

# White Paper

---

## Fast Wow Effects Boosting SME Business

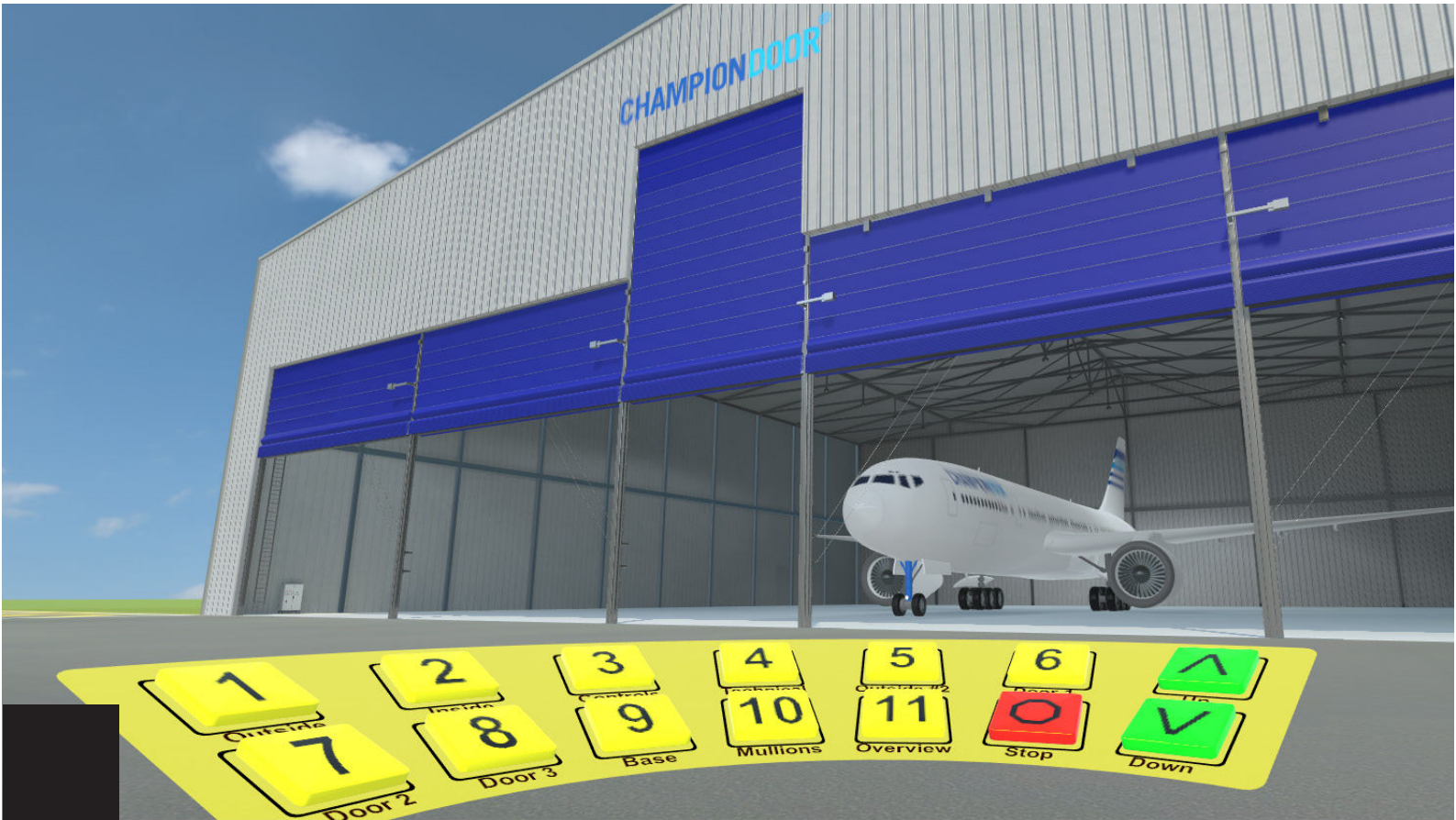
*Appendix in*

*Final Report*

*Fast Wow Effects Boosting SME Business,  
Centria University of Applied Sciences, Finland, 2017.*

*Reproduced by permission*

Sakari Pieskä, Ari Lehtiniemi, Anttoni Porri, Juhana Jauhiainen, Joni Jämsä, Jari Kaarela,  
Taisto Suominen, Mika Luimula, Marcus Penttinen, Tero Reunanen



## FAST WOW EFFECTS BOOSTING SME BUSINESS

Final Report



© Kari Hakkarainen  
Virike Consulting 2017

# REPORT

## Fast Wow Effects Boosting SME

### *WP4 Business Experiments*

Tekes, Centria University of Applied Sciences & Turku University of Applied Sciences

A "wow" effect is easy to recognize when encountered, but it is difficult to define. There is no widely accepted scientific concept for wow or wow experiences [1]. Maybe one could say that "wow" is an instant, instinct mental response to an unexpected positive experience.

The project "*Fast Wow Effects Boosting SME*" studies how - especially small and medium-sized enterprises - can achieve positive customer experiences. This report elaborates the Work Package 4 (WP4), "*Business experiments*".

The key to customer experience is a company's business model. A company is a system, an entire organization together as one thing. It cannot prosper in competition, or even survive, if all of its parts are not contributing to customer experience in a balanced way.

Understandably, there cannot be detailed, step-by-step instructions of how to create and deliver a good customer experience. But there are ways and means to experiment with, evaluate, and assess related ideas.

Morris et al. [2] have declared three critical drivers of innovation success:

1. accelerating the innovation process,
2. reducing the risks inherent in innovation, and
3. engaging your entire organization and your broader ecosystem in the innovation effort.

We will examine the above from the following perspectives. In chapter 1 we discuss the elements of a positive "wow" experience, giving some real-life examples. The following chapter studies a company as a system and explains the essential role of related business model. Chapter 3 combines fast technology experiments (frugal innovations) and agile business assessments (strategic positioning) creating a dualistic view to the subject. Finally, we expand the above in its full extent with an omni-channel approach to deliver comprehensive customer relationships.

All in all, we will end up with proposing a lean, agile and practical way to assess and evaluate the potential for generating positive "wow" customer experiences.

## 1. Competitive Edge

What creates a "wow" effect?

Competition in markets is shifting from products to solutions to experiences.

*User experience* is characterized by the feel, look, or usability of a product. During the last ten years, however, another more comprehensive concept, *customer experience*, has emerged. It is wider and deeper, since it builds around feelings, emotions, physical and psychological responses, smells, colors, spaces, etc. It is wider also in the sense that a user is always a customer, but the customer is not necessarily a user.

Mere technical product supremacy is thus not sufficient, because the value is in the experience. Customer experience is the ultimate differentiator in today's business competition.

Such experience is created by business models. We will examine that later.

The shift from products and services to experience should not come as a surprise, because it has already been evident and critical in many businesses. Behind the often-cited success stories of Dell, Apple, the model-T Ford, or IKEA is precisely a prospering customer experience, not a single technology or other individual factor. For example, Ford's success is often incorrectly attributed purely to price. However, at least equally important were the introduction of a dealer network with a presence in every major city and novel financing alternatives – both new ideas to the industry.

Edison already utilized business models for the purpose. In 1880, he founded the Edison Illuminating Company, the first investor-owned utility to distribute electricity to the public. His purpose was not primarily to profit from distribution itself, but the company was essential for the widespread use of his other invention: a customer experience called the electric lamp.

No one buys something just because it is new; it has to meet a need or expectation. It is about what a customer experiences. Occasionally a customer might simply just pick something up to cover an acute, immediate necessity. Or, at the other end of the spectrum, hardcore early adopters get excited about the announcement of a new product, anxiously waiting for its release, ready to queue overnight in front of a shop for sales to start, and to dash inside the store to be one of the first to purchase the new gadget. And all of that, even before they get their hands on the actual merchandise. It is the whole entire experience that gives the thrill.

The "wow" effect is a spontaneous reaction to the result of an unexpectedly positive customer experience.

From the developer's view, essential are fast and frugal ways in creating the "wow" effects.

## 2. Business Model and Customer Experience

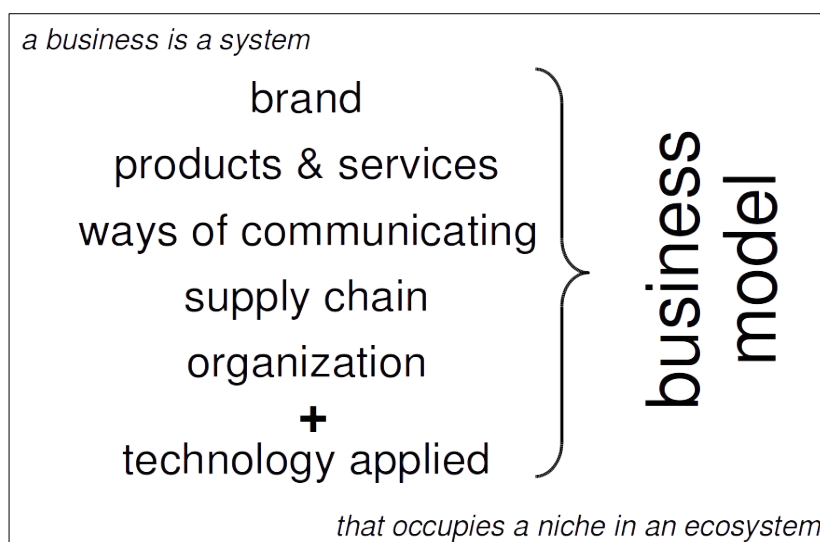
### 2.1. Enterprise as a System

A company, or an enterprise is not just an organization, a set of processes, or resources. Instead of these rather static definitions, Morris [3] takes another, dynamic and wider perspective. He approaches companies and businesses from a system point of view. He describes a company as, “... *not a particular department, a product, a service, or a brand. It is the entire organization together as one thing, working together to deliver value.*”

A company is a part of another system, a business ecosystem called *markets*. That, in turn, further belongs to a larger ecosystem known as *the economy*. An ecosystem is a community that produces goods and services of value to customers, who are themselves members of the ecosystem. It also includes suppliers, lead producers, competitors, and other stakeholders.

One can think of a company perceived as “A *comprehensive description of business as an integrated system functioning in an intimate relationship with the broader market. It articulates how a company applies processes and technologies and how it organizes itself to build and sustain effective relationships with customers*” [3].

This defines a company's business model (*Figure 1*).



**Figure 1.** Individual components of an organization do not matter as much as the way they work together to enable the organization to create value and deliver it to customers. The list is exemplary and adapted from [3].

## 2.2 Business Model

What, as a matter of fact, is a *business model*? And why is it essential?

Every company has a business model, whether it is deliberately defined and clearly articulated, or shaped by itself over the course of time. However, in reality only few have documented it as such.

There are different definitions for the concept. Usually they stem from, or focus on, attributes specifying financial or business targets such as new value proposition or value generation.

Morris has made a wide definition [3]:

*“A business model is a description of a whole system, a combination of products and services delivered to the market in a particular way, or ways, supported by an organization, positioned according to a particular branding that, most importantly, provides experiences to customers that yield a particular set of strong relationships with them.*

*Further, a business model describes how the experiences of creating and delivering experiences and value may evolve along with the changing needs and preferences of customers. And it says how you make money, what people are willing to pay you for.”*

## 2.3 Business Model and Competition

Why is a business model so important? Because it defines how a company approaches customers.

One can perceive from *Figure 1* that nothing else but the business model delivers a customer experience. *“In the end, business model innovation is all about the customer’s experience”* [3].

Business model cannot be dedicated to a particular organizational unit or function. It is the entire organization together as one thing that brings it to life, as Morris has stated. This means that every individual in a company is in direct or indirect relationship with the customer. It is important to understand that every individual thus contributes to the business model.

Wrapping it up, *“today and into the future what we’re talking about is not just competition between companies, but competition between business models”* as Morris concludes [3].

Further discussion on business models and their implementation can be found in [4].

### 3. How to Get Hold of "Wow" Elements

There is no shortage of methods or models for innovation or ideation. They are plenty and they present a vast variety of approaches. One of the recent - and notable ones - follows the steps of the Manifesto for Agile Software Development. The authors call it "*Agile Innovation*" [2].

Here we take another agile approach that combines technology experiments and business assessment: frugal innovations and strategic business options.

But first, let's discuss where the ideas emerge from.

#### 3.1 Idea Genesis

Where do the ideas come from?

Majority of innovation models regard idea generation as the first important stage of the creative process. This proposition can be challenged. Maybe ideas are everywhere? Maybe they exist and only need to be captured?

After all, does such a thing as active and purposeful idea generation even exist? Do people think faster in a hurry when overwhelmed by tasks and assignments?

Certainly not – in fact, probably the opposite. Similarly, does asking a person to be creative, or ideative, actually work? The entire idea-generating process is haphazard and unpredictable. Scott [5] notes, "... *real creation is sloppy. Discovery is messy; exploration is dangerous. No one knows what he's going to get when he's being creative.*"

Mintzberg [6] observes similar characteristics in strategy creation. Strategies are everywhere, they just need to emerge. He states: "... *strategies often cannot be developed on schedule and immaculately conceived.*"

There are methods, like brainstorming, that are good concepts in theory but have proven inefficient in practice [7]. Brainstorming and similar forms of teamwork are, in fact, claimed to be actually less effective than individuals working independently [8]. Participants' behavior is affected by group dynamics, alertness varies, there are distractions, and so on. Scott claims that when brainstorming is conducted the right way, as intended, it is effective [5]. Unfortunately, real-life sessions seldom consist of more than organizing sticky notes.

Scott presents several tools that might help to reduce obstacles to idea hunting [5]. DeBono, known for his classic treatise on "lateral thinking" [9], has written several books on the subject. Various other well-known methods, such as TRIZ [10], are occasionally mistaken for idea generation. They may nurture creativity, but by definition they are actually intended for problem-solving or for classifying and organizing ideas. The Internet can provide a bunch of tools, and it does no harm to give some of them a try.

So where do the ideas come from, if not conceived purposefully? *They can come from anywhere.*

Or it could be said that ideas exist, and they just need to emerge and be identified. A well-known phenomenon called simultaneous invention supports this argument. Two people may invent the same thing at the same moment, independently and without knowing each other [11].

Some underline the importance of uniqueness or the originality of ideas [12]. We disagree, believing that the origin is secondary. As attributed to Thomas A. Edison: “*Keep on the lookout for novel ideas that others have used successfully. Your idea has to be original only in its adaptation to the problem you are working on.*” [13]. This is what Matthews [14] also emphasized: “*The ideas can come from anywhere, the initial source is not so important.*”

With regard to the above, we have never found a company short of ideas. On the contrary, companies complain that they have far too many initiatives in the pipeline.

Struggling with prioritizing and balancing a portfolio is instead their main problem.

### **3.2 Idea Screening**

As Stevens and Burley revealed in their study, only a very small fraction of ideas turn out to be productive [15]. They claim that of 3000 ideas, only one makes it through to successful launch (*Figure 2*). The word successful is important here. There are well-known examples of products that fail in the market, but often forgotten is the abundance of initiatives that wither away in the development process, out of the spotlight. Other studies support this finding. Exact ratios may vary, but the phenomenon is unmistakable.

To manage with such a drastically poor yield, infertile ideas and subsequent projects must be screened out as early as possible. This will save money, time and effort, as well as reduce waste. Rescued resources can be re-focused and allocated to more promising initiatives.

An apparent solution is to screen projects along the development path. Although there are several ways of doing this, one of the best-known and most common is the funneling process (*Figure 3*). The objective is to gradually mature a raw idea into a concept and finally into a ripe product, while at the same time discarding unfruitful ideas through inbuilt screening at the gates between development phases.

But how to be sure that those ideas with the most potential get through? The criteria may be financial, as often suggested, a declared common scorecard that has different perspectives related to success, or projects might have specific gate criteria agreed to at commencement.



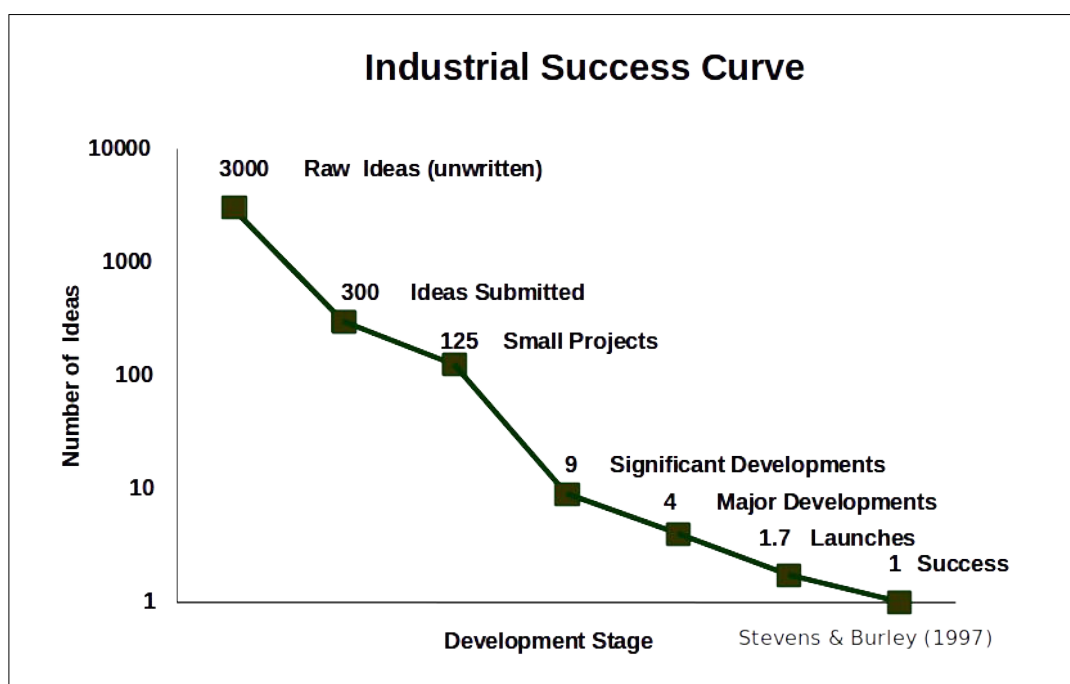


Figure 2. 3000 ideas produce only one success! Adapted from [15].

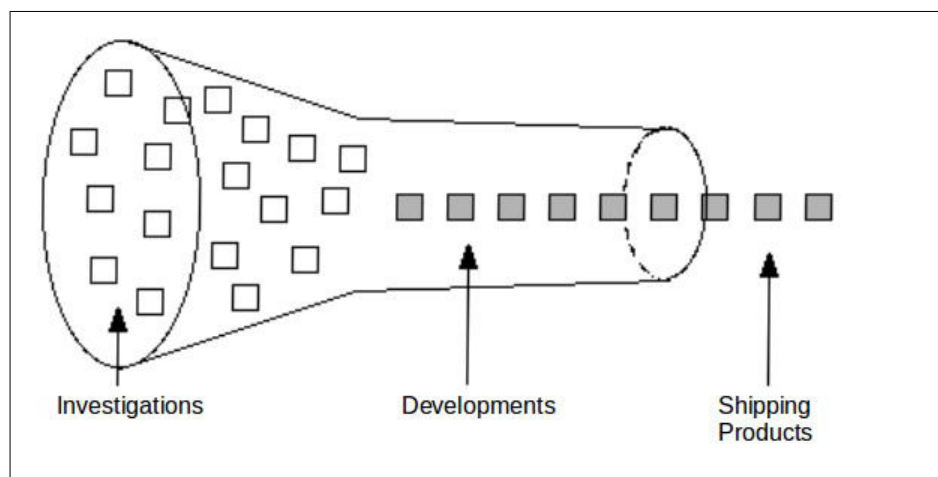


Figure 3. The "funneling" process starts with a broad range of inputs that get refined and evaluated in several sequential stages [16].

### 3.3 Alternative Approach

Morris et al. have presented in their praised book “*Agile Innovation*” [2] an approach that draws from the Manifesto for Agile Software Development. They show how agility and innovation can be combined; or that it is even a necessity. They explain how that can be made happen in practice.

Dellaria discusses about two dimensions: perception and reality [17]. Perception is a belief (*will it work?*) held by a person or group of people, and may change over time. Reality (*can it work?*), on the other hand, never changes.

It may appear odd at first, but with given assumptions and under certain circumstances, the fact as to whether an idea can or cannot work remains the same. It is similar to a law of nature. Only understanding of that fact may increase, by accumulating information.

We propose an approach which builds on the two mentioned dimensions:

- technology experiments and evaluation: can it work?
- business experiments and assessment: will it work?

The two dimensions constitute a dualistic view into the same object. They are parallel, overlapping, iterative and intertwined. For technology dimension we suggest fast experimentation and strategic positioning for business.

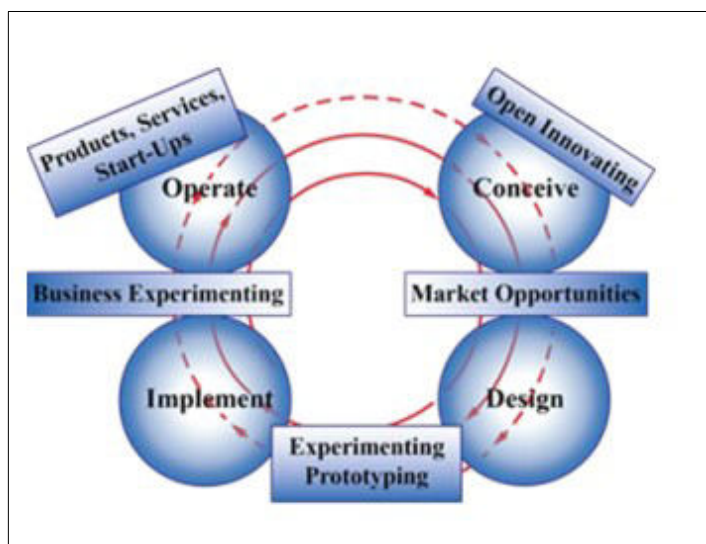
Our approach is by no means in contradiction with the *Agile Innovation*. On the contrary, it is conceptually alike and agile. There are some minor differences in details and terminology. The proposed approach is probably lighter to take into use.

### 3.4 Frugal Innovation

The working method is based on fast experimentation, as is presented in *Figure 4*. It is a cycle of recursive conceive, design, implement and operative phases.

In fast, frugal experimentation co-creation is foundational, i.e. collaboration with customers for the purposes of innovation. The customer or business partner is an active collaborator right from the beginning of the innovation process. The challenge for businesses is being proactive which also means identifying and satisfying the latent needs of customers [18].

More of the approach is in WP3 “*Technology Experiments*” in the project report.



**Figure 4.** Fast, iterative experimentation cycle [18].

### 3.5 Kissing the Frogs

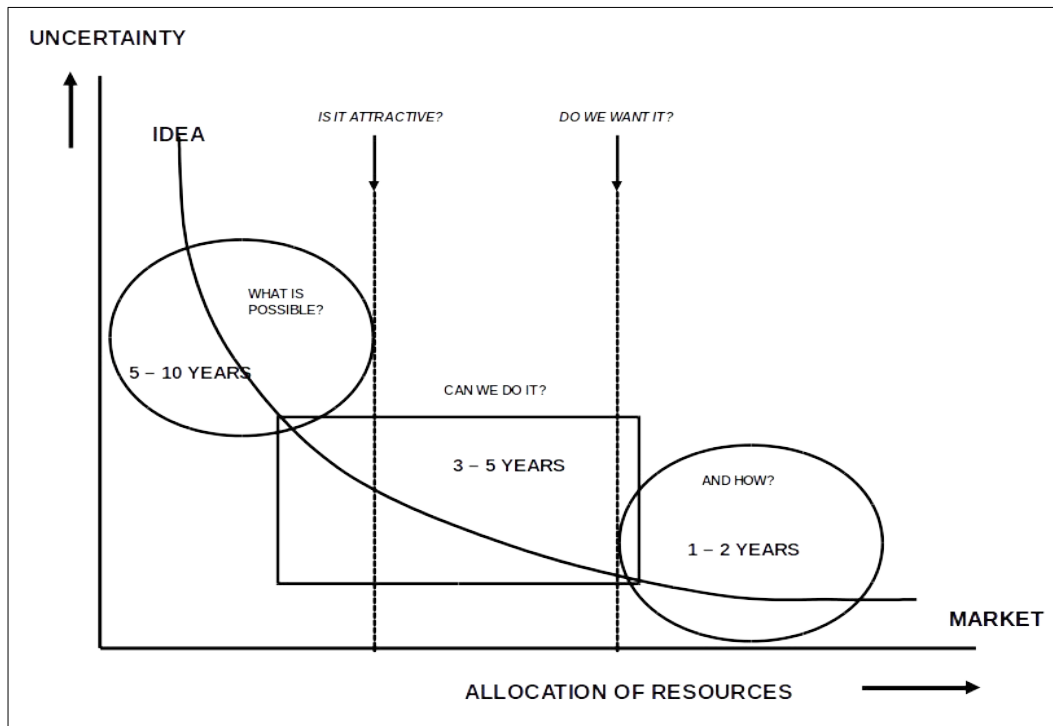
Business assessment is not research or a feasibility study. The purpose is to assess existing ideas. It is a prerequisite that the functionality or technical feasibility of the idea *has been proven upfront by fast experimentation* or by other means.

For business assessment (“*will it work?*”) we would like to propose an approach, as presented by Matthews [14]. It is a down-to-earth, usable method in the spirit of traditional physics research: “*Put a carefully formulated question to Nature, and she will give a clear answer.*”

Matthews concretizes, with an illustration, how different types of technology projects place themselves in an uncertainty-commitment coordination, what are their roles, and what are their characteristics in the sense of finance (Figure 5).

Research is overhead. Subsequent *strategic positioning* creates strategic options for the future. They are potential options for possibly pursuing later product development projects. These are in turn business investments aimed at generating return.

Matthews calls strategic positioning “*kissing technological frogs*”, referring to a fairy tale. Frogs in a pond represent *ideas*, i.e. potential strategic options. One picks up one frog at a time and kisses it, in order to determine whether it is actually an enchanted prince. If it is, one schools it to become a king. If not, the frog is released to leap back into the pond to mature.



**Figure 5.** Basic research, strategic positioning (rectangle in the middle), and product development in an uncertainty-commitment continuum [19].

Since this is not *research*, one should not focus in technical or other details. The purpose is to assess given ideas. The essence is in generating fundamental questions, structuring answers, and focusing on potential options and trade-offs.

In practice, one addresses questions such as “*Is it practical?*” and “*Is it desirable?*” Or, put bluntly: “*Could we do profitable business with it?*” The objective is to screen potential options for future business and to reduce the uncertainty attached to them. What is important in the process is duality; constantly shifting the viewpoint between business and technology. Consequently, the viewpoints are not only parallel or overlapping, but intertwined.

Besides the generic framework, Matthews did not propose a practical process. The following procedure is based on the author's experiences, research, and development work. The process starts with a carefully formulated, closed question as a research object.

A good question has the following characteristics:

- it is concise, a one-sentence statement in the form of a question
- it is specific in order to focus efforts on the information needed for effective decision-making
- it is concrete and comprehensible to both business and technology people
- it defines the context and scope for the research
- it declares a positive hypothesis to be challenged

The question derives directly from identified strategic challenges, and is formulated, for example, as: “*Is it possible to enter and create sustainable profitable business in the XXXX market based on the existing YYYY product?*” The question is a closed rather than an open one. A closed question directs research towards a definite target, and the answer is a simple, unambiguous yes or no.

In the same way, one could examine also other business aspects, e.g.:

- Is it possible to generate X% increase in sales leads and bids with the described promotional approach?
- Is it feasible to expect Y% customer retention rate with the proposed novel customer scheme and communication channel?

Use of a closed question could be challenged on the grounds that such an answer is information deficient, or that in a complex reality it is often impossible to declare a statement exclusively true or false. That is indeed correct. The answer must also convey the underlying assumptions: either “*Yes, provided that...*” or “*No, unless...*”

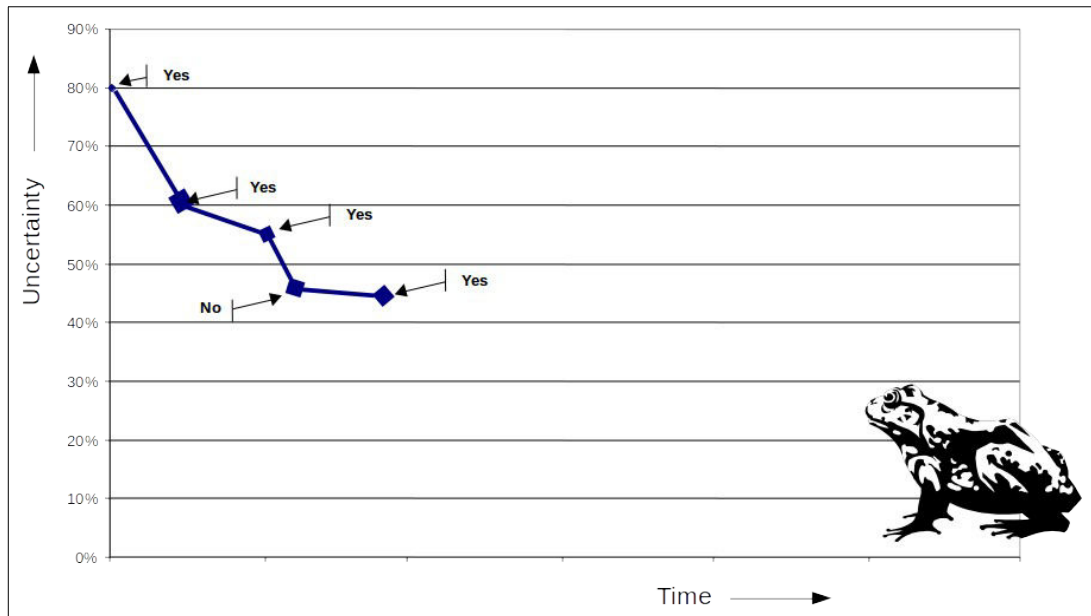
One single question is usually not enough, because it does not necessarily guarantee an unambiguous answer, in either the affirmative or negative. Many questions require complementary or counterbalancing questions. In this case, the main question “*Is it possible to...*” may call for subsidiary questions concerning technology: “*Can we justify the product development costs incurred?*” and, “*Can we justify the increased product health care costs?*”

The research, organized as a project, progresses step-by-step and each consecutive step consists of the following actions:

- research the question
- evaluate the outcome and define next actions
- reiterate until a feasible or achievable level of certainty is reached

A steering group is in charge of guiding and supporting the project. It evaluates and accepts the results at each step. Assessment is based on the information given by the project manager, including a likely answer to the question, assumptions, and the estimated certainty level at that point of time.

Furthermore, a steering group agrees on the actions – such as additional questions, clarifications, or new aspects to cover – needed to reduce uncertainty at the next step. To retain agility, the duration of an individual step is two to four weeks (*Figure 6*).



**Figure 6.** The idea of "kissing technological frogs" is to reduce uncertainty by successive stepwise iterations. For the sake of agility, one step lasts a few weeks, and the whole process a few months.

Uncertainty is always attached to an answer, and the very nature and objective of the research is to gradually reduce it. It can at some steps get larger, which may appear counter-intuitive; but new information can, in fact, reveal unknown sources of risk. In a similar manner, the answer may change from yes to no, or vice versa, as the study progresses. The process continues until it is obvious that further efforts would not sufficiently reduce uncertainties.

To serve the purpose, the whole project lasts a couple of months, at maximum, to be lean and agile.

The process is simple yet efficient. It focuses on the essential, because a research question derives directly from identified strategic business issues. Lamé ducks are discarded early, so the resources released can be re-allocated to other needs.

### 3.6 Strategic Options

Now, let's consider that an idea turns to be a "prince". It is not necessary, or reasonable, or even possible to implement such a discovered and identified potential right away. Rather, it is advisable to treat it as a strategic option for future business.

An option is a contract that gives the option owner the right, but not the obligation, to buy or sell an underlying asset at a specified strike price before a specified date.

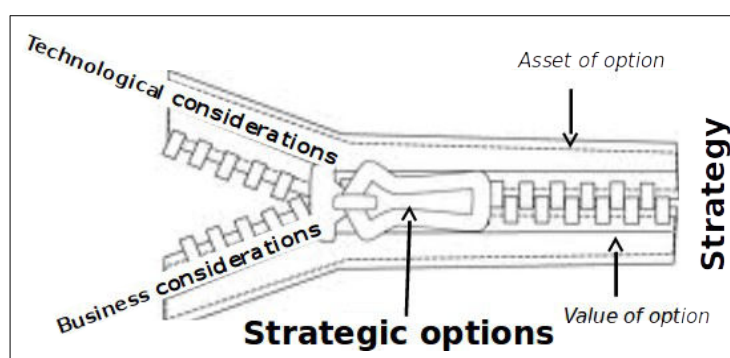
A description of the idea by itself is not sufficient for the purpose. One should complete it with the following attributes, and register them properly:

- the definition and specification of the underlying asset,
- the spot price, or current value of the asset,
- the strike price, or exercise price of the transaction, and
- the expiration date, or expiry, the last possible date to exercise the option.

Definition is a description of the option (i.e. assessed potential idea), spot price its value if implemented, and strike price the expense of taking it to use, e.g. product development costs.

The concept of financial options has been applied also to business initiatives, such as capital investments. They are called real options. They deal with assessing the opportunities to invest in manufacturing, product development, processes, etc. Real options differ from the financial kind in that no outside counterpart is involved.

An identified option interlocks the results of both business and technology considerations, in much the same way as a zipper (Figure 7).



**Figure 7.** Strategic options interlock technological and business considerations together as a zipper.

### 3.7 Exercising Options

One should repeat *kissing technological frogs* as soon as new ideas emerge. There ought to be several options to consider and choose from. After all, is one and only option really an option? A set of options accumulates into a portfolio of strategic options.

For decisions about options in a portfolio, there are three possible choices:

- exercise (decision to invest in a project),
- defer (let the option stay in the portfolio for future consideration), or
- abandon (an option has expired or has become obsolete).

When and how often should an option portfolio be reviewed for decision-making?

The timing of decisions is flexible, because an option is the right, but not the obligation, to undertake an agreed transaction within a specified period of time. That avoids premature commitment of resources. Moreover, when scheduling of activities is not dictated by a company's annual planning cycle, it adds to flexibility.

Luehrman elaborates: "*Business strategy is much more like series of options than series of static cash flows. The strategy sets the framework within which future decisions will be made*" [20]. Executing a strategy thus involves making a sequence of decisions. Some actions are taken immediately, while others are intentionally deferred as circumstances evolve. Luehrman's statement implies that actions cannot be constrained by a company's annual planning cycle. Instead, portfolios should be reviewed on a continuous basis and corresponding decisions made as new significant information about internal and external developments appears.

Luehrman gives a gardening metaphor. Managing a portfolio of strategic options is like growing a garden of tomatoes. Any gardener would know to pick tomatoes that are ripe and perfect. Other tomatoes are rotten, no gardener would ever bother to pick them. In between are tomatoes that are edible but would benefit from more time on the vine, while others are not edible yet, and there is no point in picking them now.

Exercising options is a deliberate managerial decision that is pro-actively made by representative business owners and technology management. Decision-making criteria depend on the case, but they always derive from a business strategy. Therefore, it is essential also here to have a dualistic and profound dialogue between business and technology that focuses on potential choices and trade-offs [19]. That way options enable, and in fact necessitate, active decision-making and management that are prerequisites for implementing the strategy successfully.



An essential benefit of employing options here is to avoid tying up capital in early phases. An option is, by definition, an option. So far no obligations have been entered into. A company does not commit itself to product development or implementation project until it decides to exercise an option. Investments are not needed before the mentioned commitment.

The author has contemplated innovation, funneling and strategic options further in [21].

#### **4. Omni-channel Business Model**

What is omni-channel? The concept of *multichannel* has been around in marketing, sales and customer service for some time. In short, it means that the customer can communicate with the company by optional means such as telephone, email or Internet. Parallel approach is *multi-mode*, where there is a single channel but communication mode can be changed during a session. For example, a customer contacts a help desk through web, and can switch from on-line help to chat, to voice connection, to remote system administration.

*Omni-channel* combines these two characteristics.

The result is an overlapping matrix as illustrated in *Figure 8*. We do not talk any more about a supply chain, but a dynamic network involving a company and its customer.

For example, the customer can use a smart phone to view company's offering, make an order through website and pick up the item at bricks and mortar store. After sales service would have the same variety of options. The point is that the same information about the customer and all the interaction is instantly available at every contact point.

Referring to *Figure 8*, the following are essential:

##### Contact points / hubs

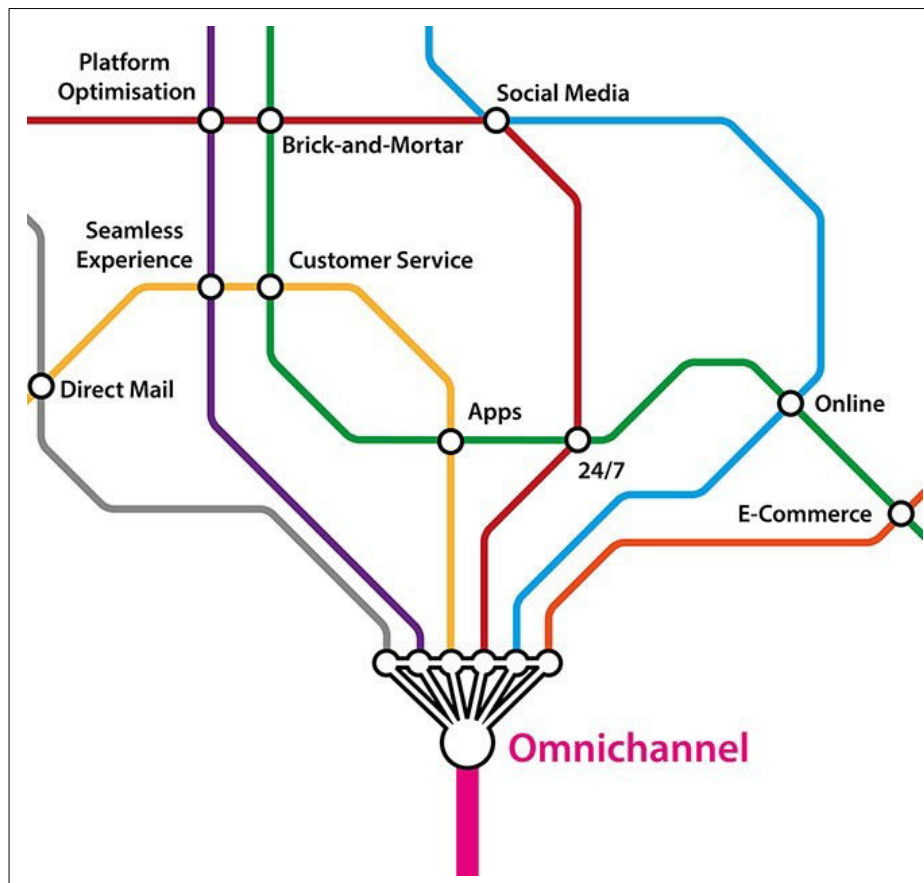
- home pages (computer, mobile, tablets)
- email
- media (news, announcements, articles)
- customer service and help desk (telephone, email, chat, user manuals)
- *not to forget the important* bricks-and-mortar store

##### Customer / communication paths

- identification and modeling customer paths
- it is essential to combine on line and off-line experiences so that the same up-to-date information is available in every channel

##### Synchronizing the channels

- customer contacts create several entries in customer registry
- to guarantee a frictionless customer experience, this data must be available at every customer interaction, and the customer path must be visible to customer service



**Figure 8.** *Omnichannel combines multichannel and multi-mode resulting a cross-channel net [22]. Virtual, augmented and mixed reality, as studied in the project, can enhance customer experience at the contact points.*

Usually omni-channel has been considered as a model mostly for customer communication and interactions. However, a closer examination reveals that it is all about customer experience. So why to restrict the concept to "external" relationships? It should rather be perceived as a cross-channel *business model* that creates the customer experience.

In fact this perspective already has applications in e.g. health-care, government, financial services, retail and telecommunications industries [23].

By combining the following two aspects

- approaching company as a *system*, the entire organization working together to deliver value, and
- utilizing the *omni-channel* concept

we build a comprehensive and balanced *business model* that enables to generate the "wow" experience.

## In Conclusion

A "wow" effect is about customer experience, and customer experience is created by a company's business model. In this report we have elaborated the different aspects of a business model, related aspects, and proposed a lean, agile approach to create one.

Referring to the three critical innovation success drivers defined by Morris et al., we can summarize the proposed approach as following:

1. *fast experimentations* (and frugal innovations) to accelerate the innovation process,
2. *kissing technological frogs* (refining ideas into strategic options) to reduce the risks, and
3. creating a business model that combines *company as a system* and *omni-channel* concept, to engage the entire organization in the innovation effort.

As the "wow" effect is difficult to define, there is no silver bullet to create it.

But there are means to deal with, and refine potential ideas on the way. The lean and agile framework proposed in this report help to accelerate the process, reduce risks, and build a comprehensive, balanced business model.

## References

- [1] Pieskä, Sakari, Mika Luimula & Taisto Suominen (2016). *Generating Wow Experiences with Small and Medium-sized Enterprises*. In: Proceedings of International Symposium on Small-scale Intelligent Manufacturing Systems (SIMS), 2016.
- [2] Morris, Langdon, Moses Ma & Po Chi Wu (2014). *Agile Innovation: The Revolutionary Approach to Accelerate Success, Inspire Engagement, and Ignite Creativity*. John Wiley & Sons.
- [3] Morris, Langdon (2006). *Business Model Innovation*. Achieving Sustainability, Scale and Impact in Community Development Finance, Dallas, U.S.A. October 10–11, 2006.
- [4] Talonen, Tapani & Hakkarainen, Kari 2014. *Elements of Sustainable Business Models*. International Journal of Innovation Science, Volume 6, Number 1.
- [5] Scott, Bercun (2007). *The Myths of Innovation*. O'Reilly Media, Canada.
- [6] Mintzberg, Henry (1994). *The Fall and Rise of Strategic Planning*. Harvard Business Review (January–February 1994), 107–114.
- [7] Chrysikou, Evangella (2014). *Your fertile brain at work*. Scientific American. 23 (1)
- [8] 12manage (2014). *Brainstorming*. [http://www.12manage.com/methods\\_brainstorming.html](http://www.12manage.com/methods_brainstorming.html)
- [9] De Bono, Edward (1970). *Lateral Thinking*. Penguin Book Publishing. New York City, NY.
- [10] Etria, European TRIZ Association (2014). <http://etria.net/portal>
- [11] Rogers, Everett M., & F. Floyd Shoemaker (1971). *Communication of Innovations. A CrossCultural Approach* (Second Edition. The Free Press. New York City. USA
- [12] Harrington, James, & Voehl, Frank (2013) *Innovation management: a breakthrough approach to organizational excellence – part 1*. International Journal of Innovation Science.
- [13] Ideaology-Quotes (2014). Ideaology, <http://www.ideaologists.com/quotes.htm> >
- [14] Matthews, W. (1990) *Kissing Technological Frogs: Managing Technology as a Strategic Resource, Perspectives for Managers*. International Institute for Management Development. (IMD). Lausanne, Switzerland.
- [15] Stevens, Greg A. & James Burley (1997). *3,000 raw ideas = 1 commercial success*. Research & Technology Management. 40(3) 16–27.
- [16] Clark, K. B., and S. C. Wheelwright (1993). *Managing New Product and Process Development: Text and Cases*. NY: Free Press.
- [17] Dellaria, Joseph (2009). *Clearing the “Fog of Innovation”*: Evaluating Ideas Accurately by Recognizing and Controlling Perceptions. International Journal of Innovation Science, Volume 1 Number 2.
- [18] Pieskä, Sakari, Ari Lehtiniemi, Anttoni Porri, Jari Kaarela, Mika Luimula & Taisto Suominen (2017). *Virtual and Game Technologies as Business Boosting Enablers*. In: Proceedings of Automaatiopäivät22.

- [19] Matthews, William H. (1992). *Conceptual Framework for Integrating Technology into Business Strategy*. Int. J. of Vehicle Design 13:5/6, 524 - 532.
- [20] Luehrman, Timothy. (1998) *Strategy as a Portfolio of Real Options*. Harvard Business Review. Sept-Oct. 1998.
- [21] Hakkarainen, Kari & Talonen, Tapani 2014. *The Innovation Funnel Fallacy*. International Journal of Innovation Science, Volume 6, Number 2.
- [22] <https://www.ensighten.com/wp-content/uploads/2015/07/omni-channel-tube.png>
- [23] <https://en.wikipedia.org/wiki/Omnichannel>.