Understanding the Importance of Civil Engineering in Shaping And Impacting the World

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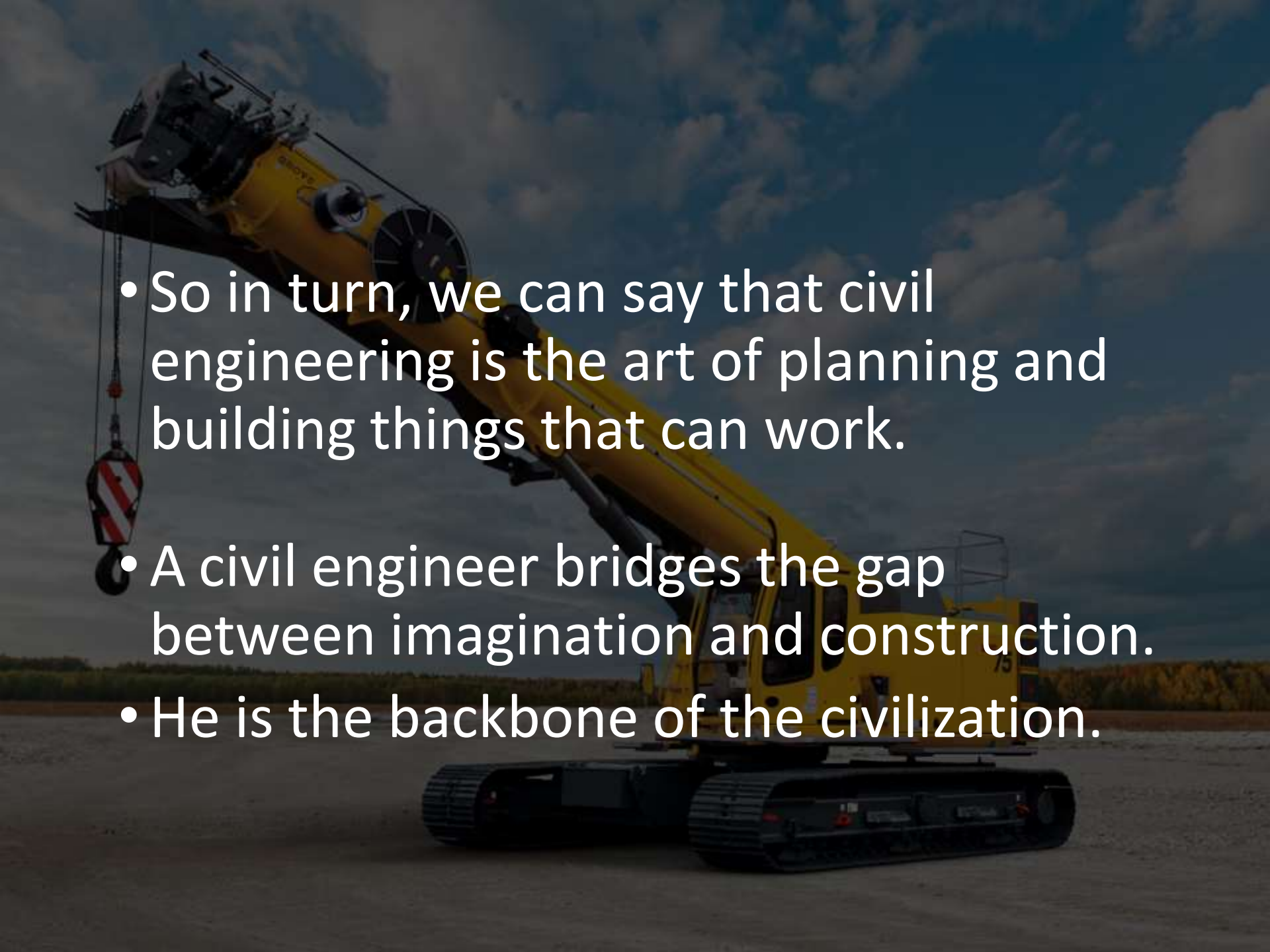
What is Civil Engineering ?

- Certainly! **Civil engineering** is a professional discipline that deals with the design, construction, and maintenance of the physical and naturally built environment . It encompasses public work such as roads, bridges, canals, dams, airports, sewage systems, pipelines, structural components of buildings and railways . In simple terms , civil engineers plan, design, oversee the construction and maintaince of various structures and facilities that serve the general public, including infrastructure like dams , highways and power plants.



- So in turn, we can say that civil engineering is the art of planning and building things that can work.
- A civil engineer bridges the gap between imagination and construction.
- He is the backbone of the civilization.

- The best creaters next to God are the Civil Engineers……

Civil Engineering Shape the World

- **Infrastructure Development economic Growth**: Robust infrastructure, such as roads, bridges, airports, and railways.
- **Technological Advancements Innovation**: Civil engineers leverage cutting-edge technologies like Building Information Modeling (BIM), 3D printing.
- **Disaster Resilience Safety**: Civil engineers design structures to withstand natural disasters like earthquakes, floods, and hurricanes.
- **Global Competitiveness Attracting Investments**: High-quality infrastructure attracts foreign investments and boosts tourism.

- As we can see the world is full of beautiful structures and great monuments They are all created and designed by the civil engineers.

- They improve the infrastructure around us by using great sources of power in nature to use and convience of man.

Smart Cities:

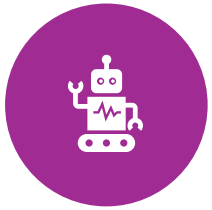
- Civil engineers are using sensors and more advanced technology to create smart and more sustainable cities and buildings.

“Enhancing Structural Integrity and Sustainability”

FLEXIBLE FOUNDATIONS

DAMPING SYSTEMS

STRUCTURAL REINFORCEMENT



VIBRATION CONTROL

MATERIAL SELECTION BY USING HIGH-STRENGTH MATERIALS

REGULAR INSPECTIONS AND MAINTENANCE

ADVANCED CONSTRUCTION TECHNIQUES

Burj Khalifa

- **Location**: Dubai, United Arab Emirates
- **Height**: 828 meters (2,717 feet)
- **Completion**: 2010
- **Architect**: Adrian Smith of Skidmore, Owings & Merrill

Shanghai Tower

- **Location**: Luiza, Pudong, Shanghai, China
- **Height**: 632 meters (2,073 feet)
- **Floors**: 128 above ground, 5 below ground
- **Completion**: 2015

Brooklyn Bridge

- **Location**: Spanning the East River, connecting Manhattan and Brooklyn in New York City, USA.
- **Completion**: Opened on May 24, 1883.
- **Length**: 1,595.5 feet (486.3 meters).
- **Height**: 276.5 feet (84.3 meters) above mean high water

• Eiffel Tower

- **Location**: Paris, France
- **Height**: 324 meters (1,063 feet)
- **Completion**: 1889
- **Designer**: Gustave Eiffel


Thank You