

### The Data of Innovation

The average firm expects 45% of its sales to come from offerings commercialized in the last 3 years. Less than 15% of these 'new' offerings are 'new to market/ new to world', yet these truly innovative offerings yield an average of 61% of the firm's total profit. Yet a survey of top management at 700 international companies captured that although more than 80% believe innovation is a significant strategic issue, close to 90% are dissatisfied with the way their firm manages innovation. Another survey of the top Fortune 500 companies highlighted that two-thirds have no formal manner in which to identify new opportunities, markets, customers or products. What is your firm doing?

### Innovation: Destructive Creation

Design and Marketing for Six Sigma works well for companies following traditional stable markets. However, just listening to the 'Voice of the Process' (VOP) and the 'Voice of the Customer' (VOC) haven't always allowed companies to differentiate themselves against their competitors to gain market leadership or create new markets. Even traditionally stable markets, like toothbrushes, can become dynamic. For example, examine how the candy toy, Spin Pop ® caused disruption in the electric toothbrush market. As markets become more dynamic, the use of traditional quantitative tools and simply gathering customer needs can lead to the demise of the company. As Clayton Christenson has noted, "because firms listened to their customers, they lost their position of leadership". How many flash cubes have you purchased recently? How many Ice cube trays, floppy disks, or 8 track tapes? All met their customers' needs, but, all eventually died. What innovation will destroy your firm's current offering? Will your firm be the innovator, or the follower?

### Integrated Road Map Approach to Innovation: Define Opportunities, Innovate, then Design, Optimize, Verify, and Communicate

The Uniworld Innovation for Six Sigma approach ensures that instead of merely being innovative, the teams first identify the driving opportunities due to forces in the world, industry, and technology. Once the 'Voice of Opportunity' is identified and prioritized, the team then systematically visits and observes potential customers to capture the different dimensions in the 'Voice of the Customer'. Then, the team approaches the innovation of a new product or process in a structured manner, using the concepts successfully proven across many industries and captured in the set of Innovation tools, TRIZ. The first two weeks of training is attended by both market facing and technical participants, to enable the cross-functional team to understand the true opportunities, trends, future customer requirements and environment before creating concepts. The following weeks of ISS training follows Uniworld's well proven Design for Six Sigma roadmap using statistical tools to design, optimize and verify the critical deployed parameters. The optional 6<sup>th</sup> week of training assists the technical team in further design optimization, and a parallel week allows the Marketing team to apply the statistical tools to designing the cost, communication and convenience needed to deliver the benefits.

**Proven Results:** With the ISS method, your team identifies true opportunities, before creating a differentiated offering that grows the top line of the business. This structured practical integrated approach to Opportunity Identification and Innovation produced proven results.

<b>Length</b>	25 – 30 days Class room 7– 9 months Coaching Project completion
<b>Key Participants</b>	*Marketing , Service, Sales, Customer Contact* Research and Development Product Engineering, Test Engineering, Manufacturing, Tooling, Process Designers and implementers
<b>* 1<sup>st</sup> and 2<sup>nd</sup> week</b>	
<b>Requirements</b>	Approved Project, Minitab 14 on laptop for weeks 3+
	<ul style="list-style-type: none"> <li><b>Key Learning Outcomes:</b> <b>At the end of class, participants will be able to:</b></li> <li>Identify applicable driving forces of opportunities: world, industry, technical system evolution</li> <li>Identify current and desired position on the opportunity curve</li> <li>Outline and prioritize applicable ideal final result key metrics for current and desired system, prioritize potential gaps</li> <li>Identify the potential opportunities and solutions present in sub or super system</li> <li>Prioritize opportunity areas pertinent to participants market</li> <li>Create a balanced portfolio of projects addressing opportunities</li> <li>Identify customers desired outcome, benefits and costs</li> <li>Detail the desired outcomes, useful functions, harmful functions</li> <li>Capture and Translate Customer Voices and Images into True Customer Requirements</li> <li>Identify Gap areas in expectations, performance, and satisfaction</li> <li>Identify concepts to increase the useful and decrease the harmful functions</li> <li>Outline the conflict areas in requirements, identify the traditionally successful solution spaces, create conflict solving solutions: both technical and process</li> <li>Select key concepts to design, develop, and market in detail</li> <li>Create a compelling reason for customer to use or chose new offering, identify communication plan</li> <li>Deploy Customer Requirements into Technical Functions and Requirements, prioritize same</li> <li>Explain and apply the applicable DFSS and DMAIC concepts and tools</li> </ul>
<b>Sixth week options:</b> <b>Key learning outcomes:</b>	<ul style="list-style-type: none"> <li>Conduct and analyze advanced design of experiments</li> <li>Optimize for multiple responses</li> <li>Conduct and analyze mixture DOE</li> <li>Conduct and optimize service and maintenance reliability</li> </ul>
<b>Technical week</b>	
<b>Marketing Week</b>	<ul style="list-style-type: none"> <li><b>Design and Analyze Surveys</b></li> <li><b>Design, implement and control Customer Communication, Costing and Convenience Strategy</b></li> </ul>
<b>Certification</b>	Successful: <ul style="list-style-type: none"> <li>Completion of course work, phased exams, Final exam</li> <li>Demonstration of knowledge and application of key tools</li> <li>Project completion and defense</li> </ul> Next project started