Project Charter and Project Scope Management





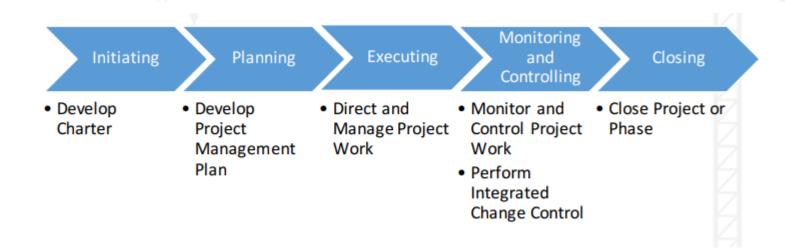
Time schedule

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- 12:25-13:00: Lecture on the project charter
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Project Integration Management

- Project Integration Management
 - The processes and activities to identify, define, combine, unify, and coordinate the various processes and project management activities within the Project Management Process Groups.





Project charter



A document that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities.



The key benefits of this process are that it provides a direct link between the project and the strategic objectives of the organization, creates a formal record of the project, and shows the organizational commitment to the project.



It leads to a "go" or "no go" decision.



Project Charter

Developing a Project Charter

- Project Charter
 - Inputs:
 - Statement of Work (SOW) A narrative description of the products, services or results to be delivered.
 - Business Case Documented feasibility study used to establish the benefits of the Project and justify further activity.
 - Agreements establishes the intent of the project
 - Enterprise Environmental Factors
 - Statement of Work :
 - The Statement of Work is part of the Project Charter and should contain the clearly documented and accepted expectations for the project including:
 - Project Goals or Purpose
 - Constraints
 - Success Criteria
 - Project Scope Statement



Business case

The approved business case is the business document most commonly used to create the project charter.

- → The business case describes the necessary information from a business standpoint to determine whether the expected outcomes of the project justify the required investment.
- → It is commonly used for decision making by managers or executives above the project level. Typically, the business need and the cost-benefit analysis are contained in the business case to justify and establish boundaries for the project.

A business case captures the reasoning for initiating a project or task.

Building the business case would be one of the first steps under normal circumstances because the "life" of the project is dependent on an acceptable business case.



Business case driver examples



- → Market demand (e.g., an automobile manufacturer authorizing a project to build more electric cars due to consumer demands),
- → Organizational need (e.g., due to high overhead costs, a company may combine staff functions and streamline processes to reduce costs),
- → Technological advance (e.g., an airline authorizing a new project to develop alternative aviation fuels),
- → Legal requirement (e.g., a company authorizing a project to publish sustainability reporting),
- → Ecological impacts (e.g., a company authorizing a project to lessen its environmental impact),
- → Social need (e.g., a nongovernmental organization in a developing country authorizing a project to provide public education).



Business Case: Smoothie Bar at SDU

Executive Summary: The project aims to establish a smoothie bar on the SDU campus, offering healthy, fresh smoothies to students, faculty, and staff, aligning with the university's wellness and sustainability goals.

Objectives:

- → Provide a healthy food option.
- → Support local farmers and sustainability.

Market Analysis:

- → Target Audience: Students, faculty, and staff.
- → Market Need: High demand for healthy, quick, and affordable food.
- → Competition: Limited healthy options on campus.

Business Model:

- → Products: Fresh fruit and vegetable smoothies.
- → Pricing: Competitive with student discounts.
- → Location: Central campus with high foot traffic.
- → Operations: Local sourcing and student employment.

SDU

Financial Projections:

- → Initial Investment: DKK 200,000.
- → Monthly Revenue: DKK 50,000.
- → Break-even Point: Within the first year.

Benefits:

- → Health: Encourages healthier eating.
- → Economic: Job opportunities for students, local farmers
- → Environmental: Reduces carbon footprint.

Risks and Mitigation:

- → Low customer turnout: Aggressive marketing.
- → Supply chain disruptions: Multiple supplier relationships.

Conclusion: The smoothie bar at SDU offers a healthy, sustainable, and convenient food option, with a solid business model and strategic planning ensuring financial viability and community benefits.

How to select the business case

- → The business case is a documented economic feasibility study used to establish the benefits of a selected case and justify further project management activities.
- → The business case should follow a standard format to allow comparison but there are different ways to make the comparison:
 - → Financial criteria:
 - → Payback model
 - → Nonfinancial criteria
 - → Project of strategic importance to the firm
 - → Multi-criteria selection models
 - → Checklist models



How to select the business case – financial criteria (payback model)

- → The payback model measures the time the project will take to recover the project investment.
- → Favors shorter payback periods.
- → Is the simplest and most widely used model.
- → Emphasizes cash flows (a key factor in business).

The payback formula is:

$$Payback\ period = \frac{Estimated\ project\ cost}{Annual\ savings}$$



Project A: Technology 1

Initial Investment: \$5 million

Operational Costs: \$200,000 per year

CO2 Reduction Efficiency: 90%

Annual CO2 Reduction: 10,000 tons

Revenue from Carbon Credits: \$50 per ton

Project B: Technology 2

Initial Investment: \$3 million

Operational Costs: \$300,000 per year

CO2 Reduction Efficiency: 80%

Annual CO2 Reduction: 8,000 tons

Revenue from Carbon Credits: \$50 per ton

Payback Model Calculation

Project A

1. Annual Savings from CO2 Reduction:

10,000 tons×\$50/ton=\$500,000

2. Net Annual Savings:

\$500,000-\$200,000=\$300,000

3. Payback Period:

$$\frac{\$5,000,000}{\$300,000} \approx 16.67 \text{ years}$$

Project B

- 1. Annual Savings from CO2 Reduction:
- 8,000 tons×\$50/ton=\$400,000
- 2. Net Annual Savings:

\$400,000-\$300,000=\$100,000

3. Payback Period:

$$\frac{\$3,000,000}{\$100,000} = 30 \text{ years}$$



How to select the business case – Nonfinancial criteria examples



To capture larger market share.



To make it difficult for competitors to enter the market.



To develop an enabler product, which by its introduction will increase sales in more profitable products.



To develop core technology that will be used in next-generation products.



To fulfill regulations and compliance to prevent fines or other governmental interventions.



Usually some financial criteria are often tied to the examples above – the main difference is that the financial criteria is not the main decider.



Checklist Models: Sample Selection Questions Used in Practice

Topic	Question
Strategy/alignment	What specific organization strategy does this project align with?
Driver	What business problem does the project solve?
Sponsorship	Who is the project sponsor?
Risk	What is the impact of not doing this project?
Risk	How risky is the project?
Benefits, value, ROI	What is the value of the project to this organization?
Benefits, value, ROI	When will the project show results?
Objectives	What are the project objectives?
Organization culture	Is our organizational culture right for this type of project?
Resources	Will internal resources be available for this project?
Schedule	How long will this project take?
Finance/portfolio	What is the estimated cost of the project?
Portfolio	How does this project interact with current projects?



PROJECT CHARTER

- → Essentially, the charter contains an overview of the project scope and the project scope statement breaks it down into more detail.
- → It should be clear and concise.
- → There should be no ambiguity around what the outcome of the project will be.

- → The project charter is the document issued by the project initiator or sponsor that formally authorizes the existence of a project and provides the project manager with the authority to apply organizational resources to project activities. It documents the information on the project and on the product, service, or result the project is intended to satisfy.
- →The project charter ensures a common understanding by the stakeholders of the key deliverables, milestones, and the roles and responsibilities of everyone involved in the project.



Project Charter – Example Contents

Project purpose;	
Measurable project objectives and related success criteria;	
High-level requirements;	
High-level project description, boundaries, and key deliverables;	
Overall project risk;	
Summary milestone schedule;	
Preapproved financial resources;	
Key stakeholder list;	
Project approval requirements (i.e., what constitutes project success, who decides the project is successful, and who signs off on the project);	
Project exit criteria (i.e., what are the conditions to be met in order to close or to cancel the project or phase);	
Assigned project manager, responsibility, and authority level; and	
Name and authority of the sponsor or other person(s) authorizing the project charter.	



Project Charter

Develop Electric Car

11 August 2016

Project Description	The Random Electric Car Club sponsored team will design, construct and test a battery powered car constructed from low cost materials. The car will be successful in a national electric car competition based on speed and endurance.	
Project Purpose	The purpose of the project is to build a prototype vehicle that will demonstrate available technology as a viable means to build and operate a very low emissions vehicle. The competition will encourage further development of designs with a goal of creating a commercially viable vehicle.	
Scope/boundaries	The project will design and construct an approved design for a battery powered single seat car. The car will be built from commercially available material. The team will be responsible for designing the car, raising the necessary funds, procuring the material, constructing the car, testing it and competing in the National Electric Car Challenge. The project does not include any on-going maintenance of the vehicle nor does it include an obligation to use any particular technology or manufacturer. The project does include salvage of the car at the end of the completion to defray costs.	
Requirements	The car should be designed to achieve a speed of 25 miles per hour and be able to operate for a minimum of 4 hours. The competition winner will be car that travels the furthest in the 4 hour time period at site conditions. It must meet the design rules posted on the National Electric Car Challenge web site.	
Deliverables/Objective	Deliverable/Objective	Success Criteria
	Approved Car Design.	Materials and labor for car must cost less than \$30,000. Design must incorporate material commercially available in the area and meet the criteria set forth by the competition. Documentation should allow easy approval of design.
	Raise sufficient funds to fund the car	Funds should be raised by Week 6. They should meet or exceed estimated requirements.
	Construct a competitive car	Car should reliably meet the design specifications and comply with the competition rules. It should be free from defects.
	Compete in the National Electric Car Challenge	Construct a car that will achieve an average speed of over 20 miles per hour and operate for 4 hours with a single passenger.

Schedule	Design Approval (by competition committee) – End of Week 10 Vehicle complete – Week 24 Competition – Week 26 Project Closed and Vehicle Disassembled – end of Week 34
Budget	Less than \$30,000
Assumptions and constraints	Team participants will be paid an effective rate of \$20 per hour. All funds must be raised by the team. Competition site will be located 300 miles from base. All materials are available locally. A specialist will be required to install the power system.
Risks	Sufficient funds cannot be raised in the required time frame Design is not approved by competition committee or it is not done in a timely manner.
References	Team can leverage previous organization entries into the competition for their design.

Key Stakeholders

Owner/Client	Random Electric Club members
Project Sponsor	Random Electric Club President
Project Manager	Jack
Design Judge	Assigned Design Judge for National Electric Car Challenge
Fund Contributors	People who contribute money to fund the challenge
Design Lead	Jill
Construction Lead	Martha
Fund Raiser	Harry
Power System Specialist	Outside consultant

Authority Levels: The Project Manager has full authority to make decisions on the car design, schedule and other items. He cannot commit the club to costs or fund raising strategies without approval.

Project Approval Requirements: All budgets and purchases must be approved by the Project Sponsor. Car Design must be approved by the Design Judge.

Approvals:	
Project Sponsor: _	
Project Manager:	
Club Treasurer:	



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Assignment: Project charter



Create a project charter (and a business case if time)



Use the PMBOK description (p. 81)



Find inspiration in the Electric Car Case example as well as in the example of previous project reports





Time schedule

- 12:15-12:25: Presentation (Stakeholder Group 7)
- 12:25-12:55: Lecture on the project charter
- 12:55-13:10: Break
- 13:10-13:55: Lecture on scope management
- 14:00-15:20: Group work
- 15:20-15:45: Presentation (Project charter, Groups 9 and 11)





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Initiating

The Project Scope Management processes is mainly in the planning phase of the project

Monitoring

Executing

 Develop Scope Management plan.

Planning

- Collect the requirements.
- Define the scope.
- Create work breakdown structure (WBS).

validating the scope.

and

Closing

Controlling the scope.



Enterprise Environmental Factors

The enterprise environmental factors that can influence the Develop Project Charter process include but are not limited to:

- → Government or industry standards (e.g., product standards, quality standards, safety standards, and workmanship standards),
- → Legal and regulatory requirements and/or constraints,
- → Marketplace conditions,
- → Organizational culture and political climate,
- → Organizational governance framework (a structured way to provide control, direction, and coordination through people, policies, and processes to meet organizational strategic and operational goals),
- → Stakeholders' expectations and risk thresholds,
- → Technological improvements or disruptions.



Considerations for adaptive/agile Environments

In projects with evolving requirements, high risk, or significant uncertainty, the scope is often not understood at the beginning of the project or it evolves during the project. *Agile methods* deliberately spend less time trying to define and agree on scope in the early stage of the project and spend more time establishing the process for its ongoing discovery and refinement. Many environments with emerging requirements find that there is often a gap between the real business requirements and the business requirements that were originally stated. Therefore, agile methods purposefully build and review prototypes and release versions in order to refine the requirements. As a result, scope is defined and redefined throughout the project.



Predictive vs. Agile Environments

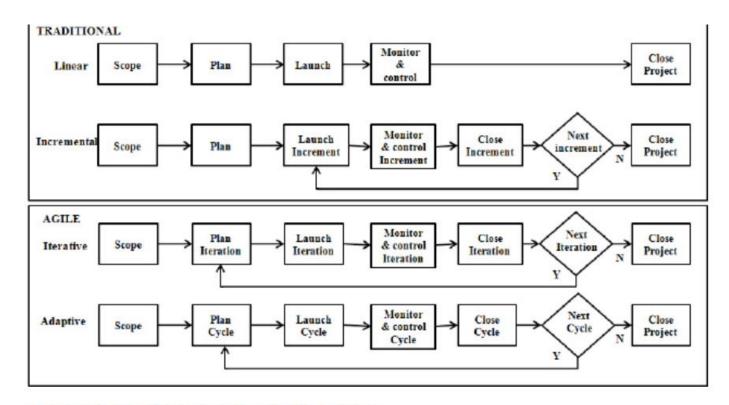


Exhibit 1: Traditional and agile life cycles.

Note. From Effective Project Management: Traditional, Agile, Extreme (p. 335), by R. K. Wysocki, 2009, Hoboken,

NJ: Wiley. Copyright 2009 Adapted with permission.



Project Scope Development Sequence

Plan Scope Management

(Planning how we will develop the scope)

Collect Requirements

Define Scope

(Preparing the actual project scope statement to define a scope and obtain agreement)



The project scope statement and WBS are the main documents in the project

1st step in Project Scope Development Sequence is - the Scope Management Plan!

Scope Management Plan includes:

- Process for collecting the requirements
- Process for developing, reviewing and approving a **project scope statement**.
- Process that enables the <u>creation of the WBS</u> from the detailed project scope statement.
- Process that establishes how the scope baseline will be approved and maintained.
- Process to approve completed project deliverables and manage changes to the project scope.



2nd step in the Project Scope Development Sequence is collecting requirements

Types of requirements

- Business requirements.
- Mission requirements.
- User requirements.
- Solution requirements
 - Functional requirements.
 - Nonfunctional requirements.
- Service requirements.
- Stakeholder requirements.
- · Quality requirements.

Collection methods

- Brainstorming.
- · Interviews.
- Focus groups.
- Benchmarking.
- Questionaries.
- Surveys.
- Workshops.
- Prototypes.



Business requirements. These describe the higher-level needs of the organization as a whole, such as the business issues or opportunities, and reasons why a project has been undertaken. **Stakeholder requirements.** These describe needs of a stakeholder or stakeholder group.

Solution requirements. These describe features, functions, and characteristics of the product, service, or result that will meet the business and stakeholder requirements. Solution requirements are further grouped into functional and nonfunctional requirements:

<u>Functional requirements.</u> Functional requirements describe the behaviors of the product. Examples include actions, processes, data, and interactions that the product should execute.

<u>Nonfunctional requirements.</u> Nonfunctional requirements supplement functional requirements and describe the environmental conditions or qualities required for the product to be effective. Examples include: reliability, security, performance, safety, level of service, supportability, retention/purge, etc.

Transition and readiness requirements. These describe temporary capabilities, such as data conversion and training requirements, needed to transition from the current as-is state to the desired future state.

Project requirements. These describe the actions, processes, or other conditions the project needs to meet. Examples include milestone dates, contractual obligations, constraints, etc.

Quality requirements. These capture any condition or criteria needed to validate the successful completion of a project deliverable or fulfillment of other project requirements. Examples include tests, certifications, validations, etc.



Reviewing the requirements

Reviewing the requirements is important!

Make sure that all requirements are well defined and understood by all.

A few points to ensure the common understanding:

- → All the conflicting requirements are reconciled.
- → Each requirement has a single meaning.
- → Ambiguous words are removed and replaced.
- → There are no unbounded lists such as etc. or TBD.
- → All key-words are defined in a dictionary.









The Project Scope Statement – content

The Project Scope Statement includes many of the same elements that are included in the Project Charter.

4. Define scope

- 1. The project and project name
- 2. Purpose of the project
- 3. Project goals
- 4. Project scope description (characteristics of the result of the project)
- 5. Primary deliverables & acceptance criteria (verifiable result)
- 6. Key milestones
- 7. Constraints
- 8. Project scope exclusions (defines what is not part of the project)



Project Scope Statement vs. Project Charter

The main difference is the level of detail!

The project Scope Statement should be a fairly detailed statement about the product scope and service scope:

- → The Project Scope Statement should include all the requirements and specification details for the product or service.
- → The Project Charter is typically 1-2 pages whereas the Project Scope Statement is more extensive
- → The Project Scope Statement should be divided into several sections for larger project one section for each function of the project
- → It is also good to include project acceptance criteria as part of the project scope statement.



Product Scope vs. Project Scope

Product/Service Scope

It describes the features, functions, and specifications that describe the physical product, service or result of the project.

It describes what you will deliver to the customer as a part of the project. It is typically a physical facility, product or program which is delivered.

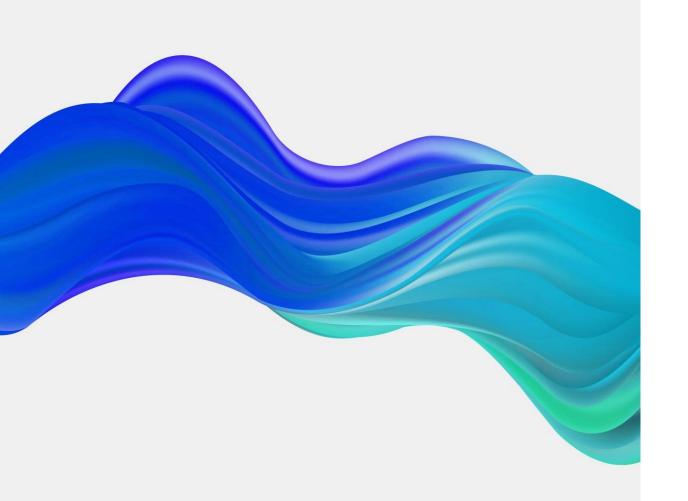
Project Scope

It describes the work and work packages to be performed to deliver the product.

It describes the deliverables of the overall project, including milestones and the actual final product/service.

E.g., we will perform studies, we will do design, we will conduct workshops etc.





Example -Electric car project charter and project scope statement



Project Charter

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Project Manager:	
Club Treasurer:	



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Project Scope Statement

Project: Develop Electric Car Revision No.: 0

Revision Date: 11 May 2017

Purpose: The purpose of the project is to build a prototype vehicle that will demonstrate available technology as a viable means to build and operate a very low emissions vehicle. The competition will encourage further development of designs with a goal of creating a commercially viable vehicle.

Project Goals: The Project will design and construct a car that will not only meet or exceed the National Electric Car Challenge standards, but also operate reliably for 4 hours or more at an average speed that exceeds 20 miles per hour with peak speeds that approach 25 miles per hour.

The Electric Car design must be submitted to the National Electric Car Challenge competition committee and be approved as meeting the competition specifications prior to starting purchase of material. The committee will take 5 working days to review the design and return any comments or approvals.

The Electric Car constructed by the Project will vie for first place in the competition and be constructed from readily available, locally sourced materials. No custom made or newly developed technology should be involved.

The Electric Car design and construction as well as the cost of the competition should be completely funded by monies raised by the project team through donations. The maximum anticipated cost of the Car is \$30,000 and these funds should be raised before commitment of funds to purchasing material or initiating construction. Overall, the design, purchase, construction, competition and salvage should be done in 34 weeks with the competition taking place in week 26.

At the end of the competition, the team shall disassemble the car and sell the components in the secondary market to offset the cost of competition. Excess funds from the fund raising and Car salvage shall go into the Random Electric Car Club treasury to fund on-going activities and provide seed money for next year's completion.

Project Scope Description: The Develop Electric Car Project includes the following Scope elements:

<u>Electric Car</u> – The project should design and construct an Electric Car in accordance with the competition standards set by the National Electric Car Challenge. The Car itself should:

- Be capable of transporting a single, 180 pound operator for a duration of 4 hours or more at an average speed of 20 miles per hour.
- · Reach a peak speed of 25 miles per hour for short durations.
- Be powered by an electric motor of sufficient size to meet the speed requirements when fully loaded
- Incorporate sufficient battery storage to propel the Car at speeds averaging 20 miles per hour when fully loaded.
- Have a method of monitoring the remaining charge on the batteries in such a manner that any remaining power can be utilized near the end of the race.
- Have a minimum ground clearance of one foot.
- Be constructed of lightweight aluminum or a composite material.

Administration – The Electric Car team is responsible for all administration of the project. It shall develop detailed plans, schedules and budgets for the Project and submit these to the President of the Random Electric Car Club for approval prior to the start of the Project. The team shall keep accurate records of all expenditures. All purchases shall be in the name of the Random Electric Car Club and follow Club rules on purchases.

At the conclusion of the project, the team shall provide a full accounting of the actual expenditures for the Project including evidence that all obligations have been fulfilled.

Fund Raising – The Electric Car Team is responsible for raising all of the funds required to purchase the materials, pay for any labor and construction plus the transportation and competition fees. The funds are to be raised in the name of the Club and all funds deposited in the Club treasury.

Prior to start of any purchasing of material or construction, the full estimated amount to fund the project must be raised by the team and deposited in the Club bank account. Any remaining monies at the end of the Project become property of the Club.

<u>Design</u> – The Electric Car Team shall prepare a design that fully meets the standards of the National Electric Car Challenge. The design should be optimized to maximize the distance the car can travel in a given 4 hour competition.

The team shall prepare all design drawings and descriptions and submit these to the competition committee of the National Electric Car Challenge for their review and approval. The team shall address any comments and update the design to gain final approval of the committee.

The team shall prepare all specifications required to purchase the material required for the Car plus provide a listing of all quantities to be purchased.

The team shall study whether adding a solar collector to the design will improve overall performance.

The team shall prepare a detailed cost estimate for the project including design, material, construction, testing, transportation, housing, repair and, finally, salvage of the vehicle. They shall also include the cost of administration and fund raising in their estimate.

The team shall prepare test plans for testing the car and also provide an operating manual for the vehicle.

The final power train design shall be reviewed by an outside expert to verify the design is sufficient for the stated purposes.

<u>Procurement</u> – The Electric Car team will purchase all the required material to construct and test the car. They shall contract for the transport of the Car to the competition and shall contract with an outside Power Train expert to review the design and also verify the construction.

All purchases must be bid to a minimum of three bidders and awarded to the lowest bidder that meets the schedule and technical requirements. Any purchases or contracts shall be placed in the name of the Random Electric Car Club.

All purchase orders and contracts shall be fully closed out and a letter acknowledging all bills have been settled obtained for each transaction.



The team shall sell as much of the salvaged material from the car after the competition and return these funds to the Club treasury.

nology and Innovation

The procurement team shall assist the design team in preparing their estimate of the project costs by obtaining estimates from potential bidders.

<u>Construction</u> – The team shall fully construct the electric car vehicle in accordance with the plans and specifications set out by the design team and approved by the National Electric Car Challenge. The structural and electrical integrity of the Car shall be tested during the construction and all components shall meet the appropriate standards.

All construction shall be done in an indoor environment.

<u>Testing</u> – Each component shall be tested for proper operation prior to installation and defective parts shall be returned to the supplier and replaced.

The structural integrity and the electrical integrity shall be tested as each system is completed.

The completed vehicle shall undergo a minimum 4 hour test on a track to confirm that it can meet the minimum standards. The results of the tests shall be evaluated to determine if the Car operation might be further optimized by making simple adjustments. Further tests will be conducted to confirm the improvements.

<u>Transportation</u> – The team is responsible to transporting the completed Car to the competition either by trailer or on a truck. And, returning it to the point of origin.

The team is responsible for food and lodging during the time the team is at the competition.

The competition site is 300 miles for the Club's home base.

<u>Competition</u> – The team shall supply all entry fees for the competition. It shall register with the National Electric Car Challenge by the due date. It shall submit all materials required to gain approval for the Club's entry and shall make any adjustments necessary for such approval.

The team shall take a minimum of 3 members to the competition – driver, mechanic and coordinator.

The coordinator shall be responsible for interfacing with the National Electric Car Challenge committee.

<u>Salvage</u> – Following the competition, the team shall disassemble the Car taking care to minimize any damage to the components. The disassembled parts shall be suitably packed in individual containers in such a manner that they can be sold and transported to local purchasers by truck.

Primary Deliverables:

- Electric Car for the competition
- Full set of drawings and specifications for the Car to be archived with the Club
- Design approval of the National Electric Car Challenge
- Certificate of Completion from the National Electric Car Challenge
- Final accounting of the expenditures
- Final report listing lessons learned and actual costs to compete

- Electric Car must fully meet the standards of the National Electric Car Challenge
- Drawings must be suitable for approval by the National Electric Car Challenge
- · Drawings and specifications must be suitable for purchasing
- Final accounting and purchasing must meet Club standards
- Final report presented verbally and in writing to the entire Club at a meeting for this purpose

Key Milestones:

Plans submitted to Club for approval - Week 2

Design complete – Week 9

Design Approval (by competition committee) – End of Week 10

Funds Raised and deposited – End of Week 6

Vehicle complete – Week 24

Competition - Week 26

Vehicle Disassembled - Week 30

Project Closed - end of Week 34

Constraints:

- All funds must be raised from approved sources
- · All participants on the team must be Club members in good standing
- All materials must be sourced locally
- All hours worked by team members will be reimbursed at an effective rate of \$20 per hour. No non-reimbursed hours may be worked.

Assumptions:

- · Club will provide insurance for the team at no additional cost
- · Competition site is 300 miles from assembly site
- · Sufficient skills reside in the team to complete the work
- · National Electric Car Competition committee will review and approve designs within 1 week.
- · All parts can be resold via the internet within 2 weeks
- Club will fund design and administration pending design approval and fund raising completion

Scope Exclusions:

- Storage or use of the vehicle after completion of the competition
- Support for the on-going operations of the Club

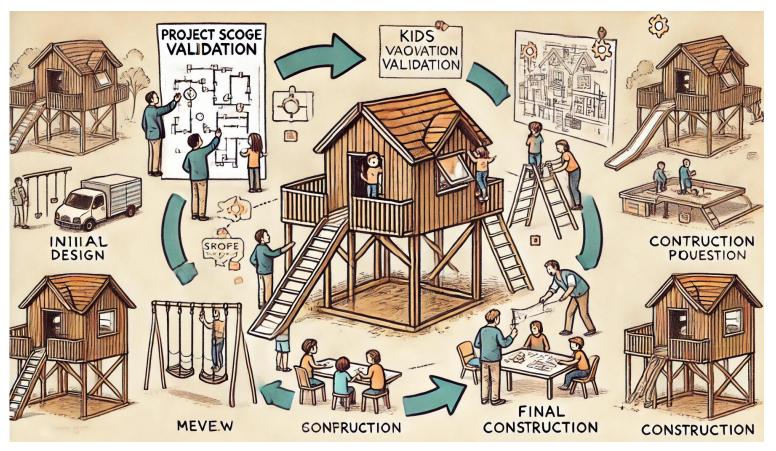
Department of Technology and Innovation

Reference Documents:

- · National Electric Car Challenge standards on their web site
- · Drawing and standards from last year
- · Close out report from last year

Scope Validation

Scope Validation is the confirmation process by the customers and other relevant stakeholders that the deliverables from the project meet their needs.





Validate the scope and the requirement of the deliverables

- → Validate the scope and requirements by any means necessary to ensure that the deliverables meets the requirements and product acceptance criteria. A few methods:
 - → Inspection.
 - → Measuring.
 - → Simulation.
 - → Review.
 - → Walkthrough.
 - → Prototyping.
- → Any deliverables that do not meet compliance should go through a change request.
- → Importance of the change request varies depending on the regulations of the industry.



Controlling the scope is important in preventing delays and added cost

- → Controlling the scope is the process to identify, evaluate, control, and approve changes on a project.
- → Undocumented cost and delays will occur if the scope is not controlled because there is no knowledge about them. It can damage the morale and spoil relationships.
- → A good control of the scope is:
 - → Documented and approved process on a validated scope.
 - → Adapted to the organization and project requirements.
 - → Outline roles and responsibilities, and contain layers of authority:
 - → Level 1 Project approval.
 - → Level 2 Change control board approval.
 - → Level 3 Executive approval.

The change request process

- → The change request process is key in controlling and effectively dealing with obstacles, non-compliance or new potential. A good change process includes:
 - → Standardized tools and techniques should be used.
 - → Benefits of the change must be documented.
 - → Roles and responsibilities must be appointed and documented.
 - → Approval process must be documented, and approved changes must be changed or incorporated into the plan.
 - → Scope changes must be communicated.

The change request process - continued

- → Roles and responsibilities must be appointed – i.e., the human resource behind the change request should be established:
 - → Originator The source of the change request.
 - → Coordinator The person who will record the change in the change log and follow it through the process.
 - → Assessment body A project team that evaluates the change and makes the recommendation.
 - → Decision makers Authority to approve the change.
 - → Implementers Team members acting on the change.



Wrap up

- 1. Develop a project charter: Formally authorizes initiation of project & leads to a "go" or "no go" decision
- 2. Business Case: Economic feasibility study justifies further activities (input to project charter)
- 2. Scope Management:
- There are two types of scopes product and service/project.
- 3. Plan scope management:
- Creates a plan for scope management.

4. Collect requirements:



- 5. Define scope:
- Define the scope in detail in the project scope statement.
- 6. Validate scope:
- Validate the requirements of the deliverables and scope.
- 7. Control scope:
- Controlling the scope reduces the risk of delay.



Assignment:

Expand the Project Charter into a Project Scope Statement



Create a project scope statement



Find inspiration in the Electric Car Case example as well as in the example of previous project reports

