



**PDHonline Course P102C (8 PDH)**

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# **Project Management for Managers/Executives**

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**2012**

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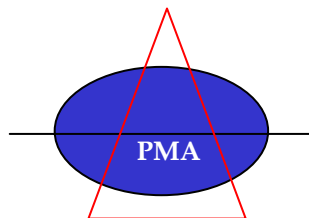
**Presents**

**Project Management for  
Managers/ Executives**

Via

**WEB BASED LEARNING**

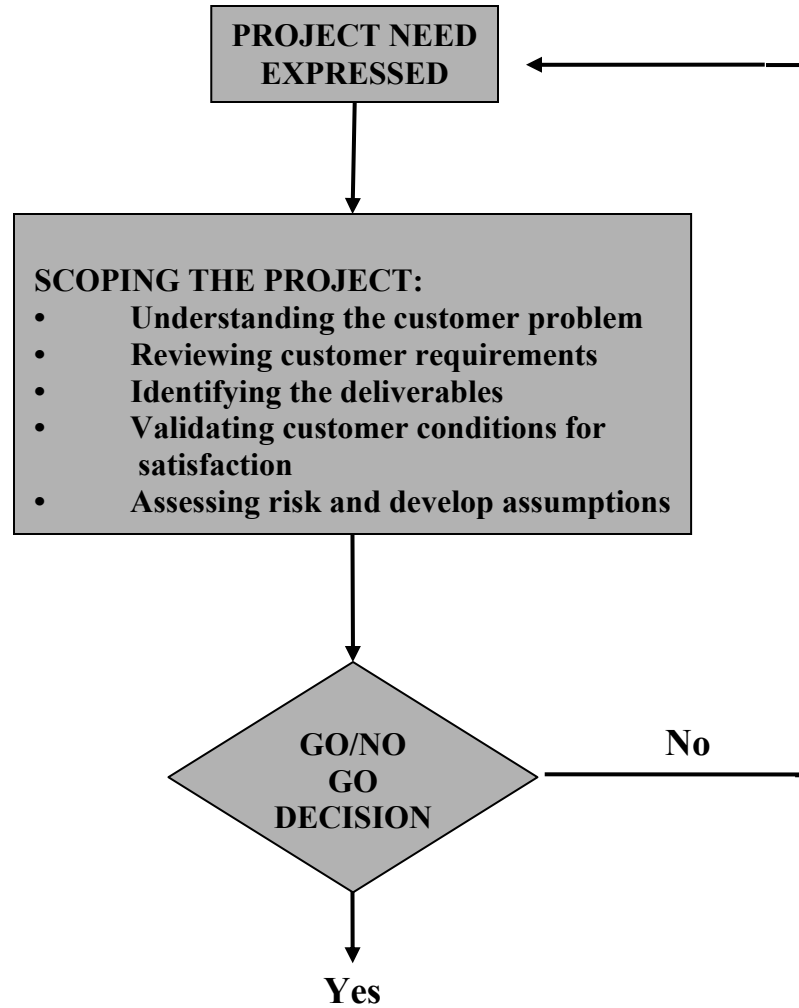
*Author: William J. Scott, PMP, PE*

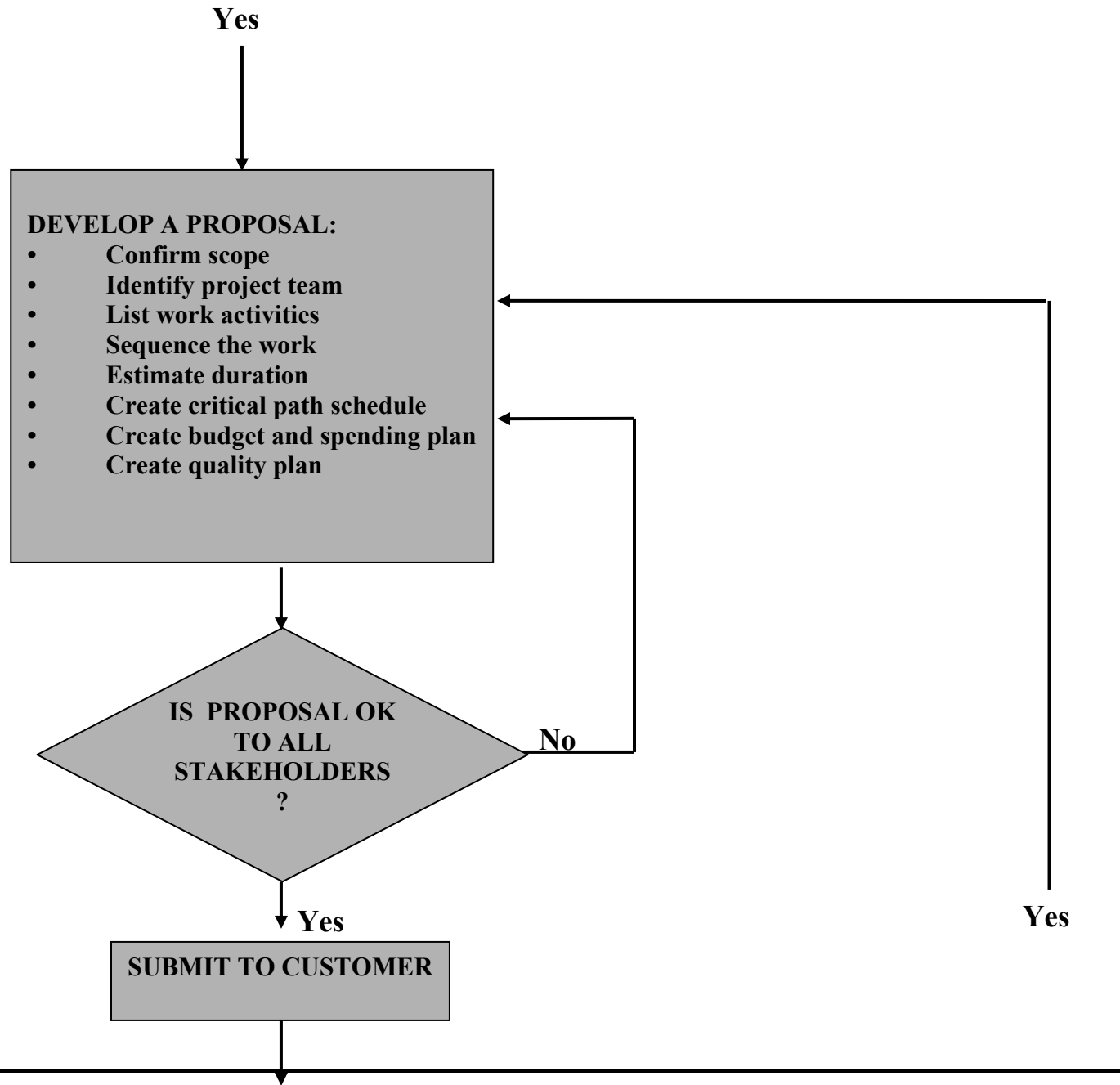


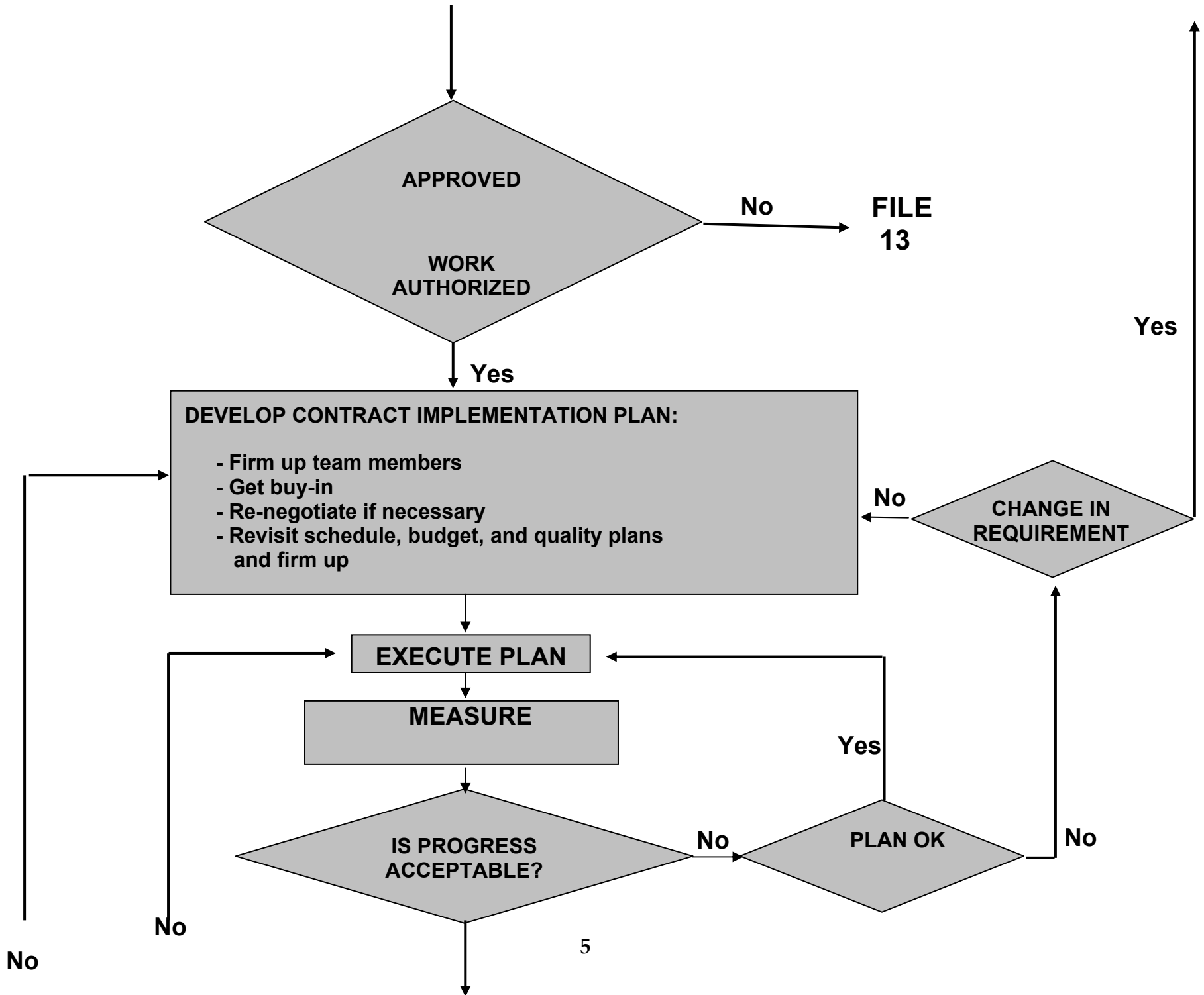
## **Module # 3**

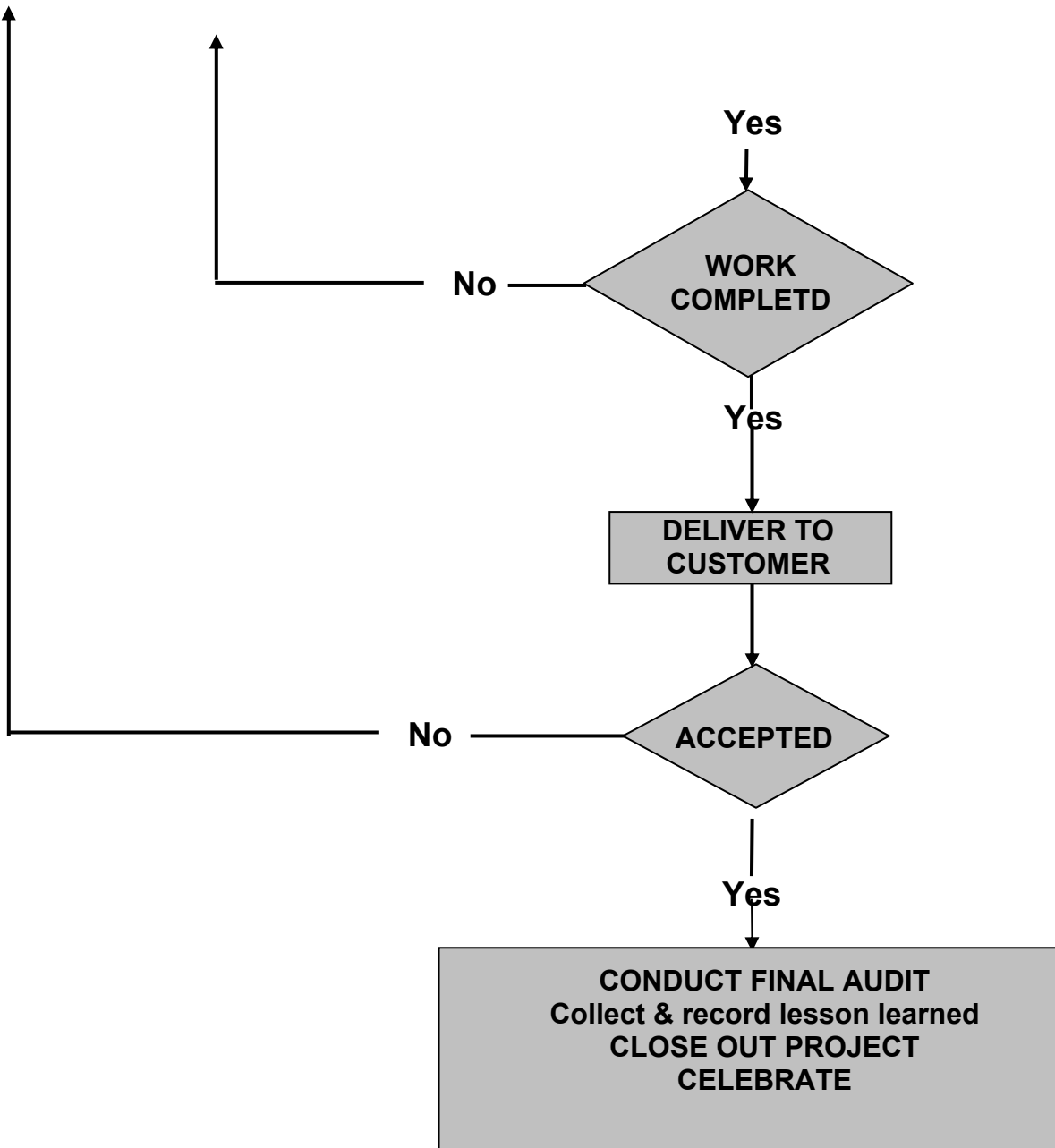
# **THE PROJECT MANAGEMENT PROCESS**

# PROJECT MANAGEMENT PROCESS MAP









## Quality - Japanese Value Story

In the 50's a lot of Japanese goods begin to show up in America. Americans were cautious in their purchase of foreign goods, especially Japanese. Their caution was warranted, because in the beginning many of the Japanese goods were "junk". They were not made very well, and were of lower quality. Well, it didn't take long for the word to get around. So when Americans saw "made in Japan" they associated it with low quality junk.

Well all of that changed in the 60's and 70's when the Japanese discovered what high quality (at a reasonable price) could do for you in a global market. And then the Japanese discovered what high quality even at a not so reasonable price could do for you in that same global market.

Then all of a sudden "Made in Japan" became synonymous with high quality, especially in car, electronics and manufactured goods. This all changed dramatically over the short span of 20 years.

With that background, we go to the story:

An American company needed 1,000 globe water valves, 2" diameter for a construction project. They took bids, evaluated them and decided to award the contract to a Japanese manufacturer. When the American firm wrote the purchase order it listed:

1,000, each, 2" Globe, steel body, water valves.

At the bottom of the purchase order there was a statement that the purchaser would accept 2% defects.

Well some 3 months later, a large box with 1000 globe, steel body, 2" diameter, water valves was delivered to the site. There was a second, much smaller box with 20 globe, 2" diameter, steel body, water valves that were defective. A letter from the Japanese valve manufacturer accompanied the delivery. It was address to the American Company and said:

Dear Sir,

It is our pleasure to deliver to you the 1,000 water valves you purchased.



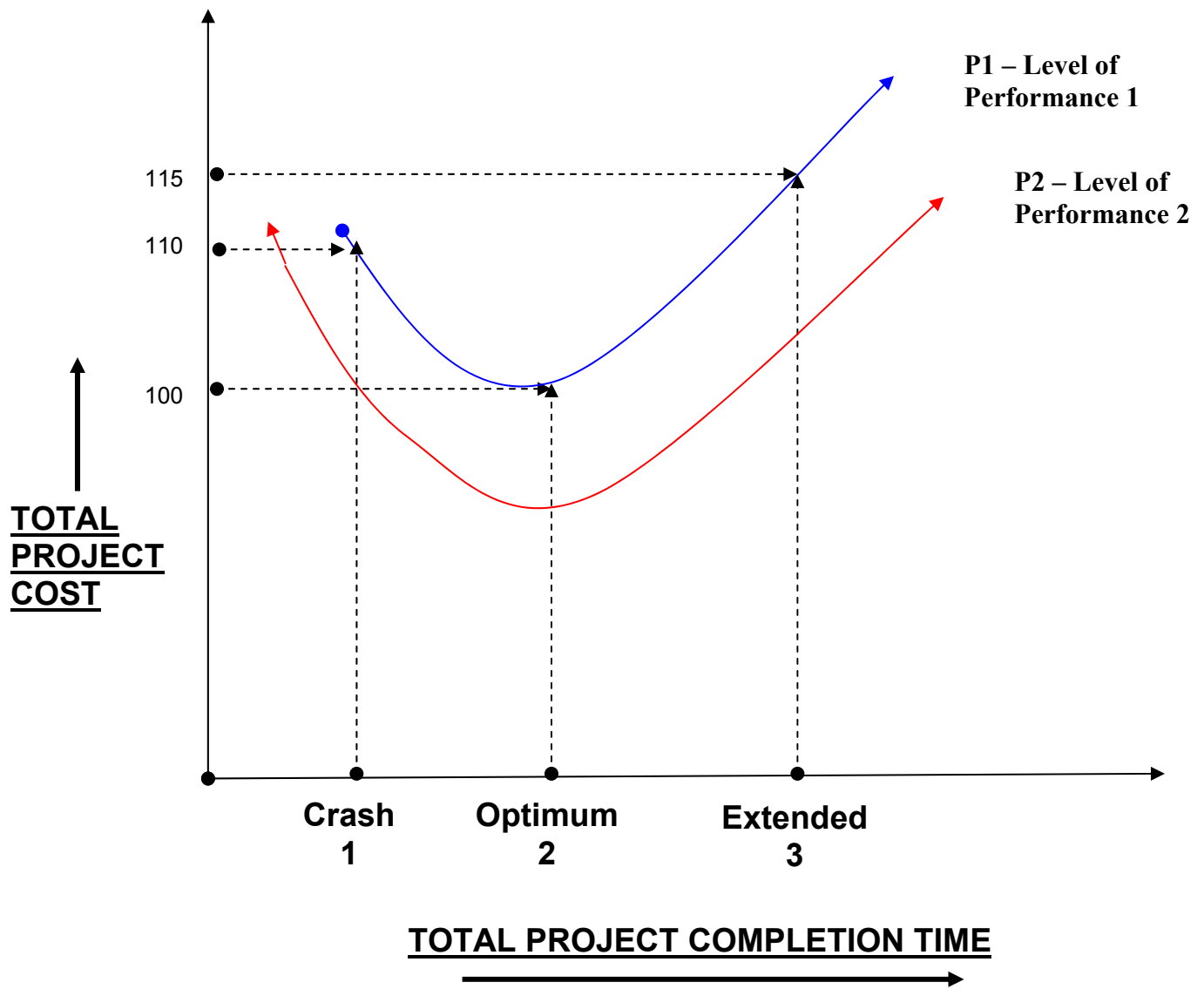
We have also delivered to you the 20 defective water valves you specified. We are not sure why you ordered the 2% defective valves as we are used to manufacturing with zero defects. In fact it was very costly to us to make these 20 defective valves.

Thank you very much for your business.

So what we have here is a lesson in quality from the original low quality country to mighty America who use prided herself as a high quality country.

It is funny how Japan started with low quality and rose to high quality. The US started with high quality (relatively) and then fell and has only recently risen again.

# PROJECT COST CURVE



## What does the Project Cost Curve on page 54 tell us?

At a given level of performance P1 (40 tons/hour, 60gpm or whatever), there is a project completion time (Optimum 2) that represents the lowest cost (100).

If the project is delayed and takes more time than planned (Extended 3) then the cost will go up due to the same people being on the project longer (maybe to 115 +/- or more).

On the other hand, if you try to accelerate the completion from the original plan, the cost will also go up due to more people, overtime, overlapping trades, stacked trades, inefficiencies, etc. (maybe 110 +/-, it could be much more).

Let's assume that neither of these outcomes are acceptable. Let's also assume that you must finish on time and on budget. Then the **only** solution is to lower the required performance level to P2 (say 30 tons/hour or 40 gpm).

Curve P2 crosses the cost line at 100 even for the Crash 1 time. Curve P2 crosses the cost line above 100 for the Extended 3 time. A further reduction in performance, maybe to P3 (say 25 tons/hour) might be necessary in order to bring the project back on schedule and back on budget.

Now we see how important the schedule is. Faster or slower for a given level of performance will always result in more cost!

Now, lets think about we have learned so far. There are three aspects of project results. They are:

1. On budget
2. Performance (It works as expected)
3. On schedule

What is the order of priority?

**Number 1 is: Performance**

If the product or system does not work or perform as expected, nothing else matters. Schedule is no longer important and how much it costs is no longer known (because it is going to cost a lot more). Performance is without a doubt **number 1!**

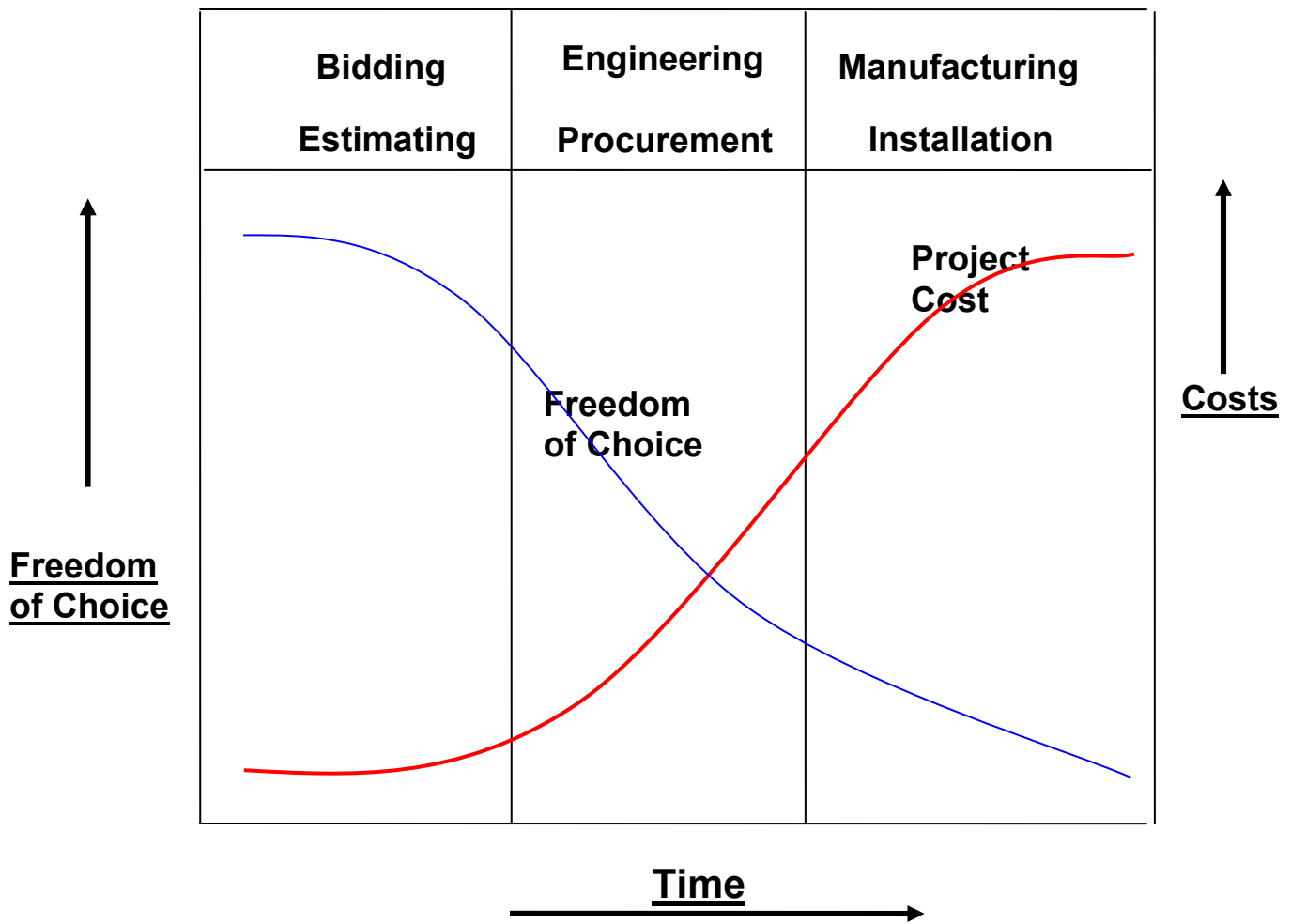
**Number 2 is: Schedule**

As you can see from the Project Cost Curve, if you do not manage the schedule, you will not like the results. If you manage the schedule, you generally will like the budget results.

And finally, **Number 3 is: Budget**

If you take care of business managing the performance and schedule, you will generally like the budget results. On the other hand, if you do not manage performance and schedule, I guarantee you will not like the budget outcome.

**FREEDOM OF CHOICE**  
**VS**  
**PROJECT COST**  
**CURVE**



## **What does the Freedom of Choice vs. Cost Curve on page 57 show?**

It shows that early in the project, you have the highest level of freedom of choice. Usually, as freedom of choice increases the cost for those choices decrease.

As the project progresses toward completion, three things happen: The remaining time diminishes, the project cost increases and the freedom of choice drops.

As we get closer and closer to the end, we reach a point where our freedom of choice is close to zero. At that point, the only decision that can be made is the one that results in completion on time, almost regardless of cost.

This is one of the reasons why decisions need to be made in a timely manner. Sooner rather than later usually results in lower overall total cost.