Business Plan Conception Pattern Language

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Abstract. This paper provides generic guidelines for starting entrepreneurs. First, the basic features of a good business plan are addressed in a pattern language for creating an innovative business plan. Second, soft skills for starting entrepreneurs are discussed in a pattern language for interactions with 'outside' people, as these interactions are crucial for a validation and realization of a business idea. Together, these two pattern languages create a pattern language for business plan conception. This pattern language for business plan conception should provide a stable conceptual basis that supports starting entrepreneurs in adapting the business plan templates they find to the needs of their business idea instead of adapting their business idea to the templates they find, which should support a successful penetration of new ideas and entrepreneurs into an innovation requiring market.

Keywords: Patterns, Entrepreneur, Business Plan, Soft skills

1 Introduction

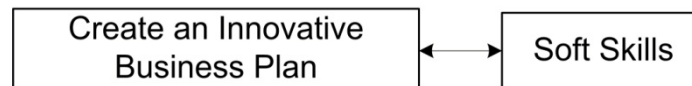| Topic	Content
Problem	How to start a business?
Context	When someone (e.g. you) has an innovative business idea.
Forces	Entrepreneurs that want to start a new business initiative often have the required technical expertise but not the money (i.e. funding), financial expertise and expertise in the section to get the business up and running.
Solution	Start writing a business plan and take care of your soft skills when interacting with other people.
Resulting Context	A business plan helps the entrepreneur to gain more relevant expertise and might convince people to support the entrepreneur financially or with additional expertise. Polished soft skills support this convincing process. (fig. 1)
Design Rationale	Markets require innovation, therefore new ideas and entrepreneurs should be able to penetrate the market successfully. In this process, interactions with new 'outside' people are crucial. A business plan is the ideal tool to assess the feasibility of such new ideas.
Related Work	BUSINESS PATTERNS FOR PRODUCT DEVELOPMENT [1] discriminate four generic kinds of product setups. PATTERNS FOR BUILDING A BEAUTIFUL COMPANY [2] provide insight in the development of a business. A DEVELOPMENT PROCESS GENERATIVE PATTERN LANGUAGE [3, 4] addresses organization design and project management. Additionally, DESIGN PATTERN FOR CREATIVITY [5] can help to invent and evolve innovative business ideas. Online creativity portals (e.g. www.creax.net) and creativity consultants (e.g. www.creax.com) can also provide such help.

Fig. 1. Interaction between two pattern languages

2   Create an Innovative Business Plan

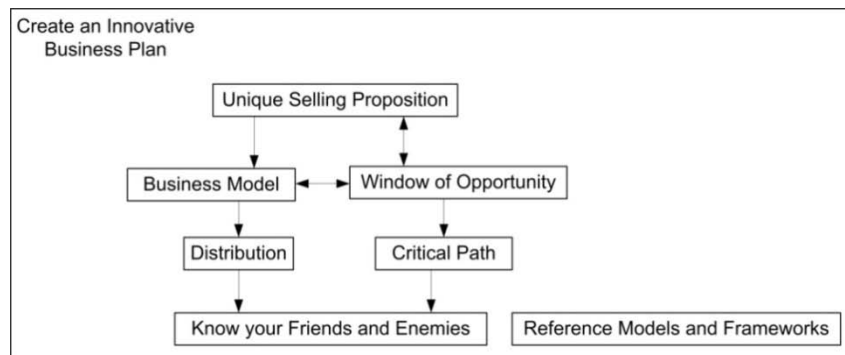| Topic	Content
Problem	How to create a good business plan for an innovative idea?
Context	Bringing a product to the market first implies high development costs and potentially high returns, whereas copying an existing business idea implies lower development costs lower returns but more certain returns as the market potential has been proven (i.e. if they buy the 'real deal', they will buy the copy also).
Forces	1. When inexperienced business plan writers develop a business plan, they are inclined to adapt their idea to a business plan template they found, instead of adapting the template to fit their idea. (As has been demonstrated for other engineering disciplines [6]) 2. The collection and presentation of detailed technical information (e.g. manufacturing methods, logistics) for the real startup process is mostly supported and heavily influenced by third parties just like the business process itself.
Solution	Collect, create (re)structure all information that is needed to create a realistic image of the future venture and its implementation process. Reiterate this information collection and creation process to keep the information up to date and improve on the idea and plan.
Resulting Context	1. Regardless of business plan templates, the patterns in this section guide the entrepreneur in collecting all relevant information for the creation of a business plan. (fig. 2) 2. The reiteration of the information collection and structuring process helps the entrepreneur to identify the influence of third parties and provide a good basis for negotiating with them.
Design Rationale	Although many good business plan templates[1] exist for proven business idea's (e.g. starting a baker's shop or hairdresser's salon), it is hard or even impossible to find guidance for creating business plans for unique and innovative business ideas.
Related Work	The US Small Business Administration[2] provides guidance, templates and workshops for writing business plans.

Fig. 2. Structure of the pattern language for creating an innovative business plan

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[1] http://www.bplans.com/sample_business_plans.cfm
[2] http://www.sba.gov/smallbusinessplanner/plan/writeabusinessplan/index.html

2.1 Unique Selling Proposition (USP)

Topic	Content
Problem	How to demonstrate to potential investors that your venture deserves a place in the market.
Context	When you have an innovative idea, and want to CREATE AN INNOVATIVE BUSINESS PLAN.
Forces	Truly innovative selling propositions are unique by definition but the returns they will generate are highly unpredictable, which makes convincing potential investors tough.
Solution	List the benefits of your venture for each of your stakeholders and demonstrate or motivate why they will accept your offer and not that of a competitor. Identify the strengths and weaknesses of the idea, foresee the opportunities and threats in the market and mitigate for potentially negative effects.
Resulting Context	Motivating why customers will prefer your offer substantiates the expected returns. The mitigation scenarios compensate for the unpredictability.
Design Rationale	To attract investors, a venture needs to demonstrate or at least argument that it will be able to earn and defend its place in the market.
Related Work	The following patterns describe how to construct USP's: - BUSINESS PATTERNS FOR PRODUCT DEVELOPMENT [1] - DESIGN PATTERNS FOR SOFTWARE COMPANIES [7, 8] - DESIGN PATTERNS FOR TECHNOLOGY COMPANIES [9] - BUSINESS STRATEGY DESIGN PATTERNS FOR TECHNOLOGY COMPANIES [10] - A FEW MORE BUSINESS DESIGN PATTERNS [11] - BUSINESS STRATEGY PATTERN FOR THE INNOVATIVE COMPANY [12] - THE PORTER PATTERNS [13]

2.2 Business Model

Topic	Content
Problem	How will you use your limited resources to execute and realize your unique selling proposition?
Context	When you have developed a UNIQUE SELLING PROPOSITION.
Forces	The amount of funding that can be attracted is determined by the returns a business process can generate. Conversely, the scale of a business process, and consequently the returns it can generate, are constrained by the amount of funding that it can attract.

Solution	1. Check whether everything is legal (e.g. do not violate intellectual property rights)
	2. Make or Buy
	   a. Determine the things that are specific for your USP, protect them against competitors (e.g. profit from first mover advantage, create confidentiality agreements, intellectual property rights, patents) and keep the execution of those activities under your control.
	   b. Try to find partners for all non-USP-specific activities (i.e. outsourcing).

Resulting Context	1. Legal activities mostly do not affect the investor's image negatively, which influences their motivation to lend money positively.
	2. Make or Buy
	   a. Performing activities in house requires specific equipment and expertise. The scale of these activities largely determines the need for funding.
	   b. Performing activities out house reduces the amount of funding needed, since these activities can mostly be categorized as variable costs.

Design Rationale	Resources are scarce by definition [14] therefore they cannot be generated easily and disbursed without a proper motivation.
Related Work	The e3-value [15] tool (www.e3value.com) provides help for visualizing business models and making a first profitability analysis.

2.3 Distribution

Topic	Content
Problem	How to reach your stakeholders and customers?
Context	When you have developed a USP and BUSINESS MODEL.
Forces	1. The chosen venture location, virtual (e.g. market) or real (e.g. site), also determines the uniqueness of your proposition and the appropriateness of distribution strategies. 2. Using other distribution channels than competitors may create competitive advantage, but may also prove to be risky (e.g. failure to profit from economies of scale, poor distribution quality) and expensive. However, choosing the same distribution channels as your competitors may constrain the uniqueness of your USP. 3. Maintaining existing distribution channels is often more cost-efficient than finding new ones and keeping existing customers (informed) is cheaper than finding new prospects (or informing them about your product).
Solution	Elaborate an adequate acquisition and distribution strategy for products and information, which stands out in the 'noise' that is created by competitors. 1) Targeting a market (niche) in which you can stand out. 2) Select communication and sales strategies that are appropriate for the target market (niche).
Resulting Context	Narrowing your USP towards a particular target audience, increases the potential market share but reduces the size of the targeted market.
Design Rationale	Your products and relevant information about them do not automatically reach your target audience.
Related Work	A PATTERN VOCABULARY FOR PRODUCT DISTRIBUTION [16] lists distribution strategies for products, not for information.

2.4   Window of Opportunity

Topic	Content
Problem	How to take maximum advantage of an opportunity?
Context	Innovative business ideas (i.e. USP and BUSINESS MODEL) create an opportunity.
Forces	1. Customers are not always susceptible for the advantages your idea has to offer or the advantages may be bound to a specific time window (e.g. ice cream in the summer) 2. Investors are happy to have their cash back as soon as possible and with the highest possible return, but what's in it for the entrepreneur?

Solution	Determine the window of opportunity meticulously. When there is no natural window of opportunity create one with a proper marketing strategy (e.g. media campaign).
	    When the window of opportunity opens, saturate the market sufficiently fast to prevent competitors from entering the market (i.e. penetration pricing strategy), which would decrease your market share and hence volume.
	    Maximize your profit by using the skimming technique (i.e. start with a high introduction price and lower your price over time) when competitors are not able to enter the market (e.g. product cannot be copied) before the window of opportunity closes.

Resulting Context	1. When customers are/have been made susceptible (i.e. awaking latent need) for the advantages your product has to offer, competitors can also take advantage of this susceptibility. 2. Penetration strategy (Low price, High Volume), which requires extra funding for a longer period as the product volume that needs to be prefinanced is larger and the profit margin is lower. Skimming (High price, Low Volume), on the other hand, requires little funding and can be self-sustaining relatively early.
Design Rationale	The net present value of revenues generated by an innovative idea needs to be maximized over the entire product lifecycle. [17]
Related Work	The TAKE NO SMALL SLIPS [4] pattern tackles how a project should be scheduled, not to miss the market window.

2.5   Critical Path

Topic	Content
Problem	How to plan, coordinate and control the implementation of your business idea.
Context	When you have identified the WINDOW OF OPPORTUNITY and do not want to miss it.
Forces	1. Working fast leads to large negative cashflows (i.e. costs), on the other hand, working slow leads to a longer the critical path, which delays positive cashflows (i.e. revenue). 2. The longer it takes to put your product in the market, the higher the chance competitors or copycats will bring a similar or better product to the market. The shorter the time to market, the larger the chance your product still has (minor) flaws.
Solution	1) Determine the sequence in which the implementation steps need to be executed, plan the process such that steps that can be executed in parallel are planned in parallel and discriminate process steps that are crucial for the timely execution of the project from the process steps that are not. 2) Visualize the process and its constituting steps (e.g. PERT [18] and Gantt [19-21] chart) 3) When the sequence of process steps that is crucial for the timely execution of the entire sequence (i.e. the critical path) has been identified; plan and monitor the execution of the critical path elements meticulously and prevent parallel path elements from interfering with critical path elements (i.e. plan them and limit the delay in their execution such that they do not delay the execution of critical path elements).
Resulting Context	1. A proper visualization of the process allows representing the trade-off between project cost and timing. 2. The minimal length of the critical path indicates how fast competitors can catch up with the venture if they possess sufficient resources.
Design Rationale	Time is money: Missing the window of opportunity (i.e. being too early or too late) likely means failure.
Related Work	The DE-COUPLE STAGES [4] and SIZE THE SCHEDULE [4] pattern present an approach for (re)designing a critical path.

2.6 Know your Friends and Enemies

Topic	Content
Problem	How to cope with parties that (will) have stakes in your business and opposing or common interests.
Context	When you need to interact with third parties (e.g. suppliers, customers, investors, neighbors, etc.) to execute your DISTRIBUTION strategy and CRITICAL PATH.
Forces	1. Most entrepreneurs are only aware of the stakeholders they (plan to) interact with on a regular basis (e.g. suppliers, customers, debtors and creditors), while largely neglecting other stakeholders (e.g. neighbors, which can prevent the plant from expanding or force the enterprise to relocate their activities). 2. Although entrepreneurs are aware of their stakes in other parties, they are mostly unaware of the stakes other parties have in their business.
Solution	Make an exhaustive list of your (future) competitors (i.e. enemies) and collaborators (i.e. friends) and identify their stakes in your activity. Pay special attention to those that are both friend and enemy (e.g. suppliers, customers).
Resulting Context	1. Making an explicit and exhaustive list of friend and enemies helps to identify en monitor the forces that may influence your strategy. 2. Making the list of friends and enemies makes entrepreneurs aware of the stakes other people have in their business.
Design Rationale	Being profitable (i.e. generating your own ROI) through value creation, is at the same time a collaborative and a competitive process [22], which makes an organization's relation to its environment ambiguous.
Related Work	IN BED WITH THE ENEMY [23] shows how opposing interest can become common interests. CUSTOMER INTERACTION PATTERNS [24] address how a specific kind of stakeholder (i.e. customers) should be dealt with. Porter's Five Forces model [25] identifies the major categories of enemies.

2.7   Reference Models and Frameworks

Topic	Content
Problem	How to identify structure and assess all internal, external, positive, negative, future, current and historical influences that concern your business?
Context	When you have identified the factors that may influence your business. (cf. KNOW YOUR FRIEND, KNOW YOUR ENEMY)
Forces	The information you collect about your environment is usually incomplete unstructured, but unstructured information is difficult to process and incomplete information gives an unprofessional impression.
Solution	Use existing frameworks and reference models to structure the information you collect and identify the lacunas in the information gathered.
Resulting Context	Structured information is easier to process and using well-known frameworks and reference model to structure the information amplifies this advantage. The structure of the frameworks and reference models also provides a blueprint for the information search process.
Design Rationale	An enterprise is not an island that operates independent of its environment [26]; therefore, the enterprise's influence on the environment and the environment's influence on the enterprise need to be addressed.
Related Work	Well-known reference models and frameworks are: • SWOT [27] provides a template for representing all internal and external factors that influence the business' performance positively and negatively, in an efficient visualization where every kind of factor has a fixed location in the diagram [28]. • Porter's Value Chain [29] gives a generic overview of business activities. • Porter's Five Forces [25] list the main threats a business faces. • McKinsey's 7-S Framework [30] list 7 critical success factors that a business needs to achieve its goals. • Product Lifecycle [17, 31] shows that the real value of innovation lies in a future adaptation by the market. These and other reference models and frameworks that are also applicable when a business has been established (e.g. BCG [32], GE Model[33], Ansoff matrix [34]) are collected in Kotler's work [35, 36].

3   Soft Skills

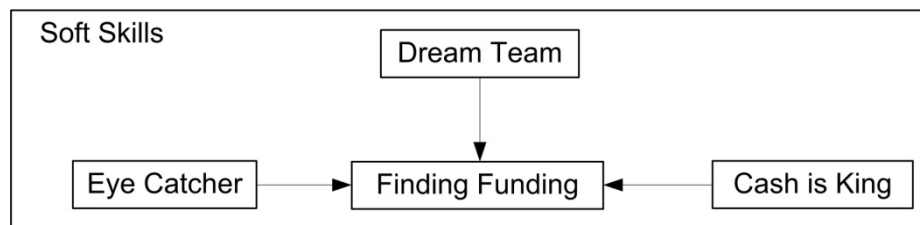| Topic	Content
Problem Context	How to be convincing? When you have CREATED AN INNOVATIVE BUSINESS IDEA for which you need support and additional expertise or when such an idea has evolved into a business plan for which you need investors, customers and suppliers.
Forces	A sector mostly overlaps with a closed social network of peers. Therefore, occasions to meet the right people are rare if you are not part of the network of peers.
Solution	Take care of your soft skills when you have the opportunity to enter the network of peers that overlaps with the market you want to enter.
Resulting Context	When the peers perceive your presence as valuable, other opportunities to meet the network of peers will be offered to you. When your soft skills are taken care of, the chance that your presence will be perceived as comforting and valuable increases. The EYE CATCHER pattern addresses how to be noticed and remembered, the DREAM TEAM pattern supports the creation of a valuable team image and the CASH IS KING pattern helps to demonstrate the value of business ideas. The support and expertise of the network of peers should then make FINDING FUNDING easier. (fig. 3)
Design Rationale	When inexperienced entrepreneurs have a business idea it proves difficult to give their developing business sufficient momentum to turn it into a real business.
Related Work	PATTERNS FOR LEADING EFFECTIVE AND EFFICIENT MEETINGS [37, 38] addresses other soft skills for entrepreneurs that are not considered in this paper. LEARNING PATTERNS: A PATTERN LANGUAGE FOR ACTIVE LEARNERS [39] features one of the most important skill of an entrepreneur. The BUSY PERSON PATTERNS [40] then address the features of personal effectiveness and time management that are also crucial for entrepreneurs.

Fig. 3. Structure of the soft skills pattern language

3.1   Eye Catcher

Topic	Content
Problem	How to make sure that people remember you?
Context	The opportunities to meet important people are scarce. As they probably meet many people and you are not their priority, they tend to forget about your encounter.
Forces	It is hard to balance a professional image, which results from a good practice, with standing out in the noise, which requires something exceptional or surprising.
Solution	Choose a company name and design a logo that is easy to recall and unique at the same time, and use your logo in every document (e.g. name card, business plan), drop the company name in every conversation (e.g. when you introduce yourself) and do not economize on business carts.
Resulting Context	A good company name and logo do not affect you professional image negatively like eye-catching clothing or behavior can do.
Design Rationale	People need to remember who you are and what you stand for, before they will contact you.
Related Work	AIDA (i.e. Attention-Interest-Desire-Action)[41] and related [42] models, like the diffusion of innovation [31], see attention or awareness as a first step and condition sine qua non for communication or action.

3.2 Dream Team

Topic	Content
Problem	How the create a team that can make the venture flourish in an uncertain environment?
Context	When you need to convince people that your business plan is realistic and sustainable.
Forces	1. Managing a venture requires a large amount of energy, motivation and dedication, and many different types of skill, knowledge and experience. 2. Nobody is perfect.
Solution	Create a team that incorporates as many desired skills and as much relevant knowledge, experience, motivation and energy as possible, but also recognize the shortcomings of the management team and develop strategies to mitigate the consequences.
Resulting Context	1. As many hands make light work, a team is more than the sum of its members (i.e. synergy), has access to more information and a larger and more divers social network. A TEAM IMAGE convinces outsiders that the synergy between the members will work. 2. A well-designed management team that knows its own qualities and shortcomings and knows when to look for external expertise. A CURRICULUM VITAE is an instrument to make these qualities and shortcoming explicit. The DOOR OPENER describes an essential quality that should be present in a venture starting team. (fig. 4)
Design Rationale	No matter how meticulously a business initiative is planned, its predestined interactions with an uncertain environment will effect in uncertain outcomes. Therefore, a venture should have a management team that is able to cope with environmental changes.
Related Work	The 3 TO 7 HELPERS PER ROLE [4] addresses group dynamics. The REVIEW [4] pattern highlights one of the advantages of teamwork. The BEAUTIFUL PEOPLE [2] pattern can help to find the right team members.

Fig. 4. Structure of the Dream Team pattern language

3.2.1 Curriculum Vitae

Topic	Content
Problem	How to convince people that you are the right person for the job?
Context	When you want to be part of the team.
Forces	No matter which diplomas you have or knowledge and skills you demonstrate, people tend to be reserved about your qualities in real life situations.
Solution	Present them your curriculum vitae
Resulting Context	A CV/resume shows prior experience in real life situations. Potential stakeholders value prior experience in the sector extremely high. Also prior success in other sectors might be valued, as your 'refreshing' outside view might compensate for the lack of experience in the sector.
Design Rationale	If people are not convinced that your team can handle the job, they will not support the initiative.
Related Work	Digitalized curriculum vitae's (e.g. [43]) are hot. Also many tips and tricks for writing CVs can be found on the net and in magazines [44-46].

3.2.2 Team image

Topic	Content
Problem	How to make obvious that a group works as a team?
Context	When other people (e.g. potential stakeholders) judge your team on its coherence and team spirit.
Forces	1. People's judgment is mainly subjective.
	2. Different roles in a team might make it difficult to create a noticeable unity in the group.
Solution	Use Gestalt principles [47, 48] to appear as a unit:
	• Similarity: Wear similar clothing or a uniform (e.g. T-shirt with company logo)
	• Proximity: Stay relatively close to each other, do not scatter throughout the entire room and frequently consult each other (briefly) so that see that you know each other, without losing too much time that can be used for meeting new people.
	• Common-fate: Enter/leave a room simultaneously and use the same entrance/exit
	• Closure: Even when your team is scatters in a room and every team member is talking to a different person, team members should try to stay within each other's field of vision, so that they never turn their back on each other.
Resulting Context	1. Gestalt laws describe the rules that govern human perception.
	2. For the DOOR OPENER, following these guidelines (e.g. proximity) might be difficult (e.g. a Door Opener needs to talk to everyone in the room irrespective of his/her proximity to the team). Consequently, he/she might be perceived as an outsider. However, the DOOR OPENER's deviant behavior and appearance might make it easier for the other group members to build a team image (e.g. stick together).
Design Rationale	People take team appearance as a proxy for team spirit.
Related Work	Chaturvedi [49] discusses how teams operate in practice in his pattern TEAM WHERE PEOPLE MATTERS – A PROJECT MANAGEMENT PATTERN.

3.2.3 Door opener

Topic	Content
Problem	How to get in touch with the right people?
Context	When you have been able to penetrate the right social network.
Forces	1. The right people might come to you for the wrong reason. 2. Wrong people might come to you for the right reason. 3. Interesting people might not speak to you because you are already involved in a conversation. 4. Interesting people might not speak to you because they do not know what your expertise and goals are.
Solution	Select one team member as a contact person. Make obvious to others who is the contact person: — Make him/her wear brighter colors than other team members. — Take advantage of conspicuous physiognomic and other characteristics that make a contact person stand out in a crowd (e.g. select and attractive and/or tall contact person). — When the team enters a room, building or other location, the contact person walks up front, and the contact person is the first to greet people (e.g. shake hands) or start a conversation. Dedicate the contact person to having short conversations with as many persons as possible, after which interesting contacts are introduced to team members with the right expertise to continue the conversation.
Resulting Context	1. When people start a conversation with the contact person, the contact person has de opportunity to introduce you properly and start the conversation on topic. 2. Since the contact person is the first one to talk to people, he/she has the opportunity to bounce people that cannot contribute to your initiative, without damaging the image of the other team members. 3. As the contact person is the first one to talk to people, he/she knows who you are talking to and has the opportunity to interrupt ongoing conversations and introduce more interesting people, while luring the less interesting people away (e.g. by introducing them to other people he/she met). 4. The contact person serves as a kind of 'table of content' for the team's expertise.
Design Rationale	Getting in touch with the right people can help to speed up the maturation process of your venture.
Related Work	The GATEKEEPER [4] pattern shows the other side of the DOOR OPENER (i.e. bouncing irrelevant people with a smile).

3.2.4 Beauty Queen

Topic	Content
Problem	Who should play the DOOR OPENER role?
Context	As DOOR OPENERS are dedicated to short conversations, the might be perceived as superficial people.
Forces	1. During social events, DOOR OPENERS should be entirely dedicated to their role. 2. If the DOOR OPENER role is combined with expert roles, the person that combines these roles dominates the conversations and makes the other team members look unimportant.
Solution	Avoid combining the DOOR OPENER role with other roles by engaging a team member with these specific skills (e.g. beauty contest finalist and professional sales people are typically skilled DOOR OPENERS). If the DOOR OPENER role needs to be combined with an expert role, make sure that another team member can take over this role and only needs support from the DOOR OPENER/expert in exceptional cases.
Resulting Context	1. If a dedicated DOOR OPENER is engaged or the expert role can be fulfilled by another team member, the DOOR OPENER can focus on his/her role. 2. If a dedicated DOOR OPENER is engaged, he or she does not have the expertise to dominate the conversation. If another team member can take over the DOOR OPENER's expert role, the team roles will look more balanced.
Design Rationale	The roles of the team members need to be balances so that all team members are perceived as equally relevant.
Related Work	The BEAUTY QUEEN pattern is a special case of the DOOR OPENER pattern.

3.3 Cash is King

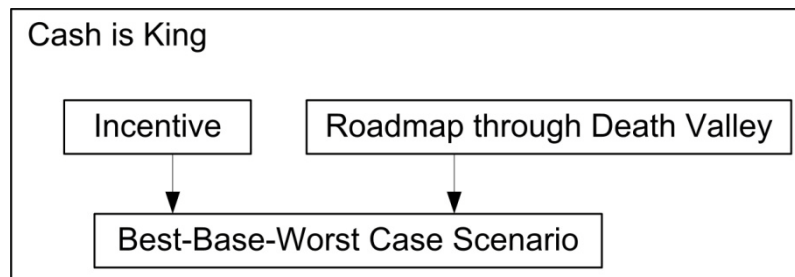| Topic	Content
Problem	How to express benefits using one unifying measure?
Context	When your plan needs to be compared to other (competing) plans.
Forces	Finding the appropriate means to motivate people and expressing the benefits of your proposition is difficult, as different people might have different objectives.
Solution	Express the benefits of your proposition to stakeholders in monetary units and create financial projections (e.g. cashflow statements, annual accounts).
Resulting Context	Money (i.e. cash) is a good measure since can be exchanged for virtually every other type of resource. However, the monetary zone in which your stakeholders reside determines the monetary unit (e.g. €, $, £) in which benefits should be expressed, and taxes and exchange rates affect the benefits stakeholders actually receive (i.e. net benefit). The INCENTIVE pattern demonstrates how cash can be used to convince people. The ROADMAP THROUGH DEATH VALLEY identifies how much cash is needed to start a venture and the BEST-BASE-WORST CASE SCENARIO addresses volatility in both outcomes. (fig. 5)
Design Rationale	Investors often like to assess the benefits of totally different business initiatives; therefore they require a unifying measure.
Related Work	Financial prognoses in business plans. (e.g. determining projected sales and acquisition cashflows by means of projected sales and acquisition volumes (e.g. market share) and projected market prices) [50]

Fig. 5. Structure of the Cash is King Pattern Language

3.3.1 Incentive

Topic	Content
Problem	How to convince people to contribute to your initiative?
Context	When you have CREATED AN INNOVATIVE BUSINESS PLAN and built a DREAM TEAM.
Forces	1. The larger the time interval between the contribution and the reward the more intense the reluctance is, but for the distributor, the cost of the recompense decreases over time. 2. People prefer certain over uncertain outcomes (i.e. risk aversion). The perceived risk is determined by the available information (e.g. the experience of the assessor, the information in the business plan).
Solution	Show every contributor that you will give him/her something he/she values more in return for his/her contribution, and make sure the aggregate of your trades (i.e. contribution for recompense) is sustainable (i.e. the aggregated value of the contributions is higher than the aggregated cost of the recompenses). Reward contributors that need to wait longer and bear more (perceived) risk with higher returns (i.e. risk premium).
Resulting Context	1. Stakeholders that know what returns they may expect are more inclined to provide and spend money and take the 'risk'. As long as they value their reward higher than their contribution, their reluctance to contribute will diminish. If they decide to contribute, win-win situations will occur (i.e. each participant will benefit from the cooperation). 2. A higher expected return balances the risk. However, there is a limitation to the power of money since business initiatives with a considerable financial return on investment might be considered unrewarding when they endanger the sustainability of the investor's earnings by damaging his/her image.
Design Rationale	When you know people that have the assets (e.g. expertise, means) that you need to make your business a success, cooperation needs to be achieved. Although cooperation is often required to create successful initiatives, people are reluctant to contribute (i.e. spend/invest energy/effort/time/money) to an initiative that is not theirs. Therefore, all participants in/ contributors to an initiative need to be rewarded. Consequently, the question "What's in it for me?" needs to be addressed for every single participant (e.g. investor, customer, supplier, team member, employee).
Related Work	The logic of the INCENTIVE pattern is also applied in the COMPENSATE SUCCESS pattern. [3] Risk aversion is the motivation for risk management (e.g. [51], [52]). Maslow [53] wrote a standard work on motivation of people in general (i.e. including non-financial incentives). So did Herzberg [54-56], in an economic context. Gossen posed saturation laws for stimuli. [57]

3.3.2 Roadmap through Death Valley

Topic	Content
Problem	How to avoid illiquidity when a business is growing?
Context	Since (fixed) assets have a payback period, newly founded and fast growing (i.e. rapidly increasing assets) businesses temporary consume more cash than they can generate. Even existing projects can grow so fast that they cannot provide their own funding.
Forces	New business initiatives often require more funding than the entrepreneur can provide.
Solution	To prevent insolvency, the project should also attract external funding, estimate the amount of cash that is required to implement the business plan properly and look for investor funding with the right maturity (i.e. match the average lifespan of your assets with that of your liabilities). Find a solid base (e.g. existing data) and a logical buildup for your prognoses, and compare the outcomes of different estimates using different methods and data sources.
Resulting Context	1. Cash that has been obtained from investors needs to be returned augmented with an ROI (i.e. an additional cash outflow). Consequently, external funding increases the amount of cash available at one moment, but decreases the potential amount of cash in the future, as the ability of a business process to generate (more) cash in the future is constrained by the amount of cash it has generated in the past and additional cash it can obtain from investors. 2. When the average maturity of the assets and liabilities match, the debt structure is sufficiently stable to support the venture and sufficiently flexible to follow the changing need for funding during the different lifecycle stages of the venture. A planning that is too optimistic burns money too fast and makes stakeholders lose confidence, while a planning that is too pessimistic creates liquidity constraint when the enterprise grows faster than expected and gives competitors the opportunity to provide the products that you cannot deliver. 3. The sensitivity analysis for financial milestones (e.g. break-even, reimbursement period, internal rate of return) serves as an implicit contract between investor and entrepreneur. 4. Throughout the organization's lifecycle, potential returns on investment decrease considerably, while the level of certainty increases. 5. In existing organizations, new business initiatives are solely evaluated in terms of generated cashflows (i.e. the contribution to the organization) when no external funding is required, whereas projects that require external funding (e.g. ventures) need to be complemented with projected annual accounts.
Design Rationale	Illiquidity means the end of the venture; therefore, solvency & liquidity (i.e. make sure you will be able to pay the bills in the long and short term) are prerequisites for business continuity.
Related Work	A typical death valley curve, which shows the effect of initial losses on the finances of new ventures, can be found in [58].

3.3.3 Best-Base-Worst Case Scenario

Topic	Content
Problem	How to let potential investors deal with the uncertainty that is inherent to the future?
Context	When a business plan has been created and the financial returns (i.e. INCENTIVES) for investors need to be estimated.
Forces	Volatility of outcomes is hard to asses since not all volatility causing factors are known beforehand.
Solution	Identify as much volatility causing factors as possible and estimate their aggregated potential positive and negative effect on the financial returns the venture can generate. Use these estimates to create a best, base and worst case scenario and if possible, calculate an expected return with these scenario outcomes and their respective likeliness.
Resulting Context	One cannot account for unknown factors; therefore it is sufficient to account for all factors that can be identified, as investors know that the financial outcomes are uncertain and want to know in the first place whether the entrepreneur has carefully thought the plan and its potential implications through.
Design Rationale	No matter how meticulously a business initiative is planned, its predestined interactions with an uncertain environment will effect in uncertain outcomes.
Related Work	Typical use of financial scenarios is demonstrated in [59].

3.4 Finding Funding

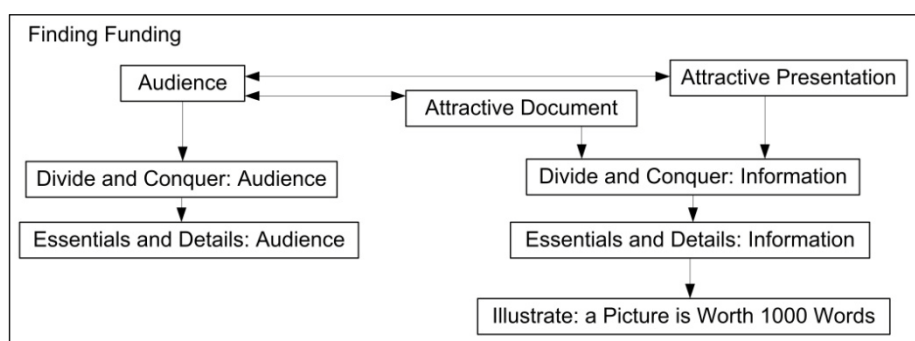| Topic	Content
Problem	How to convince investors to contribute to the success of your business?
Context	When starting an enterprise, you make a lot of cost before you can start reaping the benefits. The team member can probably not provide sufficient funding themselves.
Forces	Several investor profiles exist, each with objectives (e.g. expected return, duration and scale of participation) and expertise. But be aware that every investor is in the business for its own profit.
Solution	Create a clear and attractive document (i.e. business plan) that can serve as an implicit contract (e.g. concerning expected returns, management style) between investor and entrepreneur.
Resulting Context	The liability mix (i.e. equity capital vs. debt), which is largely dependent on the origin of the funds (e.g. banks, professional investors, stock market, friends, fools and family) is mainly determined by the business lifecycle (i.e. seed, start-up, expansion, exit): Initial funding (e.g. seed money, start-up money) is often provided by the initiators, 'friends, fools and family' and potentially venture capitalists and business angels. Once a business is more established, professional investors (e.g. banks, leasing companies, venture capitalists, stock markets) play a more important role providing expansion and exit money. In specific cases, authorities can also provide money. Professional investors (e.g. banks) often require collateral securities or high risk premiums and sometimes joint management. Relatives provide money at favorable conditions but mostly have limited resources. Business angels can provide additional support and relevant experience. The longer the history of the enterprise, the lower the risk premium. Matching investor profile with the information provided in the business plan, will avoid unnecessary reiterations of the business plan or unnecessary rejections because the plan is deemed unsatisfying. The underlying pattern language for FINDING FUNDING then addresses techniques to address an AUDIENCE with ATTRACTIVE DOCUMENTS and ATTRACTIVE PRESENTATIONS. (fig. 6)
Design Rationale	The balance sheet of an enterprise consists of assets and an equal amount of liabilities (i.e. equity and debt). Consequently, an enterprise requires funding in each phase of its lifecycle.
Related Work	The ROADMAP THROUGH DEATH VALLEY pattern provides the venture profile that can be matched with investor profiles. Timmons and Spinelli [58] provide an overview of the cost of capital and typical amount of funding per type of investor and shows typical capital structures during an enterprise's lifecycle. Kotler [60] discusses a marketing approach to finding funding.

Fig. 6. Structure of the Finding Funding pattern language

3.4.1 Audience

Topic	Content
Problem	How to find your audience?
Context	When you have an idea of what you want to achieve and how to achieve it, but do not know who to target to move your idea forward.
Forces	1. There is a competition to get in touch with people that can really help you, because they are scarce and can also help others. 2. People that have managed to get in touch with them will fence their valuable connections off.
Solution	Talk to as many people as possible, take your time to find out whether people are interesting, move on when they are not and go back to places where you meet interesting people.
Resulting Context	1. When you visit the right locations often, people will know your ideas and tell you who you need to talk to. 2. When people think they know you, their motivation to fence of people decreases.
Design Rationale	Inventors are often so preoccupied[3] with their idea that they do not value a wide and diverse social network until they really need it.
Related Work	The INTROVERT-EXTROVERT pattern [61] helps introverted people to find the right 'tone of voice' for addressing an audience, The DOOR OPENER introduces them to the right audience. Social networks in cyberspace are a hot topic.[43, 62]

3.4.2 Divide and Conquer: Audience

Topic	Content
Problem	How large should an audience be?
Context	When you have a message that you want to communicate to an audience.
Forces	Finding an optimal size or granularity for groups of people is a complex task, since there is a trade-off between economies of scale (larger audiences generally require fewer resources per capita) and the specificity of your message, which follows your success rate (specific information has a higher success rate but destined for a smaller audience, generic information has a lower success rate but is destined for a larger audience).
Solution	Match the required resources (i.e. cost) per capita with the expected value per capita, and make sure that the expected value per capita exceeds the cost per capita.
Resulting Context	Valuable audiences are divided in smaller groups and provided them with the specific information they want. The higher cost per capita is compensated with a higher success rate. Less valuable audiences are divided in larger groups and provided with more generic information. The lower success rate is compensated with a lower cost per capita.
Design Rationale	You cannot convince the entire world at once.
Related Work	Kotler [36] lists several Market (i.e. audience) Segmentation criteria. This pattern has a dual pattern (i.e. DIVIDE AND CONQUER: INFORMATION)

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[3] Some are convinced that good wine needs no bush; others are just shy or scared that someone will steal their idea.

3.4.3 Essential & Details: Audience

Topic	Content
Problem	How to structure large groups of people?
Context	When you have an audience that is too large to address at once.
Forces	Large groups of people are hard to manage and address, as the diversity of the group and hence the heterogeneity of its interests increases, which requires the generality of the information to increase, with the number of members.
Solution	Discriminate essential (e.g. most rewarding prospects) from peripheral people (e.g. least rewarding prospects) and focus (your message) on the essential people (first).
Resulting Context	This essentiality criterion defines a priority in which groups should be addressed.
Design Rationale	Too little essential people may lead to inappropriate omissions, leading to missed opportunities. Too many essentials may dilute focus and cause the message to be too generic.
Related Work	This pattern has a dual pattern (i.e. ESSENTIALS AND DETAILS: INFORMATION)

3.4.4 Attractive Document

Topic	Content
Problem	How to motivate people to process as much of the information contained in your documents as possible.
Context	When you are creating documents (e.g. business plan, name card) that will be distributed among your (potential) stakeholders (e.g. investors, customers, suppliers).
Forces	1. Reading your documents is often not the reader's priority. 2. Many fonts look attractive but prove hard to read.
Solution	Create well-structured documents with sober but efficient and consistent use of lay-out elements. • Limit the number of fonts used in the document, use them consistently (e.g. one for titles, one for text, one for captions, one for sidebars …) • Be careful (and sparing) with the use of italic and bold. • Use professional looking fonts (e.g. Arial, Times)[63] • Use between 45 and 65 characters per line[64] • Use left-justified text [64] • Use serif fonts for text and sans-serif fonts for titles [64] • Use sparse line spacing [65] • Avoid having a short line (e.g. one word) at the end of a paragraph.[63]
Resulting Context	1. When documents are attractive, the perceived effort of processing them is reduced, which means that this attractiveness is a kind of intrinsic INCENTIVE. 2. When the body of the document uses fonts that are especially designed for readability, and fancy fonts are used for highlighting certain parts of the document (e.g. titles, side boxes), the reading efficiency will increase. However, dyslectic people seem to prefer sans-serif fonts [66].
Design Rationale	You can improve your chances to get your message across by making your presentations superior. It won't make your arguments better, but it will ensure that readers grasp and retain your points more easily. That's a valuable advantage, which you should seize.[64]
Related Work	Business Plan Templates [50] show examples of business plans with a structure and content that is typical for a certain type of venture.

3.4.5 Attractive Presentation

Topic	Content
Problem	How to motivate people to be attentive during the entire presentation?
Context	When you are preparing presentations (e.g. business plan) for (potential) stakeholders (e.g. investors, customers, suppliers).
Forces	Although a business plan largely consists of detailed technical and financial information, an oral presentation is not ideally fit for presenting detailed information.
Solution	Sketch the plan in broad outlines (i.e. idea's and bottom line) in the presentation, save the details for the question round after the presentation and prepare (slides) for questions. Create well-structured presentation with sober but efficient and consistent use of lay-out elements [67] and manage your body language. • Be enthusiastic • Know your audience and highlight important points for them • Limit the number of words per slide • Tell people three times (i.e. tell them what you will tell, tell it, tell them what you have told) • Remind the audience of the presentation structure and show the advances in the narrative thread (e.g. by repeating the presentation outline and highlighting what which topics have been addressed).
Resulting Context	1. An enthusiastic presenter may motivate people to be attentive 2. Reminding people of the presentation structure and highlights may help to regain the attention of people whose attention you have lost. 3. A sober presentation puts the emphasis on the content
Design Rationale	The audience needs to be attentive, to be susceptible to your message.
Related Work	PATTERNS FOR TEACHING SOFTWARE IN CLASSROOM [68] addresses a specific kind of presentation skills (i.e. teaching software) for which certain guidelines (e.g. SHOW IT RUNNING) can be generalized for other presentation types (e.g. presentation of a product). A PATTERN LANGUAGE FOR SCREENCASTING [69] focuses on a particular type of presentation.

3.4.6 Divide & Conquer: Information

Topic	Content
Problem	How communicate large amounts of (complex) information to an audience?
Context	When you are creating a message that you intend to communicate to an audience.
Forces	Finding an optimal size or granularity for information is a complex task as there is a trade-off between the quality of the content and the size of the message, which influences the reception of the message negatively.
Solution	Use short and simple sentence structures, structure your information clearly (i.e. create a table of content and use section and subsection titles), bring every message (i.e. piece of information) as concise as possible without being incomplete and avoid messages that are too short (e.g. half/double the size of the average message in the document) as they may indicate bad structure (e.g. belongs is part of another message) or incompleteness (e.g. the idea is not fully developed).
Resulting Context	A clear document structure allows you to represent all required information in the document and divide it in small and effective messages. The structure also allows the reader to look for (or skip) messages that are (not) relevant.
Design Rationale	Transferring information is the essence of every type of communication.
Related Work	This pattern has a dual pattern (i.e. DIVIDE AND CONQUER: AUDIENCE)

3.4.7 Essentials and Details: Information

Topic	Content
Problem	How to structure large pieces of information?
Context	When you have a message that is too large to be communicated at once.
Forces	Large messages are hard to communicate, as they require more effort from the recipient, which may hamper communication through fatigue. On the other hand, it is hard to substantiate convincing arguments in a short message.
Solution	Discriminate essential from peripheral information and communicate the essential information first. (e.g. bring the essential information in the first section of a text or the first sentence of a paragraph).
Resulting Context	Bringing essential information first allows people to scan a document more easily, without losing sight of the overall message of that document.
Design Rationale	Large messages require more effort from the recipient; hence a larger incentive is required.
Related Work	This pattern has a dual pattern (i.e. ESSENTIALS AND DETAILS: INFORMATION). The executive summary (i.e. a 1-5 page summary of a document), which is an essential part of a business plan [50], is a typical example of the bundling of essential information.

3.4.8 Illustrate: A picture is worth 1000 words

Topic	Content
Problem	How to make documents and presentations visually attractive?
Context	When you want your message to make a lasting impression.
Forces	Documents that contain too much solid text may appear dull, whereas text that contains too many pictures, diagrams and tables loses its consistency
Solution	Include relevant diagrams, tables and pictures to illustrate your text, but try to avoid having more than one illustration per page and having two facing pages of text without illustration.
Resulting Context	Having graphics to illustrate a text is insufficient to increase attractiveness; the graphics also need to be perceived as attractive and relevant.
Design Rationale	Some information is hard to communicate with text and numbers (e.g. the design of your product).
Related Work	The TURNING ME ON TURNING ME OFF pattern [70] provides guidelines for interactive graphics. Moody [71] describes essential characteristics of good diagrams.

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