

Appendix C

Checklist/Template: Risk Management

Global software and IT pose lots of risks and challenges which are not so relevant in regular colocated projects. These risks must be identified, assessed, and managed, otherwise global software and IT might be a very expensive exercise. It is certainly helpful to start with the best practices and then enhance them according to your own specific needs, culture, and risks. This book provides guidance for finding answers to most problems and risks. Here is a simple checklist and template which summarizes typical risks.

Risk	Mitigation Actions
Project delivery failures	<p>Professionally train all project managers.</p> <p>Apply best practices from the CMMI (DEV + ACQ), COBIT, ITIL for IT companies frameworks.</p> <p>Implement CMMI maturity level three on supplier and customer side.</p> <p>Maintain an organization risk repository.</p> <p>Use lessons learned and root cause analysis reports from previous projects to avoid repetition of problems.</p>
Insufficient quality	<p>Establish and use quality indicators.</p> <p>Systematically follow quality gates at work product level.</p> <p>Implement CMMI maturity level three on supplier and customer side (or COBIT and ITIL for IT service providers).</p> <p>Monitor and use early defect ratio as a warning sign of insufficient specification and code quality.</p>

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316 Appendix C Checklist/Template: Risk Management

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Distance and cultural clashes	<p>Train people in all involved organizations on handling cultural diversity.</p> <p>Provide different communication channels and collaboration tools.</p> <p>Use workflow management and online tools.</p> <p>Have periodic workshops with teams and apply online team-building.</p> <p>Organize around teams and give them ownership and responsibility.</p>
High staff turnover	<p>Establish flexible long-term retention models.</p> <p>Make employees an integral part of the company, such as by partial ownership, direct involvement on certain decisions, etc.</p> <p>Periodically conduct employee engagement surveys to take appropriate corrective actions.</p> <p>Monitor critical resources availability and evolution and implement succession plans.</p> <p>Learn to deal with staff turnover by means of pooled buffers.</p>
Poor supplier services	<p>Agree and apply supplier management and escalation processes.</p> <p>Use flexible prizing schemes depending on uncertainties and risks.</p> <p>Preferably establish a fixed price contract scheme to mitigate estimation risks.</p> <p>Evolve towards a partner model with the supplier.</p> <p>Train suppliers on required processes, specifically interfaces, reporting, requirements engineering and configuration management.</p> <p>During the ramp-up period, carefully educate supplier management on escalation procedures and your own required quality level.</p> <p>Rigorously highlight insufficient quality, delays or lack of visibility.</p> <p>Escalate carefully and step-wise and avoid the SLA “hammer”.</p>
Instability with overly high change rate	<p>Follow a systematic RE process covering supplier and customer.</p> <p>Establish clear responsibilities and policies for handling change.</p> <p>Review and sign-off of all requirements.</p> <p>Monitor and control the requirements change index.</p>
Insufficient competencies	<p>Establish competence management.</p> <p>Standardize skill and competency requirements and definitions across all distributed locations.</p> <p>Use professional multi-project management and resource planning.</p> <p>Provide all necessary training and monitor effectiveness.</p>

Risk	Mitigation Actions
Wage and cost inflation	<p>Establish a systematic and consistent accounting and reporting based on engineering/service activities.</p> <p>Review efficiency beyond the traditional measurements of estimation accuracy and cost.</p> <p>Distribute work across regions and anticipate wage increases.</p> <p>Evaluate, together with the supplier, his own situation and review mechanisms for mutual win-win.</p> <p>Evaluate your own and suppliers' business models over future years – and look for risks on either side.</p>
Lock-in with supplier	<p>Establish common processes and tools with clear descriptions for ramp-up and operational usage in order to facilitate move of activities.</p> <p>Communicate, document, and distribute critical knowledge.</p> <p>As a service client keep critical engineering knowledge within your own company.</p> <p>Maintain back-up and recovery mechanisms.</p> <p>Carefully protect against supplier lock-in on the basis of contracts, work distribution and dual sourcing.</p> <p>Evaluate together with the supplier his own situation and review mechanisms for mutual win-win situations.</p>
Inadequate IPR management	<p>Systematically train engineering and management on IPR.</p> <p>Establish and rigorously apply a strong policy on IPR protection.</p> <p>Encourage innovation on all sites and promote patents.</p>