

# Visual Strategic Thinking Paradigms (VSTPs)

## Groupware for Communications and Decision Making

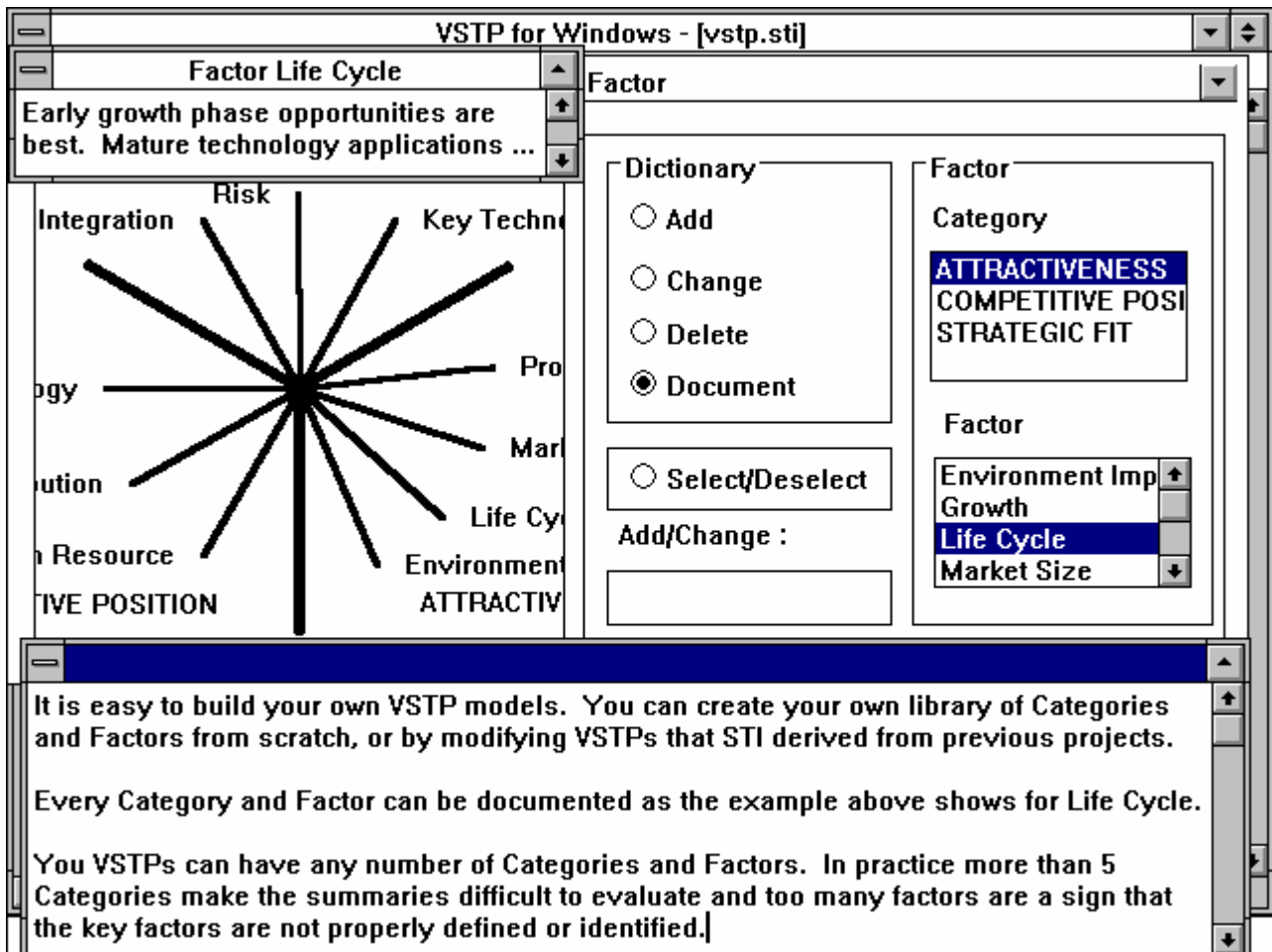
- Technology management
- Opportunity screening
- Competitor analysis
- Partner selection
- Acquisition evaluation
- R&D and business linkage
- Proactive innovation
- Strategy development
- Stage-gate systems
- Technology transfer

**STI** was founded in 1990 by senior consulting executives from SRI International, where we first developed a breakthrough concept for group decision making: *Visual Strategic Thinking Paradigms (VSTPs)*. Since then our management consultants and Windows software have helped Fortune 500 clients manage technology and business opportunities. Representative assignments include: corporate development, linking business and technology opportunities, and conducting workshops on technology management and decision making.

**VSTPs** enable interdisciplinary groups to develop easily a common visual language for decision making. Group members quickly grasp complex information, see different points of view, communicate across functional and hierarchy boundaries and apply prior experience to new issues. VSTPs are particularly useful for groups that recognize a need to make better decisions faster. The program is intuitive and easy to use — you can create and apply new VSTPs immediately.

## Three Steps to Building and Using VSTPs

**Step 1. Construct a framework** by identifying and characterizing the factors that influence the decision. The decision team identifies key decision factors, ranks the relative importance of the factors, and optionally classifies the factors into two or more categories.



In the screen-shot above there are three categories of key factors:

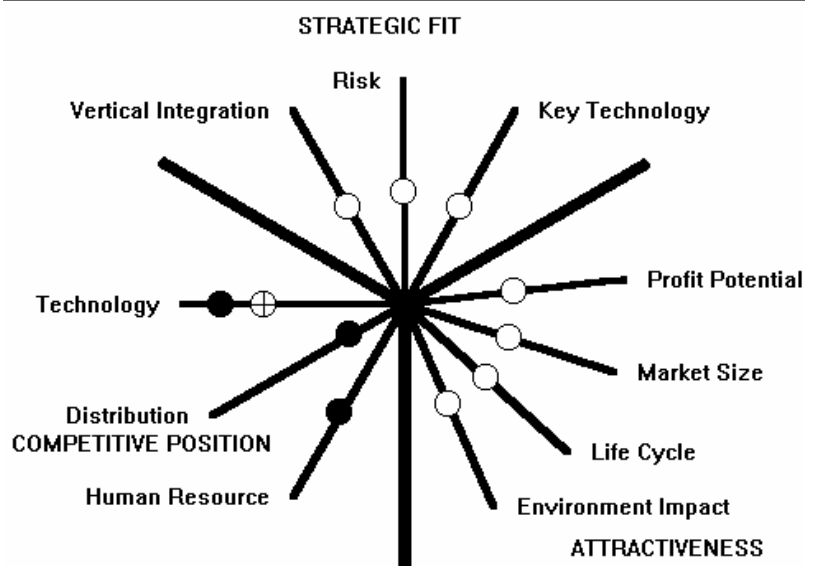
- *Strategic Fit* relates the fit of the project to the corporate mission
- *Attractiveness* shows the intrinsic value and appeal of the opportunity
- *Competitive Position* describes the company's ability to execute.

Most people don't create their own frames, they stumble into them. With VSTPs you are in control — modify STI models based on past projects or build your own. Build frames to analyze complex information or to synthesize a group vision and strategic direction.

Framing is the first key to sound decision-making.

**Step 2. Evaluate each factor** for all the options or opportunities under consideration. To capture your evaluation just click and drag a dot to the right place on the line. Farther out represents a great evaluation and close to the center is poor. Undefined white dots turn black after you evaluate the factors.

The Technology factor has a better evaluation than Distribution in this example, while all the STRATEGIC FIT and ATTRACTIVENESS factors are still undefined.



VSTPs™ for Windows

automatically combines the importance of the factors to your company with your evaluation of each opportunity to generate a graphical summary.

**Factor Weights** show the relative importance of each factor to the company (or team or individual).

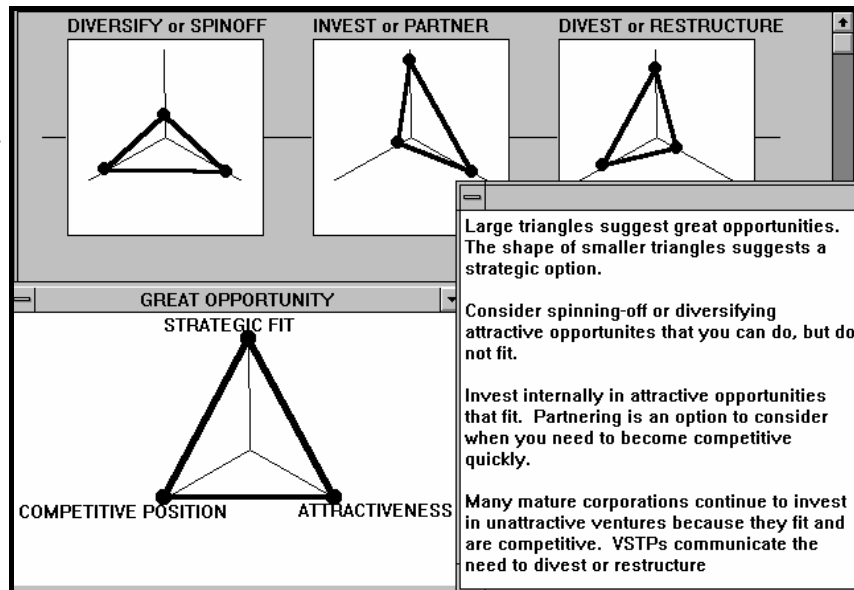
**Opportunity Values** (2nd column) show the evaluation of each factor for each opportunity.

Every opportunity has good points (dots far from the center) and bad points (dots near the center). But simply looking at the 2nd column provides little insight into ranking the opportunities.

The Summary column simplifies the Opportunity Values data by considering the importance of each factor.

This example shows the simplest way to produce summaries:  
A Linear Weighted Average

**Step 3. Make decisions** based on the a visual comparison of the VSTP summary polygon graphics. Large triangles represent great opportunities and special shapes suggest specific actions or decisions. Review of the three step process leads to continuous improvement.



As you assign values to factors, VSTPs™ for Windows automatically creates opportunity summaries shown here. The software has a variety of methods that the team can select for calculating the summaries – from a simple weighted average to fuzzy-logic and case-based reasoning techniques. You can integrate and weigh multiple opinions, finely select among clustered options, and learn from prior experience.

VSTPs can have any number of categories. Experience suggests that 1-5 categories produce good results. The three category example shown here balance complexity with our limited human ability to visualize multiple dimensions.

Before VSTPs	With VSTPs™ for Windows
Some gifted people had vision	Everyone can contribute to developing a vision
It was difficult to relate data analysis to strategic decisions	Teams think together in an integrative way, relating factors to categories to corporate values and strategy
Executives made strategic decisions based on data analysis	We have a link between the quantitative analysis and the qualitative issues of strategic direction
Technology development was not well linked to business opportunity	VSTPs facilitate constructive discussion of reasoning and encourage crossing of traditional boundaries
Summaries needed long discussion, ad hoc calculation and graphic support	Software produces graphics and captures multi-group thinking to make discussion more focused
It was difficult to continuously improve on prior experience	The computer captures our fuzzy-logic or case-based reasoning decision process to be improved
Decisions had inertia	We can quickly change with new information
We were not sure how tough decisions were made	We have visual language the links external information to our professional value judgments

## **STI Project Qualifications With VSTPs**

### **Strategy Development for a Japanese Semiconductor Manufacturer**

We helped the semiconductor division of a major Japanese electronics manufacturer develop an integrated business and technology strategy for Western Europe and North America. We used VSTPs with client staff to develop a consensus on key business opportunities that would focus the client's future technology research, manufacturing and sales efforts. VSTP summaries were used in an executive presentation to the company president to concisely explain the selection process and resulting choices.

### **Diversification Opportunities**

STI assisted with a diversification project for an international steel and mining corporation headquartered in North America. Our client was interested in diversifying into one or more information technology industries. VSTPs were developed to compare and contrast the opportunities and risks associated with different diversification options. We also used VSTPs at a later stage to screen candidates and describe their fit with the diversification strategy.

### **Strategic Investments in Advanced Technology and New Enterprises**

STI worked with the New Enterprise Division of a major U.S. electronics manufacturer. VSTPs were developed to help determine the attractiveness and fit of a diverse set of opportunities ranging from personal communications and entertainment to energy and waste management.

### **Prioritization of Research and Development Projects**

STI helped the R&D laboratory of a diversified manufacturer refocus and reprioritize its activities. We developed VSTPs that summarized the strategic direction of the company's business units. We then developed VSTPs that captured the direction and emphasis of the lab's major initiatives. Comparisons of the 2 sets of VSTPs quickly revealed strategic mis-matches and suggested a specific reprioritization of R&D projects.

### **Due Diligence Studies**

STI helped prepare a due diligence report. We used VSTPs as a communication tool for our presentations to various management committees. VSTPs proved to be an effective technique for presentations on technology selection, partnership evaluations, market issues, and other business and technical evaluations.