PM-11 Presentation

Financing projects

- Owner's resources
- Sponsor's and lenders
    - Their investment is recovered from project's revenue

Public-Private-Partnership (PPP also known as P3) – agreement between a public agency (federal, state or local) and a private sector entity. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility.

- Private parties' partner with a public entity in the development of infrastructure projects
- Financial risks are very critical and should be addressed at very early stages
- Canada is one of the most successful countries in adopting PPP
    - Successful Canadian case is the 407 highway

Benefits (for governments and public entities)

- Overcome budgetary constraints
- Deliver complicated projects
- Innovation to the project
- Exploit managerial skills
- Timely decisions
- Operate the infrastructure more efficiently

Benefits (for private companies)

- Long term investment opportunities
- Deliver complicated projects
- Make more profit
- Expand it's in-house P3 expertise and establish a reputation
- International market

There are 18 forms of P3 such as:

- **BOT (build operate transfer)**
- **BOO (build-own-operate)**
- **O&M (operation and maintenance)**
- **OMM(operations, maintenance & management)**

Build-Operate-Transfer

1. Formation of the Project Company under the government granted concession
2. Lender involvement in BOT
3. Revenue distribution during the operational period

- Contracts are between the project company and stakeholders
    - Stakeholders can include government, project sponsors, lenders, and users

Risks

- During construction
  - Completion risks
  - Cost overrun risk
  - Performance risk
  - Environmental risk
- During operation
  - Political risk
  - Macro-economic risk
  - Revenue risk

More about risks

- Construction risks (private party support)
  - Sponsor will not receive a guarantee for these risks
- Operation risks (host government supports)
  - Cash subsidy
  - In-kind grants
  - Favorable tax treatment and capital contributions
  - guarantees

PM-12 Presentation

Quality – the degree to which a set of inherent characteristics fulfill requirements

Grade – as a design intent, is a category assigned to deliverables having the same functional use but different technical characteristics

Main aspects of Project Quality Management

- Customer satisfaction
- Continual improvement
- Management responsibility
- Partnership with suppliers

Cost of conformance (cost of quality)

Prevention costs

- Training
- Document processes
- High quality equipment
- Time to do it right

Assessment costs

- Testing
- Destructive tests
- Inspections

Cost of non-conformance (cost of quality)

Internal failure costs

- Rework
- Scrap

External failure costs

- Liabilities
- Warranty work
- Lost business

Manage quality

- Incorporate quality management plan and organization quality policies into the project

Quality assurance

- Make sure that the quality policies, processes, and procedures are complied in project activities

Quality control

- Assess and document the results of execution of quality management in activities and ensure that the results comply with required standards and customer expectations

Seven Basic Tools of Quality

- Check sheet, checklists, and statistical sampling
- Root cause analysis (“fishbone diagram” or Ishikawa diagram)
- Flow chart
- Pareto chart
- Histogram
- Scatter diagram
- Control chart