

How to Find the Right Projects

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Index Terms — Strategy development, systemic strategy development, scenario technique.

0. INTRODUCTION

Organizations trying to drive innovation with research & development projects face the basic question: how can they assure that the right innovation projects are undertaken in order to meet or exceed their overall goals. This leads to the question how the projects can be linked closely to the overall strategy of the organization, and furthermore, how a strategy can be developed so that project selection is optimized, and ultimately, the linkage to the strategy will be ensured.

Thus, the organization's business turns into a business of projects, in terms of how the organization uses projects to drive

its business strategy and innovation in order to ultimately securing its own future. Projects are becoming the basic unit for achieving an organization's strategic objectives for innovation and diversification.

Here is the definition of the term "strategy" as I use it in this paper: **A strategy is a plan of how to achieve a set goal.** This means that defining the business goals of the organization in its active business areas is not part of strategy development; it is rather a prerequisite for it. Having set the business goals is a pre-condition in order to enable strategy development.

The aim of this paper is to show a process for strategy development and to present a proposal how this process can be facilitated so that project selection and linkage to the strategy can be achieved.

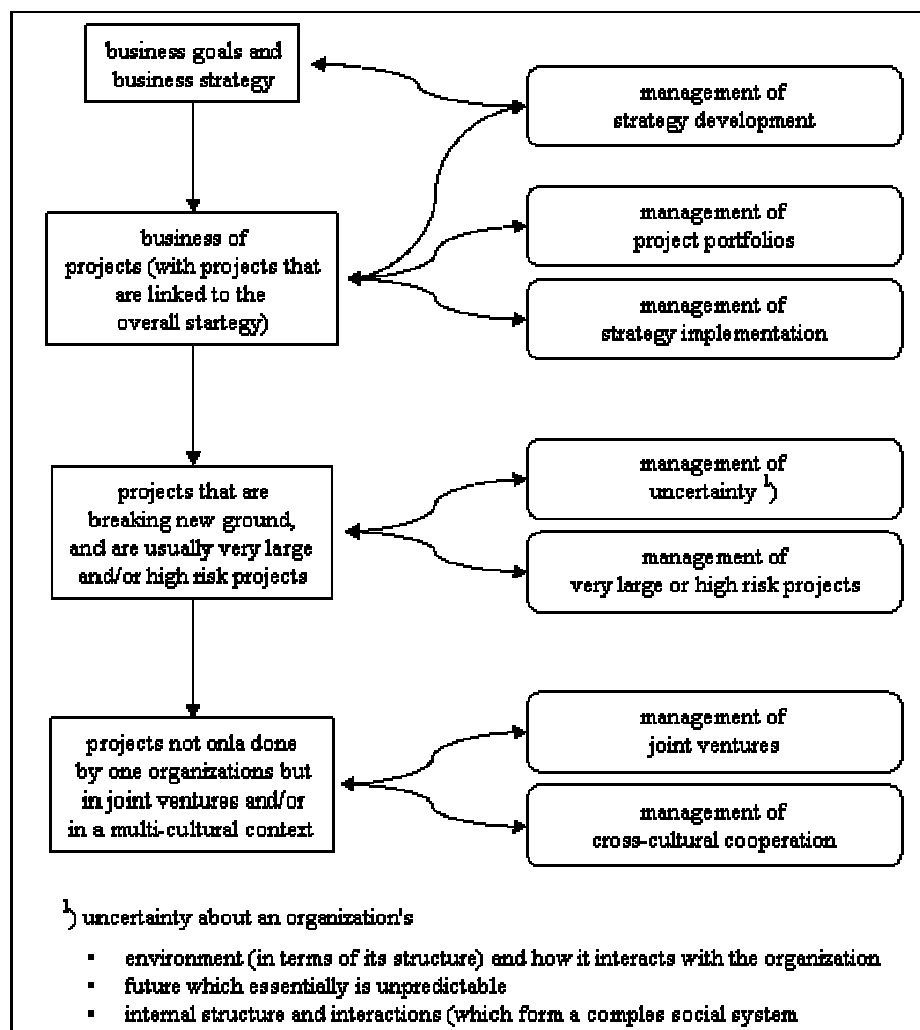


Figure 1

1. SYSTEMIC STRATEGY DEVELOPMENT

(This part is based on [1])

In our traditional understanding of strategy development, we assume that any organization could be controlled by setting up a strategy considered as being fixed and that should then be pursued over a longer period of time before it needs to be changed again. The traditional concepts of strategy development depend upon

- a profound understanding of the mechanisms of the organization’s environment;
- the predictability of the most relevant aspects of the future of the organization’s environment;
- a profound understanding and full control of the organization’s social structure and internal interactions.

Yet, our observation suggests that these conditions seem to be no longer fulfilled:

- organizations face increasing internationalization within global networks;
- any organization’s environment changes increasingly fast;
- equity dependent organizations are closely linked to ratings for their future profit, and thus, have to follow

- the fluctuation of the international money market;
- tremendous waves of innovation in information and communication technology keep changing the global economy;
- the control of any organization with its complex cross-cultural structures and internal interactions gets increasingly difficult;
- turbulences in almost all market areas prevent dependable prognostics;
- complicated and changing feedback loops in the internal and external networks of the organization prevent application of any simple model of cause and effect.

This leads to the suggestion to accept that it may no longer be possible to

- fully understand an organization’s environment;
- predict future development of the environment;
- completely control all of the internal parts and their interactions of an organization.

What does this imply for the strategy development of an organization?

In practice, we recognize four basic concepts of strategy development summarized in table 1.

Table I

	Forms of strategy development	
	implicit	explicit
external; given from outside the organization	intuitive (“internal guru”)	expert oriented (“external gurus”)
internal; created by the organization, its parts, and its members	incremental or evolutionary (trial and error)	periodical, as a joint leadership achievement

In **intuitive strategy development**, one or only a few key players, mostly the founders of the organization (the pioneer), formulate the strategy based on their experience or intuition, their personality, their insight into markets, and their close relation to customers and products.

Expert oriented strategy development builds upon rational and analytic research of markets, competitors, customers, statistically supported prognostics, and the control mechanisms for the organization’s behaviour. It follows the tradition of rational choice between explicitly formulated strategic options. That research and the formulation of the options can be delegated to (internal and external) experts. The development of a strategy, its explanation to the rest of the organization, and its operational implementation are clearly distinguished.

Evolutionary strategy development is a rather decentralized trial and error management of opportunities which occur by chance, outside or inside the organization, on any of its structural levels. There is no explicit strategy in place

which is followed by the organization, its parts, or its members. Some of these opportunities turn out to be successful and are further pursued; others are not successful and are dropped again. Thus, the organization relies on the knowledge and skills of its parts and members, and in a certain sense, the strategy evolves in a natural way using the organization’s potential for self-renewal.

If the organization consciously supports this potential across all of its structural levels and implements processes for periodical contemplation of the questions where to go and how to get there we call this **systemic strategy development**. The top management of the organization creates and manages a setting in which all parts and members of the organization can contribute to the development of the strategy in a similar way like in evolutionary strategy development. The main difference is that the whole strategy development process is made explicit. It is a joint effort between top level management and key personnel across the organization. Since this cannot be done along the operational day-by-day management and work,

periodical time-outs are scheduled in form of workshops where the concrete formulation of a strategy as well as its controlling can be achieved. These workshops create an atmosphere of enough distance from daily work and thus, give all participants the opportunity to reflect and discuss the relevant strategic aspects with the necessary overview and time. The frequency of these workshops is determined by operational requirements of the organization's business areas.

In systemic strategy development, we finally can combine and integrate the three other forms as well: we construct our strategy on the basis of internal and external opportunities and consciously use intuition, expertise, skills, and knowledge of top level management, internal and external experts, and other key personnel across the organization. In effect, top level management, all parts, and the members of the organization will be very well familiarized with the developed strategy which then can be used as guideline for the selection of projects to be undertaken; and finally, we will have a strategy in place that enables its close linkage to the selected projects.

2. SCENARIO TECHNIQUE AND CORRESPONDING ACTION PLANNING

(This part is based on [2])

One major key element of strategy development is to provide answers for questions about the future of the organization's environment in relevant life areas like economy, technology, politics, society, and natural environment. Most classical strategic scenarios try to give as precise as possible pictures of those future conditions on which the organization can focus when developing its strategy. But, as already stated earlier it is essentially impossible to predict future. For the many aspects of our future, we will usually find different alternatives most of which are equally likely, and selecting only one of these alternatives – in most cases – cannot be justified. So, let us suggest not trying to analyze all possible trends and select one of them as basis for strategy development, but rather formulate two or more scenarios in order to open our view for the differences of possible trends (figure 2). We thus, accept the fact of unpredictability, and at the same time, increase our sensitivity for any deviation just by accounting for different ways of how future scenarios can look like.

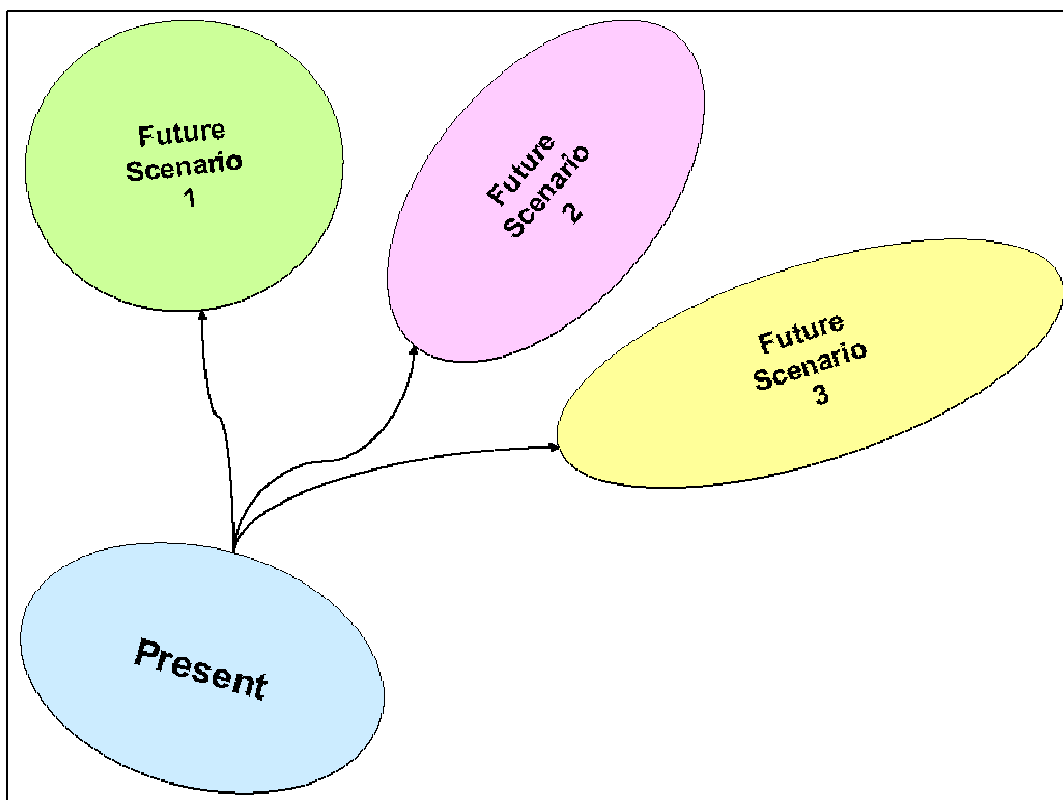


Figure 2

How can this help in strategy development? Allowing for different scenarios being equally likely and attractive enables

us to setup corresponding **plans of actions** which will show coincidences as well as differences (figure 3).

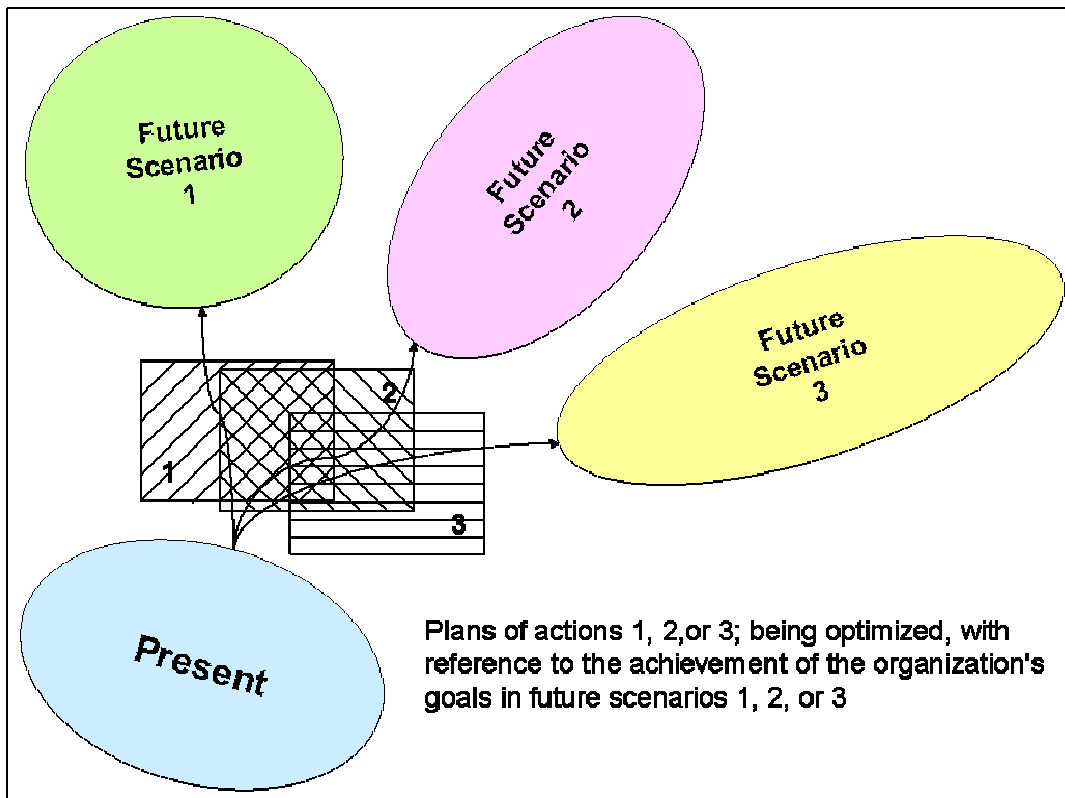


Figure 3

With this background, we obtain the basis for discussion and decisions about our strategy: we will decide for actions which have to be taken in any case – because they are part of each one of the actions plans. On the other hand, we also get a clear understanding of those actions by which we can distinguish the future scenarios as well as the corresponding action plans. Finally, we can introduce “decision gates” in order to switch from one action plan to another in case any deviation occurs. Thus, we explicitly introduce an early warning system for changes in the environment which do not match with the action plan we decided for. In effect, the plans of actions combined with the decision gates for possibly necessary changes shape the core part of the strategy.

The basic steps of **construction of future scenarios** are:

Step I: Define the **time range and relevant life areas** for the scenarios to be constructed. The time range can reach from two years to ten years or more, depending on the business areas and markets, and the innovation and product life cycles of the organization.

Step II: Identify (qualitative and quantitative) **descriptors** that could be appropriate in order to describe the relevant life areas:

- **mega trends** which are inevitable and have major influence;
- **non-critical** descriptors which are highly probable but have only minor influence;
- **critical** descriptors which are somehow probable but are decisive for alternative development.

This could be achieved by involving many experts and managers inside and outside the organization, via questionnaires.

Step III: To each descriptor, assign **values** in terms of faster/slower, greater/smaller, increasing/decreasing (use intermediate values when appropriate). Do not use descriptors or values that induce pessimistic scenarios. In this step, we again, can use questionnaires, with qualitative and quantitative questions to be answered by the involved experts and managers.

Step IV: Form as many **consistent subsets of descriptor values** as many scenarios should be created. For this step, a workshop can serve as the appropriate platform.

Step V: Prepare **scenario descriptions** and check each one for being attractive enough so that only optimistic scenarios will be used for developing the corresponding action plans. The preparation of the descriptions could be delegated to smaller working groups across the organization; the final check can be done in the same workshop where the action plans are developed.

For **action planning**, we continue with the following steps:

Step VI: We list all actions that are necessary to reach our goals for each one of the created scenarios in corresponding action plans.

Step VII: Then, we identify those actions which belong to each one of the action plans; these should be the ones that have to be taken in any case. At the same time, we define criteria that help us to recognize possible disruptions along the different paths from our present to the future scenarios coming from inside or outside the organization. These form the decision

gates and shape the basis for our early warning system for any changes we have to make. From these, we derive further actions to be added to each one of the action plans.

Step VIII: Now, we can identify those actions that lead to major projects which are necessary, helpful, or might be nice to have, with respect to reaching our goals in the different future scenarios. When we roughly define these major projects, we obtain a framework of strategically important projects which are naturally linked to our business goals and strategy.

Step IX: Finally, we take the decisions which of the projects have to be started at what point in time, by when they have to be finished, and under what conditions they have to be changed or terminated.

The resulting scenarios and action plans now can serve as our business strategy.

3. AN INTEGRATED PROCESS OF STRATEGY DEVELOPMENT

The above outlined steps, I through IX, actually form already the core of a strategy development process. If they are made explicit they can be delegated to internal and / or external experts, and thus, we would end up with expert oriented strategy development. However, if we go one step further and activate all parts and members of our organization to take part in this effort we obtain an integrated process of strategy development that combines systemic strategy development with scenario technique and action planning into one **combined strategy development process**. Its generic process model could be setup as depicted in figure 4.

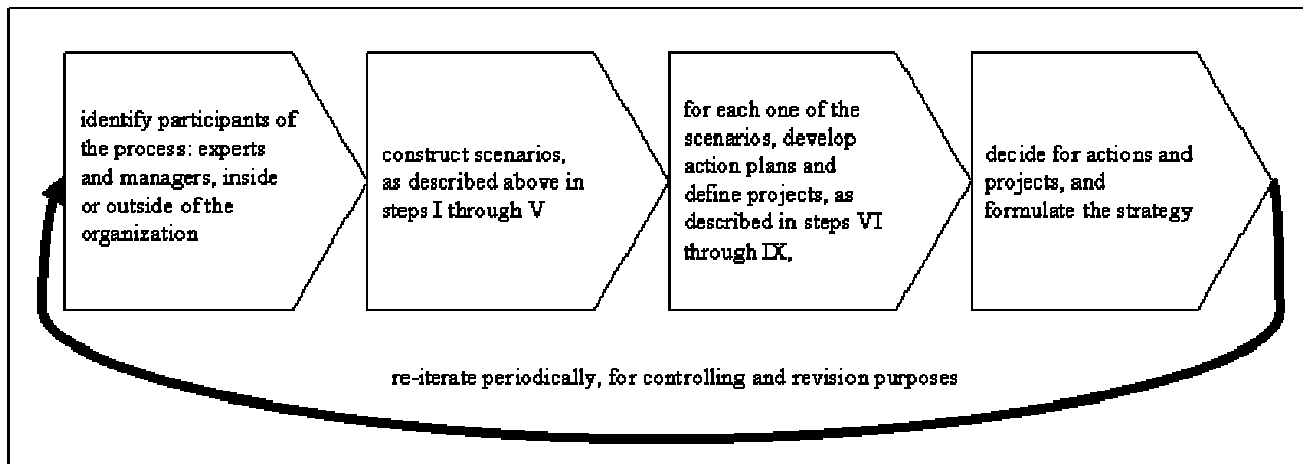


Figure 4

This generic process consists of four phases:

- (1) **Identifying participants, time range, and relevant life areas;** these activities are driven by the high level management team.
- (2) **Construction of scenarios;** it begins with the surveys for identification of the descriptors and their values. Then, a first workshop follows in which the descriptor values are grouped into consistent subsets, and the scenarios are defined in terms of descriptors and their values.
- (3) **Development of action plans and definition of strategic projects;** after formulating the scenario descriptions in small sub-groups, a second workshop is held in order to create corresponding action plans, and define the strategic projects.

- (4) **Decision and formulation of the strategy.** In the same workshop, the necessary decisions are taken which action plan is to be followed, and what projects are to be undertaken. Finally, the strategy is formulated so that it can be communicated to the whole organization.

The periodical re-iteration of the whole process is done on a long-term basis, i.e. in terms of months or years, depending on the business needs of the organization.

Figure 5 shows how the concrete activities could refer to a rough time line. This has also to be adapted to the business needs of the organization.

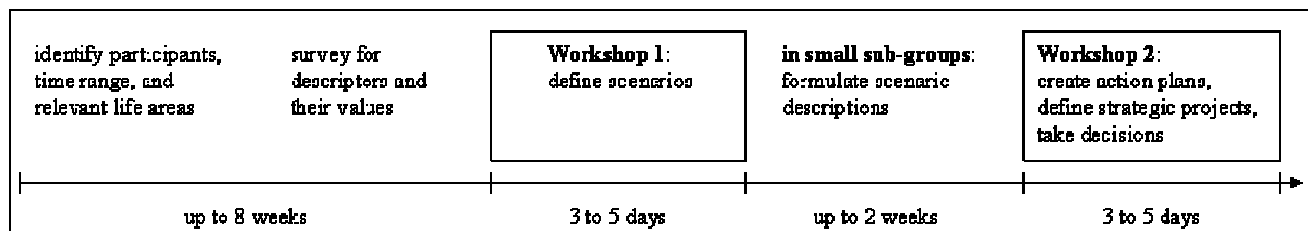


Figure 5

4. THE GENERIC AGENDA OF A WORKSHOP FOR STRATEGY DEVELOPMENT

As the findings from real life examples show, in cases where different pictures for future scenarios already exist, it is

basically possible to combine workshops 1 and 2 into one single workshop of a minimum duration of 3 days. The proposed generic agenda for such a workshop could be as outlined in table 2.

Tabel II

Strategy Development Workshop Duration: 3 Days	
Day 1	Introduction into the workshop Analysis of the present situation, definition of the key descriptors Development of future scenarios on basis of existing ones
Day 2	Development of actions and definition of strategical projects based on the future scenarios
Day 3	Summarizing the actions and mapping the key life and business areas (like in the example: market and customers, products and services, resources) Prioritizing actions and projects; decision which of them should be taken, i. e. lead to future investment programs and projects Conclusion of the workshop

The resulting workshop still follows the integrated strategy development process, yet it is a rather minimalist approach which serves well for the re-iteration of the whole strategy development process.

In larger organizations, the top level management responsible for strategy development has to decide who should participate in the process and especially in the workshops. I propose that participants of the workshops typically should be top level management, selected experts and project managers of the organization's core technologies and projects. The number of participants of these workshops should not exceed 20. If the scenarios have to be developed from scratch, for the necessary surveys and scenario descriptions, the whole organization can be stimulated.

Workshops like these should utilize neutral and external professional facilitators who are at least familiar with the concepts of the systemic approach, scenario technique, group dynamics, and working in cross-cultural environments.

5. CONCLUSION

Theory and experience show that the proposed integrated process of strategy development, conducted in form of one or

more workshops, and involving key personnel of the organization, leads to a strategy which inherently contains the necessary criteria for selection of future projects, guidelines for their close linkage to the strategy, and an early warning system for necessary change. Thus, it helps overcome the most serious constraints an organization dealing with the uncertainty of innovation usually faces in a fast changing environment. Key stakeholders are involved and committed from the very beginning, and the joint approach develops a common atmosphere of mutual trust.

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