

Guten Tag

(good day)

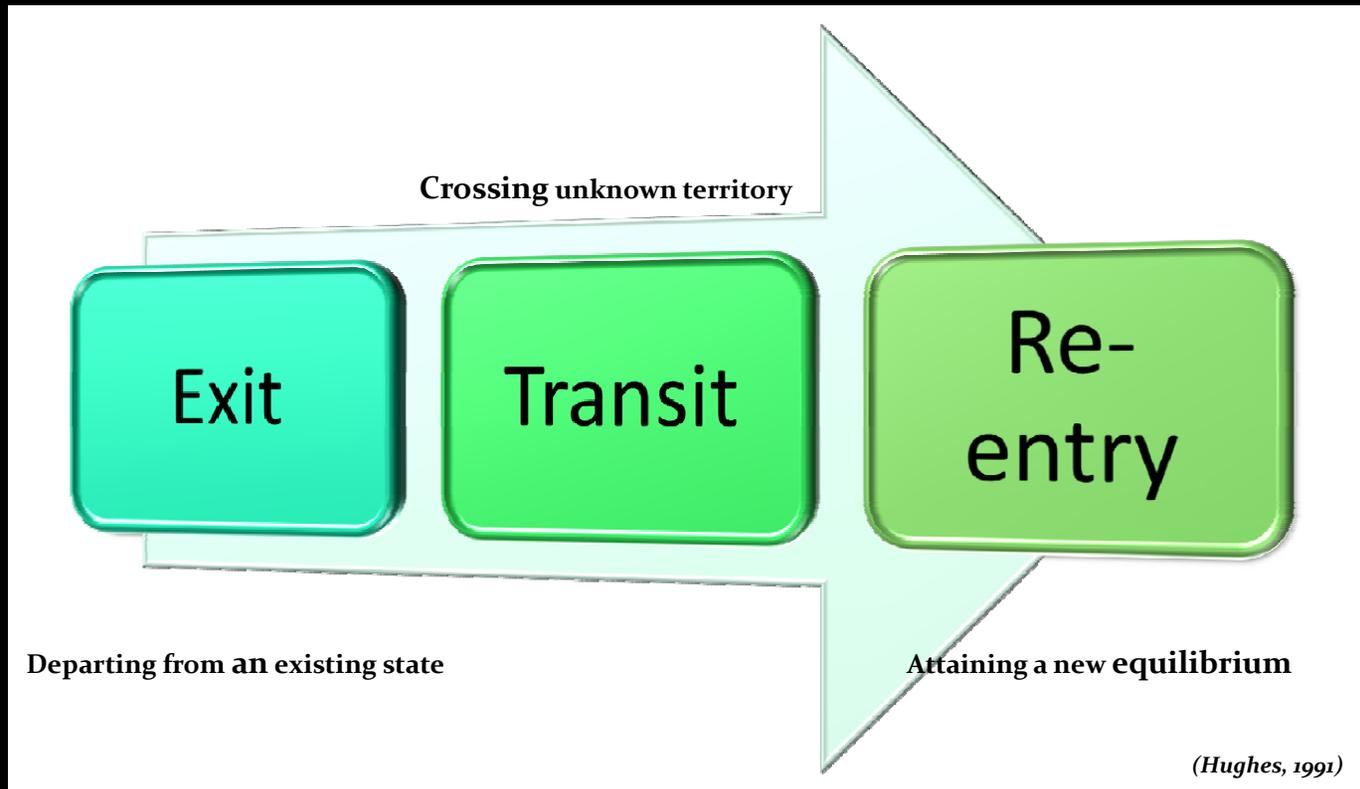
4.5 Perform Integrated **Change** Control

How a person may perceive change:



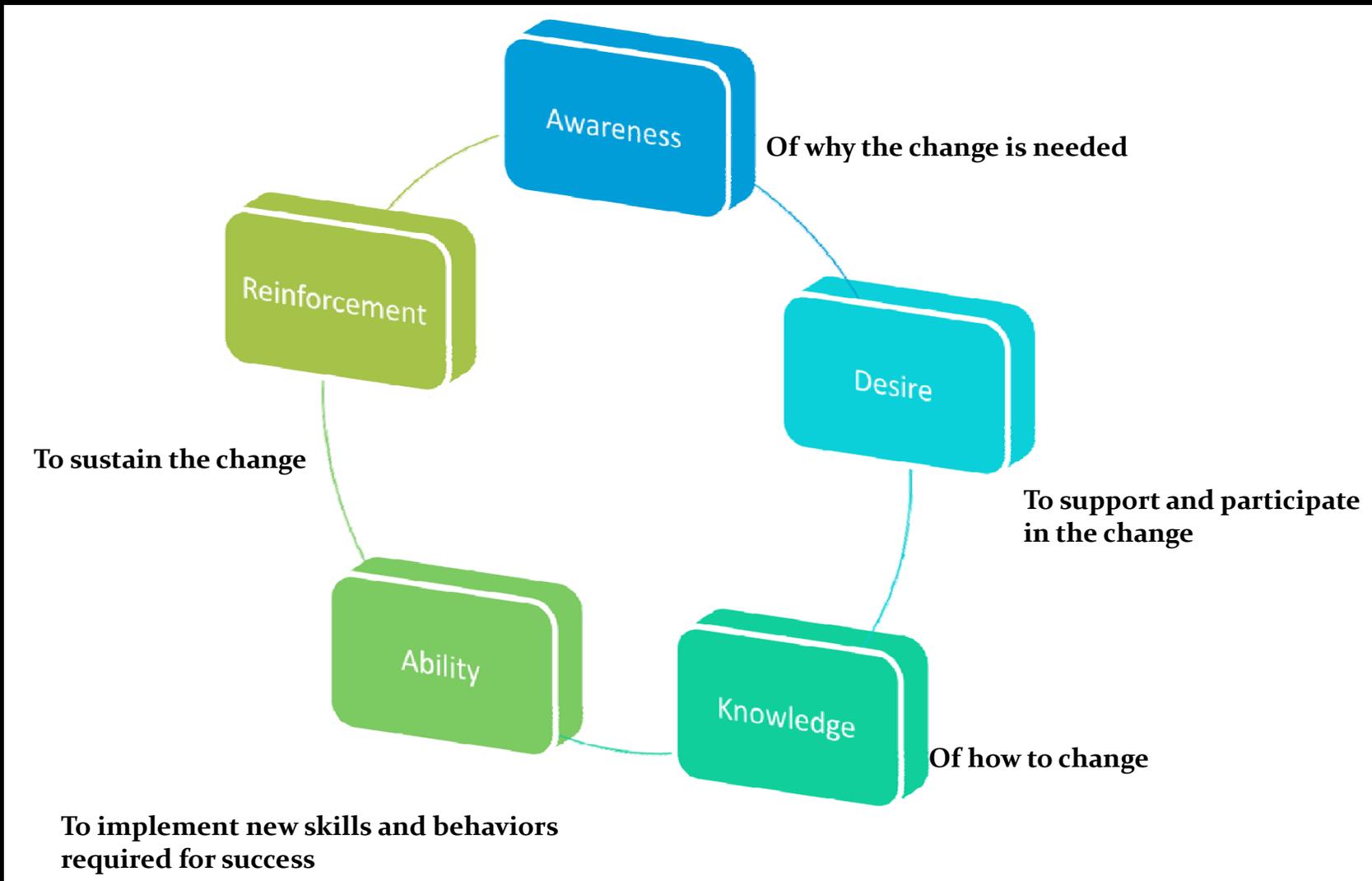
4.5 Perform Integrated **Change** Control

Consider what change is:



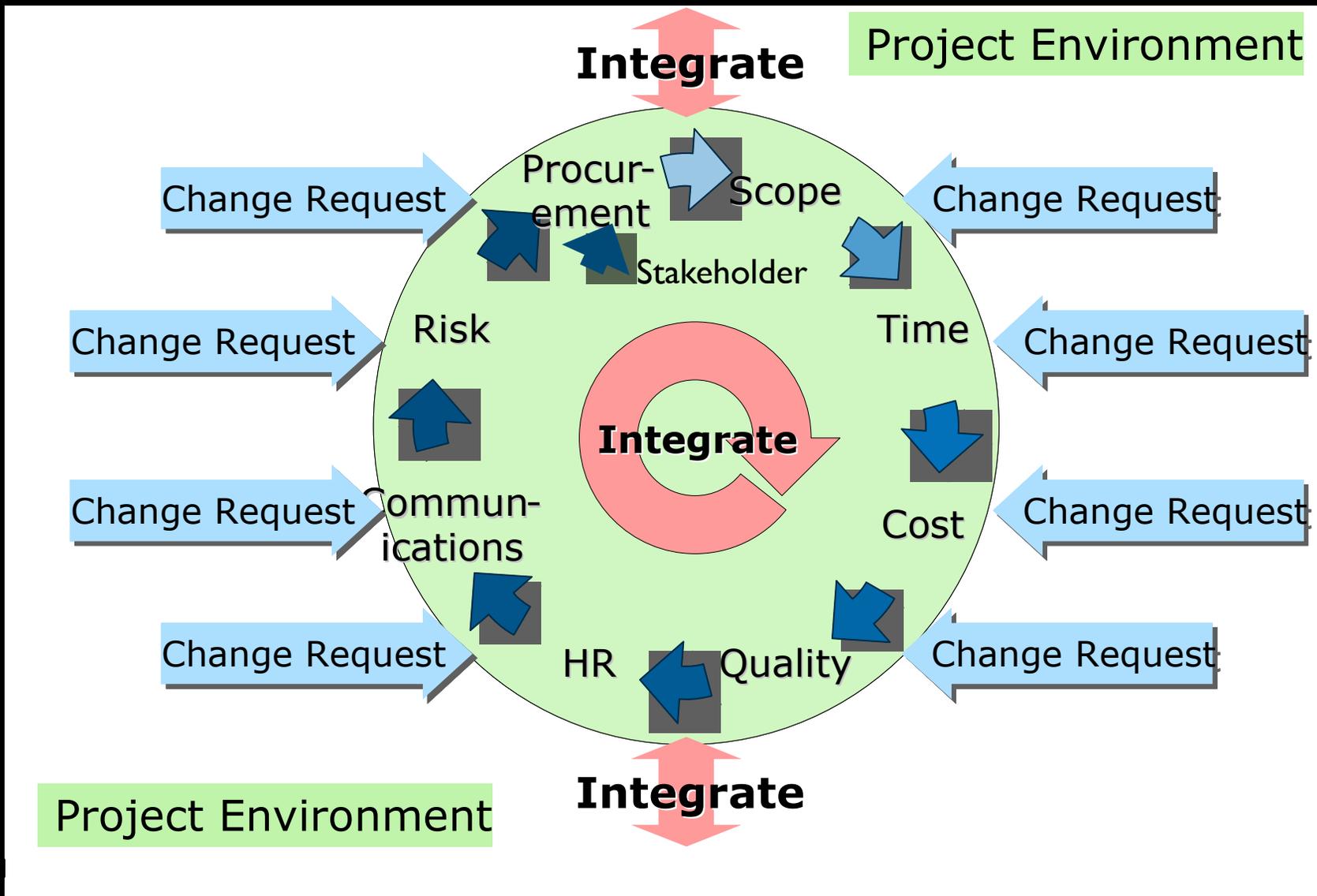
4.5 Perform Integrated **Change** Control

How an individual may work through change:



4.5 Perform Integrated **Change** Control

Sources of change within PMI knowledge areas:



Project Management Process Groups

Initiating

Planning

Executing

Monitoring &
Controlling

Closing

Project
4. Integration
Management

4.1

4.2

4.3

4.4
4.5

4.6

5. Scope

6. Time

7. Cost

8. Quality

9. Human Resources

10. Communications

11. Risk

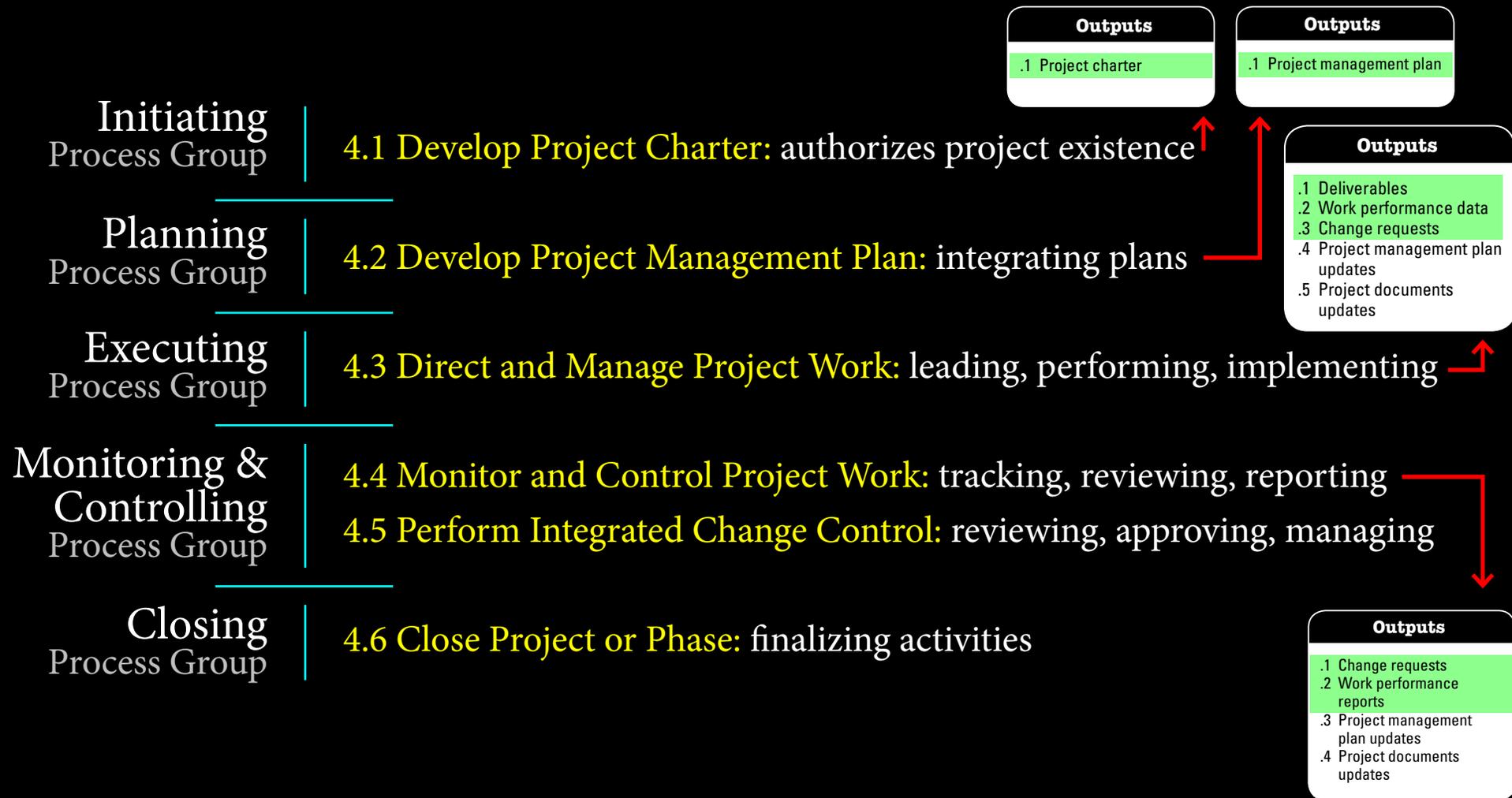
12. Procurement

13. Stakeholder

Knowledge Areas

4.5 Perform Integrated Change Control

Project Integration Management



4.5 Perform Integrated Change Control

Change requests are inputs from two different knowledge areas:

4.3 Direct and Manage Project Work - if the need for change is noticed while project work is being **executed**

4.4 Monitor and Control Project Work - if the need for change is noticed as a result of project **monitoring**

In both cases the change requests are analyzed in **4.5 Perform Integrated Change Control**

Approved changes are input for **4.3 Direct and Manage Project Work** for execution.

4.5 Perform Integrated Change Control

In **summary** it is:

Reviewing all change requests

Approving, or not, the request

Communicating the results

Some **characteristics**:

Changes are to be **considered in an integrated way** to reduce risk

Conducted from **throughout** the project

Change may be **requested by any stakeholder**

Customer or sponsor approval may be required

Every change request **must be either approved or rejected**

Every **change request needs to be recorded** in the change management and/or configuration management system

4.5 Perform Integrated Change Control

Change Management: managing the change process

Configuration Management: managing item/product/document changes

Focused on **specifications**

Process:

Configuration identification - what is to be defined and verified?

Configuration status accounting - in a status of change log, chart or list

Configuration verification & audit - has the configuration management plan been followed properly?

4.5 Perform Integrated Change Control

When required, the Perform Integrated Change Control process includes a **change control board** (CCB), which is a formally chartered group responsible for:

- Reviewing, evaluating, approving, delaying or rejecting changes

- Recording and communicating** its decisions

4.5 Perform Integrated Change Control



Project Management Plan, considering:

Scope management plan: the **procedures for scope changes**

Scope baseline: **product definition**

Change management plan: provides **direction for managing the change control process** and documents the formal change control board

4.5 Perform Integrated Change Control



Work Performance Reports:

Resource availability

Schedule and cost data

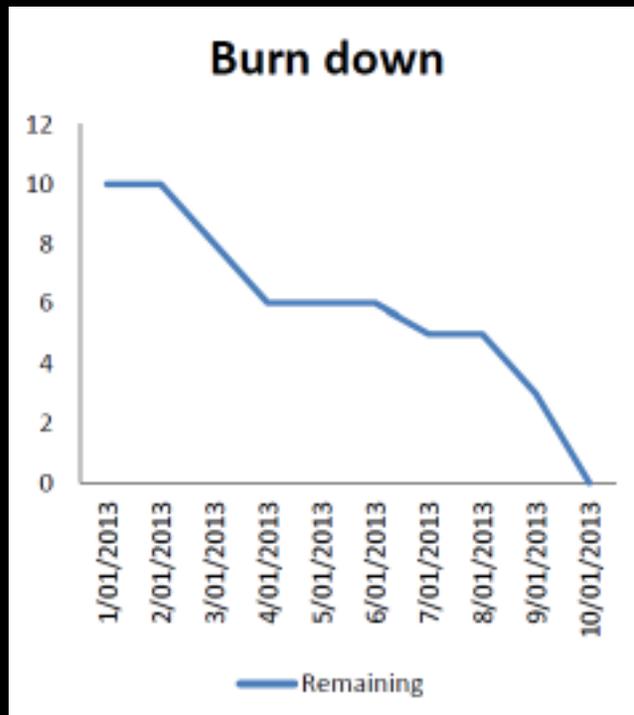
Earned value management (EVM) reports

Burnup or burndown charts

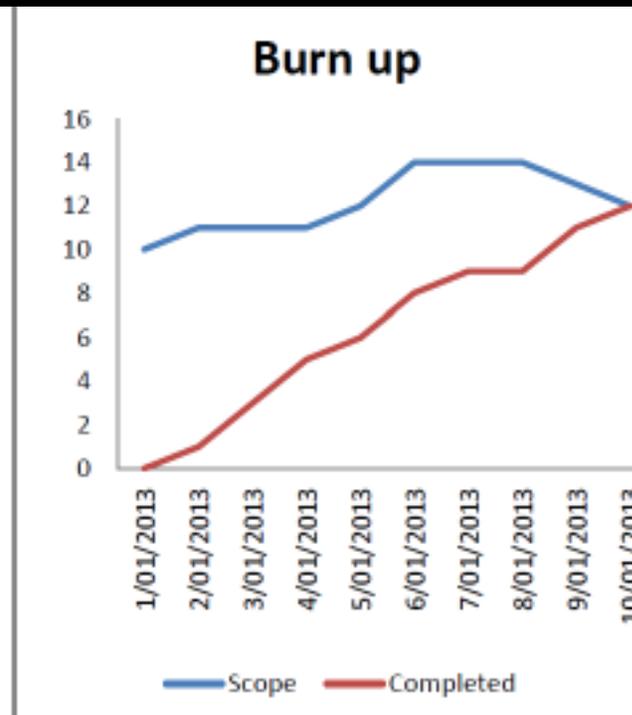
Earned Value terms

| Term | Acronym | Description |
|----------------------------|---------|--|
| Actual Cost | AC | The money actually spent on projects up to the present |
| Budget at Completion | BAC | Original budget for the project (same as BCWS) |
| Cost Performance Index | CPI | Ratio of earned value to actual cost |
| Cost Variance | CV | Difference between earned value and actual cost |
| Earned Value | EV | Sum of estimates for work actually done up to the present |
| Estimate at Completion | EAC | Revised estimate of total project cost |
| Estimate to Complete | ETC | Money to complete the project if early cost variance is atypical |
| Estimate to Complete | ETC | Money to complete the project if early cost variance is typical |
| Planned Value | PV | Sum of the estimates for work done up to the present |
| Schedule Performance Index | SPI | Ratio of earned value to planned value |
| Schedule Variance | SV | Difference between earned value and planned value |

A **burn down** chart shows how much work is remaining to be done in the project.



A **burn up** chart shows how much work has been completed as well as the total amount of work (scope)



A **burn down** chart has one major assumption: the amount of work does not change.

4.5 Perform Integrated Change Control



Expert Judgment:

Consultants

Stakeholders, including customers or sponsors

Professional and technical associations

Industry groups

Subject matter experts (SMEs)

Project management office (PMO)

4.5 Perform Integrated Change Control



Meetings: of the change control board

The change control board (CCB) is responsible for meeting and reviewing the change requests and approving or rejecting them

Change Control Tools: templates, forms & communication

See the web site for templates and further reading

4.5 Perform Integrated Change Control



Approved Change Requests:

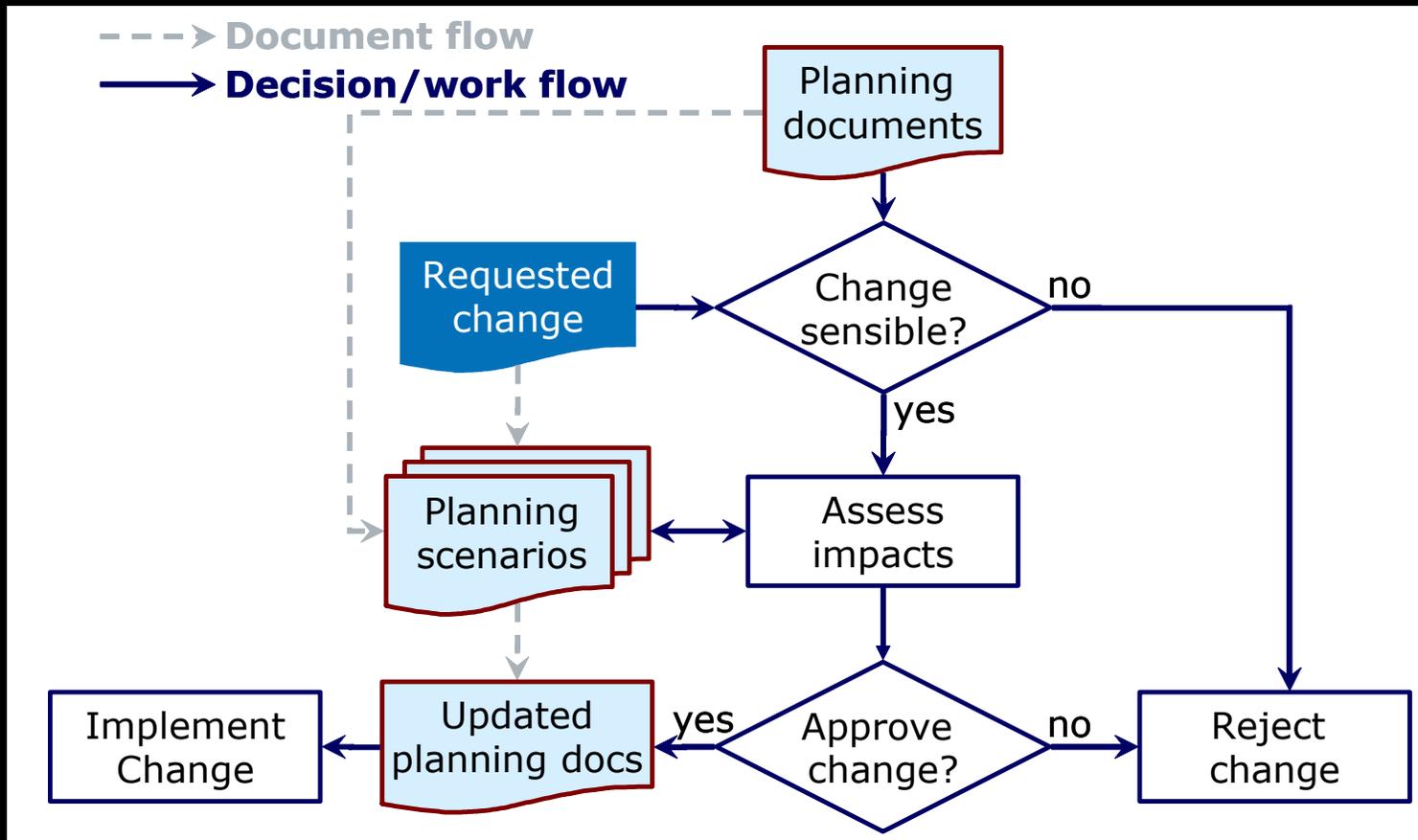
Approved change requests are implemented through the Direct and Manage Project Work process (4.3)

All change requests must be entered into the:

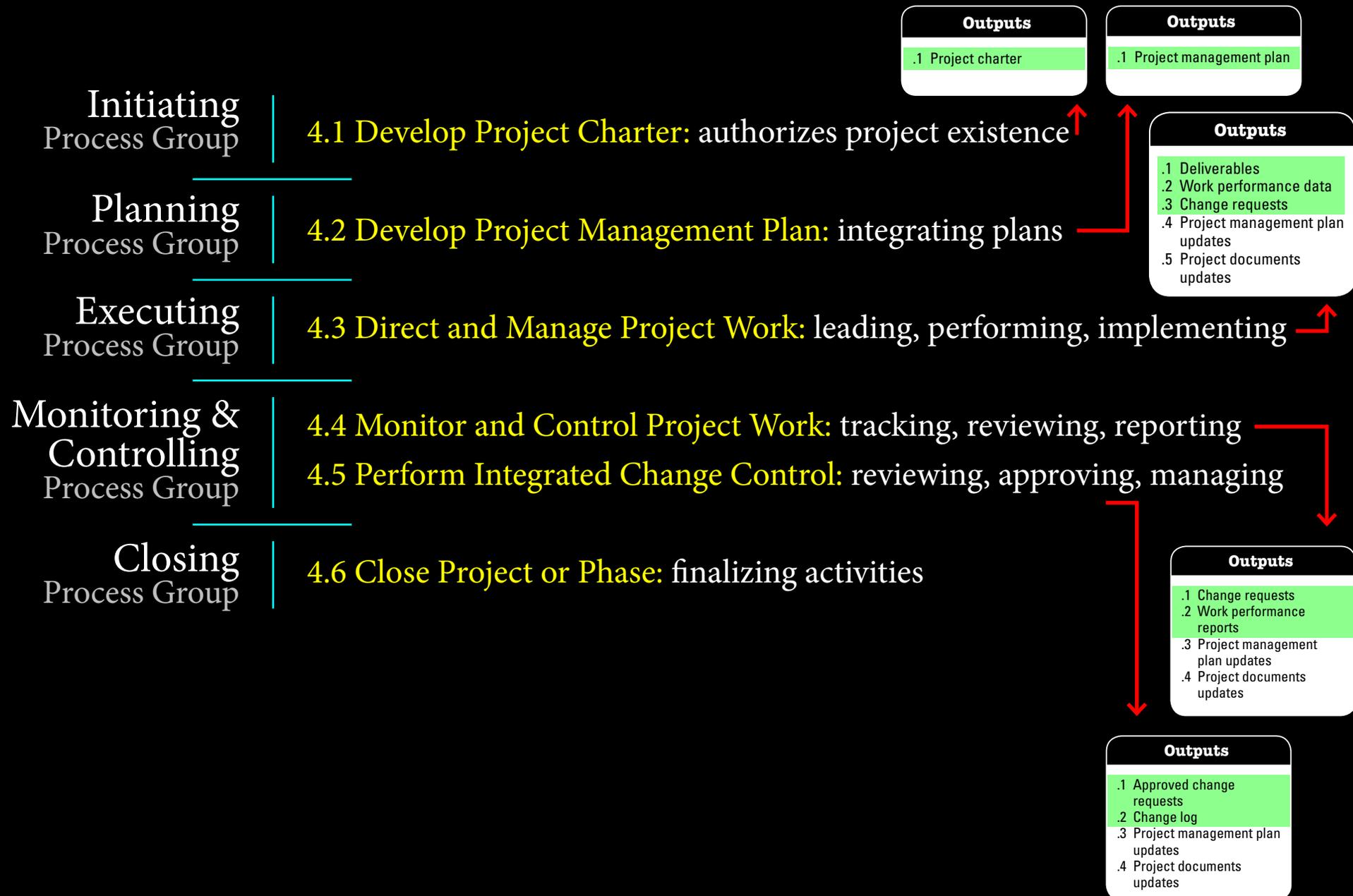
Change Log and their impact communicated to the appropriate stakeholders

4.5 Perform Integrated **Change** Control

Integrated Change Control process & work flow



Project Integration Management



Q&A

Question

14. A team member is not performing well on the project because she is inexperienced in system development work. There is no one else available who is better qualified to do the work. What is the BEST solution for the project manager?
- A. Consult with the functional manager to determine project completion incentives for the team member.
 - B. Obtain a new resource more skilled in development work.
 - C. Arrange for the team member to get training.
 - D. Allocate some of the project schedule reserve.

Answer

14. **Answer C**

Explanation The job of the project manager includes providing or obtaining project-specific training for team members. This kind of training may be a direct cost of the project.

Question

15. A project has several teams. Team C has repeatedly missed deadlines in the past. This has caused team D to have to crash the critical path several times. As the team leader for team D, you should meet with:
- A. The leader of team C.
 - B. The project manager.
 - C. The project manager and management.
 - D. The project manager and the leader of team C.

Answer

15. **Answer D**

Explanation Those involved in the problem should resolve the problem. Having had to crash the critical path several times implies that team D has already tried to deal with this problem. In this case, the two team leaders need to meet. The extent of this situation requires the project manager's involvement as well.

16. The new project is exciting to both the project manager and the team. This is the project manager's first assignment as project manager. The team feels they will be able to complete work that has never been tried before. There are 29 people contributing to the product description, and the team consists of 9 experienced experts in their field.

Part of the way through planning, three highly skilled technical team members are disagreeing about the scope of two of the deliverables. One is pointing to the draft WBS and saying that two additional work packages should be added. Another is saying that a particular work package should not even be done. The third team member agrees with both of them. How should the project manager BEST deal with the conflict?

- A. He should listen to the differences of opinion, determine the best choice, and implement that choice.
- B. He should postpone further discussions, meet with each individual, and determine the best approach.
- C. He should listen to the differences of opinion, encourage logical discussions, and facilitate an agreement.
- D. He should help the team focus on agreeable aspects of their opinions and build unity by using relaxation techniques and common-focus team building.

Answer

16. Answer C

Explanation Do not get confused by the wordiness of the question. Ask yourself what is the best way to resolve any conflict, and you can get the answer. Most of the situation is a distracter. Problem solving (collaborating) and compromising are the two most important conflict resolution techniques. Conflict management is a key general management skill.

Question

17. The project is just starting out and consists of people from 14 different departments. The project charter was signed by one person and contains over 30 major requirements that must be met on the project. The sponsor has informed the project manager that the SPI must be kept between 0.95 and 1.1. A few minutes of investigation resulted in the identification of 34 stakeholders, and the schedule objectives on the project are constrained. The project manager has just been hired. Which of the following types of project management power will BEST help the project manager gain the cooperation of others?
- A. Formal
 - B. Referent
 - C. Penalty
 - D. Expert

Answer

17. **Answer A**

Explanation Generally, the best forms of power are reward or expert. The project manager has not had time to become a recognized expert in the company and reward power is not included as a choice here. This leaves formal power as the only logical answer.

Question

18. A project manager is trying to settle a dispute between two team members. One says the systems should be integrated before testing, and the other maintains each system should be tested before integration. The project involves over 30 people, and 12 systems need to be integrated. The sponsor is demanding that integration happen on time. What is the BEST statement the project manager can make to resolve the conflict?
- A. Do it my way.
 - B. Let's calm down and get the job done.
 - C. Let's deal with this again next week after we all calm down.
 - D. Let's do limited testing before integration and finish testing after integration.

Answer

18. **Answer D**

Explanation Doing limited testing before integration and finishing testing after integration is an example of compromising. This is the best way for the project manager to resolve the conflict in this situation.

Question

19. A project is in the middle of the executing effort when a stakeholder suggests a major new change. This change will cause the third major overhaul of the project. At the same time, the project manager discovers that a major work package was not completed because a team member's boss moved him to another project that had a higher priority. Which of the following is the BEST person for the project manager to address these issues with?
- A. The team
 - B. Senior management
 - C. The customer
 - D. The sponsor

Answer

19. **Answer D**

Explanation It is the sponsor's role to prevent unnecessary changes and to set priorities among projects. The situation described in this question implies that such work is not being done and the project manager must therefore go to the root of the problem: the sponsor.

Question

20. What theory proposes that employees' efforts will lead to effective performance and the employees will be rewarded for accomplishments?
- A. Conditional reinforcement
 - B. Maslow's hierarchy
 - C. McGregor's
 - D. Expectancy

Answer

20. **Answer D**

Explanation Expectancy theory states that employees who believe their efforts will lead to effective performance and who expect to be rewarded for their accomplishments will stay productive as rewards meet their expectations.

Question

21. The installation project has a CPI of 1.03 and an SPI of 1.0. There are 14 team members, and each team member had input into the final project management plan. The customer has accepted the three deliverables completed so far without complaint, and the responsibility assignment matrix has not changed since the project began. The project is being completed in a matrix environment and there are no contracts needed for the project.

Although the sponsor is happy with the status of the project, one of the team members is always complaining about how much time his project work is taking. Which of the following would be the BEST thing for the project manager to do?

- A. Review the reward system for the project.
- B. Try to improve schedule performance of the project.
- C. Meet with the customer to try to extend the schedule.
- D. Gain formal acceptance in writing from the customer.

21. **Answer A**

Explanation Improving schedule performance relates to getting the project completed sooner. Although it would seem to be a good idea to improve schedule performance, this project's performance is fine. The schedule has been approved as it is. It would be better for the project manager to spend more time controlling the project to make sure it finishes according to plan than to improve schedule performance.

If you chose attempting to extend the schedule, look at the SPI. There is nothing wrong with the schedule performance of the project that would require an extension.

Gaining formal acceptance from the customer will need to be done, as it provides an opportunity for the team to check if everything is going well. This action will not affect the team member's dissatisfaction, however.

The only real problem presented in this situation is that the team member is complaining. If you read the situation completely, you will notice that the team member was involved and approved the project management plan, including his own involvement in the project. Since the responsibility assignment matrix has not changed, the team member has not even been assigned different duties since the project began. There must be something else causing the team member to complain. The project manager should investigate and find out if the reward system is ineffective.

Auf Wiedersehen

(good bye)