Continuous Improvement Toolkit

Project Charter

The Continuous Improvement Map

Managing Risk

PDPC
FMEA
RAID Log*
Risk Analysis*
Fault Tree Analysis
Traffic Light Assessment

Selecting & Decision Making

Break-even Analysis
Importance Urgency Matrix
Quality Function Deployment
Cost Benefit Analysis
Payoff Matrix
Delphi Method
TPN Analysis
Decision Tree
Pick Chart
Voting
Four Field Matrix
Critical-to X
Force Field Analysis
Portfolio Matrix
Decision Balance Sheet
Paired Comparison
Pugh Matrix
Prioritization Matrix
Pareto Analysis
Matrix Diagram

Planning & Project Management*

Daily Planning
PERT/CPM
MOST
RACI Matrix
Activity Networks
SWOT Analysis
Stakeholder Analysis
Project Charter
Improvement Roadmaps
PDCA
Policy Deployment
Gantt Charts
DMAIC
Kaizen Events
Control Planning
A3 Thinking
Standard Work
Document control

Understanding Performance**

Lean Measures
OEE
Kano
Cost of Quality*
Process Yield
Project KPIs
KPIs
Capability Indices
Descriptive Statistics
Gap Analysis*
Probability Distributions
Bottleneck Analysis
Histograms
Reliability
MSA
Graphical Methods
Run Charts
Control Charts
Benchmarking***
Data collection planner*
Sampling

Data Collection

Check Sheets**
Interviews
Questionnaires
Focus Groups
Observations
Suggestion Systems

Understanding Cause & Effect

Chi-Square
Nonparametric
Hypothesis
ANOVA
DOE
Normal Distribution
Multivariate
Multi-vari Studies
Scatter Plots
Correlation
Regression
5 Whys
Root Cause Analysis
Data Mining
Fishbone Diagrams
Relations Mapping
How-How Diagram***
Tree Diagram*

Group Creativity

Brainstorming
SCAMPER***
Attribute Analysis
Affinity Diagrams
Morphological Analysis
Mind Mapping*
Lateral Thinking
Five Ws

Implementing Solutions***

Best Practices
TPM
Automation
Mistake Proofing
Health & Safety
Simulation
Just in Time
5S
Quick Changeover
Visual Management
Product Family Matrix
Flow
Pull
SIPOC*
Spaghetti**
Process Redesign
Waste Analysis**
Value Stream Mapping**

Designing & Analyzing Processes

Value Analysis**
Process Mapping
Flow Process Charts**
Time Value Map**
Flowcharting
IDEF0
Service Blueprints

Project Charter

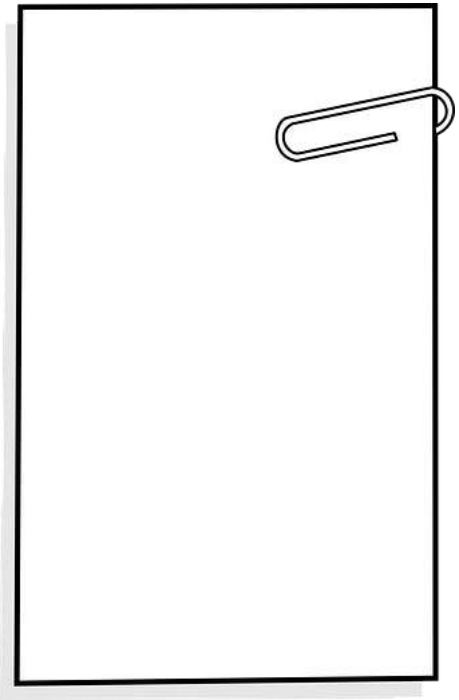
One page document that summarizes the fundamental information of a project before it begins

Project Charter

Clarifies the project **objectives** and **scope**

Addresses the **needs** of the stakeholders

Defines the **roles** and responsibilities



Project Charter

The information in the project charter is critical for obtaining **leadership support** and commitment to provide the necessary funding and resources

Project Charter

Once signed, it **authorizes** the project leader to formally start on the project and use the necessary resources and funding to complete the project successfully

Project Charter

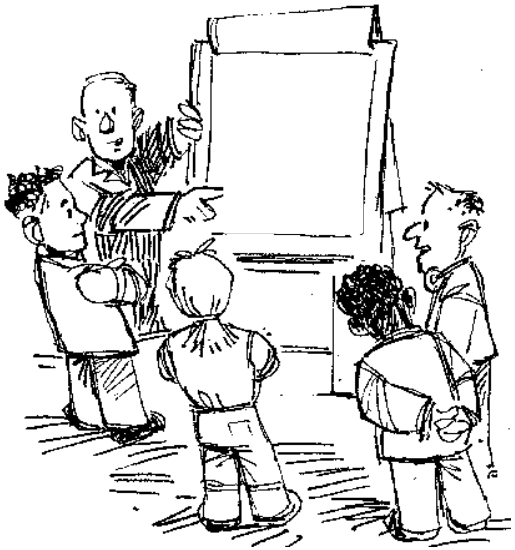
Although project charters are short and brief, they often refer to more **detailed** documents

Project Charter

Benefits

Establishes a **shared understanding** of the project scope and objectives

Enables all stakeholders to **review the project** and commit it



Project Charter

Benefits

Acts as a **contract** between the project sponsor, key stakeholders and the project team

Project Charter

Benefits

Communicates the objectives to those outside the project team

Serves as a **reference** for future projects

Project Charter

Benefits

It ensures that the project . . .

- Is **business** focused
- Is well **scoped**
- Is executed in a **timely** manner
- Have the necessary **resources**
- Have the necessary **support**

Project Charter

The **components** will vary depending on the methodology used, but often include . . .

- **Objectives**
- **Problem statement**
- **Business Impact**
- **Baseline data**
- **Scope & boundaries**
- **Time frame** for executing the project
- **Project team**

Project Charter

They should, however, provide **answers** to:

- What must be done?
- Why doing it?
- What are the benefits of implementing the project?
- When must it be done?
- Who does what?

Project Charter

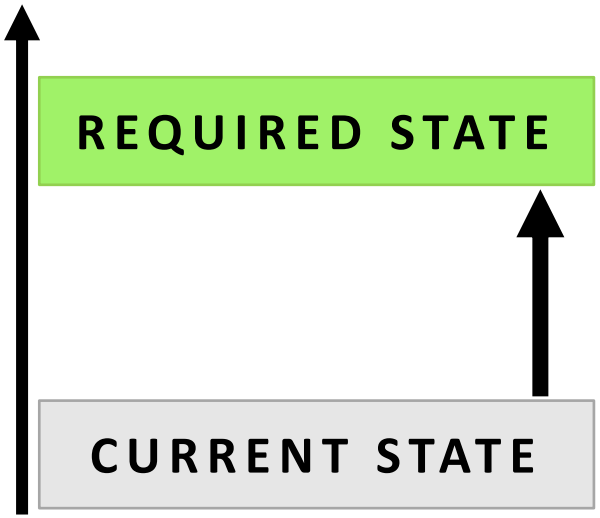
Key Elements

- Problem statement
- Goal Statement
- Project Team
- Project Scope
- VOC
- Project metrics
- Time Frame
- Signature

Project Charter

Key Elements – Problem Statement

A problem exists when there is a difference between **where we are** and **where we want to be**



Project Charter

Key Elements – Problem Statement

Problem statement

vs.

Business case

The problem in one statement

Why the problem needs to be solved

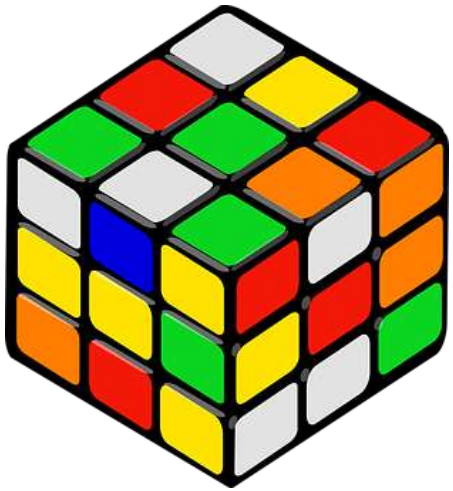
Project Charter

Key Elements – Problem Statement

The business case **should** – describe what is the impact on the customer when it occurs

The business case **may** – describe when and how often the problem occurs

The business case **may** – state the symptoms and their effects



Project Charter

Key Elements – Problem Statement

There is **no right or wrong** way of writing a problem statement

It should be **brief** and specific

It is sometimes written in the following format . . .

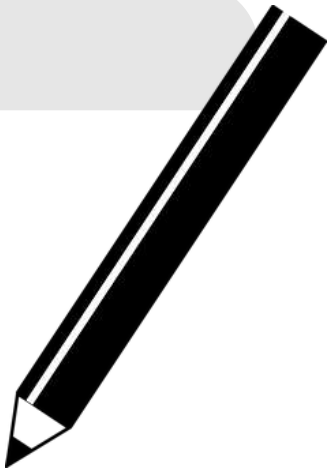
- The problem of...
- Is affecting...
- The impact of which is...

Project Charter

Key Elements – Problem Statement

The problem statement **should not** Include background information

It **should not** discuss the causes or solutions



Project Charter

Key Elements – Problem Statement

Should be brief and **specific**	Should not Include background information
Should not discuss the causes or solutions	Should be **supported with data**

Project Charter

Key Elements – Problem Statement

Example of a problem statement

The manual oil refilling process using drums in the forming machines in line #4 make it difficult to control oil losses which may reach more than 4% per drum

Project Charter

Key Elements – Problem Statement

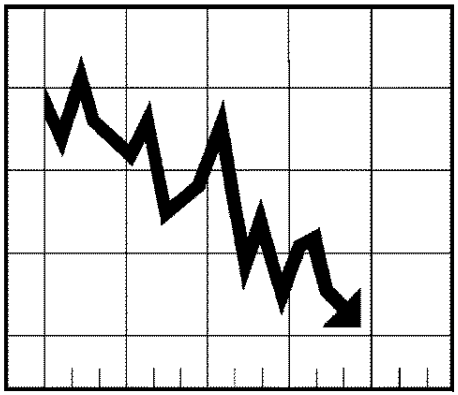
What is the Problem of this Problem Statement:

"The business is not making enough profit"

Not supported with data

Too general

You can't solve all the problems at once



Project Charter

Key Elements – Problem Statement

No problem Means .. **No improvement**

Project Charter

Key Elements – Goal Statement

Should **respond** to the problem statement

Should clearly define the **purpose** of the project

Project Charter

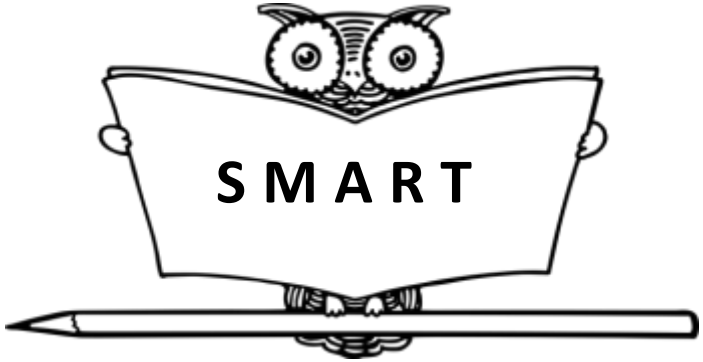
Key Elements – Goal Statement

Should be brief and **specific**

Should have a **measurable** target

Should start with a **verb**

- Increase . . .
- Reduce . . .
- Eliminate . . .



Project Charter

Key Elements – Goal Statement

It is often written in the following format . . .

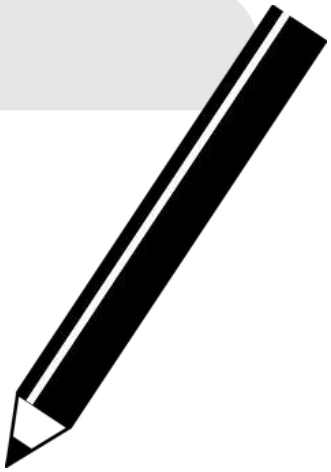
Improve **(primary metric)** from **(baseline performance)** to **(desired future performance)** by **(desired date of completion)**

Project Charter

Key Elements – Goal Statement

Avoid using technical language when writing a goal statement

Avoid suggesting or assuming a solutions



Project Charter

Key Elements – Goal Statement

Specific

Measurable

Time bound

Defines the scope

Does not refer to solutions or causes

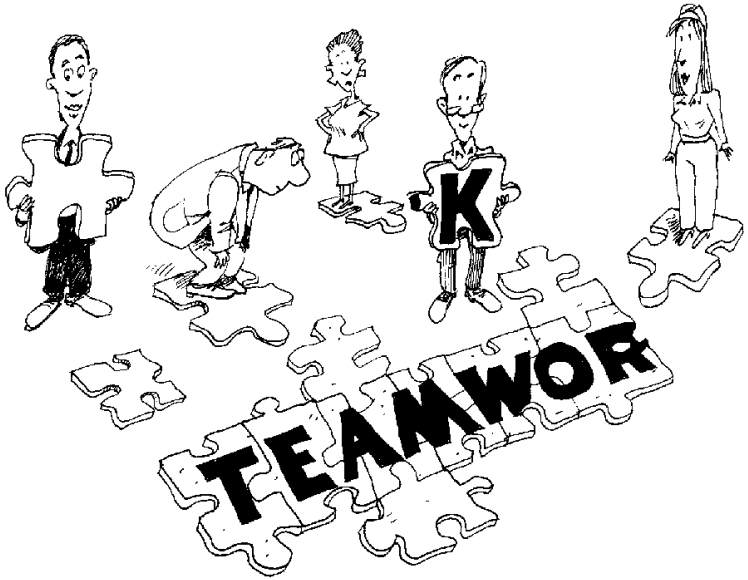
Example of a GOAL statement

Reduce oil losses of the manual refilling process of the forming machines in line #4 to less than 1% per drum by the 30th of October

Project Charter

Key Elements – Project Team

Composed of a dedicated **project leader** and **team members** from cross functions



Project Charter

Key Elements – Project Team

The Project Leader . . .

Provides the purpose	Establishes a shared ownership
Communicates and facilitates	Monitors and tracks

Project Charter

Key Elements – Project Team

The **team members** are responsible for executing the project activities to produce the desired deliverables

Project Charter

Key Elements – Project Team

It is also common to have a **project sponsor**

He should have the **authority** to afford the necessary resources and provide support as needed

Project Charter

Key Elements – Project Scope

Defines what is involved in the project and what is not

It is important to identify . . .

- Departments
- Products
- Locations
- Services
- Customer
- Processes

Project Charter

Key Elements – Project Scope

Avoid the **temptation** of expanding the scope of the project . . .

You will not be able to **complete** the project within the allocated time

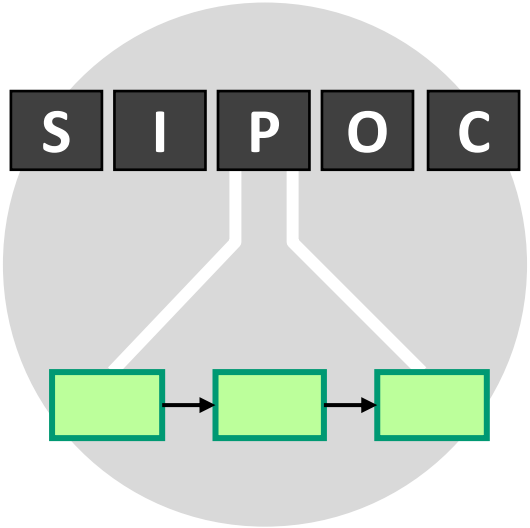
More **resources** will be required

The **action and control plans** will be too detailed

Project Charter

Key Elements – Project Scope

Use **SIPOC mapping** to identify key **S**uppliers, **I**nputs, **P**rocess boundaries, **O**utputs and **C**ustomers



Project Charter

Key Elements – VOC

Customers are the elements that identify the need for executing the project

It is important to take the Voice of the Customer into account during the project definition phase

Project Charter

Key Elements – VOC

A **customer representative** may be needed to evaluate the outcomes of the project definition process and provide feedback as necessary

Project Charter

Key Elements – Project Metrics

Bring attention to the future progress and results

Keep the team **focused** to achieve the project goals and expectations

Project Charter

Key Elements – Project Metrics

The success of any project is measured by each or both of . . .

Primary metric

Financial metric

Tracking these metrics is important not only during the project period but also several years after the project completion

Project Charter

Key Elements – Time Frame

The time required to complete the project

Often represented by the **start** and **expected completion** dates

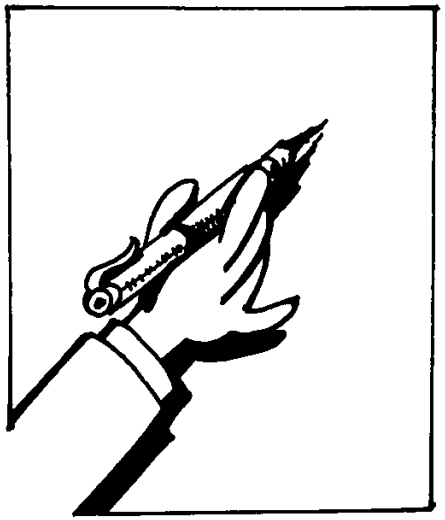
It is possible to assign **approximate completion date**, you need, however, to revise it as the project progresses

Project Charter

Key Elements – Signatures

Signing on the project charter . . .

Serves as a formal approval of the project
Empowers the project leader to proceed with the project



Project Charter

Other Elements

- Stakeholders
- Methodology Used
- Cost Benefit Analysis
- Milestones
- Deliverables
- Communication Plan
- Risk Analysis
- Resources

Project Charter

A Project Charter May Contain

The key **stakeholders** affected by the project, and their expectations and concerns

We need to get their support in order for the project to be successful

Project Charter

A Project Charter May Contain

The implementation **Methodology**

Six Sigma

Lean

Traditional Project Management

Project Charter

A Project Charter May Contain

Project Cost and Benefit Analysis

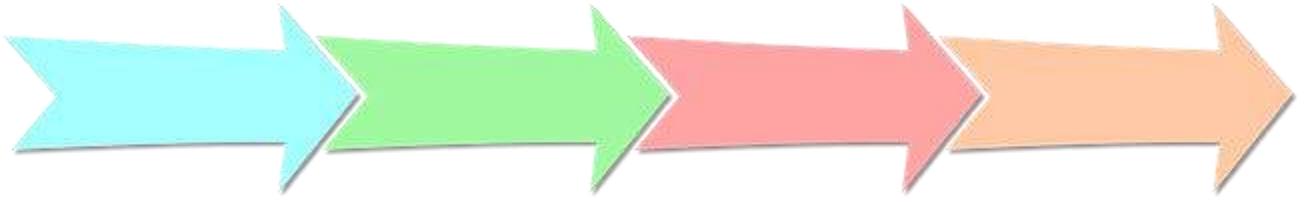
Cost of Poor Quality
(Help determine the potential savings)

Project Charter

A Project Charter May Contain

The **milestones** of the project . . .

Highlight **important dates**	Help you stay **on schedule**	Provide regular opportunities to **review progress**	Could be simply the **completion** of each project phase



Project Charter

A Project Charter May Contain

Project **deliverables** at every stage

If a deliverable is significant, it may be a milestone

Project Charter

A Project Charter May Contain

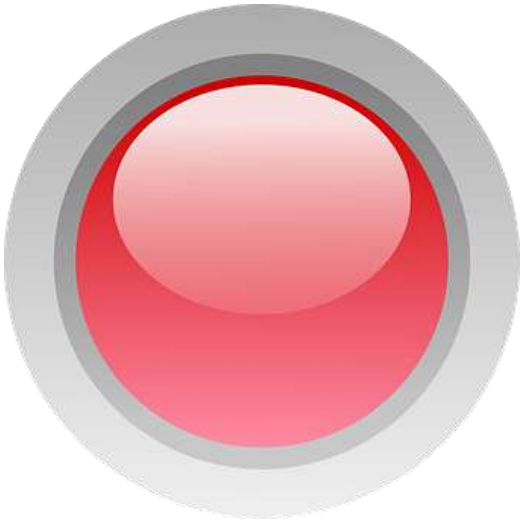
A Communication Plan

Should contain the main **messages** of the project to be communicated to the main stakeholders

Project Charter

A Project Charter May Contain

A **go/no go decision** to decide whether to move forward with the project as defined or to stop



Project Charter

A Project Charter May Contain

Other components . . .

Barriers and obstacles that could hinder the team

Risk assessment
(of the planned activities)

Assumptions, constraints & dependencies

Required **Resources**

Source of **funding**

Project Charter

A Project Charter Template

PROJECT CHARTER

Project Title:

Problem Statement:	Goal Statement:	VOC:
Project Team: Leader: Team member1: Team member2: Team member3:	Project Information: Project start: Project end: Project approach: Project scope:	Key Metrics: : Resources: :

Milestones:

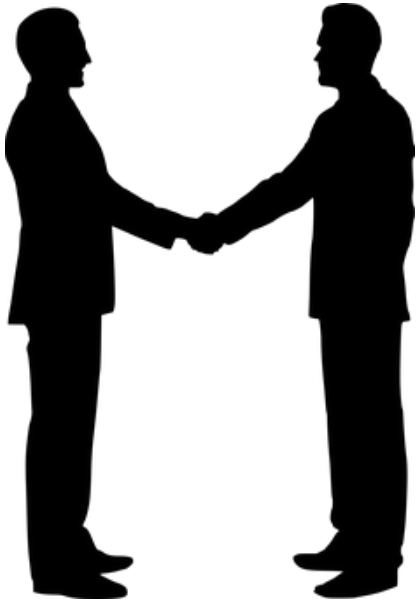
Signatures: _____ _____ _____ _____

Project Charter

How to Prepare an Effective Project Charter?

Should be **customer** focused & addresses their specific needs and expectations

Should be developed as a **collaborative** effort

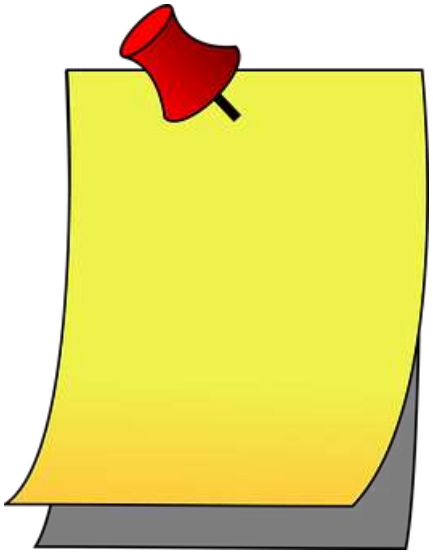


Project Charter

How to Prepare an Effective Project Charter?

Should be **clear** and **concise** (preferably one page)

Should contain **realistic** and **achievable** objectives (use the SMART checklist)



Project Charter

How to Prepare an Effective Project Charter?

Should be dealt with as a **live document** during the project lifetime

Should be **updated** as the project progresses

Project Charter

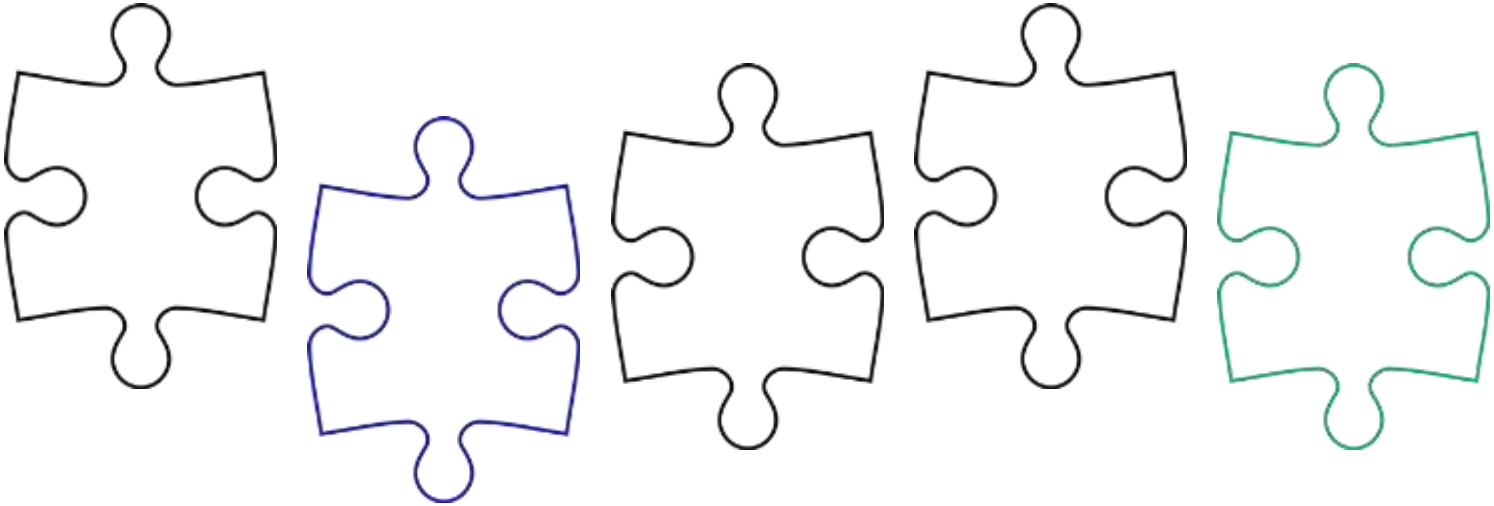
Further Information

Project charters can be made by the project team, the sponsor, or by an expert external to the project team

Project Charter

Further Information

It may be created for each phase for **multiple-phased** large projects



Project Charter

Further Information

Sometimes, the project should be **stopped** at the beginning:

The potential benefits are **not sufficient**

The **availability of resources** might be an issue

What else?

Project Charter

Further Information

Are we following the right goal?
Use the **SMART checklist**

S - Specific
M - Measurable
A - Achievable
R - Realistic
T - Time bound

P - Positively stated
U - Understood
R - Relevant
E - Ethical

C - Challenging
L - Legal
E - Environmental
A - Agreed
R - Recorded

Always check whether your goals correlates with the 14 requirements

Project Charter

Further Information

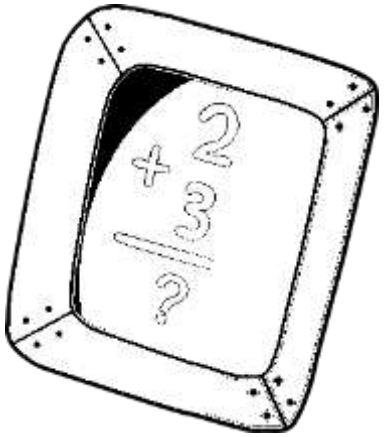
A **good** problem statement **concisely communicates** the problem in terms of who, what, when, where, and how many

Who is affected by the problem?

What does the problem appear to be?

When does the problem occur?

Where does the problem occur?



How many times has the problem occurred over the defined period?

Project Charter

Further Information

A **good** goal statement describes . . .

What do we want to do?

By **when**?

What is the level of performance we want to reach?

Project Charter

Further Information

The project charter has to be filled in and agreed by the **Champion** before the kick-off

The completed project charter is a **requirement** for a project kick-off

Adjustments to the project charter are possible with the approval of the Champion

A completed project is a requirement for Black Belt certification