testing to validate the problem you are working with

Good advice
Avoid the two equally bad extremes of problem identification: Focusing on precisely what your target group says and thinking you already know what your target group wants.



VALIDATING PROBLEM

Exploratory interviews

Why use exploratory interviews?

Exploratory interviews are great for finding out what problems clients, colleagues or partners have. They help you figure out what they value, and don't value, and where there are opportunities for new services or solutions that can help them in their work.

What are exploratory interviews?

The exploratory interview is an interview-form based on open-ended questions. It starts by identifying a specific experience, the interviewee has had, which is relevant for your project. Then it let's you dive deep into this experience to identify specific problems, ideas or opportunities for improvement.

How do you conduct exploratory interviews?

1. Define the topic of interest for your project, e.g. procurement of substations or unscheduled service and maintenance
2. Identify the relevant people to interview based on the focus and purpose of your interviews
3. Invite the people you want to interview and make sure they understand the context and purpose of the interview
4. Develop an interview guide targeted at each person you want to interview respectively. Make use of the Exploratory interview template, for each interview.
5. Conduct the interview with use of the guide. Record or write down as much of the interview as possible.
6. After the interview, sit with prints of the interview together with someone else in your team. Mark important quotes, categorise them and identify patterns or themes in the interview. From these themes develop insights – statements of knowledge that the interview gave you – and use quotes from the interview as examples of the insights.

Good advice / example

For the development of Manpower on demand we made extensive use of this type of interview with coordinators. The interviews helped us find out when in their work they were wasting the most time and had the most problems. This gave the idea for the Manpower on demand app that could help them save time when reaching out to existing or potential employees with job offers.

- Record the interview or have someone participate to write down all that your interviewee says. It helps to have as direct a transcript as possible.
- Print out quotes and use them for inspiration with your team – they will help you focus on what your interviewees want or value.
- Do interviews even though you don't think you can do everything right. A bad interview is better than no interview – and you'll get better for every time you try.
- Consider who to have present for the interview. It may affect both the questions you can ask and the answers you will get.

VALIDATING PROBLEM

Workflows

Why use workflows?

Workflows help you visualize processes making it easier to spark conversation about problems and opportunities. Workflows work for both work processes and user journeys. In both cases it forms the basis of discussing the as-is situation as well as possible to-be workflows.

What is a workflow?

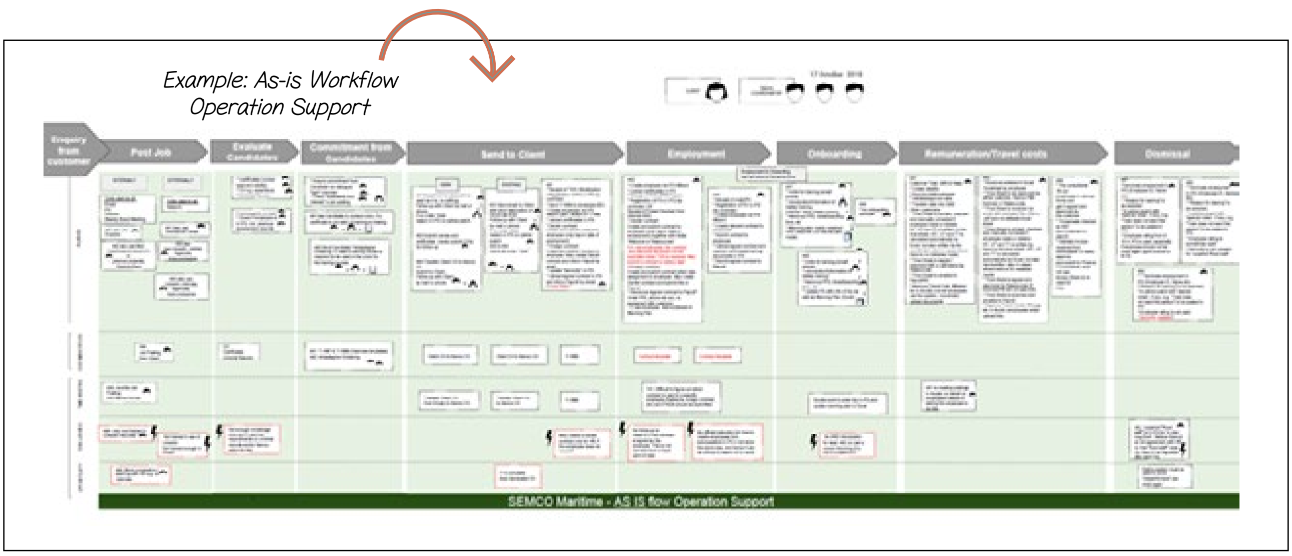
A workflow is a visualization. It can visualize the flow of a user, a customer, a colleague, well basically of anyone. It builds on a mapping of key points or stages in the flow as seen from the perspective of the person(s) in focus. Depending on your purpose with the workflow can contain pains, gains, questions, helpers, systems used or data generated. Usually workflows start from the as-is point of view and afterwards work with to-be opportunities.

How do you map a workflow?

1. Agree upon the purpose and focus of the workflow. What should be included?
2. Interview representatives of the people involved in the workflow. Use the *exploratory interview* as the basis.
3. Map out the workflow from start to finish
   A. Start by identifying stages of the workflow
   B. Add the levels you want in the workflow, e.g. questions, pains or tools used
   C. Add details to the levels of the workflow
4. Use the as-is workflow to identify opportunities for improvement in the to-be workflow

Good advice

- Workflows and personas work well together to provide in-depth understanding of your target group
- When in doubt – map it out! The workflow is about visualizing things instead of writing out lengthy descriptions. Keep text in the workflow short and simple.
- Use the Workflow template to see how you can build up a visualization of the workflow.



Validating solution

VALIDATING SOLUTION

Lean Canvas

Why use Lean Canvas?

By filling out the Lean Canvas you can assure that you are considering each vital step and ensure the focus you need in order to make your idea better.

What is Lean Canvas?

Lean Canvas is an adaptation of Business Model Canvas created in the Lean Startup spirit (Fast, Concise and Effective startup).

Lean Canvas is a business model with a simple problem-solution oriented approach, which enables the user to organize the business plan in a logical way. It begins with the problem, a proposed solution, the channels to achieving the solution, costs involved and the anticipated revenue streams.

How do you use Lean Canvas?

Print out the template and fill in the business model. Lean Canvas helps deconstruct the idea into its key assumptions using nine building blocks:

1. Customer Segmentation
2. Problem
3. Solution
4. Unique Value Proposition
5. Unfair advantage
6. Channels
7. Revenue Streams
8. Cost Structure
9. Key Metrics

Good advice

- Sketch your initial canvases quickly with the info you have on deck, it will help you to think about your business model as an ongoing draft clearly visualizing the progress
- Optimize the information through market feedback updating the sketch to a second draft and so on
- Keep a different version of the sketch for each major change in order to clearly see the progress and learn

VALIDATING SOLUTION

Hypotheses

Why use hypotheses?

Hypotheses are integral to the scientific approach to innovation, where we use experiments to continuously learn whether or not something works. However, without a statement about what we expect from the experiment, how do we know if it worked or not? Hypotheses is your tool to formulate your assumptions about design of your solution. It helps you test assumptions about what will work and helps you identify what to measure and how to know if you are right or wrong.

What are hypotheses?

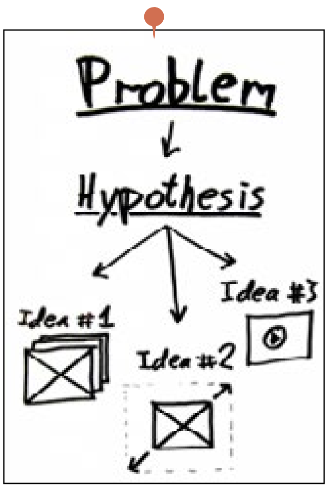
A hypothesis is a formulation of your assumption, hunch or idea of what will work for your solution or product. When you have little to no evidence to support it we call it a hypothesis, while when you have data to support your it, we call it a fact. For a digital product a hypothesis could be that "We believe that making the button red instead of blue will make users push it more often".

How do you use hypotheses?

1. Start by finishing the following sentence that is your hypothesis
   We believe [statement about problem, solution or a specific feature].
2. Now finish this sentence about what reaction you expect from users or customers
   We know that we are [right/wrong] when [observable feedback from the market].
3. Then finish this sentence about what you will measure
   We will measure this through [point or data to measure].
4. Finally finish the following statement about your threshold for a successful experiment
   We are [right/wrong] if [accepted level of response in your data].
5. Now, when you have formulated your hypothesis it is time to conduct an experiment to test your hypothesis.

Good advice / example

Hypothesis are key to running lean projects. They help you focus on what actually works and what doesn't. This also means that failure, or failed experiments, are not just acceptable, they are key, because they help you learn!



VALIDATING SOLUTION

Value proposition design

Why use hypotheses?

The Value Proposition Designer Canvas is like a plug-in tool to the Business Model Canvas. It helps you design, test, and build the Value Proposition to Customers in a more structured and thoughtful way, just like the Canvas assists you in the business model design process.

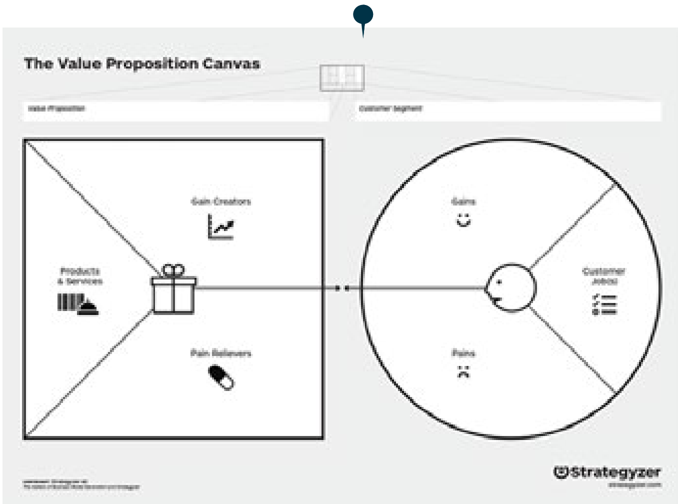
What is the tool?

The Value Proposition Designer Canvas is composed of two blocks from the Business Model Canvas, the Value Proposition and the corresponding Customer Segment you are targeting. The purpose of the tool is to help you sketch out both in more detail with a simple but powerful structure. Through this visualization, you will have better strategic conversations and it will prepare you for testing both building blocks.

How do you use the tool?

As the goal of the Value Proposition Canvas is to assist you in designing great Value Propositions that match your Customer's needs and jobs-to-be-done and helps them solve their problems. This is what the start-up scene calls product-market fit or problem-solution fit. The Value Proposition Canvas helps you work towards this fit in a more systematic way. You will go through:

1. Customer jobs
2. Customer pains
3. Customer gains
4. Products and Services
5. Pain Relievers
6. Gain Creators



Good advice / example

Most Value Propositions compete with others for the same Customer Segment. It can be like an "open slot" that will be filled by the company with the best fit. You can sketch out competing value propositions; you can easily compare them by mapping out the same variables, in order to better understand which one to go for.

https://www.youtube.com/watch?v=ReM1uqmVfP0

VALIDATING SOLUTION

Business Model Canvas

Why use this tool?

The Canvas is popular with entrepreneurs and intrapreneurs for business model innovation and helps delivering focus, flexibility and transparency.

What is the tool?

The Business Model Canvas (BMC) gives you the framework of a business plan without the overhead and the improvisation of a 'back of the napkin' sketch without the fuzziness. The tool resembles a painter's canvas—preformatted with the nine blocks—which allows you to paint pictures of new or existing business models. These elements provide a coherent view of a business' key drivers and describes the rationale of how an organization creates, delivers, and captures value.

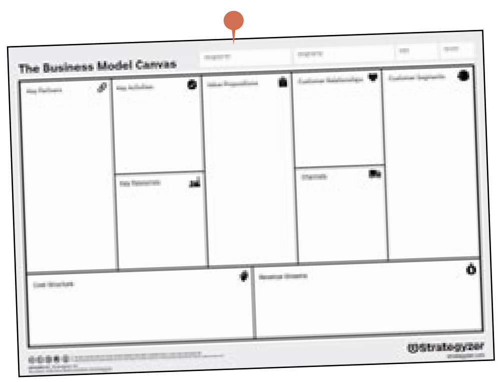
How do you use the tool?

Print the canvas, fill out the elements for your business, and then ask yourself 'Does this make sense?' 'What are the most important linkages and components of the model?'

1. Customer Segments: Who are the customers? What do they think? See? Feel? Do?
2. Value Propositions: What's compelling about the proposition? Why do customers buy, use?
3. Channels: How are these propositions promoted, sold and delivered? Why? Is it working?
4. Customer Relationships: How do you interact with the customer through their 'journey'?
5. Revenue Streams: How does the business earn revenue from the value propositions?
6. Key Activities: What uniquely strategic things does the business do to deliver its proposition?
7. Key Resources: What unique strategic assets must the business have to compete?
8. Key Partnerships: What can the company not do so it can focus on its Key Activities?
9. Cost Structure: What are the business' major cost drivers? How are they linked to revenue?

Good advice

- The Business Model Canvas works best when printed out on a large surface so groups of people can jointly start sketching and discussing business model elements with Post-it notes or board markers. It is a hands-on tool that fosters understanding, discussion, creativity, and analysis
- Use it to develop an idea becoming a paper based prototype or used it to identify assumptions that you need to test, the more you work with it becomes part of the idea



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VALIDATING SOLUTION

Prototyping and mock-ups

Why use prototyping and mock-ups

Building prototypes and mock-ups allows you to test your product before spending any money on having it built. It's a great way of getting specific and showing your solution.

What is prototyping and mock-ups?

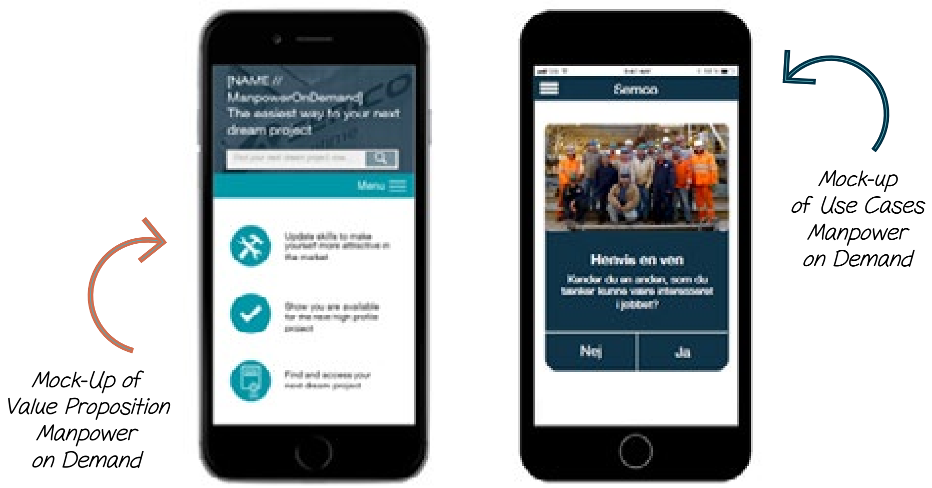
Prototyping is basically to build your idea for a solution in a quick and cheap way. You mock-up the product for example by drawing it, building it in cardboard, making a storyboard or building a wireframe version if it is a digital solution.

How do you use prototyping and mock-ups?

1. Decide which format to use for your prototype or mock-up, e.g. drawing, physical prototype, storyboard or wireframe
2. Prepare the needed materials and inputs
3. Gather the right people from your team to help you
4. Sketch out the prototype and/or build it together
5. Test the prototype – take a look at User testing for advice on how to test.

Good advice

- You can make a prototype on your own, but being 2-4 people is usually better in order to have more perspectives
- Don't spend too much time on each prototype - it's better to build more versions than to get caught up on details
- Use insights or inputs in the form of quotes from interviews, inspirational photos or workflows as inspiration in the process



VALIDATING SOLUTION

User testing

Why perform user-testing?

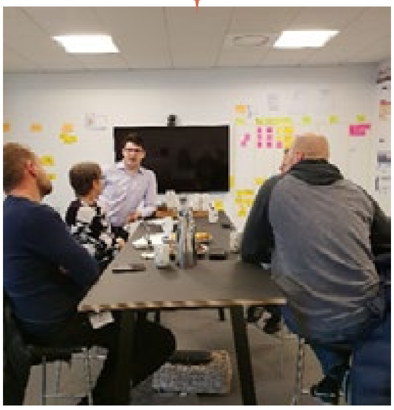
Testing with actual users will give you concrete and actionable feedback on how your products works, how to improve it and what the value of it is. User-tests can be used at almost any time in the project. In the beginning to test prototypes or later to continuously test your Minimum viable product or new features of your fully developed product.

What is user-testing?

User-testing is basically to put your product – or a prototype of it – in the hands of actual users, see what happens and record how the user responds to your product. There are many ways to test. Usually you would test initially in a place with little distractions and the further you get in development as close to the real situation, where the user would make use of the product.

How do you do a user-test?

1. You need a *Protoype or mock-up*, a minimum viable product or a single Use case to test.
2. Decide how to test
3. Identify and invite relevant users for a test.
4. Conduct the test.
5. After the tests, gather your team to go through the material, extract patterns, similarities or differences to develop insights and actions.



Good advice / example

- User-testing is a specific type of experiment. For more information go to Experiments and tests.
- A focused test or a real-life situation? Usually 30 mins is enough for a focused test of a prototype, while real-life tests can be more complex to do and therefore take longer.
- The trick to user-testing is to provide the tester with a specific scenario or task – it c ould be to ask a coordinator to post a job in Manpower on demand – and see how they navigate and use the product.
- Instead of telling the tester what to do and how, ask them to think out loud so you hear their thoughts and considerations. That will help you identify what works and what doesn't.
- If you make use of personas for development try to find users that correspond with that persona.
- Remember to have someone record input through notes, pictures and/or video.

VALIDATING SOLUTION

Assumption cards

Why use assumption cards?

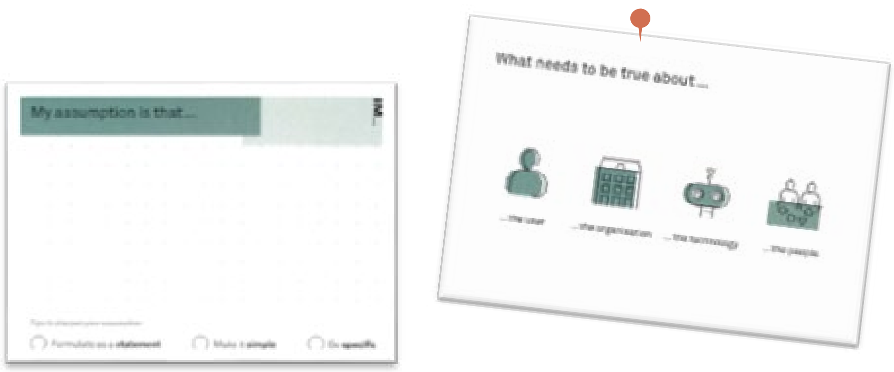
Assumptions are used in order to estimate the existence of a fact from the known existence of other facts. Assumption cards are useful in providing basis for action and in creating "what if" scenarios to simulate different realities of possible situations.

What are assumption cards?

Assumptions are things that you assume to be true for the purposes of developing a strategy, making decisions and planning. They are documented in business plans as a disclosure of uncertainty and risk.

How do you use assumption cards?

1. Start by writing on the cards as many assumptions as possible.
2. Now, when you have formulated your assumptions it is time to conduct an experiment to test each assumption.



Good advice

- It is important that the assumptions are made explicit, and that the number of assumptions is sufficient to describe the situation at hand!
- Use one assumption card for each assumption!
- Write as many assumptions as possible!

Validating business

VALIDATING BUSINESS

Use Cases

Why use the tool use cases?

Focusing purely on technical requirements can lead us forget what is actually important to the user of a given solution – the goal they are trying to achieve with it. The use cases help you – and the team you work with – to focus on the user and how the solution helps the user to achieve his or her goal. Use the use cases in order to collect the functional requirements of a solution from a user that has ambiguous technical terminology.

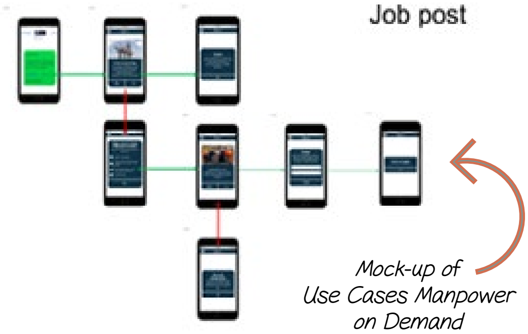
What is the tool use cases?

Use cases are a type of contextual requirements specification that capture how a user will interact with a solution to achieve a specific goal. They capture all the possible ways the user and solution can interact that result in the user achieving the goal. Essentially they are a tool to map out the different features and functionality as seen from the user's perspective. Each use case consists of three levels of information:

1. Goal: The overall goal the user wants to achieve, e.g. "find a suitable candidate"
2. Actions: A flow of overall steps the user takes to achieve the goal, e.g. "enter database" and "identify candidate"
3. Tasks: The specific tasks connected to each step, meaning what happens for each step, e.g. "login", "show all candidates" and "filter for specific criteria"

How do you create a use case?

1. Before developing use cases you should identify and research the users and their problems in order to develop the overall value proposition of the solution.
2. First step is to establish who will use the solution
3. Brainstorm the specific use cases, meaning identifying the specific situations, where your target user wants to achieve something by using the solution
4. For each use case describe the goal
5. Then for each goal, map out the list of actions needed by the user
6. Lastly, for each action, map out specific steps taken in the solution for that action.



Mock-up of Use Cases Manpower on Demand

Good advice

- Refine the use cases in order to get a more complete and organized vision
- Think of use cases should as stories of how users interact with the solution, as stories help everyone involved with the project to better understand and collaborate about the solution.
- Describe the use cases in a language that the user can understand – this will allow you to test use cases with actual users quickly and with little effort before building the actual solution
- Take a look at Mock-Up of Use Cases and use it as a template

VALIDATING SOLUTION

Feature Roadmap

Why use this tool?

A product roadmap communicates the why and what behind what you are building.

What is the tool?

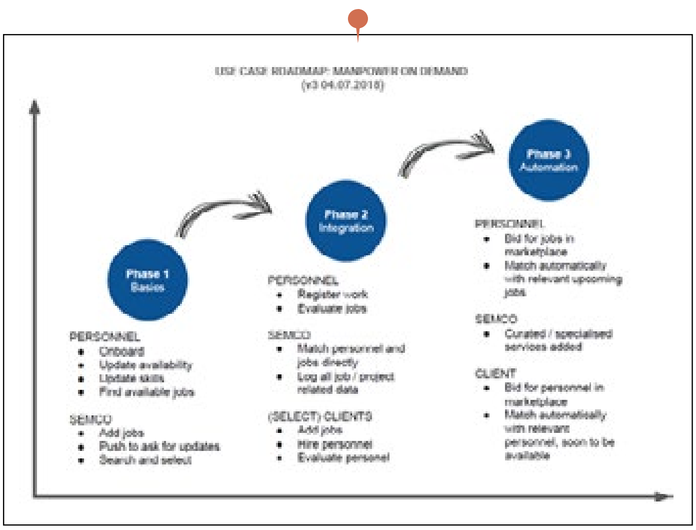
A product roadmap is a high-level visual summary that maps out the vision and direction of your product offering over time. It is a guiding strategic document as well as a plan for executing the strategy. A product roadmap is not an operational to-do list. It is a strategic document designed to help you develop a plan for your product and to keep your team on track in executing that plan.

How do you use the tool?

1. Define the WHY for your product together with your team and the strategic reason for your product. Determining your product's reason for being with your team upfront will make all of your downstream decisions strategic and cohesive, and ultimately, it will lead to a more successful product.
2. Tailor the roadmap to resonate with your audience. A product roadmap is a strategic document, and your strategic objectives in sharing it with your executives will vary wildly from your objectives in showing it to the marketing or development team.
3. Begin building the actual roadmap. The point is that you want to start at the strategic level with every detail you add to the roadmap. Just as you first determined your product's reason for being, you will want to apply the same thinking to each theme.
4. Stay flexible. Finally, as you are building out the details on your roadmap, you will want to keep in mind that none of those details is set in stone.

Good advice / example

- Present a visual Product Roadmap
- Have Different Versions of Your Product Roadmap
- Share Your Product Roadmap



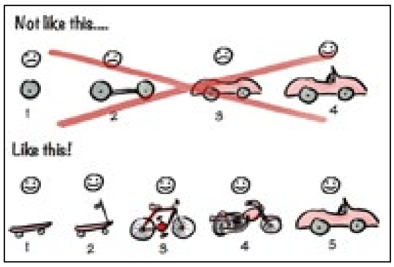
VALIDATING BUSINESS

MVP

Why use this tool?

A minimum viable product has just those core features sufficient to deploy the product, and no more. Typically the product is deployed to a subset of possible customers—such as early adopters thought to be more forgiving, more likely to give feedback, and able to grasp a product vision from an early prototype or marketing information. This strategy targets avoiding building products that customers do not want and seeks to maximize information about the customer per amount of money spent. "The minimum viable product is that version of a new product a team uses to collect the maximum amount of validated learning about customers with the least effort." Be able to test a product hypothesis with minimal resources.

- Accelerate learning
- Reduce wasted engineering hours
- Get the product to early customers as soon as possible
- Base for other products
- To establish a builder's abilities in crafting the product required
- Brand building very quickly



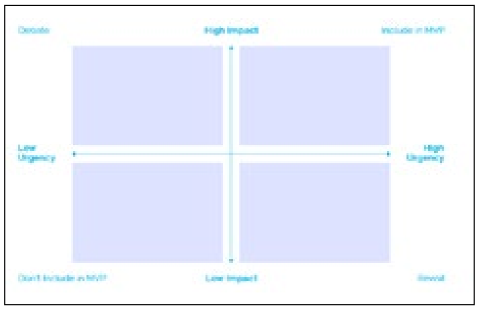
What is the tool?

A minimum viable product (MVP) is a product with just enough features to satisfy early customers, and to provide feedback for future product development. It is a core artefact in an iterative process of idea generation, prototyping, presentation, data collection, analysis and learning. One seeks to minimize the total time spent on an iteration. The process is iterated until a desirable product/market fit is obtained, or until the product is deemed non-viable.

How do you use the tool?

An MVP is the result of the Semco Innvovation Model in of the Validating Business and it is the culmination of applying the other tools deployed so far in a correct way. Elements of the below will be used in order to determine what is the minimum number of features needed in order to create the minimum product that allows the maximum feedback.

1. Validating idea
   a. Scenarios
   b. Lean canvas Sketch
2. Identify the problem
   a. Problem Scenarios
   b. Exploratory interviews
   c. Personas
3. Identify the solution
   a. Value proposition design
   b. Lean canvas
   c. Feature RoadMap
4. Execute
   a. MVP



Good advice / example

- The steps are important to be taken in the order as close as possible and it should be avoided to jump to an MVP creation without properly understating the features required.
- Always challenge the minimum in order to ensure that nice to have features are not introduced.
- Keep a track of the desired features to be used at the next iteration sessions.

VALIDATING BUSINESS

Experiments and tests

Why use experiments and tests?

Experiments and tests are an integrated way of the Build-Measure-Learn cycle that the innovation lab follows. Experiments and tests are the tool to continuously measure as your project moves forward. You apply them to assumptions and hypotheses connected to both problem, solution and business.

What is the tool?

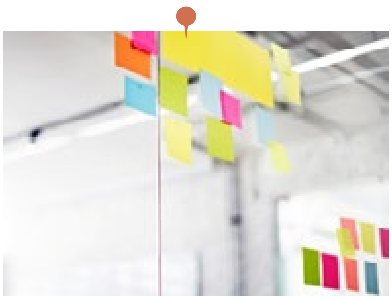
An experiment or test is an activity with the purpose of learning. It focuses on whether or not something works or whether or not your assumptions about your problem, solution or business is right.

How do you use the tool?

1. Identify the hypothesis or assumption you want to test
2. Define the success criteria
3. Design the experiment and plan when to do it
4. Do it!
5. Gather the team to extract learnings and decide if your assumptions or hypotheses were right or wrong. Bring your insights and conclusions into a new planning or design session.

Good advice / example

- Fake-it-till-you-make-it! You don't need a complete solution to do a test. Cut corners or fake the solution if needed. For example, do a quick Facebook campaign to see if peo-ple want a product even if it doesn't exist yet. Or use a mock-up or wireframe in print to test a digital product at an early stage, when you haven't built the product yet.
- Use the *Test cards* from Stategyzer to design your experiments and tests.
- Experiments are key throughout your project. Even when you launch, as you can launch through experiments. The way to do so would be to formulate a hypothesis about use of your solution and then test whether you are right. Then you could formulate a hypothesis about which channels work best to attract more users and then experiment. This way you just keep experimenting your to continued growth.



Team tools

TEAM TOOLS

Lighthouses

Why use lighthouses?

Lighthouses are often used together with transformation maps, which describe a journey from the actual situation to the future state, the intended end point of the journey. A lighthouse is a tower, building, or other type of structure designed to emit light from a system of lamps and lenses and to serve as a navigational aid. In other words, lighthouses help us navigate and find our way towards a target set.

What is lighthouses?

In our case, lighthouses are closely linked to our strategy. One lighthouse relates to our vision, another to our financial ambitions. Below that we have a lighthouses related to Market, Workplace and Execution.

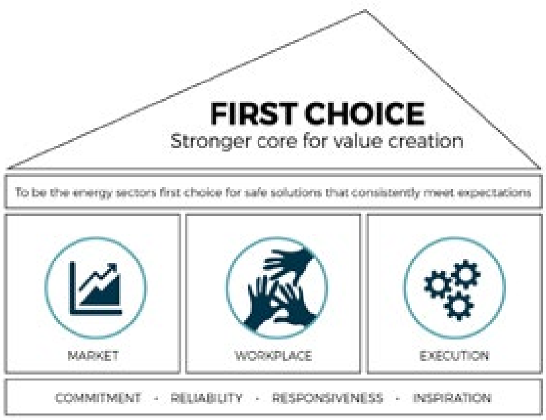
How do you use lighthouses?

1. Define your lighthouse or ambition = where you want to be in the future.
2. If needed, break down your ambition into smaller parts, subsidiary goals or lighthouses.
3. Align your lighthouse(s) to the already existing strategy lighthouses.
4. Decide what steps you need to take when; your roadmap.
5. Work towards your lighthouse(s).
6. Follow up frequently and adjust when needed.

Good advice / example

- Our strategy house is designed in a way that it takes four perspectives into account:
  - Financial
  - Customer (Market)
  - Internal business processes (Execution)
  - Learning and growth (Workplace)

  These perspectives are used for tracking implementation of strategy (balanced scorecard).
- Take at least one element from each perspective into account when working with lighthouses and you will be in good shape.



Semco Maritime strategy house

TEAM TOOLS

Agile Principles

Why use this tool?

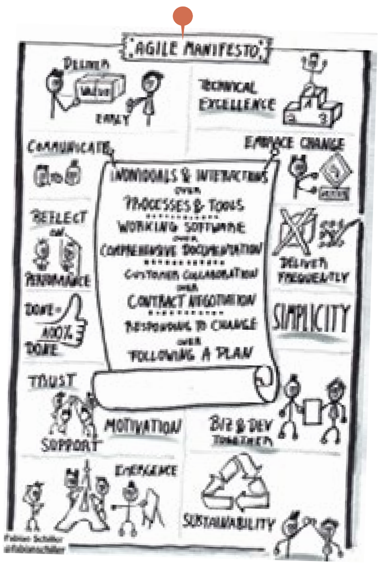
The goal of using this tool is to guide the development and delivery of a high quality MVP, avoiding the classical pitfalls.

What is the tool?

The tool consists of 4 values and 12 principles.

Values

1. Individuals and interactions over processes and tools
2. Working software over comprehensive documentation
3. Customer collaboration over contract negotiation
4. Responding to change over following a plan



Principles

1. Customer satisfaction through early and continuous software delivery
2. Accommodate changing requirements throughout the development process
3. Frequent delivery of working software
4. Collaboration between the business stakeholders and developers throughout the project
5. Support, trust, and motivate the people involved
6. Enable face-to-face interactions
7. Working software is the primary measure of progress
8. Agile processes to support a consistent development pace
9. Attention to technical detail and design enhances agility
10. Simplicity
11. Self-organizing teams encourage great architectures, requirements, and designs
12. Regular reflections on how to become more effective

How do you use the tool?

The principles and tools should be visible in the daily operations of the team

1. Physical print in the room
2. Good understanding from the team members
3. Leading and working according to the principles in the interaction with the organization
4. Ensuring alignment with top management when making decision following the principles

Good advice / example

Having recurring activities to ensure the principles are put to practice.

TEAM TOOLS

Build - Measure - Learn

Why use Build – Measure – Learn cycle?

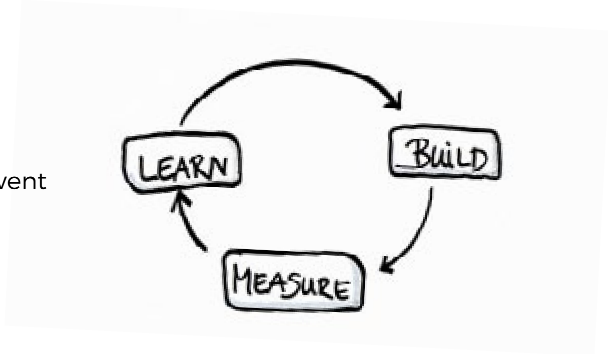
The Build – Measure – Learn cycle is the core of an iterative and agile process. The purpose is to help you deliver value to users, customers and stakeholders fast and often. The cycle focuses on running experiments in order to learn rather than just developing ideas or only analysing. If you want to prevent launching ideas that turn out to not work, this is the way to go.

What is the Build – Measure – Learn cycle?

The cycle is both an overall framework and a model to design a project, a sprint or a workday. Step 1 is to develop the idea. Depending on where you are in the overall project it can be either a question on paper, a solution as a prototype or an entire launch strategy. Step 2 is to try it out by conducting an experiment – see Experiments and tests. Step 3 is to learn from your experiment and returning to the first step to improve your idea, solution or launch strategy.

How do you use the Build – Measure – Learn cycle?

1. Build the idea, problem, feature or strategy
2. Try it out through an experiment and measure how it went
3. Learn from your insights in step 2 and improve what you did in step 1.



Good advice

This is an integral part of the Semco innovation model and methods. Use other tools to help you through each step.

TEAM TOOLS

Kanban

Why use Kanban?

Kanban is used in order to view the workflow and to identify potential obstacles in the project's evolution. It helps you visualize the entire activity of the project which makes it easier to identify and remove any obstacles during the course of the project. It helps enhancing team spirit by improving employee collaboration and project success rate increasing as well the speed of workflow through the transparency of the entire process. The Kanban panel gives us a great help to identify at a glance at what stage of the workflow we have too many tasks or where they are blocked.

What is Kanban?

Kanban consists of creating tables divided into columns. Work optimization can be done through a table where tasks can be moved from one stage of the project to another until they are done. Kanban is a system that allows us to deeply understand the present situation, to identify the problems, to decide and to act in the sense of the superior development of the organization.

How do you use Kanban?

Step 1: Visualize your work-break down the flow of work and draw columns for each. Get some post-it notes and write down each task on a separate one. Put them on the board, move each task from left to right until it is done and leaves the workflow.

Step 2: Limit work in progress-With two hands, you can juggle only few balls before you start dropping them. Kanban is all about maintaining flow and eliminating waste.

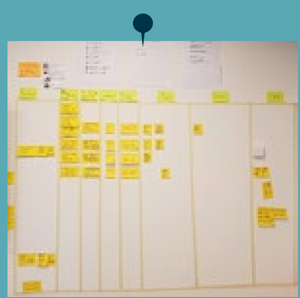
Step 3: Do not push too hard. Pull! Allowing the tasks to be grabbed by the team members as they become available after completing previous tasks.

Step 4: Use, monitor, adapt and improve!

Good advice

- It is said that what is not visible cannot be corrected, so if any element (work phase, task, etc.) that does not appear on the table is identified, it should be passed to the table
- Daily stand up Kanban goal is to minimize the time spent on the tasks at all its stages. The meeting is focused on a specific board and identifies the bottlenecks
- How to optimize your stand up meeting?

  - Don't be late
  - Do not turn a stand up into long sessions or proceedings
  - Leave all devices in your working room
  - Do not solve global problems
  - Do not report but share information
  - Improve oratory skills
  - Be prepared
  - Respect the audience



TEAM TOOLS

The Sprint

Why use the Sprint?

The tool is used to support the whole team in developing productively and creatively products with the highest possible value.

What is the Sprint?

The Sprint is a framework for developing and supporting complex products. A Sprint can be considered a project with a time horizon of no more than a month. Just like the projects, Sprint's are used to accomplish something. Each Sprint has a definition of what is to be built, a design and a flexible plan that will guide it in the process and the resulting product.

How do you use the Sprint?

1. The work done in Sprint is planned at the Sprint Planning Agenda. The plan is created with the entire team. The Sprint planning agenda is made during a session for one Sprint for a specific time. During the meeting, each team member details the agenda´s points.
2. Daily Standup Agenda is a session with the goal of the whole team synchronize activities and create a plan for the working day. The Daily Standup Agenda is held in the same location and at the same time each day to reduce complexity. During the meeting, each team member details the agendas points.
3. Sprint Review Agenda meeting is intended for feedback and encourages collaboration. During the meeting, each team member details the points from the agenda.

Good advice

- Between Sprint the Project Manager and Product Owner meet to discuss the planning
- A new Sprint begins immediately after the previous Sprint conclusions
- During Sprint there are no outside changes that should affect the Sprint goal
- During Sprint, the goal can be clarified and re-negotiated between the Product Owner and the Development Team as more information becomes available
- Product Owner can help clarify the Backlog activities. If the Development Team determines that there is too much or too little work, the Sprint Backlog items can be renegotiated with the Product Owner. In addition, the Development Team may invite others to participate in order to provide technical or specialist advice.

TEAM TOOLS

Business case checklist

Why use the business case checklist?

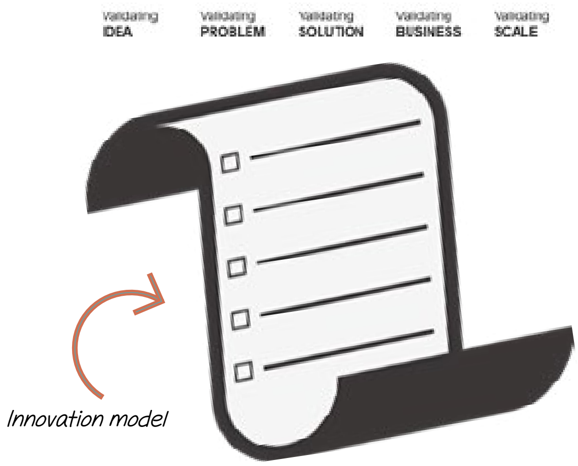
The Semco way of running innovation builds off of lean startup methodology, business model innovation, design thinking and running agile. The business case checklist can help break down your project into elements for specific stages so you know what to focus on at what point in time.

What is the business case checklist?

The business case checklist is a list of all the elements of your product and business model broken down into the five main stages of your project validating idea, validating problem, validating solution, validating business and validating scale. While it is called a checklist, it is not a list to check off topics as done and for them never to return to.

How do you use the business case checklist?

1. Use the checklist as a tool to discuss with problem and product owners, how the process is structured and what comes when
2. Use the checklist whenever you enter a new stage to help the team understand the purpose of each stage.



Good advice

It is called a checklist, but all work is iterative. So you will likely have to rework items and pivot several times during each project.

TEAM TOOLS

ADKAR

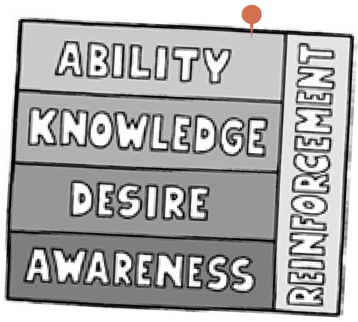
Why use this tool?

When we work with innovation, we develop new solutions, products and/or services. What is left unsaid is that this means change, a new way of doing business. Organizational change only happens when individuals change, and the framework of ADKAR is a good way to prepare individuals to accept a significant change and thrive in a new way of doing business.

What is the tool?

The ADKAR tool consists of 5 steps – each with an overall statement related to it making it easy to remember what the step is all about:

5. Awareness – "I understand why..."
6. Desire – "I have decided to..."
7. Knowledge – "I know how to..." (training and learning new skills)
8. Ability – "I am able to" (the demonstrated ability to actually implement new behavior)
9. Reinforcement – "I will continue to..."



This means that the team working with a new solution, product and/or service need to conduct various change management activities such as stakeholder management, role modelling, communication, coaching, training, audit, etc. etc. – whatever is needed to prepare the individuals for the change and help them though the various steps of the change process.

How do you use the tool?

You need to familiarize with the steps to such an extent that it becomes your second nature. You need to feel and constantly breathe the steps:

1. Assess where the process is overall
2. Prepare your activities to fit with this
3. However, do remember to assess also where the individuals are – people change at an individual speed
4. Listen and ask questions to understand the individual and what you need to do to help the individual pass any given step (sometimes referred to as barrier point as well).
5. Follow up and take necessary actions as you go, meaning start again from 1)

Good advice

Working with change and people is a continuous leadership activity
– it starts and never stops.

Join us in doing things differently!

Semco Maritime
Innovation and Digitalization Team