COMPLEX PROBLEM SOLVING

A UNIQUE BESPOKE TRAINING PROGRAM TO IMPROVE EXECUTIVES’ ABILITY TO DEAL WITH COMPLEXITY AND UNEXPECTED EVENTS

INTRODUCTION
Future organizational success will be determined by the ability of executives to better understand and take advantage of complexity and challenges that cannot be adequately solved using existing problem solving strategies. Why? Our business environment is becoming more complex and at an ever increasing rate of change. The recent financial crisis and subsequent volatile nature of economic recovery underline this trend.

COURSE BACKGROUND
The training program “complex problem solving” introduces 2 strategies for improving complex problem solving that are based on inherent strengths of the human brain. **Visual reasoning:** participants will be introduced to visual reasoning software that utilizes the powerful parallel processing capabilities of the visual sense for supporting thinking and reasoning. **Pattern recognition:** participants will be introduced to how “pattern recognition” functions, receive a toolbox with new relevant “thought-patterns” and learn to apply these to complex problem solving.
COURSE OBJECTIVES
On completion of the course participants will:
• Be able to produce more and higher quality solutions when solving complex problems
• Have a richer understanding of the business environment when confronted with complexity and new situations
• Be able to use visual reasoning and pattern recognition techniques

AGENDA
Module 1. Thinking and problem solving
• Brief introduction to the psychology and neuroscience of thinking.
• What is thinking? Definition and methods.
• What is a problem? Problem space theory and heuristics.
• Insight problem solving and creativity.

Module 2. Visualising complexity to support problem solving
• Using the powerful visual apparatus of the brain.
• Visual reasoning using the Eidos software suite.

Module 3. Pattern recognition to enhance complex problem solving
• The human brain as the most powerful pattern recognition tool.
• Using pattern recognition as a means to unravel complexity.
• Introduction to relevant “thought-patterns” from physics and complex systems, evolutionary biology and neurosciences.
• Advanced usage: learning to build your own “thought-patterns” for unique applications.

Module 4. From insight to impact: making things happen
• Using strategy case studies, participants will apply visual reasoning and pattern recognition techniques to come to new insights when solving complex problems.

WHO SHOULD ATTEND
This course is relevant to all executives involved in strategic problem solving and decision making involving elements of complexity:
• Senior executives, general managers, regional and divisional directors
• Members of strategy units and business development executives
• Senior public sector executives involved in policy making
Parmenides Academy is a training organization that was set up in cooperation with the Parmenides Foundation: a non-profit organization dedicated to fostering multi-disciplinary research on thinking. The scientific study of thinking requires expertise from a wide range of scientific fields including evolutionary biology, neurosciences, psychology, neuro-informatics, and philosophy. The Parmenides faculty is assembled with the objective to have all of the pertinent disciplines represented by leading scientists in the field.

NEXT STEP
The next step is to determine what your organization’s exact training needs are and how this course can be tailored to best fit these needs. For more information please call Edwin van Eijbergen, Managing Director, Parmenides Academy on +49 (0)89 452 093 550 or email: academy@parmenides-foundation.org.