CMMI Performance Solutions® Spotlight: Beijing Glory PKPM

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About PKPM

Beijing Glory PKPM Technology Co., Ltd. is the first computer technology development and application company in the construction industry in China. Their Software Product R&D Department focuses on construction engineering, including design software for construction engineering, application software for construction industrialization, and construction information systems. They serve architectural design organizations, prefabricated component factories, construction companies, and universities.
For more information, visit **www.pkpm.cn**

The Challenge

PKPM's software's complexity necessitated intricate logic and design, requiring integration and involvement from the R&D and design groups. However, these groups were not collaborating effectively and efficiently.

> " With the implementation of CMMI, our business units have fully embraced the concept of process improvement, which drives our R&D departments and improves the R&D process substantially. Now process improvement objectives are linked to business objectives, and process improvement is always carried out around business objectives. "
>
> —Zhang Xiaolong, Deputy General Manager of Beijing Glory PKPM Technology Co., Ltd.

PKPM's Maturity Milestones

2019 .... **2022** →

ML3 CMMI-DEV   ML5 CMMI-DEV

Selected Solutions

1 Managing Performance and Measurement (MPM) helped PKPM connect process improvement goals to the specific business goals, which created a greater awareness among senior managers and team members, accelerating workflow

2 Process Asset Development (PAD) and Implementation Infrastructure (II) standardized work processes improving communication between teams, improved efficiency, and reduced personnel costs

3 Risk and Opportunity Management (RSK) improved processes in risk and opportunity management that helped PKPM identify potential issues early, and implemented corrective measures faster

4 Monitor and Control (MC) improved project development process and control. PKPM now collects the right type of data linked to company objectives related to processes, products, and systems

5 With the help of Process Management (PCM) PKPM conducts regular in-depth reviews of products, processes, problems, and data, including lessons learned, helping to achieve its goal of continuous improvement

Selected Performance Goals Achieved

Increase Productivity Rate
The median R & D rate increased from 0.42 to 0.47, and the upper limit increased from 0.75 to 0.78

Reduce Delay Rate of Function Testing
The average delay rate of function testing decreased from 46.90% to 38.27%

Improve Indirect Resolution Rate Of Current Bug
The median Bug resolution rate in the current period increased from 86.92% to 91.7%

Improvement of Process Stability of Defect Detection Rate Of Requirement Review
Now PPB of defect detection rate of requirement review is 0.00-0.53 and process has become more stable

Lessons Learned

PKPM introduced several new practices and integrated them into the organization's day-to-day processes and created buy-in from all levels of the organization: this improved quality, productivity, and communication.

- Biweekly technical sharing meetings to communicate work-related lessons across departments
- Process improvement activities are managed as a project with a fixed cycle of iterations
- Each department has also established its annual improvement plan
- Monthly evaluations of product requirements and code implementation are rewarded based on performance
- The project health index is used as an index to evaluate the comprehensive situation of the project intuitively

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❝ PKPM is very focused on improving capabilities at every level of the organization. The project team managed the impact factors affecting goal achievement in real time, tracked goal achievement periodically, analyzed the root causes of the problems, and formed a closed loop of quantitative goal management. In the appraisal process, This is an organization with an excellent corporate culture that has established an internally driven process improvement culture.❞

—Dylan Ren, CMMI High Maturity Lead Appraiser and Instructor

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