

Appealing Idea

Motivation: Without an idea there is no business for your startup. Business ideas are based on problems or needs. Existing businesses execute business models, startups look for them.

What to do: Choose a problem or need you wish to address. Plan a potential solution to tackle it. If you do not already have an idea, start thinking about problems you personally face, or a need that you have that no current product can address. For additional inspiration, you may wish to look at new, emerging technologies, demographic or societal shifts, or simply watch other people online or offline.

Common mistakes: Falling in love with your idea and becoming unwilling to change it later on. Being afraid to share your own ideas.

Sources: [1] Alvarez, S. A., and Barney, J. B. (2007). *Discovery and creation: alternative theories of entrepreneurial action*. *Strategic Entrepreneurship Journal*, 1(1-2), 11-26.

[2] Blank, S. (2013). *Four Steps to Epiphany*. K&S Ranch.

[3] Ries, E. (2011). *The Lean Startup - How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Crown Publishing.

Minimum Viable Product in One Day

Motivation: The idea of a Minimum Viable Product (MVP) is to launch your product as early as possible in order to further validate and improve your business idea.

What to do: Plan out an MVP for your startup idea and build it. A simple early MVP can e.g. be an ad on Google, a landing page, or a mock-up software application. Carry it out in a day. An MVP is not strictly about users being able to use it in practice. An MVP can also be something that convinces potential future users to pre-order your solution or to at least track your startup's progress through e.g. an email list.

Common mistakes: Defining your MVP to be an almost finished solution. Forgoing an MVP altogether while working on a supposedly definitive solution.

Sources: [1] Nguyen-Duc, A., and Abrahamsson, P. *Minimum Viable Product or Multiple Facet Product? The Role of MVP in Software Startups*. In: Sharp H., Hall T. (eds) *Agile Processes, in Software Engineering, and Extreme Programming*. XP 2016. *Lecture Notes in Business Information Processing*, vol 251. Springer, Cham

[2] Lanrduzzi, V., and Taibi, D. (2016). *MVP Explained: A Systematic Mapping Study on the Definitions of Minimal Viable Product*. In *Proceedings of the 2016 42th Euromicro Conference on Software Engineering and Advanced Applications (SEEA)*.

[3] Blank, S. (2013). *Four Steps to Epiphany*. K&S Ranch.

Validating the Appealing Idea

Motivation: Before building a solution, it is crucial to ensure that the problem or need your startup is trying to address with it is real. Without a market there is no business.

What to do: Validate the existence of the problem by collecting data. Based on the data you gather, change or improve your idea as needed.

The most straight-forward way to do validate your idea is to ask people directly (e.g. interviews, surveys). When pitching your startup idea very early on, you can also simply ask if anyone in the audience has faced the problem you plan on tackling. Additionally, you may use other, less direct ways of validation such as searching the Internet for data supporting the existence of the problem.

Common mistakes: Not validating whether people would actually pay to have the problem solved. Asking biased or leading questions while validating the idea. Insufficient validation.

Sources: [1] Blank, S. (2013). *Four Steps to Epiphany*. K&S Ranch.
 [2] Maurya, A. (2012). *Running Lean: Iterate from Plan A to a Plan That Works*. O'Reilly Media Inc.
 [3] Ries, E. (2011). *The Lean Startup - How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Crown Publishing.

Validating the Potential Solution

Motivation: Once you have validated that the need or problem your startup is trying to address is a real one people are willing to pay to have addressed, the solution needs to be validated. Your solution might still not be the right one for addressing it.

What to do: Gather data. Ask people if they would be interested in your solution, and whether they would pay for it. Conduct surveys or interview potential users. Based on the data you gather, change or improve the potential solution as needed. The best validation is having users using your solution or having pre-orders.

Common mistakes: Falling in love with your idea and being afraid to change it based on the data. Asking leading questions. Failing to consider that when confronted face-to-face, people are likely to agree with you simply to avoid conflict and to please you. Failing to understand the needs of the potential users or customers.

Sources: [1] Nguyen-Duc, A., and Abrahamsson, P. *Minimum Viable Product or Multiple Facet Product? The Role of MVP in Software Startups*. In: Sharp H., Hall T. (eds) *Agile Processes, in Software Engineering, and Extreme Programming. XP 2016. Lecture Notes in Business Information Processing, vol 251*. Springer, Cham
 [2] Lanrduzzi, V., and Taibi, D. (2016). *MVP Explained: A Systematic Mapping Study on the Definitions of Minimal Viable Product*. In *Proceedings of the 2016 42th Euromicro Conference on Software Engineering and Advanced Applications (SEEA)*.
 [3] Blank, S. (2013). *Four Steps to Epiphany*. K&S Ranch.

Mapping the Competition

Motivation: As a startup, it is important to understand your competition. Someone is likely to already have carried out your idea or something close to it – or someone may have tried to do so in the past.

What to do: Search the Internet, in-depth. While searching, also use synonyms and think of alternative ways to express your idea. While pitching, be mindful of any notions the audience may have about having seen similar ideas in the past. If competition for your idea exists, your startup needs to have a unique value proposition that gives you an edge over your competitors. Think of ways to become better than your competitors, or pivot.

Common mistakes: Not doing a thorough job searching for your competition. Forgetting the idea of substitutes. E.g. though your mobile game idea may be completely unique, you are still competing with other mobile games: your hypothetical users have a limited amount of spare time they can spend on digital games.

Sources: [1] Maurya, A. (2012). Running Lean: Iterate from Plan A to a Plan That Works. O'Reilly Media Inc.



Get the Right Team Together

Motivation: Many investors consider the team to be the most important part of any startup. An idea is only worth something once a team successfully executes it.

What to do: Understand the capabilities of your startup team. Divide responsibilities in your team based on the strengths of the members. Be committed.

If your team lacks key capabilities such as programming skills, leverage your personal networks in an attempt to find the missing pieces. Depending on the audience, you can also mention it in your pitches if you are looking for new team members for your startup. Alternatively, you may simply have to learn to do new things yourself.

Common mistakes: Failing to divide responsibilities in the team according to the strengths of each individual. Failing to adapt to your team's needs; if new skills are needed, you may have to learn them. Not being committed to your startup.



Great Pitch

Motivation: Pitching refers to the practice of presenting your idea and your business in a concise manner. The aim of a pitch is to persuade the audience, i.e. to sell your idea.

What to do: Prepare a pitch for your startup and keep it up to date as you progress. You may have to pitch suddenly on a short notice. Practice your pitch thoroughly, word-to-word.

Typical startup pitch durations range anywhere from one minute to ten minutes. The content and focus of a pitch depend on your progress and who you are pitching to and why. A pitch typically includes at least:

- (1) Problem: what problem are you solving?
- (2) Solution: how are you solving the problem?
- (3) Customer/User: who is your target audience?
- (4) Business: how do/will you make money?
- (5) Market: what is the current state of your target market?
- (6) Team: who are you?

Use evidence to back your claims up. Convince your audience you are not just selling them your hallucination.

Common mistakes: Unclear and drawn-out explanations; be concise and to-the-point. Failure to successfully explain core aspects of your startup such as its business model. Not carefully practicing your pitch beforehand.

Sources: [1] Colin Clark (2008) *The impact of entrepreneurs' oral 'pitch' presentation skills on business angels' initial screening investment decisions*, *Venture Capital*, 10(3), pp. 257-279.
[2] Moss, J. (2018). *How to Make A Winning Pitch Deck for Your Startup*. Retrieved from <<https://www.forbes.com/sites/forbesycouncil/2018/08/28/how-to-make-a-winning-pitch-deck-for-your-startup/>>. 29 Oct 2018.

Establish Your Initial Way-of-Working

Motivation: To work efficiently, your startup team has to agree on a way-of-working. A way-of-working encompasses work from team communications to programming.

What to do: Agree on the tools and methods your startup team will use. How will you communicate? When and where will you work? What software will you use?

Your way-of-working should evolve as you progress. Practices and methods should be changed based on what is the most effective in any given situation. As you work, reflect on what you are doing and ask yourselves if you could be doing things better.

Common mistakes: Failing to reflect on your way-of-working in order to improve it. Working in an unsystematic fashion.

Sources: [1] Jacobson, I., Ng, P., McMahon, P. E., Spence, I., and Lidman, S. (2012). *The Essence of Software Engineering: The SEMAT Kernel*. *ACMQueue*, 10, pp. 40-52.
[2] Paternoster, N., Giardino, C., Unterkalmsteiner, M., Gorschek, T. and Abrahamsson, P. (2014). *Software development in startup companies: A systematic mapping study*. *Information and Software Technology*, 56, pp. 1200-1218.

Frequent Pivots

Motivation: The act of changing direction, business-wise; a strategic decision. Knowing when to pivot or to persevere is crucial for a startup. Few ideas are perfect from their inception; e.g. YouTube was originally a video dating service.

What to do: Use data to support decision-making. Tracking metrics provides valuable data on when to pivot. What metrics to track depends on your progress and your business. For example, early on, if surveying potential users indicates that people simply are not interested in your idea, do not hesitate to change it.

Pivots can be made in relation to any aspect of your startup. For example, customer need pivots change the core problem being solved, while customer segment pivots change the target users or customers.

Common mistakes: Failing to pivot despite data pointing towards a need for a pivot. Failing to track relevant metrics. Blindly believing that your idea will find its market once it is finished.

Sources: [1] Ries, E. (2011). *The Lean Startup - How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Crown Publishing. [2] Bajwa, S. S., Wang, X., Nguyen-Duc, A., and Abrahamsson, P. (2016). *How Do Software Startups Pivot? Empirical Results from a Multiple Case Study*. In: Maglyas A., Lamprecht AL. (eds) *Software Business. ICSOB 2016. Lecture Notes in Business Information Processing*, vol 240. Springer, Cham

From a Good Team to a Great Team

Motivation: Many investors consider the team to be the most important part of any startup. Your team needs to reflect on their work and to continuously improve themselves. Self-organization is key.

What to do: Learn from what you do and consciously reflect on your activities. Track progress and improve your way-of-working.

Share responsibility of work. Be ready to help where needed. On the other hand, be autonomous. Do not wait for someone else to give you work to do, and do not rely too much on external stakeholders.

Share leadership between the team and make decisions as a team. Communicate and collaborate: work together, offline or online, and share what you are doing with the rest of your team.

Common mistakes: Avoiding responsibility; "it will eventually somehow get fixed" type of thinking. Not actively trying to learn from what you do. Failure to commit to your startup. Getting discouraged in the face of setbacks.

Sources: [1] Karhatsu, H., Ikonen, M., Kettunen, P., Fagerholm, F., and Abrahamsson, P. (2010). *Building Blocks for Self-Organizing Software Development Teams - A Framework Model and Empirical Pilot Study*. In *Proceedings of the 2010 2nd International Conference on Software Technology and Engineering (ICSTE2010)*.

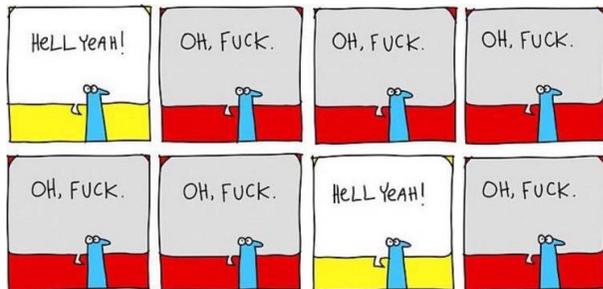
Startup Spirit

Motivation: Being a startupper is almost never smooth sailing. However, it's only truly over once you stop believing in your own idea.

What to do: Get into the mindset of being a startup founder. Learn from your experiences, especially the negative ones, and do not get disheartened by pivots. Forget counting hours spent working; no one will pay you for them until you can do so yourself.

Tasks are done when you decide they are done, not when you have spent n hours on them. You are your own boss. Manage your own time well.

Common mistakes: Treating your startup as just a course project and not a real startup (in the context of this course). Losing motivation in the face of setbacks.



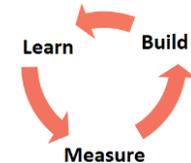
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from @tobiasstraka (<https://twitter.com/tobiasstraka/status/750399141260460033>)

Learn-Measure-Build

(a.k.a. Build-Measure-Learn)

Motivation: Learning is vital for a startup, and in order to learn you need data to learn from.



What to do: Build MVPs. An MVP is the core of the Learn-Measure-Build loop. Using an MVP you can gather data that helps you learn.

Before you start building an MVP, plan. Do not build without having an objective. First, you need to decide what you want to learn. Then, you plan on how you can learn it. What is the MVP that will answer your question(s) best, and with the least amount of time wasted? I.e. what data do you collect and how?

The process is iterative. Test different hypotheses and seek to answer different questions. Between each MVP, leverage your learning from the previous one.

Common mistakes: Wasting time on far too complex MVPs. Building MVPs without planning and setting goals. Failing to iterate the process.

Sources: [1] Lanrduzzi, V., and Taibi, D. (2016). MVP Explained: A Systematic Mapping Study on the Definitions of Minimal Viable Product. In *Proceedings of the 2016 42th Euromicro Conference on Software Engineering and Advanced Applications (SEAA)*.
 [2] Blank, S. (2013). *Four Steps to Epiphany*. K&S Ranch.
 [3] Ries, E. (2011). *The Lean Startup - How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Crown Publishing.

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