

Think tank

The marketplace for ideas

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Table of contents

1	Introduction		3
2	State of knowledge		5
	2.1	The classic innovation process	7
	2.2	The startup innovation process	8
	2.3	How does innovation implementation take place?	9
		2.3.1 Government-sponsored innovation	9
		2.3.2 Private sector innovation	10
	2.4	How to increase innovation?	10
	2.5	Open Innovation	12
3	Thi	hink tank	
	3.1	Business Plan Phase 1: The Marketplace for Ideas	13
		3.1.1 Finances	15
		3.1.2 Customers	15
		3.1.3 Users	15
	3.2	Abundance of ideas	15
	3.3	Remuneration of employees	17
	3.4	Minimum Viable Product	19
	3.5	Next tasks	19
Bibliography			20

1 Introduction

What brings progress and growth in a society? Historically, it has been technology and science that have been the drivers of economic progress [1]. In the course of this progress, the supply of the population improved in every respect. The problem of supply no longer exists in the western world. On an individual level, it has been replaced by a problem of meaning for many, and on a global level, social and ecological problems have arisen. But technological development often causes new problems of its own. As technology increasingly shapes our everyday lives, I believe it is important for a democratic process to decide which technologies should be developed in the future. This is to make the world of the future more of a techno-utopia and not a techno-dystopia. My idea of utopia is that everyone is enabled to find and fulfill his or her purpose. For the first one needs enough time to reflect. Then one must set to work to fulfill that meaning. Conversely, the meaning of a job today is the second greatest expectation of employees from their employers after job security [2]. Work, along with love, is the central source of meaning in the now largely religionless Western society [2]. The pursuit of selfactualization is also taking on an ever-increasing role in working life. Enabling more people to realize their dream of self-employment and giving more people the opportunity to work as much as they want through passive income (which usually means working less) while accelerating innovation and progress should be societal goals. The proposal to achieve these goals, which is presented here, is an internet platform called "Ideenschmiede". The platform should primarily promote (technical) innovation and budding entrepreneurs. This is to be achieved by separating the functions of having an idea and implementing an idea. In the first development step of the think tank, users are to share business ideas and technical ideas with each other. From the discussions that arise there, users can learn important lessons for their intended business and build up a network online with possible co-founders and (technical) advisors. The idea is to generate revenue for the *think tank* by donating a small percentage of the profits of the resulting companies to the idea platform. The next step is for companies to register. The companies present their work or refer to their website. They can also present problems. The private users of the platform can now submit ideas for solving problems.

or bring forward ideas for new or joint projects, collaborations or lateral innovation (applying known technology to new field). They can also draw attention to new technologies that could be useful for the respective company. The idea is to generate revenue for the *think tank* by having companies sign up and pay the idea providers for good ideas. The *think tank* receives a small percentage of this. The payment can be a one-time payment per idea or an annual percentage of profits (gained from the implementation of the idea). In the final step, a voting system is to be set up in which users can vote on which ventures are socially desirable. The *think tank will* then increasingly act as a venture capitalist for these companies. In addition, a system is to be set up that enables users to invest money in *think tank companies*. The investments are to be deposited digitally. Another important point is that at least 20% of the company's profits will be paid out to current and former employees. The algorithm for calculating this includes the basic salary and the hours worked. The profit share of former employees decreases by half each year. This is intended to promote the possibility for these people to start up their own businesses.

2 State of knowledge

First, it is important to define the term innovation. Often the following defi- nition is given: Innovation is the product of invention and commercialization of the invention [3]. I believe we need a new way of doing business and innovation in a variety of areas to solve the problems we face. On the one hand we need instruments that punish ecologically bad behavior economically, on the other hand economic stagnation leads to stagnating wages and a feeling for normal people not to get ahead in life. As mentioned at the beginning, science and technology are the drivers of progress. If in an (economic) system the input variables remain the same or even become smaller and the output is to become larger, optimization and innovation must take place in the process in between. An example for decreasing input variables are the population figures in many western countries or a tendency to work less hours. The output that needs to increase is the economic output of these countries or at least the economic output per person. Efficiency improvements and innovation increase the value of the resources used and are therefore directly linked to the economic output. A distinction must be made between improvements or optimization and innovation (Fig. 2.1).



Figure 2.1: Old technology and substitute technology [4].

The figure clearly shows that efficiency improvements of an old technology

at some point will no longer be able to keep up with the new technology. However, if there is no substitute technology (= innovation) on the market, stagnation will result. If this stagnation occurs in many areas of the economy, there can be no progress in the developed world in the long term. We are currently in this dilemma, except in the area of digital technology, according to Peter Thiel. He also discusses the relationship between globalization and innovation (Fig. 2.2). He describes innovation as creating something new, going from 0 to 1, and globalization as copying what exists (going from 1 to n). Copying is accompanied by competition between copiers. To avoid this competition, one should strive to make something new in a new business, i.e. to go from 0 to 1. Because only those who have a real unique selling proposition can earn a lot of money by building a monopoly position. According to Thiel, building a monopoly is the only way to make a lot of money with a company, because profit melts away in the price war of many undifferentiated suppliers. Copying brings more economic equality between different countries on a global level.



Figure 2.2: Technology and globalization according to Peter Thiel [5].

According to Thiel, technical progress is mainly pursued in developed countries in order to keep the economy growing or at least not shrinking in the face of stagnating or declining input variables. Thiel further argues that this technical progress has slowed down in recent decades and that this has led to lower economic growth in the United States. This is an assumption that not many observers share because there have been rapid advances in the computer and IT world in recent decades. But in material things, not much has changed since the 1970s. One reason Thiel cites is that the easily attainable fruits from the tree of technological progress have already been harvested, and greater effort is now associated with innovation. Beyond that, however, he also argues that a new culture at universities (since about 1970) has contributed to the fact that technical progress has slowed down overall. One often hears the claim that technical progress is accelerating exponentially. This has been the case, for example, in the development of the cost per computing power of computers for several decades (Moore's Law). In which other areas exponential growth also exists is difficult to say, because at the beginning of a development exponential growth can hardly be distinguished from linear growth. Likewise, technical stagnation is difficult to measure, but examples can be given. In 1969, the Americans flew to the moon for the first time. In 2011 (with the end of the space shuttle program), the USA itself was no longer able to send astronauts to the international space station. Only by the clearly cheaper carrier system of SpaceX (=innovation) the USA got this possibility again. Assuming that the problem of technical stagnation in the developed world really exists, there is also a need for action and a great opportunity for the company that solves this pro- blem.

2.1 The classic innovation process

The classic innovation process consists of the following phases (Fig. 2.3) [8]:

- Strategy: In this phase, the strategy for the product is defined in order to achieve a unique selling proposition.
- Product definition: In this next step, the product itself is defined and market requirements are identified to meet customer expectations [9]. Ideas for innovative products are generated and evaluated.
- Product concept: The product concept is created on the basis of the product definition in order to coordinate the validation and production phases. The possible costs and required resources are considered according to the business case calculation of the innovation idea. The development of the product begins.
- Validation phase: Prototypes are developed and tested, which have to fulfill the various requirements.
- Production phase: When the innovation is produced on a small scale and the processes are approved, production of a (pre-)series begins and the new products are subsequently produced in large quantities.

 Market launch and commercialization: The innovations are ready to be mass produced. The final products are brought to market with a communication and marketing strategy to achieve the highest sales figures. For the market launch, various indicators (e.g., the number of products launched) can measure the success of the product innovation.



Figure 2.3: The innovation process according to Cooper [10].

In this innovation process, the assumptions made at the beginning (e.g. market requirements and customer expectations) are tested by reality very late (a t market launch). So there is a risk that if the customer requirements are not completely clear, expensive misdevelopments will result.

2.2 The Startup Innovation Process

In startup ventures, the chances of success increase when there is a plan to act upon. In his book "Lean Startup", author Eric Ries describes how a product or service should be considered before there is so-called product-market fit. He describes the product development as an experiment, whose goal is to create the product-market-fit. In the course of the experiment, the (product) thesis has to be checked again and again and changed if necessary. For example, the needs of the customers for the product or the service can be misjudged by the developers, which is why one should get in contact with the customers as early as possible to avoid undesirable developments. To accelerate the actual product development, Ries recommends running through a loop as quickly as possible and product iterations as quickly as possible. The loop begins with the idea, which must be implemented (built). The product is tested (measured), from which data can be obtained to learn and develop new ideas (Fig. 2.4).

This model is particularly practical for startups because they only have limited resources and product development has to happen particularly quickly. The first product (Minimal Viable Product, MVP) does not have to be perfect, but should only have the basic functions in order to check whether the product is desired by the customers. In the case of Internet ventures, it is often even recommended that only



Figure 2.4: Startup innovation loop according to Eric Ries [6].

Set up a mailing list and ask potential customers if they would pay for the product. If many are interested in the first product release and join the mailing list, it shows their willingness to spend money on the product or service.

2.3 How does innovation implementation take place?

2.3.1 State-sponsored innovation

Government-funded innovation often takes place in the area of basic research, but there is also applied research. Employees are often employed on a temporary basis (at least in Germany) and spend a not inconsiderable amount of their time and effort writing research proposals in order to get government money for their projects. Nevertheless, government-funded research and development is important to finance projects that do not have the prospect of generating direct financial added value. In government research institutes, however, the processes and the way employees are handled are often not optimal for achieving the highest level of innovation. A lot of bureaucracy slows down innovators here; on the he- side, it is possible to get capital for research projects here, even for private companies that innovate.

2.3.2 Private sector innovation

However, the big changes in society are usually not achieved directly through government innovation projects. I am talking about things like the smartphone or the electric car (or the car in general). We can only speculate about the reasons for this. My thesis is that many employees in research institutes have to overcome many hurdles before they can lead their own projects, let alone initiate large projects. In addition, innovations have to be (approximately) economical to cause major technology upheavals. In the two major disruptions described (smartphones and electromobility), the application of existing, relatively new technology to new areas was more decisive than basic research. In addition, in the case of the smartphone (Apple) and electromobility (Tesla), different areas were merged into one product and clever ideas were well implemented (Apple: mobile interface to the Internet, different functions in one device, expandable functions through the app store; Tesla: rolling computer, updates over air, self-driving car (application of AI)). Elon Musk and Steve Jobs, the two great "visionaries" behind Apple and Tesla, have the ability to work out their visions very clearly and then implement them with the help of a team. Here is an interview with Steve Jobs about intelligence and how to achieve something special. (Channel: Savanteum Title: What Does It Mean To Be Intelligent? | Steve Jobs, Link: https://www.youtube.com/watch?v=7ptvud7owQ)

2.4 How to increase innovation?

Besides a fast implementation of ideas and an inclusive innovation style (everyone is allowed to express ideas or is involved in finding solutions to difficult problems), Professor Louise Muhdi (Affiliate Professor of Innovation and Strategy at IMD) gives two further pieces of advice when innovating in a company [11]. On the one hand, one should concentrate on the essentials, break down problems to the essential points before starting the innovation process. Second, establish a culture of innovation in your company by encouraging curiosity and learning. What are other decisive factors for the innovative power of companies? Various authors describe that innovation management helps companies to innovate [12], but also that things like trust play a decisive role in how innovative a company is [12]. In an article for the book *Innovation Excellence*, the author Michael Dröscher, from 2002 to 2009 as a

Head of Innovation Management Chemicals at Evonik Industries AG, ten innovation drivers [12]. Some of the following points are more relevant for larger companies.

1. Competence: Without competencies in the crucial areas of expertise, it becomes almost impossible to achieve innovation.

2. Strategy and goals: From the existing competencies, goals and strategies can be formulated, which should represent the landmarks of the path from the current to the future company.

3. Innovation management: At Evonik, the objective of innovation management is to

"Idea-to-profit process" and consists of the steps of discovery (input from the market and customers), idea management, project management and market launch. Innovation management is primarily market-driven.

4. Innovation structure: The structure of the company should be innovation-friendly. Innovation should be encouraged and the company structure should not hinder it.

5. Future Trends: A broad overview of the latest technical developments helps to better assess the future.

6. Open innovation: The author mentions here in particular cooperation with universities and companies along the value chain in order to be able to use competencies that lie outside the company.

7. System integration: The author gives the example that innovations could displace a part of the value chain and that this part is therefore not ready for innovation. In this case, the part must be integrated into the system in order to carry out the innovation.

8. Intellectual Property Management: Patents are important to secure the competitive advantage through innovation for a while.

9. Communication: Through communication, new contacts are made and development errors can be avoided.

10. Employees: According to Dröscher, this is the most important factor, because employees contribute their knowledge and experience to generate innovations.

In my opinion, too, it is primarily the different experiences that employees bring with them that can enrich a company. These experiences and this knowledge and ability must be reflected in the later product. At the same time, it is important that employees remain as open as possible to new things, although this is no contradiction to experience. I also think that a separation of functions from the idea generation and the implementation of ideas could be helpful, firstly to generate more (good) ideas and secondly to implement them. There are a number of advantages to placing implementation in the hands of companies. For example, some projects can only be realized with large financial resources, there may be legal hurdles or the know-how is only available here.

2.5 **Open Innovation**

The term Open Innovation, coined by Henry Chesbrough, generally refers to the fact that an (online) network is involved in innovation [13]. The external market of knowledge and ideas is much larger than the limited number of heads in the own company. In most open innovation providers, the procedure is as follows: A task and a prize money is announced. Then the users and teams of the platform can enter the competition with their proposals. The winners can then set about implementing their ideas with the prize money. Often, the goal is to build a prototype that accomplishes a specific task. However, Open Innovation can be used at virtually any step of the traditional innovation process [13]. With Open Innovation, search costs for e.g. new ideas are reduced, but evaluation costs can increase, also due to a large number of ideas [14].

3 Think tank

How can efficiency and the rate of innovation be increased? My idea: An In- ternet platform as a marketplace for ideas. This way, the idea is independent of the implementation. Many ideas cannot be implemented alone or without financial and personnel support. The idea giver is to be involved with financial success of the enterprise, which developed from its idea. In concrete terms, the development of the think tank is initially divided into three phases. In the first phase, ideas are discussed on the platform and, if possible, startups are to emerge in the process; in the next phase, innovation in already existing companies is promoted; in t h e third phase, the think tank itself will act as an investor in *think tank startups if* their companies are rated positively by a two-thirds majority of the platform users. This is to ensure that the majority of innovations from the *think tank* benefit society.

3.1 Business Plan Phase 1: The Marketplace for Ideas

How do you build a marketplace for ideas? Unfortunately, it's difficult to trade ideas because you can't offer an idea in the traditional way without it already being legally protected, because if the idea is exposed, the other party could get off the hook without offering anything in return. The buying side has to take a leap of faith with unprotected ideas, also so that the idea provider is willing to share his idea in the first place. In addition, there must be a way for the basic market mechanism of supply and demand to take effect here as well. Several possibilities are conceivable.

A simple possibility is that the party looking for a solution idea advertises an offer on the website, which can be increased if initially no viable solution idea to the problem is posted. A lump sum must be chosen as the reward, and a percentage of the subsequent idea gain or money saved by the innovation over a specified period of time. The idea providers can choose between the two offers. The number and probably also the quality of the ideas received will depend on the amount of the offer made by the pro- blemer (Fig. 3.1).

In addition, a digital contract is concluded between the company and the idea provider or the company and the *think tank*. The contract specifies the percentage of the idea profit (which is paid out annually if the idea is financially successful) or the



Figure 3.1: Market equilibrium and transfer to the think tank; (a) Market equilibrium through supply and demand [15]. (b) Transfer to the think tank: if the supply increases (by raising the advertised price), the quantity of (good) ideas also increases. Thus, problem solvers can regulate the idea quality or quantity with the price.

one-time money if the idea is accepted. The majority of this money goes to the idea provider (90%). If the idea is not implemented, no amount has to be paid. If more than one idea provider posts the same idea on a problem, only the one who posts the idea first is paid. It should be added that only the account that has posted the problem should be able to view the ideas (this is not the case in the MVP). In addition, the contract states that the idea may not be further distributed or sold by the company. However, the idea provider has the right to do so. This means an idea is not exclusive for the company, but an idea can go to several companies. If the company modifies and implements the idea, a compromise must be made. Another possibility would be for users to get money for ideas when others look at them. A re- gulation mechanism here could be the evaluation of the idea giver by idea discoverers. This means that if someone has a better rating, he can hope for more people to look at his idea. In addition, he can give a price for his idea.

3.1.1 Finance

In order to finance the platform, different ways are possible. One possibility would be a subscription system in which companies or idea providers pay a monthly amount to be active on the platform. However, this creates a barrier to entry. The method without an entry barrier, as described, is that a percentage of the value of transactions made through the platform is retained by the *think tank*. If 90 % of the contractually regulated profit distribution goes to the idea provider, 10 % remains. Of this 10%, however, the transaction must also be paid; depending on the provider, 1% to 3% of the transaction volume is due here. This means that the *think tank* receives 7% to 9% of the profit from all successful ideas.

3.1.2 Customers

Mainly companies in the manufacturing sector will be registered on the *think tank* platform. They pay for the fact that they do not have to search for solutions to their innovation problem; instead, possible solutions come to them through the idea providers. What they still have to do themselves is evaluate the ideas and proposals for their business and check things like patent rights. The *think tank* assumes no responsibility for the infringement of patent rights.

3.1.3 Users

Just as important as the companies looking for ideas for their technical problems are the users or idea providers. Basically, everyone who thinks they have good ideas is addressed here. Since the overriding goal of the *think tank is* to accelerate progress, the focus when recruiting is on people with technical or scientific expertise.

3.2 Abundance of ideas

From a certain number of users on the idea generator side, there could be a flood of ideas. That's why it's important, once the platform reaches a certain size, that users really think about whether an idea is useful for the company in question. To ensure this, an idea provider is additionally rewarded if he or she can present many good ideas. Conversely, the reward decreases if he or she has many rejected ideas. The calculation is based on the so-called streak. The

Streak describes how many ideas of an idea generator were accepted or rejected in succession. The higher the streak *s*, the greater the impact on profit. The streak is reset or continued when an idea is accepted or rejected, depending on whether you have a positive or negative streak. The maximum extra reward is 325%. This occurs with five accepted ideas in a row and a percentage of accepted ideas of 100%. Conversely, if five ideas are rejected in a row, one idea must be accepted before that idea creator will again receive more money for uncovering their ideas. At the same time, a second indicator is formed from the percentage of accepted ideas of the idea provider $P \ aI$, these are summarized to the Ig score (*Ig*) (Eq. 3.1).

Calculation of the idea gain:
$$Ig = 0, 01 - s^3 + 2 - P aI$$
 (3.1)

The Ig score is applied to a contractually agreed profit of \in 50. This means that a maximum profit of \in 162.5 can be achieved per assumed idea.



Figure 3.2: Idea gain range for \in 50 idea gain; the two lines indicate the minimum and maximum, respectively.

The extra profit of those who can show many accepted ideas in a row could be spent by the lower profit of those who have a low *Ig score*.

3.3 Remuneration of employees

At the beginning of the company, it will probably be difficult to raise enough money to pay salaries for developers *that are* customary in the industry. Therefore, a payment system will be established to guarantee the long-term commitment of employees to the *think tank* by shifting the reward for their work into the future and then, if the *think tank* is successful, the reward will be particularly large and long-term. This system should work as follows: Employees receive an hourly wage, which at the beginning is significantly lower than the hourly wage customary in the industry. In addition, each employee receives a profit share, which can be calculated using equation (3.2).

Additional salary:
$$ZG = UG - \alpha - \frac{ZGF}{ZGFtotal}$$
 (3.2)

In equation (3.2), ZG is the additional salary, UG is the company profit, α is the percentage paid out to employees from the company profit, ZGF is the additional salary factor and zGFtotal is the additional salary factor of all employees in a year. Company profit here means operating profit after taxes. The calculation of the additional salary factor is important for active employees (Eq. 3.3). Former employees also receive a share of the profit. However, this decreases exponentially by half year by year (if the company profit remains the same) (Eq. 3.4). In the formulas, ZGF _{VJ} describes the additional salary factor from the previous year, GG the basic salary (hourly wage) and h the total hours worked in the company. Thus, ZGF is added up for each employee every year and decreases again when the employee leaves the company.

Additional content factor active:
$$ZGF_a = ZGF_{VJ} + GG - h$$
 (3.3)

Additional content factor former: $ZGF_e = ZGF_{VJ} - 0, 5$ (3.4)

The α should be at least 20% and will be increased if necessary. The purpose of profit sharing is to enable a joint success for the team as soon as the company generates profits. At the same time, this payment system **i** s intended to incentivize each employee to work as economically as possible for the company.

act. The chance of profit for everyone in the event of success is high, and the lower base salaries give the company more time to achieve product-market fit. If the company is successful in the long run, this payment system should ensure a very fair compensation of the employees. It should be noted that the maximum weekly working time in Germany is 48 hours. Too high a working time only drains most people.

3.4 Minimum Viable Product

First, the basic hypothesis is examined as to whether idea providers disclose their ideas (for money) and what happens when they receive money for their ideas. For this purpose, a discussion platform for technical or scientific ideas is built. The open source platform NodeBB is used, which is a modern forum software with many configuration options and plugins. The MVP contains a "free" idea discussion, which has the main purpose to give ideas the rough and fine tuning. Here every registered and logged in user has access. In addition, there is a category where companies can present their offers for solution ideas and their respective innovation problems "Implementing ideas" (see section 3.1).

3.5 Next tasks

- Drawing up a legally secure document for the digital contract between the company and the idea provider, which contains things such as the right of use and the remuneration of the idea provider if the idea solves the set problem.
- guarantee a payment for the idea creators
- Process payment transactions via the platform and various plugin development

END

Or yet another one at the end.

(Channel: checkitoutmusic Title: Guy Dancing on the hill at Sasquatch! Full Version! Santogold Unstoppable, Link: https://www.youtube.com/watch?v=nU7dxkIz1Vs)

Bibliography

- [1] WIKIPEDIA. Technical_progress. https://de.wikipedia.org/wiki/Technischer_Fortschritt#Technical progress and economic growth. (last accessed 07/10/2022).
- [2] BADURA, B., DUCKI, A., SCHRÖDER, H., KLOSE, J., and MEYER, M. (2018). Absenteeism Report 2018 Experiencing meaning - work and health. 1st ed. Berlin: Sprin- ger.
- [3] DRÖSCHER, M. (2012). Innovation and trust. In: Innovation Excellence How companies systematically increase their innovation capability 1st edition. Düsseldorf: Symposion.
- [4] WIKIPEDIA. S-Curve Concept. https://de.wikipedia.org/wiki/S-Kurven-Konzept. (last accessed 04/17/2022).
- [5] THIEL, P. and MASTERS, B. (2007). Zero to One Notes on Startups, or How to Build the *Future*. 1st ed. New York: Crown Business.
- [6] RIES, E. (2011). The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successfull Businesses. 1st ed. New York: Crown Business.
- [7] EICHHORN, E. FH Wedel E-Commerce Blog. Lean startup methodology for developing a business idea. Url:https://www.webspotting.de/e-commerce/lean-startupmet hodik-zur-entwicklung-einer-geschaeftsidee/ (last accessed 04/17/2022).
- [8] DZIALLAS, M. and BLIND, K. (2019). Innovation indicators throughout the innovation process: An extensive literature analysis. In *Technovation*. 80-81. S.3-29.
- [9] LESTER, D. H. (1998). Critical success factors for new product development. In: *Research-Technology Management*. 41(1). PP. 36-43, DOI: 10.1080/08956308.1998.11671182
- [10] COOPER, R.G. (1981). An empirically derived new product project selection model. In: *IEEE Transactions on Engineering Management* 28 (3). S. 54-61.
- [11] MUHDI, L. (2021). Four key steps to accelerate innovation in an age of disrup- tion. https://iby.imd.org/brain-circuits/four-key-steps-to-accelerating-innovation-in-an-a ge-ofdisruption/. (last accessed 05/14/2022).
- [12] SOMMERLATTE, T. Innovation and trust. In: ILI, S. (2012). Innovation Excellence How companies systematically increase their innovation capability 1st edition. Düsseldorf: Symposion.
- [13] HEGER, T. and BUB, U. (2013). Innovation networks: with industry and science to new innovative power. In: *Information Systems and Management*. 5. S. 12-23..

[14] DAPP, T. F. *The digital opening of innovation and value creation*. In: ILI, S. (2012). *Innovation Excellence How companies systematically increase their innovation capability* 1st edition. Düsseldorf: Symposion.

[15] WIKIPEDIA. Market Equilibrium. https://de.wikipedia.org/wiki/Marktgleichgewicht. (last accessed 10/23/2022).