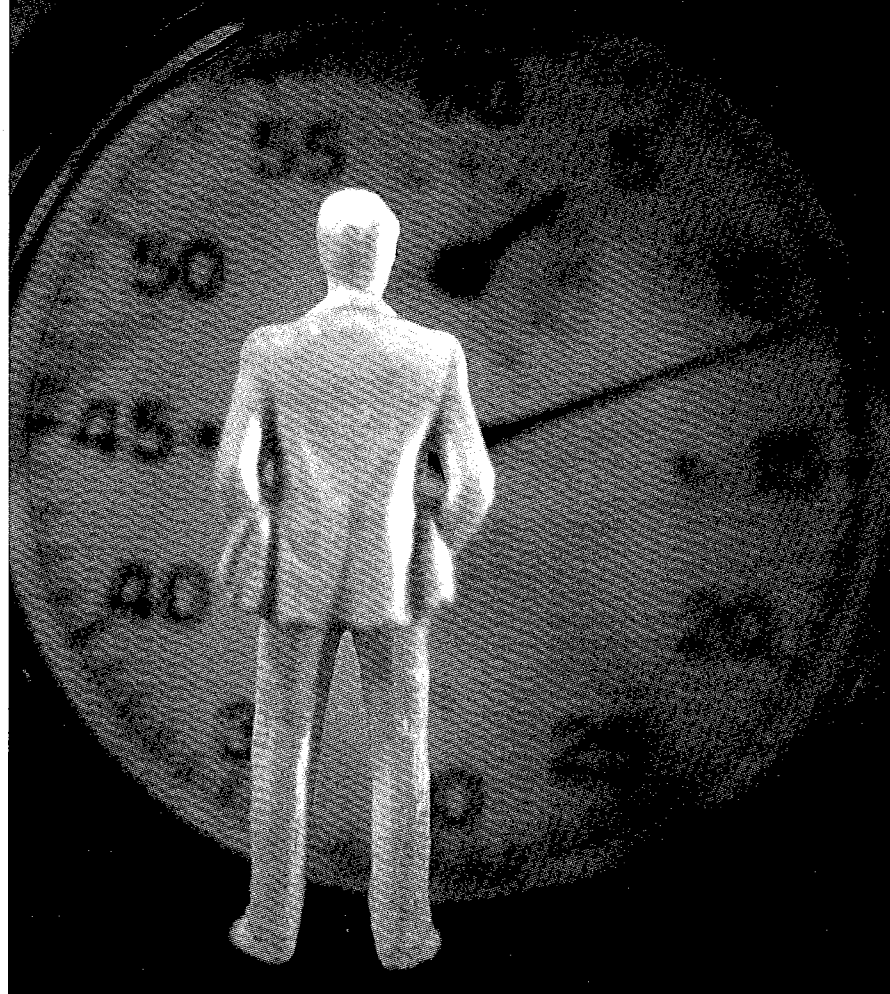


# Look before you leap:

Key questions for designing scenario applications



Planning before *planning* sounds like a strange concept, but as there are so many techniques for designing scenarios, it seems suitable that companies should look for the right approach before leaping into a potentially futile exercise. Here, Kees van der Heijden & Peter Schutte look at the myriad of choices facing organisations today.

that have to be addressed when designing scenario projects. The article is based on an extensive study by the Nyenrode Centre for Organisational Learning and Change (OLC) in Holland, based on existing literature, interviews with scenario users, and experiences of professional consultants in applying scenarios in a large number of organisations.

If one limits one's attention to literature on the subject it seems that developing and using scenarios invariably leads to success. Most articles are single case descriptions, relating success stories which emphasise the advantages of 'scenario planning'. Only a small minority of

authors describe and compare several different approaches for designing scenarios and techniques that can be used for this purpose. This superficial conclusion, however, strongly contrasts with a) the image that emerges from practical cases we studied and b) the reports by a number of consultants with significant professional experience in this field. Many things can go wrong, and success is never guaranteed.

## Why scenarios?

Scenarios are stories on how the future might develop in a specific area of interest. The method essentially involves multiple stories. As the future is fundamentally uncertain it is possible to conceive of several different futures which are equally plausible and all worth considering. One of the shortcomings of traditional forecasting methods is that they tend to brush aside or ignore uncertainty. Scenarios make uncertainty explicit. When managers consider several alternative scenarios, they have an opportunity to reflect on the question, "what would we do if this happened?" in several different futures.

Traditionally, scenario planning has been one of the tools in the toolbox of strategic planners, used in strategy processes

for carrying out external analysis and for developing and testing strategic options. It is intriguing to observe that 'scenario thinking' or 'scenario learning' is increasingly replacing the term 'scenario planning'. It seems that the word planning in a corporate context is now increasingly associated with manipulating figures in a technocratic manner. Meanwhile, the application of scenarios has become much wider than that of a mere planning instrument. The development and use of scenarios is now serving a wider range of purposes, which we will discuss below.

Before we make our main point a few initial remarks. Firstly, the word scenarios, as used here, denote stories about the external business environment of an organisation. They are not projections or forecasts, nor are they strategies or ('contingency') plans. The words scenario and strategy are often mixed up in daily conversation, for example in the media, leading to considerable confusion. We believe clarity is served by making a distinction between scenarios and strategy. Scenarios describe the external context, strategy is about decisions under the control of the organisation. So, for example, we would rather speak of "the Fokker re-launch strategy" instead of "the Fokker re-launch scenario" as has been discussed in the Dutch media recently.

Secondly, we make a distinction between the activities of developing or building scenarios on the one hand, and the use of scenarios on the other. Sometimes use is made of externally developed scenarios (or variations thereof), or an internal scenario building team develops scenarios for use, by 'others' within the organisation ('off line' scenario development). In other cases the builders and the users are largely the same groups of people ('on line' scenario development).

Thirdly, there isn't one correct method for developing scenarios; a wide variety of approaches and methods have been developed over the years, ranging from strongly analytical to more intuitive, from 'inductive' to 'deductive' approaches, from more creative, yet rather hallow explorations to in-depth studies.

## Objectives

Although obvious, it is important to remember that scenarios are not an end

in themselves. They are an instrument, a means to achieve objectives. Such objectives might include:

### Communicating, 'stretching mental models', helping managers prepare for 'the' future

Managing Director, Andre Benard of the Shell Group phrased this ambition as follows: "Experience has taught us that the scenario technique is much more conducive in forcing people to think about the future than the forecasting techniques we formerly used"<sup>1</sup>.

The main purpose of the scenario approach is to make users aware of uncertainties relating to possible new issues and 'business logics', sensitising them to relevant signals in their environment. Within this context the term 'mental model' is often used. Mental models

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are "deeply held ingrained images of how the world works that influence how we take action"<sup>2</sup>. They are the products of past experiences and they determine what we notice and how we interpret events. Mental models also determine the limits of what we can see and interpret and where mental (direct or metaphorical) connections are absent. By offering more than one alternative future for consideration, scenarios simultaneously challenge, broaden or 'stretch' the existing mental models. In this way, they help users to notice developments or events which would otherwise remain unobserved. Scenario thinking is a perception instrument, enabling users to pick up and interpret signals in their environment which would otherwise go unnoticed ('sense making').

### Improving strategy development

Traditional strategic planning is characterised in essence by 'problem-solving' or an 'inside-out' approach. Real or perceived problems are identified through observing extrapolated trends in the environment, which are then used in routine SWOT (strengths-weaknesses-

opportunities-threats) analyses from which problem-solving options are deduced. What is seen as a 'problem' is determined by an 'official future', which exists, knowingly or unknowingly, in the strategic conversation. "This is the future that the decision makers believe will occur. The official future is usually an unsurprising and relatively non-threatening scenario, featuring no discontinuous change to current trends, no crises, and continued stable growth"<sup>3</sup>.

As opposed to the traditional approach, the scenario technique offers an 'outside-in' view. Thinking starts in the contextual environment where it is relatively easy to argue that the future may unfold in many different ways. Through this the mindset of the official future is challenged: "things might turn out to develop rather differently". Scenarios

thus help managers to consider their strategy or 'business idea'<sup>4</sup> over an expanded environmental territory, and to generate and evaluate a wider range of options for the future. This will involve defining the implications of the several scenarios for both the organisation and the 'players' involved, and doing mental 'what if' exercises, answering the question: "What would we do if this happened?" In this manner, the approach aims at:

- 1) Developing a richer store of options for action
- 2) Preparing people better for unexpected change in their environment
- 3) Protecting the present success formula, or making it less vulnerable
- 4) Developing a strategic vision.

### Improving strategic competence through the 'strategic conversation'

This notion is borrowed from the title of Van der Heijden's book "Scenarios, the Art of Strategic Conversation"<sup>5</sup>. It focuses attention on the purpose of stimulating and sustaining strategy processes inside management teams and across organisations. This involves developing

a common language 1) to exchange ideas about the future (and, implicitly, the present) and 2) to develop common 'mental models' about the business. This is not the formal process of periodically developing or revising 'the' strategy that one finds in many organisations. The strategic conversation supports ongoing formal and informal strategy processes by strengthening strategic learning and consciousness. We are emphasising here the process-related dimension of the scenario approach, which, if done skilfully, will lead to an increased shared insight into the present as well as understanding of possible futures.

Two observations can be made with regard to the objectives mentioned:

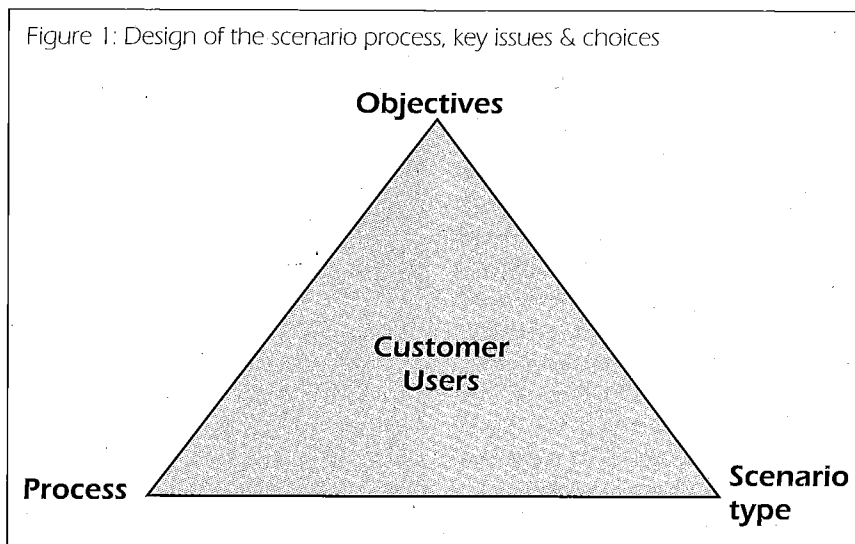
1. From these objectives it will be clear that scenarios are only partially concerned with supporting direct decision making; of primary concern is the process of perception, interpretation, preparation, generating options and the 'strategic conversation'.<sup>6</sup>
2. A scenario project more often than not has multiple objectives.

We have come to the conclusion that it is important to clearly formulate the wider organisational objective(s) one is pursuing in advance. In many reported cases a stated objective is lacking, or is inadequately formulated. Often it is felt that "it is time for us to think about the future" and it is simply assumed that making scenarios is "a good thing to do", following in the footsteps of some celebrated examples. In such cases the project is often well-advanced when the participants are confronted with questions such as why, what for, for whom? Trying to answer those questions will trigger new questions about the exact focus of the scenario project, the outline of the process and the approach to be chosen. As a result, the process has to be redirected at a late stage, leading to disturbance and loss of momentum, often threatening the whole exercise. Inexperienced use of the scenario approach, when expectations are unclear and people are sceptical about the usefulness of the exercise results in particularly vulnerable projects.

### Scenarios-for whom?

The issue of the objectives of the scenario project raises the question: who

is the 'customer'? This is often rather unclear, particularly for projects called 'scenario studies'. Often a large ill-defined group of potential customers are targeted, leading to scenarios for general purpose use. Later such scenarios tend to be too general to be particularly useful. The specific questions and issues of the organisation will not be addressed and the users usually react with disinterest, leading to reactions such as 'so what?', or 'nice enough, but what does this really mean for...?'. A scenario project needs a clear focus in order to become relevant. This means that it needs a clearly identified customer. The customer is the individual or group of people struggling with the strategy question itself and who will ultimately benefit from the thinking as it develops.<sup>7</sup> After



the exercise is over, only the customer can determine whether or not the project has been useful. Success in a scenario project, therefore requires identification of the customer and the creation of a clear image of his/her/their needs, expressed in terms of what is strategically important for them. The customer determines the direction of a successful scenario project.

Customers and users are not necessarily the same people. For example, there may be (many) more users than customers. A thorough insight into the mental models of the users and the context in which they operate is particularly important for the design of the scenarios. This will determine the challenge they need to offer to the organisation, important parameters for the design of the sce-

nario use process and therefore its affect on the building process and the shape of the scenario required.

Our research shows that in many cases, and especially with first applications, scenarios are developed without explicitly considering such choices. One contributory reason for this may be that the relevant literature tends to refrain from discussing the actual use of scenarios, but tends to concentrate on the scenario building process. However, in the world of practice success or failure depends on the degree of usefulness.

Therefore in any scenario project the explicit specification of both customers and users is central in the articulation of objectives, scenario type and selected scenario process, without which success of the exercise cannot be guaranteed.

The discussion of the objectives as the driving force behind a scenario project leads to two other crucial design questions, revolving around process and scenario type.

From our research we conclude that some key questions shaping the scenario process include:

- ▶ To what degree is the management involved in the scenario building process, and if so, in what way (interviews, workshops, etc.)?
- ▶ Will the scenarios be built 'on line' or 'off line', by whom, and what is the role of experts?
- ▶ How much research will support the scenarios ('first', 'second' or 'third' generation scenario building rounds, alternating with studies and sub-studies, etc.)?

- ▶ What technical support will be used, including software, etc?
- ▶ How will the scenario-use process be organised (presentations, workshops, simulations, 'real life', etc.)?
- ▶ What resources are available for process support (process management, facilitation of workshops, off-line research, etc.)?

The key questions related to the type of scenarios include:

- ▶ Which approach will be used (inductive or deductive, analytical or intuitive, explorative or anticipatory)?
- ▶ What will be the shape or structure of the final scenarios (a 'snapshot' of the state of affairs in a horizon year, or emphasis on the development of the 'story line' over time, degree of quantification etc.)?
- ▶ How challenging must the scenarios be?

The above areas are closely interrelated. Choices about objectives, processes and type of scenarios are to be taken in the overall context, set by the customer, and keeping this mutual dependence in mind.

### In practice

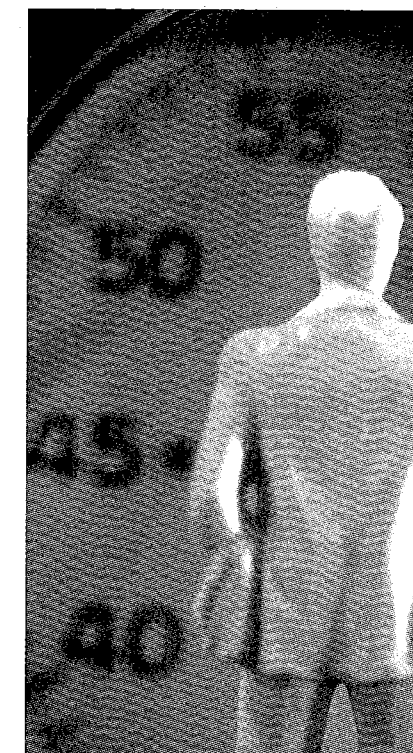
There are many ways of designing the scenario process. We have observed that the one-day or two-day workshop approach to scenario planning, in which use is made of a number of well-defined process steps, is one of the more popular variations<sup>8</sup>. This is often associated with 1) modest preparation (more or less 'off the shelf'), 2) transparency, 3) distance from the day-to-day (a number of strategic thinkers together for a few days, away from the workplace), 4) creative thinking. The result of such a workshop is usually a number<sup>9</sup> of 'prototype' or 'first generation' scenarios, rough drafts of possible futures, supplemented with a first superficial scan of their implications and the accompanying consequences and options. Participants in such a workshop experience this as a pleasant, unthreatening activity. Most teams do not have a lot of experience in discussing the future, and doing that in terms of multiple futures, where there is room for everyone's pet hobbies, creates space in which it is comfortable to consider unusual ideas.

From the perspective of the potential of scenario thinking, the benefits of a workshop as described can be qualified as rather narrow. If the process stops there - and it often does - the benefit remains limited to team-building or process development i.e. 'feeling good' about the results achieved, better understanding how others think, and individuals gaining new insights and glimpses of the future. The effects are primarily to be found in the "world of management"<sup>10</sup>, relating to team building, opening up communications and bringing people closer together. A devil's advocate might suggest that the same result could also be obtained with any number of interventions.

In terms of strategy, the scenario exercise will create a useful strategic conversation, but this will mostly be only a temporary achievement. Content will be superficial. The resulting scenarios are qualified as 'first generation' indicating that the job is not yet finished.

However, in many cases there will not be a next generation. As a result potential users will generally come to identify the scenario approach of one or two workshops as having such limited results with respect to content. Initial reactions are often highly positive. But our research shows that in most cases this pattern does not often survive in the longer term. Achieving the wider strategic objectives discussed in this article requires a more purposeful approach in which scenario planners are more interested in strategic results in "the world of business". This depends on achieving more permanent effects at the cognitive mental model level of the participants. Questions to be considered include, "will perception be broadened, are mental models' stretched, are new opportunities discovered, is understanding shared, is a vision of the future emerging?"

This approach to the scenario project can be described as a strategic learning process. If that is the purpose of the exercise then the content part is of the utmost importance. Building scenarios, then, is not just an intervention, but also serves a content oriented goal. 'First generation' scenarios are just a first step, one of many possible starting points. In general, the first rough drafts of possible futures evoke many questions that call for further elaboration and investigation, in pursuit of which causal structures will



become evident which will inform next generation scenarios, and so on. In this way the territory will be opened up and the analysis will not be restricted to the already existing shared mental model of the participants in the workshop. Differentiation will be aimed for in the process, for example by the introduction of new and surprising external views, involving 'remarkable people'. New ideas will emerge and mental models are stretched on the basis of alternative 'logics' that present themselves. Reflection, theory-building and action will iterate in a sharing process moving the group to ever-higher levels of conceptualisation. A common learning process about the future is the result, serving as the basis of a powerful and productive strategic discussion. Very often this is, in the final analysis, what scenario planners aim for. High quality content, which is a crucial condition for this to happen, cannot normally result from one or two workshops.

An important reason for the common failure to consider options regarding process and approach is that the choices are not known or do not become visible to the novice. One easily falls back on the experiences of other users (for instance what is perceived as the Shell approach, or the 'eight-step' method), or on consultants who prefer to choose their own



'packaged' product. Our research has shown that most people seem to perceive a scenario project as an established 'formula' with, possibly, a number of minor variations. We have also observed how risky such an assumption can be, as it prevents thought processes about purpose.

### Summary and conclusions

As opposed to what many success stories would suggest, scenario projects are not always successful. We can learn many lessons from the real-world practice of scenario planning. Some of this is illustrated in the literature listed at the end of this article, in particular Schoemaker, 'Twenty Common Pitfalls in Scenario Planning'<sup>11</sup>, referred to above. In the present article, we have brought together a number of lessons from the practice of scenario thinking,

relating to purposefulness. We have focused on what should be considered before a scenario project is designed. This can be summarised as follows:

- ▶ There isn't just one correct approach; be aware that there are several options for the scenario process with their relative strengths and weaknesses. All of them deserve to be considered and studied in advance
- ▶ Identify the 'customer(s)' of the scenario project, define specific needs and concerns, and clearly determine, in close consultation, the objectives of the scenario project
- ▶ Determine whether these objectives are genuine 'scenario' objectives (as discussed in this article) or whether a more general intervention targeted at the group-process level is required (or a combination of both)
- ▶ Know not only the customer, but also the anticipated users of the scenarios
- ▶ Select, on the basis of the above discussion, appropriate and mutually consistent options with regard to the design of the process to be followed and the nature or type of scenarios to be developed.

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