

Initiation and Scoping

***PMI Portland Educational Session
Feb. 19, 2008***

Instructor



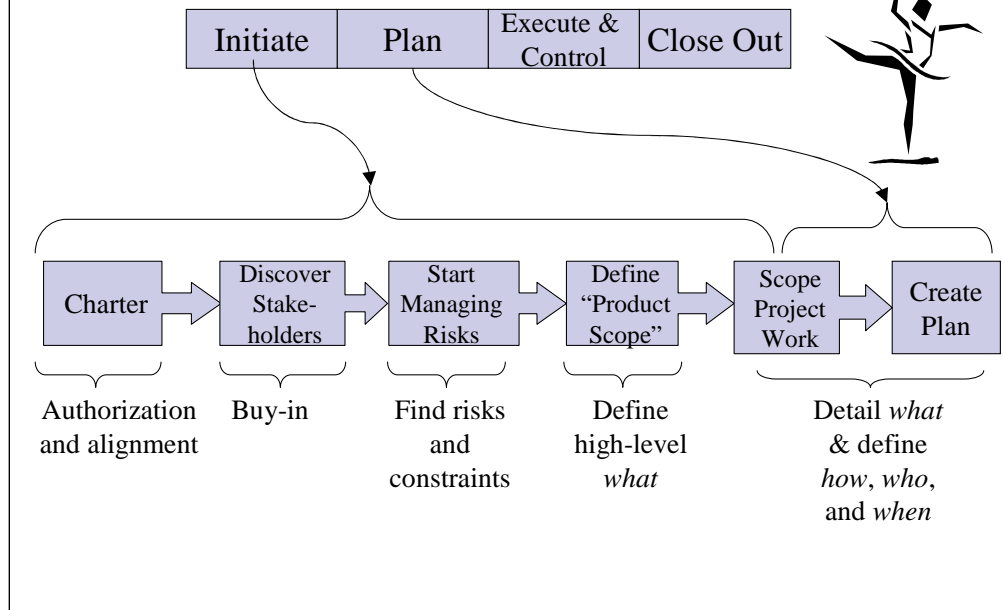
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Jeff Oltmann is a seasoned leader with over 20 years of experience managing successful technology programs. Jeff focuses on excellent execution. He ran the Program Management Office (PMO) and a \$60M project portfolio for IBM's xSeries development facility in Oregon. Jeff's hands-on program management experience includes program budgets over \$100M and worldwide cross-functional teams of over 100 members. He is on the faculty of the department of Management of Science and Technology at the Oregon Graduate Institute. Jeff teaches project management and portfolio management and is a certified Project Management Professional (PMP).

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Project Definition Fundamentals



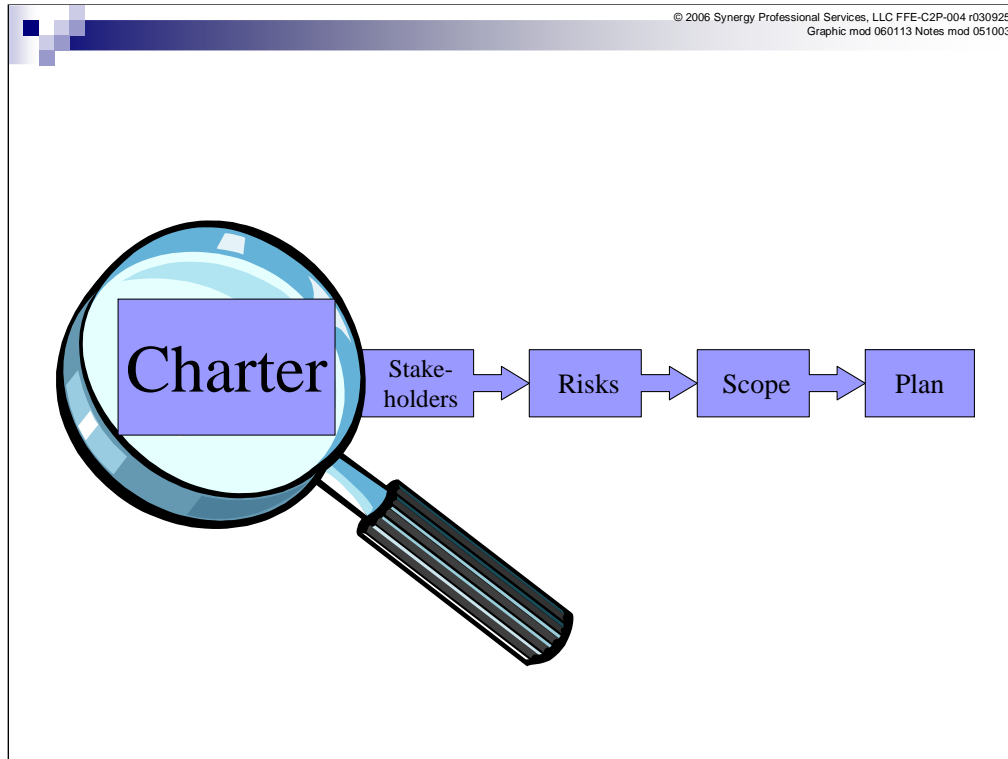
Every project goes through similar steps. This is called the project management lifecycle. A lifecycle is cornerstone element in an organization's approach to project management. It provides:

- A similar way to organize every project.
- A way for different parts of the organization to stay in sync, and discuss progress and expectations about projects.
- A way for the organization to monitor progress on projects and to make decisions about whether to continue working on a project.

In this session, we'll focus on several important aspects of Initiating and Planning. We'll cover how to charter and scope a new project.

Here's a sequence that works well to initiate a project. Your own company likely has elaborated on these basic steps.

- 1) Get the stakeholders aligned and clearly authorize the project.
- 2) Take an early look at risks. Don't wait until full blown planning starts!
- 3) Start defining what your project is going to produce.
- 4) Only after you have some understanding of the "what", then start getting into the "how". Doing a lot of "how" work is a waste of time if you don't have a solid grip on the "what" first, yet it is very tempting for most of us to dive right in.



A charter is a simple and powerful way to start the initiation phase of a project. Yet many projects limp along because they didn't get a good charter at the beginning.

Verzuh discusses charters and statements of work beginning on page 48 (2nd edition). As he points out, each company seems to have a different definition of a charter, description of scope, and statement of work. There are many variations that work. The key is to make sure that the important elements are agreed on and documented, whatever the document is called.

The charter examples in the following slides combine Verzuh's charter with elements of his statement of work.

NOTE: References to Verzuh are to Eric Verzuh, *Fast Forward MBA in Project Management*, 2nd edition.

Start With a Project Charter

■ Purpose: Authorization and Alignment

- Formal recognition of project ←
- An initial agreement on what and why
 - Negotiated agreement between project team and sponsor
 - Elevator pitch
- Agreement to start spending resources on the “define” phase

Verzuh's charter is a
“formal recognition of
authority”

■ Not:

- A white paper or design spec
- “The boss said just go do it.”
- “The engineers already have it designed.”
- “Marketing has already sold some of them.”



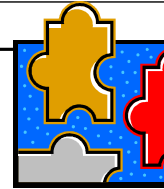
Doing a project without a charter is like being told to drive a car without being told where to go, or even having agreement that you're allowed to start the car.

Often you hear something like “we all know what this project is about and we don't have time to write a charter.” Don't believe it! The stakeholders' expectations are often muddier than anyone really knows, and the simple act of chartering will very effectively line up initial expectations at the time that it does the most good.

You will also get clear authorization to start the project, making it easier for you to get people's attention when you start asking for their time and participation on the project.

Note that I divide things up differently than Verzuh does. For him, a charter is a simple memo that is a “formal recognition of authority.” My charter adds more elements, listed on the next page. Verzuh doesn't neglect these additional elements – he puts them in a separate document that he calls a “Statement of Work.”


Charter Contents	Verzuh's SOW
1. Business reason for project (the why)	① Purpose statement
2. End deliverables (the what)	② Scope statement ③ Deliverables
3. Key targets	④ Estimates
4. Success measures	⑤ Objectives
5. Major assumptions and constraints	
6. Major risks	
7. High level responsibilities of sponsor, leader, team, customer	⑥ Stakeholders ⑦ Chain of Command
8. Approval by sponsor and PM	



What is in a charter? People with experience at projects have various preferences, but I believe that the minimum set is a short description of:

1. Business reason for project (the why)
2. Desired end result (the what) – the tangible deliverables that the project must create
3. Success measure – how you know when you're done
4. Key targets, assumptions and constraints, such as resources, milestones, required features and quality level
5. Major risks that must be managed
6. High level roles and responsibilities of sponsor, PM, project team, customer, and other key stakeholders such as management
7. Approval line giving formal recognition of authority

As you can see from this list, a charter is not a job description or design “how to” paper. And a good charter is short (I like 1 – 2 pages), so I don't generally like to add much beyond the list above.



Example Charter

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Project name: Phoenix
 Short description: Beautify the vacant lot at 3rd and Main

End results (scope and deliverables – the what)
 This project will deliver:

1. A clean lot without the current trash and junked autos
2. A community garden that produces year around beauty and a summer food harvest
3. A white picket fence surrounds the garden, keeps out Sasquatch, and adds beauty

Business reason (the why)

- Increase value of nearby real estate owned by chamber of commerce members
- Build residents' sense of community as a way to revitalize neighborhood

SMART success measures

1. All construction and planting is complete by April 1
2. First harvest is by August 15 and yields enough food to feed 5 families
3. Residents grade beauty of the garden at least "B" in survey completed by Oct. 1

Key assumptions and constraints

- All labor and materials are volunteer, donated, or funded by community improvement grants obtained by the project team

Key roles and authority

Project manager: Jillian	Sponsor: Gregg, C of C President
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Here is a simple example of a charter. Several of the sections are omitted for space reasons.

The value that comes out of a charter is all out of proportion to what you'd expect from a 1 – 2 page document. In fact, much of the value comes from the interaction of the project team, leader, and stakeholders as they formulate the charter sections.

Here's a real story to illustrate. Several years ago, I was helping a team define the first project of a new strategic initiative. They all thought that they understood exactly what the project was supposed to produce and they were ready to jump right into "getting something done." I insisted that as a team we write and review a short charter. Two weeks and multiple revisions later, we finally captured an agreement on what the project was supposed to create. We learned that even with extensive verbal discussions before the chartering process, the sponsors and team hadn't really been saying the same thing. The act of writing it down in a concise format forced clarity. Writing it down forces you to confront what you really do and don't know.

Charter

(Describes *Why* and *What*)

Project name:

Date:

Short description:

The why
What is the business reason for this project?

Business alignment (Why is this project important and how does it link to your organization's business priorities?)

The what
What are the SMART deliverables to the project's customer or

Success measures
How and when will you measure the project's success?

Deliverables (What will be the tangible items or results that the project will deliver?)

Description	Success Measurement and Date

Other Success Measures (Other success measures, not correlated with deliverables listed above)

Out of Scope Items

SMART

(SMART = Specific, Measurable, Actionable, Realistic and Time-bound)

Targets

May be revised during further scoping and planning

Key targets

Desired start date:

Desired completion date:

Estimated cost:

Other:

Major risks

Key assumptions and constraints

Major roles and authority

Role	Name	Major responsibilities
Project manager		
Sponsor		

Approval to proceed to next phase

Project manager:

Sponsor:

Funder:

Other:

Instructions for Completing the Charter

Purpose and Responsibilities

- This form is used during the define phase of a project to get initial alignment and agreement on why the project is being initiated and what it will produce.
- The sponsor and the project manager should work together to get this charter form filled out. Involve as much of the core project team as possible to get their buy-in.
- The charter is not a replacement for a project plan. Keep it at a higher level of detail; just detailed enough to make a decision at the next gate on whether it is worth investing in detailed planning for the project.
- The completed form should be no longer than 2 – 3 pages. The entire define phase should be short, such as several weeks for many projects at a typical company.

Step-by-Step Instructions

Short Description

Enter a brief description of the project so that other people can recognize it quickly. This is just an identification tag, so don't make it too fancy.

Business Alignment

In this section, describe the why of the project. Explain the business level costs and benefits that your company will get from this project. Why is this project important and how does it link to your company's business objectives?

Deliverables and Success Measures

In this section, describe the what of the project.

- What are the tangible deliverables that the project will deliver to its customers or users?
- How will you measure whether the project successfully delivered them?
- Use the SMART test. Are the deliverables and success measures Specific, Measurable, Actionable, Realistic, and Time-bound?
- In the *out of scope* section write a short list of things that you don't plan to deliver but that other people might be expecting, based on likely misunderstandings.

Key Targets

These are order of magnitude estimates, since you are filling out this form during the *define* phase, before any detailed planning has been done for the project. These are not commitments.

Major Risks, Assumptions, and Constraints

List major risks that may significantly affect the success of this project. Also, document key assumptions and constraints that will shape the planning for this project. Capture the big stuff here – don't worry about minor items at this time.

Major Roles

List the major project stakeholders and what role you expect them to have. Make sure you include the project manager, the sponsor, and key team members (if known at this time). This is not a laundry list. List 3 – 8 stakeholders who are major internal or external customers of the project or are contributors to it. Key stakeholders are often people who do one or more of these things:

1. Provide things to the project
2. Pay for the work
3. Do the work
4. Support the results after the project is done (such as maintenance techs)
5. Use the results of the project (such as line operators and sales people)
6. Are an end customer
7. Can derail the project

Approval of Charter

Formal approval is necessary to transition this project into the *planning* phase. Get the signatures of the sponsor, project manager, and other especially key stakeholders so you are assured that they all agree on the direction that the project is taking.

Value of a Charter

- Communication and internal marketing tool
- Build active agreement and commitment
- Force initial scope decisions
 - Good foundation for later detailed definition
- Get management support and resources



“More projects have died of indigestion than starvation”

So a charter is a communication tool. It starts a discussion on what the project is. It is a focusing mechanism, not a “how to” blueprint (the blueprint will come later.) The charter helps get alignment and commitment to the overall shape of the project from project team and management sponsors. For this to happen, the sponsor and the core project team must both be involved. (Since you may not have a project team at the start, writing a charter can be an iterative process.) A project manager who writes a charter in isolation forgoes many of the benefits of the process.

The charter gets everyone off on a good start, working in the same direction. If you can't agree on a charter, how are you going to agree on the details? Many projects start to go wrong at this early step.

Key Success Factors for Charters

- Team and sponsor involved
- Negotiated, not mandated – for alignment and commitment
- **SMART** (Specific, Measurable, Achievable, Realistic and Time-bound)
- Refreshed as project progresses
- Has an owner (often project champion or leader)

SMART

Some charters, even well written ones, are less than successful. The reason has a lot to do with how you create the charter and what you do with it. Here are some tips from experience.

- Use the charter to generate alignment on what, why, and measures of success. The alignment process is much more important than the fact that a piece of paper has been written and filed.
- Chartering should not be a solo exercise. Key stakeholders, such as the project sponsor and the project team leader, should be actively involved in crafting and negotiating the charter. Mandating the contents or writing the charter in isolation leads to apathy or decommitment, and that is a huge handicap for the project to overcome.
- Similarly, it's dangerous to force charter goals that the sponsor, project team, or other stakeholders regard as unachievable. Be pragmatic. Aggressive is OK, if the team thinks they will get the support they need to have a shot at success. The project team can be forced to agree under duress, but that won't get commitment. Commitment is essential for a high performing team that drives a successful project.
- Finally, change happens. The charter, or its follow-on documents, should be refreshed when major events happen. You got initial alignment with the original charter and you must keep it as things change.

Internal Marketing

- Use the charter to gain internal support
 - Compete for limited resources and attention
 - Focus the team
- Tailor format to audience
 - Drawing or mockup for visual people
 - Fifteen second version for hallway encounter
 - Five minute version over coffee
 - Presentation for “road shows”



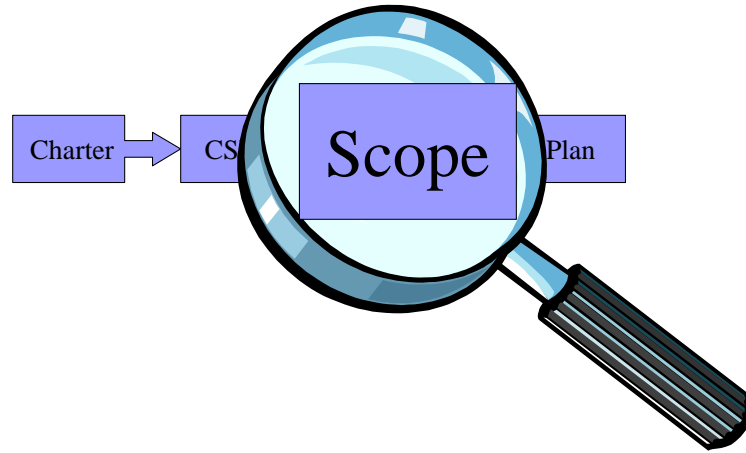
Since a major purpose of a charter is to create alignment, it's a great basis for internal marketing. The project is competing for everyone's limited resources and attention, so the project team must communicate what the project is about and why it is important.

Different people relate to different types of communication, so you may want to present the key contents of the charter in various ways. Here are some forms that people have used.

- A drawing, GUI mockup or physical model – most people are very visual.
- 15 second version for meeting an exec in the hall.
- five minute version for over lunch or beer.
- 30 minute presentation for “road shows” such as group meetings.

Use the charter to keep the project team focused and to get support from your project community.

Add Detail to the Scope



What Is Scope?

- Bounding box
- “What’s in and what’s out”



When you wrote a charter, you took the first step in defining scope by writing a paragraph or two on the desired end result of the project. This step refines it and adds details. Here you’re still working mostly on the “what” but you will start getting a little into the “how” of the project.

I like the second definition of scope on this slide. It is simple and clear – scope is simply defining what’s in and what’s out. The “what’s out” part of scope is important for setting expectations, but is often neglected.

Why Define Scope?

- Manage “scope creep”
 - Content baseline makes later content changes clear
 - Basis for negotiating requested project changes
- Set boundaries
 - Focus limited resources on achieving the charter
 - Basis for detailed project planning – including cost, schedule, and resource projections
- Make assumptions and constraints explicit
- Force decisions to be made

Have you heard this quote before? “More projects have died of indigestion than starvation!” A local example is the City of Portland Water Bureau billing system. It got further and further from off the shelf software as more and more custom features were added. It barely worked when it was turned live, and the city has lost millions of dollars in messed up billings.

I’ve been told by someone working on the project that there was not much formal scope definition and few controls on adding new features.

A good scope definition helps focus precious limited resources and creates a the first baseline for managing change requests. Just as valuable, it helps put a focus on decisions that need to be made early to build a good foundation for the rest of the project.

Two Types of Scope

■ Product Scope

- Description of the product, service, or process to be created by the project

Examples of domain specific methods to create product scope:

- Product data sheet
- Functional specifications
- Feature specifications
- Requirements document
- Use cases
- Views

■ Project Scope

- Description of the work to be done by the project

Input information:

- Charter
- Early risk analysis (CSF's)
- Product scope

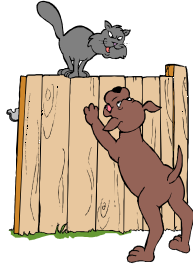
There are two types of scope . Product scope is a description of the product, service, or process to be created by the project. Project scope describes the work that will and won't be done by the project to create the end result. Product scope must be at least partly defined before defining project scope.

As we've said before, "what" goes before "how." So develop the product scope first. The method you use to define product scope will vary by industry – you can see some examples in the list above.

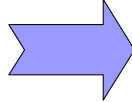
Don't jump directly to the project scope. Define what you want to create before you define how you're going to do it.

What Before How

Product Scope

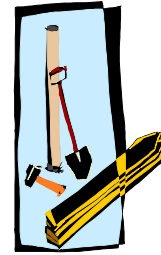


- “Good neighbor” style
- Unstained 1x6 cedar planks; 4x4 treated posts
- 6 feet high, 60 feet long
- 8 foot sections with posts on concrete pilings
- Complies with code



Project Scope

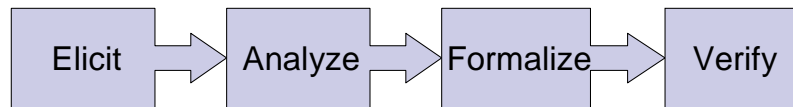
- Includes
 - Procure all materials
 - Tear down old fence
 - Set posts in 18” deep holes filled with high aggregate concrete
 - Hang stringers and nail planks
 - Clean up job site
- Does not include
 - Survey and mark property line
 - Inspection to code



On the left is an example product scope for a new fence that will be built around your yard. It describes the end result of the project. The project scope is on the right. It describes how the fence will be created, not what the fence will be.

Now a reality check: you may not have time to wait on a complete definition of the product before you have to get started on setting up the project. You should start the product scope first, but you may start working on sections of the project scope that are relatively stable before the product scope is completely defined. You can also iterate the two types of scope definition, similar to how rapid prototyping creates an early prototype to get early feedback, then iterates.

Requirements Engineering Steps



Managing Requirements in Chaotic Environments

- Be up front and proactive
- Use sign-offs
- Expect and anticipate misunderstandings
- Expect and explicitly manage changes
- Over-communicate
- Invest extra effort in clarity

One (of many) methods for creating product scope is called *Requirements Engineering*. This is a very popular method, and is quite effective if done well. It has four basic steps.

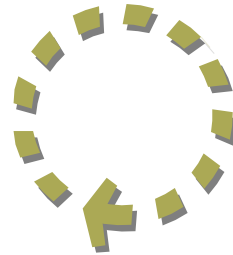
1. The first is customer intimacy. Elicit what the customers and users want and need. Often they will have trouble expressing this clearly, or it may be so obvious to them that they never explicitly state what they want. This means that you often get the best understanding of what your customer needs when you actually observe them doing their job. As one requirements expert says, “Go for the Gemba!” Gemba is a word that roughly translates as “the place where the action is.”
2. Next, analyze what you’ve heard from your customers. Look at both impacts and priority. You may use a tool such as KJ analysis or affinity diagramming.
3. The Formalize step takes the raw analysis and formalizes the tentative results. The act of writing it down clarifies and sharpens the focus
4. Finally, verify that you got it right. Can you trace each formal requirement back to a need or desire that you elicited in step 1? Does your customer agree that the requirements you wrote in step 3 are really on target?

You will probably have to iterate through these steps more than once, depending on the customer’s ability to communicate their requirements the first time.

Good requirements gathering is incredibly important to successful projects. The basic steps are easy to understand, but there are many subtleties and it is difficult to do well. There are entire books and classes on it (I can give you references if you want). Avoid doing ad-hoc requirements work on an important project. Get an expert on your team or get coaching from someone with experience. A good place to look is the product management group. Product managers often have formal training in customer intimacy and requirements gathering.

Successive Refinement of Scope

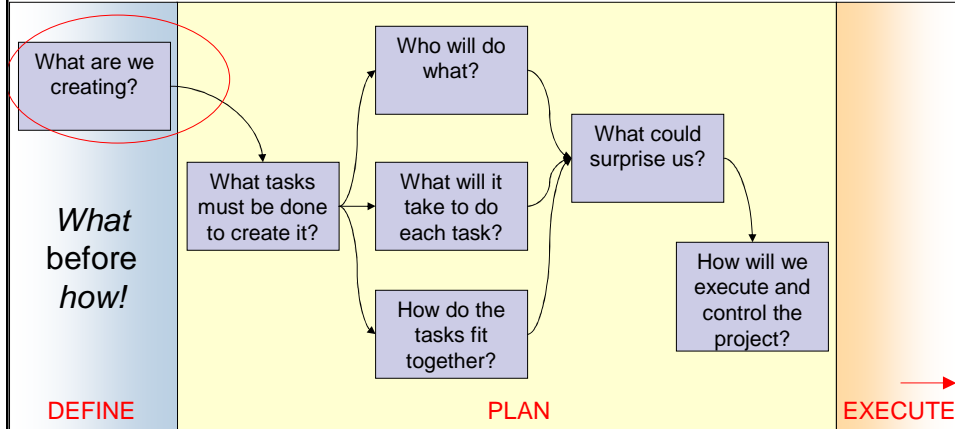
- Start at a high level
- Progressively iterate as more becomes known
 - Project learns more
 - Business changes
 - Resources change
- Expect change requests
 - Scope statement is basis for negotiation
 - Use change control process and communication



You usually can't know everything about your product's and project's scopes at the definition stage. Markets and technologies change. Your team and the customer learn more as they get further into the project. So scope is usually successively refined in an iterative way during the early phases of a project.

Sometimes I see teams who want to define or plan the entire project in excruciating detail before moving forward. Just as often, I see teams who want to skip the hard definition work and jump right into execution. A project manager has to lead his team to balance between the two extremes, and successive refinement is a good tool for doing that.

Foundation for Planning



Using the tools of chartering and scope definition will lay the foundation for your project to be successful in the next phase of the project management lifecycle: planning. Without that good foundation, planning will be based on shifting sands. Investing in a good charter and scope definition is well worth the time and effort!

***The will to succeed is important.
But, the will to prepare is even
more important.***

-- Bobby Knight