

6. IPWG Update



Overview of Construction Sector

All statistical data are courtesy of: Department of Industry and Science, Australian Government, and Business Council of Australia.

Overview

The construction sector includes firms primarily involved in the construction of buildings, roads, railroads, irrigation projects, harbour and river works, water infrastructure, gas infrastructure, sewerage infrastructure, stormwater drains, electricity infrastructure, other transmission lines, pipelines, oil refineries and civil engineering projects. It also includes firms that carry out repairs and renovation, mine site preparation, demolitions or excavations and the installation of utilities.

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Sector information

Based on IBISWorld, on March 2015, over 1 million people were employed in the sector and the sector’s revenue is projected to increase by an annualised 1.5% over the five years through 2014-15, to \$341.2 billion. With almost 330,000 businesses operating in the industry and the top four players commanding less than 10% of revenue, the sector is regarded as one of the highest fragmented with diversified range of product and services in Australia. Industry Products and services can be listed as below:

Construction subsectors- Department of Economic Development:

1. Residential construction
2. Commercial construction
3. Heavy industry construction
4. Rail projects
5. Telecommunications
6. Roads & freeways
7. Civil Projects Sewerage, drainage & water storage
8. Pipelines

*Indicates that potential employment opportunities exist in the sub sector for automotive engineers transitioning

High Level Skill mapping

Roles and Skills	Construction Projects							
	Residential construction	Commercial Construction	Heavy Industry Construction	Rail Projects	Telecommunications	Roads & Freeways	Civil Projects Sewerage, drainage & water storage	Pipelines
Mechanical Engineer	x	x	x	x	x	x	x	x
Electrical Engineer	x	x	x	x	x			
Software Engineer				x	x			
Control Systems Engineer	x	x	x	x	x	x	x	
Control Systems Engineering	x	x	x	x	x	x	x	x
Data Analysis								
Problem Solving	x	x	x	x	x	x	x	x
Research & Development	x	x	x	x	x	x	x	x
Design and Development	x	x	x	x	x	x	x	x
CAD and 3D modeling	x	x	x	x	x	x	x	x
CAE (Simulation and Analysis)	x	x	x	x	x	x	x	x
Product Development	x	x	x	x	x	x	x	x
Product Engineering								
Production Engineering								
Testing	x	x	x	x	x	x	x	x
Validation Engineering								
Vendor Management	x	x	x	x	x	x	x	x
Quality Engineering								
Project Management	x	x	x	x	x	x	x	x
Technical Sales Engineering								
Maintenance			x		x			
Business Development								
Business Management								
Strategic Planning	x	x	x	x	x	x	x	x
Leading Teams	x	x	x	x	x	x	x	x

Potential Opportunities and Synergy

Subsector	Potential Opportunity Areas	Job Synergy
Residential construction	project management, Product development, problem solving, CAD and 3D modelling	Increasing demand in apartment building projects in 2015 & 2016
Commercial Construction	project management, Product development, problem solving, CAD and 3D modelling, control systems	Increasing demand in Commercial Construction projects in 2015 & 2016
Heavy Industry Construction	project management, Product development, problem solving, CAD and 3D modelling, control systems	Contraction in projects in this section
Rail Projects	project management, Product development, problem solving, CAD and 3D modelling, maintenance, control systems	Increasing demand in Rail projects in 2015 and especially 2016
Telecommunications	project management, Product development, problem solving, CAD and 3D modelling, maintenance, electrical	Increasing demand in Telecommunication projects in 2016
Roads & Freeways	project management, problem solving, CAD and 3D modelling	Increasing demand in Roads & Freeways projects in 2016
Civil Projects Sewerage, drainage & water storage	project management, Product development, problem solving, CAD and 3D modelling, testing, maintenance, controls systems	Contraction in projects in this section
Pipelines	project management, Product development, problem solving, CAD and 3D modelling, testing	Contraction in projects in this section