

How to become investor ready

Rolph Segers & Stefan van der Ploeg

www.tno.nl



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Everybody has a plan until they get punched in the face

- Mike Tyson -



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Formatting, layout and design: Jeroen Poots

Version: First print ISBN: 978-90-5986-510-5

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Always listen to experts. They'll tell you what can't be done, and why. Then do it.

- Robert A. Heinlein -

) :

Acknowledgements

The following people helped getting this book in the readable state it now is:

Eddy Zwier, our colleague at TNO helped with the financial part.

Hans Boumans, Director Tech Transfer at TNO for giving us the opportunity to work on this.

Martijn van den Hul (Innovation Industries) gave us feedback from an investors perspective.

Anke le Geuvel (Philips) who gave feedback from a corporate perspective. YES!Delft companies, coaching and advice always goes two ways and I've learned a lot from the interaction with you all!

Paul Althuis, for giving me the space and freedom to develop myself over the years, the 13 years at TU Delft and YES!Delft are the base on which my part of this book has been written.

Introduction

In October 2018 both Stefan and I (guess who's writing this introduction) joined the fairly new TNO Technology Transfer (TT) department. One of the reasons we were chosen to join the team was the fact that we both had hands-on experience with Formal Investment. Stefan had worked the previously at Swanbridge Capital and me at UNIIQ and for the past eight years in the investment committee of the Mainport Innovation Fund. At that time the TT program consisted of two phases: 'market validation' (validate whether there's a market and what the best route to that market is) and 'venture generation' (writing a business plan and making preparations to set up the company). Hans Boumans (the head of Tech Transfer) had noticed that the TT team support was still required up to the first investment after the company was founded, so he already had the notion to create a 3rd phase: 'External Financing' and that's where we came in

Initially, we both started with an empty portfolio which meant we had time to support the rest of the team and the spin-offs in getting 'Investor Ready'. Quite soon both Stefan and I noticed quite some repetition in our advice and coaching sessions, so we started putting the basics on paper and send that out as a reference to all spin-offs or phase two candidates. This reference sheet contained the ten topics of part one of this document: 'Problem', 'Solution', 'Team', etc., core elements of a business plan which you always need to address before you start talking to an investor. From thereon we started creating examples, write explanatory texts, resulted in the chapters and finally, we had a look at the overall picture and started to include things like due diligence, to give a complete picture of the documentation when you want to attract external finance.

We ended up with this book which is based on both our previous and ongoing experiences and based on interviews and discussions we've had with other investors, coaches, workgroup sessions, etc.

But also insights we gain from mentoring our own start-ups. Because we too keep learning and because the investor landscape is ever changing, this book too is under constant change. We update this regularly based on new insights or changes in the landscape. This is also the reason you can find a version number on the first page.



Left: Rolph, Right: Stefan

This book addresses 'all documentation required to attract investment', which you can split up in four types¹:

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'One Pager' or 'Teaser'; your business card. A very short overview of your company and proposition.

'Business plan'; this is usually combined with a 'let's talk'.

The investor wants to know more and wants to talk and wants to have a closer look at your company.

'Slide Deck'; 'show me more' or 'the first step'. Often the one-pager is skipped if there is any interest and an investor asks for your slide deck or to present a pitch deck. 'Your entire hard disk'. Aka: due diligence, this is the stage that an investor wants to invest, has put down a term sheet but wants to check whether everything you claim is true and whether your company is in a healthy state. At this point, a LOT of documentation is expected.

Interestingly enough, these are (roughly) created in the opposite direction!

Within this book, we will address each one of these four topics in separate parts. The biggest part by far is 'The Business Plan' as that forms the core of the story you tell the investor and so we will also start with that. Once you have that sorted out you can start working on a proper slide deck (Part 2) and create a one-pager (Part 3). The last part concerns the preparations you need to take to be ready (as much as possible) for the due diligence.

In abstract though, there are three takeaways or key learnings we want you to have on top of mind while working on your plan and product.

¹ Obviously, there are more documents in this process, usually alternative and sometimes additional, these four, however, are the most common.

The three takeaways:

Have a razorsharp focus in both plan and product

If possible make sure that your initial customers are businesses NOT consumers (B2B vs B2C).

development!

Start in a niche market with customers who are in desperate need of your product (but with a view on a large market in the future).

After we had finished the four parts, I've added the closing remarks, which I can wholeheartedly advise you to take note of. Everything I write here should be common sense to everyone but it's good to remind yourself of these basic points once in a while!

To close this introduction: we would sincerely appreciate it if you can provide us with feedback on this document. Our contact details below.

We've enjoyed writing this and we hope you will enjoy reading it. Thank you in advance for any feedback and enjoy the read!

Stefan & Rolph

rolph.segers@tno.nl stefan.vanderploeg@tno.nl

Preface

Who's this book for

Let's first set out who we had in mind when writing this book:

TNO employees who intends to start their first High Tech business based on a scalable product or service.

We've learned however that this book appeals to a broader audience. For one it's also used as reference material for people who have gone through the founders hoops before and parts of the book are by High Tech business developers as this book explains the basics on how to formulate and validate market assumptions.

Another thing to keep in mind is that this is written from the perspective of the Dutch investment climate, so the chapter on 'investment opportunity' and the 'due diligence' part are still useful for EU founders, but less so for e.g. US based founders.

So given this, the best way to describe the target audience for this book is:

Overall though, this book does not go in full depth of each topic. The first part contains ten chapters. For each chapter you can find multiple books that address the topic and that go in depth of the subject. It is however not necessary nor feasible for you to become an expert in all those topics, but it is required that you are at least aware of them and that you know what they mean and what is required. When your company is worth 10M+ you most likely will be expert on one of the topics and have a team consisting out of experts on the rest of those topics.

For now though, this book is enough to get you started.

Anyone who intends to start their first High Tech business based on a scalable product or service in the EU, ideally in the Netherlands.

Content overview

In the introduction we've already explained that this book consists out of four parts and what those parts discuss. Here we'll give a bit more detail on the chapters.

Part 1: Business Plan

Problem

What problem are you actually solving with the product or service you envision? Here we explain how to properly validate your assumptions and iterate your problem statement to a problem that is actually perceived by the outside world and is big enough that people are willing to pay for it.

Solution

How does your solution tie into the described problem and how does your solution relate to current solutions. What is the least viable product to you can sell? The sooner you sell the sooner you can create traction, validate your product, attract more finance, etc.

Team

What is asked of a founders team, what area investors looking for, how do you deal with gaps in the team? Business Model/Value
Proposition

How are you going to make money? What is de value you offer and how are you going to monetize that value?

Market

How to do describe the market you are selling your product/service to. Bottom Up and Top Down.

6 Competition
There is alw

There is always competition, if there is not, there is no market! What types of competitions are there and how to address this topic.

Traction

This is the interaction you have with the outside world where you receive something of value. Different types of traction are described that you can use to address this topic.

Financials
The basics

The basics on creating your first financial overview are covered. Focus on cash flow statement (how much cash you have at each point in time).

Investment Opportunity

Describes the different types of investors, stages a startup goes through and the typical amounts that accompany those stages.

Intellectual Property

For High Tech startum

For High Tech startups IP is essential, there are however different types and specific opportunities to protect them.

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Part 2: Slide Deck

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Deck Structure

Covers how to build a slide deck and what to look out for.

Slides Content

Covers specific slides and topics that investors expect to find in a deck.

Part 3: One Pager

An example of a teaser you can send out to investors to give a first impression of your company and to scan for interest.

Part 4: Due Diligence

The part before the final negotiations and closing the deal, what to expect and how to prepare for it so you have a more smooth process.

Closing Remarks

A lot of stuff to keep in mind when creating a deck and interacting with investors.

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Be Prepared

Covers risk assessment and key performance indicators

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Business Plan Checklist

This is what we use when we receive a slide deck to review.

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Acceptable Terms

What is acceptable and what not in a term sheet!

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Readiness Levels

Commonly used 'readiness levels' used in communicating the status of the different developments of the startup.

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Part 1: Business Plan

At its core, a business plan is a summary of your company. describes why your company exists, the environment it is in, where it wants to go, and how it is going to get there. If you are looking for your company to raise funding, you need to write a business plan. And in order to write a business plan, you need to make assumptions. While making assumptions can be easy, convincing a potential investor to garee with your assumptions is a something different. Hence in order to support your assumptions you will need to validate them.

The first step for you is to actually make these assumptions. Once you've done that you can start thinking of the stakeholders you need to interview or sources you need to access to validate your assumptions. Some of these assumptions will turn out to be impossible to properly validate, in that case simply make the best assumption and provide argumentation.

Next, you will learn during the validation process that some assumptions result in a negative validation (e.g., the problem you attempt to solve has no urgency).

When this is the case, simply change the assumption, change the stakeholder group as required and validate the new assumption. Rinse and repeat until you've hit the right spot.

Validation Process

During the validation process you need to interview a lot of stakeholders, most of these active in the supply chain in which you want to position yourself. When you do an interview please keep the following quidelines in mind:

- only ask open questions (How, Why, What, etc.), closed question forces your subject to one of two predefined states while there most likely are many (and you get much more information);
- formulate your question from the perspective of your subject, so, NOT: "how much are you willing to pay for this"; BUT: "how much do you currently pay for a solution";
- verify your conclusion during conversation: "if I understand correctly...", "let me summarize...", etc.

Part 1 of this book consists of a list of the top 10 topics that all investors want addressed. These topics can also form the basis of your business plan, most of these topics you need to validate, some (like traction) you simply need to address.

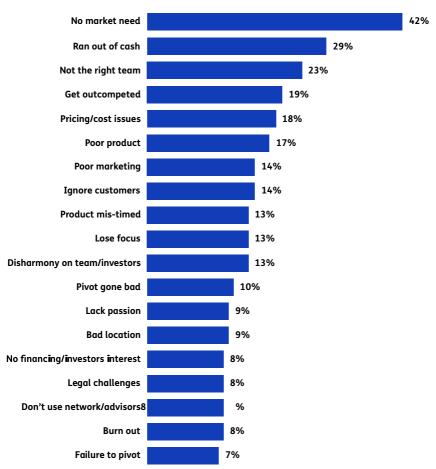
Each topic contains a high-level overview with the reason why this topic is important for your business plan, as well as the main questions that you should be able to answer. For each of these topics we provide additional reading material with methods, examples and other ways to better explore the topic. This additional material is by no means exhaustive and for your specific case it's probably not the best approach, it's meant as a guide. In the end you are expected to approach each topic in a way that will help you best to validate your assumptions.

1. Problem

The no. 1 reason start-ups fail (42%) is: 'no market need'. What appears to be the perfect technology to you, does often not have a (big enough) problem which it can solve and thus no necessity to be developed in the first place.

The top 20 reasons startups fail

Based on an analysis of 101 Startup Post-Mortems



Source: CBInsights

"

If I were given one hour to save the planet, I would spend 59 minutes defining the problem and one minute resolving it.

- Albert Finstein -

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Hence the most vital validation you need to do is defining the problem. Specifically, the core questions you need (thoroughly) answered are:

- · What is the problem you are solving?
- · Who has this problem?
- How urgent/big is this problem (within top 3 issues of customer)?
- What is the solution worth or what costs does 'who' now make to circumvent the issue?

Note: 'no market need' can also be interpreted as: 'addressed the wrong market', therefore it's so vital to properly validate the 'who' part.

A Deeper Dive

Next to the fact that 'no market need' is the number one reason that start-ups fail, it is really important to be able to define the problem that you want to solve. Some investors simply state: I only invest in great teams who address clearly defined and big (money generating) problems.

Considering the time you need to spent on developing the technology, make damn sure you're actually solving a real-life problem and NOT a 'perceived by you' problem, so take your time defining the problem. For this reason, this is the longest chapter where we spend the most time and care in. We urge you to not only read this, but also get yourself acquainted with the books we mention here!

A good problem statement provides focus within the company, as all employees know what they are working towards. Furthermore, it shows the potential of a solution both for the customer, the company, and the potential investor who has most likely not a very good idea of the (potential) impact of your technology. Therefore, a good problem statement answers three important aspects of the problem: What, Who and Why (how big/urgent) and will thus look like this:

"X (who) has problem Y (what) which costs him Z per year (why)".

This is also the reason that most investors say: "if you cannot explain your company in two sentences, you don't yet know what you need to do and thus I won't (yet) invest"; the first sentence is the problem statement, the second your solution.

Example

1st sentence: problem statement

"75% of the 1 million+ annual biopsies for prostate cancer produce inconclusive results. This results in a \$4B loss to the Healthcare system and ~8% of patients being hospitalized for complications."

What: 75% inconclusive results from biopsies for prostate cancer.

Who: Both the patients and healthcare system, although other type of

problem.

Why: \$4B loss (healthcare system), 8% complications (patients).

2nd sentence your solution

The 2nd sentence can then be something as simple as:

"we've developed a new test for prostate cancer with at least 80% "accuracy".

Source: https://medium.com/@jakemendel/seriously-whats-your-startup-s-problem-b3a884c54ab4

And those two lines basically form your entire sales pitch towards investors.

How do you know it's a 'good' problem statement?

Let's take that last 'prostate cancer' example. Is that a good problem statement? It fully depends on your customer! In itself the two lines are no brainers: yes, that is a good problem statement and yes that is a very good sales pitch to investors. BUT if for some reason all (or most) insurance companies are not willing to pay for that test...you have no business. And the reason that they're not willing to pay can be really weird. For example, if it's the case that the cost for that test is twice the current price and it's a fact that the complications typically emerge after 2 years, then in all likelihood very few health insurances will be willing to pay for the test!

Whv?

For the simple fact that 80% of the people switches health insurance EVERY year, which means that the insurance company is effectively paying for something their competition will harvest the fruits of! And yes, this is what a health insurance company literally told me²! And believe me, in the 13 years I'm counselling companies, I've seen this type of 'shit' in nearly every sector, not just healthcare!

Hence there's the second part of a good problem statement: validation!

Problem Validation

Ideally, you're able to find 5 CEOs of similar good running businesses whom you ask (without any pre-knowledge about what you're doing): 'what's the biggest problem you're currently dealing with' and they all give the same answer: your problem statement.

What is very likely to happen (although a bit less likely in the Netherlands) is that people want to get rid of you and don't want to offend you and tell you that it's an 'interesting' or 'great' idea that you have.

That's unlikely to happen. So what's the next best thing? It's commitment! Commitment can come in many forms, again most ideally: "here's money, now go to work and make my problem go away", the least would be something like: "let's meet again to go deeper into your proposition!". Both are commitments cause they're tangible: one is money, the other is time. Things like: "how interesting, I'm sure to buy one when you go to the market" is NOT commitment, it's a vague promise in the far future. Now we're not saying that every conversation must lead to commitment, but we are saying that commitment is a tangible form of problem validation and it gives you a good idea of the urgency (the 'why').

² This was for another product; the prostate cancer test is made up here.

Ok, but how do you get there? Well, someone wrote a book about how to create a proper problem statement³ AND someone wrote a book⁴ about how to properly validate that statement, which gives you an idea how hard it is to create and validate a proper problem statement.

But basically it's an iterative 3 step process:

- Make assumptions (do your homework): what is the problem, who has the problem, how big is the problem? This results in your problem statement.
- Validate assumptions (do interviews) in your problem statement.
- Draw conclusions update your problem statement and go back to 1.

Step 1. Make assumptions

The first assumptions can be made based on your own experience, what is the reason you started with this company, what problem do you think you are solving. To generate a more elaborate set of assumptions it is useful to work with a structured approach to describe your business. A commonly used model is the Business Model Canvas, and more specifically related to the problem statement, the Value Proposition Canvas.



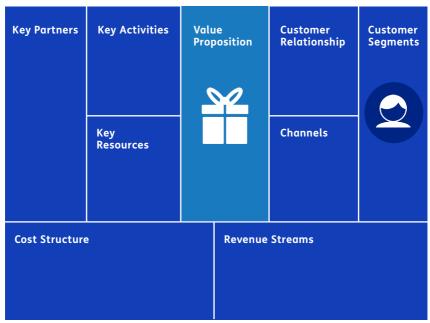
Value Proposition Canvas

In order to get to a proper problem statement, you first need to do your homework and create a proper value proposition. In order to do this, you can use the value proposition canvas which is consists of two elements of the Business Model Canvas: the value proposition and the customer segment.

The value proposition combined with the customer segment creates a value proposition canvas which shows both the value proposition that you offer and the profile of the customers you're targeting.

³ Business Model Canvas by Alexander Osterwalder

⁴ The Mom test by Rob Fitzpatrick



Business Model Canvas, strategyzer.com

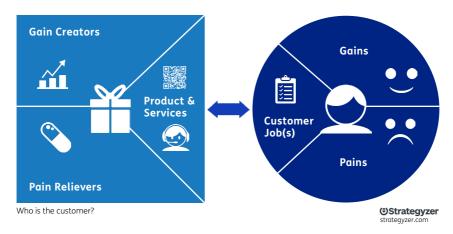
The value map

The value map consists of the products & services that you offer to your customers, and the value that it adds to that customer. These can be both for creating gains for your customer, or for relieving the pains that he is expecting that his job could result in. It is important to realize that it is this part of the value proposition canvas that you have real influence on. Here you make the choices on what you offer to your customer. This is something that you can change.

The customer profile

The customer profile is all about understanding. You can choose your customer segment, but you cannot choose what your customer needs to do or what he/she expects from your product. This is an iterative process, that starts with certain assumptions that you're going to validate later on.

Value Proposition Canvas



For who are you solving a problem and who is paying for your product. Ideally the person that experiences the problem is the same person that pays for your solution, but more often than not this is not the case.

Example

If you sell a new type of e-bike you will sell directly (or through distributors) to end-users, if you sell a new type of e-tricycle (for kids) the end-user is the child, but the (paying) customer is the parent.

For this reason it's important to make sure you find the relationship between the person who experiences the problem (=the end-user) and the person who pays for your product/service (=the customer). There's also the possibility that there's a middleman (e.g. distributor), which again brings its own dynamics.

Example

let's assume a new material to stitch wounds that speeds up the healing process by a factor 2 and halves the chances for infection. The 'problem owner' is the patient and she is roughly the last person to decide over which stitching material is used to sew her up. So, who decides?

- Is it the doctor who finds the material 'annoying to use' or 'far superior than what he's
- used to'?
- Is the Board of Directors who find it 'too expensive' OR understands that 'this will cut the bed period short, so it will result in more production capabilities'?
- Or is it the insurance company who finds it 'too expensive to use and too little prove that it actually works' or 'will induce dramatic cost reduction for in house recovery'?

Your ideal customer

When you have identified the users (problem owners), you'll probably need to refine the user profile to a more focused segment that allows you to focus on a specific group of users that can be used as beachhead. This is a customer for which your solution is among the top 3 of problems of those users. This customer most likely is actively looking for a solution and is willing invest in applying a solution.

Example

A door-to-door luggage service for people (airplane) flights. The identified user group of your product/service is 'people booking a flight', but most people who fly continental will only have hand luggage and will thus not be interested in your service. A more focused group of first users would be 'people booking an intercontinental flight', as these tend to have additional luggage which is a struggle to drag along during the trip.

Even better are 'connected flights', if there's one thing in the tier 3 problems of 'connected flight' customers it's the hassle with the luggage between the two connected flights AND twice the risk of something going wrong with it and there's your beachhead market!

For your activities it can be beneficial to identify and make a broad overview of the supply chain in which the problem, your product addresses, is manifesting itself. This not only identifies the end-user of your product/service, but also shows if there are other agents that are influenced by your activities (like distributors).

Example

When you provide a new tool for a surgeon, he/she (as end-user of your product) will be able to provide a better service to the patient, who is recovering faster, reducing the time in the hospital and decreasing the cost for the insurance company. The product helps multiple agents in the supply chain.

Identifying the relevant parties in the supply chain helps you with getting an idea of the size of the problem, and helps you with developing your marketing strategy. The main question to answer to identify the problem owner are:

- Who is your customer?
- Who is your end-user/problem owner?
- If they are not the same, what is the relation between them?
- · Are there any other agents in the value chain of direct importance?

With the main customer in mind you can start to fill the customer profile. You start out with a brainstorm session, trying to fill in as much as possible. When that's done you can map your values with (your perception off) the customer profile. This creates several hypotheses that you can later on test during interviews with the customers.

Pain or Gain

These two are quite similar and often interchangeable by simply adding the word 'not' to one or the other. In general a good guideline is to keep in mind that: a company looking to expand (that is: generate more revenue) is more inclined to look at 'gains'. While a company looking to increase margins (cost reduction) is more inclined to look at 'pains'. It's good to keep this in mind when validating your assumptions, it's also good to keep this in mind when you're selling your product! Simply put, if you have a solution for a more effective production method then in case of a 'gain' company you focus on the potential of increased production, allowing to company to sell more faster; a 'pain' company you focus on the potential of reduced costs off production, allowing the company to make a bigger margin.

Note that it's not the case that e.g. a 'pain' company is not interested in expansion, it's more that you better align with the person when you use the 'pain' perspective in this case (and the other way round as well of course).

Creating proper value proposition assumptions

This is a simple case of: doing your homework. Research the market study alternative solutions. Looking at current alternatives to the problem serves multiple purposes. When there are many (suboptimal) alternatives available it shows that the problem is 'annoying' enough to warrant a solution, thereby validating the severity of the problem. Furthermore, studying the pros and cons of alternatives could help by identifying opportunities for your own solution.

Keep in mind though that a good value proposition is simple, preferably one line and written in the language of the customer.

Example

Uber – The Smartest Way to Get Around

Uber is a multi-sided platform and as such it has to have a value proposition to both sides, the passengers as well as the drivers. For riders, the value propositions are that it is the best way to get around, to be able to call a ride with one tap 24/7 and track the driver arriving.

For riders, the value propositions are that it is the best way to get around, to be able to call a ride with one tap 24/7 and track the driver arriving. For drivers, it's the opportunity to earn, the freedom of choosing their work hours and the ease of getting started. All propositions fall into what economists call reduction of search costs and transaction costs which is the predominant feature of multisided platforms.

In detail, for the customer (riders) this means:

- 1. Fast pick-ups (often 3-5 mins).
- 2. Lower prices than comparable taxi ride (exception: surge pricing).
- 3. The App gives you an estimated fare and duration of ride.
- 4. No need to tell the driver the destination.
- 5. Cashless transactions (exceptions exist).
- 6. Rating system that allows for feedback.

Secure and safe Some of the value propositions for the drivers (supply side) are:

- 1. Income generation.
- Flexible work hours and ability to schedule own shifts and balance it with their family.
- 3. No boss.

- 4. A dedicated driver app that helps with earnings, navigation, etc.
- 5. Ease of joining (mainly: identification, background check, vehicle inspection).
- No upfront investment in joining (pre-existing car or ability to hire through Uber).
- Ability to earn above average in peak demand (the driver app shows surge areas).
- 8. Ability to get customers (passengers) at no cost to the driver.
- 9. No need to argue with passenger on any damages, spills, etc as platform manages this.
- 10. Insurance coverage through Uber.

Source: https://innovationtactics.com/business-model-canvas-uber/

Step 2. Validate Assumptions; How to do a proper interview

In the early stages of your company there is only one way to find out more about the problem that you have identified, and that is YOU talking to potential PROBLEM OWNERS. When you want to validate your ideas about the problem, you want to be involved in the conversation yourself.

First step: don't call it an interview, call it a conversation! The more casual the conversation is, the more honest the answers are you get! Also it should take about 5 to 15 minutes. Now that latter is really important because most of the 'issues' we get when we ask teams to do a proper problem validation is that it takes weeks before they have an 'appointment' with the right person... so here a big eye opener: do NOT make appointments, either call them directly (if you have the number) and have a conversation for 5 minutes, or if that's not possible then make an appointment for 15m phone call. That won't take weeks to make! At a later stage when you have talked to at least 50 people and got a clear grasp of whom your actual customers are and what your actual product is, it might be worth to make an actual appointment of an hour where you start validating more in-depth assumptions.

Next step to get honest answers is to structure the conversation properly. Here a beautiful example from The Mom Test⁵, first how NOT to converse. Let's assume as a product a new interactive app with recipes for the iPad, and women like your mom as customer segment:

⁵ The Mom Test is a book by Rob Fitzpatrick which we wholeheartedly advice you to buy and read! In this section we've used several examples from his book.

You: Mom, I have a business idea. Do you have 5 minutes?

Mom: Of course, dear.

You: You like your iPad and use it a lot?

Mom: Sure, it's great.

You: Would you buy a cookbook app?

Mom: I love cookbooks, sounds nice. Does it come with vegan recipes? Or

something special for Xmas?

So from this you could conclude that it's a good product AND you can add some additional features to it to make it even greater, right? WRONG! This becomes clear when you look into the mind of Mom:

You: Mom, I have a business idea. Do you have 5 minutes?

Mom: Of course, dear I'm proud of you and I don't want to hurt your feelings.

You: You like your iPad and use it a lot?

Mom: Sure, it's great I use it to check email on the sofa.

You: Would you buy a cookbook app?

Mom: I love cookbooks, sounds nice. Does it come with vegan recipes? Or

something special for Xmas? Well, I have plenty of cookbooks. I don't need a computer in my kitchen – it might get dirty! But hey, if my kid made it, I'll try. App? I never bought an app. Don't you need to enter

your credit card for that? Let me try to change the subject.

The mistakes made here are:

- 1. People (not just your mom) avoid hurting others' feelings. So if you ask them if they 'like' something, they're soon inclined to respond positively.
- 2. You do not explore the CURRENT situation at all.

It's for this reason that it's so important people initially do not know what you're working on. As soon as they know that you're working on solution Y for problem X, they're less inclined to tell you that your work is pointless because there is no problem X and more inclined to think towards you, as in: "well I can think of certain situations where problem X might actually occur". But, when later on actually faced with the decision: "are you going to pay for solution Y?", they'll not buy it cause well that 'situation' is rare and they've got a workaround.

So what are proper questions?

Mom, when have you last time used the iPad? For what?
Have you ever used it in the kitchen?
Have you ever bought an app? Which one? Why? For how much?
Do you use your cookbooks?
Is there anything you dislike about them?
What was the last cookbook you bought? When? Why?

This allows you to properly explore the current situation without the danger for the other to hurt your feelings, or in other words: honest answers.

Here some general pointers:

- First, learn all about their lives and their problems, and how they currently deal with the problem that you have in mind.
- Only then mention your solution idea for the first time and keep in mind:
 - You own the solution; the customer owns the problem. So you aren't allowed to tell them what their problem is – they aren't allowed to tell you what to build.
- Ask questions, make the customer talk, keep your thoughts to yourself.
- If possible: Keep it casual/informal to get more honest answers.
- Ask questions, for which you are afraid of the answer.
- Ask: "What else should I have asked?" Sometimes this unlocks a lot of domain expertise.
- Ask: "To whom else should I talk to?" Two advantages:
 - less cold contacts to make:
 - if people refer you, that is a sign of trust (=commitment, remember!).
- Typical conversation takes maybe 5-15 minutes.

Do NOT ask about vagaries in the future but focus on specifics in the past, no generics but specifics! What 'might' be, might be. What has happened is certain and gives you good insight!

More examples

As there cannot be enough examples and we cannot emphasize enough how important it is that you do NOT 'steer' the customer towards your ideas!



Success of fail?

Outcome/Response	Means	Because
"Looks great. Let me know when it launches."	fail	no commitment.
"There are a couple people I can intro you to when you're ready."	fail	customer thinks you're not ready.
"What are the next steps?"	success	willing to commit to next steps.
"I would definitely buy that."	fail	no commitment.
"When can we start the trial?"	success	willing to commit to next steps.
"Can I buy the prototype?"	big success	the problem is SO big they're even willing to buy a 'crappy' solution.
"When can you come back to talk to the rest of the team."	success	time committed.
"That's so cool. I love it!"	fail	no commitment.
"Not interested, but I can introduce you to someone who is."	double success	More focussed customer segment Commitment: trust.

Some additional pointers

Do

Focus on storytelling.	Try to tell a story, this allows you to get better insights in the problems that your users are facing. It is much easier to talk about emotions by using storytelling and helps you to understand their real motivations. Gain as much information as possible, the more the better, this will guide you in making better design decisions for your final product.
Identify their problems.	It is important to identify the problems that they experience, do not present them with what you think is their problem.
Rank their problems.	Find out their main problems. Ranking the problems allows for identification of problems that are worth solving and that they might be willing to pay for. It is usually very difficult to make people pay for solutions to problems that are not on top of their mind. When they have ranked their problems, investigate the reasons for this ranking (why are those problems bothering them, what is the impact of those problems on their daily routine, etc).
Ask about the current solution.	Focus on the current situation, how are they dealing with the problem. Which solution are they using, what they are paying for this solution, how much this solution is helping, why they are (not) satisfied with the current solution?
Identify the impact.	Identify how the problem is impacting their daily routine, and see how they would benefit if the problem did not exist.
Ask open questions.	You mostly want answers with a story not a 'yes' or 'no', as you learn a lot more from the former than the latter. You ask closed questions for confirmation of your view of their statement ('so if I understand correctly you'). Open questions typically start with one of the 5W (what, who, where, when and why).

Do Not

Avoid a fixed set of questions.	Make sure to hold a conversation, not a question- naire. It is not a test of the person, it is about understanding them as much as possible.
Don't ask people what they want.	A common saying in business: 'don't give the customer what they want, give them what they need'. Henry Ford put this in a really nice perspective:
	"if I asked people what they want, they would have responded with: 'a faster horse'.
	It is very difficult to know what you want. So instead ask about their daily tasks and any issues they run into, ask them to rate these issues in severity. Also ask them what in their opinion should change, could be better. The important part is that you get an insight in their problems and NOT to mix these up with their perceived solutions.
Avoid leading questions.	Everyone will have initial ideas and assumptions, try to forget about yours as much as possible. Try not to lead the interviewee with your questions as this could eschew your results. Ask as much open-ended questions and avoid including a suggestive answer within them.
Don't go into much detail.	The interviews are all about the goals of the end users. Details about the product sound like good answers at first, however this could lead to a lot of nitty-gritty discussions. The user is not the designer so focus on what they want to achieve.
Don't give a presentation.	The goal is to get information from them, not the other way around. IF you want to specifically discuss your solution, bring one or two slides with pictures and limit your pitch to (less than) 2 minutes.
Don't ask yes/ no questions.	'are you willing to', 'would you want a', 'do you like this'. You only ask closed questions when you want to verify a (your) conclusion: 'so if I understand correctly, you'. And to be clear: you do want to verify your conclusions!

Tips

Be aware of socially desirable answers.	It is hard to criticize or reject an idea in a face-to- face conversation. Be aware that people want to please, therefor try to engage in a way that focuses on their experience rather than their expectations (of your solution).	
Observe body language.	Though answers provide most of the information, non-verbal communication might be as relevant. If possible, conduct interviews in pairs where one person conducts the interview and the other observes the conversation.	

Step 3. Draw conclusion

So now that you've done the conversations, can you answer: 'how big is the problem?'. Here you should focus on two distinct aspects of the impact of the problem. First, 'what is the (monetary) size of the problem?' or 'what is the waste of not solving the problem?' Second, 'to what extend is the problem affecting the user?', or 'how big is the problem in the perception of the user?'

For the first part, it is important to quantify the problem as precisely as possible. This allows you to show the impact that a possible solution can make. The most basic trick to figure that out is to simply ask: 'how are you currently dealing with this problem?' and 'what does that cost you?'. In the end you're looking for what is the customer willing to pay (and can afford to pay). This ties nicely into what we'll discuss in the chapter: **Business Model / Value Proposition**.

Example

To put this in a real blunt example: (assuming you have the money) you're bleeding out and you know you will die in five minutes, someone walks up with a proper kit (needle, thread, bandages) and proper skills (he's a well-known physician) and tells you: for 500k I will patch you up.

Do you pay him?

Yes it's unethical, but its how nearly the entire Pharmacy market works!

The thing which is much more interesting about this question is...let's assume there are two providers of services (while you're bleeding out). One, looking a bit shabby will do it for EUR 10 (roughly covering expenses with a small margin) and one, looking really smart, will do it for EUR 100. Which one do you choose ©?

The second part addresses the priority of the problem. People are experiencing many problems in their daily life, hence they tend to focus only on solving the top 3 problems they experience. So make sure that your problem is at least a 'tier 3 problem' for the group you are targeting!

Example

The company 'Synple' addressed a dire issue in the entire logistics (transport) sector: automation and overview including suggestion for collaboration to prevent 'empty trips'. They've won prices, the logistics sector on multiple occasions stated that they address a real problem across the entire logistics sector, millions we're invested in the company and it went belly-up. Why? The entire logistics sector was experiencing other problems that required their more immediate attention. Which resulted in a slow pick-up by the market, resulting in a too slow scale up, resulting in disappointing figures, resulting in not meeting the milestones, which stopped the cash injection, which left the company unable to pay the bills...



2. Solution

Closely knit to the problem is the solution to the problem. Here you describe your technology, but more importantly how your technology solves the problem. Make sure to embed the description of your solution in the environment it is acting in. What you do NOT want to do is 'force' your solution onto the subject during the validation process. You wish to know:

- · What are current solutions?
- · Why is your solution better than the existing solutions?
- What is required to get your solution to the market?
- What TRL level is your solution currently?
- What does the product roadmap look like?
- Why now? (Why not 10 years ago? Why not 5 year from now?)

What about technology?

interesting fact: all Dutch investors know TNO and most of those, for that reason, do not care about (how well) the technology is; they know it's good! So, don't waste too much time and energy on detailing the technology! This will be a topic for them in a later stage.

A deeper dive

The objective of this section is to clearly explain what products or services your business will offer. The information provided in this section will form the basis to reach your customer. Never assume that the technology will 'sell itself'. Make sure that the reader can easily understand what the product is and what it does.

Make sure to compare your product to other similar products on the market. This helps you to define the advantages your product has over the competition, as well as address any weaknesses that you may need to improve upon.

What is your solution

Provide an overview of your product or service. What is the product, what does it do, what doesn't it do, and how does it address the problem that you have described in the previous section? As this book is aimed at High-Tech start-ups your solution will have a strong technological component. Try however in your initial deck to keep the tech talk limited. Do have some slides prepared for when you have a more in depth talk with an investor when you are in a later stage, but don't make that part of your initial slide deck. In your initial deck focus more on the solution from a user perspective. How does the experience of the user change with your product? Eventually the user and the investor do not care about the technical details of your product, they care about the impact it has on the problem you are solving. Make sure to highlight the technical implications of your solution, but focus more on the way the user experience is changed.

Your solution should not describe the technicalities of your product but the impact it generates on the target customer, how it will change the world of the customer.

Compare

How does your product compare with current solutions? Identify the current solution(s) to the problem and describe the features of this solution. While you will identify the competition in more detail in a later chapter, it is helpful to have a look at the existing solutions in an early stage. This could be the solutions of competitors but could also be the 'hacks' users currently use to mitigate the problem.

Studying the current solutions can help the development of your solution in various ways. It can validate the existence of the problem (e.g. if there are many imperfect solutions it at least shows that there is a problem), it can identify your unique selling point (e.g. what is your products' benefit that distinguishes it from the current solutions) and show if there are features that are sort of required (e.g. all solutions have this feature).

To do this analysis it can help to do this in a SWOT form. Note that a SWOT analysis is usually used to make an assessment of your organisation and based on that analysis you can create a strategy. With a start-up organisation/founders/product are very closely knitted together; which means that the solution you want to push into the market and your organisation are more or less the same thing. E.g. you're a small company meaning you can pivot fast if required which is a strength, at the same time you're very sensitive for the critical path you need to walk, one mis step can mean the end, which is an obvious weakness.

Overall because you are a start-up it's the overall package that provides the solution and hence a SWOT analysis can give you insight in how well your solution compares to other solutions in the market.

SWOT Analysis



First you fill in this matrix to give a full overview of all topics that are relevant. Let us address the four quadrants shortly:

Strengths: here you fill in all the attributes you, the company, the product has that are helpful to get the product into the market. That vary from great renown and network you've build up personally, to great branding of the company (e.g. smart use of TNO logo) to specific features of the product/solution that are unique and really address the perceived problems.

Weaknesses: here you again fill in all the attributes as with 'strengths' but in this case they are (potentially) harmful. This can vary from negative publication concerning your person in a past project, a botched pilot run or gaps in the solution that stop you from providing a full solution for the customers and only providing a partial solution instead.

Opportunities: here you have a look at attributes that are outside your scope, this can be an emerging market, bad current solutions, high demand (and low supply), etc.

Threats: here you fill in the external attributes that form a potential threat, e.g. declining market, fierce competition, other start-ups with similar solutions, conservative market, etc.

Then you cross reference the strengths/weaknesses topics with the opportunities/ threats in a matrix and rank them (if appropriate) from 1 to 5. In your report you only mention the topics that score a '5' in the below four strategic categories:

Opportunity - Strength	Allows for an offensive approach in this area.			
Threat – Strength	The opposite, a defensive strategy is required for this topic.			
Opportunity – Weakness	This means the weakness needs to be addressed and turned into a strength.			
Threat – Weakness	The big issues, either try to steer away from this entirely or focus on getting this resolved.			

Then the final step is explaining how you are going to deal with these findings. It should obvious that you are going to leverage the 'opportunity-strength' topic(s) but you need to explain how you are going to mitigate the 'threat-weakness'.

The SWOT method is explained all over the internet, so with a bit of googling you can get further insights in how to do this. What is important though is that you do not 'just' fill in the SWOT matrix, also explain how you are going to deal with your findings, the above table is an example.

Should your product be built?

While this sounds like a redundant question, it might be worth taking a look at. Make sure not to waste your time developing a product/service for which there is no market. If you've done a proper SWOT(i) analysis you should be able to answer this question. If you've identified a lot of strong attributes and the product brings opportunities then probably: yes, if however there are a lot of attributes weak and in a competitive area (threats) then probably: no.

Product development

How are you going to develop your product from the time you founded the company? This includes a description of the current state of the development (TRL) and a roadmap of the technological development required to market.

Validation is key, whether it is for the viability of your idea, to the product itself. The process of product validation does not only offer an answer on viability but can also provide you with insights in the experience of the user. Therefor it is VITAL to identify the minimal viable product or proposition (MVP) that you would be able to sell to your customer. This allows you to:

- get a product sooner to the market;
- rendering revenues at an (earlier) stage;
- meeting financial milestones:
- attracting investors;
- limit repercussions in case of a faulty product;
- generate data and allow you to further fine tune development of the eventual product.

In short you need to figure out what the absolute minimal requirement is for your product to get is sold! Do keep in mind however that in order to define your MVP you must have a clear view on the initial customer as well. Who or what that is can have a huge impact on your MVP. For example if you offer a product that requires a big investment the market entry barrier might be lowered if you work with a lease model...but it's possible that your launching customer wants to have your product in house, one will depend on the other.

How not to build a Minimum Viable Product (MVP)



Suppliers

Unless your solution is completely IT based, you will have to deal with suppliers. Suppliers can have a major influence on your business and can even doom your company in a short time.

Example

One example of this (ironically) comes out of the IT business, where a company had a license deal to use an IT platform on which he developed Android based solutions for his customers. One day his supplier (the IT platform) decided to implement an annual use fee of \$25K and raise the subscription fee by a factor 10, rendering his company out of business within the day.

It's not even that the supplier wanted to 'screw him over', they simply had changed their business model and strategy and were focussing on a different market segment. His use of their product was a 'fringe case' and as they also cleaned up their license model he had to comply with the 'usual cases' which were heavy paying corporates.

The very short moral of this story is 'do not let the core of your product or service be dependent on one supplier' and if you 'have' to then make sure to arrange a long-term deal with that supplier and solve the issue in house as soon as possible.

This is a specific case and circumstance, there are many when it comes to suppliers so be sure to talk with them, you want to know:

- the end-of-life period of the product you require;
- how close to the core business that product lies with the company (or can they quit producing it tomorrow?);
- perceived price changes (e.g., certain rare materials are used which have volatile prices);
- specific price changes if you buy 100, 1K, 10K⁶ what does that do with the price?
- possibility to close a supplier's deal?
- · their terms and conditions (specifically their payment term);
- where does the production take place? (here, in china, in a 3rd world country and under what conditions?);
- · typical delivery times.

Note that a lot of these question you most likely will not get an answer to as long as you don't commit to buying anything, but it doesn't hurt to try and these are good reminders for the future.

Why Now?

This innocuous question is far more important than its short presence makes you suspect. Especially if you have something truly disruptive but essentially simple, is having an answer to this question vital. In case of a high-tech solution, the answer most likely will be: 'it was previously not possible' (emerging technology). On the other end of the spectrum a possible answer is 'it was previously not a problem' (emerging market). Whatever your answer is, it boils down to timing, because if it truly is the right time, then 'others' will have spotted it as well and will be active.

⁶ Throughout this document we're using abbreviations for amounts: K = thousand; M = million and B = billion ('miljard' in Dutch).

3. Team

No. 3 on the top 20 list 'why start-ups fail' is: 'not the right team' (we'll get to no. 2 later). Technological start-ups usually know that they have lack of 'sales power' but often do not realise that they also lack 'execution power'. There are many sources explaining which competences are required to form a good team, these imply both soft and hard skills and an investor will be looking for both and wants to see these skills (in the form of a team) committed to the company. The stronger the commitment, the more likely the investor is to invest. Forms of commitment from weak to strong:

- · paid consultant;
- unpaid advisor (member board of advisors);
- · employee;
- · employee with stock options;
- founder (significant shareholder);
- founder who put his/her own money into the company.

The questions you (the team) need to answer:

- · What expertise are you missing to get the solution to the market?
- When is all required expertise committed and what is required to get that commitment?
- How will the team develop in the future?
- Who has which responsibility?
- And last, but not least: Why do you do this?

Think well and hard about the last question as it shows commitment or lack thereof. Investors want to have founders on board who are passionate about their product as the road to market will be rocky and they don't want to see you leave early on. Showing passion for your product, team and company will solidify the investors faith in you!

A deeper dive

This is the point where we explain why we've chosen for the Mike Tyson quote on the introduction page. A good business plan does not mean that it will be a good company. A good business plan shows that the team behind it at least have thought about it and did their homework. However a plan is great, but how you will react after you get 'punched in the face', or better said: how investors think you will react after you get 'punched in the face' will form the foundation of their decision.

Because, while the team is number 3 on the list of 'why start-ups fail', for many investors it is the number one reason to invest in a company. Without a doubt the saying "I'd rather invest in an A team with a B plan than a B team with an A plan" goes for all investors. A great idea is nice, execution is everything of which perseverance is key!

The very short moral of this story is 'do not let the core of your product or service be dependent on one supplier' and if you 'have' to then make sure to arrange a long-term deal with that supplier and solve the issue in house as soon as possible.

An important aspect in the development of the company is the development of the team, starting with the management. Creating the right team is difficult as each individual will probably fulfil different roles in the early stages of the company. And be aware that the best team for the company today, is most likely not the best team for the company tomorrow. Build the team that is needed to bring the company to the next phase and make sure to prepare to attract the right people to bring the company to the phase beyond.

Trust

Not specifically a team 'skill' but the most vital of you and your team part on which you will be assessed by the investor. Investors will first and foremost look for trust in the team, not only whether the team members trust each other but also whether the team as a whole can be trusted. If this trust is broken at any time the investor will pull back. But its more than this, to sell something is to create a basic form of trust in the customer towards you and your product. If you are not capable of creating that trust in an investor, you'll most likely are not capable of creating that in a customer and thus doomed to fail as you won't sell anything ever!

Skills

The skills needed during the start-up phase will be different for each company. There are however some skills that investors will critically asses. For a technical start-up, the **technical expertise** must be included in within the team. While a collaboration with a research group could be sufficient to develop the technology, investors want the technical expertise in the team as the development of the product will rely on the ability to transform the research to a product/service.

A company needs to make money, **being able to sell** might therefor be the most crucial skill needed in a team. Whether this is selling the idea to an investor, convincing people to join your company or selling the product to customers, if you cannot sell it convincingly nobody will 'buy' the product.

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Technical expertise and a sales representative do not make a product. The team needs the skills to translate the technology into a product. This requires both **creativity and experimentation** and the skills to **execute and deliver**. Managing both skills in the team will be crucial to develop the right product on the right time.



To bring the product to the market, it is important to know the market. A deep market awareness is required to be able to develop the company's **strategy**. Being able to identify the major market opportunity and articulate the plan needed to propel the company forward are important strategical aspects.

To manage the roles within a team the CEO needs to be able to possess leadership capabilities. Whereby it is important to note that leadership in the early phase of the start-up will require a hands-on approach, while a scale-up will most likely require a more managerial form of **leadership**. Make sure to define what leadership encompasses.

Then there are several skills from which a team can benefit vastly, but the requirement of these skills might be dependent on the situation. These include: **experience**, **financial**, **motivational**, **designer**, **community developer**.

Who employs each of these roles is up to the team. However, in the early stages of the company the leadership, selling and strategical skill are most likely (expected to be) fulfilled by the CEO and the technical and creativity by the CTO/CSO. Make sure to identify all the skills your company requires and cross-reference these with the skill-set of your current team and how well committed these team members are (see below) vs. how crucial the skills are they represent. This helps you to identify the gaps in the required skill set your team currently has and the risk of losing critical skills (due to lack of commitment). If some crucial needs are not sufficiently addressed or the risk of losing them is high, plan to get and/or commit those skills.

This can be done through either expanding the founders team, hiring new personnel or through (paid) external services. It is not a problem to miss certain skills (even a CEO can be hired), it is a problem if you don't know about it also be aware that the company needs will change as the company grows!

Roles

Closely knitted to the skills are the roles that need to be filled in by the team running the company. There are many ways to look at this and to divide the different roles, here we'll give you an insight in the 7 most basic roles that you need to divide amongst the founders:

CEO: The Chief Executive Officer is basically the face of the company and in case of a spin-off also the one responsible for the sales! The CEO needs to lead the people and manage the company, note that there is a VERY important differential factor between those two: to lead is to inspire people and to create trust between you and your employees and team members, basically it explicitly requires you to relinquish control to others; to manage is almost the opposite, this means maintaining control over the company and its people, keep track of what is going on and make sure everything goes according to plan. Life gets easier or at least clearer if you also have a COO in your team as it allows you to focus more on leading the company and less on managing it.

CTO or **CSO**: The Chief Technology/Scientific Officer is responsible for the technical aspect of the solution: make it work, keep it working and keep improving it (to keep competitive advantage). The drive of the CTO should be in improving the solution, the job of the rest of the team is pushing the CTO to a working product, those two usually do not co-align. Keep the MVP in mind and make sure you finish it before further developing the technology.

CFO: The Chief Finance Officer is responsible for all the financial aspects of the company. Initially the company's cash flow, related budgets and forecast are the responsibility of the CFO. The CFO too has the job to keep the CEO grounded.

COO: The Chief Operations Officer is the manager of the company. The COO is responsible for the day-to-day activities of the company. The COO has the job to oversee that everything runs according to plan and also executes internal strategies. If you have split up the roles correctly and act accordingly it's also the COO's job to keep the CEO grounded. The CEO should purvey boundless ambition, growth, vision, big dreams, the COO is responsible for the reality check and translating the vision of the CEO to operations of the company.

CBO: The Chief Business Officer is responsible for the sales. Arguably the most important job within the company: no sales, no business, no company! This is why often initially with start-ups the CEO=CBO. Moreover because a company - customer relation is entirely based on trust.

CMO: The Chief Marketing Officer is responsible for creating initial trust! Branding and brand awareness are the first steps in creating trust and it's the job of the marketeer to create this. Probably the most well-known and famous misconception of scientists lies in the quote: 'if my invention works, people automatically line up to buy it'. First off, probably none of your potential buyers knows of your existence nor what you created, so the least you'll need to do is making them aware. Next there is the caveat that most of your customers will be conservative by nature (where most inventors are not, hence the misconception). People do not like to change and they certainly don't want to change to somethings that they don't know. So never underestimate the importance of good marketing.

CDO: Finally the Chief Design Officer is responsible for the creative input in the company, think 'Apple' to have a clear view on what a CDO's responsibility is. This is not limited to the product only it applies to the company as a whole, e.g. also the branding of the company requires a designers view. Again don't underestimate the importance of the creative mind in the company.

Now most start-ups do not start with 7 people (actually teams bigger than 4 persons usually change consistency within a year) and even if you do, most likely you would not divide these seven roles over the seven people. What is important is that you are aware of these roles and their importance and that all these roles are either picked up by the founders or otherwise employed (e.g. you don't need an actual CFO from the start, you can hire an accountant and purchase some bookkeeping software).

Commitment

Building a start-up will be a rocky road. There will be ups-and-downs and you most likely will run short of money somewhere along the line. You will spend this time with a (small) team and frustrations will build up. It is important that the core people involved will not bail the company at such a time, be fully committed, and put in even more time than usual if needed. Discuss the level of commitment of each team member and make sure this is aligned with the development and needs of the company. Make sure that the key assets of the company, whether this is the IP (in the form of clear license agreements) or the knowledge of certain key staff are bound to the company as much as possible.

There are certain incentives to increase the level of commitment. Investors are more likely to invest in the company if they know that the key personnel are highly

committed to the (success of) the company.

Note that, from an investor perspective, a 'founder that is a significant shareholder' is expected to show a certain 'entrepreneurial mindset'. This is usually translated to a 'founders salary'. In the U.S a good rule-of-thumb for founder salaries is 50,000-575,000. In the EU you can replace the \$ with a $$\in$$. Where the amount will be related to both the state of the technology and the experience of the entrepreneur. Higher salaries are possible depending on the status of the company (e.g. already doing 1M revenue a year and a serial entrepreneur as CEO).

Development

While the various roles are initially addressed by the (limited number of) founders, eventually the team will grow and there will be several roles that have a dedicated person attached to it. How is your team going to develop from the current situation towards significant growth? For investors it is important to know what kind of role the founders see themselves in as the company matures and would like to know if there is a strategy to fill the new roles in the company.

It's important to realise that a (high-tech) start-up company goes through several phases and that each phase requires its own set of skills and experience to get the company through that phase. For example, in the initial stage you might need to develop a proof of concept and run a pilot with a customer, it could be that you're addressing the wrong market and that you need to pivot? Hence flexibility and technical know-how are key. In a later stage however you will need to setup production: have you ever build a factory? Have you ever closed a partnership with an existing factory to take on production? How many distributors do you know? Do you have a clue of their margins?

An important aspect in the team development from the perspective of a high-tech spin-off will be the position of CEO, and the various commercial roles in the company. Most likely the founding team will be highly technological knowledgeable and really have a passion to further develop this product. But to build/finance a successful company, investors really value an entrepreneur that best suited for the phase the company is in, most likely not one of the founders. Eventually this will also be true for other management positions. It could be that the current CTO is good at developing the prototype, but that he/she is not the person to lead the technical aspect when the company is commercializing the product.

Make sure to answer this question in your team honestly: 'do I have the skills, experience and know-how to have the CXO role in the future?' If not: 'where and when does the company require a person with the right experience and skills for the next phase, and how are we going to find him/her?'

In most cases no individual is more important than the company, therefore it is important to leverage the strengths of team members, (have a strategy to) fill the weaknesses, and be honest when certain skills are no longer required.

Culture

As mentioned before, a start-up company will travel a rocky road and will undergo several stages of development. One vital part however is setting the culture within your company and maintaining it while growing. Keep in mind that people work for you and stay in your company because of the culture that you created. Changing that or letting it change will most likely result in a big loss of your HR resource!

So...when, what and how? Concerning the 'when', when you realize that you should have done it it's too late and it's NEVER too early. In short: after you've founded your company and gave some thought about your mission statement, you company values both based on your vision, you actually should already have a good idea for culture! And keep in mind whether you spend time on this or not: as soon as your company exists out of more than one person: you have a culture!

What...well your company should have a clear purpose and it should at clear value to the customer. The biggest satisfaction your team can get is when they realise they make the world a better place. So the core of your culture should align with the purpose of your company and should focus on adding value.

How...yes tricky question, it's the usual think, create, employ, learn and iterate: have a brainstorm with the management team, create a concept for the culture you envision, employ this concept, learn how it impacts your company and iterate the process. Once you have a clear view of your culture and how to maintain it, you start hiring people that fit that culture. Keep an open communication with your employees and regularly discuss this topic within management, the iterating process never stops!

4. Business Model / Value Proposition

The top 3 reasons for most founders (in random order) to start their own company are:

- independency (no boss);
- having an impact on society (make the world a better place);
- get rich (financial independency).

In all 3 cases you will have to make money. So:

- How are you going to make money; what is your revenue model?
- What does the value chain look like in which your company acts?
- Where do you position yourself in this value chain?

Especially the latter question is a lot more complex than you think. For one you need to figure out the incentive of each value chain participant to do either business with you or buy the solution from your partner, customer or distributor.

Fun fact

To become financially independent (no longer having to work) requires on average roughly EUR 5M on your bank account. Starting a company with 3 founders (quite common) and diluting founders shares to roughly to 20-30% (again quite common) until exit (selling the company) and roughly 50% taxes you must pay, means the company value on exit needs to be at least: 100M, to grant you that wish.

A deeper dive

A business model describes the rationale of how an organization creates, delivers and captures value. Specifically there are two aspects: 'your business model' (=how are you going to make money) and 'their (your customer) business model' (= how is your customer going to make money). To avoid confusion, the latter is also part of your value proposition. 'Value proposition' is a better name in itself as the 'value' does not necessarily have to mean money, although translating the perceived value into euros helps making the proposition more concrete, basically 'value proposition' is the 'pain', 'solution' and '(customers') business model' combined.

Most technical entrepreneurs focus on product development and forget that a good product doesn't automatically translate into a successful business.

Defining the right business model and value proposition requires the same diligence as developing a (technical) product. It basically is the same 'puzzle' you're used to in technical development but on a different level. Therefore two co-founders are required to set up a business: one founder works on the development of the product and one founder works on the development of the business (model) and value proposition. Obviously those two go hand in hand, the product dictates the model and the model dictates the product.

The core of your business model lies in the choice of B2C (business to consumer) or B2B (business to business). The general advice is:

if possible ALWAYS start with a B2B model.

The reasons are numerous, to name a few:

- less customers: usually one company is a bigger customer than one consumer;
- less geographic spread (making it easier to service);
- no immediate distributor required: selling to consumers either requires deep pockets to do proper branding of your product (make people aware) OR selling the product at roughly twice the price as you need at least one distributor, which usually calculate a 30-50% margin over de product, especially if it's new and technical;
- more understanding: a company knows what it entails to develop a product and will often collaborate in the development, be willing to act as pilot and understand that the product isn't quite finished yet;
- simpler to make a clear value proposition.

Business-Case, Model and

To clarify this terminology:

A <u>business case</u> is typically used within a project: 'does the project have a business case' = 'is the project financially feasible'.

A business model is typically used for a product or service (or in our case a startup company selling one product or service) with roughly the same question: how are you going to make money? And is it economically feasible?

A business plan is the entire plan around setting up a business, basically what you're currently working on!

The business model you're then going to choose can take many forms, usually it's either a hardware or a software model (or a combination of the two). Lately though there is a trend towards service models: 'XaaS' - 'X as a service'. This model is often applicable in both soft- and hardware. The philosophy is: 'I'm not selling you a product, I'm selling you a solution!'. Venture capital investors particularly like this model as it assures a recurring income. Whereas classic hardware sales allow you to sell a product once, and if you want to sell it again, you'll have to convince the customer again in a new sales cycle. This not only costs a lot of time and effort, but also carries additional risk. Below we'll list different types of business models to give you an idea of what's possible, just keep in mind that IF you can pull of a XaaS model for you product, it's most likely that you'll end up with that model.

Software business models (license)

Current top ten licensing types on offer from vendors (no particular order)⁷

- Device Also known as 'machine based'. License is locked to an individual machine.
- User License is assigned to a named user who must be identified to ensure the license agreement is validated and the license terms are adhered to.
- Networked (WAN & LAN) A license that covers machines that is on the same network infrastructure. This is either in Wide Area Network or a Local Area Network format. Also known as 'concurrent license'.
- Subscription (user or device) License only available during time of subscription. No rights to use it pre or post agreement dates (unless agreement renewed).
- 'Cloud based credits' subscription Cloud credits are the unit of measurement required to perform certain tasks or rights to run certain applications provided by the vendor. Hosted in the cloud and are usually a subscription model.
- General Public License (GPL) License and software available for free. Allows
 users to use, share, copy and modify the software. Separate legal metrics to
 'freeware'.
- Client Access License (CAL, includes both device and user metrics) Allows
 users to connect to server software to use the software's features/functions.
- Capacity Based License License is based on the capacity of the CPU/Hard Drive or other hardware configuration elements.
- Font licenses Font specific license. Related to the fonts used online or internally by an organisation.
- Freeware License requires no purchase, but the copyrights are still held by the developer. Developer can sell the software in the future and does not distribute the source code.

⁷ Source: https://www.itassetmanagement.net/2014/12/08/top-ten-licensing-types/

Next to these license types other revenue stream you can also think of, are service contracts, instalment fees and training fees.

Hardware business model

Where software can be very creative in their earning models, there are only 4 distinct models for hardware.

 One time sell; produce it, sell it and be done (safe the 2 years EU mandatory warranty on products). This is currently the most commonly known model.

The new kids on the block, who eventually will take over the city are:

- As mentioned earlier: Hardware as a service ('lease' is one of the initial forms of this model) the obvious advantage is the recurring factor of this model, however it usually also means you need deep pockets to pre-finance the hardware and setting up a maintenance service. Office printers are a nice example of the transition to this model. A middle ground can be found by collaborating/ partnering with lease companies. Keep in mind though that lease companies expect a minimal market which you have to guarantee! That means that if the sales are lower than the minimal guarantee, then you pay for it!
- Hardware enabled services; yes, another service model, but the biggest (fundamental) difference is that the service is optional. This is usually applicable when selling to both consumer and business. An example is Fitbit, you buy the product and the software (the app) is for 'free', but at a premium you unlock additional features.
- Consumables (like Nespresso). Basically you sell the hardware one time and then lock in the customer with consumables. Interestingly enough this is the go-to model in the B2C printing industry, while in the B2B printing it's the PaaS model (Printing as a Service), even though there are consumables, these are not used as the lock-in mechanism. These two models give you an idea how you can position your product.

These models also are of influence on your position in the value chain: will you work...

- with a lease company?
- through a distributor?
- · directly?

It is commonly known that (usually) the further down the value chain you operate, the better the margins are. This is another reason (next to recurring income and less sales cycles) why the XaaS model is so desirable and why we need 'fair trade' to protect African farmers. Hence it's not unexpected that most start-ups want to sell directly to their (end) customer.

The value chain

There's however another less commonly known wisdom for start-up and that is:

have a razor-sharp focus on your added value in the value chain.

The lightest version of this model is licensing your IP to a producer and get a royalty fee. The heaviest version is buying the raw materials, produce the product and deliver it to the front door.

The ideal version for a start-up is identifying a gap in the value chain and position yourself there. With a 'gap' we mean that if you map out the entire value chain to get the product you have in mind into the market you notice that there is a literal gap in the value chain: a part in value chain that is required but no entity on the planet exists that currently fits in that gap, this can be a certain service, a technical step, secret sauce assembly, it has to be essential and preferably (very) hard to copy (or protected by a patent you hold). Also see example on the next page.

Basically if you hold protected knowledge, either a patent or secret sauce, you automatically create your own gap, but even then it's still important to identify parties that could potentially copy you.

Value and Supply Chain

For the economic savvy amongst the readers. We're not talking here about Michael Porter's 'value chain', which is focused on more established companies. We're more talking about 'supply chain' and which position you take in the supply chain, but also not.

We're actually talking about a new product or service that is most likely disruptive and requires you to create/design a new supply chain where you will take position in the spot where you can add the most value.

In this supply chain every link in the chain will add some value to the end product and there should be a missing link which is the position you will take. Because of this mixed bag we decided to just call this the startup value chain or simply 'value chain'.

Another way of looking at this is: the more you want to do (broader position on the value chain), the more money this requires, the more risk this generates. It's not uncommon though, that an investor (at a later stage) tells you to move production in house to increase quality control and margin but this is a worry AFTER you've received the investment to do so!

It's also not uncommon for a start-up to license part of their technology to another party while working on their own product, yes this generates competition, but it also generates revenue, open up the market and (hopefully) prevents competition from working on their own solution. Still it's obvious that doing this requires a well thought through strategy and should not be considered lightly.

Example

One nice example of 'razor focus' is a company that sells off-grid lampposts with flexible solar panels: the company outsources the production of ALL material, including laminating the lampposts (see picture below) with solar panels to external parties. However, the 'secret sauce' is the integration and fine-tuning of the electrical system (battery vs solar panel) which only this company can. So the company orders the lampposts and returns them to a distributor and takes a nice 30% margin on the product.



Pricing

Probably the most difficult part is getting the price right, we mean this literally up and down the value chain:

- up: get your suppliers in check so your costs will be low and
- **down**: get a grip on the 'willing to pay' of your customers (and then factor in the distributors margin).

Upstream you can usually make the safe assumption that as the production goes up, the price goes down. Still, getting numbers from suppliers can be tough and often it boils down to: 'when you're ready to order, we will discuss the price'.

Downstream is no less difficult. There is one law to abide though:

Never base a price on costs, always base a price on (perceived) value!

Not abiding this law is a mistake that most technical start-ups make. Don't get me wrong, obviously the price must be (significantly) bigger than the costs to produce it, but that is used for a go/no go strategy or a long-term pricing strategy. In the end if the value is lower or equal to the costs, you don't have a business. HOWEVER, if your price is lower than its value you're making a terrible mistake AND it's even possible that you don't generate any business because your potential customer simply does not believe that you can sell such a high value solution for such a low price, following the adage:" if it's too good to be true, it most likely isn't".

Example

I've known a software company that (in the old days) had developed a revolutionary algorithm enabling them to cut data back-up costs by a factor 100 AND significantly increase the value of the service (e.g. adding 3 months repository service). At the time price was EUR 100/Gb/month. They wanted to set the price at EUR 10/Gb/Month including the added services, reasoning that asking 10x as much as it costs them is already quite steep. They didn't however get any foothold in the market. Why? Because it's simply too good to be true. The data was very valuable to the companies and they didn't trust a cheap solution.

Determining added value (and thus the price) in B2B is easier and can be best determined by the Business Case for your customer, this is basically also your pitch to that customer: 'if you buy my product you will save 50% of production costs'. Ultimately if you can determine the business case for your customer then you can determine the price.

Some learnings

Make a good assessment of costs involved with your product and then double them.

It's not an unrealistic assumption that the eventual costs are twice as high by the time you enter the market.

Never offer a trial (or pilot or early bird product) at a lower price! Only offer a discount on the product and only do that if you get something of value for that in return!

You customers will talk with each other and if they find out they have to pay more than their competitor you will have a hard time explaining yourself!

If you're wondering about Kickstarter for example, where the product is clearly offered at a lower price than the entry price: the value they get in return for that discount is a high-risk loan with a one-time interest of 10%.

B₂C

Should you have the disadvantage to have a product that can only be sold directly to consumers, then pricing is even more trickier to get right. Especially if you introduce something completely new. Best way is to look at comparable products and see what the price elasticity is for those products. This is basically part of the validation you need to do. As it happens we had a TT case that could end up on the consumer market: solar powered e-bikes. In a discussion with the team we discovered a validation mistake they made by asking the question 'are you prepared to pay...'. If the answer is 'no' you've learned something (too high), however if the answer is 'yes' you've learned nothing.

A much better question is: I have two e-bikes for you a 'normal' one at €2000 and the same bike BUT with the benefit that you've never have to charge it anymore at €3000, which one would you buy and why?

Or

I have two e-bikes for you a 'normal' one at €2000 and the same bike BUT with the benefit that you don't have to worry about the battery running empty, at €3000, which one would you buy and why?

Value Proposition

As stated in the introduction, when you have clearly identified the customers' pain, your (unique) solution to that pain AND how you're going to make money on selling that solution, you have effectively described your value proposition.

(although the product actually exists: Exo-L, I don't know the numbers, nor their business model so these are fully made up here:)

Example Value Proposition

'Today 50 people will sprain their ankle on the work floor in the Netherlands alone! These people will not be able to go to work for at least 5 work days. That amounts up to over 60.000 sick days per year costing the industry 25mln a year. With our solution sprain ankles are history! An average construction company has 100 employees working on site, each year 20 of them will sprain their ankle, amounting up to 100 sick days or EUR 40.000 cost per year, NOT taking into account costs due to delays, additional stress, logistics, etc. We offer 'Protection as a Service' to these companies, taking care of the ankle protection at a fee of EUR 100 per employee per year adding up to EUR 10.000 per year, saving the company EUR 30.000 while at the same time showing that you care for your employees, a no brainer really!

We have an instalment fee of 50% per employee for the first year amounting up to EUR 15.000 for the first year (for 100 employees). This 15k fully covers our COGS and direct personnel expenses' (EUR 150 pp). On average the product needs to be replaced every 5 years, total replacement costs are EUR 100 pp giving us an effective margin of 72% over the first period of 5 years and 80% margin in the following 5 years.

For this reason some investors will initially ask you for your 'value proposition' as this covers the three main topics that form the core of your potential endeavour. In the end it boils down to the same thing. You could consider boiling the three topics (problem, solution, business model) down to one 'value proposition', but personally I like to see these 3 topics separate and in more detail!

Business Model Canvas and Lean Model Canvas

Most likely you will have heard of Business Model Canvass (BMC) or Lean Canvas (LC). The BMC is developed by Alexander Osterwalder and is the first serious and successful attempt to model the business of a company. it's however rather daunting to fill in by a start-up:

Key Partners Who are our Key Partners? Who are our key suppliers?	Key Activities What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams? Key Resources What Key Resources do our Value Propositions require?	Wha do w deliv custo Whic one o custo prob	osition t value e er to the omer? th of our omer's lems are eling to	Customer Relationship What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Channels Through which Channels do our Customer Segments want to be reached?	Customer Segments For whom are we creating value? Who are our most important customers
Cost Structure What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive?			Revenue Streams For what value are our customers really willing to pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues?		

Business Model Canvas, strategyzer.com

For this reason Ash Maurya developed the Lean Canvas method, which is a derivative of the BMC made more appropriate for start-ups:

Problem List your top 1-3 problems.	Solution Outline a possible solution for each problem.	Unique Value Proposition Single, clear, compelling message that states why you are different wordt paying attention. High level concept List your X for Y analogy.		Unfair Advantage Something that cannot easily be bought or copied.	Customer Segments List your target customers and users. Early Adaptors List the characte- ristics of your ideal customers.
	Key Metrics List the key numbers that tell how your business is doing.			Channels List you path to customers (both in and out).	
Cost Structure List your fixed and variable cost.			Revenue Streams List your sources of revenue.		

Lean Model Canvas by Ash Maurya

For this investor readiness assessment there is less focus on these models, because the questions are captured in a different way. Still this can help you setting up a quick overview of the entire business. It's beyond the scope of this document to go into detail, but you can always google this subject to find out more about it!

5. Market

Investors think in multiples. That is: they put in 1M and they aim at a multiple of 5x, meaning that on exit they wish to earn 5M. This means that your company must have the potential to reach a certain value (and you've seen in the 'fun fact', at the start of the chapter: Business Model/Value Proposition, how much the value must grow!), that potential is validated by looking at the market. For this reason, 4 'numbers' are relevant:

- What is the total available market (TAM)?
- Of this market, which part is serviceable by your solution (SAM)?
- Of that market, which part is realistically accessible to you (SOM)?
- What are the current market trends (can you show significant growth)?

Its 'numbers' in quotes as there is more to this than just numbers, like the segmentation (both geographic as product) of those markets. When doing this part of the validation: focus! Undoubtedly your solution can solve problems in many markets and it's always good to mention these 'future potential markets' but it's hard enough to get a foothold in one market, let alone in multiple. If you lack focus, your company will fail and investors know this.

A deeper dive

There are two methods to do a market analysis. Top-Down and Bottom-Up.

Top-Down is the most common approach and the one basically any investor expects you to do, in this method you determine the total market and then make assumptions about your (future) share in that market. The advantage of this method is that it's mainly a desktop study and it also helps you better define the investment opportunity!

Bottom-Up is less common and not all investors ask for this, but the good ones will! Point is a bottom-up scenario is much more realistic, but also requires much more work to do properly. For one this method requires you to validate certain assumptions (that is interview stakeholders down the value chain). Next to accuracy, the advantage of this method is that it also helps you define your go-to market strategy and shows that you know your beachhead market!

What it boils down to is that you have to do a Top-Down market analysis and you should additionally do a Bottom-Up analysis as well.



Bottom-Up Approach

But first... niche!

One of the key learnings we've mentioned in the introduction is 'start in a niche'. The reason for this is twofold: first you'll need to deal with the big hurdle each startup needs to overcome: trust, second you have to deal with the phenomenon: blue and red oceans. Below we go into more detail on these subjects.

Trust

The most essential barrier all startups need to overcome is trust!

To be investible you should be able to address a large potential market, however as a start-up it will be impossible to facilitate that market from the start. You need to build trust, you need to do branding, your product needs to be field tested, you need to work out the kinks in your production, you probably need to further optimize production, etc.

The big one in the above list is 'trust'. So how can you sell your product if nobody trusts you yet?

Two examples

- 1. Someone in the streets walks up to you, pulls out a pen from his coat and tells you: 'this pen will never run out of ink for the rest of your life and for €5, it is yours!' Would you buy it?
- 2. On a ship in the middle of the ocean you fall over board. The same person you met in example 1. appears on the railing of the ship, holding a buoy with a rope and yells at you '€1000, and it is yours!' Would you buy it?

In both cases there is no trust, the difference between the two is that in the first you are not prepared to trust the person, in the latter you barely have a choice. In the case of your launching customer you want to be standing on that railing looking at your customer in the water. The one in the water doesn't care that:

- · the paint wears off after a year;
- the rubber gets brittle in the sun;
- it starts to leak after the 5th use.

They are willing to accept all the stuff that (will) go wrong with your product, save one thing: initially it has to work. Once you have that customer on board (pun intended) they will be frantic about the awesome product you have. Sure there's still a lot of small stuff that requires some ironing, but it's a 'life saver'.

Obviously you will not find many customers 'dead in the water' (well, 'alive' obviously is preferred), but you only need a few allowing you to:

- get paid!
- prove that there's a market:
- get your product tested in the field.

The big problem is finding these people, after all it's a big ocean! But this is the point of your initial focus. What is your beachhead market, who are your launching customers? And because this is such a 'small and seemingly uninterested market' you won't attract any sharks...

Blue and Red Oceans

A 'blue ocean' is a big market in which you are the only one swimming (selling your product).

A 'red ocean' is that same market but with a lot sharks (big, established companies that act as a 'fish in the water' and will 'eat you alive').

The simple fact is that if you find a blue ocean and you start selling your product straight away to the customers in that 'ocean' it will attract sharks and given the fact that you just started, you won't have the means to fend them off nor keep enough distance between them and you and thus you will not survive the encounter as the 'sharks' will:

- simply copy your product, good luck defending your IP in court vs a megalodon;
- source a big group of engineers/scientist and within a few months have developed their own solution and push you out of the market;
- buy you out at a way too early stage, for thus a way too low price.

Ideally you first establish trust (=branding) in a small and safe market (=niche market) with a big problem, which allows you to field test your product and where you can deal with all the 'unforeseen stuff' that comes with your product entering the market. Allowing you to gain a significant head-start (=unfair advantage) towards the competition before you enter the big market where you want to scale up.

Top Down

A Top-Down approach to the market looks down from the total market and zooms in to the part of the market where you can sell your product or service. The following pictures gives you the basics for the top-down approach:



- TAM is the Total Available Market for your product or service;
- SAM is the Serviceable Available Market for your product or service, so basically
 a segment of the TAM that is within your geographical reach;
- **SOM** is the **S**erviceable **O**btainable **M**arket, which is the part of the SAM that you can actually capture.

Example ('fully made-up numbers' warning!)

Let's assume you have developed a new innovative espresso machine. The entire coffee machine market is EUR 4B. In theory you could supply to that entire market so that's your TAM, your available market. Not all of those are espresso machines though, so lets say that half of that is actual coffee machines, hence EUR 2B is your SAM, your serviceable market. Finally your reach is e.g. the EU EUR 600M and there are 5 major espresso companies active there, you initially aim to be the 6th in 5 years capturing 1/6th of the EU market: 100M SOM.

We sometimes hear investors complain about this method because the TAM has often little to do with the product the start-up is selling and hence the TAM only serves the purpose of naming high market values, e.g. naming the entire coffee industry as your TAM. So when doing this, try to keep a focussed on the product you're selling. For example in the above example you could start with the espresso machine market as your TAM and work from there. The numbers are smaller but also show more realism.

What it boils down to is that you have to give this proper thought, that your numbers are based on proper assumptions and that you are able to defend these assumptions when questioned!

The investors perspective

You are passionate about your product and know that it will be a hit because it's the solution to the problem it addresses. The investor however doesn't know this. So first of you will need to convince him that you truly have a product which addresses a big pain in the market and your approach to address this market should be realistic.

Another thing investors keep in mind is the simple fact that they know only a few companies of their entire portfolio will hit it big, the others are sold with a minor loss or profit, die a silent death or (worse of all) don't have exit potential. Hence an investor will only invest in companies that can potentially hit it big. And hitting it big means: returning at least 10 times the money that went in, which would cover the losses and gives a margin of profit over the fund (which is the entire goal of the fund). This is only possible if the 'blue ocean' really is blue and big.

First step however: de-risk the investment. This is what the SOM is used for. The total SOM is dependent on:

- the product;
- · the competition;
- · the go-to market strategy (sales strategy);
- the SAM (and your initial portion of it).

The investor will initially look at and decide whether you can realistically reach your SOM and whether the SOM covers the initial investment. So in short: SOM (and SAM) show the short-term de-risking for the investor while TAM shows the exit potential of the company and thus how likely it is the company actually makes an exit.

Example

You are looking for a €400K investment in exchange for 20% equity of your company. And you provide the following numbers for your TAM, SAM and SOM:

- TAM = €4B:
- SAM = €200M:
- SOM = €10M within 2 years and €25M within 4 years.

Also in your plan you assume an EBITDA margin of 20%.

One of the things an investor will do is look for similar companies like yours and check the exit numbers for those companies, let's assume that they find similar companies that exit on 8x EBITDA.

How does this add up?

Assuming you have a solid plan that survives the scrutiny of the investor and you are able to convince the investor that you can actually reach that SOM of 10M. That means that the potential exit value is 8 x EBITDA = 8 x 0.20 x 10M = 16M. The investor owns 20% so he would get 3.2M = 8x 400k or 8 times his initial investment.

When you reach the 25M revenue this becomes: 20% share of 8 x 20% x 25M @400k initial investment = 20x his investment: awesome!

Your company now owns a market share of 25M of 200M = 12,5% of the SAM. The SAM again is a segment of 5% of the TAM. So you own less than 1% of the TAM giving your company a HUGE market potential still, which is interesting for exit companies that have the power to access that market, but need the tech your company has.

Where to find the numbers? Initially, Google is your friend. Beyond that you can buy market reports, but they are usually costly, often contain a huge margin of error and most info they provide is readily available online.

Make sure to keep a list of all sources that you use and assumptions you make. An investor will ask what assumptions you made and requires you to explain why you made them in reference to your used sources.

Bottom Up

A bottom-up approach is calculated on the basis of the amount of estimating the potential sales and derived from that your total sales. Where the top-down approach is based on total market value and 'a conservative percentage that you can carve out from that' the bottom is based on where you can sell your product, the current sales of a similar product and how much of those sales you can claim for your own. This also gives a perspective on the sales and go-to market strategy. It also is a lot more work, but much more realistic than the top-down approach.

Below we will give a fictitious example of how a bottom-up market approach can be done, but keep in mind that the bottom-up market approach is a lot more dependent on the circumstances (type of product, market, sales and distribution channels, hardware/software).

Product

Let's go with a fully automated medicine picker for pharmacy (currently they have everything stored in drawers and do it by hand).

Geography

First off you need to decide where you start your sales. Let's assume that you will start your sales within the boarder of the Netherlands. Diving into the market you find that there are roughly 2000 local pharmacies (the ones you find in town) and to 120 hospital pharmacies. You're aware of long and dreadful sales cycles are concerned with hospitals so you limit yourself to the local pharmacies for now.

Market absorption rate

Next question is: how many pharmacies are willing to do the investment (now or in the future). The 'medicine picker' is a reasonably costly investment of 100k BUT saves a lot on staff, so it's a worthwhile investment. The only way to figure out what the absorption rate is, is to actually call them up or visit them. Let's say you call 250 pharmacies to get a feel of their intent to buy. After calling them you've noticed that of the 250, 100 invest in an update for the pharmacy roughly every 5 years, another 100 every 10 years and the remaining 50 like to keep doing things the old-fashioned way.

Of the 200 that invest, 50% of those have shown interest in your 'medicine picker'. Those that shown interest are also contemplating another investment.

The numbers

This gives you the first basis to do some calculations:

- first you extrapolate the 250 you spoke to the total of 2000 pharmacies: x8;
- also assume that there is a big difference between 'showing interest' and 'actually buying': /2;
- 100 invest every 5 years so that's 20 this year;
- 100 invest every 10 years so that's 10 this year;
- your product is one out of 2 choice: /2.

Thus initial yearly market: $(20+10) \times 8/2/2 = 60$ products each year.

This however assumes that you can actually reach all 2000 pharmacies within a year AND you have a good sales pitch AND you can actually deliver 60 products this year!

This data however also gives you immediate insight in your potential go-to market strategy and shows the sales effort required to reach certain targets. It might also give you insight in which pharmacies to approach first it could for example be that pharmacies in big cities nearly all fall in the '5 years investment cycle', while the ones in small towns like to keep things the old-fashioned way.

6. Competition

Let's start with two 'famous' quotes:

"

If there is currently no solution (competition) then apparently there is no problem.

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Know the enemy and know yourself; in a hundred battles you will never be in peril.

7 7

The first is a common statement made by all investors. Competition is proof that there is an actual market for your product. The second is a famous quote by Sun Tzu ('The Art of War') and in the context of this writing can be roughly translated to: 'know your competition'.

Starting with the competitor that is often overlooked: the 'substitute' solution; a different product that also diminishes the problem. Core questions to validate:

- How is the problem currently solved?
- Who currently solves the problem?
- What are the issues of the current solution?
- If there isn't a (direct) solution yet: why not?
- Are there any substitutes, if so: are they applied to your problem, if not: why not?

A deeper dive

For a start-up, competition can be both a good and a bad thing. It is important to make sure that you know your competition in order to use them to your advantage. As a start-up having competition can be seen as a bad thing, another company that is bigger, has more money and is after 'your' customers. In reality having competition might help you in many ways.

Why look at your competition?

Competition will validate your problem, if there are other companies that offer a similar product/service, apparently there is a problem and a need for a solution. The more competition, the more likely that there is a real issue worth solving, but also the risk of the market already being saturated (red ocean). If you can't identify any competitors that offer a somewhat similar service, ask yourself if there really is a problem worth solving.

Remember that there are very few companies that develop a product where there is really no competition and where people don't know that they have a problem (one famous exception is the iPhone, people didn't know they needed one, until Apple made it).

Learn from your competitors. Use your competitors by letting them make the mistakes for you and copy their strengths. Review their product and road to market and identify the weaknesses. They will have made 'mistakes' in their product (development) that you can use to develop an improved product that customers will like more than theirs. Also make sure to identify the strengths of your competition, why are customers buying their product. Your product should at least have similar features (benefits).

Your solution is different from the competition, having competition allows you to highlight your assets and differentiate your product. While there may be various features that are similar, your product has some advantages over your competitors. Knowing these features allows you to communicate the differences and show that your product is superior. Make sure to highlight the superior features that your customers are looking for.

Compare yourself with the competition

Competition is usually a subject you deal with after you've explained the market, the TAM, SAM and SOM but also the segmentation. Based on that you can clearly show how your product differentiates itself from the competitors, ideally it looks like this.

Our company competitive analysis

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Our Competitors

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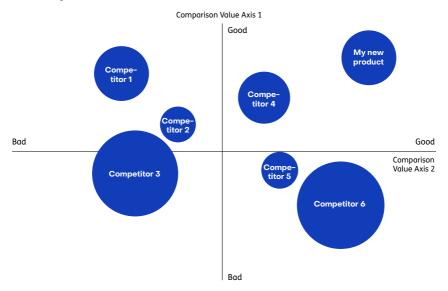
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Awesomeness

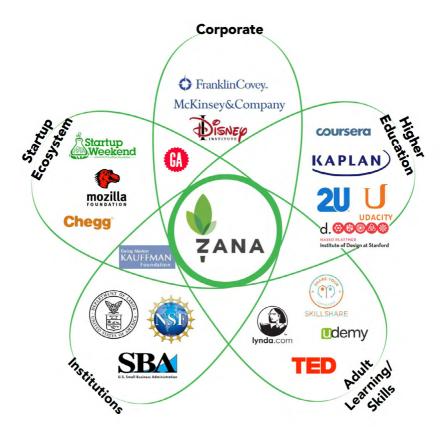
^{8 &#}x27;A small reminder to the YES!Delft companies, that they too should remain aware of new competition ©'

More likely it will look like this:



Where 'this' is called a value matrix or positioning diagram. The trick is to pick out the two biggest advantages your product has and map this in a value matrix vs. the competition. Most commonly logos are used in combination with size of the logos to show how big the player is (their market share).

If you have more than two really important differentiators in which you have a major advantage on your competition, you can consider using a more advanced positioning matrix:



Source: https://steveblank.com/2013/11/08/a-new-way-to-look-at-competitors/

Or you can use a comparison chart (this one is usually favoured when multiple axis are involved). In that case list all the features of your product that stands out and compare them with the competition. Try to keep the number below 10 you can use crosses (x) and checks (v) or if you want more granularity: plusses (+) and minuses (-) or traffic lights to indicate how strong each company (including you) scores per topic. For example:

	Versatables NUMBER OF THE PURPLE PARTY AND THE PURP	INEA	HermanMiller	Office DEPOT	Steelcase	HAWORTH
Lifetime Warranty	~		Some Products	Some Products	Some Products	Some Products
Made in the USA	~		~	Some Products	Some Products	Some Products
Free Shipping	~		Some Products	Some Products	Some Products	Some Products
Green Manufac- turing	~	~	~	Some	~	~
Customer Service	Excellent	Bad ★★★★★	Good ★★★★	Okay ★★★☆☆	Good ★★★★	Good ★★★★
Ease of Return	Excellent ★ ★ ★ ★	Difficult ★ ★ ☆ ☆ ☆	Okay	Bad ★★★★★	Okay ★★★☆☆	Okay ★★★★★
Product Recalls	None	✓Yes	✓ None	Yes	Yes	✓ None

Source: versatables.com

When creating one of these charts or graphs or diagrams, keep one important message in mind: 'Features Tell and Benefits Sell'!

Feature: 'This bike comes with a headlight'.

Benefit: 'On this bike you are much safer during the evening because it comes with a headlight'.

Another thing to keep in mind is that your chart is fair. So do NOT leave out an axis in which you do not come out as best, investors will ask anyway and this would only result in either: you can't be trusted cause you're withholding information OR you are incompetent as you didn't think of some obvious axis which the investor did think of!

As with all aspects of your plan, make sure to know everything, and only communicate relevant information. Think about what type of comparison with your competitors you would like to make, and create your images accordingly. Create an image that shows that you have studied the competition, and also shows that your solution is superior on critical factors.

Brands and branding

One thing during your search into the competition you should never underestimate is 'trust'. We've mentioned this before in the Market chapter.

Next to the 'how good is the competitors product', is the 'how well established are they'. People are conventional by nature, which is why on the 'product life cycle' chart the 'innovators' group is so small.

Other factors play strong role in this as well, if e.g. you have a software platform that will cost the company not only the license but also a big chunk of 'implementation' costs they will be very hesitant to buy this of a start-up. Not just because of the fact that you haven't proven definitively that your product works, but also the fact that tomorrow you might have gone bankrupt or worse: bought by the customers competition.

Your competition however is already well known and established and thus a much safer investment. You specifically see this consumer habit in government agencies as they are scared as hell that they made the 'wrong call'.

When your company is a spin-off of a renowned technological institute it will give you a HUGE advantage that you can carry a trusted brand! Don't underestimate this and make use of that. Nonetheless don't get too cosy with it, prove that your brand is trustworthy asap as it will give you a big competitive advantage. Ways of doing this is being smart with partnering and running pilots with big brands.

7. Traction

The best proof you can provide to an investor that your product works AND addresses an actual problem is: traction. If you already have (preferably paying) customers, you mitigate yet one more risk an investor sees in your company. In terms of validation:

- What is the highest level of market interest that you (quantifiably) can show?
- What is your go-to market strategy?

A deeper dive

Traction is where it mostly boils down to whether you get invested now or (maybe) later! Most formal investors like to invest in a company that hit the 'accelerating growth point'. You've probably seen this picture before:



Losses/ investment (\$)

Notice the red dotted line. Two things are happening there at the same time (note that usually these two do not coincide):

- Red line: 'Profits' shows that your turning break even, meaning that more money comes out than previously went in.
- Green line: 'Sales' makes a slope transition from <1 to >1.

It's the green line where Venture Capital investors are focussed on and for them the transition from <1 to >1 is the sweet spot they ideally invest in as this is the point where the value creation is potentially the highest. At this point you need to scale-up which means you need to invest in production, goods, sales, etc., the typical costs precede the benefits, you'll find that your company is still too young for any bank to invest in as there's still plenty of risk involved. You'll have to walk a critical path, going too slow can mean the market loses interest or the competition beats you, going too fast means that the market pick-up lacks behind and you run the risk of going bankrupt (resulting e.g. in you hiring 10 sales persons who you can't pay).

So for this reason too it's good to have some experienced VC on board.

Keep in mind by the way, that this type of 'life cycle' is typical for a scalable product NOT consultancy. Hence consultancy will NOT be taken into account by any investor!

Before that point you're focus should lie on talking to 'friends, fools and family', angel investors and 'seed venture capital'.

So as you can see 'traction' is key in your proposal not only whether you get invested or not, but it also helps you aim for the right type of investor (we'll go into more detail on that topic in the chapter 'investment opportunity').

Note that quite a few investors like to be 'in the loop' of your company, so they will show interest...just not the next step. Sometimes investors are clear and up front on this, for example, Newion Investments invests only in enterprise software and the start-up must have at least 12 customers (=traction) using their product. In most cases though it's not that clear. See also the blue box here on the other page.

So what to do if you're not selling your 'scalable product' yet?

A truth about investors

Here a little insight in the world of investors: it is NOT in their interest to scare you off. So unless you are really not in their focus (which means you didn't do your homework!) they will always show some level of interest, but... "you are in a too early stage for us...", "we think your team is not yet complete...", "really interesting we would love to keep in touch to see where it goes...", "come back to us when your business model is more clear and validated", etc. When you talk with a Dutch investor you're likely to get a bit more 'sharp critique' as its part of the culture, but for all investors the following rule applies:

"you might not be interesting for us now, but maybe in the future, so let's stay friends".

Actual interest is when a term sheet comes in discussion, and even then I know of at least one foreign investor who is (was?) relatively quick with term sheets, binding the company into exclusivity only to break this off more often than not! Note I've not seen this kind of bad practice among Dutch investors, just keep in mind that among investors next to their biggest fear of making a bad deal there is also the (less big, but still significant) fear of missing out on a good one!

First of all, traction comes in 'levels', the highest level is exponentially growing 'revenue' based on the sales of the product (not based on e.g. consultancy hours). The lowest perceivable traction depends a bit on your creativity to make a good story out of it, 'interest' however is not that. Neither is press coverage, prizes⁹, testimonials or subsidy. Essentially though:

Traction is ANY interaction with a (potential) customer where you receive something tangible from that customer.

The most tangible form is money, but committed time is also a good form even a written and signed document with the intend to commit is good, as long as your company gains something (tangible) from that interaction.

To give you some idea, here are two 'traction verticals' for

B2B Hardware

- recurring paying customer;
- paying customers;
- paid pilots;
- co-development agreement;
- · unpaid pilot.

How to generate traction?

B2B Software

- revenues;
- active users;
- registered users;
- engagement;
- partnerships/clients;
- traffic.

Next to having (or not having) traction, your business plan needs to show how you are going to generate (more) traction. This is not particularly something that ends up in your business plan but certainly worth mentioning. Assuming a B2B strategy:



Referrals

NOT testimonials, but customers referring you to other customers. You can even consider giving them a discount on the product on referral (but be careful with that).



Network

Leverage your current network to get doors open. Keep in mind that e-mail is one of the most powerful tools at your hand. Next to that you can use LinkedIn, Facebook and of course, the people around you.

⁹ Actually on 'prizes', I've seen more than one 'winner' companies going off a cliff within a few years, most often the runner-up is the most interesting startup (from an investor perspective); why? Because the 'winners' are companies that the jury (often corporates) want to be associated with and the runner up is usually 'only' commercially strong.

3

Sub-license

Again something to be careful with but you can consider giving the competition a(n exclusive) license, limited in time and/or geographically. This is especially helpful if the product is more of a market push than pull (there isn't a high demand...yet). By licensing the competition you can break open the market and generate revenue at the same time. It might also prevent a potential competitor from working on their own solution (but it might also incite them to do the exact opposite...).



Show case your product

Be present at events where it's most likely to find customers for your business.



Run PAID pilots

Not too many but pilots help you get traction and at the same time get feedback on your product. The customer will also be happy as they get a more tailored approach... which is also your death-trap!



Keep track of your customers!

Make sure, especially in the beginning, that you actively follow-up on your customers. Roughly the same idea as within a (good) restaurant: 'is everything in order', followed by 'do you wish to order an additional drink'. The first question limits your churn, the 2nd increases sales!



Be original!

During an event, have your logo on:

- the toilet paper;
- the cake:
- the food packages;
- inside every cup.

Doing something memorable achieves exactly what you wish to gain: being remembered!

And for all the Beta's out there, we have the following message:

It's better to sell something that you don't have (yet) than to have something you don't sell (at all)! So stop tinkering and start selling!

8. Financials

And here we finally are at the no. 2 reason why start-ups fail: 'ran out of cash'. Why? Development took too long, market pick-up took too long, burn rate too high, inaccurate projections, unforeseen circumstances... It's not uncommon (it's extremely common) that high-tech start-ups go over budget and planning during development. Biggest mistake made is underestimating how influential external factors are (e.g. supplier takes months instead of weeks to deliver a vital part). It's a very safe assumption that you are not a top priority with anyone you deal with and hence it will require quite some effort from your side to keep things rolling (which is why 'execution' skill is so important in the team!).

So, when you make a planning, map the development dependencies (both technological as market) well and insert an 'unforeseen delay', which adds up over all the dependencies, this will also provide you with a best/worst case scenario and makes you think on how to mitigate this risk.

Not so much a validation for you to check as much as showing that you have your affairs in order and showing an investor how much money has went into the company, what you did with it and your current cash runway. This will also provide insight for the next part.

A deeper dive

There are generally three financial statements used when giving insight in the financial state of the company. These three are:

- Profit and Loss (P&L) or Income statement.
- · Cash Flow Statement.
- · Balance Sheet.

The income statement gives an overview of the revenues, costs and expenses during a specific period of time. It basically gives insight in how well a company is doing, whether its market share is growing, and whether the product or service actually generates a positive amount of cash vs the costs of creating and selling it. In short whether you're in the black or red.

The cash flow statement gives an overview of the amount of cash to comes in and goes out during a period. This basically gives insight in how healthy a company is and is the key metric for start-ups. Your income statement might be through the roof and doing great, but if you cash flow goes under 0 you run the risk of bankruptcy nonetheless. This obviously is important for every company, but when you're no longer a start-up (but settled in the market) you can just go to the bank if you see a temporary negative dip in your cashflow.

The balance sheet gives an overview of the company's assets (what the company owns), liabilities (companies debts and other financial obligations) and shareholder equity (= assets - liabilities). Where the P&L gives an overview over a period, the balance sheet gives an overview at one point in time and hence gives insight in the value of the company at a point in time. A balance sheet however only makes sense when you're running a company not when you're starting a company so we won't discuss this here.

For the purpose of investor readiness we have the following financial model available: https://publications.tno.nl/publication/34639211/5vmDvl/financial-plan-NewCo. xlsx¹⁰. We understand it is difficult at this stage to forecast future market conditions and make good assumptions about revenues and costs but it helps to determine if a NewCo is a viable route. The most important aspect at this stage are the revenue projections and the needed investment towards the minimum valuable product. Below we give a brief explanation of how the model works. On the next page a screenshot of the first page of the financial model.

¹⁰ If the link does not work please contact one of the authors or techtransfer@tno.nl

					67,1%	Internal Rate of Return (IRR)
					€2.381.261	Fair value
					€2.381.261	NPV / Enterprise value
€3.202.461	€762.491	€307.806	(€173.373)	(€1.018.750)	(€699.375)	Present value
0,35x	0,35x	0,46x	0,59x	0,77x	1,00x	Discount factor
15,0%	15,0%	15,0%	15,0%	15,0%		Risk of failure
15,0%	15,0%	15,0%	15,0%	15,0%		Weighted average cost of capital
Terminal Value	2024	2023	2022	2021	2020	Net present value
	€3.137.250	€1.209.500	€533.250	€826.250	€550.625	Ending cash
	€1.209.500	€533.250	€826.250	€550.625	€0	Beginning cash
	€1.927.750	€676.250	(€293.000)	€275.625	€550.625	Changes in cash
	(€250.000)				€250.000	Loans
				€1.600.000	€700.000	Equity investments
					€300.000	Founders investment (sweat equity)
	2024	2023	2022	2021	2020	Financing strategy
	€537.250	(€1.640.500)	(€2.023.750) (€2.316.750) (€1.640.500)	(€2.023.750)	(€699.375)	Cumulative Cash Flow
€9.146.550	€2.177.750	€676.250	(€293.000)	(€1.324.375)	(€699.375)	Free Cash Flow
Terminal Value	2024	2023	2022	2021	2020	Free cash flow forecast
	(€2.169.625)	(€754.250) (€1.283.000) (€2.169	(€754.250)	(€336.250)	(€99.375)	Net Working Capital
	2024	2023	2022	2021	2020	Working capital forecast
	€3.064.375	€1.192.500	€112.500	(€1.100.000)	(€612.500)	Net income
	€3.950.000	€1.205.000	€125.000	(€1.087.500)	(€600.000)	Operating profit / EBIT
	€0	€0	€0	€0		Depreciation
	(€1.100.000)	(€900.000) (€1.100	(€900.000)	(€1.300.000)	(€600.000)	Operating expenses
	blue numbers	fill out the form by replacing the blue numbers	I out the form k	fi		>Name Spin-off<

Now the first thing you'll need to know about this model is that its intended for a high-level overview of your company plan and to assist you in getting some perspective in the required investments and potential value (using DCF valuation method). When your close to actually founding your company we suggest you use a more advanced model.

In this section we focus on the annual overview, when you're going to do this exercise it's also important that you fill in the 18 months cash flow tab which is similar to the annual one but more granular. This is important because assume for example that in one year you'll build and sell 4 (very expensive products) let's say 200k cost of materials and labour at a sales price of 300k. Based on these numbers alone you would run a profit of 400k that year...however the first product will cost you 200k meaning you have a 'cash flow' problem. 'Cash flow' is the actual amount of available cash you have in the given period. In our example you'll first need (at least) 200k cash to produce the first product in order to sell it and potentially an additional 200, 400 or even 600k if it's one order of 4 products at the beginning of the year, to deliver them all 4 by the end of the year (and what are the payment conditions of your customer? 3 weeks, 3 months? After delivery). In short: you'll need a monthly overview of your cash flow. As a general rule of thumb, when creating a financial overview you'll want 3-5 years of 'annual forecast' and 12 to 18 months of 'monthly forecast'.

The next thing you'll need to realize is that this is a 'model', a fantasy created by you which will be smashed to smithereens as soon as it gets into contact with reality. What remains and how useful it is fully depends on the assumptions you made. Hence be FULLY aware that you are making assumptions. To be clear: if you're going to open up a bakery and sell brown bread and the 50 competitors you've investigated are all selling their brown bread for EUR 1,50 you assume that you can sell your bread for EUR 1,50. And granted it's a very safe assumption but before you actually start selling your bread it remains an assumption! Hence list all your assumptions (also the 'safe' ones like 50 competitors are doing it) but also the ones you know absolutely nothing about, make them nonetheless and as you learn more keep adjusting them and keep track of the data on which you make the assumptions. This is VERY important for investors: "on which assumptions is your model based and on what data are those assumptions based".

Now that you know this, let's go back to the provided model.

Most parts of this model are folded (+ signs on the left) and you can unfold them by clicking on the + sign. In the upper left you'll notice a 1 and 2 button, where '2' unfolds everything and '1' folds everything at once. When you unfold everything, you'll notice blue marked text and black (and some grey). The blue marked cells are editable, the black ones are formulas. Overall this can look very daunting so initially, when you fill this in for the first time we suggest you keep everything folded (like in the screenshot) and fill in the numbers directly (so overwriting the accumulative formulas). Please note that € (100) = € -100. A way to present negative numbers.

Income Statement

The first part of the model is the income statement. This part gives an overview of the money that comes in from product sales (income) and the money that goes out to keep the company running (expenses). Note that the Cost of Goods Sold (COGS) are part of the income. You could argue that this is a matter of taste but an investor would like to see what the direct margin is on the product (so without all the operational expenses like rent, office material, etc). So what do we have:

	Income statement	2020	2021	2022	2023	2024
Income	Total revenues	€0	€ 875.000	€ 2.250.000	€ 4.200.000	€ 8.000.000
	Cost of goods sold	€0	(€662.500)	(€1.225.000)	(€2.095.000)	(€2.950.000)
	Gross Profit	€0	€212.500	€1.025.000	€2.105.000	€5.050.000
		(/a. aaa aaa)	/		()
Expenses	Operating expenses	(€600.000)	(€1.300.000)	(€900.000)	(€900.000)	(€1.100.000)
	Depreciation		€0	€0	€0	€0
	Operating profit / EBIT	(€600.000)	(€1.087.500)	€125.000	€1.205.000	€3.950.000
	Net income	(€612.500)	(€1.100.000)	€112.500	€1.192.500	€3.064.375

Total revenues: this is the money that comes in from product sales and/or delivered services. So to keep with the bakery example: EUR 1,50 from selling a bread and EUR 0,20 for giving advice on which bread is best for the customer, is revenue. The bank providing you a loan, a gift from your family to start the business and some subsidy because you make CO2 free bread is NOT revenue!

If you unfold the revenue section you'll find a specification to assist you in making the assumptions, but you can also just fill in the 'projected annual units sold' and the 'average selling price per unit'. Note that the latter will decrease over time as this is usually expected in the market.

Cost of goods sold: this is basically only the ingredients for the bread and the paper bag you sold it in. So for example NOT the cost of the paper used to print the receipt, nor the salary of your employee nor the counter where you place the bread in.

Again if you unfold you get a more granular overview. Most notably are fixed vs variable costs. Fixed costs are e.g. renting (or buying) an oven to bake the bread in and are the costs that do not directly scale with the number of products sold, variable costs are directly related to the number of products you sell (e.g. ingredients).

Gross Profit: Total Revenues - Cost of Goods (actually) Sold = Gross Profit.

Operating expenses: are ALL the costs for personnel. The granular overview is still rather high level and divided into: R&D, Marketing & Sales and General and Administration, if you start with a team of two and have these tasks divided amongst you, you could leave it by only filling in the totals.

Depreciation: here's where things get tricky. Depreciation simply means that you spread the payment for equipment over multiple years (typically 4 or 5 but can wildly vary). This can have tax advantages but is also required to be taken into account. Next to this is says something about the value of you company: when you buy a brandnew machine for 500k you could argue that your company holds 500k in equipment value, after a few years the value of this equipment won't be 0 but neither would it be 500k -> hence a yearly depreciation. HOWEVER do not mistake this for taking this into account for you cashflow as the 'capital expenditure' of 500k takes place in year 1. Depreciation is usually linear over time. Note that you should not just copy paste the depreciation schedule (4 years 25%) when creating new columns!

Operating profit / EBIT: Gross Profit – Operating Expenses – Depreciation = Operating Profit. EBIT stands for 'earnings before interest and tax' (there's also EBITDA, which stands for earnings before interest, tax, depreciation and amortization¹¹ in more advanced models). Hence this number gives you insight in how much money your company makes without taking taxes and loans into account.

Net income: you can probably guess this one: EBIT - Taxes - Interest = Net Income.

That concludes the first step. This overview (Income statement) mainly shows you how well (you expect) your company to perform in terms of products sales and growth. It effectively tells you nothing about the health of the company, with 'health' I mean the cash flow position of the company, cause it's not uncommon for a company to 'grow' bankrupt. Always keep in mind that even if your company is doing really well, good traction, growing market, growing sales, etc. you still only need one creditor who files your company for bankruptcy because you simply do not have the cash on time to pay him. Which could be because one of you debtors is late with paying you. Which automatically brings us to...

¹¹ Amortization is decrease of debt by paying of your loans over time. Not to be confused with 'interest' which is the cost of borrowing that same money (again over time).

Working Capital

Working capital forecast		2020	2021	2022	2023	2024
Receivables (% Sales)	25%	€0	(€218.750)	(€562.500)	(€1.050.000)	(€2.000.000)
Inventory (% next yr COGS)	15%	(€99.375)	(€183.750)	(€314.250)	(€442.500)	(€464.625)
Payables (% COGS)	10%	€0	€66.250	€122.500	€209.500	€295.000
Net Working Capital		(€99.375)	(€336.250)	(€754.250)	(€1.283.000)	(€2.169.625)

The working capital gives you some insight in the extra capital you require to bridge the gap between the moment your company pays for the materials to make your product and your company actually receiving money from your customer in relation to those same materials.

Example: you order the materials on day 1 for €50. You sell them on day 2 for €75. You receive payment on day 3 and you pay the supplier of the materials on day 4. This means that you require 0 working capital.

More common however: you order those materials on day 1. You sell them at day 2. You pay for them on day 3 and receive payment on day 4. This means that you require €50 working capital.

There are all kinds of permutations possible and obviously the periods are usually much longer, however the periods can also be negative! As a start-up it's possible that you are required to pay up front (trust), it's also possible that your customer is prepared to pay up front (again: trust), this will have a huge impact on your working capital. Showing that you are credible can increase your payables period.

Note that the numbers in the blue box are percentages, this is the percentage of 365 days (or better said the granularity of your financial plan, which in this case is annually). So e.a. 25% is ~90 days.

Receivables: this the period between you delivering the product and getting paid for it.

Inventory: this is the period between receiving the materials and selling them. Note that usually there are additional costs to inventory (you have to store it somewhere).

Payables: usually you first receive materials before you pay for them. The time you can delay this adds to your working capital (so the longer the better).

Free Cashflow

Cashflow of a start-up is the most important and most monitored metric!

This is what all investors will look at and this is what keeps you awake during the night. Because, when this number goes under (0) your company goes with it. In the example table you see the numbers clearly go well under 0 which means you'll need external financing, we'll get to that later.

To calculate your cash flow there are two methods: direct and indirect.

Free cash flow forecast	2020	2021	2022	2023	2024
Operating profit / EBIT	(€600.000)	(€1.087.500)	€125.000	€1.205.000	€3.950.000
Taxes	€0	€0	€0	€0	(€885.625)
Depreciation	€0	€0	€0	€0	€0
Changes in Net Working Capital	(€99.375)	(€236.875)	(€418.000)	(€528.750)	(€886.625)
Capital expenditures (CapEx)	€0	€0	€0	€0	€0
Free Cash Flow	(€699.375)	(€1.324.375)	(€293.000)	€676.250	€2.177.750
Cumulative Cash Flow	(€699.375)	(€2.023.750)	(€2.316.750)	(€1.640.500)	€537.250

Direct: simply add all the (actual) money that comes in and deduct all the (actual) money that goes out and what remains is the actual amount of money in the company.

Indirect: (the example model uses this method) uses the operating profit. And because the operating profit calculated BEFORE interest and taxes you'll need to add those and because operating profit is calculated AFTER depreciation (which is not actual cash) you'll need deduct those. Of course you still need to pay for the equipment so the capital expenditure has to be taken into account. Next to those 3 items you have the required working capital as explained earlier, you'll notice that in this case it's called 'changes in net working capital' because the delayed income of the previous year is taken into account for the current year (e.g. the €99.375 in 2020 is added to the budget in 2021 as the money will come in that year).

Financial Strategy

Financing strategy	2020	2021	2022	2023	2024
Founders investment (sweat equity)	€300.000				
Equity investments		€1.800.000			
Loans	€250.000				(€250.000)
Changes in cash	(€149.375)	€475.625	(€293.000)	€676.250	€1.927.750
Beginning cash	€0	(€149.375)	€326.250	€33.250	€709.500
Ending cash	(€149.375)	€326.250	€33.250	€709.500	€2.637.250

This closely ties in with the chapter: 'Investment Opportunity'. In that chapter you have to figure out how much investment you require for a certain period and when you need the investment. The blue numbers in this overview are the investments and loans. How much finance do you require? Well if we remove the numbers:

Financing strategy	2020	2021	2022	2023	2024
Founders investment (sweat equity)					
Equity investments					
Loans					(€250.000)
Changes in cash	(€699.375)	(€1.324.375)	(€293.000)	€676.250	€1.912.125
Beginning cash	€0	(€699.375)	(€2.023.750)	(€2.316.750)	(€1.640.500)
Ending cash	(€699.375)	(€2.023.750)	(€2.316.750)	(€1.640.500)	€271.625

We'll have to look for the lowest number we can find (within a ~2year period) as that is the amount required to keep the cash flow positive. In this case (assuming its now 2020) that is: €2.316.750 in 2022.

In the example we see a 300k investment at start-up which could represent cash investment by the founders and we see a 250k loan (e.g. 'Vroege Fase Financiering' from RVO). This leaves a gap of roughly 200k in 2020, an additional gap of 1.3M in 2021 and a remaining gap of 300K in 2022. In total you need to get a 1.8M investment with an immediate investment of 200K in 2020. This is external financing you'll need to find and thus part of your financial strategy.

Net Present Value

The last part of the sheet, together with the 'terminal value' forms part of a valuation method. Which is also better explained in the section 'Investment opportunity'.

9. Investment Opportunity

The investment opportunity describes the need for the company and the possible upside for the investor. In the previous sections you have seen an overview of the company and the technology, this section is all about the needs of the company and added value of the investment. At the core your investment opportunity should read:

The company is looking to raise € X to reach milestone Y in Z months, for which the investor receives S% shares in the company.

An important thing to keep in mind with the planning: the period between 'starting to look for an investor' and 'money on your bank account' is usually around 9 to 12 months.

When you've done this part, you should be able to answer the following question:

- · How much money do you require for this phase?
- Which milestones can you identify up to fulfilling that phase?
- Which tangible value adding points can you identify?

Having an answer to the above questions, you can translate this to the Investor Opportunity:

- What's the investment opportunity: value of the company, shares, conditions to invest)?
- Who are potential exit candidates? Who can you identify that will buy your company when it has grown enough? Without exit potential (most) investors will not invest.

A bit of investor jargon

Before we go into this it's helpful to explain a couple of basic investor terms and shortly address the different types of investors.

Types of investors

Angel / Informal Investor

An 'Angel' or 'Informal' or 'Informal Investor' means all the same thing: one person with money interested to invest in a start-up company. The amounts they are willing to invest can vary widely from 10k up to 1M, the most likely/common amount though is 100k. Angels are often referred to as the start-ups blessing and the scale-ups curse. The latter in all honesty has more to do with the start-ups ignorance when structuring the angels finance round, than with the angels who are willing to take the risk. There's a right and a wrong way to do this. Note that Informals are often organised through an Angel network; check http://www.bannederland.nl/ to get an idea of the different networks.

ROM

'Regionale Ontwikkellings Maatschappij' or 'Regional Development Agency' a government funded agency to stimulate the local economy. Examples are 'Innovation Quarter' (The Hague) and 'De Brabantse Ontwikkelings Maatschappij' (Eindhoven). Nearly every 'region' (usually province) in the Netherlands has a ROM. ROM's typically de-risk an investor round by co-investing with another party, this can be an angel or formal investor. Next to that most ROM's also have a 'Proof of Concept' fund for early-stage investments. PoC funds usually work with a CLA (we'll get to that), and are around 300k in size. The ROM's themselves (co-)invest from 100k up to 5M. Check: https://www.rom-nederland.nl/

Formal Investor

This document is written from the perspective of formal investors. What we write here is what they (roughly) expect to see from you when you get into contact with them. Formal funds are structured funds with limited partners/financiers (usually companies, family offices, pension funds and sometimes ROMs). Their partners have a limited say in the fund to prevent internal politics grinding work to a halt.

There are (as far as this document is concerned) two types of formal investors: Venture Capital (VC) and Corporate Venture Capital (CVC). They roughly work and invest in the same manner, the big difference is that VC's are in it for the money and CVC's are in it to create new business for their mother(s) compan(y)(ies), so their financial goal is usually less high (but they still want to make a profit!). Usually a CVC represents one big company (e.g. Samsung Ventures), but can also represent multiple partners (e.g. Mainport Innovation Fund – KLM, Schiphol, NS, Harbour of Amsterdam and TU Delft). For this reason CVCs are more likely to take (a bit) more risk like investing in the seed stage of a company. VC's usually only invest in post-seed/scale-ups, but there are exceptions (like Innovation Industries, which has TNO and TU's as ltd partners).

Formal Investor	Note that ALL formal investors have a focus or 'scope'! This is how they attract their ltd partners but also gives them position in the financial market: they are usually (market) experts within their scope. This is the big advantage formals have (next to money) they can really help you both with positioning your company as well as giving access to their ltd partners. Check: https://finder.techleap.nl/investors/f/
Family Office	all_locations/allof_Netherlands A family office is a company that supports one or more wealthy families with managing their capital. They too often have a certain focus field in which they invest, they are however usually more active in later stages of a company. For this reason we have little experience with these. Here's an overview of several offices ¹² .

 $^{^{12}\} https://www.iexprofs.nl/Feature/268412/Family-offices/Family-offices-who-is-who.aspx$

Company Stages and Finance Round Types

Pre-Seed / Seed Round

Pre/Postrevenue Pre-seed and seed rounds are two terms that I've found are used rather arbitra-rily amongst different investors. In most cases (exceptions are deep tech investments): pre-seed = pre-revenue and seed = post-revenue. And those terms mean: are you selling a product (post) or not (pre), to be clear: a product, to be clearer your MVP (or better), not consultancy or some by-product/business you created to keep things running until you have your actual product in place.

There is a world of difference whether your company is in that first stage or the second. Most formal investors only invest post-revenue, if you're in a pre-revenue stage (which you most likely are if you're reading this) it will be much harder to attract formal investors, most likely you will be dealing with angel investors and/or ROMs first. The reason is simple, pre-revenue you have not proven that your product works and you have not proven that anyone need it, those are two very big risks to overcome. Post-revenue there is still a lot of risks to overcome, like: is your product, market and company scalable?

Scale-up

Companies that are post-seed. That is they have proven their product in the market and have found a methodology to 'scale up' their sales (in every aspect).

Proof of Concept (PoC)

Typically used term for companies that are in product development with TRL stage 3-5. Most ROMs have a 'PoC fund', some Formal Investors have this as well, especially when they have a research institute as ltd partner.

Convertible Loan (CLA)

The most common type of investment during the pre-seed stage. The 'A' in CLA stands for 'agreement'. A convertible loan is a loan that can be converted to shares when an investment against a valuation takes place. The loan then converts at that valuation, usually with a discount on the share price of around 15-25% (to compensate for the additional risk and value increase of the company after the CL investment).

Series A,B,C etc.

These are the names of the finance rounds your company goes through. The first investment is called 'series A', the next one 'series B' etc. Usually a 'series A' takes place post-seed, at the point the company starts to scale-up. The rounds before that are thus called e.g. 'seed round(s)'. Hence series B usually denotes a 'growth' or 'expand' stage. Where you were focussing on one market in series A, during series B you start addressing new markets. Series C and beyond are basically more of the same, investments to develop new products and new markets.

Common Basic Terminology

Pre- money (valuation)	The value of your company before investment.
Post- money (valuation)	The value of your company after investment. It's a simple equation: [post-money = pre-money + investment], e.g. 1,5M = 1M + 500k. Here your pre-money is 1M, the investment is 500k, the post-money is 1,5M
Dilution	The % ownership (shares) in the company you give away (=dilute) when you attract finance. If you 'dilute at 15%' that means that you go from 100% ownership to 85% ownership (or from 85% to 72%, 72% to 61%, etc.). The following equation applies: [dilution% = investment/post-money], e.g. 500k/1,5M = 30%
	Note: it's called a 'dilution' cause you normally do not transfer existing shares but give out new shares (effectively diluting the value of the existing shares).
Shares	You probably know what these are, what you probably don't know is that there are all kinds of different shares. The most common or founders shares: the initial shares owned by the founders (and sometimes angels as well);
	Preferred shares : the shares owned by the (usually: formal) investors. Preferred shares have all kinds of additional rights the common shares do not have. E.g. they could have 'a liquidation preference of 2x', that means that on exit, the holder of those shares gets 2x his invested money back before the rest of the shareholders get anything. But also certain votes/decisions, information is privileged to the preferred shareholders.
	Certified shares : shares expressing ownership but have no voting rights (done through a STAK, see below)
	Stock Appreciation Rights (SAR) : virtual shares expressing economic rights only.
Options	The right to buy shares at a certain trigger event (e.g. a date) for a pre-set price. Often used as an incentive for personnel.

STAK

'Stichting Administratie Kantoor' (trust office foundation). Through a STAK certified shares are given to employees as part of the employees incentive plan. Usually a start-up cannot pay their personnel the same amount as a corporate can, so to keep people bound to the company they are given shares making them owner of the company. But even when a start-up can afford (and pays out) a good salary, this employee incentive plan is used in addition just to keep important employees loyal to the company. The disadvantage of this type of incentive is that the employees have to pay income-tax over the value of the shares.

Common Basic Terminology

SAR

'Stock Appreciation Rights' Basically the same as 'certified shares', they are an economic right to a portion of the proceeds of the company's exit. E.g. 5% SAR means when the company is sold for 10M you get 500k. The advantage of the SAR is that you do not have to pay taxes over it when you get them. For this reason we always strongly advice to establish a SAR plan for the company instead of a STAK. The big drawback of SAR however is that you have to pay taxes over them on exit (currently 52%). So in an early stage of the company its more attractive to have a STAK in a later stage a SAR is better.

Cap table

A table showing the distribution of all shares amongst the shareholders and the rights that correspond with them. When you have a SAR in place you have two cap tables, one with the economic rights and one with the voting rights.

Stock/ Shares /Ownership

An explanatory example: Jim's ownership in the company is represented by him holding 15% of the company's stock, represented by 15.000 shares, of the total of 100.000 shares in the company's stock.

Investment Cycle

In order to understand the perspective of an investor better it's good to understand the concept of an investment cycle. This is what a typical investment cycle looks like:



The investment cycle is the essence of you finance strategy to build your company. You attract finance, create tangible added value to the company, hence the companies value has increased and then you attract new finance to do this again. You keep doing this until the company can sustain its own growth, initiate a public offering or have an exit. Each cycle is one round and as explained, depending on the stage your company is in, the round is either pre-seed, seed, series A, etc. When defining in an investment strategy keep this cycle in the back of your head. As you can see a cycle typically is somewhere between 12 and 24 months. This is based on 12 months' time to create the added value and 6 months' time to attract the next investment.

Goal of the investment round

To develop the current investment opportunity for investors, start with determining the goal of the current investment round. Investors, both formal, informal and subsidy providers, want to add value to your company. It is important to create an investment opportunity that allows for value creation in your company. In other words, make sure to look for investments that allow you to reach a certain goal that really improves the value of your company. Reaching proof of principle, developing your first prototype, or launching the first product, first 10 sold products are goals that really add to the value of the company as there is further proof of the viability of your product. And given the investment cycles: aim for a goal that fits roughly within a timeframe of one year.

Now that you know the goal of this investment round, determine the activities that you want to execute in order to achieve this goal. Be as concise as possible, these activities are taking place within the next couple of months, so you should be able to clearly describe every step that you want to take. Whether it is executing an experiment, hiring certain skills or visiting a specific conference, make sure you are able to give a detailed description of the planned activities (be however purposeful in the information you provide in your business plan). If certain activities are performed with outside partners, it is not uncommon for investors to ask for indicative quotes. Make sure to have information on the partners you want to work with and some communication on their approach to your assignment. It might be helpful to approach the investment opportunity as a project and use project visualization tools (e.g. Gantt chart) to give an overview of the activities and expected timelines (and potential delays).

Based on your goal and activities, try to find one or several milestones, intermediate steps or results that are critical to the success of reaching your goal. This could be hard results, like getting a specific part to work or reaching a threshold value during an experiment. It could also be more softer targets, like hiring a person with specific skills crucial to the development of the company. These steps that are critical in the process towards the goal of this phase can become the milestones of your investment opportunity. Milestones allow the company to focus on the important aspects of the development, while it allows investors to monitor the progress and have some control on their investment.

Investment

Using the goal, activities, milestones and your financial plan, you can now determine the amount of money you need to reach the goal of this investment round and the intermediate milestones. This amount reflects all cost that you require to reach your goal (with some contingencies). Make sure you are not asking for too little money as you will not be able to reach the point of tangible added value, but also do not ask for too much as this will impact your dilution and only provides you with excess cash that you won't need if you've planned correctly.

Besides the financial investment, are there any other investments that you are looking for in order to reach the set goal. Do you have a need for a certain expertise, connections, business development or other forms of support? Depending on the type of other support you might want to look at a specific type of investor. If you require specific connections a strategic investor, or an informal investor with a vast network might be better suited than a loan from the bank. Make sure to look for a 'smart' investment, an investment that matches your requirements and offers more than just plain cash that helps you in other aspects of your development as well.

Now you're ready to formulate your investment opportunity along the lines of: The company is looking to raise X amount of money to reach Y milestone in Z months.

Compensation

While you are looking for the means to reach your set goal, the investor is looking for compensation in the form of equity or interest to make a return on his/her investment, with the exception being subsidies although they usually require compensation in the form of extensive reporting which could be seen as compensation in time. While you do not necessarily want to communicate this information in your business plan (both have pros and cons) it is important to be able to express the type and amount of compensation that you are willing to offer.

In order to know what amount of compensation you want to offer, you need to compare the value of the investment with the value of your company. It is therefore important to determine the value of your company. However, this might also be one of the most intangible exercises for a start-up. There are many ways you can get a grasp of the value of your company, but unless you have clear sales and a clear growth path, the value of the company will be an educated guess. Make sure to try various valuation methods to get an idea of what your company might be worth, and try to support your valuation with research and data. Make sure to know your minimum valuation with which you are still happy, if the deal doesn't feel right you won't be able to put in the effort to make your company a success.

The valuation of your company and the required investment allow you to calculate the compensation that the investor will receive for his investment. This is true for interest and/or conversion rates, but is definitely the case for an equity investment. Adding your valuation and the investment together gives the value of the company following the investment, the equity split is proportionally to these values.

Note: leaving aside your valuation, it's also good to keep in mind that regardless of the amount you are raising, a typical seed round (in high-tech hardware) will be done for 15% to 40% of the shares of your company; software companies usually dilute 10%-25% in the seed round (and get less funds). Usually investors don't want less as their share becomes too small and don't want more as their share becomes too big. This also means that if a reasonable valuation of your company is for example: 4M, then the maximum you can raise in one round will be around 1.5M.

Because the valuation of your company is most likely impossible to determine another approach you can follow is to simply state how much you want to raise at which dilution. E.g. "we aim to raise 1M at a dilution of 25%".

Looking Ahead

It's good to perceive multiple finance/investment rounds where each round leads up to a clearly defined phase of your company's development.

As mentioned a round (investment cycle) typically spans a period of 18 months¹³: 12 months to reach the next milestone and 6 months to raise the next round. Let' s say that you estimated a total required investment of 24M to get your product: developed (800k), tested (200k), running pilots (2M), producing the first non-commercial series (4M), redesign (1M), start of commercial production (6M), scaling up (10M) and finally exit. You have already developed and tested the product and are about to start running pilots (for which you require an investment). So far 1M has gone into the company to get to this stage. Now you could go out there looking for the other 23M investment, first it's highly unlikely that you'll find it and second if you find it... how much is your company currently worth? Let's be positive and assume you can negotiate a pre-money of 4M, that means that the post-money evaluation is 27M which means giving up 85% of your ownership, you have 15% ownership left!

Now let's split this up in investment rounds:

- Pilots: 1.5M to get them up and running and 500k reserve to find funds for the next round (2M round). Let's again assume a pre-money of 4M, then the postmoney valuation is 6M => 2M/6M = 33% dilution of your shares (you have 67% ownership left).
- First production series: 3M to setup production line and create the first 50 products and 1M reserve. Given that your work has added value to the company that means that the company is worth more than the last post-money valuation of 6M, if you've reached your milestone it's not unreasonable to set it to e.g. 10M. So 10M+4M = 14M post-money => 4M/14M = 29% dilution of your shares (you have 48% ownership left).
- Redesign and production: assuming you've once more reached your milestone, then it's not unreasonable to set the pre-money valuation of the company at 20M. This time you are raising 7M; so 20M+7M = 27M post money => 26% dilute (you have 35% left).
- Scaling up: (so you become interesting for an exit): raising 10M at a pre-money valuation of 35M; so 35M + 10M = 45 post-money => 22% dilute; you have 27% of the company left. So by the time you work towards an exit you roughly end up with twice the amount as with which you would have started AND your say in the company remains significant for the entire journey!

Besides this all, it's WAY easier to raise 2M then 23M at the stage where you start.

¹³ Although there will always be exceptions, a VC will expect a finance round to span a period between 12 and 24 months.

The 'other' perspective

So how is the investors analyst looking at your proposal? The analyst looks at the numbers and whether they make sense and comply with the goals of the fund. Let's take the example above and the 2 propositions: 23M through multiple rounds starting at 4M pre money, and 23M in one round, but this time you want to have roughly the same % at the end as the multi rounds route, so you start with a pre money of 8M.

Example 1: multiple rounds

The dilutions are calculated in the paragraph hereabove and are:

Round 1: 2M and 33% dilute; Round 2: 4M and 29% dilute;

Round 3: 7M and 26% dilute and finally

Round 4: 10M and 22% dilute

So the first investor (the one you're currently dealing with) gets 33% of the shares and (if she does not participate in the next 3 rounds) ends up with 6% of the exit proceeds. All formal investors are looking for a multiple they realistically can reach on their investment, often this is 10x for VC, but let's assume a CVC with a multiple goal of 5x in this example. That means: they put in 2M so they want 5x2=10M at exit => [6% x <exit proceeds> = 10M] => [<exit proceeds> = <math>10M/6% = 73M] => in other words: the exit value of the company has to be at least 73M. Is that realistic? Well an exit value could be estimated to 5 x revenue (not an uncommon method), this means that your revenue has to be $73M/5 \approx 15M$. Let's say that the perceived total obtainable market is 150M, that means that after scaling up you have to have 10% of that market, that does not sound unrealistic (IF your obtainable market is properly defined!).

Please note that this is a HUGELY oversimplified example, e.g. I have not taken into account the 'interest' (each year the investor *could* have gotten a certain interest on the investment so it won't be 5x2M but sooner 5x3M after 6 years!).

Example 2: one big round

Let's assume now that you get the 23M at 8M pre-money? That means that the investor ends up with 74% and after the same 6 years wants to end up with 5x her money: so 5x23M=115M. Having 74% that means an exit value of: 115M/74% = 155M in other words your revenue has to be 155M/5 = 31M or 21% of the market...which most likely is not realistic so the advice will be negative.

We can imagine that this part goes over your head when you read this, please don't hesitate to contact us and we'll help you with your case.

Note that in later stage rounds, the risk becomes lower meaning that the expected return on investment will be set lower by the investor as well (so not a multiple of 5x but perhaps 2x).

Funding Strategy

So how this all the above come together? Like this:

Year	Year 1	Voc	ar 2	Vo	ar 3	Year 4	Yeo	. E	V	ear 6
reur	feur 1	rec	JI Z	Tec	ur 5	reur 4	Tec	כוו	10	eur o
Stage	Demo		Pilot(s)		Se	ll 1st 100		Sco	ıle	
Funding Stage	Pre revenue Pre comp. Pre-seed			Com	revenu npetitiv Seed		'	Scale Growth Serie	Phas	
Funding type	Subsidies Informals Convertible n	/		Inform	ubsidies (EU) / formals/ ROM's/ lly stage venture		1	ROM Formal Inves	VC/C	VC
Timing	M 1-12	13-18	M 1-	-12	13-18	M 1-12	13-18	M 1-	12	13-18
FTE	1 - 5 FTI	5 FTE 5 - 10 FTE 10 - 30		10 - 30	FTE	30	- 50+	- FTE		
Funding	500K - 1	М	1	1M - 2M 4M - 8N		М	M 10M - 20		20M	
Valuation	1M		L	4M - 8M 16M - 32!		2M 40M - 80M		вом		
Your share	80%			60%		45%	5% 34%)	
Share value	800K			4M		10M			20M	ı

How to read this picture? From top to bottom:

YEAR	Typically you're expected to paint a picture of the next five years, so this is basically your planning.
STAGE	This can differ wildly but should be the 'tangible added value' we've been talking about.
FUNDING STAGE	Depending on the development stage of your company.
FUNDING TYPE	This correlates with the funding stage that you are in and are typically (but certainly not exclusively) the types of investment you can/should attract.
TIMING	This correlates with the investment cycles we've talked about earlier: 12 months development and 6 months raising capital (during which you will still be developing your company).
FTE	Purely meant as an example (albeit a realistic one) to give you an inclination of the size of your company at that stage.
FUNDING	Typical amount of money you can raise given the phase/stage your company is in.
VALUA- TION	Typical value of your company given the stage you're in.
YOUR SHARE	The number of shares you will typically have given the round you're in.
SHARE VALUE	We've added this for the sole purpose to show you that you should focus more on company value than on the number of shares that you have. This shows the value of the share that you own, e.g. the 45% shares are worth 10 million at that stage. Keep in mind though that until there is an actual exitthat given value remains rather fictitious.

This is an example overview of a typical tech company going through several stages and investment cycles. Note that the stages will differ from case to case, above is just an example, it's possible that your funding strategy looks quite differently. A good example is Nearfield Instruments a deep tech company that is still developing its first machine (so still pre revenue) while already in a series B round.

Exit

In the previous section we've already mentioned the 'exit' and exit value of your company several times. We would like to stress that in order to attract finance (especially with VC's or CVC's) you will need to have an exit strategy. The chances that you're actually going to execute that exit strategy is very small but it's important to at least envision one, this is also a question you might expect from an investor, as in the end they want to sell their share to an exit party. Note that an exit strategy is in most cases a big company buying your company, but there are other possibilities, like an IPO (initial public offering). Next to that it shows an investor that you have a certain trajectory in mind. Maybe there are even multiple exit opportunities for an investor, indicate which is most likely/profitable/etc. Knowing comparable exits could also help you with the valuation of your company. For valuation methods you can have a look at the following web page: https://medium.com/parisoma-blog/valuation-for-start-ups-9-methods-explained-53771c86590e

10. Intellectual Property (IP)

As mentioned previously, most investor will take the technology for granted (when it concerns a spin-off from a renowned institute) but you still need to provide a complete picture, hence:

- · How well protected is your technology (patents, how many)?
- What is your freedom to operate (hostile patents, how many, owned by who, how big a risk)?
- What are (other) barriers to entry exist (next to patents; e.g. expertise, know how, pilots, years of testing, complex software)?

A deeper dive

IP is a very tricky beast to tame and you probably never will. Strictly spoken 'IP' stands for Intellectual Property and thus means any knowledge, know-how, procedure, technology, innovation, etc. that you 'own'. It does NOT stand for 'Patents' which is a common misconception concerning IP, it does however include patents! When talking about protected knowledge the proper term is IPR (Intellectual Property Rights).

Why is it tricky? Because of the many angles you have to cover, here we will shortly describe a few of these angles using the '5W1H' questions: what, why, when, where, who and how!

What

Core to this is to describe your IP, ALL of it and where it is. With 'all' we mean not just the IPR but also the know-how, trade secrets, copyrights, etc.; with 'where' we mean, do you have it documented and who are the inventors and are they embedded in the company (or will they leave as soon as another company makes a big offer?).

How

Next question is: how have you or will you protect your IP, there are many roads, but given that we're most likely talking a 'deep-tech' company, there are only 2:

- Trade secret (like the famous Coca Cola recipe). This is especially the case with software as you cannot protect it (outside of the US) in any meaningful way. But it can also be that your invention is SO ingenious, no one will figure it out for at least a couple of years, giving you a competitive advantage...
- 2. Patent it. For non-IT deep-tech companies this is the usual route. The biggest reason is that usually you will need a huge investment to develop the tech into a sellable product and you have to earn that development investment back. If you haven't protected your IP the competition can copy your finished product and start selling it without all the development costs you put into it.

Why

This is more applicable on your IP roadmap, you start with your MVP and then have a technology roadmap to conquer the world, it's not something for in your business plan but you do have to 'be able to explain why the route you have chosen is the best one.

When

...will you patent it. The common understanding for most people is: as soon as possible as you run the risk that somebody files it sooner! This is true, there is that risk. What nearly no one realises is that next to the risk of filing too late there is an as big a risk in filing too early! To understand this it helps to explain the IP route a bit:

All costs are indicators, they can be slightly less and much more!

Month	Event	Cost k€
0	T=0 is the date of filing the patent, known as your 'priority date'.	10
0 <t<12< td=""><td>Search report (findings of the examiner)</td><td>6</td></t<12<>	Search report (findings of the examiner)	6
12	PCT phase	10
18	Publication of the Patent (its confidential up to this moment)	0
30	National phase	150

The National phase is the real killer, here you have to choose in which countries you file your patent and thus in which countries you have the right to block others in employing commercial activity on that which is written in the patent (cause that's what a patent does). Let's say 10 countries. That is roughly 5K filing and translation costs per country, that's your first 50K. Then the next 12 months you can expect an additional 10K per country for examination costs.

So the lesson here is:

make damn sure that you have your financial forecasts in order **before** you file a patent!

Even if you're a spin-off and your institute files the patent for you, it's still a lesson to keep in mind. Also note that this concerns 1 patent. If you are attracting investors it's expected that you have multiple patents at least around 5 as this will create a protected field (instead of a protected point). Giving more security and overall protection.

Note: A common rule for people who want to either license or sell their IP is to file for a patent the day before you speak with an external party about it. If you're going to use it yourself you could consider this as well, although this really is case dependent.

Where

This is a direct derivative of the 'When' question, after 30 months you enter the national phase, meaning that you have to file the patent in every nation in which you expect to sell your product, at least those nations where you expect a significant demand of your product. As it's roughly 15K per country in costs it's good to choose wisely.

Who

...will file the patent. Usually not a question that's asked, unless you are a spin-off in which case your mother organisation could also file it. If you keep the costs in mind that you will be facing, then it might not be such a terrible idea to only have to pay half of these (which is a common deal) AND not to worry about the administrative tasks that comes with the ownership. Note that investors usually insist on passing on the patents to the company before they invest for the following reasons:

- If the start-up goes bankrupt there will be some intrinsic value left in the company (although this usually is not very high).
- On exit, the buying party will want to have the patents as it does not want to run the risk of additional license fees. This can however be mitigated in other ways, like a lump sum to buy of all (future) fees or an upfront agreement that the patents will be transferred on exit.
- Alignment of all partners, if one of that shareholders has shares and IP licensed
 to the company it can have different interests from the other shareholders
 (prefer focus on turnover instead of over value creation). In case of a research
 organisation that provides a license, this is mitigated as on investment, they
 usually convert to common shares (instead of the preferred shares) and no
 longer have a say in the plans of the company.

To Disclose or Not to Disclose...?

This too is an important part to take into consideration. Depending on your situation you can be confronted with a 'to disclose or not to disclose'. The best advice we can give is: get some (advice) from an expert. Here some (very rough) guidelines and learnings:

If you don't tell anything about your technology you won't find anyone interested. That said:

- If the priority date of you patent is <18 months (that includes T<0) it's not published yet and you should try to negotiate an NDA (non-disclosure agreement) with everyone. Why? If you discover some weak points in your patent and want to withdraw and resubmit it (which sets the priority date to the new filing date) or if you haven't filed it yet: you can only do this if your 'invention' is NOT 'prior art'. That means: 'publicly known'. To put it differently if you have a company which patented a disruptive technology and are about to sell it for say 50M and someone can reasonably prove that you discussed it with them BEFORE the priority date, then you're only way out is showing an NDA concerning that technology signed by that person.</p>
- If you're aiming for a technology exit (that is never produce a product but work the technology up to TRL9 and then sell the company) you have to be careful with what you discuss with interested parties. In the end you have to show them what you've got, but you should only do this if the other party shows commitment. In example through a strong letter of intent or a joint innovation project etc. As long as you don't have any commitment you can show what the technology can do or achieve but you don't show anything 'under the hood'.
- Not in all cases however you have to go into detail of your technology. If you can, keep it on an abstract level: 'our technology involves a new type of...', 'our technology will enable you to...', you can play it safe as well.

Freedom to Operate

Imagine a beautiful open green field where a special plant grows (that can only grow on that location) that you discover and has the interesting property that it can stop aging. The field (which is one square km) is not privately owned. You cannot file for ownership for the entire 1 km2, you can at maximum file for a 10m2 lot. You can file for multiple lots though, but you have to pay for each filing... So initially you file for one lot right at the heart of field where the best plants grow and which is big enough for you to setup a production facility. As soon as your product hits the market you notice that in the course of a few months ALL surrounding lots have been filed by corporates. They build humongous production facilities right at the border of your modest production facility and within a year they figured out to build bridge between their facilities blocking you out from any sky view entirely.

An alternative to this story is that you find the same patch of field but it's already completely surrounded by a lot of corporate buildings.

In the latter story you start out with no 'Freedom to Operate' (FTO), this is something you can validate by doing a patent field research based on your invention. The best is to pay an expert to do this, but it's very expensive and completely redundant if you find out yourself that you don't have any FTO in the field you want to file, so do your homework first!

In the former story you start out with a complete FTO but if you do not create a protective field around your technology, you will soon enough find yourself with no possibility to sell your product as you will be infringing on a neighbouring technology or your neighbours (with very deep pockets) infringe on your technology.

This is the reason that you if you want to become investible you have to build up a patent portfolio that protects a technology field not a technology point. And depending on the stage you're in you don't immediately have to have a complete portfolio, but at least you should have to have a strategy to build it.

Note: keep in mind that the first 18 months the 'field' is still not prior art as it's not published yet. This makes it easier to file neighbouring patents that overlap with your core patent or are based on it. If you file these new patents after 18 months then any claim that rests too strongly on the core patent can be ruled to be prior art rendering it void.

Conclusion

Given the precarious nature of protecting your IP you will have to say something about this in your business plan. It should mention:

- the currently developed IP;
- the parts of this IP already protected (and when these patents were filed);
- other barriers to entry; methods of protection (trade secret, copyright, trademark, etc.);
- the IP strategy of the company; what will you further develop and what will you further protect.

Part 2: Slide Deck

This part concerns itself with the slide deck. The idea behind a slide deck is that you can go through it in 15 minutes without someone talking you through it (so it's NOT a presentation) and afterwards have a good overview of your company and proposition.

As with basically everything that you make for someone else, you should always ask yourself the following questions:

- 1. Who is my target audience?
- 2. What is the message I want to get across?
- 3. What is my goal?

Which in this case are easy to answer:

- 1. People with money who want to invest in start-ups companies.
- 2. A good and positive view of my company.
- 3. Get investment for my company.

Slide Deck vs Pitch Deck

There can be some confusion around these two, moreover as these two terms are commonly mixed up over the interweb.

In a nutshell, both are 'PowerPoint presentations' (or any other presentation type);

A 'Slide Deck' (what this part is about) you give to someone without a voice over aka a 'handout'.

A 'Pitch Deck' you use to support your pitch (so with voice over) aka a 'presentation'.

And in case you're wondering: a 'handout' is NOT a 'presentation'. they are two different things and hence you should never use your 'slide deck' as a 'pitch deck'!

That said, expect the next investor to ask you to 'please send me your pitch deck', with which she thus means: your handout.

Or is it? Let's have a better look:

- 1
- A corporate investment fund isn't primarily in there to make money, it's primarily to generate new business for its mother organisation(s), so your deck should connect to that!
- An Angel investor is someone with money, yes, but also with a
 passionate drive to... what? Be part of the next big hit? Make an impact
 on the world? Get rich(er)? Do some homework there and make the
 connection!
- A formal investor is in it for the money, yes, but they have a focus in what they invest and a focus on when they invest (usually tied to the ticket size).
- Yes, obviously you want to leave a good impression...but how? Again its wholly depends on your target audience, e.g. an Angel who wholeheartedly believes in a better durable world and wants to change it with durable innovations that can truly generate impact...then your story should be centred around that message!
- Yes, obviously you require money to get started and develop your company, but if you're just aiming for that your very short sighted. As the Dutch say about the start-up ecosystem: 'het geld klotst over de plinten' ('the money sloshes over the skirting boards'). You should always aim for more than 'just' money, in this case: money with brains; that is an investor who can add more than just money, cause with money alone you're not going to make it, moreover if you have an investor that does not understand what you are doing, you also have a communication issue right from the start!

The message here is: be picky on whom you want to invest into your company and get to know whom you're pitching to (or sending this deck to) and tailor it to that person/organisation.

The first part of this document is all about how to build a slide deck. This is based on my experience as an investment manager. Next to that I've scoured the interweb for inspiration and during this interesting journey I've come across a lot of interesting things, most notably Alexander Jarvis' view on how NOT to build your slide deck, which I absolutely loved to read and I agree with him wholeheartedly:

https://www.alexanderjarvis.com/2018/02/26/bad-pitch-decks-35-things-not-not-focus/.

When reading the next part you will find his words here as well.

11. Deck Structure

Below you can find suggestions for slides you can use. It's 'suggestions', because the order has to make sense, it has to tell a story and it has to have a good 'flow' (I'm more or less saying the same thing 3 times now). Depending on what you're going to sell you can add or remove slides and/or change the order. The below list gives an overview of what an investor expects.

- title or cover:
- · problem;
- solution or value proposition;
 - why Now (optional, case dependent);
- product/service;
- team:
- market:
- competition;

- business model:
- · traction:
- IP position (or how you protect your unfair advantage);
- financials;
- investment opportunity;
- back slide (slogan, contact details, etc.):
- optionally: appendices.

Although it won't always be possible, try to keep each subject in the above list down to 1 slide and try to keep the amount of text on that one slide limited! Hence you would expect to ideally end up with around 15 slides...right? Wrong!

It completely depends on the intention of the slide deck, the type of business, the circumstances of the company, the investor (type) you're aiming at and which other documents you have prepared. For example you can choose to create a detailed business plan. Then this slide deck should function more as a teaser and 10 slides should be enough to paint a picture. On the other hand you can decide that you want to do the business plan entirely in the form of a slide deck, then perhaps you'll end up with 20 slides. Perhaps a really complex product or business model that requires an extra slide or something really obvious that does not require a slide for a certain topic at all...

So...it completely depends on the circumstances and intent. A general guideline: try to keep the entire deck under 25 slides (including appendices).

Below a couple of things to keep in mind when you're building your deck.

Activate your titles

The slides do not need to be titled 'problem', 'solution', 'traction', etc. The title space can be used/activated: '40 broken hips per day', 'Prevented by the airbag for the waist', 'Of which already first 100 are sold'. Another way of putting this is: if you only put the titles of the deck next to each other it should read the story you want to tell!

Use pictures

A picture says more than a 1000 words. So use pictures! That is: photo of your product, pie chart of the market, line graph for your finance, etc. And if you use charts, make sure they're readable on black and white print! (and readable at all, don't e.g. use small fonts). And definitely don't forget to show your product!

It's your business card

The slide deck is most likely the first thing an investor sees so make sure the first impression they get is 'wow' instead of 'o lord...', so:

- Make it consistent, same fonts, consistent colours, layout, same sized pictures, same overall style. Concerning fonts: make it sufficiently large and keep it professional.
- Make it overall an attractive deck when someone flips through. Give to some
 other people to read or just look at it as well, just to get some insight in how
 people view your deck and what kind of impression it gives.
- Keep the amount of text limited. It should be enough to pique interest and get
 you invited, then you do the talking and in depth explaining. Also keep your
 text light, prevent buzz words unless they're actually applicable and prevent
 technical lingo if possible. This thus mean that you should choose your words
 carefully as in that every word that is not required to convey the message should
 be left out, leaving more emphasis on the message.
- Doing this allows you to leave lots of white space, which will contribute to the overall attractiveness of the deck!
- DO NOT use pixelated images, don't use animations (e.g. gifs), don't use some template blindly (I'm aiming both on investor deck templates you can find on the interweb and on PowerPoint templates to create your deck!).
- Make it a 'general' deck, that is: no dates, no investor names etc. Yes a deck should be tailored to your target, but that kinds of details tend to be overlooked (forgotten by you) and it really looks silly if it contains a name of another investor or 6 months old date.

Show passion

From the deck it should become clear **WHY** you are doing this! Keep in mind that the investor mostly invests in the team and it has to be clear why the team sticks around when the company goes off track (which it will!).

Hook 'm early

When you're watching a presentation you automatically are looking for a hook which helps you getting a grasp of the story told and to put it into (your) perspective. As narrator of the story it's your job to give that hook. The best hook is to start with what you're selling. A simple way can be to start with your solution and product slide and then address the problem it solves, but you can also achieve with a slogan on your first slide: 'we sell air backs to prevent broken hips of the elderly'.

Make sure they actually receive and are able to read your deck

This starts with converting your deck into a PDF and making sure its < 20Mb (so you can properly send it around without having to worry whether it gets bounced by their mail server!

Ask for confirmation of receival in your e-mail when you send it to them. If they don't respond within three day, call them and ask whether they received it. If you do get confirmation, send a follow up e-mail one week later, lightly asking whether they already have had the chance yet to read it and what their thoughts are.

Be honest

Don't ever lie!

As stated before, trust of the investor in your team is key, lying is a big bomb under that trust and you can rest assured that the investor will do its due diligence thoroughly, catching a lie will mean end of deal.

Note that this does not mean that you have to show the back of your tongue on first contact. You are allowed to sell your company with some sugar coating! In later talks with the investors you can get into the more nitty gritty of it and reveal the not so shiny parts, just do not lie about it.

Tell your story

Lastly, and I might have mentioned this 5 times before, but I'm going to tell it to you once more: you (your deck) should tell a story, with a start a middle and an end! People connect to stories not to a seemingly random stream of data. So the emphasis of your deck lies in telling the story and everything you put in your deck supports the story you're telling! I'm repeating this point so many times because it's so important, but also very hard to do! Nonetheless I want this hammered in your skull that you have to tell a story. How? Well, for example:

Slide 1: we've identified problem X in the world, we talked to 50 people in the business and they all offered us money if we can fix this.

Slide 2: So we've created solution Y for this problem, it...

Slide 3: We've identified Z as our launching customer, we've already partnered with them for a pilot.

Slide 4: We're going to sell Y to Z and later to M through a XAAS model....

Slide 5: Next to M we've identified a TAM of....

Slide 6: In order to pull this off we need to...

Slide 7: Which brings us to the require funding to do this...

Got the idea?! Because you make this a story it will be more compelling and easier to remember.

12. Slides Content

Title or Cover Slide

When your slide deck is on someone's desk, this page is what they see. When someone opens a digital version: this is de slide they see first. When someone looks for contact details of that 'awesome company': this is de first slide they'll see. When someone hands over this slide deck to someone else...this is what they first see...

So make it count!

Put an eyecatcher on there, an epic slogan (making clear what you do), your kick-ass logo and unforgettable company name! In short when you see this slide: you want to see what's next!

And don't forget to put your contact details on there as well.

Problem

Especially with technology driven start-ups there's often a technology push behind it, not a pull. Hence it is vital that you can clearly explain **who** has the problem and **what** that problem is. Also explain **how** the (potential) customer **currently** deals with it. It also helps a lot if you can give credibility to your claims ("based on 50+ interviews with the leading companies in this market").

Solution or Value Proposition

You can consider combining this slide with 'Product/Service' but if not then don't go into your product yet.

Name alternative solutions.

Name your solution, show how it differentiates from the alternatives and why this is so much better for the customer. Again: anything giving it credit is very helpful (perhaps a quote?). Emphasize on what's unique.

Product/Service

Photo or picture if there's no physical product yet or screenshots in case of software. Description on how the product works and a list of benefits; not features. As explained in the Deep Dive document: 'this bike has a headlight' is a feature and 'this bike is much safer in the dark' is a benefit! The latter shows the added value for the customer.

Why now

The more obvious the solution is, the more important answering this question is. Show why it was not possible before and show why there is a market now (and not in a couple of years). This can be combined with the product/service slide.

Team

This is the slide where you have to sell yourself and you really have to sell yourself because in this early stage, 'team' is what the investors are actually investing in. For this reason thus make sure it's a team (>1 person) and don't be modest! This slide should show:

- 1. founders and their awesome track record;
- 2. management (and their awesome track record);
- 3. (Board of) Advisors;
- 4. any other important stakeholder you should mention.

Market

Give customer profile. Give the TAM, SAM, SOM (read the deep dive for more info on this). The ideal start-up starts in a niche market with a customer with a BIG pain for which the start-up has the perfect solution. This gives you opportunity to get your product in the market, have a relative patient and forgiving customer (as they really need your product) gives you a foothold and enables you to test the product in real life....

When the niche is served, you have gained trust and credibility in the market and then there is a blue ocean which you can enter.

If you enter the blue ocean unprepared (so from day 1) chances that you will be crushed by some corporate will be big, the investor knows this and hence will be more hesitant and will push on your (go-to market) strategy.

Concerning that Total Available Market, be critical when you define it, if you're going to sell glasses, not everyone with eye problems is your market. Investors WILL do their homework and they WILL pop the balloon.

Competition

Here it's important not to be overconfident; make sure there is competition (no competition = no market) and be respectful to it. List the competitors and list your competitive/unfair advantage(s). In the deep dive several graphic models are discussed, have a look at them and pick one. But by all means use a graphic presentation that fits your case the best!

Business model

Explain how you are going to earn money, and how much. Pricing is a topic here too, where you explain how you derived the current price strategy. This should NOT be 'cost of goods + margin'! It should be based on added value, interviews, benchmarking (to competition), ideally there is something recurring in it, like an Something **as a Service** (XaaS) model. Obviously it should be clear from the market slide, this slide and the next one (traction) that this is a really good investment opportunity!

Traction

As has been mentioned in the Deep Dive: traction is key in both knowing which investor (type) to approach as well as getting invested at all.

If you're already selling, this is the place to tell what (consultancy/pilot/MVP/full product) how many, where (which distribution channels/partner) and to whom (big names help a LOT).

If you have a recurring model (e.g. XaaS as mentioned on the Deep Dive), then you could perhaps also say something of the lifetime value. If you're selling a low volume product you can perhaps say something about the average account size.

IP(R)

This topic can take many forms depending on the type of product that you have and the type of investor that you are looking for. The extremes of the spectrum are:

- 1. 'software' & 'looking for angel investor';
- 2. 'hardware' & 'looking for formal investor'.

In general in the first instance you most likely can leave this slide out of your deck. In the second instance its of vital importance to your deck. A good example of the second instance is Innovation Industries, who are one of the few 'formal hardware investors'. If you do not have any patents they will not invest in you (so as far as I'm aware they have not invested in software). If you only have one patent, they most likely will not invest in you. They know that hardware is 'hard' to get into the market and relatively easy to copy once it is in the market, so a strong IPR position is essential.

Financials

A lot of stuff you can put on the financial slide(s). Presuming that you're in a pre(seed) stage it should contain:

- cash flow graph, 18 months in monthly detail, next 5 years annually;
- cap table;
- a revenue forecast for the next 5 years (annual basis).

Investment Opportunity

Where you tell what you're going to do with the invested money in the given time frame. Typically 18 months. Keep it short and to the point:

- investment opportunity: the amount you want to raise;
- use of proceeds (what are you going to do with the money);
- milestones/goals for the next 18 months;
- total required funds up to break even.

Make sure that after those 18 months you end up with something that shows added value to your company. An investment opportunity should make it evidently clear that the investment leads to value increase and not 'this is how much we need for the next year'. Also make sure it's realistic, you should be ambitious but not overconfident (lack of realistic/common sense)!

Depending on the status of you company you can consider to include: key metrics or performance indicators.

Back Slide

With compelling statement on who you are again and a 'call to action', your contact details, keep in mind that this is de slide which will be on screen when the questions start so it might be that people are looking at it for quite some time, make it interesting!

Appendix

A good story does not get better while reading the epilogue, the same for this deck. If however you absolutely have to include something extra, then make sure you limit it to a maximum of 3 slides. Typical stuff you put there:

- back-up on market data;
- compelling metrics;
- · one or two case studies;
- further screen shots of your product.

Part 3: One Pager

The one pager is the shortest form of your company presentation and this limitation makes it one of the most difficult documents to prepare. Key to making a good one pager is knowing why and what you want to communicate.

The alternative to the one pager is the teaser deck, which is an extraction of a few slides (perhaps slightly edited) of you slide deck. The preference for one or the other differs, teaser is probably less work.

Why

Make sure to know why you want a one pager. It is really hard to convincingly put the right data on only one slide, so know what you want to achieve when you create one. Most likely you make your one pager publicly available to attract investors, or you'll send your one pager to investors to get a first meeting.

This obviously is a very small part. On the next page you can find an example template with a fictitious example company to give you an idea of what a one pager can look like. You can consider adding a picture of your product, most likely making it a 'two pager' which is also ok. The point of this document is: teaser / high level overview. Most investors create a one pager for internal use (e.g. discussion in team), doing this for them again helps speed up the process and gives you a bit of control over what the rest of the investment team gets to see!

"

I didn't have time to write you a short letter, so I wrote you a long one.

- Mark Twain -





XMple B.V.

Version: jan-18

Providing a solution for Corporates to recycle their own produced bio-material waste into energy, reducing costs of waste upto 30%

www.xmple.inc

Product:

Hardware to recycle waste in line

Customers: Corporate food industry

Market Sector : Air & Environment: Recycling and waste

Required Funding: EUR 500k (Seed)

Funding so far: 200k subsidies

TRL: 6 IP: 1 Patent

Status: Machine is lab tested, currently discussing pilot with 3 corporates

Forecast:

Revenue in 06-'18 Product Sales in 12-'19 Break-even in 12-'20

TNO UNIT: Industry

Team: 2.5 FTE

Shareholders: Jan Janssen 35%;

Tim Timmers 35%; TNO 30%

Contact Details: Jan Janssen

06-1234567890 Jan.janssen@tno.nl Anna van Buerenplein

2595 DA Den Haag

Problem: The corporate food processing industry (e.g. Unilever) produces on average 500 kTon of waste per year which costs EUR 5 mIn to dispose. The 3 segments that can profit the most from our solutions are: Bakery, Fruits & Vegetables and Fats & Oils.

Solution: XMple has developed a gasification unit that can process waste in-line during production. The corporate food industry produces on average 500 kTon of waste per year for which it pays EUR 5 mln/year for waste disposal. XMple can reduce the waste production output by 20% while producing EUR 500k/year worth of direct useable energy. This reduces the total costs of waste by 1.5 mln, while at the same time providing the industry with a green label.

Business case: XMple will lease the units to corporates. The final cost for one unit is estimated on EUR 50k. XMple will ask a EUR 60k installation fee up front for placing the units and EUR 10k fixed fee per year on maintenance. Next to that the corporates pays EUR 1500 per 1kT processed waste, amounting up to 5% of the total cost reduction it realizes.

Customer Business case:

Uniqueness, Technology overview, barriers to entry (max. 50 words): Gasification can currently only be done in an isolated unit that processes batches. XMple has patented a method to do this process continuously. This allows it to be placed in-line of the production instead of a separate waste processing unit.

Market size and analysis: Global market is 50.000 kTon of waste production by corporate food industry. With a potential worth of 1.5 bln.

Traction (max. 50 words): We currently are negotiating a pilot at 3 facilities. Use of proceeds, milestones (max. 50 words):

Vision (max. 50 words): We aim to significantly reduce waste world-wide waste production. In 5 years we want to have XMple installed at 10% of all food related corporates. In 10 years we want to be installed in at least half of all the food corporates worldwide.

Traction: We currently are negotiating a pilot at 3 facilities.

Use of proceeds, milestones: With €400k we can build a prototype that can be used in the first pilot. We expect additional costs for implementation but we expect our pilot customer to cover for those costs. The additional 100k will buy us enough time to bridge us to a follow on investment.

Vision: We aim to significantly reduce waste world-wide waste production. In 5 years we want to have XMple installed at 10% of all food related corporates. In 10 years we want to be installed in at least half of all the food corporates worldwide.

Part 4: Due Diligence

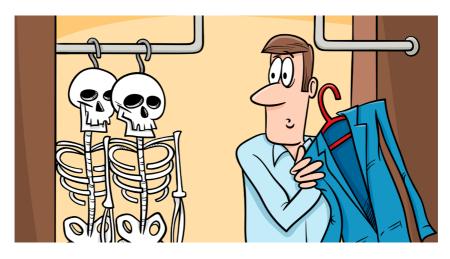
Part of being 'investor ready' is being prepared for the inevitable 'due diligence'. A typical due diligence consists out of 3 parts:

- 1. team and/or management assessment;
- 2. technical assessment;
- 3. company assessment.

These assessments can take many forms and faces and not always all assessments are done in a thorough 'due diligence' method. In case of a full assessment you can expect that the Investor hires a company to do a team assessment, which basically means that you are 'assessed' for a day at some location (doing tests, interviews, roleplay, etc.), where the results of the assessment are accumulated in a report.

Same with a technical assessment, again an external company is hired to do a proper assessment of the technical aspects (does it do what you claim) which again is accumulated in a report. With this technical assessment though it is vital that you insist on a non-disclosure agreement (NDA) up front. To be ready for this assessment it helps a lot if you have proper documentation of your work!

Part 4 is focused on the latter: company assessment. The main reason for an investor to do this part is to not be confronted with this:



The company assessment is also something that an investor usually does themselves (for the main part). The fine line the investor is walking on is doing a 'light' versus 'thorough' due diligence. Obviously they want to be thorough, but 'keeping it light' gives them (some) disclaimer later on: 'we didn't know about that' should anything come up, versus the start-up that can say: 'you have done your DD so we assumed you were aware of this'. In the end though, the investor has the obligation to his homework (DD) properly, as the start-up has the obligation to mention 'skeletons' they are aware off.

Anyway, if you are prepared, this does not only show a certain level of professionality (which builds trust) it also speeds up the DD process! Therefore it is good to already have a data room¹⁴ ready with most documentation that is required for a due diligence. And as you will see from the below list, it helps a lot to start accumulating and sorting the required information at an early stage!

Required Documents for a due diligence

Even though each investor will have its own set of 'required documents' we will give you a reasonably comprehensive list as is drafted by UNIIQ (PoC Investor, active in the region Zuid-Holland) where one of the authors of this document was active and helped drafting this DD checklist. Note that it's likely that a checklist like the one below of UNIIQ will evolve over time and other investors will ask for more/less/other documents and they probably want the documents structured in a different way so be prepared for additional work. That said, if you have the following list prepared, checked and commented you will make a very good impression (and speed up the process)!

Some guidelines:

- Every document (if available) must be final, so no concepts.
- All official documents must be signed and marked/stamped if appropriate.
- As a curtesy you can also place final unsigned versions (which are easier digitally searchable). Alternatively you can also make sure all the scans are OCR-ed (the latter is better).
- Try to get everything in PDF format, including diagrams, pictures, graphs, etc. there will be exceptions so use common sense with this guideline.

¹⁴ A dedicated and secured 'virtual place in the cloud' where you keep all the relevant stuff of your company. Very often Dropbox (et al.) is used, but dedicated services like Virtual Vaults and Ansarada are much more professional.

- Note that the below list has blue marked headers or chapters, create a folder structure based on that and put the relevant documents listed per chapter in that folder (so you will end up with 13 folders). Depending on the number of documents that apply to a certain (sub)topic you can consider creating subfolders.
- Use a fixed naming principle for all documents, for example (please feel free to construct your own) "20190226_IPR_List_V2.pdf".
- Keep track of all the DD documents in one overview and give comments if appropriate. If certain documents are not appropriate or available, explain that in the excel overview. To give you an idea of the type of comments an investor would expect:
 - (@1.1) Note: new version of statutes is expected by the beginning of March as TNO is currently no shareholder but will be by then. Both current statutes and new concept statutes are available in folder.
 - (@1.5) Note: 20190112_Minutes_SH_CONCEPT.pdf is concept as the shareholders have not yet formally approved them.
 - (@4.2) No doc. Not applicable for our company product.
 - (@5.1) Partial doc. Only 2018 is available as the company was founded in that year.
 - (@11.1) No doc. We do not require any permits.
- Make sure that sensitive documents are marked with 'confidential'.

And again: the above are guidelines not laws!

1	General (EN)	Algemeen (NL)	Explanation / Comment
1.1	Current statutes.	Huidige statuten.	As has been mentioned
1.2	Memorandum of association.	Akte van oprichting.	before: all these documents must be final, signed and (if appropri-
1.3	Recent extract from the Chamber of Commerce.	Recent uittreksel van de Kamer van Koophandel.	ate) stamped/ marked.
1.4	Shareholders re- gi-ster and proof of shareholding.	Aandeelhoudersregister en bewijs van aandeelhouder- schap.	
1.5	Minutes of share- holders and su- per-visory directors meetings.	Notulen van aandeel- houders en commissaris- vergaderingen.	
2	Organization (EN)	Organisatie (NL)	Explanation / Comment
2.1	Overview of legal and organizational structure.	Overzicht van juridische en organisatorische structuur.	Organogram/ Organizational chart. Consider, for
2.2	Overview of related parties, including transactions and / or services provided (names, addresses and contracts of all external consultants).	Overzicht van verwante partijen, met inbegrip van verleende transacties en/ of de diensten (namen, adressen en contracten van alle externe adviseurs).	example, the accounting that is done by family members.

3	Market Information (EN)	Markt Informatie (NL)	Explanation / Comment
3.1	Notice of possible resale, agency and (exclusive) marketing arrangements.	Bericht van mogelijke wederverkoop, agentschap en (exclusieve) marketing- regelingen.	Any agreements and or correspondence (fax/mail/ e-mail) on this
3.2	Information about current and possible future lawsuits and requirements, including expected results and size requirements.	Informatie over huidige en mogelijke toekomstige rechtszaken en eisen, met inbegrip van verwachte resultaten en grootte van eisen.	topic! Any reports and or correspondence on this topic.
4	Management		Explanation /
	Information (EN)	Management Informatie (NL)	Comment
4.1	Possible monthly reports of financial and non-financial (KPI's) results.	Eventuele maandrapportages van financiële en niet financiële (KPI's) resultaten.	
4.2	Possible develop- ment number of visitors, conversion, free users, paid users etc.	Eventuele ontwikkeling aantal bezoekers, conversie, gratis gebruikers, betaalde gebruikers etc.	

5	Financial Information (EN)	Financiële Informatie (NL)	Explanation / Comment
5.1	Financial annual reports for the past three years.	Financiële jaarverslagen van de afgelopen drie jaar.	
5.2	Specifications of all general items such as financial, tangible and intangible fixed assets, debtors, credits, financing (needs, bank facilities and debts), reserves and CAPEX.	Specificaties van alle op hoofdlijnen posten zoals financiële, materiële en immateriële vaste activa, debiteuren, crediteuren, financiering (behoeften, bankfaciliteiten en schulden), reserves en CAPEX.	
5.3	Forecasts for the next 2 to 3 years: i. profit and loss account; ii. cash flow Statement.	Prognoses voor de komende 2 a 3 jaar: i. winst – en verliesrekening; ii. cash flow statement.	Excel is pre- ferred in this case over pdf.
6	Results	Resultaten	Explanation / Comment
6.1	Overview of the largest customers.	Overzicht van de grootste klanten.	
6.2	Overview of the largest suppliers (costs).	Overzicht van de grootste leveranciers (kosten).	

7	Taxes and social security / insurance (EN)	Belastingen en sociale pre- mies/verzekeringen (NL)	Explanation / Comment
7.1	The declaration for corporation tax, wage tax, turnover tax and social insurance.	De aangifte voor de ven- nootschapsbelasting, loon- belasting, omzetbelasting en sociale verzekering.	
7.2	Overview with outstanding tax debts and offsetable losses.	Overzicht met uitstaande belastingschulden en compensabele verliezen.	
7.3	Notice of possible disputes with or statements from the tax authorities, including explanations.	Bericht van mogelijke geschillen met of uitsprak- en van de belastin- gautoritei-ten, inclusief toelichting.	
7.4	Notice of other tax matters (e.g. deferred taxes).	Bericht van andere belastingzaken (bijv. voorzieningen voor uit- gestelde belastingen).	

8	Contracts and other obligations (EN)	Contracten en overige verplichtingen (NL)	Explanation / Comment
8.1	Standard sales and warranty conditions.	Standaard verkoop en garantievoorwaarden.	The Investor will mainly look at liability.
8.2	Summary of different agreements with customers and suppliers.	Samenvatting van verschil- lende overeenkomsten met klanten en leveranciers.	
8.3	Details of group agents, represen- tatives, joint ventures and distribution schemes, including remuneration base, time limit for contract, product or geographical coverage.	Details van groepsagenten, vertegenwoordigers, gemeenschappelijke ondernemingen en distributieregelingen, met inbegrip van vergoedingsbasis, termijn van overeenkomst, product of geografische dekking.	
8.4	Possible bonus and / or commission arrangements with customers and suppliers.	Mogelijke bonus en/of commissieregelingen met klanten en leveranciers.	
8.5	Advertisement contracts, sponsor agreements, etc.	Advertentie contracten, sponsorovereenkomsten, enz.	Again: signed docs!
8.6	Rent and lease contracts.	Huur en leasecontracten.	
8.7	License and delivery agreements relating to hardware and software.	Licentie- en leveringsover- eenkomsten met betrekking tot hardware en software. Samenvatting van uitge- geven garanties.	
8.8	Summary of issued guarantees.	Samenvatting van uitgegeven garanties.	This is the inves-
8.9	Any other contract or obligation that is important in the case of intended investment.	Elk ander contract of ver- plichting die van belang is i.h.k.v. voorgenomen investering.	tor preven-ting you from saying: "you didn't ask for that" in a later stage.

9 Intellectual property rights (EN)

Intellectuele eigendomsrechten (NL)

Explanation / Comment

9.1 A list of all:

- (i) trade names;
- (ii) brands;
- (iii) logos and other distinctive means;
- (iv) design rights;
- (v) domain names;(vi) patents;
- (vii) know-how:
- (viii) copyright (including personality rights and portrait rights);
- (ix) other intellectual property rights.
- 9.2 All agreements with third parties in connection with intellectual property rights.
- 9.3 Other documentation that relates to or comes into contact with intellectual property rights.

Een lijst van alle:

- (i) handelsnamen;
- (ii) merken;
- (iii) logos en andere onderscheidende middelen;
- (iv) modelrechten;
- (v) domeinnamen;
- (vi) octrooien;
- (vii) knowhow:
- (viii) auteursrechten (ook persoonlijkheidsrechten en portretrechten);
- (ix) overige intellectuele eigendomsrechten.

Alle overeenkomsten met derden in verband met intellectuele eigendomsrechten.

Overige documentatie dat betrekking heeft op of in aanraking komt met de intellectuele eigendomsrechten. This can be one document listing all these things and stating whether there are or are no such things. In case of anything formal (like e.g. patents) all relevant documentation is also expected (so the patent, the novelty report, etc.).

License agreements and correspondence concerning this.

10	ICT (EN)	ICT (NL)	Comment
10.1	Global description of the computer system, including continuity measures (hardware and software).	Globale beschrijving van het computersysteem, met inbegrip van continuïte- itsmaatregelen (hardware en software).	Do you, for example use a cloud service. Is an ICT product developed in a very specific language?
10.2	Overview of any and all data that you collect of (end)users and documentation concerning this data collection stating that you are GDPR compliant.	Overzicht van alle gegevens die verzameld zijn/worden van/over (eind) gebruikers en documentatie hierover waaruit blijkt dat het bedrijf voldoet aan de AVG.	For example if you are collecting data from (end) users, how are you handling this data and do you have permission?
11	Permits, insurance, etc. (EN)	Vergunningen, verzekering, etc. (NL)	Explanation / Comment
11.1	Copies of all permits.	Kopieën van alle vergunningen.	
11.2	Information about possible infringe-ments.	Gegevens over eventuele inbreuken.	
11.3	Overview of all insurance policies.	Overzicht van alle verzekeringen.	
11.4	Overview of insurance claims submitted.	Overzicht van ingediende verzekeringsclaims.	
11.5	Data on subsidies or other forms of government support.	Gegevens over subsidies of andere vormen van overheidssteun.	

Explanation /

12 Human Reso	ources (EN)	Human Resources (NL)	Explanation / Comment
12.1 Overview FT employmen type, salary other agree	t, contract , bonus,	Overzicht FTE's (wanneer gestart, soort contract, salaris, bonus, andere afspraken).	
12.2 Overview of lancers / oth external em (when start additional agreements	ner iployees ed, rate,	Overzicht freelancers / andere externe medewer- kers (wanneer gestart, tarief, aanvullende afspraken).	
12.3 All contract: FTEs and fre lancers.		Alle contracten met FTE's en freelancers.	Including relevant correspondence where further (details of) agreements are mentioned.
13 Other info	ormation	Overige Informatie	Explanation / Comment
13.1 Any other tion that codirectly or important proposed to or that codirection influence to decision in the parties proposed transaction	ould be indirectly to the transaction uld the naking of s in the	Elke andere informatie die direct of indirect belangrijk zou kunnen zijn voor de voorgestelde transactie of die de besluitvorming van de partijen in de voorgestelde transactie kon beïnvloeden.	This is the second fall back for the investor to prevent you from saying "you didn't ask" in a later stage. The more thorough and open you are, the less risk you run later on that the investor will default you in the event when things turn sour.

Closing remarks

Communication and writing

This section should be redundant but alas we've encountered too many occasions where these remarks weren't a luxury at all...

We're mainly talking about investors in this document, but these closing remarks apply to all external parties with which you communicate:

When you communicate in writing always be professional. With that we mean:

- Check your grammar and spelling.
- Check your layout consistency (especially in word).
- Check for write style consistency throughout your document; also perspective (I, We, The Company).
- Check for repetitive word use.
- Use active writing style. So not:
 - 'Technology development is being done by John Smith'

but

'John Smith does the technology development'

NOT

'The milestone will be reached by September 2019'

but

- 'We will reach the milestone by September 2019'.
- Use a normal readable font, most used are: Times New Roman (bit old fashioned) and Arial. Other fonts can be used, as long as they're similar to those two, like e.g.: Calibri (used in this doc.). DO NOT USE Comic Sans, or any other 'handwritten like font'. You might want to distinguish yourself and you are but not in a positive way. Depending on the font used, go for size 10-12.
- Quantify your statements, so NOT:

'Large part of the market' but '20% of the market' NOT

'Much better performance than the best competitor' But '50% more efficient than the best competitor'.

The Golden Rule for e-mail

When you write an e-mail ALWAYS assume that this e-mail ends up in the wrong inhox.

This is the case for confidential material but also for personal e-mails especially when you talk (negatively) about another person or entity.

This does not mean that you cannot speak negatively about another person or entity in an e-mail, this means that if you do so: always do this in a professional tone!

Rule of Three

When you want to get a message across a story told and want to have it carry some power and make it stick: use the rule of three. Whenever you want to make a point, give an example of why something is good or why you do what you do the way you do it, give an answer to a question: try to structure it in 3 short points, this especially applies to the slide deck where there too you should try to limit each slide to 3 bullet point per slide. "Why would I buy your product": "Because its' better, cheaper and greener. It's 5x more efficient than anything currently out there, it will earn itself back within 2 years and it contributes to the CO2 reduction!".

The reason for this is that the human brain is hardwired for that specific number, we literally apply it anywhere we can, e.g.:

- ALL degrees of comparison (good-better-best, fast-faster-fastest, hot-warm-cold; high-medium-low, etc.);
- in literature: 'The three musketeers', 'A Christmas carol (the 3 ghosts)', 'The Three Kings (Biblical)';
- in powerful statements: 'Veni, Vidi, Vici!' (attributed to Julius Ceasar).

If you like to know more about this we would suggest you google: 'the power of three' and have a read. Point here is: know it, understand it and use it!

Other tips concerning your business plan

- Put contact details on the first page.Put the name of your company and the date
 of creation in the filename, e.g.: 'My_Example_B.V._2019_10_10' (this makes it
 easier to keep track of versions). In addition, it does not hurt to add a version
 number on the front page, usual format is YYYY_MM_DD_Rn (or YYMMDD_Rn)
 where 'n' is the always increasing version (release) number.
- Send the document as pdf (and check it for consistency after you have converted it into pdf).
- A business plan should be 10-20 pages, this means that it should be no longer than 10 pages and every additional page should have a VERY specific and well considered reason to be there, beyond that your plan should not exceed 20 pages. Actually, EVERY part you write should be well considered and you should ask yourself 'is it useful to the Investor to have this information here in this document?' You can add appendices in addition to these 10-20 pages if you feel a strong need to add additional information, but here too: keep it limited.
- Limiting yourself to 10 pages does NOT mean you have to pack your text and drop all images. On the contrary: use images so you need less words to explain and keep your text 'airy', Have a look at this document to see what we mean.
- Don't add a content page (as it's only 10 pages).
- Keep the text structure limited to max 3 levels; usually: chapter and sections
 and you can use bold to emphasize parts of the sections. Also, you can number
 your chapters, but don't number the sections, it's not a legal document you're
 sending.

The Human Factor

Nearly any investor will nod with the saying: 'rather a bad plan with a good (wo) man than a good plan with a bad (wo)man'. Having both in order is obviously better. Having the plan in order is what this entire document is about. Follow it, make sensible and logical choices and be concise in writing them down. Having the (wo) man in order is roughly described in the team section. The investor expects to deal with the CEO but also expects to get to know the team. Concerning the CEO of the startup, all investors will ask themselves three questions:

- 1. Can I trust her?
- 2. Can she sell it?
- 3. Can I work with her (/them)?

- Implies that you show integrity and professionality. If an investor finds out at ANY time that you have not acted truthfully and transparently they will not invest.
- Implies that you can give a 'damn good and convincing' sales-pitch, that you can easily and deftly deal with critical and difficult questions and that you have 'a plan'.
- Boils down to the professionality of you and your team. Do you have everything in order? Are you on time with, for example, preparations for a shareholders meeting? Do you have a proper agenda, minutes and documentation? Are you pro-active or re-active? How fast do you respond and how well do you respond? How structured do the negotiations go? Does the process go forward or keep falling back on old issues or newly found issues in documentations that have already been discussed? Etc.

These are all factors on which you can work as a team, but should be shown as one face of the CEO.

A Numbers Game

One thing to realise when visiting investors is that it's a numbers game. An average formal investor in the Netherlands on an annual basis: sees roughly 400 cases each year, speaks to a 100 of those, invites 20 to tell their story, gives a term sheet to 5 and invests in 2 companies¹⁵. Because they get so many requests their initial state of mind will be: 'how can I say no'. Hence they will look for holes in your proposal. This means that you will need to get into touch with many investors to get the numbers in your favour. You will also have to deal with a lot of 'no', but keep in mind: you only need one 'yes'.

How else can you turn this around? Having a top-notch team, specifically having a successful serial entrepreneur on board. If you lack that, then at least show profound expertise in the area you are setting up your company. And not only the technology but also the market, stakeholder, IP field, customers...in short: know all the numbers, arguments and reasoning behind your business pan!

¹⁵ As the Americans say: YMMV, each investor has a different strategy, some more easily give of a term sheet and decide 'no' later, while with others handing over a term sheet means you've as good as closed the deal. The great common demeanor is: 1 out of 100 (sometimes up to 400) companies they see, get an investment from them.

The Other Way Round

Although the 'numbers game' gives you the impression that you are in a disposition, please realise that you're not the only one! We've both worn the shoes of investors and its insane hard work to get good deal flow. Good companies with a good fit with

the fund are hard to find. This means that the investor is also in a disposition, if they find a good investment they don't want to lose it! Keep in mind that if an investor only does 2 deals per year and you're potentially one those two, they lose HALF their deals FOR AN ENTIRE YEAR! Let that sink in.

For this reason you are also entitled to know more about them:

- What are the last two investments you did last year?
- · What does your investment procedure look like?
- · How long does it typically take?
- What are typical red flags you look for in an investment?
- What makes you stand out from the other investors?
- Who are your limited partners?
- · How many deals do you do each year?
- How many have you done this year?
- What does your ideal investment/company look like?

Etcetera.

7.5

Good luck
is when
opportunity
meets
preparation,
while bad luck
is when lack
of preparation
meets reality

- Eliyahu Goldratt In short: show interest in the investor as well! This not only helps you form a good picture of who you take on board of your company, which you should as you enter a marriage with them, it shows the investor you mean business, you are interested in them as well (and not only the money), you have determining factors as well to choose an investor.

This of course means you should also do your homework and have counter answers prepared (what are your red flags for an investor?, what does your ideal investment/investor look like?).

The bottom line of this is that attracting an investor is a marriage and you should (thoroughly) get to know each other before you actually marry!

Good luck!

And should you still fail, just keep in mind that although your successes lift you up, it's your failures that build your foundation!

Appendices

I. Be Prepared

This section focusses on the stuff that's not part of your slide deck but IS something you should investigate and prepare for as it will be inevitably be a subject on the table in a later stage in the discussion with investors: risk.

Risk Assessment

One thing that is essential in your discussion with an investor is that you are always in control or at least as much in control as possible. This means that you should know what they are going to ask and you should have prepared a satisfiable answer. It's possible that you don't know the answer, but at least you should know the question and think of a mitigating answer to keep in control of the conversation. E.g. "we've looked at the bigger picture (name some reports), where we've seen ... and although not specific to our situation we've concluded that in our case this most likely is a minor risk, hence we've put a lower priority to investigating this and have yet to get to that part. However closely related to this topic we identified risk x which we've given a higher priority, our findings with that are...".

Targeting risks is basically Part 1: Business Plan all over, but looked at from the other side. When you investigate your business plan you look at opportunity: who are my customers, what is my added value, how big is the market, how much finance do I require. When targeting risks you have the same topics but: 'how do I know my perceived customers are actually going to pay, under what circumstances won't they pay, or later, or...'; 'is my perceived added value correct? Why isn't it much smaller, what if it is?', 'do I target the right market? How do I know? What do I do if it isn't?', 'did I ask for the right amount of finance? What do I do if I have a financial set back? Wat are the chances for this? How do I mitigate?'.

It's good to really think this through and not limit you to a pre-set list (which we will give you here). The below list was originally constructed by Marc Andreessen¹⁶ and gives a nice overview of the different risk you need to address. We've added or reformulated most questions though to an up-to-date version.

¹⁶ http://pmarchive.com/guide_to_startups_part2.html

Founder risk

- Does the founders team cover all required skills for the stage that they're in?
- Does the founders team cover all required skill for the next stage of the company?
- Are the founders willing to take a step back in a later stage if their skill are not suitable (enough)?

Note that the 'impact' of these risks is high! The chance of occurring or its relevance though is up to you.

Value risk

Have you identified and ascertain the actual added value that your product has?

Market risk

- Is the market big enough?
- Can you build up a position in a protective environment (niche)?
- Do you have access to a blue ocean? Or is it red already?
- How soon will it be red?

Competition risk

- · How many other start-ups are already doing this?
- Is your differentiator big enough (towards both start-ups and existing companies)?
- How easy is your product to copy?

Timing risk

• Is it too early? Is it too late?

Financing risk

- How many rounds are required before exit?
- · How much money are talking about in total?
- Can you identify potential VC that can fill those rounds?

Marketing risk

- Will this start-up be able to cut through the noise?
- How much will marketing cost?
- Do the economics of customer acquisition the cost to acquire a customer and the revenue that customer will generate – work?

Distribution risk

- Are you dependent on one or more key distribution partners?
- Will you be able to get access to them?
- How?
- Why would they want to do business with you?
- Does your product potentially cannibalize one or more of their existing products?

Note: this is a biggie! If your product will really be dependent on a distribution partner, make sure you have them at the table at an early stage. If your product potentially cannibalizes on their current portfolio then you really have to make it worth their while else why would they put in the effort and take the risk? Another thing to keep in mind is that distribution margin can easily be as high as 50%! That means that your cost price + margin will be doubled before they end up at the customer! Is your added value still worth that price?

Technology & Product risk

This basically is the reason that nearly no VC will ever invest in a pre-seed stage as this risk is the most fundamental:

Can the product be built (by your team)?

As soon as there's a paying customer these risks are gone. Note that after you build it there's the next risk in this category which is:

Can the production of the product be scaled up?

Hiring risk

- Can you find the people that are required to execute the plan?
- How can ascertain that these people stay in the company (and not go working for a corporate for a higher pay-check, using your company as a stepping stone)?
 Location risk
- Are you close enough to a location where you can find the people to hire?
- Are you close enough to your suppliers? Especially if custom parts are required?
- Are you close enough to your customers? Especially if a certain kind of service is required?

How to map out risks

This can be best done in a matrix with the following headers: **Risk**, **Chance**, **Impact** and **Mitigation**.

Risk: the topics described above.

Chance: chance that this will actually occur, use descriptive terms, like: low, medium high and don't use % as you cannot know it so specific.

Impact: should the risk occur, how high is the impact? Again low, medium high.

Mitigation: how are you going to manage the risk. Should the risk occur, what are you going to do to fix it.

Key Performance Indicators (KPI's)

This is a more advanced part that is initially not of high importance (pre-seed stage) but will be vital once you hit series A (growth stage). Given that this booklet is mostly meant for teams in the pre-seed stage the relevance is low. Still it's good to be aware of KPI's that are relevant for start-ups so you can ascertain that your company is prepared for the day that they are vital and not that you discover one day that you should have been tracking X for a while now.

KPI's can wildly vary depending on the type of business you're entering. So here we will just cover the basics. Note that there are two KPI's of relevance to every start-up at least until you actually turn a profit and those are: your burn rate and your cash runway.

Employee KPIs

- How engaged is your team; showing up on time, leaving late, working weekends, be happy, pro-active?
- How well is the retention; are people leaving, why?
- How healthy is everyone; what is the sick leave %?

Customer KPIs

- How big is the customer retention/churn?
- Customer referrals; what % of your customers want to make referrals; what % of those referrals is successful?
- Customer Acquisition Cost (CAC); What does it cost you to acquire a customer?
- Close Ratio; what % of all (potential) customers you are/have been in contact, actually bought the product?
- Close Cycle; how long does it take from initial contact to sales?
- Total Contract Value (TCV); what is the value of one contract?
- Lifetime Value (LTV); what is the total estimated value/income you get from one customer?
- Pipeline; how many potential customers are you actively engaged with?

Process KPIs

- Mean Time to Failure (MTTF); how long does your product run without failure?
 Mean Time to Recover/Repair (MTTR); how long does it take you to repair the product when it fails?
- Mean Time Between Failures (MTBF); basically MTTF + MTTR.
- On-time Delivery; what % of your deliveries are on time?
- A/R Days; how much time does it take between closing a sale and receiving all payment?

Financial KPIs

- Capital Expenses (CAPEX); money (to) spent on fixed assets, usually one time spent.
- Operational Expenses (OPEX); money spent on running your operations, usually recurring expenditure.
- Margin.
- Profit.
- Monthly/Annual Recurring Revenue (M/ARR).
- Month on Month Growth (MoM); % sales increase per month.
- Burn Rate; monthly rate at which you are spending money.
- Cash Runway; total amount of money you have divided by your burn rate.

Note that this is quite a number of different KPI's. Our general advice is to pick 2 or 3 per management team member (the ones that make the most sense or best reflect the critical path you are walking) and have regular meetings focussed on those KPI's, that will be challenge enough.

II. Acceptable Terms

One of the tough things to go through during an investment round will be the 'Term Sheet' that you receive from the investor. The Term Sheet will lay the foundation of the final deal that will be made it will be riddled with legal terms like 'tag along' and 'drag along' and most likely sound very outlandish and in some cases probably also outrageous. Based on our experience we've developed a single A4 with an outline of terms that are generally acceptable. When you're getting close to making a deal an investor will propose a term sheet on which negotiations can start. One thing that you can do is ask us for that A4, it also contains an TNO logo and send that to the investor before you receive the term sheet stating that you would like for them to take that sheet into consideration as its deemed acceptable from the perspective of TNO.

On the next pages you'll see what this concerns.

Don't get hung up on this however, you can expect investors to deviate from this probably both for better and worse. The terms will also be highly dependent on the risk profile and potential your company has.

During this period its always wise to consult for external, independent advice.

When you've come to an agreement over the Term Sheet you're expected to sign it at which time you will be dealing with the committee investor exclusively!

During that period the due diligence (DD) will start and depending on what the investor finds the terms could still change. If no (really) unexpected things pop up during the DD you will move to the actual contract you will sign with the investor in which the terms of the term sheet will be incorporated.

Acceptable terms and conditions of investment rounds in spin off-companies of TNO

This document is a guidance to investors with regard to their considerations to invest in a spin off-company ("Company") of TNO Tech Transfer Holding B.V. ("TNO"). This document summarises in general the terms and conditions acceptable to TNO. Investors should take these terms and conditions in account in drafting any proposal for investment in a Company.

Deal structuring

- Type of security. Either equity (common shares or preferred shares) or debtbased securities (convertible loans or subordinated loans). A combination of equity and debt-based securities is not preferred.
- Share conversion. 1:1 conversion ratio to common shares.
- Loan conversion. Conversion is based on valuation of next investment round (with a limited discount), a minimal conversion valuation is specified.
- Liquidation preference. Non-participating liquidation preference with conversion rights at the option of the investor in the event of a liquidation event.
- Anti-dilution. No anti-dilution protection in the event of issue of new shares.
- Costs and fees. Only out of pocket costs related to the investment shall be paid by the Company, a predetermined cap might be determined
- Limited warranties by Company. The company shall only provide representation and/or warranties to the investors with regard to: (a) valid share issuances and (b) assurances of full disclosure and accuracy of provided information.
- **No warranties by TNO**. TNO shall not provide any representation and/or warranty to the investor and shall not accept any obligation to buy the shares issued to the investors or provided funding for any exit of the investors.

Governance

- Management Board. TNO does not require to nominate or appoint a member of the management board and does not require any veto rights with regard to appointment or dismissal of board members.
- **Supervisory Board**. In case of a supervisory board of the Company, TNO does not require to nominate or appoint a member of that board.
- Advisory Board. In case of an advisory board to the management of the Company, TNO prefers to nominate one member of that board.
- General meeting of shareholders. To protect its minority equity interest in the Company and its status as member of a group to which applies public law standards, TNO requires its consent with regard to a limited number of decisions of the general meeting of shareholders:
 - exclusion or restriction of pre-emptive rights with regard to the issuance of shares in the Company;
 - reduction of the issued share capital of the Company by cancellation of shares or by decrease of the nominal value of the shares;
 - approval in the event of issuance of new shares at a valuation below the last investment round; (assessment based on: protection of the capital interest of TNO at a down round);
 - entering into any merger (juridische fusie) or demerger (juridische splitsing);
 - approval of decision of management board for the transfer or sale of all or substantially part of the assets of the Company;

- approval of decision of management board for adopting (amendments to) business plan (assessment based on: policy of TNO with regard to Export Control and Customer Acceptance);
- approval of transfer of shares to third parties or another exit event (assessment based on: policy of TNO with regard to Export Control and Customer Acceptance).

Share capital

Tag along. TNO has the opportunity to co-sale its shares in the Company in the
event the investor sells its shares on a pro rata basis and on equal terms and
conditions.

Business

- **Dividends.** No distribution of profits available for distribution until the fourth anniversary of the investment of the investor or (if earlier) until the next investment round. Non-cumulative dividends are preferred.
- **Funding**. No obligation of TNO to provide any financing or in-kind contribution to the Company.
- **Compliance**. Yearly statement of management board with regard to compliance by the Company.

III. Bussiness Plan Checklist

Whenever we receive slide deck from one of our companies to review, we always grab our checklist so we're sure we don't forget anything. That checklist is based on the content of this book so you will recognize the topics. Given that we use this so often we presumed that it would be a nice addition to this book as a quick reference.

Business plan feedback

Dusiness pla		
		Razor-sharp focus in both plan and product development
General		(if possible) start with B2B not B2C
		Start in a niche market with HUGE pain, while showing a huge potential blue ocean market
)	
		Company name
		One line that explains what you're business is
F1 . D		Contact details
First Page		Appealing layout that invites further reading
		No date
)	
		Clear 'this is the problem' statement that can be summarized in one line
		Clear identifiable pain with target customer (who has the problem)
Problem		If possible: visualize
		Proper validation numbers (e.g. number of interviews and sense of urgency: tier 3?)
)	
		How are you addressing the problem?
Solution		Preferably use one or more images/photos of the product
)	

Who form the current team and how they currently committed? What expertise are you missing to get the solution to the market? When is all required expertise committed and what is required to get that commitment? How will the team develop in the future? Who has which responsibility?
How are you going to make money; what is your revenue model? What does the value chain look like in which your company acts? What does your value proposition look like (e.g. business model for the customer)? How are you going to scale?
What is the total available market (TAM)? Of this market, which part is serviceable by your solution (SAM)? Of that market, which part is realistically accessible to you (SOM) (Bottom up approach)? What does the product roadmap look like? What are the current market trends(can you show significant growth)?
How is the problem currently solved? Why is your solution better than the existing solutions? Who currently solves the problem? What are the issues of the current solution? If there isn't a (direct) solution yet: why not? Are there any substitutes, if so: are they applied to your problem, if not: why not? Use position map.

	What is the highest level of market interest that you
	(quantifiably) can show?
Traction	Why now? (Why not 10 years ago? Why not 5 year from now?)
Iraction	What is your go-to market strategy?
	Time to your go to mande on alogy!
)
	3-5 years forecast: revenue, cash flow, units (show
	when you are breakeven). Monthly cash flow statement for first year, show
Financials	cumulative cash flow.
)
	How much money do you require for this phase?
	What are you going to achieve with the money,
	identifiable (company value adding) milestones?
Investment	What's the investment opportunity: value of the company, shares, conditions to invest)?
Opportunity	· ·
	Who are potential exit candidates?
)
	How well protected is your technology (patents, how many)?
	What is your freedom to operate (hostile patents, how many, owned by who, how big a risk)?
Intellectual Property (IP)	What TRL level is your solution currently?
	What are barriers to entry exist (next to patents; e.g. expertise, know how, pilots, testing, complex software)?
)
	Correct grammar and spelling
	Consistent layout
	Consistent writing style; in example: perspective
	(I, We, The Company)
	No repetitive word use
Content	Active writing style (DO: 'she does'; DO NOT: 'is being done')
	Normal readable font
	Quantified statements: '20% of market' vs. 'large part of the market'
	Where ever possible mention both # and €

		'confidential' on each page
Content		No sensitive technical information Name of your company in the filename (optionally: version number; no date!); Length: business plan should be 10-20 pages + 0-10 pages appendices
		Use of images; no packed texts: 'airy' layout No content page (as it's only 10 pages) Max 3 levels of structure (chapter, topic, bold)
)	

IV. Readiness Levels

Pure for reference here three commonly used 'readiness levels' to use in your communication.

Technology Readiness Level (TRL)

By far the most commonly used readiness levels amongst high tech startups. TRL is used as a method of assessing the maturity of a technology being developed:

Level	Title	Description
TRL 0	IDEA	An idea
TRL 1	BASIC RESEARCH	Basic principles observed
TRL 2	CONCEPT	Technology concept formulated
TRL 3	PROOF OF CONCEPT	Experimental proof of concept
TRL 4	VALIDATE IN LAB	Technology validated in lab
TRL 5	VALIDATED ENVIRONMENT	Technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies)
TRL 6	DEMONSTRATION	Technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies)
TRL 7	OPERATIONAL SYSTEM	System prototype demonstration in operational environment
TRL 8	COMMERCIAL SYSTEM	System complete and qualified
TRL 9	FULL COMMERICAL	Actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space

Business Readiness Level (BRL)

This one is less common but occasionally used. BRL is used to assess the commercial readiness of a technology offering:

Level	Title	Description
BRL 1	INITIAL CONCEPT	The first idea of a venture or an innovation
BRL 2	PROBLEM-SOLUTION FIT	The problem has been identified and the proposed solution will address it
BRL 3	BUILD TEAM AND PLAN	The skills required are known and a team is formed
BRL 4	CUSTOMER DEFINITION	Customer segment is known and well defined, including customer characteristics
BRL 5	HYPOTHESIS TESTING	Having a list of hypotheses which can be tested
BRL 6	MINIMUM VIABLE PRODUCT	Business Readiness Level 6 can be characterized as: Having released an MVP
BRL 7	FEEDBACK LOOP	The feedback loop of features which are developed alongside early adopters and customers
BRL 8	SCALE	A product or service has been developed beyond an MVP stage
BRL 9	FULLY EMBEDDED IN MARKET	A business model or venture that is fully embedded in a market (or many markets)

And yes, there is another MRL, same abbreviation, completely different. Note there are different versions of these, this set is based on existing set(s) adjusted for the type of companies and situation we work with.

Manufacturing Readiness Level (MRL)

It's rather unlikely that this will be referred to if you are in an early stage, but still its good to know this exists as among later stage startups this is more commonly used:

Level	Title	Description
MRL 1	BASIC IMPLICATIONS	Basic manufacturing implications identified
MRL 2	CONCEPT	Manufacturing concepts identified
MRL 3	PROOF OF CONCEPT	Manufacturing proof of concept developed
MRL 4	LAB PRODUCTION	Capability to produce the technology in a laboratory environment
MRL 5	PROTOTYPE COMPONENTS	Capability to produce prototype components in a production relevant environment
MRL 6	PROTOTYPE SYSTEM PRODUCT	Capability to produce a prototype system or subsystem in a production relevant environment
MRL 8	PILOT LINE	Pilot line capability demonstrated; ready to begin low rate initial production
MRL 9	LOW RATE PRODUCTION	Low rate production demonstrated; capability in place to begin full rate production
MRL 10	FULL RATE PRODUCTION	Full rate production demonstrated and lean production practices in place

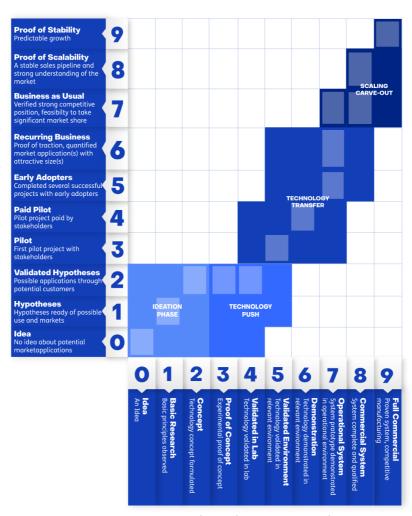
More information concerning MRL you can find here: https://en.wikipedia.org/wiki/Manufacturing_readiness_level

Market Readiness Levels (MRL)

It's rather unlikely that this will be referred to if you are in an early stage, but still its good to know this exists as among later stage startups this is more commonly used:

Level	Title	Description
MRL 0	IDEA	No idea about potential market applications
MRL 1	HYPOTHESES	Hypothesis ready of possible use and markets
MRL 2	VALIDATED HYPOTHESES	Possible applications through potential customers
MRL 3	PILOT	First pilot project with stakeholders
MRL 4	PAID PILOT	Pilot project paid by stakeholders
MRL 5	EARLY ADOPTERS	Completed several successful projects with early adopters
MRL 6	RECURRING BUSINESS	Proof of traction, quantified market application(s) with attractive size(s)
MRL 7	BUSINESS AS USUAL	Verified strong competitive position, feasibility to take significant market share
MRL 8	PROOF OF SCALABILITY	A stable sales pipeline and strong understanding of the market
MRL 9	PROOF OF STABILITY	Predictable growth

Within TNO we've created a workshop focused on the required steps to technology to the market. The below picture is an accumulation of this workshop, it shows the ideal path you can walk in terms of TRL and MRL combined. For example if you've reached MRL 2 and TRL 2, then the logical next step is to first work on TRL 3 and 4 before you start working on MRL 4.



Which TRL is your product/service?

This book is created for people who want to start their first (high tech) business and who want to prepare themselves and their business for engaging with investors.

The content of this book consists out of 4 parts, covering different aspects you need to cover in order to get ready to present your business to the investors:

- 1. the 'Business plan'
- 2. the 'Slide Deck'
- 3. the 'Teaser' or 'One Pager'
- 4. the 'Due Diligence Preperation'

Of all those topics we cover the basics and provide you with links to source material to dive in deeper. This should give you enough support to get started!

We hope you enjoy reading this book as much as we enjoyed writing it!

Rolph Segers & Stefan van der Ploeg

www.tno.nl