

# Certified Courses



# Designing Solutions to Complex Business Problems

## INTRODUCTION

- This training course shows you how to solve difficult complex problems and develop better and faster solutions than traditional approaches offer. Participants will learn when and how use System Dynamics, Design Thinking, Lean and Agile Methods as responses to the constant change in technology, population, and economic activity that are transforming the world, and increasing the complexity of today's business organisations.
- System Dynamics is useful in policy or strategy formulation, in rapidly changing or complex situations. It is used to solve problems by seeing the bigger picture as an additional tool to traditional analysis that is concerned with breaking a problem down to its constituent parts.
- Design thinking is concerned with solving problems through synthesis. It allows work on many possible solutions at once. This method enables consideration of the problem from a variety of perspectives and speculate on both the past and future of the situation.
- Both approaches can be used in addition to the scientific method of problem solving which requires a highly-defined problem focused on delivering a single solution.
- The Designing Solutions to Complex Business Problems training course also covers many of the techniques and tools developed by systems analysis practitioners, process modellers and project managers for Lean and Agile approaches to requirements that are unclear or fast-changing. The training course provides a step-by-step methodology for translating complex scenarios into structured practical models.

**The Designing Solutions to Complex Business Problems techniques are normally applied to:**

- Identify real issues in complex interconnected situations
- Gain increased productivity through business improvements in complex situations
- Examine long-term trends and alternative business solutions for harnessing radical innovations
- Focus on the key elements of complex scenarios
- Evaluate the best course of action through strategic problem solving
- The methods, skills and techniques learned in this training course will enable leaders to design and implement organisational change, as well as influence complex alliances, partnerships and other interfirm relationships.

## PROGRAMME OBJECTIVES

- Understand how to apply the system dynamics and design thinking methods to design policies that lead the organisation to higher performance
- View problems from the perspectives of multiple stakeholders
- Explore powerful analytical tools and techniques that bring together different views
- Practice lean and agile analysis, planning and management techniques
- Judge and select a point of view in complex scenarios that corresponds with the most typical and the most specific circumstances
- Participate in groups exploring familiar and new problems
- Evaluate long-term drivers for change and the potential actions against organisational needs

## WHO SHOULD ATTEND?

- General managers and senior functional managers who coordinate diverse groups and groups of diverse individuals
- Executives who manage training and education
- COOs, executive vice presidents of operations, human resources managers
- Directors of organisational development and corporate strategy
- Professionals in technology intensive sectors
- Project Management professionals
- Engineers needing to grapple with a complex business context
- Full benefits are achieved when participants apply the concepts and techniques when they return to work.

## TRAINING METHODOLOGY

- Participants will learn systems dynamics, design thinking plus lean and agile problem solving and predictive techniques by individual practice and participation in group activities during the sessions. Carefully designed exercises allow a “hands on” approach to learning. We explore topics where participants can be expected to have a general understanding of the issues involved. In addition, for some exercises and case studies, participants will be required to undertake further on-line research.

## PROGRAMME SUMMARY

- This training course covers the essential skills needed to explore a complex scenario and problem as a manager and strategic advisor. The training concentrates on the skills required to deploy systems dynamics and design thinking effectively and maximise their benefits as problem-solving approaches that delivers real business benefits in areas such as:
  - Corporate growth, stagnation and decline
  - The adoption of new technologies
  - Managing business cycles
  - Supply chain design
  - Product and project development

## PROGRAM OUTLINE

### Introduction to Dealing with Complexity

- Introduction – the problem of problem-solving
- System Dynamics and Design Thinking – an overview
- Recognising complex problems and complex solutions
- Characteristics of complex problems and the associated risks
- The modelling process – from understanding to design
- What does complexity mean in practice?

### Developing Strategic Scenarios

- Complexity in strategy, operations and projects
- The role of scenario planning
- The learning cycle in strategy development and implementation
- The role of strategic risk management
- Understanding the impact of partnerships and alliances on complexity and risk
- How can System Dynamics and Design Thinking help?

### System Dynamics Tools

- Recognising and modelling causal loops
- The value of understanding Stocks and Flows
- Understanding complexity: System Dynamics in action
- Modelling growth (Innovation and New Product Development)
- Exploring the role of positive feedback on business growth
- Tools for modelling dynamic situations

### Design Thinking Tools

- What is Design Thinking? – 10 Principles
- The IDEO approach
- A Design Thinking Process
- The Toyota Way – 14 Principles
- Applying Divergent and Convergent Thinking
- Applying Design Thinking Tools

### How to Create and Optimise Value

- Integrating System Dynamics, Design Thinking, Agile and Lean
- The power of visual thinking
- The role of prototyping, experiments and Kaizen
- Solving a difficult business problem in practice
- How to apply these methods in your organization
- Next steps and commitment to action



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