6. Risk Monitoring and Control
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- Risk monitoring and control is required in order to:
  - Ensure the execution of the risk plans and evaluate their effectiveness in reducing risk.
  - Keep track of the identified risks, including the watch list.
  - Monitor trigger conditions for contingencies.
  - Monitor residual risks and identify new risks arising during project execution.
  - Update the organizational process assets.
Purpose of risk monitoring

The purpose is to determine if:

- Risk responses have been implemented as planned.
- Risk response actions are as effective as expected or if new responses should be developed.
- Project assumptions are still valid.
- Risk exposure has changed from its prior state, with analysis of trends.
- A risk trigger has occurred.
- Proper policies and procedures are followed.
- New risks have occurred that were not previously identified.
6.1 Inputs to Risk Monitoring and Control

1. *Risk management plan*

2. *Risk Register*
   Contains outputs of the other processes: identified risks & owners, risk responses, triggers and warning signs

3. *Approved Change Requests*
   Approved changes include modifications such as to scope, schedule, method of work, or contract terms. This may often require new risk analysis to consider impact on existing plan and identifying new risks and corresponding responses

4. *Work Performance Information*
   Project status and performance reports are necessary for risk monitoring and control of risks.
6.2 Tools and Techniques for Risk Monitoring and Control

1. **Risk Reassessment**
   - Project risk reviews at all team meetings.
   - Major reviews at major milestones.
   - Risk ratings and prioritization may change during the life of the project. Changes may require additional qualitative or quantitative risk analysis.

2. **Risk audits.**
   Examine and document the effectiveness of the risk response planning in controlling risk and the effectiveness of the risk owner.
3. **Variance and Trend Analysis**
   Used for monitoring overall project cost & Schedule performance against a baseline plan. Significant deviations indicate that updated risk identification and analysis should be performed. *Technical performance measurement.*

4. **Reserve Analysis**
   As execution progresses, some risk events may happen with positive or negative impact on cost or schedule contingency reserves. Reserve analysis compares available reserves with amount of risk remaining at the time and determines whether reserves are sufficient.

5. **Status meetings**
   Risk management can be addressed regularly by including the subject in project meetings.
Figure 7-7. Illustrative Graphic Performance Report
6.3 Outputs from Risk Monitoring and Control

1. **Risk Register Updates**
   Risk register is updated to include:
   - Outcomes of risk reassessments, audits, and risk reviews. Update may affect risk probability, impact, rank, response, etc..
   - Actual outcome of risks, and of risk responses that becomes part of the project file to be utilized on future projects.

2. **Corrective action.**
   Corrective action consists of performing the contingency plan or workaround. Workarounds are previously unplanned responses to emerging risks. Workarounds must be properly documented and incorporated into the project plan and risk response plan.

3. **Recommended Preventive Actions**
   Used to direct project towards compliance with the project management plan
6.3 Outputs from Risk Monitoring and Control

4. **Project change requests.**
   Implementing contingency plans or workarounds frequently results in a requirement to change the project plan to respond to risks. The result is issuance of a change request that is managed by overall change control.

5. **Organizational Process Assets Updates**
   Information gained through the risk management processes are collected and kept for use by future projects: Templates for risk management plan, probability-impact matrix, risk register, lessons learned, updated RBS.

6. **Project Management Plan Updates**
   Updates to the project management plan as a result of approval of requested changes.