



A STEP-BY-STEP GUIDE TO SUCCESSFUL PRODUCT DEVELOPMENT USING CANVASES

*Utilising canvases as the path to build, fund
and grow a company.*

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INTRODUCTION

Utilising canvases as the path to build, fund and grow a company.

One of the first steps to creating a successful product is defining as many aspects of your new company as possible. Gone are the long winded business plans required by banks to secure funding. The world is open to you for funding from a variety of spaces from angel investors to crowdfunding, and the ever trusty bootstrapping method. At Polymorph, I have often advised utilising canvases as the path to build, fund and grow a company.

This belief is built into how we work with clients to ensure an attitude of fail fast, fail often to lead them to success. In a bid to assist this process and with a decade of coal face experience in app, IoT and product development, we have put together this e-book of canvases.

We will start at the Vision Canvas, move on to the Product Vision Canvas, work through the Business

Model Canvas and finish with the Product Canvas. Starting from the macro and moving to the micro of a step-by-step journey into building your product. I have added the Lean Canvas right at the end. This is because not every product or service requires the deep dive that the Business Canvas prompts. The Lean Canvas is a quick way to get to development. There are questions with the Lean Canvas that will help you to decide on which is best for your situation.

I would like to thank Alexander Osterwalder, Yves Pigneur, Roman Pichler and Shardul Mehta for creating this knowledge that we draw from and for distributing it under the Creative Commons License. This means that the work can be freely shared, built upon and changed as required.

VISION CANVAS

It seems unnecessary to state that without a vision, one cannot see clearly; vision is the core of any business. It creates clarity for all.

At Polymorph, we refer to a vision as an anchor and a hot air balloon. As an anchor, it keeps all stakeholders engaged with a common goal and as a hot air balloon it allows the teams involved to soar beyond their imaginings. From the mundane world of what is, to the new world, created by the stakeholders, of what will be.

As part of our product development process, we favour the Product Vision Canvas developed by Roman Pichler. It is a comprehensive way to create a vision built on purpose, motivation and the positive change that your product or service should create in the world. The vision should be shared by key stakeholders, and becomes the company's True North. The vision you have should be ambitious and world changing. Based in the future, your vision should transcend your product and be concise. If possible, create a memorable slogan that entuses people and drives the product forward. Be inspiring!

The Vision Canvas is a product development tool that we use to situate our customers and ourselves in the product. As with all of the canvases, we will either sit with a client in a workshop format and fill in the Vision Canvas or we will send them the canvas to work on within their teams. It is one of the first steps on the fail fast, fail early journey that we recommend. One way to start on the Vision Canvas is to select the area with the biggest risk and work on that space, moving on once the team is satisfied that it is addressed. To test the Vision Canvas, Pichler advises direct observation. Watch your target users and customers get the job done and make sure that your vision encompasses the real world problems and tasks.

The Vision Canvas will give both startup or a seasoned business the tool required to truly under-

stand what the vision is. During this phase of product or app development, it will place that vision in the physical, tangible and grounding activities required to move onto the Business Model Canvas as well as drive the team towards their True North.

How to apply Roman Pichler's Vision Board in product development

Pichler advises that one begins with **Needs**. The reason is that this immediately situates all contributing to the Vision Board in the problem and benefits. It is helpful to focus on the main problem and/or primary benefit of your product, however if there are several, prioritise them. It is important to remember while developing a new product or application that it is all about the user and one should ask what does the user need? What does the user want?

Target Group is about stating who the customer and users are for your product. Are the users and customers the same individuals? Sometimes this is not the same person, for example an accounting package might be purchased by the business owner, but the user is actually the bookkeeper in the company.

Product is the summary of what makes your product unique from what is on the market. List the three to five key features. However, this is not a feature list for the build, this is to be seen from the customer and end user perspective.

Under **Business Goals**, capture the desired business benefits. The question to ask the team is why is it worthwhile to spend money on this product? Is it to generate revenue, reduce costs, increase productivity, do research into the market? Create a target to ensure the success eg x revenue within the first year.

VISION

What is your purpose for creating the product?
What positive change should it bring about?

TARGET GROUP

Which market segment does the product address?
Who are the target customers and users?

NEEDS

Which problem does the product solve?
What benefit does it provide?

PRODUCT

What product is it?
What makes it stand out?
Is it feasible to develop the product?

BUSINESS GOALS

How is the product going to benefit the company?
What are the business goals?

COMPETITORS

Who are your main competitors?
What are their strengths and weaknesses?

REVENUE STREAMS

How can you monetise your product and generate revenues?

COST FACTORS

What are the main cost factors to develop, market, sell, and service the product?

CHANNELS

How will you market and sell your product?
Do the channels exist today?

PRODUCT VISION CANVAS

The Product Vision Canvas is a strategic tool in developing a successful business

Building on the Vision Canvas, I would like to discuss the Product Vision Canvas and look at two versions of it that I would recommend; one by Shardul Mehta and the other by Roman Pichler. The Product Vision Canvas builds on the Vision Canvas. These are two great product development and business development tools to use together.

Shardul Mehta's Product Canvas

With over 20 years of product leadership experience, Shardul Mehta created this Product Canvas. It is a strategic product development planning tool that gives you the space to conceptualise, describe, formulate, challenge and pivot your product strategy.

This one pager revolutionises the old business plan and allows you, as an entrepreneur to see everything related to key components in a clear, concise format.

You will see a few crossovers with the Business Model Canvas and Roman Pichler's Product and Vision Canvas. Thus, use the one that you are comfortable with and that makes the most sense to you intuitively. Canvases are about asking big questions and delve deep easier, don't hinder that process with a canvas you battle to understand or use.

Roman Pichler's Product Vision Canvas

Building on the Vision Canvas, we assume that you have looked at and documented needs, target group, product and business goals. Once you have done this, please continue to the below for a deeper dive into the Product Vision.

Competitors gives you the space to look at who are your competitors? List them and make sure to think creatively on this. If you are developing a product that delivers coffee three times a day via an app

ordering system to a co-working space, your competitor is not only the barista downstairs, but each company's coffee machine and the juice bar.

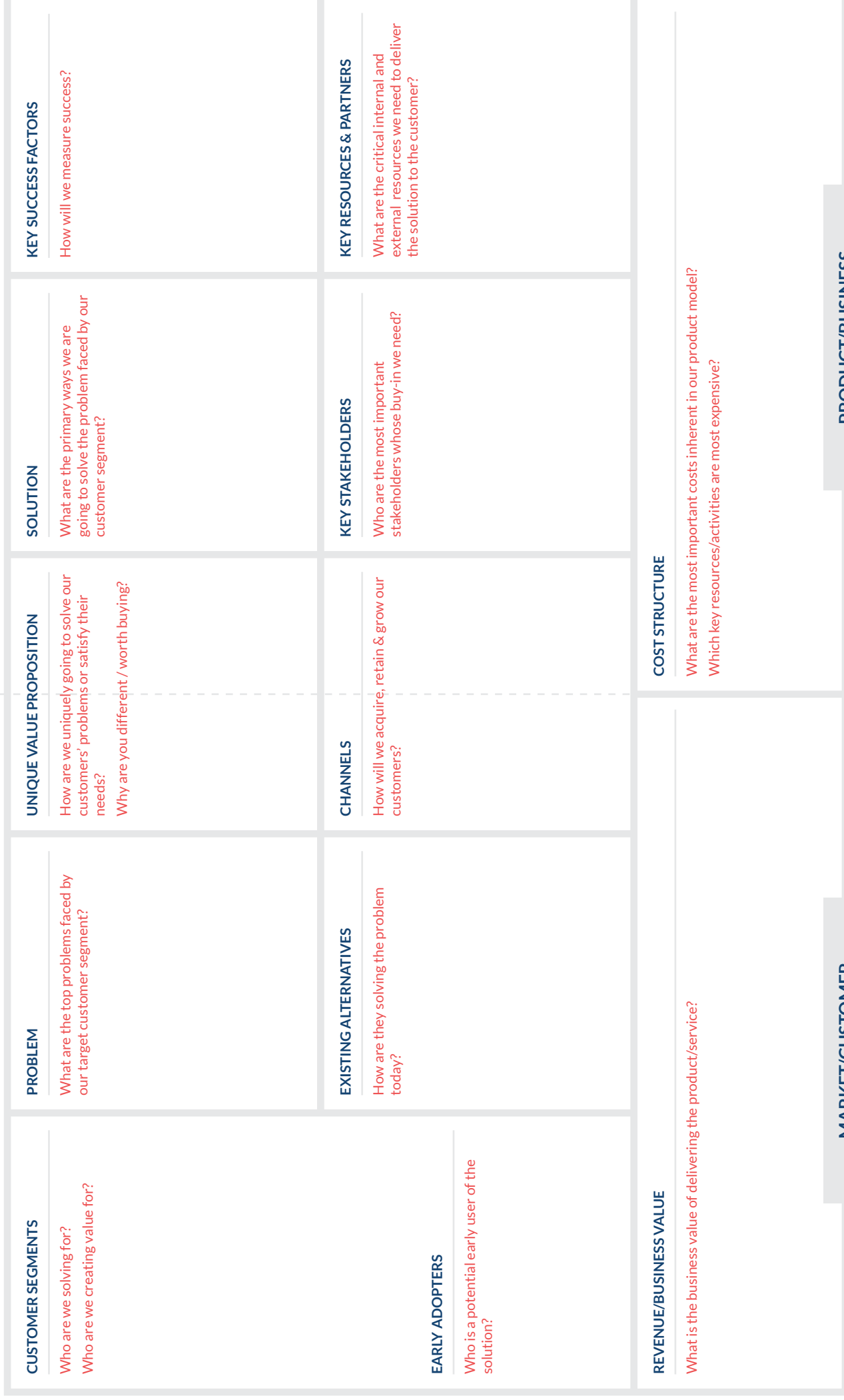
Think carefully about your **Revenue Streams**. How can you expand your Revenue Streams? Are there Revenue Streams that you are not considering? In the example of the mobile coffee vendor, you could expand your product line to tea or selling coffee beans / ground coffee to your customers

What are the **Cost Factors** to creating your business, bringing it to market, distribution and servicing the product? An idea is to draw out the production and delivery journey, costing each step

Channels are how your product gets to market. For some new products, these channels may not exist and then one would have to consider how one goes about creating these channels

A great way to use your Product Canvas is to gather as many of the team you can, give everyone sticky notes and ask them to answer alone. Then gather them together and share their thoughts on the product development.

PRODUCT VISION CANVAS: SHARDUL MEHTA



BUSINESS MODEL CANVAS

“A business model describes the rationale of how an organization creates, delivers, and captures value” (Osterwalder & Pigneur)

The Business Model Canvas has the structure and the relevant questions required for a solid, well thought out business plan, but the ease of use and sense of improvisation of a ‘back of a napkin’ business idea.

Why do it this way?

- **See it all** – right here, right now. This format makes it easier to focus on the nine building blocks of all businesses without getting lost in the endless pages of a business plan that doesn’t bring the interdependency of each silo to light, nor ask the core, impactful questions
- **Flexible** – as you are seeing it all laid out in one image, it is easier to make adjustments, to tweak, to learn and adapt
- **Show and Tell** – a one pager showing the layout, concepts and interconnectedness is an easier way to relate the story of your business to an investor and to get buy in from all of your team

What is the Business Model Canvas?

An organisation’s business model can be described with nine basic building blocks;

- **Customer Segments**
- **Value Proposition** for each segment
- **Channels** to reach your customers
- **Customer relationships** you establish
- **Revenue streams** you generate
- **Key Activities** to create your unique selling point
- **Key Resources** you require to create value
- **Key Partners**
- **Cost Structure** of the business model

Mapping each segment out on the Business Model Canvas will give you the structure to create, design, discuss and invent new business models.

What are the pertinent questions to ask under each segment?

Customer Segments

Who are my customers? What tasks do they want to get done? What do they do? Feel? See? Think?

List all of the people and organisations you are creating value for. This includes single users and paying customers. It can be one person or a few.

Value Proposition

For each of these segments you have a value proposition. These are the products and services that create value for your customer. What are you offering them? Why your organisation? Why would the customer you have outlined in Customer Segments buy or use your goods or service?

Channels

How are these products or services delivered to your customer? Promoted? Sold? Distributed? Channels describe the touch points you interact with customers through and delivering value.

Customer relationships

How do you and the people in your organisation interact with your customers throughout their journey?

Customer relationships outline the type of relationship you are establishing with your customer. Think about which of these are personal? Automated? Acquisitive? Retentive?

Revenue Streams

The revenue streams make clear how and through which pricing mechanisms your business model is capturing value.

Key Activities

From understanding your revenue streams, you will be able to describe the infrastructure required to create, deliver and capture value. What uniquely strategic things does your business do to deliver its goods or service to your customers?

Key Resources

This is where you show which assets are indispensable in your business model to ensure that you and your organisation perform well.

Key Partners

Key partners shows you who you can leverage to help you create your business as you may not have all the key resources yourself nor perform all key activities. In other words, is there anything that you can have a partner do or create that is not a key activity and frees your organisation up to focus solely on delivering the key activity with passion?

Cost Structure

Once you understand your business model's infrastructure, you will have an idea of its cost structure. Always know your figures. What are your business's major cost drivers? How are they linked to revenue?

The Business Model Canvas is used to truly understand your organisation, business idea and how you will bring this to market. I recommend The Business Model Canvas to startup entrepreneurs as often as I do to senior executives. Even if you have a successful business, try do this exercise once a year, it is a good exercise to Kodak proof your business

BUSINESS MODEL CANVAS



START HERE 

KEY PARTNERS Who will help you?	KEY ACTIVITIES How do you do it?	VALUE PROPOSITION What do you do?	CUSTOMER RELATIONSHIPS How do you interact?	CUSTOMER SEGMENTS Who do you help?
KEY RESOURCES What do you need?	DISTRIBUTION CHANNELS How do you reach them?			
COST STRUCTURE What will it cost?	REVENUE STREAMS How much will you make?			



LEAN CANVAS

Not every product development requires the deep dive that a Business Canvas gives us. The Lean Canvas saves cost and time because as Ash Maurya, the creator of the Lean Canvas, states “it is about making it as actionable as possible while staying entrepreneur-focused”.

The Lean Canvas gives us a blueprint that guides the entrepreneur from ideation to building a successful start-up in product development. I have found the Lean Canvas to be concise, compact, and collaborative.

However, not every product development is suited to the Lean Canvas. Here are 3 Questions to help you determine if the Lean Canvas is a canvas you should use:

1. Are you a startup who needs a quick blueprint? Knowing that the blueprint will shift as you discover more about the user and their problem
2. Are you still validating the problem and details around the business model?
3. Are you the first into the space and so have little to no competitors to research for failings and successes?

If you answered yes to the above, take 30 minutes to sketch out your product development on the Lean Canvas. It will be a worthwhile investment...

But how does it do this? One has to look at the layout, questions it asks and most importantly, the sequence the Lean Canvas asks questions in

1. Customer Segment

Start here. Define the customers. Know your target audience and users. List the characteristics of the Early Adopter. Who is your ideal customer.

2. Problem

And what is their problem. List at least three characteristics of the problem they have. Many startups fail because they have not understood

the problem space as deeply as is required. Roll up your sleeves and use any and all tools available to truly understand the problem. This will save you a great deal of cost and time by ensuring that you don't develop a product that fails because you didn't understand the user, their problem and the ways in which this problem manifests

3. Revenue Streams

List all sources of revenue

4. Solution

Outline a solution for each of the problems listed

5. Unique Value Proposition

A single, clear, compelling reason to turn a visitor or viewer into a prospect and buyer

6. Existing Alternatives

Although this is listed under Problem. I like to give myself and the teams we work with some time before discussing the existing alternatives so that the problem, revenue, solution and unique value proposition has time to form. Remember that existing alternatives are any solution that a user has to deal with the problem. An existing alternative to AirBnB is not just hotels and B&B's, but also the famous couch surfing culture and even staying with friends of friends

7. Channels

What are the paths to your customer and user? Find those paths and walk them flat understanding them and why your customer is reachable in this way

8. Key Metrics

What key figure helps you understand how well the product is doing in the market. Note, I wrote

figure. Maurya points out that entrepreneurs often drown in the metrics and I have found that to be true. Entrepreneurs spend time reading reports instead of in action. Decide on the best metric and monitor it carefully to guide your continued product development

9. Cost Structure

List all costs related to the product development

10. Unfair Advantage

What do you have that a competitor cannot easily copy or buy? Write that down and develop it, focus on it and continually develop new unfair advantages.

<p>PROBLEM 1</p> <p>List your top 1-3 problems.</p> <p>EXISTING ALTERNATIVES</p> <p>List how these problems are solved today.</p>	<p>SOLUTION 4</p> <p>Outline a possible solution for each problem.</p> <p>KEY METRICS 8</p> <p>List the key numbers that tell you how your business is doing.</p>	<p>UNIQUE VALUE PROPOSITION 3</p> <p>Single, clear, compelling message that states why you are different and worth paying attention.</p> <p>HIGH-LEVEL CONCEPT</p> <p>List your X for Y analogy e.g. YouTube = Flickr for videos.</p>	<p>UNFAIR ADVANTAGE 9</p> <p>Something that cannot easily be bought or copied.</p> <p>CHANNELS 5</p> <p>List your path to customers (inbound or outbound)</p>	<p>CUSTOMER SEGMENTS 2</p> <p>List your target customers and users.</p> <p>EARLY ADOPTERS</p> <p>List the characteristics of your ideal customers.</p>
<p>COST STRUCTURE</p> <p>List your fixed and variable costs.</p>		<p>REVENUE STREAMS 6</p> <p>List your sources of revenue.</p>		

PRODUCT CANVAS

What is the next step to bringing your idea into the world?

We have created the Vision around which we will focus our energies, we have researched clients and competitors, goals have been written, revenue generators found, distribution settled, partnerships listed, activities and resources found and we have an idea of cost structure. What is the next step to bringing your idea into the world? **Building**. Polymorph has built products for a decade and it is a process. One in which the Product Canvas is a first step onto the path of app, IoT and product development.

Simply, the Product Canvas defines the solution and is easily translated into the Product Backlog which forms the backbone of the Agile process and is the one source of truth to which all involved can turn.

The top row of the Product Canvas details the product name, the product goal and the metrics to measure whether the goal has been reached. The section below details; the target group which sketches personas based on users and customers; the most important aspects of app development that describe the product's functionality. The right hand side column gives us a goal and to-do-list for the first iteration.

Name, Goal and Metrics

The name does not have to be the product name. When we send out our preliminary questionnaires, we ask for everyone to give the product a name and pick from there. It helps keep creativity and play alive. What is the goal of the product? Why this product? How is this product changing the world for good? And the app development needs to be measurable! Make sure to give this some thought. How will you measure success or failure and what metrics can be used?

Target Group > Big Picture > Product Details

Why consider these aspects in this order? To ensure that the first step is focused on the user and that

that step flows throughout the process. Spend time understanding your Target Group. There are several great tools to assist and we will cover them in the future. Tools such as personas, journey mapping, interviews, and research into trends and competitors. If possible, turn to Google Analytics, surveys and collected data. The more you understand your user, the more able you will be to create a solution that they love and become ambassadors for.

Once you understand your user, you can map their process or their user journey and use this to inform the app development. Try not get carried away and build a castle on a hill, when what the user needs is a studio apartment in the city. User Stories / User Journeys are a helpful tool as are storyboards, sketches, and scenarios. These can then be used to create epics. Remember epics are what grounds the app development. Don't get into details with epics, this is about the critical components of the app. From here, one moves into the Product Details.

Epics give us the overall view of the product landscape. From this vantage point, we can drill down into implementable actions that lead to the goal. Make sure to be detailed here. Use the tools that assist the team in reaching their goals and keep the user and their needs in mind at each step.

Like all tools in the Agile landscape, the Product Canvas is a tool for learning. It gives us a foundation to stand on as we venture forth into the changing landscape of app development. Everytime we take a step, we are not always certain of what the user will say or how the app development will unfold, but as Roman Pichler states, "the Product Canvas brings together key pieces of information necessary to create a new product: the users and their needs, the products functionality and the user interaction".

NAME The name of the product.	GOAL The reason for creating the product.	METRICS The measures to determine if the goal has been met.
TARGET GROUP The users and the customers with their needs. Personas are a great way to describe the target group.	BIG PICTURE The desired UX: user journeys, product functionality, visual design & non-functional properties.	PRODUCT DETAILS Goal of the next iteration with specific actionable items to reach the goal. The items are ordered from one to <i>n</i> , and may be captured as detailed user stories.

THANK YOU

This ebook would not have been possible without the Creative Commons License allowing us all to benefit from the wisdom of Alexander Osterwalder, Yves Pigneur, Roman Pichler and Shardul Mehta. We added our own insights as Polymorph, having worked with dozens of companies and created our own. Thank you to the entrepreneurs and corporates who we have journeyed with.

I hope is that this ebook will serve as a guide to your journey on creating a company or product.

Visit our website at www.polymorph.co.za