

## Aerospace: Industry, Process & Benchmarking Country Selection

Aerospace industry is involved in research, design, and manufacturing vehicles moving through air and space. A part of industry is operates, and maintains these vehicles. Aerospace is a very diverse field, with a multitude of commercial, industrial and military applications.

In most industrial countries, the aerospace industry is a joint effort of public and private industries. For example, several countries have a civilian space program funded by the government through tax collection, such as NASA in the United States, ESA in Europe, the Canadian Space Agency in Canada, Indian Space Research Organization (ISRO) and Hindustan Aeronautics Limited (HAL) in India, JAXA in Japan, RKA in Russia, China National Space Administration in China, SUPARCO in Pakistan, Iranian Space Agency in Iran, and Korea Aerospace Research Institute (KARI) in South Korea.

Along with these public space programs, many companies produce technical tools and components such as spaceships and satellites. Some known companies involved in space programs include Boeing, EADS, Lockheed Martin, MacDonald Dettwiler and Northrop Grumman. These companies are also involved in other areas of aerospace such as the construction of aircraft.

Countries selected for benchmarking Indian aerospace sector are: **China& the USA**. USA contributed approximately 35% to the global aerospace exports of US\$ 221 billion in 2010. China, although had a miniscule contribution of around 1.3% to global aerospace exports in 2010, has shown a tremendous export CAGR of around 11% for a 5 year period from 2005-10. Further, China has been able to invite aerospace OEMs which provided scale to its component design and manufacturing sector.

SEGMENTS	India's Exports (US\$ '000)					
	2005	2006	2007	2008	2009	2010
Aircraft parts	62,018	57,043	3,70,377	13,66,118	9,41,607	14,83,211
Aircraft launching gear; ground flying trainer	285	968	1,438	9,580	2,468	6,683
Aircraft, (helicopter, aeroplanes) & spacecraft (satellites)	-	-	1,459	1,18,433	1,44,495	44,558
Parachutes and parts and accessories thereof	53	59	2	119	81	303
Balloons, dirigibles, gliders, hang gliders	205	8	538	20	171	184

Source: International Trade Centre Trade Statistics, D&B Analysis

Aerospace				
Country	Exports data for Aerospace Sector		% contribution to global Aerospace exports in 2010	CAGR of Exports (2005-10)
	US \$ billion			
	2005	2010		
United States of America	49.8	79.3	35.87%	9.73%
France	24.5	46.4	21.00%	13.65%
Germany	19.3	30.7	13.88%	9.65%
United Kingdom	10.9	13.7	6.20%	4.69%
Canada	8.0	9.6	4.36%	3.82%
Italy	3.3	4.9	2.21%	8.22%
Spain	2.8	3.4	1.56%	4.14%
Brazil	3.3	4.4	1.97%	5.73%
Japan	1.4	2.6	1.17%	12.81%
Israel	0.9	1.7	0.77%	12.59%
Switzerland	1.5	1.3	0.60%	-3.15%
Netherlands	1.1	1.3	0.59%	3.87%
China	0.7	1.3	0.57%	11.14%
Thailand	1.0	1.1	0.51%	1.89%
Australia	0.5	0.6	0.28%	5.00%

Source: International Trade Centre Trade Statistics, D&B Analysis