

TAS MANUAL

Technology Application Selection Framework

Created by Sarah Manthey



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“Imagine having the most amazing technology that can transform the world, and nobody knows about it, not even you.”

Contents

Preface	6
Overarching Principles	7
Introduction	8
Overview	11
Installation Guide	12
User Guide	13
Explanations	14

Contents

TAS Framework	15
Phase 1 - Understand	16
Phase 2 - Ideate	28
Phase 3 - Decide	40
Phase 4 - Define	50
Phase 5 - Sharpen	66
Epilog	84
Toolbox	88
Built-in Dictionary	104
Index	114

Preface

Notice

This manual has been designed to support and facilitate the processing of the *attached TAS framework* by providing detailed information on each individual step.

Be aware that **this is not a handbook** to be worked through from front to back, but offers a whole arsenal of methods to help you reach your best potential in turning technology into a business. As a common thread, this handbook simplifies this implementation and thus enables people without a business background to realize their vision for a better world.

For whom

This handbook is for those who are considering the implementation of new innovations, such as disruptive technologies, without a specific application area or established market, **through the use of the attached framework**. Whether you are a researcher, innovation manager, student entrepreneur, new spin-off or just interested in exploiting technologies - This resource is for you!

For feedback or further information please contact:
sarah.manthey@kit.edu

Introduction

Overarching Principles

Meaning

Principles serve as guidelines to lead decisions and actions in the right direction. The following principles apply to the use of the TAS framework, and each step in the process is based on at least one of the principles.

Core Pillars

Assumptions

We are immersed in a world where we have to make many assumptions, question them, and change them if necessary.

Network

The Implementation of the TAS framework requires the mobilization of a network to ensure an informative exchange. TAS is based on bringing together different perspectives by connecting with experts, potential customers, and other important groups.

Make It Yours

Each of us has our own preferences, our own way of working, and our own vision. We are all individuals, and you should use the framework in a way that best suits you and your needs.

Introduction

The Big Picture

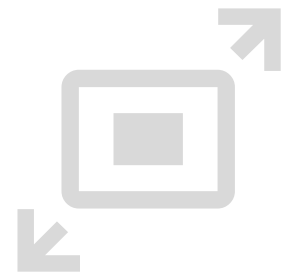
For humanity, technological progress has always been crucial. New technologies have the potential to transform industries, change the way we live and work, and solve some of the world's most pressing problems by bringing new innovation to market.

There are various ways to explore technological innovations, most of which emerge from research. Due to their complexity, the associated uncertainty of their successful commercialization, and the long duration of their research and development, technological opportunities usually remain unexploited. One of the greatest challenges of technological innovation is the identification of applications for the respective technologies. To address this challenge, several research efforts have addressed it and developed conceptual and practical frameworks for a guided application identification process.

This is where the - **Technology Application Selection (TAS) Framework** - comes into play.

Advisory

To use the TAS framework successfully, we recommend that you read the introduction thoroughly and ensure that you have understood everything.



Introduction

Back to the Roots

Innovation is the process of developing and implementing new ideas, products, services, processes or methods that (ideally) lead to significant improvements, advances or positive changes based on the needs or desires of customers or society. Innovation can be driven by two different forces: **Technology Push** and **Market Pull**.

Technology Push

Our focus

Technology Push innovation is rooted in scientific discoveries or technological advances, resulting in new products or services that may not initially align with market demands. This approach often leads to radical or disruptive innovations offering superior benefits or creating entirely new markets. However, it can be costly, detached from customer preferences, and face resistance from established players and regulators. Despite these challenges, technology push remains a vital driver of progress and innovation in various industries.

Market Pull

Market Pull innovation is a concept where market opportunities or customer needs drive the development of new technologies or products. It occurs when businesses respond to existing customer demands or emerging trends by creating solutions to meet those specific needs. Market Pull innovations are often incremental improvements or sustaining innovations, enhancing or satisfying existing markets or industries. However, this approach can be reactive, short-term, and competitive, focusing on current demands and sometimes limiting long-term visionary thinking.

Introduction

The TAS Framework

The TAS Framework was scientifically developed based on the Technology Push process.

With the help of the TAS framework, you are able to discover promising application areas for new and emerging technologies and increase your potential for successful commercialization. The TAS framework ensures that technology decisions are based on sound reasoning and analysis and serve the strategic and operational goals of an organization. It consists of a total of five phases. While phases 1 and 2 are fundamental and lead to the identification of a list of application ideas based on your technology, phase 3 helps to select the best 3 ideas. Phases 4 and 5 provide deeper exploration and refinement of the selected favorite idea and serve as valuable extensions by illuminating the customer perspective and the competitive landscape. Be aware that the last two phases are relatively time-consuming, demanding and costly to implement. However, the added value that arises from this is of inconceivable value. By this, we complement the TAS framework with the most useful and appropriate structures of Market Pull to cover a hybrid view. It is not a linear process but, just like in reality, an **iterative process** with many links within the individual steps.



Commercializing innovative ideas requires significant effort, as you must put in the time, energy, and resources to make progress, overcoming numerous obstacles. Using the TAS framework can help facilitate technology transfer from research to industry and increase the chances of commercial success.

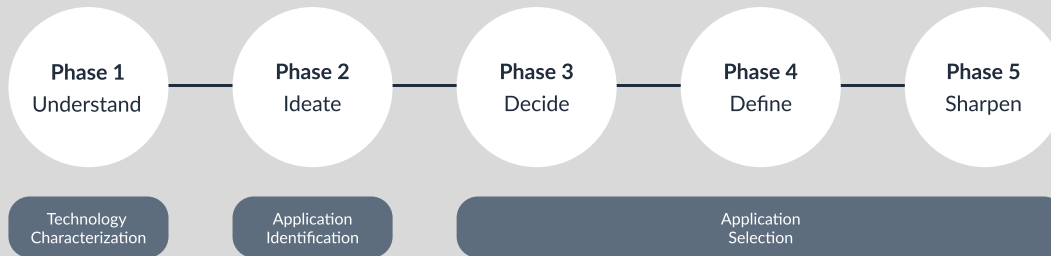
Overview

At a Glance

By guiding you through the stages of the TAS process, we can help you finding the right direction. The 5 phases of the framework are broken down here as an overview. Each step builds on the previous one and allows for a systematic, well-founded development of your technology-based idea.

Step-by-Step

Every beginning is difficult. To make it easier for you, you will find a more detailed overview and introduction at the beginning of each phase and further explanations for each sub-item.



Installation Guide


Set Up and Get Started

The framework includes editable canvases with a OnePager as well as this provided manual.

The editable canvases can be downloaded as a PDF file and directly edited digitally with suitable editor tools or printed out and physically edited. We recommend printing the canvases on sheet format DIN A3 to be able to keep track of the overview, as the respective phases are very extensive.



Choose your Mode

This framework can be worked on alone but also together as a team. However, to simplify the explanations within the phases, we will speak in the team address. In order to consider different perspectives and avoid operational blindness, the exchange of thoughts and ideas with others is essential. To find suitable candidates along your journey, you will find helpful tips in the toolbox  section on how to find a team or how to set up a workshop with experts.

Alone

Team



Looking for Team

Workshop Setup

How to Work

We recommend using the manual when editing the canvases to avoid possible interpretation errors. All individual steps are explained once again in detail and thus bring you faster to your goal.

In the detailed overviews, time boxes are set before the start of each phase. However, these are for guidance only and can be shortened or extended depending on personal judgment, context, technologies and investment preferences. Do not be put off by this if you need more time.

Make it Yours

TAS can only give as much as you make of it. With this manual we only give impulses and recommendations, to allow you to develop freely. Adapt the framework to your needs and decide for yourself how to work with it.

- Whether you need all phases or want to skip certain sections, or
- How many iterations you need on a section, or
- Whether you prefer to go through everything superficially first and concentrate only on the important tasks, or
- Work through the TAS manual in a complete step by step manner.

You have to decide for your team and yourself why you want to implement what and how. Adapt the framework to your needs and start where you see fit.

Explanations

 20 min

Timeboxing

The time specification gives you an orientation of how much time you can plan for the individual task. Note that this doesn't include external activities such as interviews or research.

Generative AI

At certain points we recommend the use of artificial intelligence to simplify certain steps. However, it is important to note that generic AI is not always the best solution for all specific requirements. It always depends on the specific requirements and objectives as to which approach makes the most sense.



Toolbox

The manual includes a dedicated section, the toolbox, where you can locate methods to resolve any difficulties you may encounter.



Built-in Dictionary

The pre-installed dictionary offers the advantage of making certain explanations available and precisely targeted without the user having to search the entire Internet.

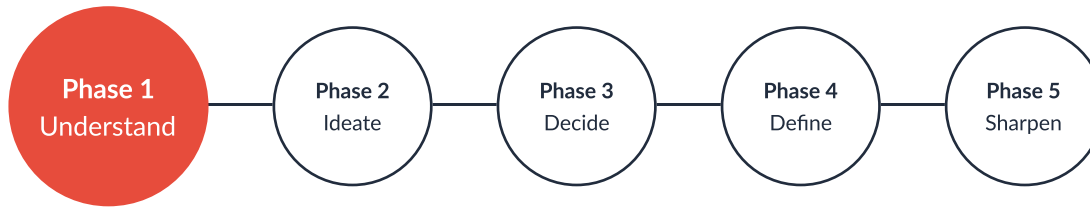


**Now that you're ready,
let's start and make
technology vision a reality!**



Phase 1 - Understand

Technology Characterization



“If you can’t explain it to a six year old, you don’t understand it yourself.”

Albert Einstein

Objectives

- Understand the Technology
- Reflect on the Characteristics
- Assess the Properties

Understand


Introduction

The first phase of the TAS process is known as Technology Characterization. This initial step is fundamental to gain a profound understanding of the technology under consideration. The primary objective is to delve into every essential facet of the technology, laying the groundwork for the subsequent identification of potential applications.

At this stage, achieving a shared understanding is key, whether working as part of a team or as an individual, discussing the technology with others. The focus is on the ability to express the intricacies of the technology, regardless of its complexity, in simple and understandable terms. This skill is critical for effective communication within a team and in communicating the technology to external stakeholders. Document key attributes such as maturity, novelty, cost, and performance to gain a comprehensive perspective, and consider technology-specific details such as regulations or resource accessibility, depending on the context. The goal is to create a clear and detailed profile of your technology that forms the basis for informed decisions in the subsequent TAS phases.

Assistance

To effectively understand the complexity of the technology, describe the relevant features and characteristics in a technically precise yet understandable way. If you are not the inventor, work with him or her and other knowledgeable experts to gather the necessary information. Also, conduct extensive online research to supplement the data collection process.

Help can be found in the toolbox 

Phase 1 - Technology Characterization

Technology Application Selection Framework

Phase 1: Understand

Before transitioning technology into business, it's crucial to deeply understand it. Focus on contacting your network, particularly the inventor, for insights. Interviews can also be helpful. It's acceptable to make assumptions, but be prepared to verify them later on.

- Objectives
 - Understand the Technology
 - Reflect on the Characteristics
 - Assess the Properties



1 Characterize the Technology 🕒 30 min

Visualization
How can the technology be visualized? (functional and structural)

Function
What are underlying functions of the technology? (transformation, transportation, storage of energy, matter, information)

Resources
What resources are needed for the technology's implementation? (human, material, capital, time, knowledge)

State of the Art
Which current technologies perform the same function(s)? Interviews

Problem
Which problems could be solved by this technology?

Life-Cycle
How does the development, usage, and recycling/disposal of the technology look like? What are possible social or environmental outcomes?

Promise
What promise do you see in this technology?

2 Put It All Together 🕒 5 min

Summarize your understanding of the technology in a few simple sentences.

3 Evaluate and Rate Technology Properties 🕒 30 min

Maturity
How mature is the technology? What is the technology readiness level (TRL)?

Deployment: TRL 9, TRL 8, TRL 7

Development: TRL 6, TRL 5, TRL 4, TRL 3

Research: TRL 2, TRL 1

Novelty
How novel or different is the technology?

LOW MID HIGH SUPER HIGH

Interviews Fill out the reason:

Performance
How do you rate the performance of this technology compared to current alternatives?

LOW MID HIGH SUPER HIGH

Interviews Fill out the reason:

Cost
How do you estimate the cost potential of this technology compared to current alternatives?

LOW MID HIGH SUPER HIGH

Interviews Fill out the reason:

Idea Open Space & Concept Box
What is unique, different, or worth mentioning about this technology?

Are there any regulatory around this technology?

What could be another interesting fact around the technology?

Do you know some interesting markets to look into?

Where can the technology go?

Why could the technology fail?

Other?

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Step 1: Characterize the Technology

 30 min

Characterization aims to ensure that you and everyone else share the same understanding of the technology, minimizing misunderstandings. The characteristics on the canvas were selected based on literature studies and expert interviews. Subsequently, these aspects were validated in an empirical study to ensure that they are indeed relevant for you and enable a comprehensive analysis.

Step 2: Put It All Together

 5 min

Summarizing the findings of the technology from step 1 by describing it simply in as few sentences as possible will give you a better understanding and additionally prepare you for an impromptu elevator pitch to investors or others. By simplifying the information, you can comprehend the technology in a way that those without your technical knowledge can also understand.

Step 3: Evaluate and Rate Technology Properties

 30 min

The evaluation and rating of the technology are crucial for you to assess and deepen your understanding of it. Additionally, this process helps you identify areas for improvement and supports your decision-making. Guessing and evaluating technical characteristics may not always be objectively possible, underscoring the importance of including other perspectives. Through interviews with experts, you gain valuable insights to avoid operational blindness.

You will find assistance for each step on the next pages.

Phase 1 - Technology Characterization

1. Characterize the Technology

Introduction

There are no rules about what you should start with. Write your ideas about the characteristics of the technology that come to mind first in the respective columns. Note that **it's absolutely necessary not to think in terms of applications but to really just stick to the technology**. Discuss with a team or in a workshop, and try to get in touch with the inventor of the technology if you were not involved in the development yourself. This will give you a clearer understanding. You can leave columns blank and come back at a later stage to fill them out.

Resources

Resources refer to the question and a realistic assessment of what is needed to implement and execute the technology. These include, for example, financial resources, personnel, materials, and infrastructure.

Problem

Problem refers to the question of what the technology is intended to solve. A clear definition of the problem is important to evaluate the relevance of the technology and thus ensure it's added value.

Visualization

Visualization refers to the ability to present the technology in the form of pictures, diagrams, or other visual representations. Good visualization can help to better understand and illustrate the technology.

Promise

Promise refers to the technology and how much it holds for the future. An assessment of the potential is important to evaluate the long-term profitability of the technology and to decide whether it is a worthwhile investment.



State of the Art

Interviews required

State of the Art refers to the current state of technology and the competing offers on the market. It's important to evaluate the competitiveness of the technology and to decide whether it stands out from other offerings.

Here, interviews with experts from different fields are essential. As a researcher, it is important to talk to representatives from industry or vice versa in order to include other perspectives in State of Art to avoid operational blindness.



Life-Cycle

Life-cycle refers to the question of how long the technology is expected to be usable. This assessment can ensure the long-term profitability and durability of the technology and makes it easier to decide whether an investment is worthwhile.




Function(s)

Functions refers to what tasks the technology can perform. A clear definition of the functionalities is important to evaluate the possible applications of the technology.



Advise

If you feel overwhelmed or generally don't know how to get started, this is the perfect time to get in touch with people from the same and other areas of industry, research, and politics. Conduct interviews and benefit from the input . You don't need to perform complicated analyses, but look at these traits heuristically and pragmatically.

2. Put It All Together

Introduction

In this step, you distill the essence of your technology into a few simple sentences. Promote a common understanding within the team and with others - e.g. experts with whom you will be discussing the technology. Expressing yourself in simple, clear sentences is just as important at this stage as it is later on when you are explaining the technology to potential investors or presenting ideas that build on it.

🔍 Help

Explaining complex technologies requires patience, simplicity, and creative approaches. Here is some advice!

1. **Understanding the target audience:** Try to understand the knowledge, interests and needs of your target audience in order to adapt your communication accordingly.
2. **Use analogies:** Compare complex technology to everyday objects or processes that people are familiar with to make it easier for you to understand.
3. **Use clear language:** Avoid technical terms and utilize simple words suitable for everyday use. If technical terms are unavoidable, explain them in understandable language.
4. **Choose memorable examples:** Focus on concrete examples that illustrate the benefits and applications of the technology. Examples from everyday life are often best suited.
5. **Use humor:** A humorous approach can relax the audience and promote understanding, but be careful that the humor does not diminish the seriousness of the topic.

3. Evaluate and Rate Technology Properties

Introduction

Assessing the properties is a necessary step to delve into additional details and aspects of the underlying technology. Utilize the information documented in steps 1 and 2 to assess the listed properties. Clearly explain the justification for your rating of each property, ensuring you can rely on it for future reference. Note that those are assumption-based.

Before you start to evaluate and assess the technology, we recommend defining the four criteria together to avoid interpretation errors. You are expected to have a full understanding of the technology by this step. As it is difficult to assess and evaluate technologies objectively, it is recommended to talk to experts from as many different fields as possible. This way, you can be sure that you have a good and comprehensive perspective. **Keep in mind that you are evaluating based on given information, but it still remains an assumption.**


€ Cost

Considering the cost of a technology in comparison to existing alternatives (☑ State of the Arts) provides insights into its financial implications, impacting overall feasibility and economic viability. No professional cost analysis is expected. It is sufficient if you provide a rough but objective cost estimate based on your assumptions.

📈 Performance

To assess a technology's performance, it is important to define relevant metrics, conduct testing, compare to alternatives, consider industry standards, and consult with experts. By following these steps, you can gain a better understanding of the technology's potential and make informed decisions about its commercialization and application.

Maturity

When evaluating a technology, it is important to consider the level of maturity it has reached. This can be determined by examining how long the technology has been around and how many applications and tests it has undergone. Use the Technology Readiness Level (TRL)  to indicate its maturity.

Idea Open Space & Concept Box

The idea open space & concept box provides a dedicated space for additional valuable information beyond capturing the fundamental characteristics and properties of a technology. This allows for recording further insights and ideas gained while exploring the underlying technology. Those can include insights into regularities associated with the technology, knowledge about comparable technologies and their outcomes (both successes and failures), ongoing trends within the technology's domain, and any other pertinent details.

By integrating these aspects into the idea open space & concept box, a more comprehensive and contextual understanding of the technology is achieved. This holistic approach ensures that you have access to a broader spectrum of information, which can be helpful during the further steps of the TAS process.

Novelty

To evaluate a technology's novelty, it is important to identify its unique features, assess its potential impact, consider its intellectual property, and consult with experts in the field. By doing so, you can identify opportunities from technological developments and turn them into innovations.

To give you a little food for thought, it is helpful to consider whether there are legal requirements for the technology, what makes the technology so unique, or what the future market for the technology might look like. Researching existing patents and technical competitors, as well as getting external perspectives through interviews, can provide valuable insights. Let your imagination run wild and think about where the technology could take us or what could go wrong with it.



Advise

Document all the aspects you can think of relating to the four criteria and the Idea Open Space on the sheet provided so that you can refer back to them at any time. This will help you share your findings later with other experts or your team colleagues, and to improve them iteratively if necessary. This enables you to make informed decisions about the marketing potential of the technology and its suitability for various applications.

Recap Phase 1 - Understand



Take a moment to verify if you've successfully met the objectives outlined in Phase 1. If there are uncertainties or if you like certain aspects need further exploration, consider revisiting the phase to solidify the essential fundamentals required for the next steps. Engage in a team discussion to collectively assess the attainment of Phase 1 objectives.

Objective 1: Understand the Technology

In this phase, your focus was on uncovering the intricacies of the technology – understanding its functions, structure, and underlying mechanisms. Your goal was to achieve a comprehensive, unified understanding of the main characteristics of the technology.

Objective 2: Reflect on the Characteristics

During this phase, you worked on simplifying complex technical details, ensuring a shared understanding within your team and facilitating clear communication with external stakeholders.

Objective 3: Assess the Properties

In the process, a crucial step for you was evaluating properties by reflecting on key aspects such as maturity, novelty, cost, and performance. These assessments, although partly based on assumptions, set the stage for your decisions in the next phases.

Outlook Phase 1 - Understand

Once the objectives have been achieved and marked, we look at what comes next:

- You have looked at the technology in detail and developed a holistic understanding so that no key aspect has been overlooked.
- You have formulated the technology in simple terms so others can understand it easily.
- You were able to make a well-founded assessment on research-based assumptions in order to be able to make more targeted predictions.

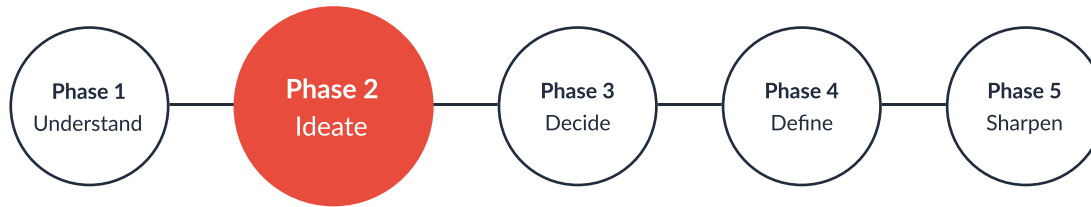
The next step is to identify areas of application for the technology using the work from phase 1 to have a foundation building upon. In practice, idea generation processes can often be unstructured, leading to lost insights and trains of thought. The framework provides in the next phase a structured approach to ideation and offers various anchors to expand your perspective. Nothing is perfect at the beginning and it is therefore important that you iteratively improve each individual step over time, which is of course also reflected in the results. Let the ideas you have found sink in, talk about them and continue brainstorming if you pursue further ideas.

Advise

We recommend placing the technology canvas next to the ideation canvas so that you can use it as a basis for the next phase and build upon the findings in phase 1.

Phase 2 - Ideate

Application Identification



“Thought, without the data on which to structure that thought, leads to nowhere.”

Victor J. Stenger

Objectives

- Gather Initial Ideas
- Explore Ideation Anchors
- Identify Multiple and Alternative Ideas
- Cluster the Ideas and Eliminate Duplicates

Ideate

Introduction

The ideation phase is the driving force behind innovation. It aims to cultivate a diversity of concepts through different approaches, rather than hastily putting together a few ideas. It is important to resist the urge to make snap judgments during ideation because this phase is about exploration, not elimination. Try to be kids again and let your creativity run free without limitations, as hard as it might be.

This process can be divided into two critical phases: the divergent phase, where ideas are generated without immediate evaluation, and the convergent phase, where the focus is on refining and selecting the most promising ideas. Originality often takes shape during the ideation process. It is important to allow for unconventional and even seemingly "dumb" ideas, as these outliers can eventually lead to a breakthrough application that leads to success. Therefore, it is critical that sufficient time, patience, and open-mindedness are devoted to this step. The ideation process benefits from the integration of new perspectives that contribute to a tapestry of creative, unique and original ideas.

Assistance

Actively seek out new information that can serve as a catalyst for brilliant ideas. Use desk research to discover fascinating podcasts, documentaries, or news articles. Exchange ideas with people from different sectors to gain additional perspectives. Experiment with different techniques within your team to encourage the generation of new ideas. The synergy of these methods increases the potential for breakthroughs and innovative solutions.

Help can be found in the toolbox 

Phase 2 - Application Identification

Technology Application Selection Framework

Phase 2: Ideate

To generate impactful ideas for your technology, begin with individual brainstorming. Every team member should write down their thoughts before merging into collective ideation. Don't judge or evaluate your thoughts. Thorough preparation and multiple ideation rounds can refine outcomes.

- Objectives
- Gather initial ideas
- Explore Ideation Anchors
- Identify Multiple and Alternative Ideas
- Cluster the Ideas and Eliminate Duplicates



1 Start with the Initial Idea Generation

Based on phase 1, begin with an intuitive open brainstorming session.

🕒 5 min

🧠 Brainstorming based on your technology

Let your creativity flow and identify applications that come to mind.

2 Select Anchors for Ideation

For each segment listed, choose two anchors from the boxes below to guide your ideation and set a timer for ten minutes each. Then write down your upcoming ideas in step 3.

🕒 40 min

📈 Complementary Technologies - Gartner Hype Cycle

Think about complementary technologies and technology trends and determine two as ideation anchors. While the Gartner Hype Cycle can inspire, don't be limited by it.

1. Complementary Technology:

2. Complementary Technology:

🏢 Application Domain - ISIC Industry Classification 4.0

Think about familiar and unfamiliar industries you find relevant and determine two as ideation anchor. While ISIC 4.0 can inspire, don't be limited by it.

1. Application domain:

2. Application domain:

🌱 Sustainability Goals - SDG's

Think about societal and sustainable problems occurring in our world and determine two as ideation anchor. While the SDG's can inspire, don't be limited by it.

1. Goal:

2. Goal:

📊 Recent and Upcoming Trends - PESTEL Insights

Think about significant changes in the last months. Identify two key shifts across political, economic, social, technological, environmental, or legal domains. While PESTEL can inspire, don't be limited by it.

1. Event or Trend:

2. Event or Trend:

3 Document All Emerging Ideas

Write down all ideas you come up with without judging its feasibility or value.

🕒 20 min

🧠 Wall of Ideas

Write down all your ideas you have come up with from step 1 and step 2, without evaluation. If new ideas emerge, don't hesitate to add them. You can also consider reflecting on your personal interests for idea inspirations.

- 1.

- 2.

- 3.

- ...

4 Fill Out the Matrix

Organize your ideas within the provided matrix. Proceed to the next phase with all ideas, except for those in 'Ciao'.

🕒 20 min

🗪 How-Now-Wow Matrix

Place each number of the idea from the previous task on the matrix on feasibility and originality according to your gut feeling:

- **How:** Ideas that are probably not so easy to implement, but are very original.
- **Now:** Ideas that are very feasible, though not particularly original.
- **Wow:** Ideas that are both easy to implement and particularly original.
- **Ciao:** Ideas that are not/barely feasible and not particularly original can probably be discarded with a clear conscience.



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Step 1: Start with the Initial Idea Generation

 5 min

There are numerous techniques for generating ideas, but brainstorming is the most intuitive among them, as it doesn't impose a strict structure. Consider how your technology can solve problems and jot down your thoughts. Avoid making evaluations at this stage; an analysis will be done later.

Step 2: Select Anchors for Ideation

 40 min

Ideation Anchors are prompts or triggers used to stimulate creative thinking and generate new ideas during the ideation process. They are used to provide structured guidance and include emerging technologies, industry sectors, and complementary technologies.

Step 3: Document All Emerging Ideas

 20 min

The purpose of this step is to document all emerging ideas you come up with during the first two steps, allowing for easy visualization and comparison of different ideas. This facilitates the selection of the most promising ideas for the next steps and helps to eliminate duplicates.

Step 4: Fill Out the Matrix

 20 min

Due to the large number of ideas, it is not always possible to maintain a good overview and decide which ideas seem sensible and which do not. It is therefore important to prioritize. Working with the How Now Wow Matrix helps you structure for the selection of ideas.

You will find assistance for each step on the next pages.

Phase 2 - Application Identification

1. Start with the Initial Idea Generation

Introduction


Ideation is a dynamic process, which is why many ideation methods are used to enable a variety of concepts and solutions. It is important not to prejudge a single idea, but to collect them all first.

Help

Engage in brainstorming within your team to freely express ideas collaboratively. Alternatively, opt for a more structured approach like brainwriting, encouraging independent contributions in written form. Both methods serve as powerful tools to harness the collective creativity of your team.

Embark on the idea generation journey by contemplating how your technology might serve as a solution. Start with an open mind, jotting down every idea that comes to you. Avoid the temptation to evaluate at this stage; the objective is to accumulate a wealth of possibilities. Evaluation will find its place in subsequent steps.

Advise

To broaden your horizons and find new applications, it is a good idea to talk about it on a walk with a friend, use the network from time to time, or ponder about it in the shower. Also check whether certain ideas have already emerged in phase 1 ( Idea Open Space & Concept Box).

2. Select Anchors for Ideation

Introduction

Using ideation anchors fine-tunes the idea space and creates a focused framework for ideation. This approach promotes the emergence of creative and original ideas, helping you to reduce the uncertainty and risk associated with technological innovation. **Don't limit yourself by the suggested anchors.** You can continue and add to the anchors at any time. As a starting point, we give you four anchors as a template. Each team member should choose their own anchors, but nevertheless should have dealt with each anchor once to broaden the horizon.

Advise

The selection of Ideation Anchors must take place independently of the technology. There does not have to be a connection between an Ideation Anchor and the technology. In this way, we guarantee new perspectives. To avoid misunderstandings, it is essential to familiarize yourself with this Ideation Anchor **together**.

In the TAS Framework, complementary technologies, application domains, sustainability goals and recent but also upcoming trends are commonly used as ideation anchors, representing important sources of potential applications for new technologies.

- **Complementary Technologies** are those that can be combined with a new technology to create new applications or enhance existing ones.
- **Application Domains** are areas of economic activity that are characterized by similar products, services, or processes and are often the target of technological innovation.
- **Sustainability Pillars** are an essential part of facing current and future global challenges, aiming to promote sustainability and solve environmental and social challenges.
- **Recent and Upcoming Trends** are those that are still in the early stages of development and have the potential to disrupt existing markets or create new ones.

Complementary Technologies

Investigate how your technology can work synergistically with existing or emerging complementary technologies. Find out how you can improve or integrate other developments to create new application possibilities.

The use of the Gartner Hype Cycle supports you in your search for complementary technologies.

Sustainability Pillars

Link sustainability goals to potential technology applications. Find out how you can make your technology a driver for positive environmental impact.

The United Nations' 17 Sustainable Development Goals (SDGs) provide a good starting point if you haven't thought about sustainability yet.

Application Domain

Find out about many of the different industries and application areas that exist around the world. Consider how your technology could address challenges and provide solutions in specific sectors. Tailor application ideas to the specific requirements of different industries.

You can find all economic activities/industries and the economic units based on them, such as companies in economic sectors, in the International Standard Industrial Classification (ISIC) of the United Nations.

Recent and Upcoming Trends

Stay attuned to evolving changes and trends. Anticipate shifts in consumer behaviors, market demands, or technological advancements.

With PESTEL you can align your technology applications with these trends to ensure relevance and foresight in the ever-changing landscape.

? Help

Here is a little help in case everything gets too much for you at the beginning, and you are overwhelmed as to how you can best get started now.

Regardless of whether you have ever dealt with the anchors before or not, it is first and foremost critical and necessary to deal with the anchors together. This solves questions of understanding, and you have a common foundation to work on. You will find a detailed explanation of the various predefined anchors, with all the most important information in the built-in dictionary. If this is still not enough, consult the Internet.

Afterwards, it is important that each of you take different anchors, think about them and then present them to the team. In combination with the knowledge you have gathered together about the respective anchors, this really boosts your creativity.

There are far more than just these four anchors. Think about which ones you consider useful to include in the brainstorming process. The TAS framework is only as good as you personally use it for yourself.

Let's get started! For each idea, select two of the four anchors of your choice on which to build your ideas. In the built-in dictionary, you will find detailed explanations of the respective anchors.

3. Document All Emerging Ideas

Introduction

The Wall of Ideas serves as a visual representation of the idea generation process in steps 1 and 2, providing a dedicated area for all identified ideas. All ideas should be compiled here to try to summarize them. The number of seemingly identical ideas can be recorded so that the top ideas can later be filtered out according to quantity and observed more closely. We recommend sharing this idea wall with experts from different industries to stimulate more ideas.

Wall of Ideas

Document all the ideas you generate without making a critical evaluation. The focus here is on establishing a designated repository where all recognized ideas are meticulously documented. During this phase, you should refrain from evaluating ideas and instead focus on comprehensive documentation. As you record these ideas, remain open to the prospect of potential overlaps or thematic synergies that could lead to the discovery of novel concepts.

Although there is a prescribed limit of 10 ideas on the canvas, we strongly encourage the pursuit of additional ideas to explore expanded possibilities.

4. Fill Out the Matrix

Introduction

The How-Now-Wow-Ciao Matrix is a method for evaluating ideas and concepts. It consists of four quadrants, each representing an evaluation category: How (how realistic is the idea?), Now (how quickly can the idea be implemented?), Wow (how innovative is the idea?), and Ciao (how quickly will the idea become obsolete?). The matrix is used to evaluate and prioritize ideas by placing them in the appropriate quadrants. Ideas in the "Wow" quadrant have the highest innovation potential, while ideas in the "Ciao" quadrant are considered as barely feasible which can be discarded with a clear conscience.

How-Now-Wow Matrix

Organizing your ideas using the How-Now-Wow matrixRR takes the first step in evaluating and sorting them into three clear categories: How (feasibility), Now (immediacy), and Wow (impact). This categorization helps to prioritize ideas based on their potential for implementation, their relevance to the current situation, and their potential for significant impact. If an idea doesn't fit well into these categories, it should be marked as "Ciao" and not be considered further.

If you have difficulty organizing the ideas on the idea wall, bring in external people whose opinions can be invaluable. Discussions about the ideas can stimulate their discovery and lead to a solid understanding of the individual ideas, which provides important information for the next phases.

Recap Phase 2 - Ideate



Take a moment to verify if you've successfully met the objectives outlined in Phase 2. If there are uncertainties or if you like certain aspects need further exploration, consider revisiting the phase to solidify the essential fundamentals required for the next steps. Engage in a team discussion to collectively assess the attainment of Phase 2 objectives.

Objective 1: Gather Initial Ideas

The phase began with you deliberately cultivating creativity through an inaugural brainstorming session, aiming to generate a diverse spectrum of ideas and delving into potential applications for the underlying technology.

Objective 2: Explore Ideation Anchors

Under the guidance of ideation anchors, you unfolded a meticulous exploration, seeking various dimensions for potential technological applications. The emphasis was on discerning multiple and alternative approaches, thereby enriching the reservoir of conceivable ideas.

Objective 3: Identify Multiple and Alternative Ideas

Every identified idea was documented and numerical assignment on the Wall of Ideas. Through collaborative team discussions, ideas underwent systematic clustering, simultaneously eliminating redundancies and establishing a foundation for a refined process.

Objective 4: Cluster the Ideas and Eliminate Duplicates

The How-Now-Wow Matrix does not make an absolute statement about how good an idea is, but it does help to categorize it. This makes the final selection of ideas leaner.

Outlook Phase 2 - Ideate

Once the objectives have been achieved and marked, we look at what comes next:

- You have learned to think outside the box and combine unrelated field through anchors, as pushing the boundaries of creativity is essential for generating inventive and unique ideas.
- You understood that collaborative discussions serve as a catalyst for generating additional ideas and that cooperation and communication must not be overlooked.
- You discovered idea anchors that were able to give you new perspectives with their orientation points.
- You recorded all important ideas, insights and thoughts and classified them for further processing.

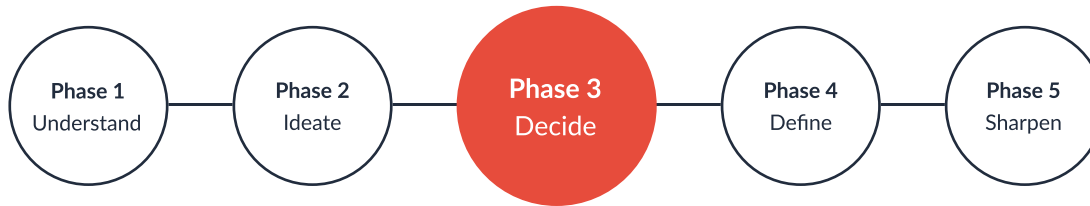
The next step, it is all about selecting the favorite idea to proceed with. Nothing should be left to chance, which is why all classified ideas will be evaluated on the basis of criteria that use the work done in phase 2. In the knowledge that collaborative discussions serve as a catalyst, we have our ideas reviewed by experts and implement their feedback.

Advise

Make sure that you transfer all ideas in step 4 to the corresponding fields of the How-Now-Wow matrix. You can use the top rankings determined here as a basis for further in-depth expert interviews.

Phase 3 - Decide

Application Selection



“Successful people know they need to get many things done - and done effectively. Therefore, they concentrate their time and energy on doing one thing at a time - and on doing first things first.”

Peter F. Drucker

Objectives

- Dive Deeper in the Identified Ideas
- Evaluate the Identified Ideas
- Re-evaluate with Experts & Notable Insights
- Determine Favorite Ideas

Decide

Introduction

As you move into the decide phase, the attention is switched from having lots of ideas from Phase 2 to carefully picking the best ones. During this stage, examine each idea closely, using specific criteria to judge them. It's important to know that the criteria you use may change depending on your situation, the type of technology, or how you plan to use the ideas. So, being flexible with the criteria is essential.

We should not only rely on our own thoughts but also incorporate insights from experts and external perspectives. This phase is about narrowing down the best ideas that align with your goals and preparing the next steps on your journey. So, let's approach this important phase with a commitment to a careful evaluation and well-informed decision-making. Concentrate first on only one idea, for which you finally decide on. You can come back at any time and shift the focus to another idea. But before you do that, note down all necessary and important details and findings under remarks so that they are not forgotten and can be referred back to at any time.

Assistance

Decision-making can be a challenging and sometimes stressful task. Many factors can enter into the managing process, and the consequences can be significant. Use desk research to gather knowledge in order to evaluate the ideas based on the criteria, and tap into your network to consult experts for external input. This ensures well-informed decisions, paving the way for future success.

Help can be found in the toolbox 

Phase 3 - Application Selection

Technology Application Selection Framework

Phase 3: Decide

This phase aims to reduce the pool of Ideas through criteria-based evaluation, expert insights, and personal preferences. Each team member can provide their own evaluation, leading to team discussion to identify the most promising concepts.



- Objectives
 - Dive Deeper in the Identified Ideas
 - Evaluate the Identified Ideas
 - Re-evaluate with Experts & Notable Insights
 - Determine Favorite Ideas

1 Evaluate and Rate Your Ideas ⌚ 40 min

Assess your ideas from the previous phase using the provided matrix.

Criteria-Based Decision Matrix Use reverse side for more ideas and own criteria

Ensure clarity by assigning specific ideas to each team member to become an "expert" on. Document insights and share with the team. Rate each idea from -2 (Not at all) to +2 (Very likely) with each criterion. Use the reverse side for more space if needed. Circle the ideas that the team most prefers, regardless of the rating.

Evaluation Criteria	Idea 1	Idea 2	Idea 3	Idea 4	Idea 5	Idea 6	Idea 7	Idea 8	Idea 9	Idea 10
C1: Technical Feasibility How technically feasible is the idea?										
C2: Market Attractiveness How attractive is the idea to the target market in terms of size, competition, growth?										
C3: Profitability How profitable is the idea?										
C4: Potential How promising is the idea for the user and the market?										
C5: Customer Will the customers embrace and find satisfaction in the idea?										
C6: Resources How accessible are the required resources?										
C7: Team Value Fit How aligned are the team's skill set and mindset with idea's needs for success?										
Sum Σ										

2 Engage Expert Evaluation 🗣️ as needed

Collaborate with diverse experts to critically assess and rate your ideas.

Expert Feedback Matrix Interviews

Select ideas with a positive sum and those that the team finds intriguing. Invite diverse experts from different domains to discuss and capture their feedback using the symbols +, =, 0 to determine their opinions. Document their feedback and discuss surprising findings within your team. Get a collective sentiment summary at the end of each idea. Use the reverse side to write down further.

Experts	Idea 1	Idea 2	Idea 3	Idea 4	Idea 5	Idea 6	Idea 7	Idea 8	Idea 9	Idea 10
Expert 1 Name: Domain:	E1									
Expert 2 Name: Domain:	E2									
Expert 3 Name: Domain:	E3									
Expert 4 Name: Domain:	E4									
Expert 5 Name: Domain:	E5									
Overall feedback										

Notable Insights
Write down the most insightful remarks of the experts. Don't forget to add the number of the respective idea and the expert for reference.

3 Determine Favorite Ideas ⌚ 20 min

Each member ranks their top ideas considering criteria assessment, expert insights, and preferences. After discussing, decide on the favorite three ideas. Note: If the first idea does not work out in your further analysis, use the other favorite ideas.

1 Favorite Idea Proceed with this idea in Phase 4

Write down your favorite idea:

What is the problem it will solve?

What are the advantages?

What are the limitations?

2 Second Favorite Idea

Write down your second favorite idea:

What is the problem it will solve?

What are the advantages?

What are the limitations?

3 Third Favorite Idea

Write down your third favorite idea:

What is the problem it will solve?

What are the advantages?

What are the limitations?

Step 1: Evaluate and Rate Your Ideas

 40 min

Evaluation criteria serve as a crucial navigational tool, offering a structured framework for the assessment and comparison of ideas. These criteria act as guiding principles, aiding you in making informed decisions based on the technical feasibility or market attractiveness of an idea. You may find it difficult to evaluate these criteria, as everything is based on assumptions and concepts. Don't let this stop you from using your common sense and being as objective as possible.

Step 2: Engage Expert Evaluation

 as needed

Expert evaluations help in selecting applications for new technologies by providing valuable insights and perspectives on the relevance and importance of each evaluation criterion. By considering the perspectives of industry professionals and experts you can identify the most promising applications for a new technology and increase the chances of success while minimizing risks.

Step 3: Determine Favorite Ideas

 20 min

Selecting the top idea enables you to concentrate your resources and efforts on the most promising application, boosting the likelihood of success while reducing risks. Identifying Top Ideas enables you to prioritize your work and resources.

1. Evaluation & Rating of Ideas

Introduction

It is important to emphasize that these criteria are recommendations, but that there is the possibility to include additional criteria if they are deemed relevant in the specific context for you. Additional criteria may prove significant depending on the specific context, the underlying technological environment, and the final intended use of the technology.

In order to be able to evaluate correctly, it is necessary to deal intensively with the criteria in order to understand and apply them correctly. The more time and preparation is invested, i.e. the more iterations are carried out, the better the results will be. Please keep in mind that the evaluation of the criteria is based on assumptions. The various criteria are to be rated for each idea on a scale from -2 to 2, so that a comparison can be made at the end based on the total. This sum reflects how likely it is that the idea will be successful.

Technical Feasibility

Technical feasibility aims to ensure that the proposed technological solution is both viable and executable within the technological constraints and available capabilities. It considers factors such as the availability of necessary technology, the skills and expertise of the team, infrastructure requirements, compatibility with existing systems, scalability, and security measures.

Market Attractiveness

Market attractiveness assesses the potential of the idea within the target market. It involves evaluating factors such as the size of the target market, demand for the product or service, competition, and potential for growth. It helps to determine if the idea has a favorable market environment, making it appealing for investment and development.

Profitability

Profitability evaluation focuses on determining whether an idea has the potential to generate sustained profits. It involves analyzing factors such as the cost structure, revenue streams, pricing strategy, and overall financial viability.

Customer

Customer evaluation of an idea involves assessing its appeal and relevance to the target audience. This includes understanding customer needs, preferences, and pain points, ensuring that the product or service provides a clear and valuable solution.

Team Value Fit

Team value fit involves assessing whether the team members share a common vision, work well together, and are committed to the core values of the project. The team value fit criterion is crucial for ensuring cohesion, collaboration, and a shared commitment to the success of the idea, fostering a positive and productive working environment.

Potential

The Potential of an idea involves evaluating its capacity for success and impact, assessing the likelihood of the idea being widely accepted. This includes analyzing factors such as the uniqueness of the concept, its relevance to market needs, scalability, and adaptability to emerging trends.

Resources

The resources associated with an idea are about assessing the availability and adequacy of the resources required for successful implementation. This includes examining funding, human resources, and technological infrastructure. This will ensure that the necessary support and input are available to effectively develop, launch, and sustain the idea.



2. Engage Expert Evaluation

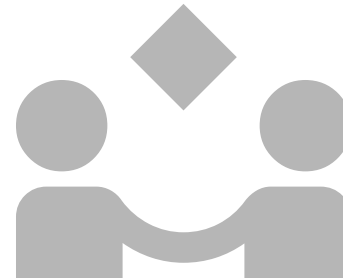
Introduction

On the way to evaluating business ideas, internal evaluation based on predefined criteria is a fundamental step that provides an initial perspective and assessment of the concepts. However, the true depth and richness of the evaluation come from incorporating external perspectives in relation to the predefined criteria. Soliciting input from experts and diverse individuals can offer nuanced insights and uncover unexpected facets of the ideas.

At this stage, it is important to talk to people from as many different areas or industries as possible about the ideas you evaluated in the previous step that you would like to pursue. This is not just about getting external opinions, but also about uncovering valuable perspectives that may have been overlooked internally. Capture the feedback in the designated blocks and record insights carefully, as they can significantly influence the decision-making process in later stages of idea development. Create a basis and discuss whether your selection of criteria makes sense or whether some should be removed.

Advise

To capture your best moments with experts, use Notable Insights  on the Canvas and share them with the team. Under Utilization of Network in the Toolbox  you will find help on how to get experts and how to conduct structured interviews. It is fundamental to evaluate with experts under the predefined or your own criteria. Keep in mind to bring in people from the most diverse areas to foster new insights.



3. Determine Favorite Ideas

Introduction

Focusing on one goal at a time increases clarity and productivity by enabling efficient time management, reducing stress, and promoting a higher quality of work. This focus promotes motivation through clear progress tracking and prevents efforts from being diluted by multiple goals. Ultimately, focusing on a single goal allows individuals to achieve significant success and build confidence for subsequent endeavors.

Consider the evaluations from step 1 and incorporate the new insights gained in step 2. However, do not rely solely on the final numbers and feedback to decide which idea should be pursued, but discuss together which ideas are the most attractive for everyone to explore further and deepen. From the most promising ideas based on the highest sums and feedback from experts in different fields, the top three ideas are filtered out. However, you should not only rely on these two aspects, but also listen to your gut feeling and common sense. You need to make sure that you are 100% behind the idea you want to pursue. This means that your favorite idea does not necessarily have to be the one with the highest score, but the one you have decided on yourself. This can also be an idea with significantly fewer points. Nevertheless, it makes sense to exclude ideas that receive hardly any points, for example because they have no intrinsic motivation or are not feasible.

Recap Phase 3 - Decide



Take a moment to verify if you've successfully met the objectives outlined in Phase 3. If there are uncertainties or if you like certain aspects need further exploration, consider revisiting the phase to solidify the essential fundamentals required for the next steps. Engage in a team discussion to collectively assess the attainment of Phase 3 objectives.

Objective 1 & 2: Dive Deeper and Evaluate the Identified Ideas

The primary goal was to assess previously identified ideas using predefined evaluation criteria to gain a comprehensive view and initial assessment of the potential of each idea. These criteria, chosen and scientifically examined based on existing literature and practical considerations, provided a structured framework for comparing and analyzing ideas.

Objective 3: Re-evaluate with Experts & extract Notable Insights

To improve the evaluation process, you sought external input by identifying and consulting experts. This step aimed to incorporate different perspectives and additional insights into the evaluation and thus contribute to a more informed decision-making process.

Objective 4: Determine Favorite Ideas

As a final step, you wrote down your three favorite ideas. This strategic selection forms the basis for a more in-depth investigation in the subsequent phases. These selected ideas are further elaborated, discussed together and strategically positioned. Importantly, this step ensures that even if the primary idea encounters challenges, strategically positioned alternatives are available for consideration.

Outlook Phase 3 - Decide

Once the objectives have been achieved and marked, we look at what comes next:

- You have learned how important it is not only to select, but also to define evaluation criteria and have a common understanding, as these determine the outcome of the best ideas.
- You have recognized how much input experts from other industries can contribute and that external feedback always provides insightful perspectives.
- You know that the chances of success increase if you focus on one idea first.

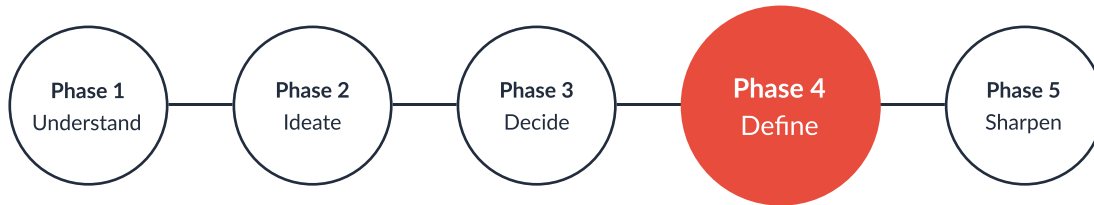
In the next step, you determined the favorite idea to focus on with the available resources whether meets the needs of the customer and is tackling a real problem. We change the focus from the technology and its possible areas of application to the potential user. Step 3 in Phase 3 is your storage, which you can use at any time if you realize that your favorite idea is not as promising as you had imagined based on the former evaluation.

Advise

Take the results of phase 3, especially the insights from the experts, which you have all saved in Notable Insights, into the later phases. Who would it be relevant or beneficial to keep in touch with and who is really excited about the idea?

Phase 4 - Define

Application Selection



“Civilization consists in the multiplication and refinement of human wants.”

Robert A. Millikan

Objectives

- Understand the Customer and Needs
- Apply Jobs2BeDone
- Determine Critical Assumptions to Test
- Check the Task-Solution-Technology Fit

Define


Introduction


In this phase, you focus on developing a in-dept understanding of your potential customers and their needs. This knowledge is the guideline for developing successful products or services that really meet people's needs, but it requires a lot of work and time. This phase should not be underestimated.

It is very important to understand your customer well, as it helps you to make smart decisions based on the extracted information on the one hand, but also to find out whether the solution you have found is really worth pursuing on the other. As you go through this phase, it's crucial to test any guesses we might have made in earlier stages and even in this one. By clearly stating and confirming our important assumptions, you make your foundation strong for creating a solution that genuinely meets the needs of the people we're aiming to serve. Let's start this journey of customer-focused exploration to refine your vision and bring valuable solutions to life. Due to the complexity of this phase, we think it makes sense for you to read up and get a rough overview first.

Be advised that you won't get far without interviews.

Assistance

To truly understand our customers, you need a comprehensive approach that includes direct interaction, assessing their preferences and identifying their needs. Gathering this vital information involves conducting interviews and surveys, using desk research, and even considering the use of generative AI . With these methods, you can gain valuable insights that go beyond a superficial understanding and give you a more nuanced view.

Help can be found in the toolbox 

Phase 4 - Application Selection

Technology Application Selection Framework

Phase 4: Define

As transitioning from ideas to refining the chosen solution (favorite idea), we delve deeper into the focus of business analysis. It is essential to talk to customers who not only are going to need your product but will also invest in it. Their feedback is crucial. While this phase provides a foundation, you'll need more deep research (i.e. interviews, statistics).

- Objectives
 - Understand the Customer and Needs
 - Apply Jobs2BeDone
 - Determine Critical Assumptions to Test
 - Check the Task-Solution-Technology Fit



Interviews 30 min

1 Determine the Customer Segments Within the Buying Center for Your Solution

The roles focus on B2B solutions but also apply to B2C where not all sections may be completed. Be aware that persona (step 2), core jobs, and desired outcomes (step 3) can differ across roles.

<p>Initiator Define the person who identifies the need for a product or service within the organization.</p>	<p>Influencers Define those who provide information and input about potential solutions but may not have the final decision-making authority.</p>	<p>Decision Maker Define the individual or group responsible for making the final decision on whether to proceed with a purchase.</p>	<p>Buyer Define the person who handles the actual procurement process, including negotiations and contracts.</p>	<p>User Define those who will actually use the product or service once it's acquired.</p>	<p>Gatekeeper Define the person who controls access to the decision makers and can influence which options are considered.</p>
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2 Create Personas

Humanize personas to represent diverse customer roles.

30 min

Use reverse side to create more personas

<p>Negative Trends Negative trends from the environment.</p>	<p>Positive Trends Positive trends from the environment.</p>
<p>Headaches Professional and work related issues.</p>	<p>Opportunities Professional and work related positive outcomes.</p>
<p>Fears Personal issues.</p>	<p>Hopes Personal goals and hopes.</p>
<p>Needs What does this person really want?</p>	

3 Determine Jobs2BeDone

Identify core jobs and refine desired outcomes the customer roles seek.

60 min

Core Job
Define the core job as: "Verb + Object + Contextual Clarifier"
eg. Help my teeth healthy.

<p>Related Functional Jobs List related tasks or practical needs associated with the core job.</p>	<p>Emotional Jobs Identify feelings or emotional outcomes the customer wants to achieve.</p>	<p>Social Jobs Define how customers want to be perceived in social contexts through the core job.</p>
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Desired Outcomes

Define the desired outcomes as: [Minimize or Increase] the [time, cost, or likelihood] of [the desired outcome].

Performance Metric	+ Object of control	+ Contextual clarifier
e.g. Minimize the	likelihood	of developing cavities and gum diseases.

4 Formulate Your Hypotheses

Identify and validate your central hypotheses and use surveys to test your assumptions further. Remember, this step is iterative.

Use reverse side | Interviews 30 min

<p>Customer Hypotheses Reflect on your target customer. Confirm their existence, your understanding of them, and their relation to your focus area.</p>	<p>The assumption is that...</p>	<p>Risk Rating 1-5: How likely is it that the hypothesis is wrong? <input type="checkbox"/></p>	<p>Impact Rating 1-10: How bad is it for the success of my solution if the hypothesis is wrong? <input type="checkbox"/></p>	<p>Score: Multiply risk and impact to identify the most critical factors for your solution. <input type="checkbox"/></p>
<p>Problem Hypotheses Contemplate the problem you're tackling. Determine its realness, significance, and the current solutions customers resort to.</p>	<p>The assumption is that...</p>	<p>Risk Rating 1-5: How likely is it that the hypothesis is wrong? <input type="checkbox"/></p>	<p>Impact Rating 1-10: How bad is it for the success of my solution if the hypothesis is wrong? <input type="checkbox"/></p>	<p>Score: Multiply risk and impact to identify the most critical factors for your solution. <input type="checkbox"/></p>
<p>Value Hypotheses Ponder the uniqueness and clarity of the value your solution offers compared to other existing market alternatives.</p>	<p>The assumption is that...</p>	<p>Risk Rating 1-5: How likely is it that the hypothesis is wrong? <input type="checkbox"/></p>	<p>Impact Rating 1-10: How bad is it for the success of my solution if the hypothesis is wrong? <input type="checkbox"/></p>	<p>Score: Multiply risk and impact to identify the most critical factors for your solution. <input type="checkbox"/></p>

5 Analyse Your Task-Solution-Technology Fit

Assess if the technology and solution supports the task best.

Interviews 20 min

Task-Solution-Technology Fit Assessment
Reflect on your core job, desired outcomes, and solution in the team, and tick the following boxes if they apply.

- Task-Solution Fit**
This solution supports the task best in terms of the customer's needs and desires.
- Task-Technology Fit**
This technology supports the task best.

II Pause and reflect. Return to phase 3 to take over another idea if needed, otherwise proceed to analyze the market with your solution.

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Step 1: Determine the Customer Segments

 30 min

Assessing the different customer segments helps to understand the roles and dynamics within an organization when making purchasing decisions, as many people are involved in different positions. Identifying the key people in the different segments should help you to influence the buying decisions of your potential customers in your favor.

Step 2: Create Personas

 30 min

Creating a persona canvas is important to help companies and product developers identify the needs, goals and desires of their target audience. These visual representations contribute to a potential effective product development, and problem-solving by discovering user needs and preferences. The focus should be on potential customers who can actually use the technology and have the corresponding budget.

Step 3: Determine Jobs2BeDone

 60 min

Jobs2beDone aims to understand customers' needs by focusing on the specific tasks, also known as jobs, that they want to complete. Addressing these aspects enables effective design and conceptualization. With defined desired outcomes you are able to have a clear and measurable target for success, helping to guide your actions and decisions in achieving a specific goal or result.

You will find assistance on the next pages

Phase 4 - Application Selection

Step 4: Formulate Your Hypotheses

 30 min

You have been working with assumptions since phase 1. They need to be tested and validated on a regular basis. Hypotheses are crucial to scientific investigation and problem solving in various disciplines as they provide a structured framework for formulating and testing potential relationships between facts or phenomena. By formulating hypotheses, researchers and decision makers can systematically investigate and validate their assumptions.


Step 5: Analyze Your Task-Solution-Technology Fit

 30 min

Different tasks require different types of technical solutions with specific functionalities. The ability of the technology to support and solve a task or problem is measured by the technology-task-solution fit, which is defined as the extent to which the capabilities of the technology match the requirements of the task. In this way, you can verify whether the technology defined in phase 1 actually provides the best solution for the tasks identified as customer requirements in phase 4, or whether there are better technologies available.

1. Determine the Customer Segments

Introduction

Sometimes more than one person within an organization is involved in a purchasing decision, with varying degrees of influence. This depends on the sector you work in, whether it is B2B, B2C or B2G . Depending on which sector you work in, you will be dealing with different customer segments that have their own interests and you will need to identify them and their needs in order to use them to your advantage. Customer segments can be broken down into the following key roles, although people can occupy more than one segment.

Initiator

The initiator determines the procurement requirement and triggers the purchasing decision process. For example, initiators can make the decision based on an increase in final demand or trigger the decision to purchase certain products or services due to technological innovations.

Influencers

The influencer is usually an opinion leader who, as an expert, has special information at his disposal. The influencer's involvement in the buying process consists of conveying information relevant to the purchase. For example, the influencer defines requirement criteria (e.g. technical specifications) for the product to be purchased.

Decision Maker

The decision-maker has decision-making authority due to his hierarchical position. They ultimately make the purchase decision. The monetary value of the object of purchase is often decisive for the hierarchical level at which the purchase decision is made.

Gatekeeper

The information selector, or so-called gatekeeper, structures the purchasing decision by selectively choosing information in a conscious effort to reduce the number of alternatives. They are usually the first contact person in an organization who makes an initial selection of offers before the purchase process continues.

Buyer

The buyer has the formal authority to prepare and conclude purchase contracts. The central task of the buyer is to take into account both commercial and legal aspects during procurement negotiations for the benefit of the procuring organization. In many organizations buyers belong to a procurement or purchasing department.

User

In the user is the person who uses the product or service. The user possesses specific user knowledge and experience. His preferences and needs are therefore of great importance for the purchase decision.

Advise

Depending on your sector, you may not need to address all of these segments. Check to see which ones are appropriate for your situation.

2. Create Persona

Introduction

The Persona Canvas serves to develop a prototypical user of a product or service, thus giving him a face and name. Taking the customer's perspective makes it easier to understand its motions. It's used to develop a prototypical user of a product or service and give them a face and a name. By taking the customer's perspective, it's easier to understand their movements. In this way, it is easier to draw on a pattern of characteristics and adapt to them.

🔍 Help

- Set up a creative atmosphere and have plenty of colorful materials and magazines ready.
- Fill out the persona canvas. Each individual customer segment should have its own persona. Try to think of things that your persona experiences and how they might feel. How would they react to certain aspects? Try to be specific and selective.
- Now that you've filled the canvases with initial assumptions, it's time to find evidence that the personas you've created actually connect with people in the real world and validate your assumptions.
- Headaches are more focused on tangible problems or challenges in professional life.
- Fears encompass the persona's emotional and psychological apprehensions ,such as concerns or worries.
- Hopes reflect the persona's emotional and subjective preferences, highlighting what they wish to achieve.
- Opportunities are practical aspects that can be addressed by a product or service to provide value.
- Trends are characteristics that the environment brings with it, which changes the attitude of the persona.

3. Jobs-to-be-Done

Introduction

Jobs-to-be-Done (Jobs2beDone) is an innovation methodology and framework that aims to understand the true needs, goals and tasks of customers in order to better design products and services. A job is a task or goal that a person wants to achieve through a product or service, whether in a personal or professional context. A job, as we define it, must fulfill the following characteristics: Firstly, it must be stable in time and must not change. Secondly, a job must have no geographical restrictions and be solution-agnostic.

The term core job in the context of Jobs-to-be-Done refers to the basic task or main goal that a person wants to achieve with a product or service. This is the central function or main benefit that a product or service should fulfill for the user. Identifying the 'core job' is crucial to understanding the actual need or purpose that consumers have with a product or service. The progress a customer seeks in a particular context can be divided into three parts.

 Help

Core Job

Fundamental task or objective that a customer is trying to accomplish when using a product or service. Defined as: "Verb + Object + Contextual Clarifier"

Verb

"Listen"

to

Object

"music"

Contextual Clarifier

"while on the go."

The initially identified core jobs should be further clustered by dividing them into three categories. This helps to understand the needs and motivations of customers more precisely and to align products and services even more specifically to these needs and motivations. A persona should be created for each segment.

 Help

Related Functional Jobs

When your customers try to perform or complete a specific task or solve a specific problem they are aiming to get a functional job done.

“gather the desired music”

Emotional Jobs

Your customers may seek a specific feeling, such as feeling good or feeling secure. This is a emotional job they are trying to get done.

“listen music to feel happy”

Social Jobs

Trying to look good or gaining power and status are social jobs. These jobs describe how a customer wants to be perceived.

“listen music to be perceived as a music geek”

3. Desired Outcomes

Introduction

Desired Outcome Statements are used to clarify and articulate what customers are trying to achieve, providing a stable foundation for innovation, and ensuring that product development efforts are aligned with customer needs and value creation. Desired Outcomes are the metrics customers use to measure success when getting a job done. **It is important to consider each defined job individually, with the respective details about the desired outcomes.**

“People don’t want to buy a quarter-inch drill, they want a quarter-inch hole.”
Theodore Levitt, 1962

🔍 Help

Here is a structure that will give you a better understanding how to define statements.

Direction

Performance Metric

Object of control

Contextual clarifier

[Minimize/ Increase]

[Time, Cost, Likelihood, etc.]

[Desired Outcome]

One desired outcome associated with the core job of “listening to music while on the go” is:

“Minimize”

the

“time it takes”

“get the songs in the desired order”

“for listening.”

4. Hypotheses

Introduction

In this step, you analyze the assumptions that were made during the entire TAS process. New assumptions have emerged, particularly in the area of customer understanding. Now it is important to identify these assumptions, evaluate their significance for the success of the idea and, above all, review the most critical assumptions.

🔍 Help

The questions are intended to stimulate thought and should be adapted according to the context and needs of each.

Questions to ask before you formulate a Persona Hypothesis

- Does this persona exist?
- Can you identify them in the real world?
- Do you understand how they relate to your area of interest? Think? See? Feel? Do?

Questions to ask before you formulate a Problem Hypothesis

- Do the problems you want to solve really exist?
- Is it really of a 'job to be done' rather a need, desire?
- How is the customer solving the jobs now? With what alternatives?

Questions to ask before you formulate a Value Hypothesis

- How much better than the best alternative is your product at delivering on the problem?
- How obvious is that to the customer?
- How are you going to test this without simply asking your customers if they want it?

Test and validate them with data using methods such as interviews, surveys, and desk research .

5. Task-Solution-Technology Fit

Introduction

After formulating hypotheses about the value, the customer and the problem, you need to test them. This is crucial to check whether the underlying technology is the best to meet the customer's requirements and problems defined with the core jobs in step 3 or whether another technology works just as well or better. When making this assessment, also consider aspects such as cost, availability and materials. If you can confidently answer "yes" to both aspects, supported by solid discussions, you can proceed to the next phase.

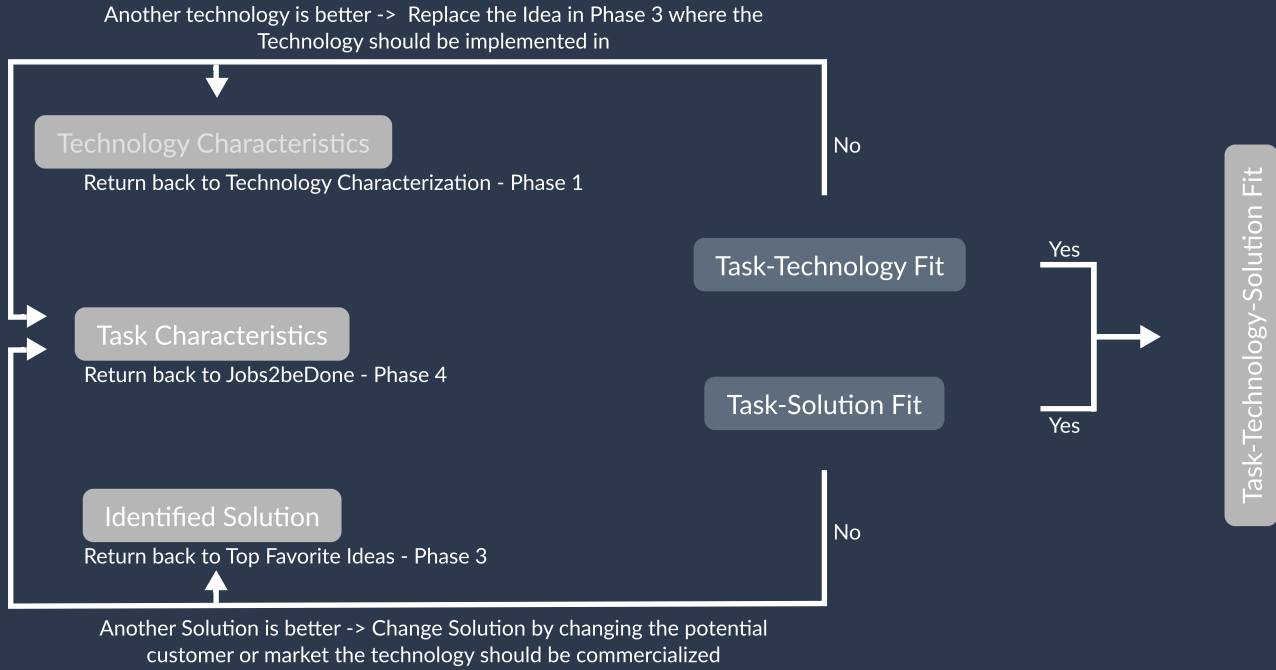
? Help

Task-Technology Fit

With the content on the characteristics of the technology and the characteristics of the application criteria that you have worked out in phase 1 and phase 3, you can determine precisely whether your technology fits the task characteristics defined in phase 4 or not.

Task-Solution Fit

Check whether the idea you have is in line with the needs and wishes of your potential customer. To do this, go through phase 3 and phase 4 and compare them. Otherwise, it is advisable to go through phase 3 again and possibly consider another idea.



Recap Phase 4 - Define



Take a moment to verify if you've successfully met the objectives outlined in Phase 4. If there are uncertainties or if you like certain aspects need further exploration, consider revisiting the phase to solidify the essential fundamentals required for the next steps. Engage in a team discussion to collectively assess the attainment of Phase 4 objectives.

Objective 1 & 2: Understand the Customer and Needs

You delved into comprehending the intricacies of the customer segments and their specific needs. Through methods such as interviews, surveys, and generative AI, efforts were made to gather valuable insights to inform the subsequent stages of product development.



Objective 3: Apply Jobs-to-be-Done and Monitor Desired Outcomes

You have clearly defined the core tasks and understood the essential tasks that the customers were looking to fulfill and aligned yourselves accordingly. By clearly defining the desired outcomes, we can accurately determine the needs and wishes of the different customer segments.



Objective 4 & 5: Formulate Your Hypotheses and Analyze Your Task-Solution-Technology Fit

Identification and analysis of critical assumptions became a pivotal aspect of this phase. You scrutinized hypotheses related to customers, the value , identified problems, and the underlying technology. This process involved identifying the most crucial assumptions. You have confirmed that your technology meets the specified requirements and has the ability to solve them while also being the best existing technology to solve your defined tasks.



Outlook Phase 4 - Define

Once the objectives have been achieved and marked, we look at what comes next:

- You have recognized that you may have to negotiate with several people before the technology can be sold as a service or product in your defined and selected area of application.
- You have understood that the application of the technology must be of use to the customer, which you identified by analyzing their needs and wishes.
- You have made sure that the technology and the tasks to be performed by the potential customer are matching.

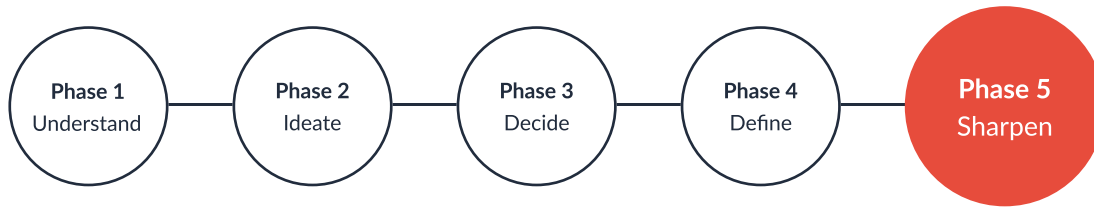
In the next step, we are changing the perspective from the user to the market. Therefore we focus on the competitors, our capabilities and advantages. But before we get to that, you should make sure that your proposed solution is up to the task of the customer. Check again whether the technology and the customer are on the same page or whether another idea needs to be considered (see phase 3). Again, you can iteratively refine your findings to ensure that the technology will be successful in the market.

Advise

Make sure you continue to test the hypotheses you have put forward. You may have tested the most important ones, but the others you have identified through the whole TAS process are also important to get more information. Refine your findings as you gather more information and expand your customer portfolio to further develop your idea.

Phase 5 - Sharpen

Application Selection



“The future will be good and easier for those who work hard and sharpen their skills.”

Sunny Singh

Objectives

- Analyze Market Dynamics & Competitors
- Assess the Key Factors of Your Solution
- Define the Value Proposition of Your Solution
- Get Ready for Next Steps

Sharpen


Introduction

The final phase of the TAS process involves a detailed analysis of your solution's competitive landscape, assessing your capabilities, strategic positioning, and market understanding. The goal is to identify where your solution fits in the industry and how it can establish a distinctive and advantageous position. Ultimately, this phase aims to synthesize insights to determine the optimal position by aligning capabilities with market demands, enhancing the solution's viability and success potential in the dynamic business environment. As in phase 4, this sequence requires a lot of work and time. This phase should not be underestimated.

Through a competitor analysis, you establish a baseline for understanding the competitive landscape and your positioning. Evaluating your organization's capabilities identifies unique selling points and areas for improvement. Examining market dynamics enables a comprehensive understanding of the market and facilitates the evaluation and improvement of your value proposition compared to competitors in your area.

Assistance

Thorough desk research helps to identify competitors, understand their positioning and grasp the market dynamics. In addition, team discussions and seeking external input are important to reflect your company's capabilities. This phase requires commitment, effort and time to get a sound overall picture of your positioning within the competitive landscape.

Help can be found in the toolbox 

Phase 5 - Application Selection

Technology Application Selection Framework

Phase 5: Sharpen

Sharpen your solution by diving into the market's intricacies. Embrace new methods to gain profound insights, ensuring you systematically capture and store this information for subsequent steps. This foundational knowledge is pivotal for navigating the competitive landscape ahead.



Objectives

- Analyze Market Dynamics & Competitors
- Assess the Key Factors of Your Solution
- Define the Value Proposition of Your Solution
- Get Ready for Next Steps

1 Analyze Your Competitors

Position your solution against competitors over time and map the competitive landscape.

Positioning Against Competitors

Collect a list of many competitors and use the provided axes to categorize them as historical, current, or potential. Use case jobs from phase 4 for support.



Competitive Landscape

Rank your competitors based on market share and satisfaction levels within your industry sector. Also, evaluate your own company's position to understand where you stand in relation to others in the industry landscape.



3 Analyze Market Dynamics

Use porter's five forces to gauge competitive analysis and identify potential opportunities and threats.

Threat of new Entrants

Examine the barriers to entry for this industry. Consider factors such as initial investment needs, brand strength of existing firms, and economies of scale.

Threat of Substitute Products

Identify potential alternative products or services that could replace yours. Consider factors like pricing, convenience, and the level of differentiation.

Rivalry Among Competitors

Assess the competition level among existing firms. Consider factors such as the number of competitors, their strengths, and how differentiated their products are.

Bargaining Power of Suppliers

Assess the influence of your suppliers. Think about the number of suppliers, the uniqueness of their products, and how hard it would be to switch suppliers.

Bargaining Power of Customers

Gauge the power your customers have in this relationship. Consider factors like the number of customers, their loyalty, and the availability of alternative products.

5 Write Down Your Value Proposition Statement

Result your solution (product/service) in one sentence, and present it to others for feedback.

For (customer segment) _____ who have to (job statement) _____

and want/need to (desired outcome) _____

we offer (product/services) _____

which is a (product category/market category/technology) _____

that provides (key benefits/features) _____

2 Analyze Your Capabilities

Evaluate your resources and capabilities through the VRIO lens to pinpoint potential competitive advantages.

Assessing Value, Rarity, Imitability and Organization

Utilize the VRIO framework sequentially, starting with value. If a resource doesn't add value, further analysis might be redundant. However, resources can evolve, and what's not valuable now may become significant in the future. Be prepared to revisit and reevaluate as necessary. Classify each resource or capability using the table on the right.

Resources/Capabilities	Is it valuable?	Is it rare?	Is it difficult to imitate?	Is your organization ready to leverage this?	Classification

<input type="checkbox"/>	Competitive Disadvantage
<input type="checkbox"/>	Competitive Parity
<input type="checkbox"/>	Temporarily Competitive Advantage
<input type="checkbox"/>	Unlabeled Competitive Advantage
<input type="checkbox"/>	Sustained Competitive Advantage

4 Assess Your Value Profile

Determine your product's competitive edge and compare its value against key competitors.

Define and Compare Success Indicators

Identify 8 key success indicators for your solution, considering customer perspectives and crucial competitive factors. Compare your product's value with at least two main competitors in the matrix. Draw one line per competitors using different colors or line styles.

High	Success Indicator 1	Success Indicator 2	Success Indicator 3	Success Indicator 4	Success Indicator 5	Success Indicator 6	Success Indicator 7	Success Indicator 8	Competitor A Your solution	Competitor B
Low										

Well Done! What Are the Next Steps on Your Journey?



Test and Refine

Start prototyping and present your solution to stakeholders and potential customers. Feel free to revisit and adapt any phase.

Dive into the Business Model

Familiarize yourself with the business model canvas and develop a detailed business plan where you integrate your value proposition.

Get Started!

Whether you're diving into the market directly or seeking partnerships with accelerators, take the initial steps to establish and grow your venture.

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Step 1: Analyze Your Competitors

 30 min

Analyzing competitors is essential for gaining market insights. It informs strategic decision-making, helping businesses differentiate their products or services, setting new market trends with your technology, and mitigate risks, ultimately contributing to long-term success in a dynamic business landscape.

Step 2: Analyze Your Capacities

 30 min

Resources are often limited, and the competitive landscape can be particularly challenging. In essence, where the margin for error is often slim, the VRIO framework analyzes your capacities and serves as a strategic tool that guides decision-making, minimizes risks, and enhances the changes of building a resilient and successful business.

Step 3: Analyze Market Dynamics

 30 min

Analyzing market dynamics with the Porter Five Forces framework is essential for your business as it enables you to strategically position yourselves, make informed decisions, and allocate resources effectively with the collected information. This process not only assesses risks and identifies opportunities but also fosters adaptability to change, benchmarks performance, and enhances investor confidence by showcasing a deep understanding of the competitive landscape.

You will find assistance on the next pages

Phase 5 - Application Selection

Step 4: Assess Your Value Profile

 20 min

A value profile assessment is essential for organizations to align products with customer needs, drive satisfaction and loyalty, and enable differentiation, strategic planning, and innovation for sustainable competitive advantage. By prioritizing customer value drivers, adapting to market dynamics, and incorporating feedback, companies can improve customer loyalty, stimulate innovation, and ensure continued relevance in the ever-evolving marketplace.

Step 5: Write Down Your Value Proposition Statement

 20 min

Crafting a Value Proposition Statement is essential as it not only establishes product differentiation and customer focus but also ensures alignment with overall business strategy, facilitating effective communication and guiding strategic decision-making in the competitive landscape. A well-defined Value Proposition Statement is a foundational element in building a strong and competitive brand, influencing customer perceptions and supporting strategic actions. This is particularly important as you are launching your technology on the market for the first time and first impressions count.

1. Competitor Analysis

Introduction

Competitor analysis is crucial because it provides businesses with valuable insights into the strengths, weaknesses, strategies, and market positions of their rivals. By understanding competitors, organizations can identify opportunities, anticipate threats, and make informed decisions to gain a competitive edge. It helps in benchmarking performance, adapting strategies, and positioning products or services effectively within the market. Overall, competitor analysis is a strategic tool that enhances a company's ability to navigate the competitive landscape and succeed in its industry.

To effectively position your solution against competitors over time and map the competitive landscape, begin by collecting a comprehensive list of competitors. Utilize the provided axes to categorize them as historical, current, or potential. This categorization not only helps identify the proximity of competitors but also allows for a nuanced analysis. Examining the historical dimension enables you to understand why certain competitors may have failed, providing insights into critical circumstances and potential pitfalls.

Advise

This knowledge, determines your positioning within the competitive landscape. Evaluate your solution and competitors based on customer satisfaction and market share. This assessment provides a clear understanding of your location and identifies competitors requiring special attention. By using the competitive landscape you have to keep in mind to order all competitors including yourself from the “current” status.

🔍 Help

Here is a little help in case everything gets too much for you at the beginning and you are overwhelmed as to how you can best get started now.

Define Your Purpose and Scope

- Clearly define the purpose of your market analysis.
- Determine the scope of your analysis, such as geographical focus, target audience, and specific products or services.

Gather Market Intelligence and Assess Market Readiness

- Collect information about the overall industry, including size, growth rate, trends, and key players.
- Utilize both primary and secondary sources. Primary sources include surveys, interviews, and focus groups, while secondary sources include market reports, industry publications, and government statistics.
- Determine the current state of the market in terms of technology adoption and readiness.
- Evaluate if the market is receptive to new technologies or if there are barriers to adoption.

Identify Target Market Segments

- Divide the market into segments based on demographics, psychographics, behavior, and geographic location.
- Determine which segments are most relevant to your technology and offer the most potential.
- You will find all industry segments listed in the International Standard Industrial Classification (ISIC) [🔗](#).

Overview the Competitive Landscape

- Identify and analyze your competitors. Understand their strengths, weaknesses, market share, and strategies.
- Assess the competitive landscape to identify gaps or areas where your product or service can stand out.
- Analyze the strengths and weaknesses of current technologies and understand how your innovation can provide a competitive advantage.

Review your strengths and weaknesses with an eye toward the future

- Conduct a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) for your business and competitors.
- Identify potential early adopters or innovators who may be more willing to embrace new technologies.
- Understand the characteristics and needs of these early adopters.

Record your Insights

- Record the information you find on the appropriate canvas and assign your identified competitors accordingly.
- You can learn from the companies that once operated in your defined market but failed, so you don't have to go through the same mistakes again.

2. Analyze Your Capabilities

Introduction

The VRIO framework stands for Value, Rarity, Imitability, and Organization, and it helps in evaluating whether a firm's resources or capabilities can provide a sustainable competitive advantage.

By applying the VRIO analysis, one can gain a deeper understanding of the competitive sustainability of the proposed solution. It assists in making more informed decisions about whether the identified resources and capabilities truly provide a distinct advantage that is difficult for competitors to replicate.

Value

It assesses whether the solution adds significant value to the customer or meets a critical need. If the solution doesn't provide value, it may not be a sustainable choice.

Imitability

This criterion examines how difficult it is for competitors to imitate the solution. If the technology or approach can be easily copied, it might not offer a long-term advantage.

Rarity

It evaluates whether the resources or capabilities that contribute to the solution are rare or unique. If competitors can easily replicate or obtain similar resources, it diminishes the competitive advantage.

Organization

It considers how well the organization is equipped to exploit the identified resources or capabilities. Effective organization and utilization of resources are crucial for maintaining a competitive edge.

? Help

Apply the VRIO framework sequentially, starting with the value. If a resource does not add value, further analysis may be unnecessary. However, resources can evolve and what is not valuable now may become important in the future. Be prepared to revisit and reassess the analysis as needed.

× × × ×	Competitive Disadvantage
✓ × × ×	Competitive Parity
✓ ✓ × ×	Temporary Competitive Advantage
✓ ✓ ✓ ×	Unused Competitive Advantage
✓ ✓ ✓ ✓	Sustained Competitive Advantage

This template gives you information on how to interpret the results of your VRIO analysis. However, how relative the competitive advantage is subjective. Here again, it is useful to make assumptions so that you define a certain framework against which you can analyze your competitors.

A number of resources are listed as examples. Feel free to add to and expand them:

Financial Resources

Money
Shares
Bonds
Debentures

Human Resources

People Skills
People
Knowledge

Material Resources

Raw Materials
Facilities
Machinery
Equipment

Non-Material Resources

Patents
Brand name
Intellectual property

3. Analyze Market Dynamics

Introduction

Analyzing market dynamics is paramount in understanding the competitive landscape and making informed strategic decisions. The Porter Five Forces framework provides a comprehensive tool for evaluating the forces that shape every industry and helps determine an industry's weaknesses and strengths. Five Forces analysis is frequently used to identify an industry's structure to determine corporate strategy. Porter's model can be applied to any segment of the economy to understand the level of competition within the industry and enhance a company's long-term profitability.

Help

a short guideline on how the forces work

The stronger the forces, the...

- lower the profit potential.
- less attractive the industry is for the participating companies.
- more difficult to gain on advantage over competitors.

Ask yourself

- How are you going to achieve a competitive advantage that will put your organization in a winning position?
- Under each force, how should you evaluate the threat, ranging from low to high?

Porter Five Forces



Rivalry Among Competitors



Bargaining Power of Customers



Bargaining Power of Suppliers



Threat of Substitute Products



Threat of new Entrants

Competitors in the industry (rivalry among existing competitors)

This refers to the intensity of competition between the already established companies in the industry. Factors such as the number of competitors, their size, growth rate of the industry, differentiation of products, price competition, etc. play a role here.

Threat from new competitors (threat from new entrants)

This relates to the possibility and likelihood of new companies entering the market. Barriers such as high initial investment, existing brand loyalty, regulation and patents can make market entry more difficult.

Bargaining power of suppliers

This describes how strong the position of suppliers is and the extent to which they can influence prices and terms. If there are few suppliers or if they have unique or scarce resources, they often have greater bargaining power.

Bargaining power of buyers (customers)

This refers to the power of customers to influence prices or dictate terms. If customers have many alternatives or buy large quantities, they have greater bargaining power.

Threat of substitutes (threat of substitution)

This refers to the likelihood that products or services from other industries can replace existing ones. The more substitutable products or services are available, the greater the threat to existing offerings.

High threat levels typically signal that future profits may deteriorate and vice versa. For example, an early startup in a fast-growing industry might quickly become shut out if barriers to entry are not present.

4. Value Profile Assessment

Introduction

A Value Profile Assessment is a comprehensive depiction of the value a company delivers across multiple dimensions. It is an in-depth analysis that explores how a business creates, captures, and delivers value to its stakeholders, including customers, partners, and investors. This profile encompasses various facets of a startup's operations, strategy, and market positioning.

When conducting a Value Profile Assessment, it's crucial to define clear objectives, prioritize value factors, utilize reliable data sources, and include competitive analysis. Ongoing monitoring and adapting to changing customer needs, supported by customer feedback and management endorsement, are key for maintaining the assessment's relevance and impact.

🔍 Help

After gathering pertinent information in the preceding steps, the focus shifts to defining your product's competitive advantage and evaluating its value relative to key competitors. Identify 8 key success indicators tailored to your solution, taking into account customer perspectives and critical competitive factors. Conduct a comparative analysis of your product's value against at least two primary competitors using a matrix to visualize the differences. Distinguish each competitor with unique lines, employing different colors or line styles for clarity. Here are some examples of components of a value profile that you should consider.

Customer Segments

This involves defining and comprehending the specific target audiences or customer segments that your technology aims to serve. It includes understanding the demographics, behaviors, needs, and preferences of these segments to tailor offerings effectively.

Value Creation

Your product or service is detailed in terms of how it solve problems or fulfill needs for its target customers. This involves highlighting the unique features, benefits, or solutions offered by your technology and demonstrating how they effectively address pain points or challenges faced by customers.

Value Capture

This refers to the mechanisms through which your technology value from its offerings. It encompasses various revenue models, pricing strategies, and monetization methods utilized by the startup to effectively convert the value created into sustainable revenue streams.

Differentiation and Competitive Advantage

This involves analyzing and identifying what sets your technology apart from its competitors. It includes assessing the unique selling propositions, key strengths, or advantages that give the startup a competitive edge in the market, as well as evaluating its positioning against competitors.

Operational Efficiency and Execution

This component evaluates the efficiency of your operations in delivering the promised value to customers. It involves an assessment of the company's capabilities, resources, and processes in executing its strategies effectively and ensuring operational efficiency.

5. Value Proposition Statement

Introduction

All the information and results that you have collected, analyzed and refined in the previous steps are now brought together. Defining the value proposition is crucial because it serves as a concise articulation of the unique value and benefits that a product or service offers to its target audience. It is a clear and compelling explanation of what differentiates the product from its competitors and why customers should choose it. This can be used perfectly as a pitch and is a foundational element in building a strong and competitive brand in the market.

🔍 Help

The value proposition statement helps in:

Differentiation: Clearly communicating what makes the product unique and better than alternatives in the market.

Alignment with Strategy: Ensuring that the product's features and benefits align with the overall business strategy.

Communication: Providing a basis for consistent and effective communication with customers, stakeholders, and the market.

Decision Making: Guiding strategic decisions about product development, marketing, and positioning in the competitive landscape.

Customer Focus: Understanding and addressing the specific needs and preferences of the target audience.

Make sure to discuss the value proposition within your team to refine it. This statement represents your essential idea and thus will be used throughout the upcoming parts of your journey.

Step 5/5

Phase 5 - Application Selection

Recap Phase 5 - Sharpen



Take a moment to verify if you've successfully met the objectives outlined in Phase 5. If there are uncertainties or if you like certain aspects need further exploration, consider revisiting the phase to solidify the essential fundamentals required for the next steps. Engage in a team discussion to collectively assess the attainment of Phase 5 objectives.

Objective 1: Analyze Your Competitors

You have analyzed the competitive landscape and positioned them on the canvas, if desired, so that you can learn from your competitors who have failed in the past, who you are currently competing with and who could pose a threat to you in the future.

Objective 2: Analyze Your Capabilities

Knowing your own resources and limits is crucial. You used the VRIO framework to check whether you have sufficient resources to keep up with the filtered-out competitors. By examining key indicators of value, rarity, imitability, and organization, it provides a clear picture of which resources you already have and where you still need to expand.

Objective 3: Analyze the Market Dynamics

Examining the forces and factors that greatly impact market dynamics, and consequently, customers' buying habits, has been a part of your analysis. Understanding how these factors can be controlled and managed within a broad framework is essential for the benefit of our innovation.



Objective 4: Assess Your Value Profile

We used this Value Profile Assessment to determine the success indicators for a competitive advantage of your product or service over competitors. We examined which factors are important for our success and measured them against the competitors we identified in step 1.

Objective 5: Determine Your Value Proposition Statement

In a value proposition statement, you formulated the unique value and benefit that your product or service offered your customers. This statement succinctly conveyed why your offering was valuable and why it was better or different than the alternatives on the market.

Reflection Phase 5 - Sharpen

Once the objectives have been achieved and marked, we look at what comes next:

- You have identified your current and future competitors and are learning from the mistakes of the past.
- You have recognized your own capabilities and identified, where you need to further develop and expand.
- You have ensured that your idea is formulated simply, concisely and convincingly, not only for better understanding, but also for clearer communication to stakeholders and future shareholders.

In the next step, we come to the epilogue, which is the end of the TAS framework. However, before we get to this point, we recommend going through everything again iteratively to ensure that you have the best possible version of your selected idea and the best possible results in terms of analyzing the customer perspective and the market perspective in terms of the competition. Take another close look at the individual phases and link the findings together. Check whether the updated level of knowledge has led to changes in opinion regarding the content that you recorded in the previous phases. Pay attention to what is relevant for the next steps and what could be improved.

Advise

Being a pioneer demands resilience amid the roller-coaster of ups and downs. It's a journey where curiosity becomes a guiding light, fueling innovation and adaptation. Don't get discouraged no matter what, because there are good times and hard times in journey, but it is remarkable and unique.

EPILOG



🚩 Well Done! What Are the Next Steps of Your Journey?

Test and Refine

Start prototyping and present your solution to stakeholders, experts and potential customers. Feel free to revisit and adapt any phase.

Dive into the Business Model

Familiarize yourself with the business model canvas and develop a detailed business plan where you integrate your value proposition.

Get Started!

Whether you're diving into the market directly or seeking partnerships with accelerators, take the initial steps to establish and grow your venture.

“The farther you can look back, the farther you will look ahead.”
Winston Churchill

You have reached the end of the TAS framework and have achieved very detailed and comprehensive perspective on where and how you can commercialize your technology. However, this is only the start. As was said at the beginning, the framework is only as good as the user handles it. We have provided you with a guide that allows you to find application areas where your technology can flourish.

**Now it's up to you how you
want to proceed with your
results.**



Choose Your Path!

There are no limits. How you move forward is up to you.

Improve & Refine

Do you want to go back to individual phases and sections and refine them iteratively?

Founding



Do you want to go straight into starting or are you looking for co-founders to support you along the way?

Exchanges & Engagement

Do you want to network with accelerators in your area who can support you in this endeavor?



Do you have anything else on your mind that hasn't been mentioned here yet?

TOOLBOX

“It’s essential to have good tools, but it is also essential that the tools should be used in the right way.”

Wallace D. Wattles

Conducting Desk Research



Introduction

Desk research is a method that involves the collection and analysis of existing information, data, and literature from publicly available sources. This type of research does not involve collecting new data through surveys, experiments, or fieldwork but relies on previously published materials. It is typically conducted from a desk or computer and plays a crucial role in helping entrepreneurs and startup founders gather valuable information and insights to make informed decisions and develop their business strategies, market research or policy development.

How to

1. Define Your Objectives

Clearly define your research goals and objectives. What specific information or data are you looking for? What questions do you need to answer?

2. Identify Your Sources

Clearly define your research goals and objectives. What specific information or data are you looking for? What questions do you need to answer?

3. Information Gathering

Start by using online search engines and databases to find relevant information. Google Scholar, academic databases (e.g. JSTOR, PubMed), and library catalogs are good places to begin your search.

Visit a local library or access an online library to find books, journals, and magazines related to your research topic. Librarians can also help you navigate the library resources.

Assess the credibility and reliability of your sources. Peer-reviewed journals and academic publications are generally more reliable than personal blogs or Wikipedia. Look for the publication date, author's credentials, and any potential biases.

4. Analyze and Synthesize Your Findings

Keep track of the information you find. Create a system to organize your sources, such as using citation management software like Zotero or EndNote. Take notes and highlight key points.

Identify key information that is relevant to your research objectives. Make sure to note down any statistical data, quotes, or examples that support your findings.

Analyze the information you've gathered to draw insights and conclusions. Compare and contrast different sources to gain a comprehensive understanding of your topic.

5. Reporting Your Results

Use the information you've gathered to write or present your research findings. Organize your report or presentation based on your research objectives and the insights you've gained.

Conducting Interviews

Introduction

Interviews collect valuable information from a few individuals. They provide in-depth, qualitative data that help researchers explore and understand complex issues, answer questions, and give insight, advice, and data from clients, potential customers, knowledgeable individuals, or experts. This enables informed decision-making, expert guidance, and practical insights for planning and solving problems.

How to

1. Define Your Objectives

Clearly outline the goals and objectives of the interview. What do you aim to achieve? What information or insights are you seeking?

2. Identify Your Participants and Obtain Informed Consent

Determine who should participate in the interviews and in which context. For information gathering, identify experts or individuals with relevant knowledge, and in market research target customers or stakeholders.

In all contexts, ensure that participants are fully informed about the purpose and process of the interview. Obtain their consent to participate, and guarantee their confidentiality.

3. Develop Interview Questions

Create a set of open-ended, structured, or semi-structured interview questions tailored to your objectives. These questions should guide the conversation and elicit the information or insights you seek. Think about why you want to pursue in-depth information around your topic.

4. Planning and Managing

Good planning will make it easier for you later. Consider whether a second interviewer or a notetaker will be needed. Decide on recording interviews and the time for transcribing. Plan the interview location and its duration with buffer, and address any confidentiality concerns.

Before the actual interviews, it's often helpful to conduct a small pilot test with a few participants to refine your questions and ensure they are clear and effective.

5. Conduct the Interview


Explain the purpose and format of the interview. Establish a comfortable and trusting atmosphere for participants. Follow your interview guide, but be open to relevant follow-up questions and probes. Pay close attention to what participants say and avoid interrupting them. Document the interview through notes, audio or video recording (with permission), or both.

6. Data Analyzation and Feedback

After completing the interviews, transcribe audio recordings if applicable. Use qualitative analysis techniques to identify patterns, themes, and insights in the data.

Create reports with your results and share them with your colleagues if necessary.

Advise

It is important to practice your communication skills  since the interviewer can control the quality of the outcome. If more than one interviewer is involved, it is important that each interviewer understands the interview process and practices the interview before the formal survey begins to avoid duplication.



Conducting Surveys

Introduction

Surveys are used to systematically collect data and information from individuals or groups, serving various purposes, such as gauging opinions, conducting market research, understanding public sentiment, assessing needs, gathering customer feedback, and supporting academic and social research, among other applications. While interviews are more flexible, interactive conversations with respondents, allowing for open-ended questions, in-depth exploration, and qualitative analysis, Surveys involve standardized questionnaires for data collection from a large number of respondents, using closed-ended questions for quantitative analysis making them cost-effective for large-scale data collection.


How to

1. Define Your Objectives

Clearly articulate the goals and objectives of your survey. What specific information or insights do you want to gather?

2. Design Your Survey Instrument

Create a well-structured survey instrument (questionnaire) with clear and concise questions that are relevant to your objectives.

Use a mix of closed-ended (multiple-choice, likert scale ) and open-ended questions, depending on the context and the type of data you need.

Ensure the questions are unbiased and free from jargon that may confuse respondents.

Creating a good invitation to participate your survey is important. Try to include 1-2 sentences describing a purpose or goal of your survey.

3. Identify Your Target Audience

Define the characteristics of the individuals or groups you want to survey. Consider demographics, location, and other relevant factors.

4. Choose Data Collection Methods

Choose appropriate methods for data collection, such as online surveys, interviews, or mailed questionnaires.

5. Administration and Implementation

Distribute the survey to your chosen audience, collect responses, and ensure data accuracy and privacy.

Start and end the survey with easy questions or start the survey with more familiar questions and increase the complexity of questions step by step (The natural and logical flow of a survey is important to collect good survey results). Keep in mind that a high response rate does not guarantee a high survey completion rate - in many online surveys, people do not always complete a survey.

Mention the length of the survey, ensure that responses are confidential and that participation is voluntary. Provide contact information in the cases where participants have questions about the survey.

6. Data Analyzation and Feedback

Analyze the collected data using the right methods, interpret results, and prepare a clear report with actionable insights. In applicable contexts, take action based on survey findings, communicate with stakeholders, and continuously improve your survey process and instruments for future efforts.



Advise

Clarity, simplicity, length, and acceptability are keys in creating effective survey questions. You should avoid complicated, long, and ambiguous questions.

Looking for a Team

Introduction

Having a team is crucial for a startup's success as it brings together diverse skills, fosters collaboration, and enhances overall productivity. Teams enable efficient problem-solving, mitigate risks, and provide emotional support. With complementary skills and varied perspectives, teams drive innovation and creativity, leading to more robust solutions. Ultimately, a cohesive team contributes to a positive company culture and better equips the business to navigate challenges and pursue opportunities.

How to

1. Use Online Platforms

Explore online platforms that cater to technical professionals. Specialized forums related to your industry or technology stack can be valuable for finding skilled individuals.

2. Networking Events and Meetups

Attend technical meetups, conferences, and networking events in your area or participate in online events. Engage with professionals who have the technical skills you're seeking. These events provide opportunities for face-to-face interactions and discussions about your technology.

3. University Programs, Incubator Programs and Hackathons

Collaborate with universities, technical schools, and participate in hackathons. These environments often attract talented individuals with hands-on technical experience and a passion for problem-solving.

5. Open Source Contributions

Look for individuals who contribute to open-source projects relevant to your technology. Active contributors may be interested in taking on a new challenge and could bring valuable experience to your team.

6. LinkedIn and Professional Networks

Leverage LinkedIn and other professional networks to identify individuals with the skills you need. Join relevant groups, participate in discussions, and reach out to potential candidates. Utilize job boards and platforms like Indeed, or specialized tech job boards to post listings for the positions you're looking to fill. Clearly outline the technical requirements and the mission of your startup.

7. Create a Compelling Pitch

Develop a clear and compelling pitch that communicates your startup idea, its potential, and why someone should join your team. This pitch will be crucial when you're talking to potential team members.

8. Professional Organizations

Join professional organizations related to your industry. Attend events hosted by these organizations to meet professionals who might be interested in joining a startup.

Advise

Look for individuals who are not only skilled but also committed and passionate about the startup's mission. The early stages of a startup can be demanding, so having a team that is dedicated is crucial.



Utilization of Network



Introduction

Leveraging your professional network in the startup and business context offers significant advantages. It provides **access to experts** who can offer valuable insights and knowledge. Additionally, it offers mentorship opportunities from experienced individuals, supporting you in your entrepreneurial journey. Your network also opens doors to partnerships, collaborations, and funding. Moreover, it serves as a source of emotional support and a platform for idea validation and feedback. It aids in customer acquisition, brand development, and resource sharing, making it a critical factor in business success.

How to

1. Define Your Objectives

Identify your specific needs and objectives for networking and determine the type of experts or mentors you want to connect with. List all people you know from your contact list (phone, social media, acquaintances) and sort them as you seem fit.

2. Expand Your Network

Attend industry-specific events, conferences, and seminars to meet potential connections. There are lots of lists you can find on Google.

Join online forums, LinkedIn groups, and other social networks relevant to your industry and leverage your existing contacts and ask for introductions to potential experts in your field.

3. Online Networking

Establish a strong online presence by optimizing your LinkedIn and other professional profiles. Actively connect with professionals in your industry by sending personalized connection requests and share valuable content, such as industry insights and your own expertise, and engage in meaningful discussions on social media.

4. Offline Networking

Attend local business events, networking mixers, and industry-specific conferences by e.g. actively participating in your local business community by engaging in meetups or chamber of commerce activities. Join associations, organizations, or clubs relevant to your industry to expand your offline network.

5. Seek Warm Introductions

When reaching out to experts or potential mentors, ask for warm introductions through mutual connections who know both parties and Build rapport with common connections, which can increase your chances of receiving a positive response. Craft personalized messages that clearly state your purpose and express your genuine interest in connecting.

6. Create Value-Oriented Interactions

Respect experts' time by communicating your message clearly and succinctly. Show your willingness to reciprocate value by offering to help with their projects, sharing your own expertise, or facilitating introductions within your network. As your startup grows and your expertise deepens, give back by mentoring or helping others in your network.

Workshop Setup



Introduction

Workshops and focus groups can be used as an outcome assessment tool for understanding how stakeholders experience the outcomes of a project, whether they perceive the project to be inclusive and accessible, and whether the project has met community expectations with regards to outcomes. The implementation requires a workshop moderator

How to

1. Planning the Workshop

Identify your specific needs and objectives for networking and determine the type of experts or mentors you want to connect with. List all people you know from your contact list (phone, social media, acquaintances) and sort them as you seem fit.

Determine the demographic and psychographic characteristics of your target participants. This will help in recruiting the right people for your focus groups.

Decide on the specific topics or issues you want to explore during the focus groups. Ensure they align with your objectives.

Select a suitable venue for the workshop. Consider factors like accessibility, comfort, and availability of necessary equipment. Plan logistics such as seating arrangements, audiovisual equipment, and materials.

Develop a detailed agenda for the workshop. Include time for introductions, presentations, focus group discussions, breaks, and any other relevant activities.

2. Recruiting Participants

Develop criteria for selecting participants based on the target audience. This could include factors like age, occupation, interests, etc.

Reach out to your existing networks, both personal and professional, to find potential participants. Word of mouth can be a powerful tool. Utilize online platforms, such as social media, forums, or community groups, to recruit participants. Be transparent about the purpose of the workshop.

Consider providing incentives for participants, such as gift cards, discounts, or freebies. This can increase interest and participation.

3. Workshop Facilitation

The facilitator must thoroughly understand the topics, objectives, and methodologies. Anticipate potential challenges and plan how to address them. Foster an atmosphere of openness and trust. Make sure participants feel comfortable expressing their opinions. Actively engage participants and encourage them to share their thoughts. Use open-ended questions to promote discussion. Stick to the workshop schedule to cover all planned activities. Allocate sufficient time for each focus group discussion.

Assign someone to take detailed notes during the focus groups. Record key insights, common themes, and participant feedback. Be flexible and ready to adapt the agenda based on the flow of the discussions. It's important to allow for spontaneity and exploration of unexpected insights.

Plan for a follow-up process to share findings with participants and gather additional feedback. This can help in maintaining a positive relationship with participants.

DICTIONARY

*“The only place success comes
before work is in the dictionary.”
Vince Lombardi*

B2B & B2C & B2G

Definition

B2B, B2C and B2G are abbreviations that describe the nature of business relationships, particularly in terms of what type of players interact with each other. In each case, it is about the exchange of goods or services, but the target group differs.

(B2B) Business to Business

This type of business relationship is between companies. Here, products or services are sold from one company to another. In the case of disruptive innovations, the decision-making and purchasing process involves several levels in the companies involved, which have to coordinate together, making the process very complex. It is therefore important to analyze the individual customer segments and identify their needs and wishes.

(B2C) Business to Customer

This type of business relationship is between companies and end consumers. Purchasing decisions are often based on personal preferences and depend heavily on emotions. As a rule, the decision-making process is simpler and can often be more spontaneous, as the products or services and the consequences of a bad purchase are relatively low compared to B2B

(B2G) Business to Government

This type of business relationship is between companies and government agencies. Purchasing decisions here are often bureaucratic and require compliance with certain regulations and guidelines. Orders or contracts are often won through tenders. The customer segment here is not clear, it varies depending on the region and personal needs and preferences are therefore not as important as in B2B or B2C.

Technology Readiness Level (TRL)

Definition

The Technology Readiness Level (TRL) is a scale that assesses the maturity of a technology or product in terms of its development and deployment capability. It ranges from TRL 1 (basic research) to TRL 9 (full readiness for real-world use). TRL is often used to track the progress of innovations in various industries and to ensure that they are adequately tested and developed prior to market launch. This scale helps communicate and assess the development status of technologies. TRLs give engineers, regardless of their technical background, a consistent reference point when evaluating technology maturity.

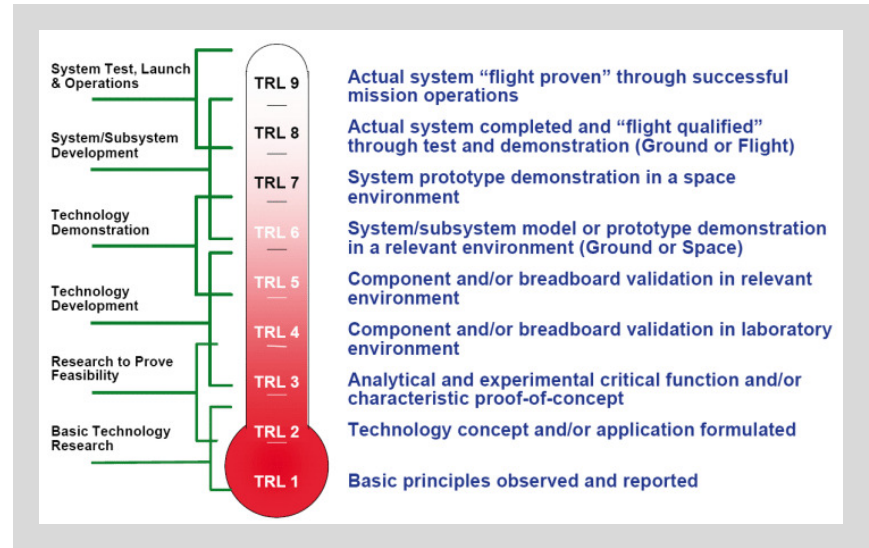


Illustration: TRL principle classifications are applied at NASA to estimate the mission capability of space technologies

Gartner Hype Cycle

Definition

Gartner's Hype Cycles provide a graphical representation of the maturity and adoption of technologies and applications and their potential relevance to solving real business problems and capitalizing on new opportunities. It gives you an overview of how a technology or application will evolve over time, providing a sound source of insight to guide and understand its use in the context of your specific business objectives.

Each hype cycle is divided into the five most important phases of a technology's life cycle.

Technological trigger

A potential technological breakthrough gets things rolling. Early proof-of-concept stories and media interest trigger a lot of publicity. Often there are no viable products and commercial viability is unproven.

Peak of exaggerated expectations

Early publicity generates a number of success stories - often accompanied by a multitude of failures. Some companies take action; many do not.

Trough of disappointment

Interest wanes when experiments and implementations are not successful. Technology vendors are purged or fail. Investments will only continue if the surviving vendors improve their products to the satisfaction of the early adopters.

Path to enlightenment

More and more examples of the benefits of the technology to the business crystallize and become better understood. Second and third generation products appear from technology providers. More companies are funding pilot projects; conservative companies remain cautious.

Gartner Hype Cycle

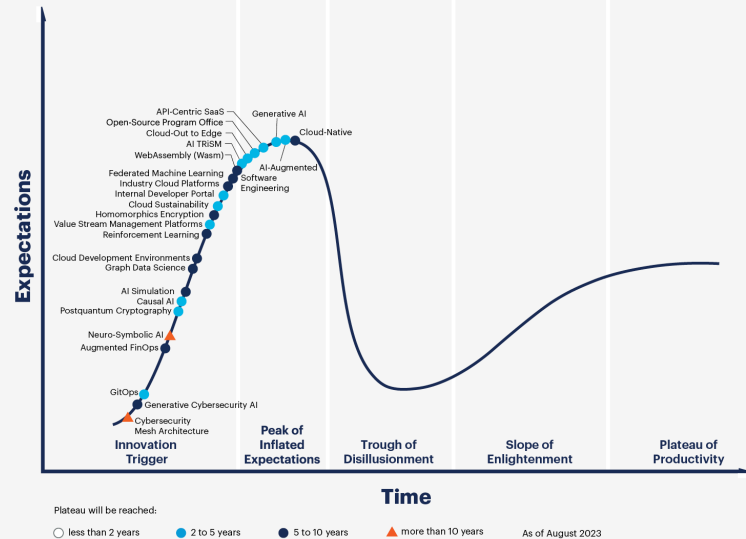
Productivity plateau

Mainstream adoption begins. The criteria for evaluating vendor viability are more clearly defined. The broad market applicability and relevance of the technology is paying off.

Hype cycles help to

- reduce the risk of your technology investment decisions.
- separate the hype from the real drivers of a technology's commercial promise.
- compare your understanding of a technology's business value with the objectivity of experienced IT analysts

Hype Cycle for Emerging Technologies, 2023



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ISIC Industry Classification 4.0

Definition

The International Standard Industrial Classification (ISIC) is an international standard for the classification of economic activities in different countries. It is published by the United Nations and is used to compare statistical data on economic activities at a global level. The ISIC code structure consists of different levels, which are organized hierarchically. Each level represents a certain level of detail in the classification of economic activities. The codes are expressed in numbers and letters. The various sections, divisions, groups and classes represent broader or more specific categories of economic activity. This system enables a standardized classification that can be applied worldwide.

You can find the ISIC Rev. 4 directly on the website of the United Nations, in particular on the page of the United Nations Statistics Division (UNSD). The structure is available in detailed tables and documents covering the different sections, divisions, groups and classes of the ISIC.

Advise

Browsing through all classifications helps you to find new application domains where your innovation could possibly be implemented. It is important to remember that you are not limiting yourself by the classifications but are inspired by them. Who knows, maybe you will be the one to introduce a new classification.

ISIC Industry Classification 4.0

The ISIC code begins with a letter that represents the section.

Division

The second digit indicates the division and further refines the classification.

Group

The third digit indicates the group and further refines the classification.

Class

The fourth digit indicates the class and provides a more detailed description of the economic activity.

The complete structure of the ISIC codes is available in the official publications of the United Nations. The most recent version is ISIC Rev. 4 (International Standard Industrial Classification of All Economic Activities, Revision 4), which was published in 2008.

This hierarchical structure allows companies and economic activities to be classified precisely. The code becomes more specific the more digits are included. This facilitates the comparability of economic data on a global level and makes it possible to identify patterns and trends in different industries.

Example

Section A

- Agriculture, forestry and fishing

Division 01

- Crop and animal production, hunting and related service activities

Group 011

- Growing of non-perennial crops

Class 0112

- Growing of rice

Definition

The PESTEL analysis is a tool used in strategic planning, but is also used in strategic marketing and quality management. The tool looks at the external environment of an organization and provides the user with a holistic representation of possible external influencing factors that the organization should take into account. The analysis is usually the first step in planning tasks. It is always useful when external factors can influence the planning objectives on a macroscopic level and therefore need to be taken into account in the planning process.

The PESTEL analysis provides an overview of external factors that can influence an organization. It thus helps to understand the context of a company, as required by ISO 9001, for example, as a basis for setting up a quality management system. The results can also be used as input for strategic planning, such as scenario analyses.

Advise

The PESTEL analysis draws attention to six different subject areas in the search for influencing factors. In this way, the tool ensures that different perspectives are adopted in the analysis. However, even if this breaks down established thought patterns to a certain extent, there is no guarantee that all relevant drivers will be identified. When preparing and conducting an analysis, the greatest possible attention should therefore be paid to ensuring that the people involved - both internally and externally - have as broad a range of experience as possible, thus minimizing the risk of a one-sided view. The same applies to the data analysis when evaluating the identified factors. Here too, care should be taken to ensure a neutral approach, as a one-sided consideration of information leads to a distortion of the results. In some circumstances, the use of external resources to search for information and process data is helpful in order to generate a balanced picture.

PESTEL Insights

PESTEL is an acronym. The individual letters stand for:

P - political (political factors)

E - economic (economic factors)

S - social (social factors)

T - technical (technical factors)

E - environmental (environmental factors)

L - legal (legal factors)



A PESTEL analysis is carried out in several steps.

First, a group of people from as many different areas of the organization as possible is put together, and a brainstorming session is held in this group on relevant influencing factors in all six subject areas. In a second step, people outside the organization are interviewed about the influencing factors. This step is intended to ensure that the results are comprehensive and not distorted by a one-sided view. In the third step, the identified drivers and factors are evaluated. For this purpose, all available data on the individual points is evaluated in order to be able to estimate the possible influence on the organization as accurately as possible. In the final fourth step, the identified factors are refined on the basis of the previous steps, and a list of the relevant drivers in the six categories is compiled. These then serve as input for subsequent processes, such as a SWOT analysis.

Sustainable Development Goals

Definition

The Sustainable Development Goals (SDGs) are a set of 17 global goals established by the United Nations in 2015. They are a universal call to action to end poverty, protect the planet, and ensure prosperity for all by 2030. The SDGs address various challenges, including poverty, inequality, climate change, environmental degradation, peace, and justice. They serve as a blueprint for collective efforts by governments, businesses, and individuals to create a more sustainable and equitable world.

Each goal has specific targets and indicators to track progress. Achieving these goals requires collaboration and commitment from governments, businesses, civil society, and individuals worldwide. They emphasize the interconnectedness of social, economic, and environmental issues, recognizing that sustainable development requires a holistic and integrated approach.

Sustainable Development Goals

