



CASSINI
Hackathons & Mentoring

Business Design Playbook

Follow this playbook to discover, build
and tap into business opportunities to
accelerate your ideas.

Content

STEP 1: Idea & Team

Who is who? Team formation
List your goals as a team

STEP 2: Customer Opportunity

Who is your user and customer?
What problems do your customers and users have?
How do you recognise & nail the most important customer questions?

STEP 3: Customer Problem

Does your solution fit the problem and customer?
How can you validate the fit?
How to get the X-factor in?

STEP 4: Digital Services

How do you design a differentiated value proposition:
functionalities, features, USP's?
How do you design a minimum viable product?
How do you further secure growth – product/service platform
planning?

STEP 5: Business

How can you make money (revenue & business model)?
How do you get traction in the market?
How do you get the business growing (marketing strategy, campaign
and roadmap)?

STEP 6: Pitch

How to make my story stick?
What is my compelling storyline?
How will I become unique?





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STEP 1: IDEA & TEAM

Lead questions to ask in this section:

- Who is who?
- What is the team formation?
- How do we organise teamwork and team roles?
- What are your goals as a team?

Build your perfect team

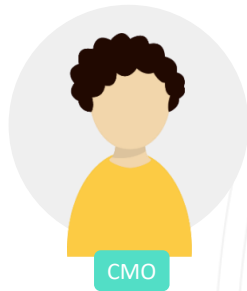
Fill in the names of your team members.



Leadership, Management
and Business Development



Technical EO Product and
Service Development



Marketing, Pricing
and Sales



UI and UX Creative



Business Modeling and
Value Engineering



Team formation

The goal of starting with this preparation segment is to form a team of at least 3 people. Those people should share a passion for solving the same problem and work towards the same goals. On top of that, you'll have to demonstrate excellent team dynamics in your daily teamwork and you will have to feel that you would go to the end of the world together. To put together that dream team you need to revisit and thoroughly re-discuss all the potential problems - their possible solutions - and how everyone in the team can contribute to develop these solutions. This helps you see and decide who you would best fit together with.

GOALS

Form a team of 3 - 5 members

TASKS

Team formation - Ideation

TOOLS

Mapping team roles & competences



TASK 1

Team formation

- If you have a team of 3-5 people formed already:
 - Review whether you have all the necessary competences and experiences
 - Discuss the complementary assets you have, the strengths and weaknesses each of you have
- If you don't have a team of 3-5 people formed yet:
 - Identify networks and contacts that could help to connect you with people who might be interested to join your team
 - Meet, greet and discuss your entrepreneurial ideas, initiatives and visions



TASK 2

Ideation & first vision

- If your team has already agreed on an idea:
 - Each team member describes the idea according to their understanding
 - Present & discuss your viewpoints
 - Develop the idea further and assess its potential
- If your team has NOT agreed on an idea yet:
 - Each team member describes their idea
 - Present and discuss the ideas
 - Go through the idea assessment and select the idea that you want to develop together.

GET INSPIRED

[The Secret Phrase Top Innovators Use](#) - by Warren Berger (HBR)



Partner up with coaches and mentors!

Fill in the names of your coaches and mentors.



CHIEF MENTOR

Business (within EO market)
and team management



PRODUCT MENTOR

Product development
and prototyping



DESIGN MENTOR

UX design for
products/services



MARKETING MENTOR

Marketing



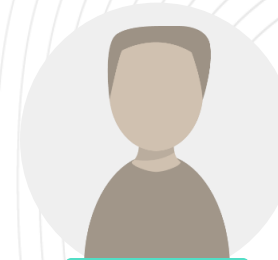
IP LAWYER

Intellectual property



INVESTOR

Fundraising and financial
management



EO EXPERT

Earth observation /
Copernicus data & services



List your goals as a team

What would the final destination of your team's journey be? What's the big dream?

1

2

3

4

5

6





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STEP 2: CUSTOMER OPPORTUNITY

Lead questions to ask in this section:

- Who are your customers and users?
- What problems do your customers and users have?
- How do you recognise & nail the most important customer questions?

Discover who your customer and user are! Size the opportunity

Customer development can happen if:

- you have evidence (data) that your solution (product/service) is actually creating value for your customer
- your product scales in the market.

Basically this means choosing a good market with a product that can satisfy that market. In a great market - a market with lots of real potential customers - the market pulls the product out of the start-up. Lack of market is the #1 start-up killer, and neither a stellar team nor a fantastic product will redeem a bad market fit.

GOALS

Customer discovery

First 'Solution/Customer/Market fit' identified

TASKS

Customer description - Target market selection

TOOLS

Customer persona template - Customer insight tool - Discover who your customers are - Target market template



TASK 1

Customer description

- Use the tools (see following pages) to describe your global customers (B2B or B2C) and customize your solution. Describe your customer as detailed as possible - you'll need to talk to him/her at a later stage to validate your idea.



TASK 2

Target market selection

- The target market is the actual customer group to which your business will attempt to sell its products and services. For the target market definition, consider geography and industry segments.
- Use the tools in the following pages to select the market with the biggest potential and define your target market.

GET INSPIRED

Market selection - [How to Select a Target Market for New Product Launch](#) - Motarme

Customer persona - [Personas for Need finding, Design & Growth](#) - by Alexander Cowan



Tool: Customer persona

ROLE OR JOB TITLE		KEY CHARACTERISTICS	
AGE		GENDER	
GOALS	NEEDS	FRUSTRATIONS & POINTS	
KEY INFLUENCERS	OTHER APPLICATIONS	FEATURE REQUESTS	

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Tool: Choose the target segment

SEGMENT 1	SEGMENT 2	SEGMENT 3	SEGMENT 4
MARKET VALUE - Size - Growth rate - Profit margins			
MARKET ACCESS - Competitors - Availability & access to distributors/ channels - Regulatory path			
YOUR MARKET EXPERTISE - Financial resources to enter the market segment - Network & contacts - Capability & market knowledge			

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Homework list

What do you need to do to get to know your customers and users even better? Fill in your own goals to complete this sprint.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____





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STEP 3: CUSTOMER PROBLEM

Lead questions to ask in this section:

- Does your solution fit the problem and customer?
- How can you validate the fit?
- How to get the X-factor in?

Nail your customer problems

To show you have found the right problem-solution fit you need to have evidence that customers care about certain problems (gains/pains) and that you have designed a solution that addresses those problems.

Customer gains are outcomes and benefits your customers expect, require, desired or be surprised by. Customer problems (pains) are anything that prevents them from getting a job done smoothly. "Right" customer problems are:

- problems/pains/passions that many others have
- problems that occur often enough
- problems that are serious enough so that customers are ready to pay to get (rid of) them

If you succeed in finding a truly unique problem, addressing both pains and gains that nobody has tried to solve yet you can grow 10 X instead of 10% per year.

GOALS

Business idea fine-tuned

TASKS

Online evidence search - Idea development - Team roles planning

TOOLS

Recognise customer problems & segments – visual diary- Problem redefinition instructions



TASK 1

Online evidence search

- Use Google tools to search for online evidence about your problem and solution:
 - Popularity and relevance of keywords describing your problem and solution (Google Trends, Google AdWords Keyword Planner)
 - Competition and similar solutions existing already (Google Search, YouTube, Google Patent Search, Start-up databases, Copernicus Masters winners, Copernicus Incubation Programme winners, Copernicus accelerator participants and other sources)
 - Alternative solutions existing already (Google Search).
- This is your first Moment of Truth If necessary, fine-tune your idea or search for a new one. And then do an online check again!



TASK 2

Idea development

- If you found good online evidence to continue with your initial idea, apply the problem redefinition and ideation techniques to develop it further.



TASK3

Team roles planning

- Discuss through and divide your team roles and responsibilities. On top of your professional skills take into account your different personality traits and individual strengths and weaknesses.

GET INSPIRED

[The 7 All-time Greatest Ideation Techniques](#) - by Chuck Frey (Innovation Management)



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Tool: Recognise most important customer problems & segments



CUSTOMER PROBLEM
Customer problems, pains



IMPORTANT
Does failing the job lead to extreme problems?



TANGIBLE
Can you feel or see the pain?



UNSATISFIED
Are there unresolved problems, jobs?



LUCRATIVE
Are there many with that problem & ready to pay?



TOTAL SCORE
Focus on the highest value jobs & related problems.

1

2

3

4

5

Scoring scale: 1 (low) to 5 (high)

Adopted from: Strategyzer, A. Osterwalder, Customer segments, available at <https://www.strategyzer.com/>

Homework list

Fill in your own goals to complete this sprint.

- 1

- 2

- 3

- 4

- 5

- 6





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STEP 4: DIGITAL SERVICES

Define a compelling & meaningful offer

Lead questions to ask in this section:

- How do you design a differentiated value proposition: functionalities, features, USP's?
- How do you design a minimum viable product?
- How do you further secure growth – product/service platform planning?

Design a differentiated value proposition: functionalities, features, USPs

Product definition is an important milestone in your business planning. It forces you to make choices on specific set of features and functionalities. This will serve a pathway for estimating time2market as well as necessary development efforts. Moreover, you will be able to use it for first prototypes in order to test and validate with customers in several iteration cycles. This will help you to improve and eventually have a validated attractive product/service proposition with optimal development efforts and costs.

GOALS

Product/service definition

TASKS

Define your value proposition - Elaborate on features and functionalities - Outline your differentiation strategy & USP

TOOLS

Value proposition design diagram - Value & attribute map - Concept sharpening tool - Differentiation & USP tool



TASK 1

Design your value proposition

- Define a value proposition of your product (service) starting from customer job2be done statements (value proposition design diagram)
- Come up with the key product/service values & corresponding features and functionalities to get a first top level product/service definition (left side of value proposition design diagram).



TASK 2

Value - attribute mapping

- Make a map of your product / services values by connecting them to specific functionalities and features (value & attribute map)
- Do a sanity check with your team whether the defined set of features and functionalities nail the promise of your product/service.



TASK 3

Differentiation strategy & USP

- Decide on features that will be the key for your differentiation strategy. Make sure that your USP are features have high value perception in the eyes of your customers and users.
 - Use concept sharpening tool to assess the value perception of each feature from the perspective of customers & users
 - Use differentiation & USP tool to map your proposition against other alternatives in market (competitive benchmarking). Discuss the necessary performance level of all your features. Pay extra attention to the desired performance level of your USPs.

GET INSPIRED

[Product differentiation strategies](#) – Dany Robberecht

[Blue ocean strategy](#) - Kim & Mauborgne. Blue Ocean Strategy



Tool: Valuation proposition design

Design your value proposition starting from basic solution ideas & customer problems/needs

This will allow you to make a transition from a top-level product concept to a more specific product definition with specific list of functionalities and features.

Task 1: Describe the customer need and critical customer values

Rank each statement on importance to facilitate your exercise.

Task 2: Create product/services promises as answers to specific customer problems

At this stage you can work with general product/service promises. The aim is to define the key building blocks of your products/services based on its promises.

Task 3: List features/functionalities of your solution to fulfill the service/customer promises.

How will you deliver the promise? What service features will be needed? What would be the easiest (most useful) for your customer to take advantage of your solution?

YOUR CUSTOMER PROBLEMS/NEEDS		SERVICE/PRODUCT PROMISES	KEY FUNCTIONALITIES & FEATURES
need/pain 1. Get most out of agricultural fields 2. Optimize costs • ...	critical value • Accuracy of info • ...	Provide estimate of the yield for the crop and field in question Provide advice on optimal field treatment (fertilizers, water..) to maximize field potential	- Yield simulator for different crops / different parts of field - Fertilizer prescription plan - Irrigation alerts based on soil conditions, growth model and weather insights

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Prototyping

Paper prototyping is mostly known for prototyping **user interfaces**, but can also be used to make customer journeys, visualise ideas or just to have some fun. People say a picture is worth a thousand words. If that's true, a prototype is worth a thousand pictures. Prototyping on paper is cheap, allows rapid iteration, increased creativity and engages all team members in making their idea tangible.

GOALS

MVP (Minimum Viable Product) prototype is ready for validation

TASKS

Sketch a storyboard - Build a paper prototype - Prepare for customer validation

TOOLS

MVP Checklist – Paper prototyping toolkits – Test your prototype – Test & Learning cards - SurveyMonkey



TASK 1

Sketch a storyboard

- Draw a storyboard with up to 15 frames. Start with an opening scene where customers/users find your solution and add all other scenes. Check the tools to get instructions.
- Storyboarding means sketching an actual situation showing how a user would use your solution (e.g. web, mobile app, product):
 - where (s)he clicks
 - what info (s)he enters
 - what (s)he thinks etc.



TASK 2

Build a paper prototype

- Use the storyboard tool to make sure that your product/service will be the most minimalistic version of your solution still delivering great value to your customer (MVP). Aim to build the prototype around 1 product feature or functionality only.
- Based on the storyboard, define and prototype the individual interactions (screens) on paper.



TASK 3

Customer validation preparation

- For validation by testing:
 - prepare the Test & Learning Card for validating your problem and solution with your customers tomorrow via testing hypotheses.
- For validation by customer interviews:
 - prepare a questionnaire on [SurveyMonkey](#) for collecting more detailed customer feedback - use these questions for reference. Digitalize your paper prototype with [popapp.in](#)

GET INSPIRED

Prototyping - [Prototyping for Web and Mobile Workshop](#) - by Simon Phillips (Slideshare)
 Customer validation - [How to Interview your Customers](#) - Customer Development Labs



Tool: MVP checklist

Before starting with product/service development make sure that the product that you will be building is really the minimum viable product (MVP).

FEATURE	IMPORTANCE OF THE FEATURE			MVP (YES/NO)
	CRITICAL Delivers customer short term value	SECONDARY Nice-to-have	MUST-HAVE Critical for technical feasibility	
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

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Homework list

Fill in your own goals to complete this sprint.

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STEP 5: BUSINESS

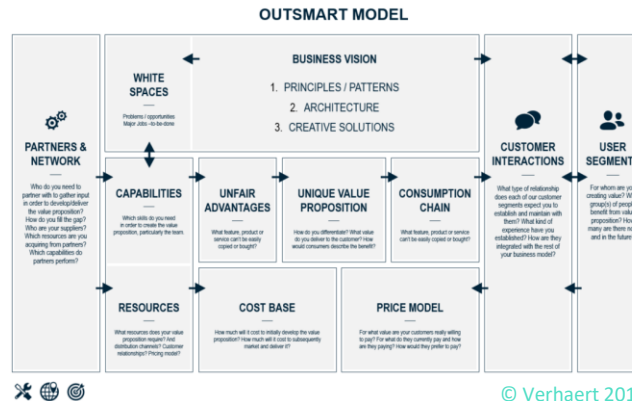
Make sure it brings enough money

Lead questions to ask in this section:

- How can you make money (revenue & business model)?
- How do you get traction in the market?
- How do you get the business growing (marketing strategy, campaign and roadmap)?

How to make money (revenue with the outsmart model)

Monetisation is one of the aspects key to your potential investors. They look for the frequency of the revenue stream, and whether or not it is recurring and easily predictable. A strong Outsmart Model is particularly important, it shows how you will monetise your solution.



GOALS

Outsmart model designed

TASKS

Design outsmart model

TOOLS

Outsmart model design



TASK 1

Design a outsmart model for your business

- Use inspiration from other industries to define the best fitting Outsmart model for you. Study different models with examples and design your revenue model.



TASK 2

Run quick tests with customers on your revenue model

- Organize brief interviews with a few customers to question your new outsmart model and pricing ideas
- If necessary re-visit your outsmart model to improve it based on customer feedback

GET INSPIRED

Revenue Model - [6 Drivers That Determine Your Revenue Model](#) - by George Deeb (The Next Web)

Marketing strategy - [15 Early Traction Growth Hacking Strategies For Startups](#) - by Stuart McKeown (Gleam)

Tool: 7 questions to test your business model

Assess your business model design. Circle how you perform on a scale from 0 to 10.

1. Switching Costs

1 2 3 4 5 6 7 8 9 10

Nothing holds my customers back from leaving me

My customers are locked in for several years

2. Recurring Revenues

1 2 3 4 5 6 7 8 9 10

100% of my sales are transactional

100% of my sales lead to automatically recurring revenues

3. Earning vs. Spending

1 2 3 4 5 6 7 8 9 10

I incur 100% of my costs of COGs before earning revenues

I earn 100% of my revenues before incurring costs of goods & services sold (COGs)

4. Game-changing Cost Structure

1 2 3 4 5 6 7 8 9 10

My cost structure is at least 30% higher than my competitors

My cost structure is at least 30% lower than my competitors

5. Others Who Do the Work

1 2 3 4 5 6 7 8 9 10

I incur costs for all the value created in my business model

All the value created in my business model is created for free by external parties

6. Scalability

1 2 3 4 5 6 7 8 9 10

Growing my business model requires substantial resources and effort

My business model has virtually no limits to growth

7. Protection from Competition

1 2 3 4 5 6 7 8 9 10

Adopted from: Business model alchemist, A. Osterwalder, 7 questions to assess your business model design, available at: <http://businessmodelalchemist.com/blog/2011/09/7-questions-to-assess-your-business-model-design.html>

Homework list

Fill in your own goals to complete this sprint.

1

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STEP 6: PITCH

Lead questions to ask in this section:

- How to make my story stick?
- What is my compelling storyline?
- How will I become unique?

How to act during a pitch?

As a start-up, you need to raise interest and build confidence in your idea! This means that you have an convincing proposition as well as motivation to carry it out!

Firstly, it is a story that needs to have the right content packaged in a concise way. Secondly, it's a story that needs to be communicated as irresistible investment opportunity. Thirdly, it's a story of your team that will make it happen with passion and hard work!

GOALS

To perform a good funding pitch

TASKS

Evaluate and improve your own skills

TOOLS

Pitching frameworks



TASK 1

Building your story and pitch deck!



TASK 2

Practice the story telling

- Organize a few dry-runs
- Ask others to listen and give you feedback
- Iterate as many times as needed



Tool: 5 P's of any good pitch

- Problem - What is the real problem that you solve with your product/service?
- Promise - What do you promise to your customers?
- Proof - Why would I believe you?
- Profit - In which way will you make money?
- Passion - I'll do whatever it takes!

TIP

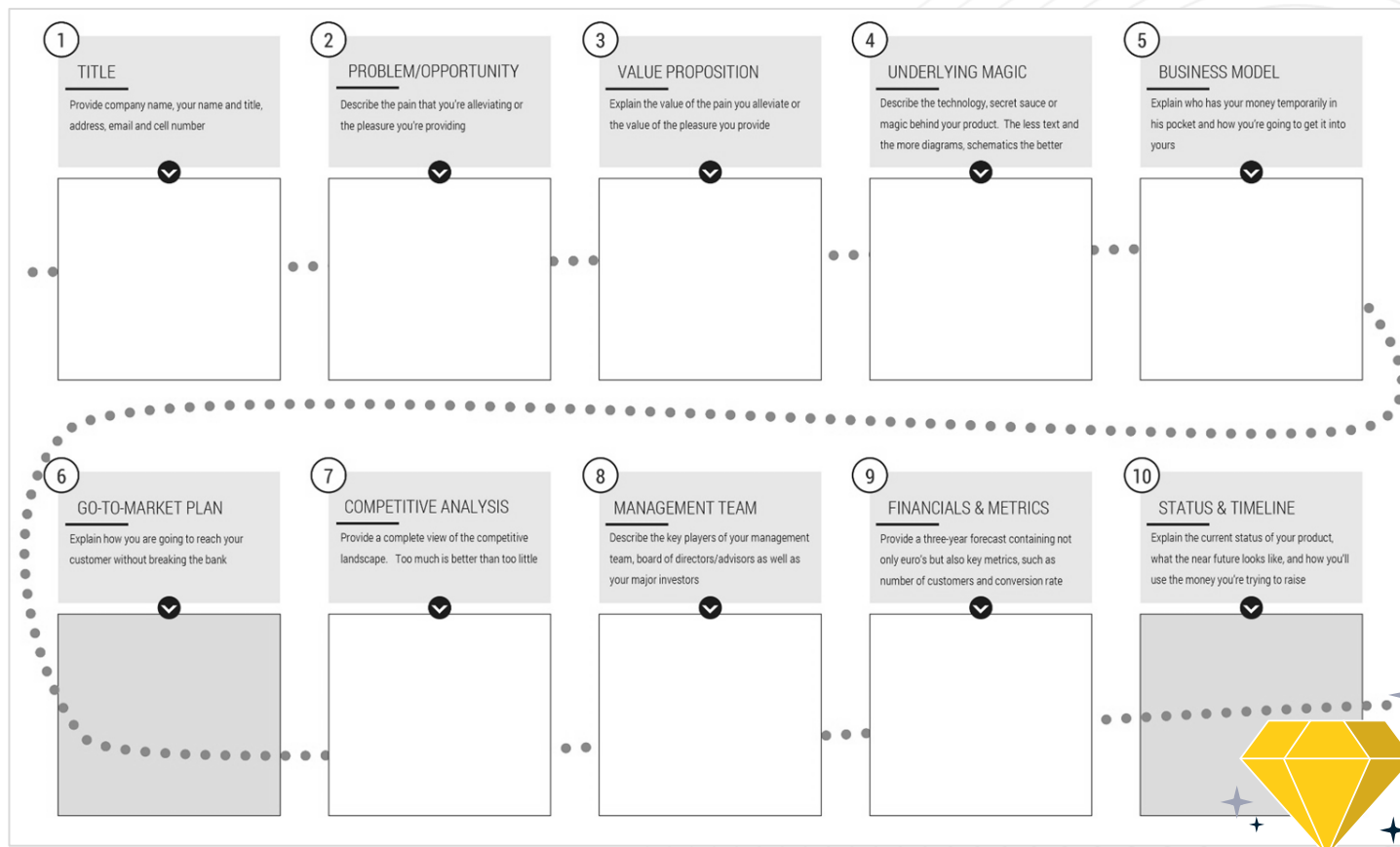
Guy Kawasaki's 10/20/30 Rule for PowerPoint

- 10 slides
- 20 minutes to present the slides
- 30 point font or greater



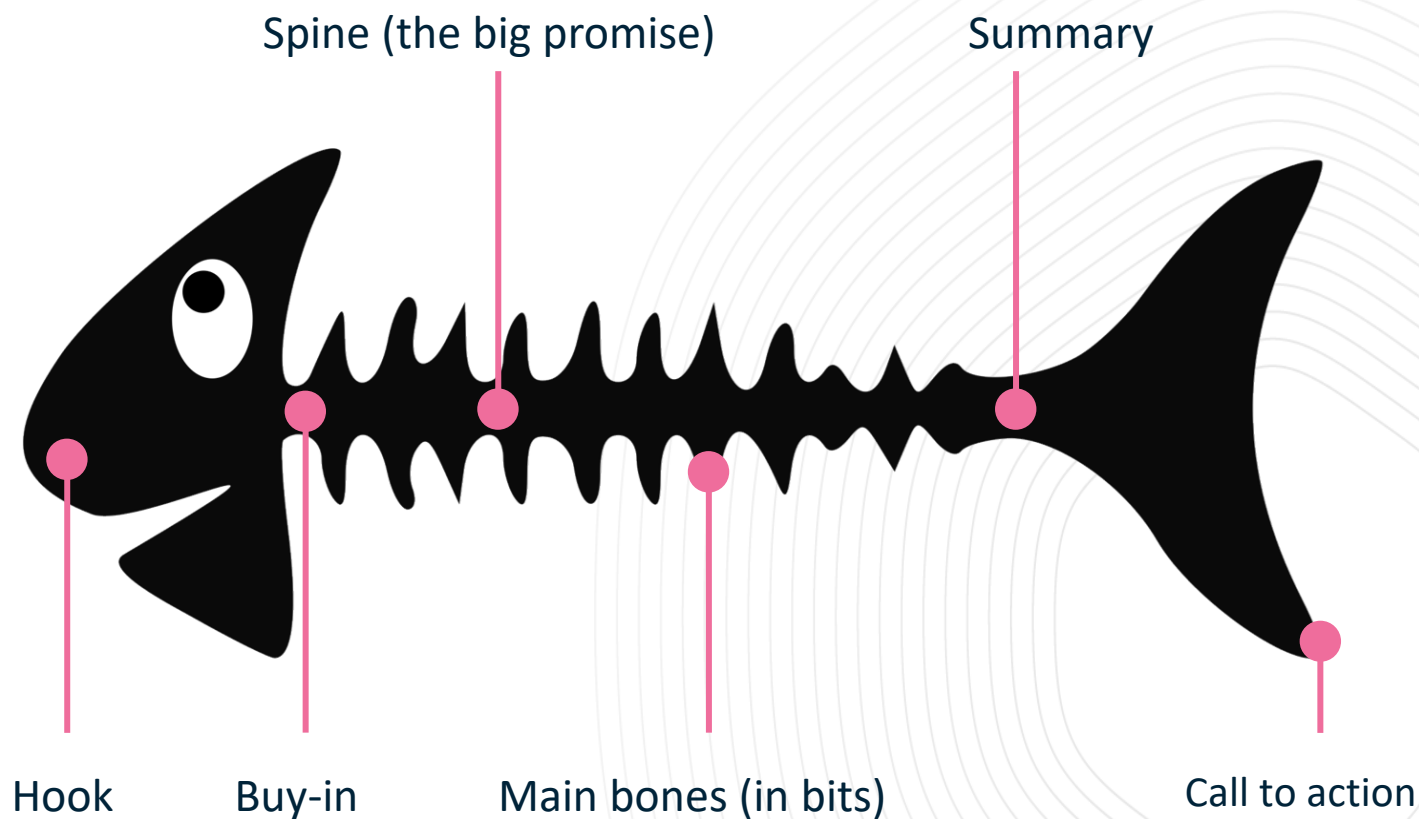
Tool – 10 Slide pitch

The purpose of a pitch is to stimulate interest, not to cover every aspect of your startup and bludgeon your audience.



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Tool: Structure of the story



Tool: Cast – method

CONTENT

Why? What? Who? What if?

TELLING

Who designed your story ? Who will validate it?

AUDIENCE

Who is your audience? And which lean- and decision styles do they have?

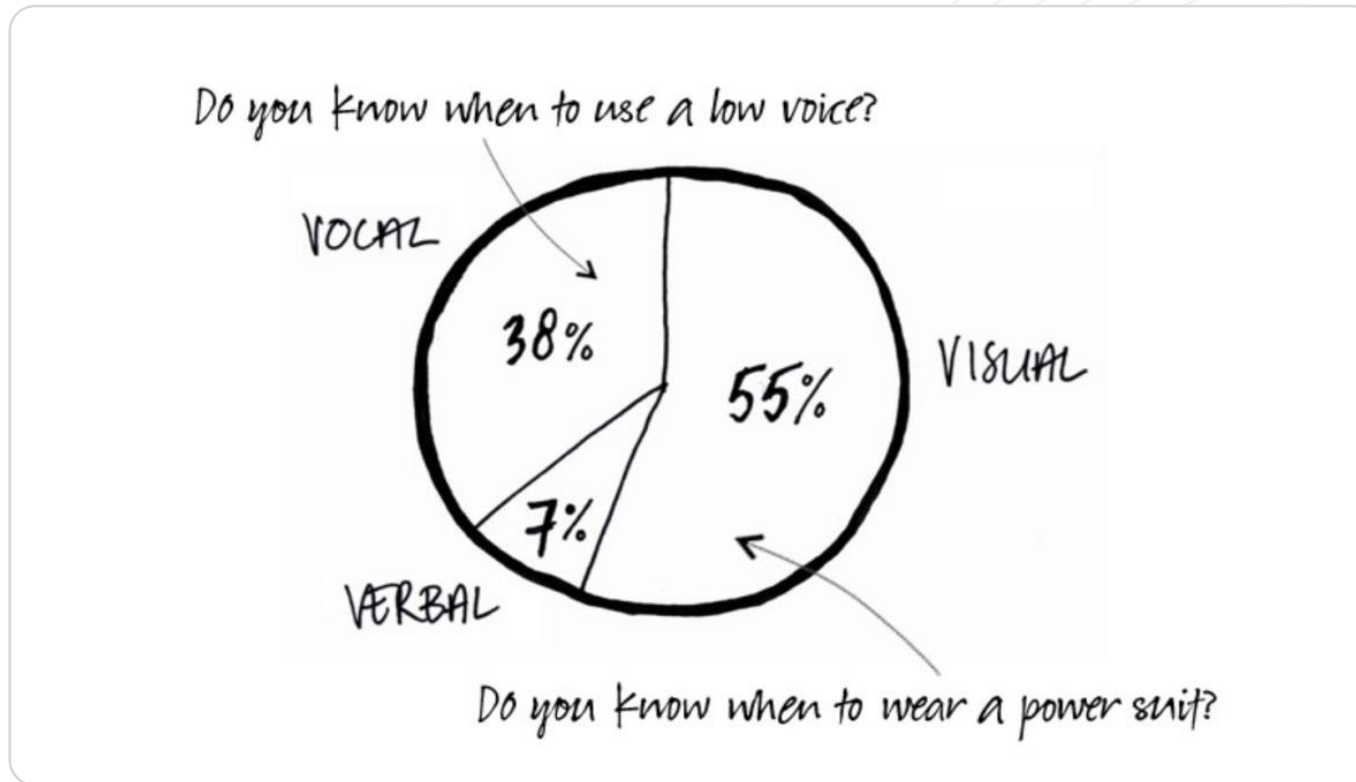
STORY

What is the structure of your story? What are the characters of your story? What's the sense of urgency? Do you have a presentation plan?

Adopted from: Miro, Visual story map, available at <https://miro.com/templates/visual-story-map/>



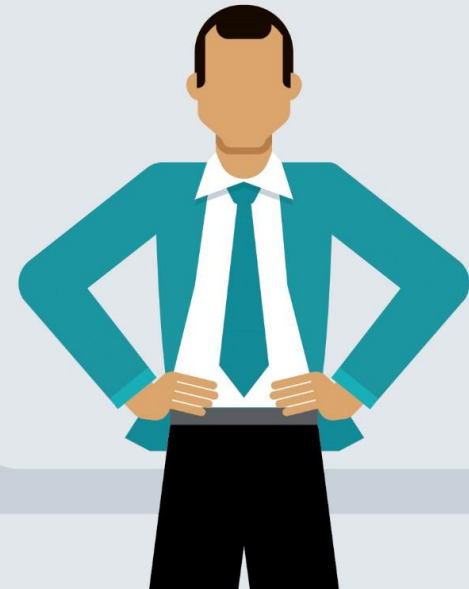
Tool: Mehrabian's tool



Source: Albert Mehrabian, PhD

Tool: Speaker body language

Smile
Avoid tics
Move around
Keep eye contact
Keep frontal contact
Use your arms/hands
Have an open attitude



Homework list

Fill in your own goals for this sprint.

1

2

3

4

5

6





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Thank you

<https://hackathons.cassini.eu>