Checklist Project Based Working

The aim of this checklist is to give you a better insight into the basic principles of Project Based Working and Project Management.

Additionally, we will cover the project preparations step by step to give you a schematic overview to get your PREMIUM project on track.

During the workshops Introduction to Project Based Working and Teamwork we will go into 'how to do it' and the success factors and pitfalls of project based working.

1. Key elements of a Project and Project Based Working

A project consists of activities that:

- lead to a concretely defined result;
- have a clearly defined start and finish;
- have to be realised within the set constraints.
- There is 1 client, who has committed to the end-result.

Other elements that define a project:

- unique or infrequent elements;
- dedication of various experts (multidisciplinary);
- of temporary nature;
- high degree of uncertainty (no routine).

A project may have a one-off aim:

- innovation;
- improvement;
- change.

When do you use a project based approach?

- When addressing issues where a combination of effectivity and efficiency are important and that have a unique, one-time character;
- When addressing complex problems, that need quick solutions and are known for risk-factors;
- When addressing issues that go beyond departments and companies and ask for an integral approach.

Principles of project based working

- Think before you act: no routine but rather thinking about the core questions:
    1. Can this problem be approached with project based working?
    2. What are the benefits of a project based approach?
    3. What risks are involved?
    4. What processes will set in when we start a project beyond departments within our organisations?
- Working methodically: phasing and planning.
- A deal is a deal: make agreements and commitments.
- Working result-oriented: doing the right things right.

Project based working is working to reach the set result of the project and is a way of working that asks for a certain way of thinking!

2. The principles of project management

Each project is a temporary 'mini-organisation'. A project has the same complexity as every other organisation, but covers less square meters. The management of a project thus asks for special arrangements and communication.

Project management is based on six principles:

1. Separate management and implementation.
2. Distinguish between roles and tasks.
3. Divide the management process.
4. Provide guidance to the environment.
5. Use a model for implementations.
6. Keep track of implementations.

Ad 1: Separate management and implementation

- Implementation: the substantive tasks.
- Management: the administrative tasks.

Ad 2: Distinguish between roles and tasks

- Every PREMIUM project has an external ***client***, who wants the results of the project;
- Every PREMIUM project has a team-member who has the position of ***project coordinator,*** guiding the project;
- Every PREMIUM project has a ***project team*** that carries out the project;
- Every PREMIUM project has a ***project mentor***, guiding the process and monitoring the contract agreements.

A client is a person with a name and function (not an organisation)

- The client has the responsibility to make sure that the project contributes to the objectives of the organisation;
- The client ensures that the project is closely related to the business of the organisation throughout the entire project;
- The client is involved in the project;
- The client has sufficient authority to make decisions at certain points in the project and to provide the needed resources for the project.

Within PREMIUM we separate two types of clients:

1. The client who gives the assignment and who wants to be informed about the main decisions during the process and also wants to be involved in the presentation of the end result.
2. The client who stays closely involved with the development of the project after giving the assignment.

The *project coordinator* is the contractor.

- The project coordinator is exclusively accountable to the client;
- The project coordinator is responsible for the management of the project and achieving the set aims.

The *project team* carries out the project.

- The project team reports to the project coordinator and;
- The project team is responsible for carrying out the planned activities and thereby delivering a cohesive result.

There is a contractual relationship between all parties and for all counts that a deal is a deal. Because of the educational nature and underlying objectives of the students, the role of project coordinator is subject to change during the PREMIUM project.

Ad 3: Divide the management project

- Stadium 1 – project preparations:
  from the assignment of the project manager to the finalisation of the project plan.
  Directed at: visualisation, conditioning.
- Stadium 2 – managing the project implementation:
  development of the project plan to reach the set aims.
  Directed at: leadership, communication, problem solving, redirection.
- Stadium 3 – project finalisation:
  evaluation and discharge of the project.

Ad 4: Provide guidance to the environment

- The environment is a force field in which the project is carried out.
- The project coordinator uses management techniques to keep control of the environment.
- The environment: the parent organisation, the contract partners (University) and the project team.

Ad 5: Use a model for implementation

- Clarify how the project will process from start to finish.
- Discriminate between phases.
- Milestones connect the different phases.
- Subdivide the phases in activities and tasks.

Ad 6: Keep track of implementations

Management issues could be quality, time, financial resources, organisation of the project, information flow, people and facilities and resources.

3. Project Preparations

"A good start is half the battle". During the project preparations you lay the foundation for carrying out the project successfully. This is an essential stage. Experience has shown that the investments you make during the preparations payback double during the implementation: "A good preparation avoids having to do things twice when carrying out the project."

Activities for the project coordinator during the project preparations:

- Check which of these management issues are most important for this project;
- Determine how to control these issues;
- Reflect on how to gather information and from whom;
- Include the answers in a project plan.

Use the six management principles along with knowledge and skills to approach the intended changes in a structured way and to make the project into a coherent entity.

During the project preparations the seven W's are answered:

Why?	→	Why does the client desire this project?
What?	→	What results should the project have?
Which way?	→	In which way will we achieve the desired results?
Who?	→	Who will work on the project?
With what?	→	With what resources will the results be achieved?
When?	→	When will the results be delivered and should the entire project be completed?

The project preparations consist of four steps:

1. Define the project and its aims (*Why* and *What*).
2. Design the project (remaining W's).
3. Compose the project plan.
4. Finalisation of the project preparations.

Ad 1: In the first step you look for answers to the following questions

- Who is the client?
- What is the starting point?
- What should this project aim for?
- What is the desired result?
- What conditions does the client have?

The client is responsible for satisfying these aspects.
Often the project manager assists in this or is asked to initially answer these questions.

Use three essential skills:

- *Formulate **S**pecific, **M**easurable, **A**ttainable, **R**ealistic and **T**ransparent (SMART) results*
    1. Describe the result as a result;
    2. Clearly set the scope of the project;
    3. Decide on quality standards;
    4. Avoid contradictory elements.
- *Communication*
    1. Use your social skills;
    2. Use conversational techniques such as listening, summarising and ask follow-up questions;
    3. Speak the language of the project partners.
- *Analyse the project's environment*
    1. Focus on the wider environment;
    2. Focus on the people who will be involved in the project;
    3. Write the names of the key figures in a scheme or network;
    4. Add their functions to this;
    5. Assess the importance and quality of these relations.

Ad 2: Four guidelines apply to creating a project plan

- Work iterative;
- Work together;
- Work from bigger to smaller issues;
- Work from front to back and reverse.

Ad 3: The project plan consists of three functions

- Reflection
- Make commitments
- Communication

Ad 4: Finalise the project preparations

- The project preparations finish with the *formal approval* of the project plan by the client and contractor.

4. Distribution and phasing of the project

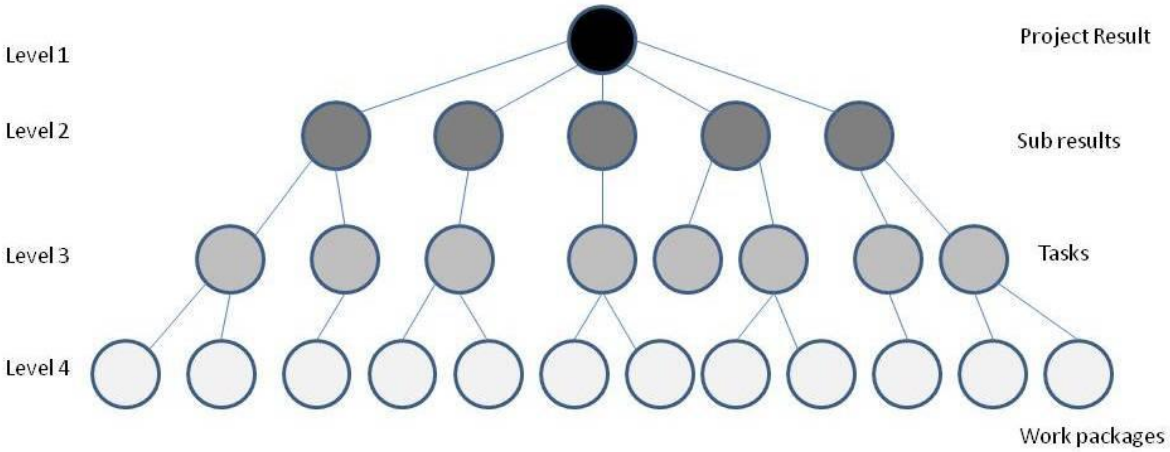
With the development of the project you got a concrete idea of the WHY and WHAT of a project.

The next step entails providing insight into what needs to happen to go from WHY to WHAT. By phasing you determine: what **exactly** needs to happen to get to the end result and how will the project be carried out from start to finish? By distributing the project into smaller pieces it becomes clear out of which units the project will consist.

By identifying multiple stages, you add a time dimension to this: grouping of the project's activities in separate but cohesive parts that will be connected in time. Both aimed at carrying out the project most effectively.

The practical steps: Organize

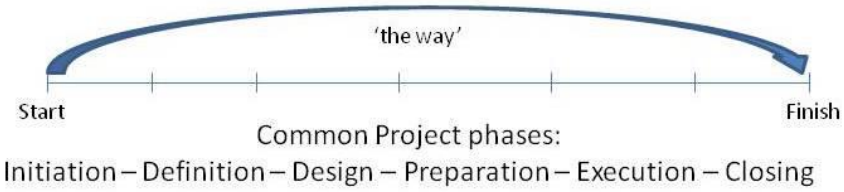
- Use the tree structure: the structured dissection of the project into elements that are controllable and manageable.
- Create a Work Breakdown Structure or allocation structure including different levels:



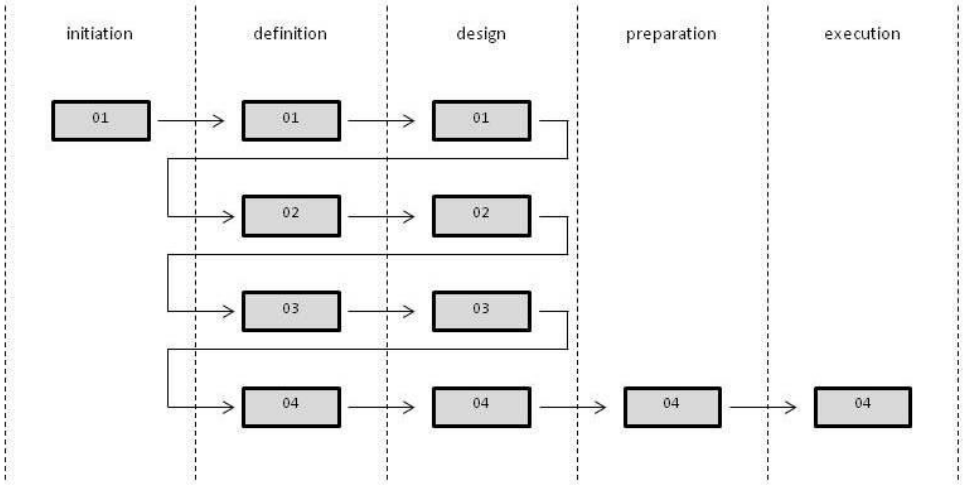
- Define areas of attention in logical ways, grouping activities that fit with each other.

The practical steps: Phasing

- Linear phasing: for concrete projects where the degree of uncertainty is small, like building projects.



- Cyclic phasing: if the degree of uncertainty is big as with development projects.



- Parallel phasing: when the complexity and scope is big. This later is rarely the case in PREMIUM projects.

5. Organisation of the project

When the project's aims are clear and you have determined how these can by reached (Which Way) you have to start thinking about how to organise this. After all the project needs to be realised with certain constraints. Who works on the project? How is the project organised? What is reported to whom? The organisation of the project is meant to create the most optimal relationship within the project team and between team, organisation and client.

The organisation of the project entails:

1. The project organisation;
2. The external integration;
3. The project communication, both verbally and written;
4. The facilities and resources;
5. The procedures and guidelines.

Ad 1: The project organisation

Consists of multiple disciplines, with each their own responsibility and tasks. Make clear distinctions in different rolls. Project team, project mentor and client: determine an approach and the distribution of tasks. Next to determining who fills what tasks, responsibilities and competence should also be clarified.

Ad 2: Ensure external integration

- Who makes what resources available?
- Determines who, next to the project mentor, should be involved in the project from the parent organisation (University).
- Confirm the agreements made with all those involved.

Extra conditions for third parties (suppliers, subcontractors etc.):

- Define who the third parties are.
- Confirm the agreements made with these parties.
- Define the tasks and responsibilities for these parties.

Ad 3: The project communication

Define in the project plan:

- What type of consultation is desirable?
- How often should consultation take place? With whom and where?
- The structure of reporting: to whom, about what and when.

Ad 4: The facilities and resources

- Office space(s)
- Office supplies
- Supporting software and hardware
- Additional resources

Ad 5: The procedures and guidelines

Some examples:

- Transfer procedures
- Revision procedures
- Approval procedures
- Quality procedures
- Testing procedures
- Methods, standards and guidelines, for both the project itself and the parent organisation.

6. Project planning and budget

Project planning is the process of translating the project plan (the 6 W's) into time.
Together they form the seventh W: When?

A good project plan illustrates:

- What activities are carried out by whom at what time and how much time this asks for;
- What resources are needed at what moments to get to the result;
- What (interim) results are finished at what time and when decisions should be made.

Based on a good project plan a justified project budget can be determined.

Plan on four levels:

- Activity planning;
- Resource planning;
- Milestone planning, also known as result planning;
- Financial planning, or budget.

We follow seven steps in creating a project plan:

1. Make a budget for all activities (each activity separate in time);
2. Determine the dependence and relationship between the individual activities;
3. Allocate the resources to the activities;
4. Follow the time limit set by the client/parent organisation;
5. Determine the milestones in consultation with the client;
6. Draw the financial conclusions for the allocated resources;
7. Review the plan according to the constraints set by the client/parent organisation.

Here we also work iterative: sometime we have to repeat steps to get a good balance between the activities, resources, milestones and financials.

Activity planning

Aim: a plan that makes it possible to organise and to guard the developments.

Basis: the activities from the WBS.

Choose a method: analogy, top-down, own experience, Delphi, parametric.
Determine the net time (= 'bare' working hours expressed in man hours) for each activity.

Result: a list of activities with a unit of time (use the same unit consistently: hour, day, part of the day, etc.)

Resource planning

Aim: know what people and what resources are needed and when.

Basis: the results from the activity plan and the organogram (the people)

- Allocate activities to people: one or multiple team members for 1 activity.
- Determine the gross time: net time + a percentage for unforeseen, adhoc consultation etc.
- Determine the turnaround time: gross time set on the calendar in consideration of the workable hours a day and the workable days a month.
- Determine how many facilities are needed and when these should and can be delivered.
- Determine how much resources are needed and when these should and can be delivered.

Result: an overview of who and what are needed and for how long.

Milestone planning

Aim: better control and management of the project

Basis: the resource planning, the phase transition determined in the phasing and the decisive moments of the client.

- Give all milestones a meaningful name.
- Give all milestones a date based on the turnaround time set in the resource planning.

Result: an overview of the moments where the client has to make go/no go decisions.

Financial planning

Aim: be accountable for financials

Basis: the resource planning and milestone planning

- For the people: functionary x fare x time = costs
- For resources and equipment: amount x unit price = costs

Result: a budget, potentially for each milestone.

7. Dealing with project risks

Unforeseen events occur in each project. After all, projects are not part of a routine! The above-mentioned characters of a project make it especially vulnerable for risks. The effects of unexpected events are reinforced by this.

Face the relevant risks
Project risks are all potentially unexpected and unwanted events of which the consequences form a threat to the result of the project.

Start early

- What is defined as a risk, depends on the client.
- Start early with identifying and managing the project's risks. You can already start from the moment that the WHAT question has been developed sufficiently.
- Adapt the depth of analysis to the complexity of the project.

Use the five steps of risk management:

1. Identify the risks.
2. Assess and select.
3. Plan measures.
4. Communicate, carry out and guard the risks during the project implementation.
5. Evaluate when finalising the project.

Ad 1: Identify the project's risks

- Brainstorm about:
  - What risks could present itself within this type of organisation?
  - Which play a part in this project?
- Now create an overview by classifying the project risks:
  - Risks in the environment (difficult to influence);
  - Internal project risks
- The result of this step should be to create a broad overview of the potential threats and chances in the project.

Ad 2: Assess and select

- Assess al the defined risks on:
  - What is the chance, the consequence and the seriousness of it?
  - Which are the most important?
- Select the risks with important effects and a large chance of occurrence and give these priority.

Ad 3: Plan measures

- Five options to anticipate:
    - Cancelling: this often means not to carry out activities with risks attached to them.
    - Limiting: take preventive measures that limit the chance or impact.
    - Deflecting: for example by subcontracting risky activities to third parties.
    - Create space: extra time or financing.
    - Acceptance: for example when the costs of the measure are too high or when there are no effective measures available.
- Define the actions and conditions in a project plan

8. Finalising the project preparations

Finish the project preparations by writing a final project plan. An approved project plan (by client and contractor) means the start of project implementation.

Below you will find the categorised project plan, based on the 7 W's.

Chapter 1 – Categorisation

Give a short description of the background of the project plan:

- What preceded it?
- What steps have been taken?

Next you give a clarification of the organisation of the project plan by means of a reading guide. For every chapter you give 1 or 2 sentences summarising the chapter.

Finally you give an introduction with a proposal for implementation. That is:

- When should the implementation of the project start?
- In case there is time between the finalisation of the project plan and the start of the project, what is done in the meantime?

Chapter 2 – Starting point (WHY)

Answers the questions:

- Why does the client want this project?
- What is the current situation?

Motivation

- What problems and causes have been the motivation for the desire for change?
- What does the environment look like? Describe this from the perspective of the client.

Starting point documentation

- What documentation is at the foundation of this project?
- What quality does this documentation have?
- What activities remain to be done to complete this documentation?

Chapter 3 – Project result (WHAT)

Answers the question:

- What is the final result of the project?

Aims

- What is the underlying aim of the client?

Result

- What will be the concrete result at the end of the project?

Quality

- What are the quality standards for the end result?

Assignment

- What exactly is the project assignment?
- What IS or IS NOT part of the assignment?
- What are the constraints the client puts on time, money, people or resources?
- Who is the client and what will he/she contribute to the realisation of the assignment?

Risk factors

- What risks are involved in achieving the desired results?
- Which are the most important and have the highest priority, and which the lowest?
- What measures will be taken?

Success factors

- What are the success factors identified by the client?

Chapter 4 – Phasing (WHICH WAY)

This chapter answers the questions:

- How will the project result be realised?
- In what phases will the project result be realised?
- Are there relevant dependencies between the different activities and if so, which?

Chapter 5 – Project framework (WHO, WITH WHAT and WHERE)

Within what framework can the project move to reach the desired result?

Introduction

- What is the importance of this topic, the framework, to make the project succeed?
- What are the conditions the client sets, for both the project (internal) and the environment (external)?

Project organisation

- What are the profiles?
- What is the organogram and/or the responsibility scheme?

Conditions for the client

- What are the conditions the client should realise?

Conditions for third parties

- What are the requirements for third parties?

Project communication

- What formal communication is of importance for the successful completion of the project, both internal and external?

Facilities and resources

- What facilities and resources are needed to realise this project?

Procedures and guidelines

- What procedures and guidelines are needed within and outside the project to make the project succeed?

Chapter 6 – Project planning (WHEN)

This chapter answers the questions:

- When will the end result be completed?
- When will the interim results be completed?
- What people and resources are needed when?
- What are the financial consequences?

Norms and assumptions

- What norms, for example in regard to the percentage of unexpectancies, will be adopted in this plan?

Activity planning

- How much net time does is cost to realise the activities as described in the project phasing?
- What are the dependencies between the activities?

Capacity planning

- Who will carry out what activities?
- Who are needed from what date within the project and when can they be discharged?
- What resources are needed when?

Milestone planning

- On what dates will what milestones be reached?

Financial planning

- What are the costs of the project?