

# Postcards from the Front

## Maturity seen from Inside

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### 1 Introduction

The maturity of an organization is the manner in which the organization understands its own capabilities and the possibility to be able to respond efficiently to a customer request or a proposed project. The maturity of an organization can be measured using the CMMI®, or Capability Maturity Model Integration – a model developed by the SEI for that purpose, integrating data and structures from a number of existing prior models. I have used the CMMI terminology in identifying levels of maturity, including the numbering of the paragraphs in the next section, which correspond to the “maturity levels”. In this context, maturity level 1 is the lowest level and maturity level 5 is the highest level. The change from one level to another, within CMMI, is measured through the presence or absence of evidence that a number of practices and processes have been carried out or not.

I am not looking at the evidence in this case, I am talking about the feeling of mature organizations. With some experience, people can judge reasonably well the maturity of the organization without really looking at the content of the practices. This is done by analysing the culture of the organization. It is reasonably easy to judge the culture of an organization (whatever an organization may be: country, team, family, company...) by talking to a few people. You can rapidly identify the very hierarchical organization where no one will dare contradict the boss, you can identify the democratic or federal organization in which individuals are willing to speak their mind and express themselves. If you look at the Chinese newspapers and the English newspapers on the same day, you will very quickly understand that these are very different countries with very different values.

### 2 Postcards from the front

#### 2.1 Be Prepared

I do my best. I do what I believe to be the right thing in order to satisfy the customers' needs. Considering the daily pressures and priorities, I work primarily to satisfy the customer, seeking to focus on delivering a reasonably good product in as little time as possible, therefore avoiding pointless bureaucracy and administration.

Things sometimes go wrong, but that is life: unpredictable! Isn't that what makes life interesting? Generally, we are doing a good job even we sometimes have unforeseen problems (such as bad quality products with which we must work, or resources who are not available when they are needed), but these can usually be solved with just a little more work. We have skilled people who are willing to work as hard as it takes.

The people working here are good people. They are capable, willing and flexible. They know their job and know the customer. They work hard and ensure that the customers get what they want. The work is largely based on the knowledge, the experience and the competence of the people involved – after all, if we had to write everything down, it would only slow us down.

Information is available when you need it; generally, people are willing to share the information, all you need to do is ask.

#### 2.2 The Project Team

We are really working at identifying the things that need to be done so as to make sure that we do not forget tasks or activities needed in the project. There is a clear and common understanding of the expectations placed on the work to be done and

some of the key activities that need to be performed. A series of measurement and reporting requirements have been placed on the teams by management, we understand why this is needed and how the results will be used.

We understand and accept that the focus has shifted from trying to satisfy the customer on a day-to-day basis to a more long-term view of satisfying the customer with the overall quality of the products and services. We, therefore, need to understand what are the practices that exist within the company that really help, considering our customers, our products, our people, our technology, etc.

In order to do this, we take the time to think before starting work, identifying what needs to be done through work breakdown structures and project plans. The activities are monitored against those plans in order to ensure that we can report actual results and progress, and identify the activities that led to success or failure. When we have problems or questions as to the best approach or the expectations, we have a group of specialists who are available to guide and support us. These people have taken on the responsibility of assuring that the processes we use and the products we create are of the quality that management expects. They also centralize a lot of the information that we need, so that, when we need information, we can go to them directly – if they do not know, they know where to find the answer.

We also have a clear and common understanding of our roles and responsibilities. We accept those responsibilities and seek to fulfil our role efficiently. As a consequence, we have found that commitments made internally are now real commitments and respected by all involved, whether it is the general manager or a factory-floor employee.

Management has communicated their objectives in order to ensure that everyone is pulling in the same direction; not only they expressed their commitment to the long-term and demonstrate that commitment by ensuring that the processes and practices in use really respond to their needs. They are investing in the training and support to ensure that projects can produce reliable results.

## **2.3 The Engineering Team**

We have identified the best practices and we are working together at sharing and continuing to improve on them. Whenever a new project or task starts, we can identify rapidly and easily what is currently recognized as the best practice. We have a series of tools and guidelines to help us in the implementation of the practice. Historical measurements facilitate the estimating and planning activities. Every time the practice is used, measurements, lessons learnt and requests or proposals for improvement are captured and taken into consideration in a timely manner.

Everybody in the organization has a clear picture of how her personal work impacts the whole organization. The focus is firmly on learning lessons from all activities and sharing those lessons and best practices throughout the organization. All organization members see the sharing of best practices and lessons learnt as a key part of their work and they seek to communicate, through a central group, their experiences as soon as possible.

Decisions and actions sometimes prove themselves to be wrong, but they are always justified, based on the data, the information that was available at the time of the decision. When something goes wrong, the results are collected and shared to ensure that others can learn to avoid the same mistake in the future.

Information can largely be found in the central repository; we can find there answers with regard to what, how and why we need to do next – we even find the tools there and the lessons and measurements from previous usage. This is very useful as we now feel that we can really use the existing knowledge when we need it.

## 2.4 The Product-Focused Team

The organization now has enough understanding of what works (as well as how and why it works) or does not work within the organization, to be able to plan for measurable future success. Data from practices can be used directly to determine the quality of the products and services that will be delivered at a later date.

The continuous identification of the processes, practices and activities that have significant impact on the quality of the products and services we develop and deliver has allowed us to start a serious measurement programme, which in turn has greatly helped in planning new activities.

The sharing of best practices has allowed us to have sufficient experiences in their implementation to allow us to collect significant statistics on the results. This gives us an understanding of the measurable quality and the corresponding cost (financial and other). The understanding of the effort and value of the activities has allowed us to establish some basic rules, allowing us to determine rapidly that a product is not within the measurable quality limits expected by the customer.

These data have helped us focus our quality and productivity efforts on the key areas. Ensuring that we can develop quality products rather than have to spend a lot of time and money identifying what is the quality. The communication of information through this is really powerful, there is a feeling that we have pushed information and the sharing of knowledge to new levels, where we can find detailed data of who, what and when. We have full confidence in the data and can understand results and impacts even before they happen.

## 2.5 The Customer-Focused Team

A clear understanding of the key reasons for the quality delivered allows for a focus on directly improving the quality – this applies to the quality of the processes, tools, projects and products. Every one within the organization focuses primarily on improving the quality of what the organization as a whole produces. There is an emphasis on identifying and communicating opportunities for improvement on an ongoing basis. It is within this context that everyone considers the quality of the work being done by all those involved in the delivery process as part of their own responsibility.

Sharing of information has now become nearly obsolete: the information and the knowledge is truly built into the processes, whenever something changes, very rapidly the work practices reflect the change, whether they be changes of direction, strategy, personnel or priorities...

## 3 Conclusion

The evolution of the culture within an organization is reasonably obvious. Maturity defines the understanding that a person or organization has of his/her/its own skills, capabilities, weaknesses. It takes time and is very closely related to both the "maturity levels" as defined in CMMI and the five traditional levels of knowledge management.