

Construction Industry and Project Management

Construction Project Management

2013. 3.5.
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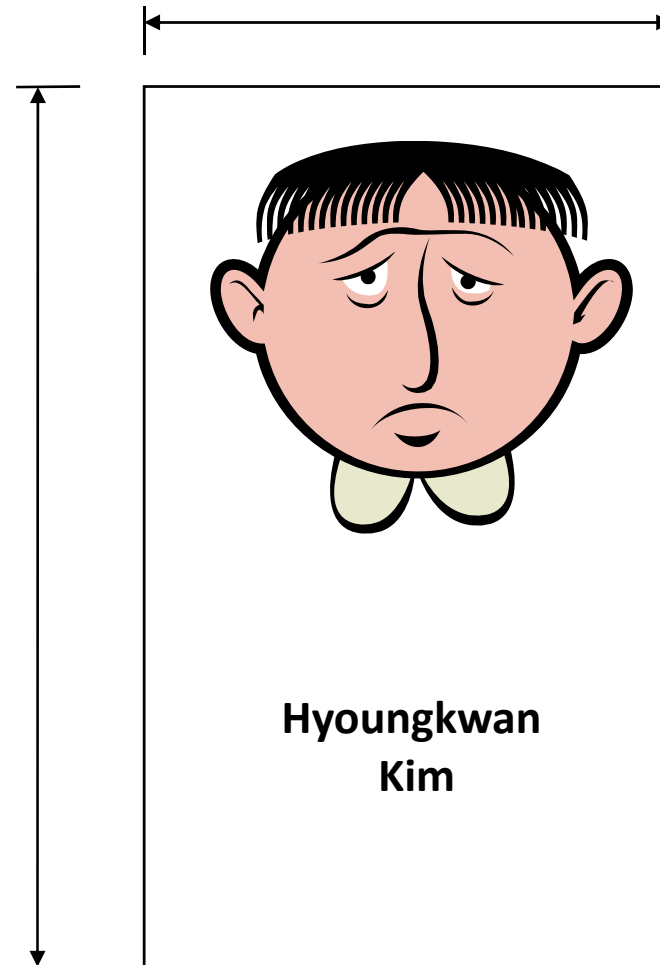
Assignment #1:

Portrait Card:

due on Mar. 12

10 cm

5 cm



The Great Wall



http://upload.wikimedia.org/wikipedia/commons/c/c8/Great_wall_of_china-mutianyu_3.JPG

Segovia Aqueduct



http://upload.wikimedia.org/wikipedia/commons/2/2f/Segovia_Aqueduct.JPG

Panama Canal



http://upload.wikimedia.org/wikipedia/commons/f/f7/Panama_Canal_Gatun_Locks.jpg

Burj Khalifa



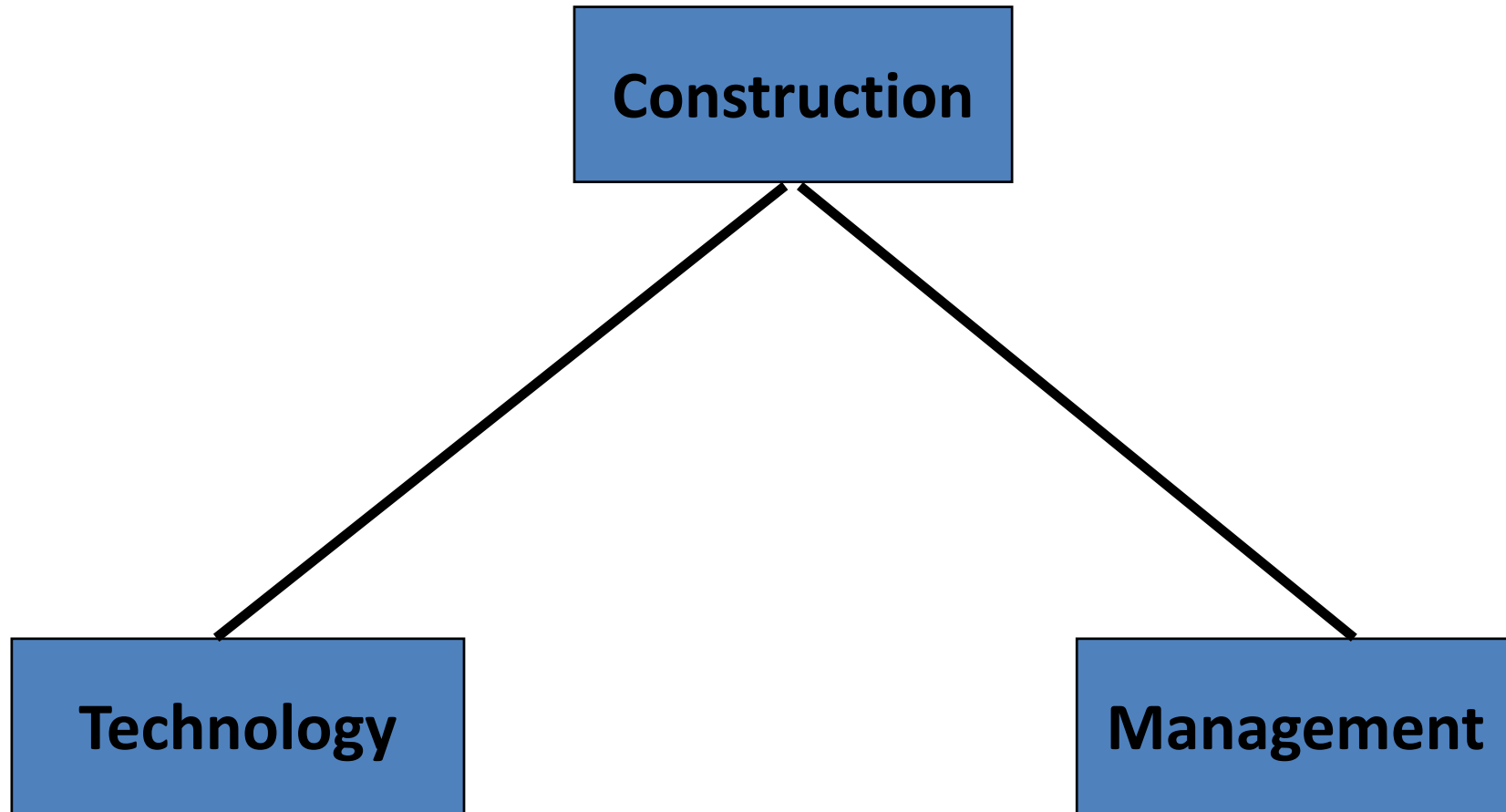
Incheon Bridge



Desalination Plant , UAE



Construction Elements



Construction Market Size

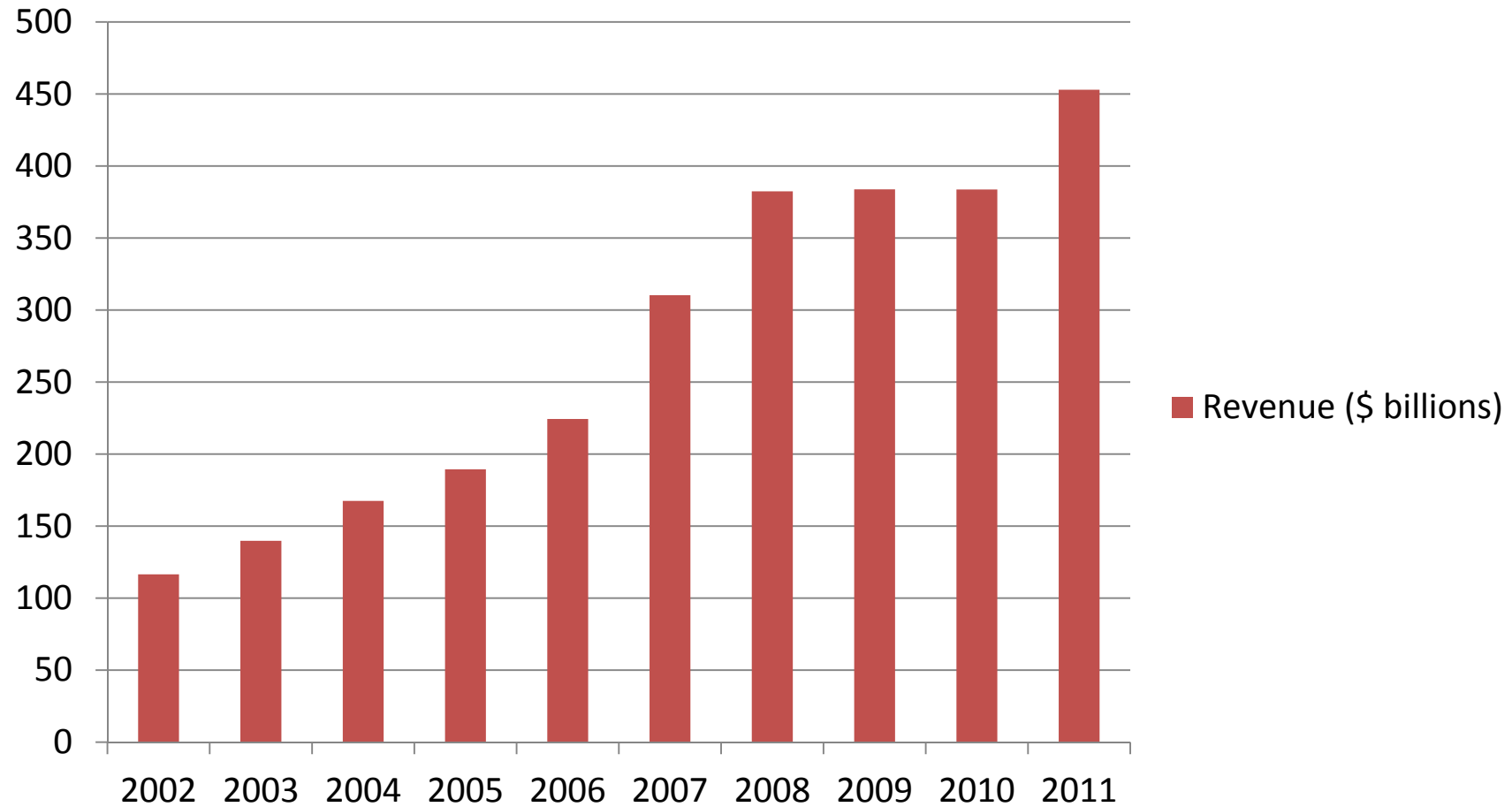
- Domestic market: \$120 billion in 2012
- International market: \$7.5 trillion in 2012
 - Global construction to grow to \$12 trillion by 2020
- International Contractor Revenue from the top 225 contractors in 2011: \$453 billion

http://www.koreatimes.co.kr/www/news/biz/2013/02/328_131008.html

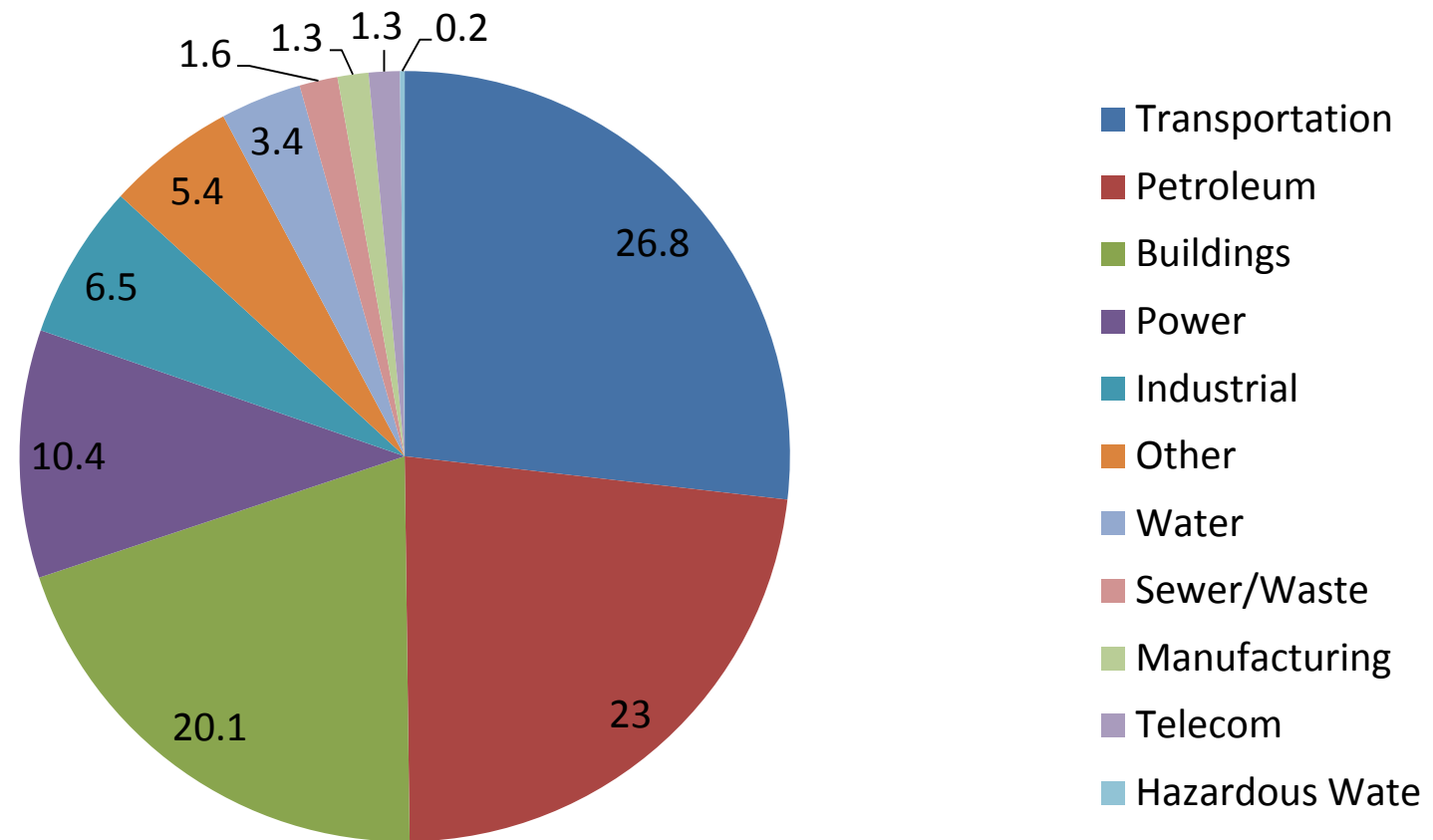
<http://www.globalconstruction2020.com/>

ENR (2012). "The Top 225," *Engineering News Record*, Aug. 27, McGraw-Hill

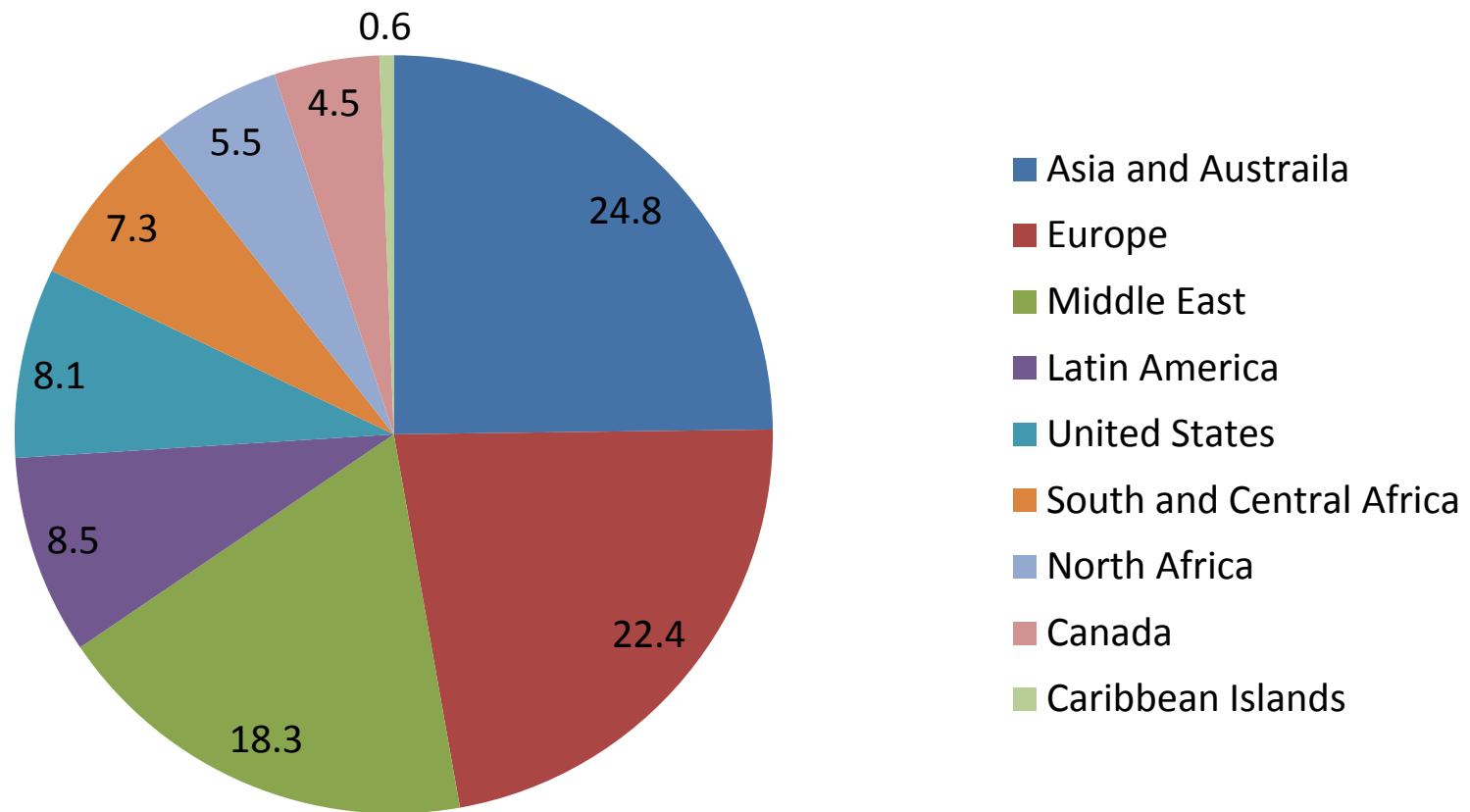
International Construction Revenue (The Top 225 Contractors)



International Market Analysis (Top 225 Contractors)



International Region Analysis (Top 225 Contractors)



Top 10 Contractors in 2011

Rank	Firm	Revenue, \$ Mil.	
		Int'l	Total
1	HOCHTIEF AG	31,870.7	33,774.9
2	GRUPO ACS	31,147.5	42,082.9
3	VINCI	18,674.3	52,403.5
4	STRABAG SE	17,289.0	20,071.0
5	BECHTEL	17,289.0	25,005.0
6	SAIPEM	14,110.1	14,250.8
7	FLUOR CORP.	13,526.8	18,684.7
8	BOUYGUES	12,608.0	31,656.0
9	SKANSKA AB	12,339.4	16,232.6
10	CHINA COMMUNICATIONS CONSTRUCTIONS GROUP LTD.	9,546.9	46,007.3

HOCHTIEF AG vs. DAELIM INDUSTRIAL CO. LTD. in 2011

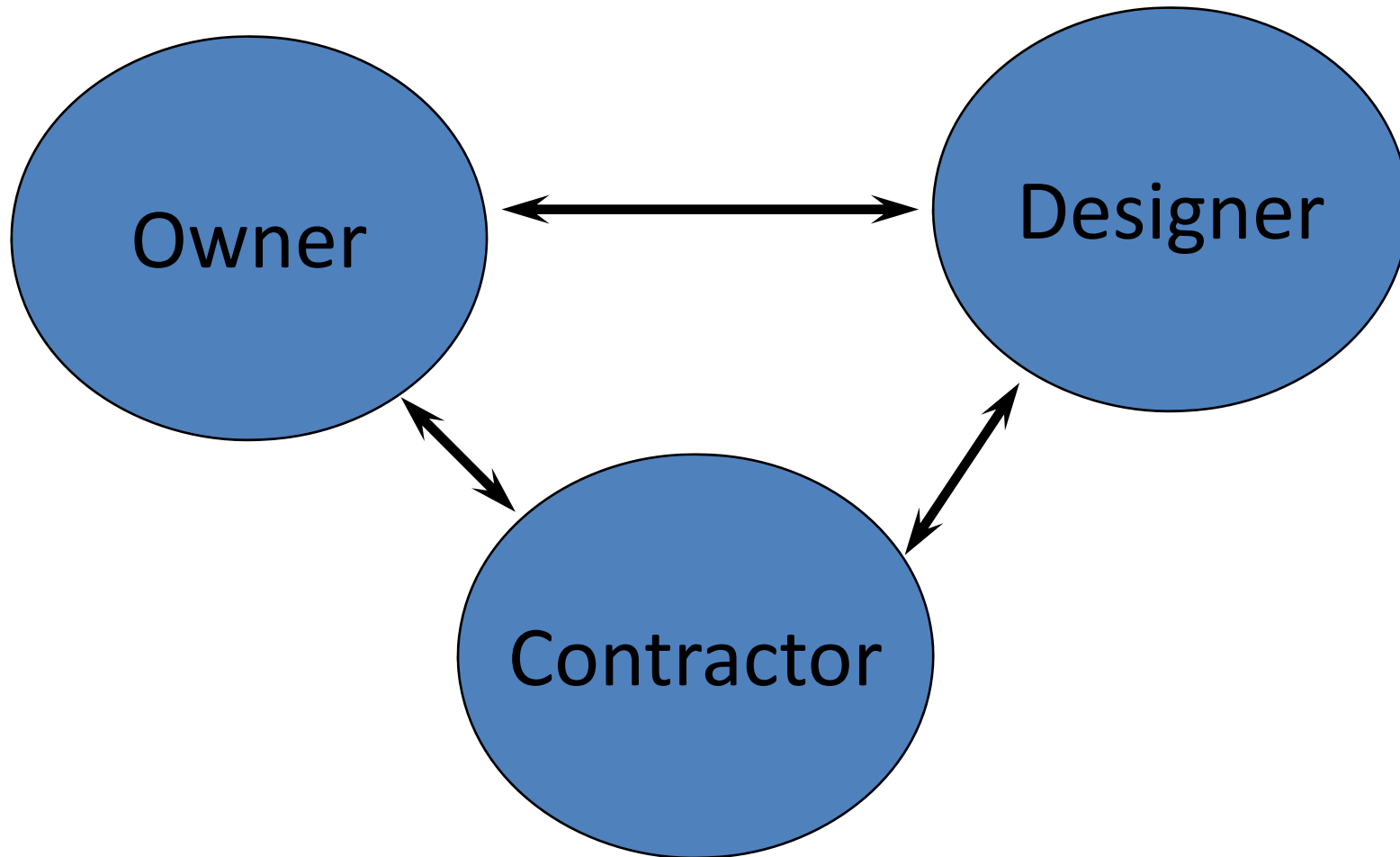
		HOCHTIEF AG	Daelim Industrial
Revenue \$ Mil., Int'l/Total		31,871 / 33,775	2,704 / 6,592
Business Division (%)	General Building	30	0
	Manufacturing	2	0
	Power	2	3
	Water Supply	7	0
	Sewer/Waste	3	0
	Indus./Petroleum	6	92
	Transportation	24	5
	Hazardous Waste	0	0
	Telecom	5	0

Characteristics of Construction

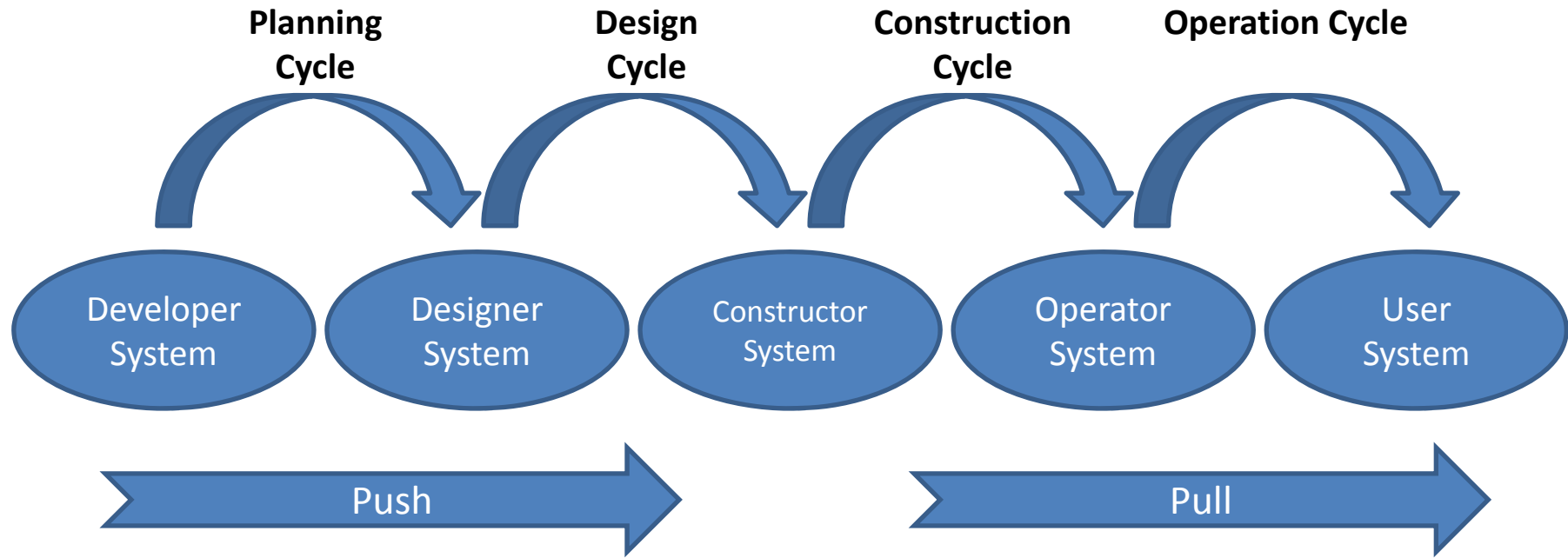
The construction industry is different from manufacturing industries:

- Construction products
- The way construction is produced
- The way construction is purchased

Three Major Players



Construction Supply Chain



Project?

- Textbook Definition: A Project is a one-time, multitask job with a definite starting point, definite ending point, a clearly defined scope of work, a budget, and usually a temporary team .
- Real Definition: One time job that is multitask in nature.
- J.M Juran: A project is a problem scheduled for solution.
- Have you ever run a project?

Project Management

- PMI: Project management is the art of directing and coordinating human and material resources throughout the life of a project by using modern management techniques to achieve predetermined objectives of scope, cost, time, quality and participant satisfaction.
- J. P. Lewis: Project management is facilitation of the planning, scheduling, and controlling of all activities that must be done to meet project objectives.
- Simple Definition: Overseeing all aspects of a project to complete it.

Functions of Project Management

- Project Integration Management
- Project Scope Management
- Project Time Management
- Project Cost Management
- Project Quality Management
- Project Human Resource Management
- Project Communication Management
- Project Risk Management
- Project Procure Management

Project Manager

- Clever
- Innovative
- Skillful
- Resourceful
- Competent
- In a broad range of qualitative and quantitative subjects