SCENARIO planning
Building scenarios at
Roland Berger Strategy Consultants

August 2013
A. Strategy development today
Why scenario planning is important now
Today our economy faces very high volatility

GLOBAL REAL GDP GROWTH [%]

DOW JONES [index value]¹)

EUR/USD EXCHANGE RATE [EUR/USD]¹)

1) All values (except highest, lowest and latest) are end-of-month based; highest and lowest values are on daily basis

SOURCE IMF, Bloomberg
Due to the high volatility forecasts are extremely difficult – and very often fail to predict the future.

Example: Development of forecasts of German real GDP growth 2011 [%]

- Economic forecasters use complex models of economic development – but they often failed, e.g. in predicting the crisis.
- Economic trends are unreliable and future developments unclear – decisions must still be made.
- Our job is to interpret the key factors driving future economic development.
Another consequence of the high volatility is that traditional planning cycles are no good any more.

Time horizons of traditional corporate planning and global GDP growth, 2000-2012 [%]

Source: IMF
And finally follows that traditional strategy tools have become unreliable

Traditional strategy tools …

... fail to reflect volatility

... can't cope with complexity

... don't consider different views
But the planning questions remain the same

Which regions of the world will grow most?
How can our company benefit from that?

How sharply will commodity and energy prices rise?
Can we replace expensive commodities with less expensive ones?

How will demand for our products change?
What competing products will jeopardize our business?

How will regulations change in my markets?
Will the changes open up new markets overseas?
The solution? Scenario planning can overcome the shortcomings of traditional planning instruments.

SCENARIO PLANNING …

SCENARIO I … provides different images of the future to reflect volatility

SCENARIO II … considers numerous influence factors to cope with complexity

SCENARIO III … combines internal and external views to identify blind spots

TODAY

Counter-action

Disruption

FUTURE
But traditional scenario planning often does not meet all requirements imposed by modern strategic planning

<table>
<thead>
<tr>
<th>REQUIREMENTS of MODERN SCENARIO PLANNING ...</th>
<th>QUOTATIONS FROM USERS regarding WEAKNESSES ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Reflecting volatility ... ... through development of alternative futures</td>
<td>Scenario projects are extremely complex</td>
</tr>
<tr>
<td>2 Coping with complexity ... ... through consideration of numerous influence factors</td>
<td>Processes are not standardized and highly variable</td>
</tr>
<tr>
<td>3 Identifying blind spots ... ... through involvement of internal and external experts</td>
<td>Traditional scenario projects usually take min of 5 months and can last as long as 1 year</td>
</tr>
<tr>
<td>4 Speed and simplicity ... ... based on a set of management tools that support an easy process</td>
<td>Methodologies are not well described and not fully disclosed</td>
</tr>
<tr>
<td>5 Flexibility concerning planning horizon ... ... by applicability of different time horizons</td>
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</tbody>
</table>

Fulfilled by traditional scenario planning
Therefore our new approach builds upon the strengths of traditional approaches and overcomes their weaknesses.

**... BUILDING ON STRENGTHS**

- Planning based on **multiple possible futures**
- Integration of **outside perspectives**
- Broadening **management's perspective**
- Increased **adaptability to changes in the environment**

**... OVERCOMING LIMITATIONS**

- **Standardized method** that is easily replicable for planning purposes
- **Tool based approach** eases application
- **Quick execution** of scenario-based strategic planning process
- **Applicable for shorter time horizons** of less than 5 years

ROLAND BERGER-HHL APPROACH to scenario-based strategic planning
B. The Roland Berger-HHL scenario approach
Our approach to building scenarios
We differentiate between macro-, meso- and micro-scenarios

**MACRO-LEVEL**
Global scenarios

**MESO-LEVEL**
Regional and industry scenarios

**MICRO-LEVEL**
Company-specific scenarios

**CHARACTERISTICS**

of our 3-TIERED APPROACH

**Macro-level scenarios** build the framework for industry and company scenarios

**Meso-level scenarios** describe different futures of a branch or a region

**Micro-level scenarios** focus on possible futures of one specific company
We cooperate with the HHL Center for Strategy and Scenario Planning

Selected activities of the HHL Center for Strategy and Scenario Planning

- Constant exchange with academia, international think tanks and business over scenario contents and methods
- Concrete support on scenario projects of Roland Berger
- Carrying out scenario studies together with Roland Berger
- Conducting scenario workshops and seminars for Roland Berger
- Supervising Roland Berger fellows and PhD candidates

HHL – Leipzig Graduate School of Management

- One of the worldwide leading business schools
- Regularly ranked as one of the top 3 German business schools
Roland Berger has advised large clients worldwide to successfully structure, execute and adopt scenario planning

Sample scenario planning client engagements

<table>
<thead>
<tr>
<th>CLIENT</th>
<th>COUNTRY</th>
<th>PROJECT DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multinational oil and gas company</td>
<td>UK</td>
<td>&gt; Developed 2020 scenarios for Industrial and Marine business, and built up organizational capabilities</td>
</tr>
<tr>
<td>Multinational insurance company</td>
<td>UK</td>
<td>&gt; Built scenarios in life insurance and pension to guide long-term strategy development across 14 countries to guide pan-European strategy</td>
</tr>
<tr>
<td>Large chain of home improvement stores</td>
<td>USA</td>
<td>&gt; Created scenarios describing different consumer behavior</td>
</tr>
<tr>
<td>Multinational pharmaceutical company</td>
<td>USA</td>
<td>&gt; Described and quantified the potential impact of healthcare reform through scenario planning</td>
</tr>
<tr>
<td>Multinational automotive manufacturer</td>
<td>France</td>
<td>&gt; Developed 2020 scenarios and action plans to enhance aftersales strategy for Europe and China</td>
</tr>
<tr>
<td>Multinational, producing construction and high performance materials</td>
<td>France</td>
<td>&gt; Created a scenario planning tool to model business impact of different market conditions and to inform capacity investment decisions</td>
</tr>
<tr>
<td>Multinational automotive manufacturer</td>
<td>Germany</td>
<td>&gt; Developed global scenarios to plan manufacturing data and different sales strategies according to the scenarios</td>
</tr>
</tbody>
</table>
Book publications and scenario studies demonstrate thought leadership

Selected scenario planning documents

Book describing the RB/HHL scenario planning approach

Scenarios for The European Airline Industry

Emerging Market Future Scenarios
As an overall framework for our scenario studies and projects we developed the Trend Compendium 2030

Trend Compendium 2030: Seven Megatrends that will shape the world

- Analyzed relevant trend and future studies
- Discussed and verified data and statements in global Roland Berger network
- Detailed seven megatrends, each with three business driving subtrends
- Outlined recommendations for actions for every megatrend
Together with the HHL Center we developed a clearly structured process for scenario projects

1. **Definition of Scope**
   - Task: Identify core problems and frame analysis
   - Tool: Framing Checklist
   - Result: Clear conception of project goal
   - Duration: 0.5 weeks

2. **Perception Analysis**
   - Task: Discuss and evaluate relevant trends
   - Tool: Impact-Uncertainty Grid
   - Result: Identification and analysis of key trends and key uncertainties
   - Duration: 3-4 weeks

3. **Trend and Uncertainty Analysis**
   - Task: Discuss and evaluate relevant trends
   - Tool: Scenario Cockpit
   - Result: Track of external developments
   - Duration: Ongoing

4. **Scenario Building**
   - Task: Develop scenarios based on key trends/uncertainties
   - Tool: Scenario Matrix
   - Result: Map of possible scenarios and understanding of which scenarios are most promising and which are most dangerous to the client
   - Duration: 1 week

5. **Strategy Definition**
   - Task: Deduct action plans for implementation
   - Tool: Strategy Manual
   - Result: Clear blueprint for strategic development of a company
   - Duration: 2 weeks

6. **Monitoring**
   - Task: Monitor developments and challenge assumptions
   - Tool: Scenario Cockpit
   - Result: Track of external developments

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1) Average duration of the specific project phase of a Roland Berger scenario project

**SOURCE** ROLAND BERGER

2013-08_RBSE_Building Scenarios.pptx
Reference project for the automotive industry¹):
The scope was defined with the Framing Checklist

**ELEMENTS and KEY QUESTIONS**

**A** GOAL OF SCENARIO PROJECT
Definition of the question to be solved: Focus of the scenario analysis

**B** STRATEGIC LEVEL OF ANALYSIS
Shall the scenario planning process be conducted for the macro, industry/region or company level?

**C** TIME HORIZON
What time horizon is the planning process tailored to (1,2,5 years or longer)?

**D** PARTICIPANTS
How closely is top management involved in the process? Which members of the respective departments participate in the workshops?

**E** DEFINITION OF STAKEHOLDERS
Which key stakeholders shall be involved in the 360° Stakeholder Feedback?

**IMPLEMENTATION, AUTOMOTIVE PROJECT**

Focus on **global development of automotive industry**, as our client was a global player in automotive

Focus on **industry level** as this allows the broadest analysis and discussion spectrum for scenarios

Focus on **10 year horizon** as this was the focus of capacity planning

Strategic **advisors of the top management** as well as the **department heads of trends, strategic planning and capacity planning** participated in the workshops

Focus internally on **top management, trend, planning and macroeconomics experts** and externally on industry, trend and macroeconomics experts

¹) The approaches and results shown here are only examples. They are not identical to the approaches and results of any specific project.
To gain holistic view on future development in automotive industry a 360° Stakeholder Feedback was conducted

INTERNAL STAKEHOLDERS
- Top Management
- Trend specialists
- Macroeconomics specialists
- Capacity planner

EXTERNAL SPECIALISTS
- Industry specialists
- Trend specialists
- Macroeconomics specialists

EXTERNAL STAKEHOLDERS
- Key customers
- Key suppliers
- Shareholder

The 360° Stakeholder Feedback asks about
- Influencing factors and indicators
- Impact and uncertainty of relevant factors
The 360° Stakeholder Feedback comprises two consecutive questionnaires

1 Open question concerning STEEP\(^1\) influencing factors and indicators:
   > Which factors influence the future development of the world automotive industry until 2020 most?

2 Closed questions concerning rating of synthesized influencing factors on a scale from 1 to 10 regarding impact and uncertainty of each sector:
   > How strong is the impact of the factor to the future development of the world automotive industry?
   > How certain is the occurrence of the respective factor within a time frame until 2020?

1) STEEP: Societal, technological, economical, ecological and political/legal influence factors
We identified 30 influencing factors with the 360° Stakeholder Feedback

<table>
<thead>
<tr>
<th>Social</th>
<th>Technological</th>
<th>Economic</th>
<th>Environmental</th>
<th>Political/Legal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease of consumer</td>
<td>Development of alternative</td>
<td>Duration of crisis</td>
<td>Climate change</td>
<td>Decreasing political stability</td>
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<tr>
<td>confidence</td>
<td>powertrains</td>
<td>Low economic growth in</td>
<td>Growing problems with the</td>
<td>Tougher environmental regulation,</td>
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<tr>
<td></td>
<td></td>
<td>industrialized markets</td>
<td>production of biofuels</td>
<td>esp. CO2</td>
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<tr>
<td>Downsizing at customers</td>
<td>Improvements of traditional</td>
<td>Strong economic growth in</td>
<td>Increasing pollution of cities</td>
<td>Growing trade protectionism</td>
</tr>
<tr>
<td></td>
<td>powertrains</td>
<td>emerging markets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longer period of ownership</td>
<td>Increasing importance of car</td>
<td>Growing middle class in</td>
<td></td>
<td>Continuing local content</td>
</tr>
<tr>
<td></td>
<td>assistance systems</td>
<td>emerging markets</td>
<td></td>
<td>regulation in emerging markets</td>
</tr>
<tr>
<td>Car's image as status symbol</td>
<td></td>
<td>Increasing competition from</td>
<td></td>
<td>Subsidizing own car</td>
</tr>
<tr>
<td>declines</td>
<td></td>
<td>new carmakers</td>
<td></td>
<td>industry in China</td>
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<tr>
<td>Increasing environmental</td>
<td></td>
<td>Rising oil price</td>
<td></td>
<td></td>
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<tr>
<td>consciousness of consumers</td>
<td></td>
<td>Rise of new business</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>models (car sharing etc.)</td>
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<td></td>
<td></td>
<td>Increasing concentration of</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>car makers</td>
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...
The results were systematically analyzed to understand blind spots, weak signals and influencing factors.

**THREEFOLD RESULT ANALYSIS**

**BLIND SPOTS**
Factors, which are deliberately or unconsciously disregarded

**WEAK SIGNALS**
First indicators for important developments and external changes

**INFLUENCING FACTORS**
Influencing factors for the scenario development

**BLIND SPOT ANALYSIS** *(EXCERPT, ILLUSTRATIVE): IMPACT, INTERNAL/EXTERNAL*

By comparing the perception of company insiders and outsiders we identified management's blind spots.
The most important trends and uncertainties in the industry were identified with the Impact-Uncertainty Grid.

**TRENDS** (relatively secure developments) define the cornerstones of – and remain the same in – the different scenarios. Based on our questionnaires we identified 15 trends along 5 categories (for example):

- **Economic**
  - Growing economic growth in emerging markets
  - Growing middle class in emerging markets
  - ...

- **Environmental**
  - Climate change
  - ...

- **Political**
  - Continuing local content regulation in emerging markets
  - ...

- **Social**
  - Increasing environmental consciousness of consumers
  - ...

- **Technological**
  - Improvements of traditional power trains
  - ...

**CRITICAL UNCERTAINTIES** define the axes of the scenarios – we identified 6 critical uncertainties:

- Duration of crisis
- Decreasing political stability
- Competition from new carmakers
- Decrease of consumer confidence
- Rising oil price
- Development of alternative powertrains
The Influence Diagram was used to structure the critical uncertainties and condensed them in two key dimensions:

**Economic development**
- Growing economic growth in emerging markets
- Growing middle class in emerging markets
- Decrease of consumer confidence
- Decreasing political stability

**Innovation dynamics**
- Duration of crisis
- Rising oil price
- Competition of new carmakers
- Development of alternative powertrains
- Climate change
- Increasing environmental consciousness
By varying key uncertainties and influence factors we were able to formulate comprehensive scenario storylines.

**KEY DIMENSIONS**
- Economic development
- Innovation dynamics

**INFLUENCING FACTORS**
- Duration of crisis
- Decreasing political stability
- Decrease of consumer confidence
- Rising oil price
- Competition of new car makers
- Growing economic growth in emerging markets
- Growing middle class in emerging markets
- Climate change
- Increasing environmental consciousness of consumers

**CHARACTERISTICS**
- High innovation dynamic
- Low innovation dynamic

**FOUR SCENARIOS DEVELOPED**
- For global automotive industry until 2020
  - Forced Technological Evolution
  - Golden Decade
  - Industry Decline
  - Dangerous Saturation

Economic stagnation vs. High economic growth
High innovation dynamic vs. Low innovation dynamic
The quantitative assessments were used to estimate new registrations via an automotive specific simulation tool.

We took the values/strengths of the key factors and on this basis set parameters (e.g. GDP growth, unemployment rate, inflation rate, interest rate) on a country-by-country basis for each of the scenarios.

We then used the parameters in a simulation tool specially developed for the automotive industry. The tool used the values to calculate the number of new vehicle registrations in key markets for each scenario, as a basis for volume planning.

**Key points**

It is important to understand exactly how the simulation tool works so that any extraordinary effects can be included.
On the basis of the different scenarios we developed action plans for the management.

The different scenarios showed very different patterns of how new vehicle registrations would develop in the future.

On the basis of these differences and other features of the scenarios, we developed recommendations ("action plans") for top management in a joint RB/client workshop.

We then presented the scenarios and action plans to the Head of Sales.

Key points

Scenarios and action plans must be consistent. Creative solutions that work are the answer to challenging scenarios.
Finally we implemented a set of indicators to monitor what scenario pathway the company is currently on.

We developed a Scenario Cockpit together with the client.

Indicators (e.g. GDP growth, industry-specific indicators such as length of ownership) help management understand what scenario pathway the company is currently on.

If certain thresholds are passed, another scenario comes into play – and with it other action plans.

Key points

The Scenario Cockpit should have no more than three clear indicators. This makes it easy for top management to use.
The strengths of our scenario approach: State-of-the-art scenario building for our clients

1. **DIRECTLY APPLICABLE TO BUSINESS**
   Our scenarios answer our clients’ core strategic and operational questions.

2. **INTERACTIVELY BUILT**
   In the scenario team, clients and consultants work together and internal and external experts are consulted as required.

3. **HIGH SPEED**
   The scenarios are created within a few weeks, using modern information and communication methods.

4. **SIMPLE COMMUNICATION**
   The scenarios are clearly formulated and thus easy to communicate internally and externally.

5. **DIRECTLY IMPLEMENTABLE**
   Detailed recommendations enable immediate adjustment of business according to the scenarios.
To sum up: Today we need scenarios and we need to develop them quickly and systematically.

Our world faces more and more volatility – that's especially true for the economy.

To stay competitive in this environment companies need to develop scenarios.

The Roland Berger-HHL scenario process enables companies to quickly build scenarios with an innovative, tool-based approach.
Do not hesitate to contact us in case you have questions or comments

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