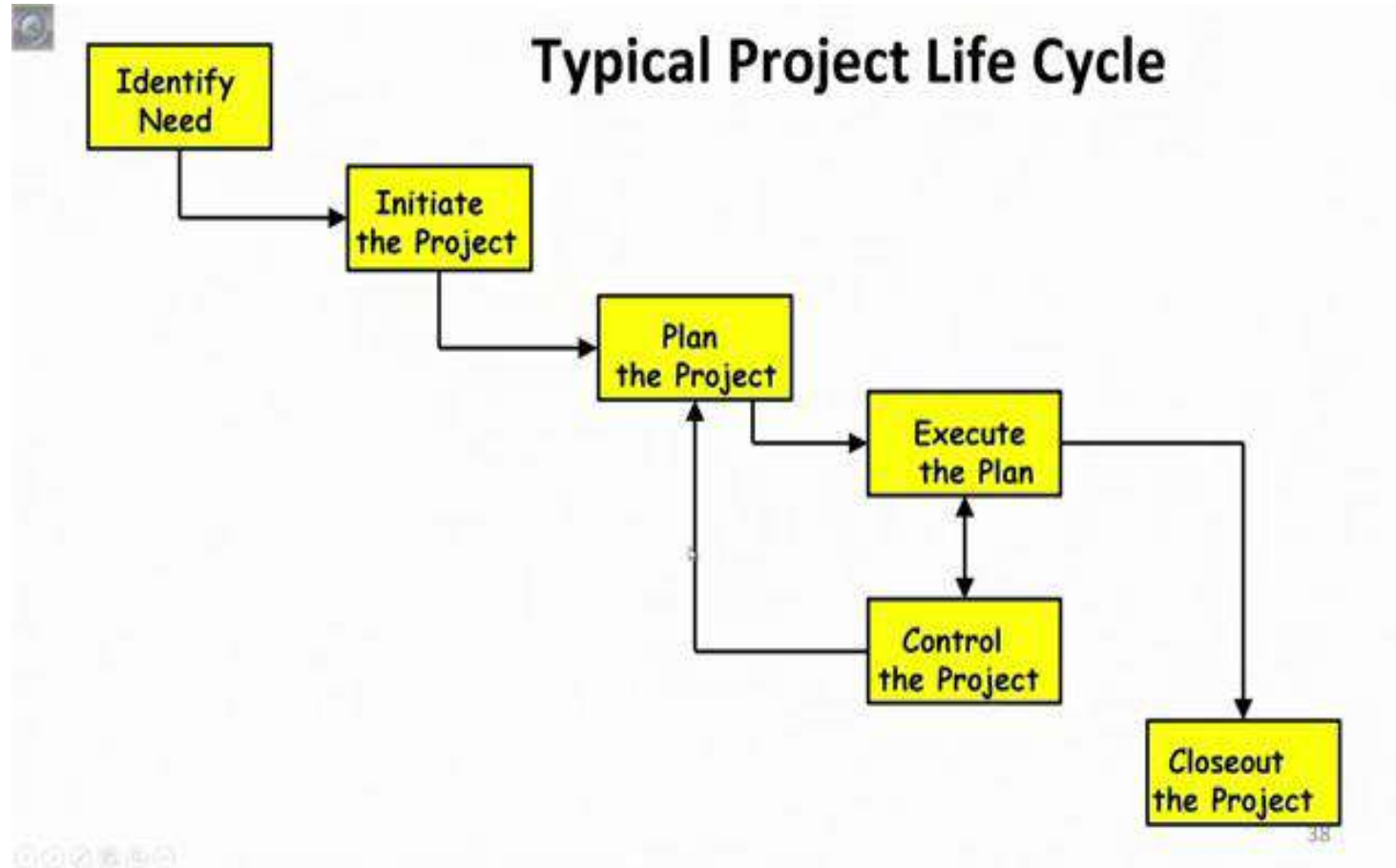


Project Management Standards

Project Life cycle



- In a typical project life cycle almost every software starts with a need for the software somebody in a organization feels the need for a software to automate certain things and based on that the project proposal is written and it is approved by the top management.
- The project manager is appointed and that forms the initiation of the project
- the project life cycle starts with planning the project.
- In the plan of the project various types of plans are prepared
 - the schedule,
 - the configuration management,
 - the risk management and so on.

- And once the plans have been prepared, the project development lifecycle starts and that forms executing the plan and during the execution of the plan the project manager executes the plan that is directs the development team to proceed according to the plan.
- But as the project progresses there can be several deviations from the plan and for this the project manager need to perform some control activities, maybe there is some bottleneck why the project is not progressing as per the plan.
- The project manager works to remove the bottleneck for example, there may be a shortfall in the technical personnel or there may be shortfall in the hardware equipment, the project manager proactively removes those hurdles, so that the project proceeds as per the plan.

- But then, the project manager might have to rework the plan because even in spite of that there will be delays or there may be some part of the project may get completed quickly than anticipated and so on.



Product Development Processes versus Project Management Processes

Project Management Processes:

Concerned with planning and controlling the work of the project.

Product-oriented processes:

Concerned with specifying and creating the project products

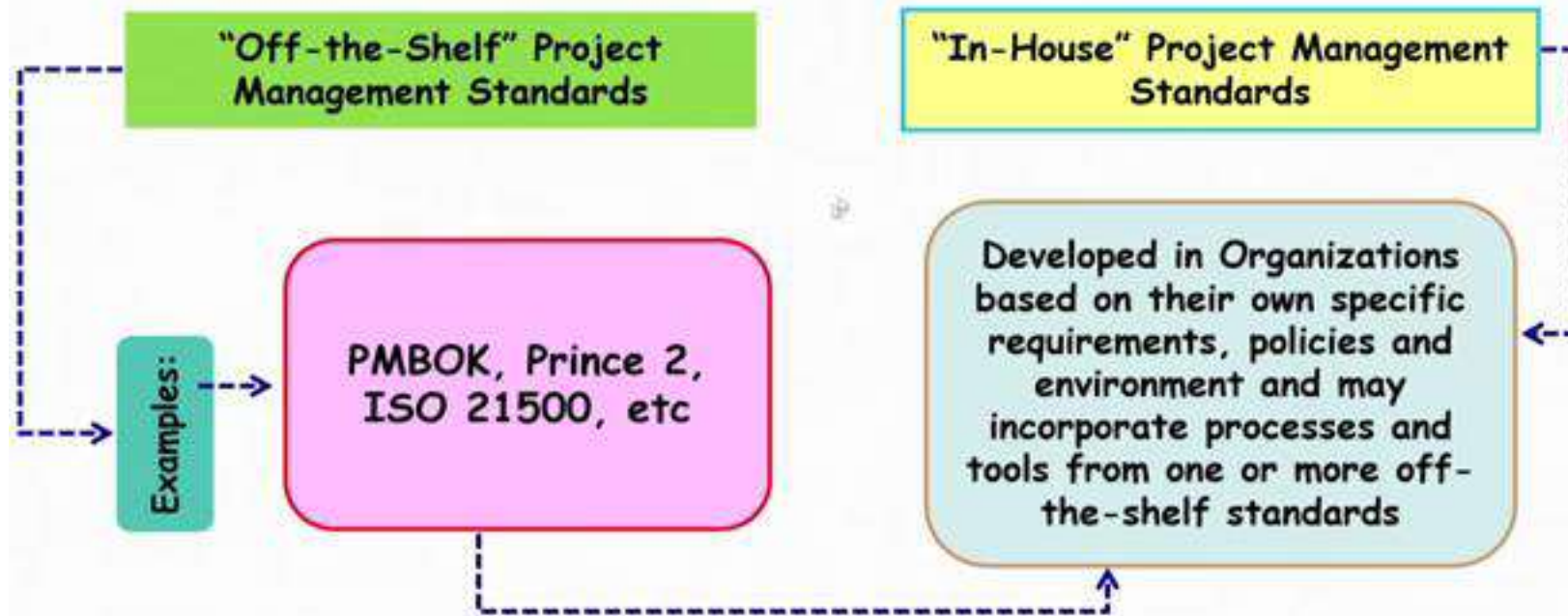
- During the project lifecycle, the project manager executes the project management processes .
- The project management processes are concerned with planning and controlling the work of the project.
- The activities here the project manager performs the planning of the project, executing the plan that is directing the team to carry out development work and whenever there is a deviation, the project manager controls removes the bottleneck, so that the project proceeds as per the plan.

- In contrast the development team carries out product oriented processes
- the product oriented processes are concerned with specifying and creating the project products that is they may do the requirement specification process, design process, coding process, testing process and so on.
- So, those we call as the product oriented processes, these are carried out by the development team whereas, the project manager carries out the project management processes.

Project management processes

- The project management processes consist of
- initiating the project, here the project manager writes the business case and the project charter
- The project manager also carries out the planning processes that is completes the work breakdown structure and performs the project scheduled cost estimation and so on.
- And then the project manager carries out the executing processes, which basically performing the necessary action to complete the work as outlined in the plan, but then during the execution process there may be deviations from the plan.

Major Project Management Standards (Conventional Types and Customized)



- There are several guidelines which have come up for the project manager to carry out the project management processes. There are 2 main types of project management standards,
- one is off-the-shelf project management standards, these are described in books . popular ones are PMBOK that is Project Manager Book of Knowledge and PRINCE2 and ISO 21500 and so on. There are many other we just give some important examples here .
- On the other hand an organization may have a slightly different project management standard as compared to the off-the-shelf standard, they might tailor or maybe take different aspects from different standards and they might have a tailored in house project management standard where that specific organization follows the standard

What is PRINCE 2 ?

- PRINCE stands for: **Projects IN Controlled Environments**
 - A generic project management method--PRINCE1 was specific for IT-project management.
 - developed by the UK's Office of Government Commerce
- **Popularly used in UK.**
- Process-driven approach.
- PRINCE2 can be used for both small and big projects.

- PRINCE2 is a popular project management standard.
- PRINCE stands for Project IN Controlled Environments.
- This is not restricted to only software development, but the PRINCE1 was more targeted to the IT or software project management
- PRINCE2 is a more generic project management standard. This was developed by the United Kingdom office of government of commerce, it is very popular in the United Kingdom it is a process driven approach and has been used for both small and large projects.



PRINCE2® – Processes

Seven processes.

- Starting a project
- Initiating a project
- Directing a project
- Managing a stage boundary
- Controlling a stage
- Managing product delivery

- There are essentially seven processes in PRINCE2, the projects starting processes, initiating processes, directing or executing processes, managing a stage boundary, controlling a stage and managing product delivery

- The project is initiated and the project undergoes various stages and in each stage, the project manager directs the project activities and the project team carries out the activities and here the project manager monitors and controls each stage.
- At the end of the stage the new stage needs to start, so this is called as the managing the stage boundary and after all the stages are complete one by one stages are taken up here and once all the stages are complete the closing processes are undertaken by the project manager.

- The ISO 21500 life cycle has the following processes
 - initiating processes,
 - the planning processes,
 - implementing or the directing or executing processes
- The closing processes

PMBOK

- Project Management Body of Knowledge:
 - The Dominant Project management standard
 - A set of standard terminology and guidelines (a body of knowledge) for project management
 - Documented in a book --- fifth Edition came out in 2013
 - Published by project Management Institute (PMI)
 - The *PMBOK Guide* is also used as a support to prepare the certifications offered by the PMI



- PMBOK is a very popular project management standard, it is the Project Management Body of Knowledge, it is a dominant project management standard used widely across various projects. The PMBOK basically consists of several terminologies and guidelines and this has been documented in the form of a book as you can see here [Project Management Book of Knowledge PMBOK guide](#).
- It is published by the Project Management Institute PMI and this guide is used as a support to prepare for the certification offered by the PMI.

PRINCE vs PMBOK

| PRINCE2 | PMBOK |
|--|---|
| Origin – United Kingdom | Origin – United States |
| Administered by APMG | Administered by PMI |
| Worldwide adoption | Worldwide adoption |
| A process based project management methodology | A knowledge based approach to project management |
| Prescriptive, but tailorable | Non-prescriptive |
| Used mostly within UK | Used worldwide and followed by over 75% of projects |

