GEEM 445

Engineering Ethics and Professional Practices

Financial Proposal of a Project



What is Financial Proposal of a Project?

- A **written report** that **details the future of a project's/business's economy** by **addressing its monetary needs** and **budget**.

Importance of Financial Proposal:

Existing Business:

- **Financial Proposal** could **bring changes to your budget or funding** for a **new project or venture.**

New Business:

- **Financial Proposal** could be **setting your budget** or **trying to acquire money** to start up.

From these points alone, you can begin to understand the importance of financial proposals and why it's important to **get them right.**

Project Management:

- Demonstrate **viability**
- Facilitates **resources** allocation
- Enables **risk** management
- Set clear **accountability**

Key Points to Write a Successful Financial Proposal

- **An Overview**
- **Identify the Key Players**
- **Aim to Succeed**
- **Set a Timeframe**
- **Tidying Up Your Proposal**
- **Create Your Budget**
- **Creating a Summary**

Key Points to Write a Successful Financial Proposal

1. An Overview

- Start off with a **professional overview of your company**.
- Designed to **sum up your business** and **outline the ideas in which the budget is going to be spent**.
- Give anybody who's reading the proposal a sense of **what it's about and what you're aiming to achieve.**
- **Solutions** to all the **problems** and a **list of goals** which can be achieved with the budget.

2. **Identify the Key Players**

Need a **list of people** **who are going to be involved in this new financial venture**.

Include anyone from:

- **managers** of the business
- **heads of accounting**
- **relevant shareholders**
- **people of interest**

"You'll be created this list because it's clear **who is going to be involved in the financial changes,** and so you can remember to work with these people during the creation process" –**Dan Burnette**, a **Financial writer**.

3. **Aim to Succeed**

- **Identify the problems and goals** that the business/project has set to address while **designing solutions and plans of action for them**.

- For example, one may be **aiming to cut your liabilities**, perhaps (1). **cutting down on bank loans** or **working on salaries**.

- You could think about trying to (2). **increase sales** or (3). **reducing company expenditure.**

Liabilities:

- **If you've promised to pay someone a sum of money in the future and haven't paid them yet**, that's a liability.
- Debts that a business owes to third-party creditors

4. **Set a Timeframe**

- Once one has identified and planned for the intentions, you'll then want to think about the **timeframe which the company will have to achieve these goals**.

- Try to set this **timeframe as realistically** as possible.

- Want positive change to happen, but **don't set it too short** that everything is rushed and isn't completed properly.

5. **Tidying Up Your Proposal**

- Once everything is **in place and completed**, you'll want to **go through it** all to **make sure** that your **proposal is the highest quality possible.**

6. **Create Your Budget**

- Now that you've **got everything in place**, you can then **start working on an actual figure for your budget.**

- If you're planning on **starting a new project**, you might be starting off **with a lump sum** to invest in it.

- On the other hand, you might want to **invest smaller amounts on a monthly basis.**

7. **Creating a Summary**

- Once you've completed your financial proposal, you can then **summarize everything** on its own separate page.

Why summary is required?

- "This is because the summary will go at the **(1). front of the report**, so the reader can **(2). quickly refer to all the facts and figures** they need at a glance, and then being able to **(3). look inside** to find more information. This part of the document should never be longer than a page."

- As you can see, **writing a financial proposal for your business** doesn't have to be the challenging and slightly overwhelming task.

- If you include all the details and ensure to finish off your proposal to the best professional standard possible.

Civil and Environmental/Water Resources Engineering as a Profession

Who is Civil and Environmental/Water Resources Engineers?

- Are the **specialized persons**, entrusted by the society to **create a sustainable world** and **enhance the global quality of lives**.

- **Civil engineers serve completely, collaborately and ethically** as
  - **-master planner**
  - **-designer**
  - **-constructors**
  - **-stewards** of natural environment and its resources,
  - **-innovators and integrators**,
  - **-managers** of risks and uncertainty**,** and
  - **-leaders in discussions and decisions,** shaping the public on environmental, water resources and infrastructure policy etc.

Key issues facing by Civil and Environmental/ Water Resources Engineering

- Escalated **complex risks and challenges** to public safety, health and welfare.
- **Vulnerability** to human made hazards and disasters.
- **Globalization**
- **Sustainability**
- **Emerging technology**.

Characteristics of Engineering as Profession:

- **Engineering Challenges**: posed by the **unique attributes** and **characteristics** of **facilities** as well as **civil infrastructure, environment related problems and water management** system.

- **Engineering Education:** focused on *learning* about engineering mechanics, doing *calculation*, writing essays and lab report, ***acquiring knowledge*** and ***working*** **with the determinant processes**.

- **Engineering Practices**: requiring **innovative thinking** and **rely heavily on tacit knowledge** of understanding, judgement, associativity and intuition.

Attributes of Civil and Environmental/Water Resources Engineering profession

Five Attributes:

- **Systematic body of theory**
- **Authority**
- **Community Sanction**
- **Ethical Codes**
- **A Culture**

Five Attributes:

Systematic body of knowledge

-incorporate a spirit of **rationality for adequate preparation of professional civil engineers**.

- **Authority**

  - Civil engineers are **granted authority** based on their **extensive education**.

- **Community Sanction**

  - Civil engineers are **accorded community sanction**, in the form of **license or registration**.

- **Ethical Codes**

  - Civil engineers are held to **well documented ethical codes.**
  - Civil engineers are **expected to be their client's trusted advisors.**

- **A Culture**

Civil engineers **have a culture of its own**, that involves:

-**Providing** valuable **services** to the society.

-**Behaving** appropriately.

-**Sharing** rich history and society.

Historical inheritance

Civil Engineers' historical inheritance:

a. The **first engineers** were **irrigators**, **agriculturists** and **military engineers**.

-Same man was usually expected to be an expert at all three kinds of works.

b. **In the renaissance**, when **Leonardo**, **Michel Angelo** and **Albrecht Durer** were not only **all-round engineers** but outstanding **artists** as well.

c. **Specialization** within engineering profession has developed only in the last two or three centuries.

Renaissance was a period in European history marking the transition from the **Middle Age to Modernity** and covering the 15th and 16th centuries.

Middle Ages (or **medieval period**) lasted from the 5th to the 15th century.

Modernity: Attitudes and practices that arose in the wake of the Renaissance -in the 'Age of Reasons" 17th-century **thought** and the 18th-century 'Enlightens".

Renaissance- means **rebirth**, applies to Western Europe in the 15th through 16th century.

-revival of learning

-Engineering grew to be respected.

-Engineers became famous and well paid.

The industrial Revolution.

-Until the late 18th century, military engineers had undertaken the construction of public infrastructures in support of expanding industries.

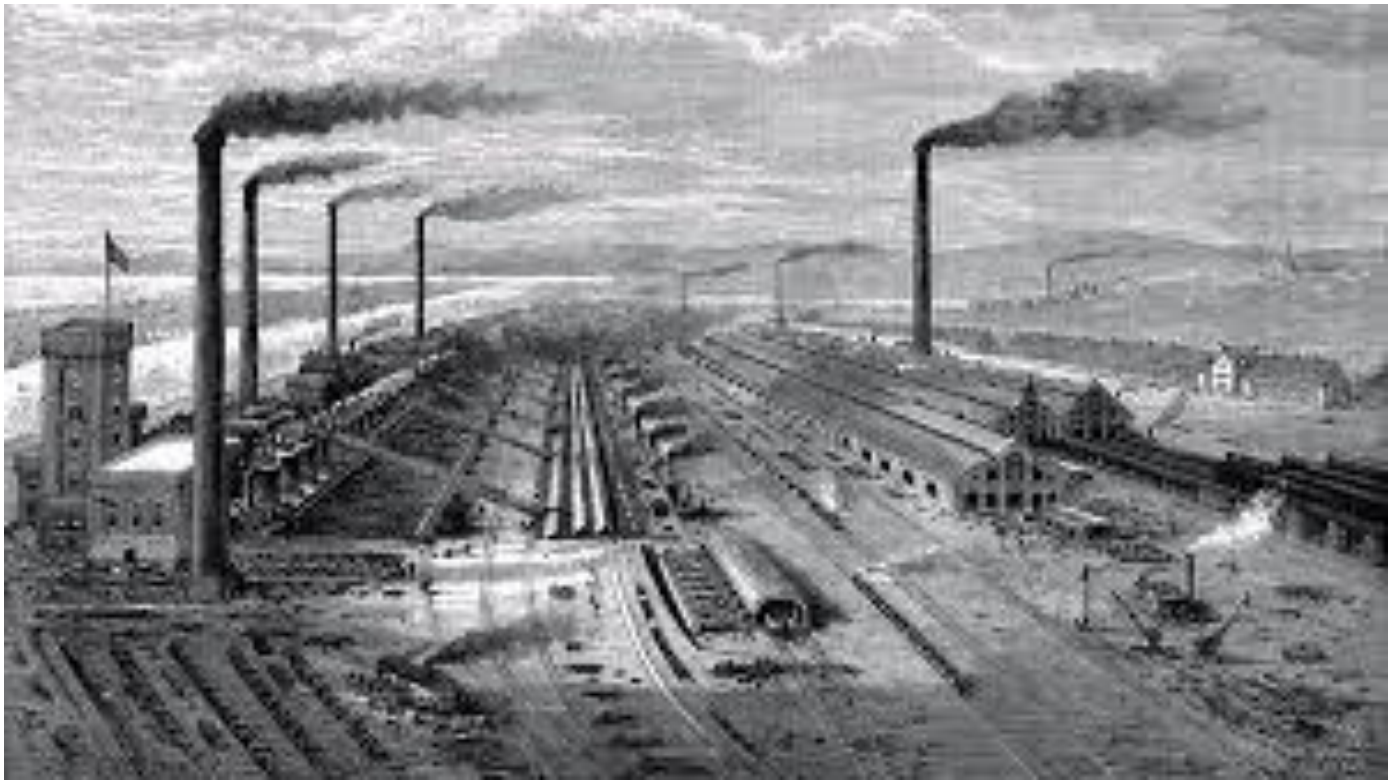
Historical inheritance

- **In 1768**, an Englishman named **John Smeaton** is accredited with being a first person **to call him** a civil engineers.

-He has been called as father of CE.

Historical inheritance

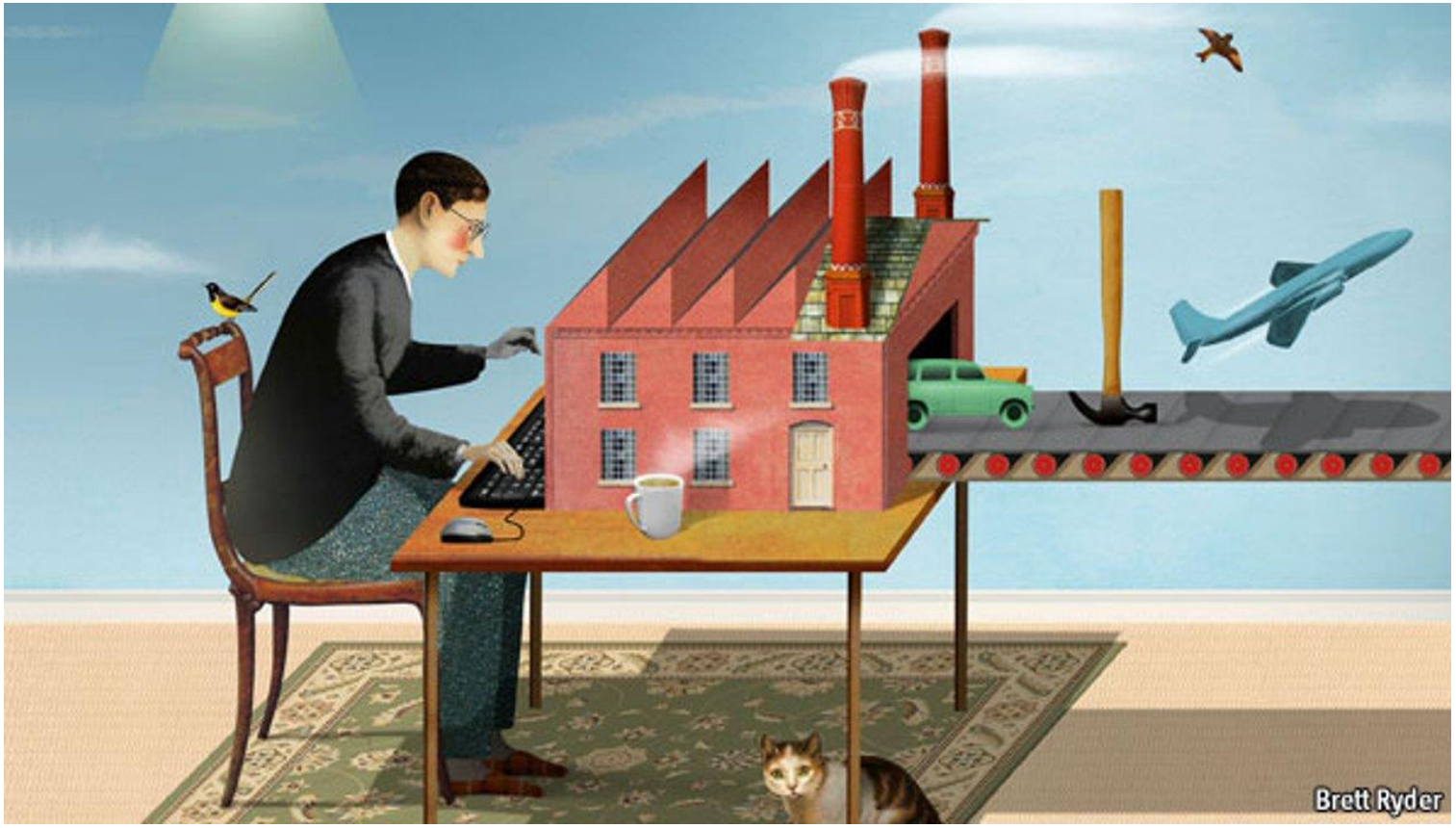
Industrial Revolution, now also known as the **First Industrial Revolution**, was the **transition to new manufacturing processes in Europe and the United States**, in the period from about **1760** to sometime between 1820 and 1840.



Historical inheritance

Second Industrial Revolution, also known as the **Technological Revolution**, was a phase of rapid standardization and industrialization from the **late 19th** century into the early 20th century.





Manufacturing:

Third industrial revolution:

The **digitization of manufacturing** will transform the way goods are made—and change the politics of jobs too.

Civil Engineering Areas of Concentration

1. **General Civil**
2. **Coastal**
3. **Construction**
4. **Environmental**
5. **Geotechnical**
6. **Land Surveying**
7. **Urban Engineering**
8. **Structural**
9. **Transportation**
10. **Water Resources**

Civil Engineering Areas of Concentration

1. **General Civil:**

    a. Focuses on the **overall responsibilities** of project with their environment.

    b. Work closely with the surveyors and specialized civil engineers.

2. **Coastal:**

    a. Helps to **manage the coastal areas**.

    b. **Design ports**

    c. **Work on reclaimed land**

Civil engineering Areas of Concentration

3. **Construction:**

    a. **Plans and execute the design**, site development, hydraulic, environmental, structural and geotechnical works.

4. **Environmental:**

    a. Deals with the treatment of chemical, biological, and /or thermal waste, purification of water & air, and remediation of contaminated sites.

    b. Works with **pollution reduction, green engineering and industrial ecology**.

    c. Write EI reports.

Civil engineering Areas of Concentration

5. **Geotechnical:**

   a. Deals with the complex nature of **rocks and soils**, sub surface investigation and testing, foundation and earth retaining structure.

6. **Land Surveying:**

   a. Establish **boundary of lands** using its legal description and subdivision rules.

   b. **Layout of routes** of rail ways. Highways, roads, pipelines, harbors etc before construction.

7. **Urban Engineering**:

   a. Involves in specifying, designing, constructing and maintaining **urban infrastructures.**

Civil engineering Areas of Concentration

8. **Structural:**

   a. Analyses and designs the structures of buildings, bridges, towers, overpasses, tunnels, offshore structures and other structures.

9. **Transportation:**

   a. Deals with transport of moving people and goods efficiently, safely and in a manner conducive to community.

Civil engineering Areas of Concentration

10. **Water Resources:**

a. Combines hydrology, environment science, meteorology, geology, conservation and resource management in the collection and management of natural water.

b. Relates to the prediction and management of both the quality and quantity of water of surface and underground.

c. Analyze and models very small to large areas to predict the amount and content of water etc.

Thanks