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CONSTRUCTION TECHNOLOGY, ESTIMATING AND CONTRACT

Topic 1: Introduction to Construction Industry

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Overview of the Construction Industry

INSPIRING CREATIVE AND INNOVATIVE MINDS



Definition

Construction:

- is the process of constructing a building or infrastructure.
- takes place on location for a known client.

Construction Industry:

- Sector of national economy engaged in preparation of land and construction, alteration, and repair of buildings, structures, and other real property.



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Construction Industry Divisions

The construction industry is divided into type of construction:

- Residential
- Building (Institutional and commercial)
- Heavy construction
- Industrial



- Houses
- High-rise apartments & condominiums



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Building Construction



- Schools, hospitals, office buildings
- Hotels, shopping centres



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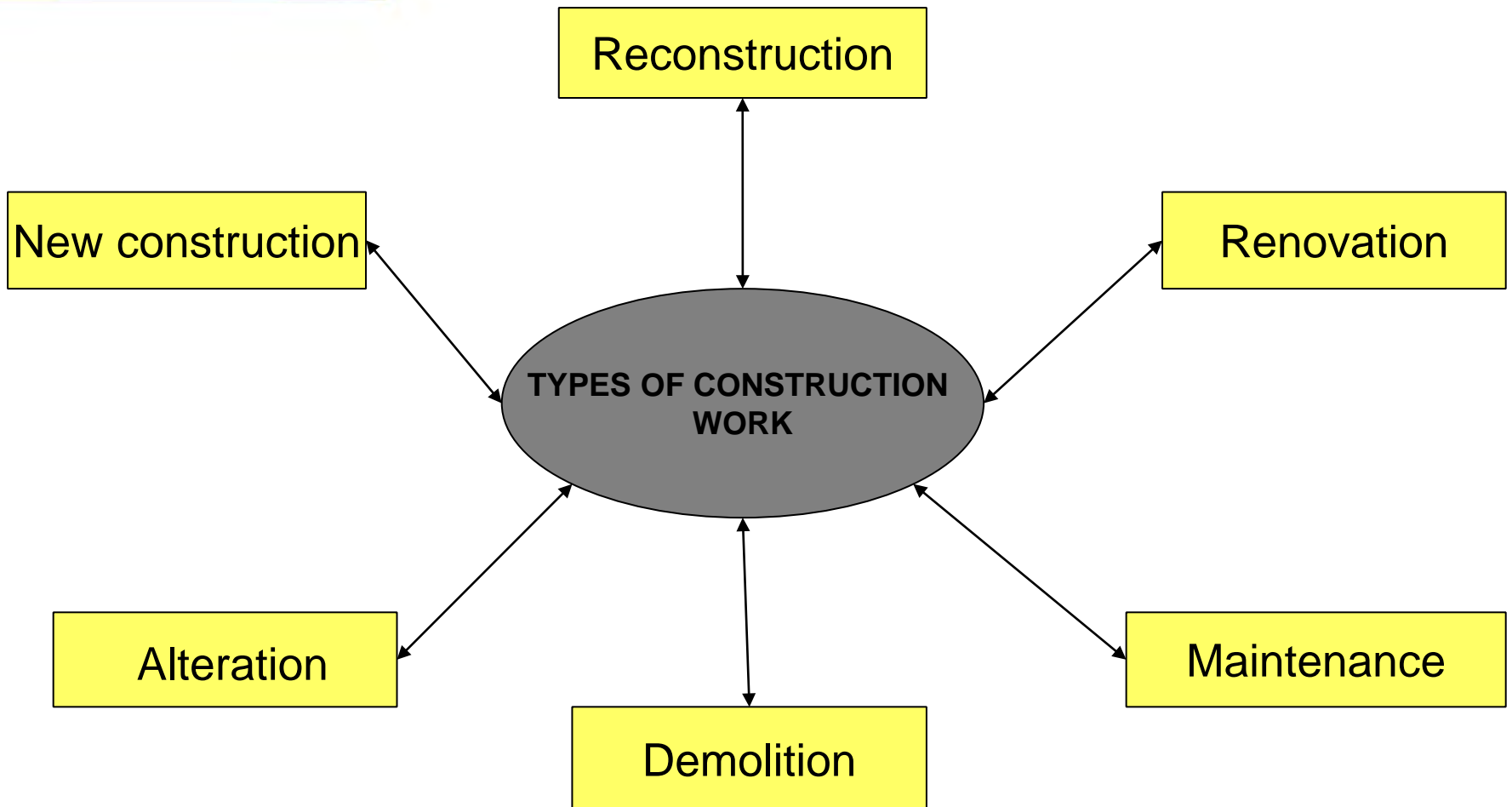
Heavy Construction



- Highway & Bridges, Railroads & Urban Transit Systems
- Tunnels and Dams, Canals, Airports, Port & Harbour



Types of Construction Work





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Categories of Construction Projects

1. Petroleum & gas



2. Industrial





Categories of Construction Projects

3. Power



4. Transportation





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Categories of Construction Projects

5. Water Supply



6. Infrastructure





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Categories of Const Projects

7. Maritime & Environment



8. Structure





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Categories of Const Projects

9. Geotechnical



10. Building Services





Physical consideration

- Earth contour.
- Size of the land
- Type of soil.

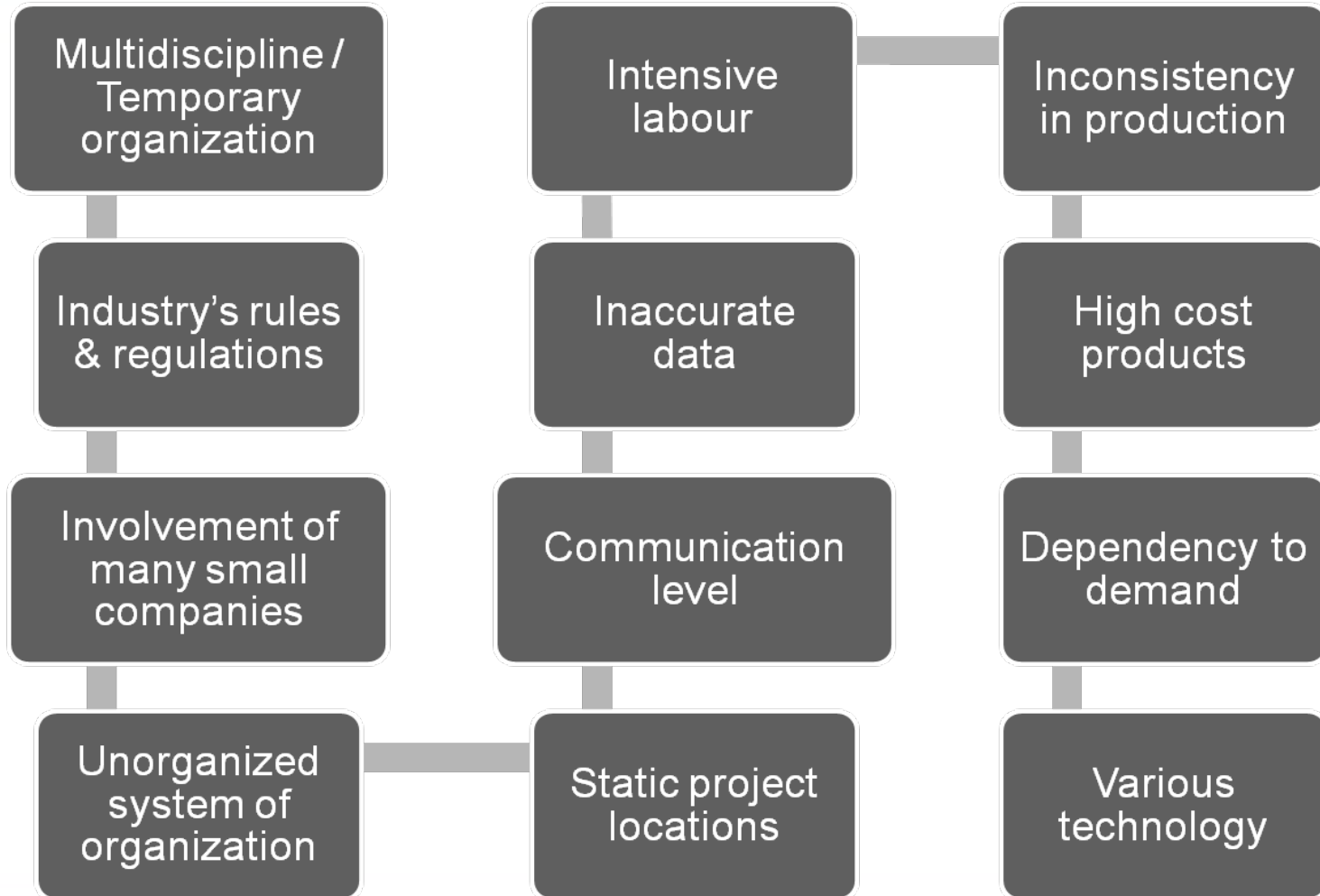
Surrounding consideration

- Land or building nearby
- Environmental impact of a project.
- Building orientation.
- Local planning requirements (Majlis Daerah)



Legislative & site condition consideration

- Must follow the legal requirements set by the government.
- Consider the requirements and regulations of the agencies involved such as Majlis Tempatan, IWK, TNB, Jabatan Bomba, and Telekom.
- Need to conduct a site visit to see the physical condition of the site.
- Consider the size of the site, the nearby buildings and access roads to the construction site.

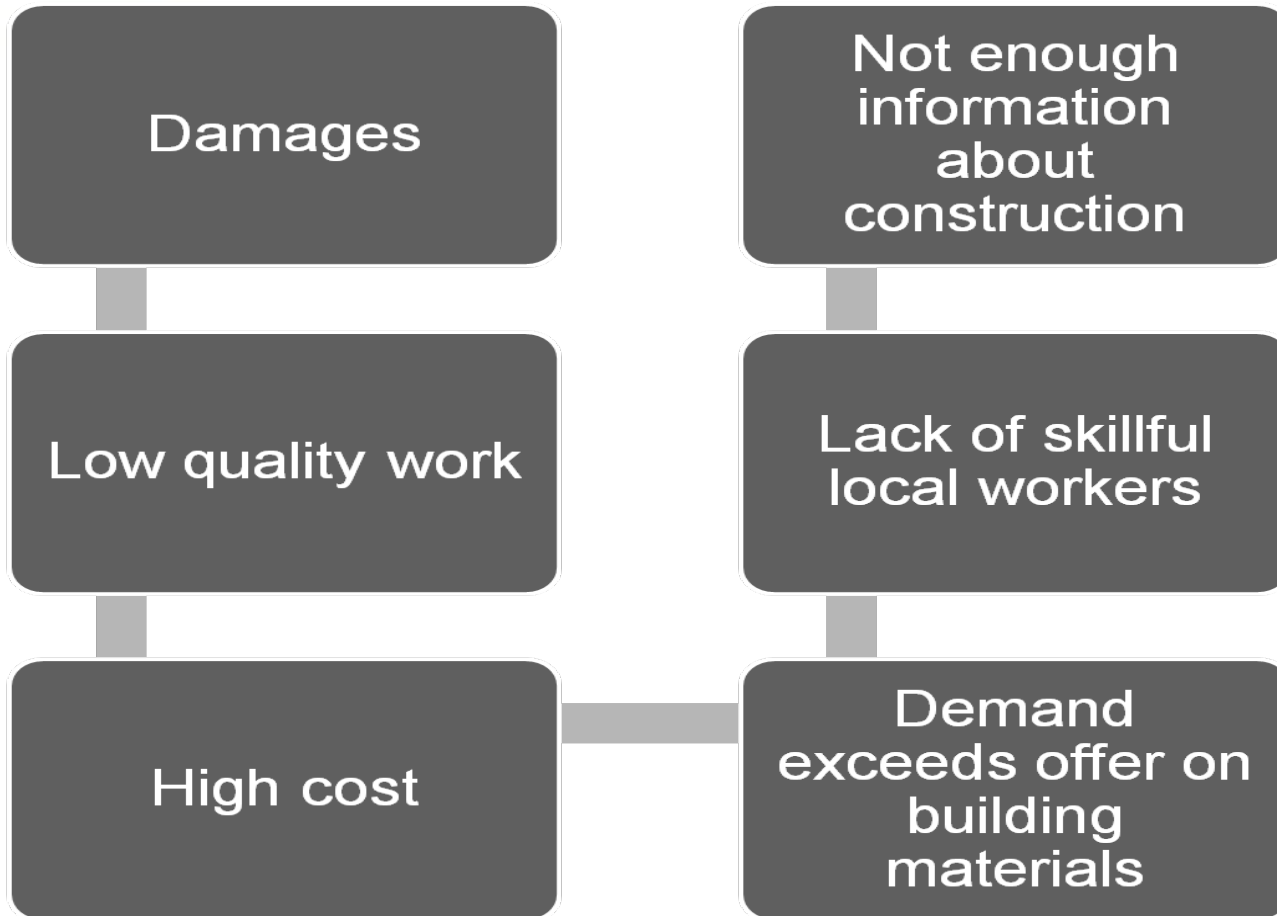




- **Multidiscipline / Temporary Organization**
- **Industry's rules and regulations**
- **Involvement of many small companies**
- **Unorganised system of organization**
- **Project locations are static**
- **Communication level in organization**



- **Intensive labour**
- **Inaccurate data**
- **Inconsistency in production**
- **High cost products**
- **Various technology**
- **Dependency on demand**





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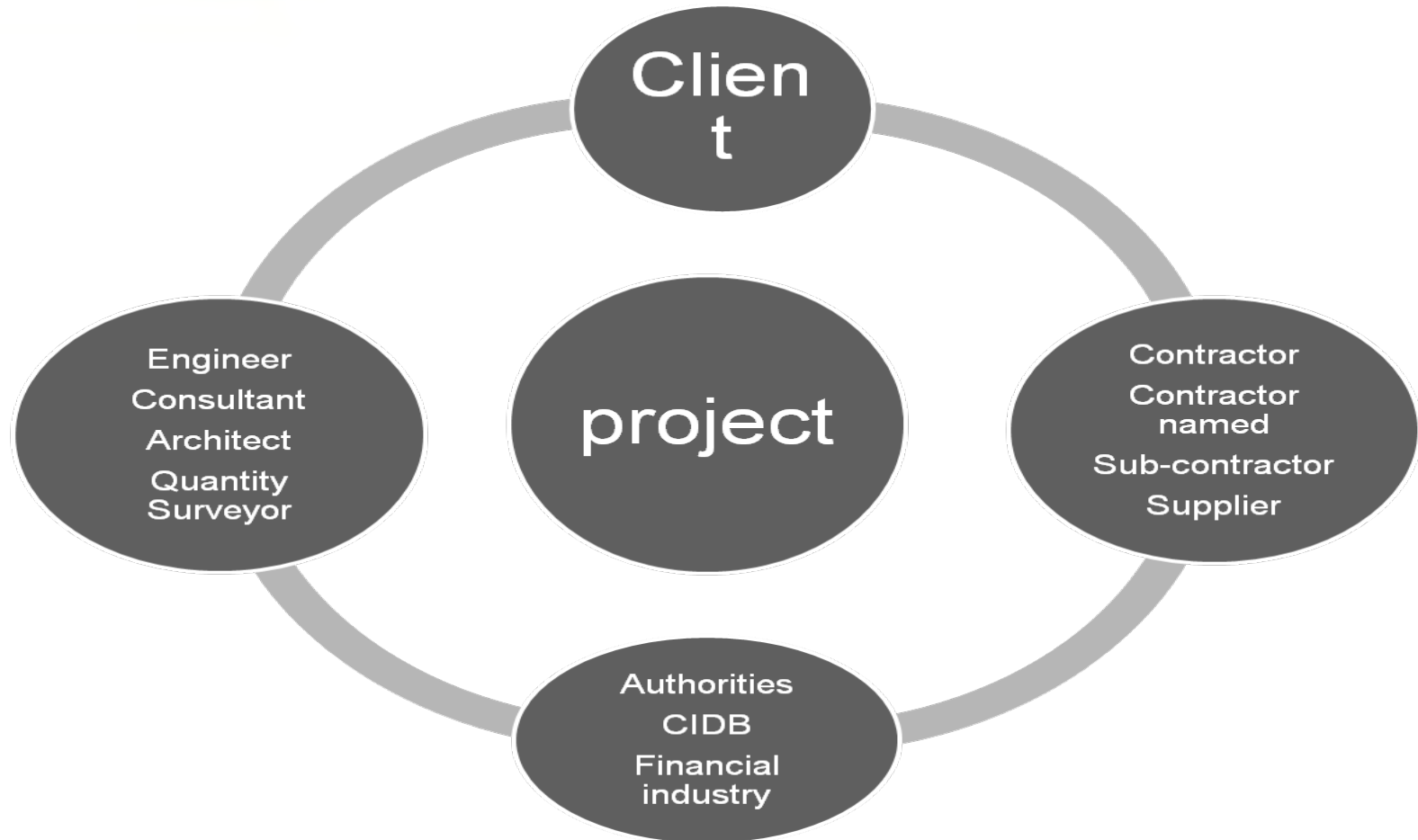
Contribution to National Economy

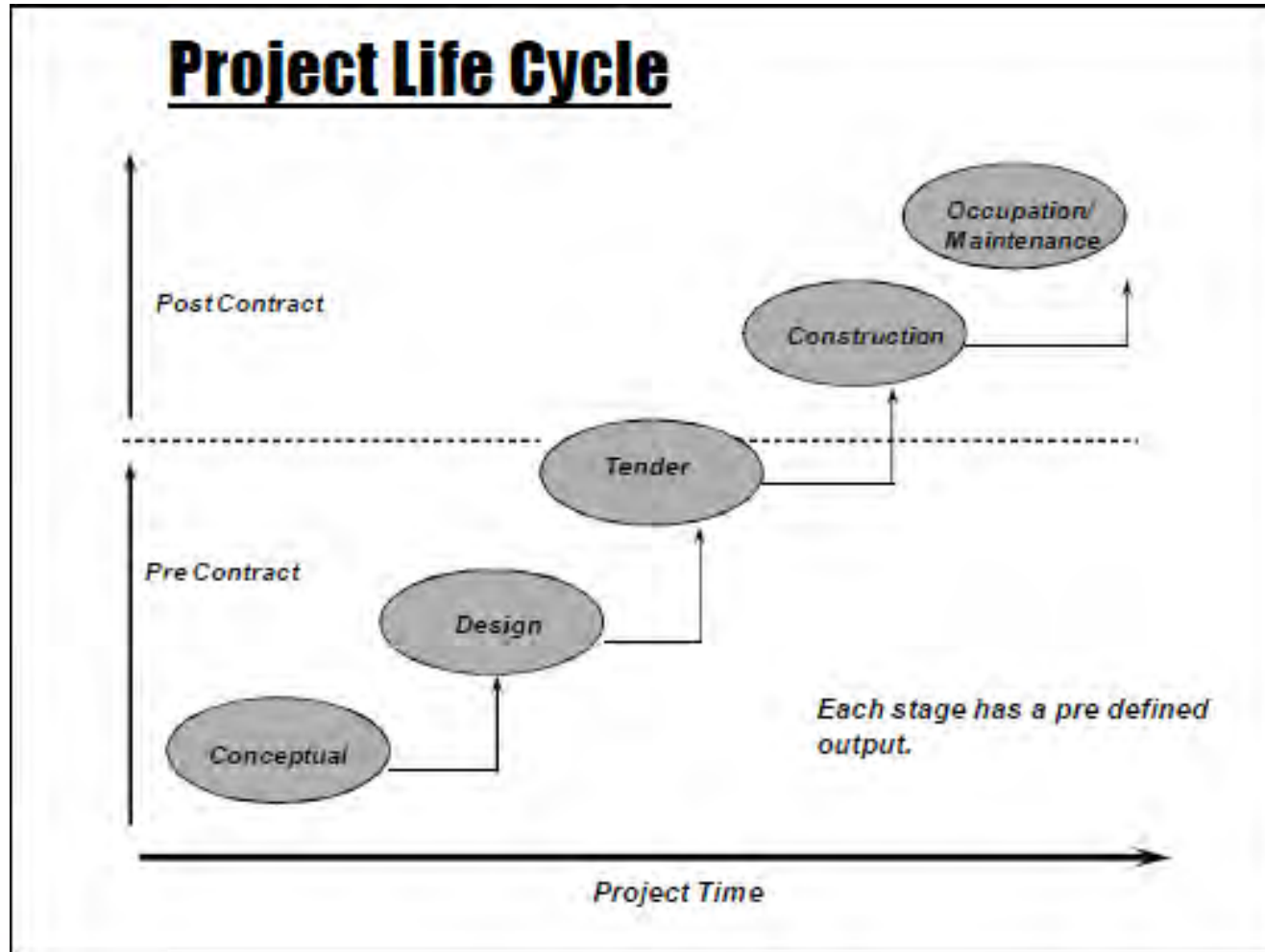
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- The construction industry is the driver of economic growth, contributing to the economy both directly and indirectly
- The level of development in the construction industry is an indicator of the economic health
- Accelerate the growth of industries such as production of cement, and bricks, quarry, timber and steel.
- Contributing to production, income and job opportunities



Parties Involved in Construction Project







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The End

Thank You