



# BUSINESS SIX SIGMA GREEN TO BLACK BELT UPGRADE

## 5-Day Programme commences March 22<sup>nd</sup> 2010 ~ Leamington Spa



### PROGRAMME CONTENT

For certified Green Belts, this exclusive programme provides a fast-track upgrade path to achieve Black Belt status. The condensed 5-day programme focuses on the advanced DMAIC tools that are required for more complex projects, and also introduces Lean techniques such as Value Stream Mapping. A full certification process is included in the programme fee.

### PRE-REQUISITES

Candidates for the Smallpeice Business Black Belt Upgrade Training Programme will have been trained as a Green Belt by a recognised Training Organisation. Smallpeice will carry out an assessment of suitability, before the candidate joins the programme.

### TRAINING FORMAT

Experienced Six Sigma trainers and professional Human Resources specialists will deliver five days of training that is structured to be interactive and participative with practical exercises to further develop their skills.

### ACCREDITATION PROCESS

Smallpeice offer an Accreditation process for Business Six Sigma Black Belt Upgrade trainees, which incorporates undertaking a project, multi-choice examination and project presentation.

### PROGRAMME FEES

£1,625+VAT per delegate, includes:

- All materials
- Lunches & refreshments
- Accreditation

### PROGRAMME OBJECTIVES

- Provide a clear upgrade route from Green Belt to Black Belt
- Ensure DMAIC flow and application of tools are understood
- Recap key learning points from Green Belt material
- Ensure full syllabus is covered to enable delegates to sit Black Belt exam
- Provide guidance on Black Belt certification process
- Discuss Individual Project Scope

### PROGRAMME CONTENT

| March 22   | March 23   | March 24  | March 25   | March 26   |
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| <p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• Project selection, scoping &amp; management</li> <li>• Accreditation</li> </ul> <p><b>Define</b></p> <ul style="list-style-type: none"> <li>• Identify CTQs, SIPOC</li> <li>• Project Charter</li> </ul> <p><b>Measure</b></p> <ul style="list-style-type: none"> <li>• Identify potential X's</li> <li>• Data collection planning &amp; MSA</li> <li>• Process Capability</li> </ul> <p><b>Analyse</b></p> <ul style="list-style-type: none"> <li>• Identify vital X's</li> </ul> <p><b>Improve</b></p> <ul style="list-style-type: none"> <li>• Develop improvement strategy &amp; pilot</li> </ul> <p><b>Control</b></p> <ul style="list-style-type: none"> <li>• Control Plan, Handover</li> </ul> | <p><b>Value Stream Mapping</b></p> <ul style="list-style-type: none"> <li>• VSM objectives &amp; procedures</li> <li>• Identifying &amp; analysing non-value added activities</li> <li>• Drawing the current state map</li> <li>• Mapping information flow</li> <li>• Calculating cycle time and VA ratios</li> <li>• Developing a future state map</li> <li>• Making processes flow</li> <li>• TAKT time &amp; work balance</li> <li>• Identifying and improving "bottlenecks"</li> <li>• Developing an improvement strategy</li> </ul> | <p><b>Advanced Statistics</b></p> <ul style="list-style-type: none"> <li>• Revision of distributions:                             <ul style="list-style-type: none"> <li>– normal, binomial &amp; poisson</li> <li>– using probability</li> </ul> </li> </ul> <p><b>Hypothesis Testing</b></p> <ul style="list-style-type: none"> <li>• Hypothesis testing routemap</li> <li>• Alpha &amp; beta risk</li> </ul> <p><b>Multiple Regression</b></p> <ul style="list-style-type: none"> <li>• Analysis of residuals</li> </ul> <p><b>Measurement Systems Analysis</b></p> <ul style="list-style-type: none"> <li>• Attribute data</li> <li>• Variable data</li> <li>• Interpretation of results</li> </ul> | <p><b>Change Leadership &amp; Planning</b></p> <ul style="list-style-type: none"> <li>• Achieving effective change</li> <li>• Why change fails</li> <li>• Building a compelling need for change</li> <li>• Change acceptance for the organisation and individual</li> </ul> <p><b>Managing Process Transformation</b></p> <ul style="list-style-type: none"> <li>• Identifying drivers, constraints,</li> <li>• Sponsors &amp; stakeholders</li> <li>• Managing commitment</li> <li>• Influencing &amp; communicating</li> </ul> | <p><b>DOE &amp; New Process Design</b></p> <ul style="list-style-type: none"> <li>• Background to DOE terminology</li> <li>• Understanding interactions</li> <li>• Steps to execute a DOE</li> <li>• Setting the levels</li> <li>• Set the design in Minitab &amp; run the experiment</li> <li>• Analyse the results and residuals</li> <li>• Develop the mode, optimise and verify</li> <li>• Fractional factorials</li> <li>• Process redesign</li> </ul> <p><b>Concepts of DfSS</b></p> <ul style="list-style-type: none"> <li>• Introducing the DMADV framework</li> </ul> |