



致 Mr. Raghav:

首先,我代表公司对评估小组此次针对北京金水信息技术发展有限公司做的 CMMI 高成熟度复审评估表达诚挚的敬意与衷心的感谢。公司自过程改进以来, CMMI 给公司带来了很大的提升,解决了项目中出现的问题,提高了公司的生产效率和产品的质量,为公司达到商业和业务目标提供了莫大的帮助。

本次 CMMI 高成熟度的评估,从 5 月 5 日正式开始,目前已基本完成。评估小组成员发现的 29 个弱项和提出的建议,比较客观的反应了公司在过程改进中的一些薄弱环节。这些弱项是我们在过程改进中未曾注意到的问题,正如“不识庐山真面目,只缘身在此山中”,再次感谢评估小组这几日的辛勤付出。我认为已发现的弱项可以百分百全面客观地反映出公司的软件开发过程、过程改进过程中的实际问题。通过本次评估,我积累了以下几个方面的宝贵经验教训:

- (1) 在过程改进的过程中,质量管理人员 QA 的作用至关重要且容易被忽略。因为 QA 要审计组织级资产、项目文档以及组织级文档等,进行高成熟度过程改进的全过程检查和审计,并提出相关指导意见。本次评估发现我们 QA 人员偏少且应加强 QA 在 CMMI 高成熟度全过程域的培训,我们将提高对质量管理的重视程度,进行招聘,补充 QA 人员,同时针对 QA 工作组进行 CMMI 高成熟度全过程域的培训 and 专题讲座等。
- (2) 量化管理和分析在高成熟度的实践过程中地位尤其重要。本次评估提出的模型可考虑度量如进度偏差,生产率等,以及我们自己认为需要改进的项目估算问题,即项目估算时,估算的风格一样,思路相似,估算结果过于接近等。公司将继续保持对量化管理和度量分析的重视,改进以上提出的问题。
- (3) 培训能提高公司成员的业务水平、技术水平以及项目管理水平和过程改进水平。本次评估提出的培训相关问题,例如在人员的培训方面,公司对员工的职业发展或转型方面培训路径不明显,需要参与何种培训没有给出明确的方向;对于具有实际操作技能要求的培训,应不仅仅是笔试,需增加上机考试;QA 应该根据审计情况给人力资源部门反馈培训需求。我们将更加重视培训的规划,完善岗位技能矩阵,增加上机考试等环节。
- (4) 决策分析方面,决策分析相关文档中明确了决策事项,人员以及如何解决问题的过程,但评估小组提出不够细致,后续我们继续细化内容。并针对细化内容对项目组



成员进行培训。另外，我们没有使用 RACI 矩阵分析，我们将组织项目组成员学习 RACI 矩阵分析方法，使用 RACI 矩阵分析为关键和复杂决策探索解决方案，并在文档中记录使用过程。

- (5) 公司当前项目主要遵循 SpringMVC 分层设计思想，我们尝试引入领域驱动设计思想，提升模块的扩展性、复用性。例如引入 SpringCloud 微服务架构，提升系统的稳定性，减小系统的故障损失率，引入链路追踪工具，确保微服务系统架构的可追溯性。
- (6) 在风险管理的过程中，我们往往注意到项目进度产生偏差，项目达不到预期质量这类问题。本次评估提出对于项目级 QPPO 如果制定的过于激进，是否会产生风险呢。我们应该也对这类看似能达到目标，但也可能产生的风险进行识别和管理。
- (7) 我们利用 CMMI 高成熟度进行过程改进，但在遇到问题时并非一定要按照 CMMI 高成熟度对过程域的划分进行解决，我们可以灵活应变，同时从项目总体进行通盘考虑来解决问题。

本次评估其实对我们是一个很好的学习和进步的机会。通过评估，公司成员对 CMMI 高成熟度过程改进有了更深层次的理解。对于发现的弱项，也能为我们在今后持续的过程改进过程提供指导。这对公司实现商业目标、业务目标也都大有裨益。

基于评估结果，我在工作计划中增加了以下内容来进一步保障此次评估给公司带来的帮助：

1. 5月中旬，我会召开一次会议，要求高层经理和 EPG 参加。对本次 CMMI 高成熟度评估做总结会议，并制定以后的过程改进计划，对过程改进进行持续的优化和提升。
2. 对于本次过程改进发现的弱项，我将充分协调公司人力、经济等资源进行积极地改进，保障改进的效果。
3. 对本次评估提出来的改进建议，我将制定切实可行的计划，逐项推动完成。

2022 年 5 月 10 日

北京金水信息技术发展有限公司

Appraisal Sponsor Signature



Dear Mr. Raghav.

First of all, on behalf of the company, I would like to express my sincere respect and gratitude to the appraisal team for this CMMI high maturity appraisal done for Beijing Goldenwater Information Technology Development Co. LTD. Since the introduction of process improvement to our organization, CMMI has brought great improvement to the company, solved the problems arising from the project, improved the company's productivity and product quality, and provided great help for the company to reach our business and commercial goals.

This CMMI high maturity appraisal, which officially started on May 5, has come to its end. The 29 weaknesses identified by the appraisal team members reflect some of the company's weaknesses in process improvement in a more objective way. These weaknesses are problems that we have not noticed in the process improvement, just like "You can't figure out the shape of a mountain because you are in it", so I would like to thank the appraisal team again for their hard work in these days. I think the weaknesses identified can 100% reflect the actual problems in the software development process and process improvement process of the company in a comprehensive and objective way. Through this appraisal, I have got valuable lessons in the following areas.

(1) The role of QA, the quality manager, is critical and easily overlooked in the process improvement process. Because QA has to audit organization-level assets, project documents, and organization-level documents, etc., to check and audit the whole process of high maturity process improvement and provide relevant guidance. This Appraisal found that our QA staff is insufficient and we should strengthen QA training in the CMMI high maturity process area. We will raise the importance of quality management, recruit and supplement QA staff, and conduct training and seminars on the CMMI high maturity process areas for QA working groups.

(2) Quantitative management and analysis are particularly important in the practice process of high maturity. The appraisal team proposed that we can consider metrics such as schedule deviation, productivity, etc., as well as project estimation issues that we ourselves think need to be improved, i.e. project estimation with the same style of estimation, similar ideas, too close estimation results, etc. The company will continue to keep the emphasis on quantitative management and metric analysis to improve the issues raised above.

(3) Training can improve the business skills and technical skills as well as the project management skills and process improvement skills of the company members. The training-related issues raised in this appraisal, for example, in the training of personnel, the company's training path for career development or transformation of employees is not clear, and no clear direction is given as to what kind of training needs to be involved; for



training with practical operational skills requirements, it should not only be a written test, but also need to add a computer-based operation test; QA should give feedback to the HR department on training needs based on the audit. We will pay more attention to the planning of training, improve the job skills matrix, and increase the number of on-line exams and other links.

(4) Decision analysis, the decision analysis related documents clarify the decision subject, personnel and how to solve the problem process, but the appraisal team suggested that it is not detailed enough, and we will continue to refine the content. We will continue to refine the content and train the project team members on the refinement. In addition, we did not use RACI matrix analysis, we will organize project team members to learn RACI matrix analysis method, use RACI matrix analysis to explore solutions for critical and complex decisions, and record the use process in the document.

(5) The company's current project mainly follows SpringMVC hierarchical design ideas, we try to introduce domain-driven design ideas to improve the scalability and reusability of modules. For example, we introduced SpringCloud microservice architecture to improve the stability of the system and reduce the failure loss rate of the system, and introduced link tracking tools to ensure the traceability of the microservice system architecture.

(6) In the process of risk management, we often notice that the project schedule deviates and the project does not reach the expected quality. This evaluation raises the question of whether there is a risk for project-level QPPOs if they are set too aggressively. We should also identify and manage such risks that seem to achieve the goals but may also arise.

(7) We use CMMI High Maturity for process improvement, but when we encounter problems, we do not necessarily have to follow the CMMI High Maturity for process areas, we can be flexible and consider the overall project to solve the problems.

This appraisal is actually a good opportunity for us to learn and improve. Through the appraisal, the company members have a deeper understanding of CMMI high maturity process improvement. The weaknesses identified can also provide guidance for our continuous process improvement process in the future. This is also very beneficial for the company to achieve business goals and business objectives.

Based on the findings of the appraisal, I have added the following to my work plan to further secure the benefits of this appraisal for the company.

1. In mid-May, I will hold a meeting and ask senior managers and EPG to attend. I will do a summary meeting on this CMMI high maturity appraisal, and make a process improvement plan for the future to continuously



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optimize and improve the process improvement.

2. For the weaknesses found in this process improvement, I will fully coordinate the company's human and resources to actively improve and guarantee the effect of improvement.

3. I will make a practical plan for the improvement suggestions made in this appraisal, and promote the completion of each item.

May 10, 2022

Beijing Goldenwater Information Technology Development Co. Ltd.

