



Department for International Development Skills for Jobs

Mapping of UK & Indian Institutions Working on Skills

January 2018

UK Skills Ecosystem by Sector

We now focus in on what the specific priority sectors look like in the UK and provide a brief profile, headline facts and an individual skills ecosystem grid populated with stakeholders for each of these four industrial areas;

- Construction,
- Aeronautical and Aviation,
- Renewable Energy,
- Automotive Manufacturing.

To note, in each of these profiles we omit the last skills function 'Review' since this is fully covered in the generic UK Skills Ecosystem grid and is not sector specific



Construction Industry Profile



The construction industry in the UK has a long tradition of skills training, focused on apprenticeships. The first construction apprenticeship probably dates back as far as the 12th century with the guild system and the Stone Masons.

Today construction is hugely important to the UK economy as it provides all the 'infrastructure' for the critical running of the country. Its health is often viewed as a temperature check for the whole economy.

Key Facts:

- Employs nearly **3 million people**
- Construction output over **£100 billion** (2014)
- 99% of **280,000 construction businesses** are small to medium employers (SMEs) with a staff head count less 250 employees.

The construction industry has a leadership council (Construction Leadership Council) which is recognised by government. The CLC states:

*At its best, the UK construction sector is world class... But the sector continues to face fundamental issues ... competition on the basis of price alone, which results in low profit margins across the industry. This means in turn that the **construction industry is unable to sustain the investment in skills ... needed to deliver the step change in productivity necessary**"*

The recent collapse of Carillion PLC, demonstrates the truth of this statement, however the UK's robust skills infrastructure is such that the 1,400 apprentices made redundant are being matched to other companies by organisations such as the CITB.

Construction – Skills Ecosystem



UK - WIDE	NATIONAL VARIANTS
<p>Many Government Departments including Treasury, BEIS, etc Government Construction Strategy, Construction Leadership Council</p>	
<p>Construction Leadership Council, CITB, ECITB, Civil Engineering Contractors Association, Federation of Master Builders, Home Builders Federation, Major Contractors Group</p>	<p>Homes for Scotland, Scottish Building Federation, Construction Scotland</p>
<p>NOS Governance Group, SQA Awards (available across UK), CITB, Consultation across 260+ trade associations and professional bodies, ECUK, Institution of Civil Engineers, BuildUK,</p>	<p>In England, trailblazer apprenticeship standard development groups.</p>
<p>Universities, Colleges and schools, training providers, employers, voluntary organisations, trade unions</p>	
<p>Independent and regulated Awarding & End-Point Assessment Bodies, Professional Standards Bodies, non-regulated training organisations</p>	<p>18 Registered independent assessment organisations for Apprenticeships in England:, including NOCN/Cskills & NET</p>

Aeronautical and Aviation Industry Profile



The aerospace and aviation industries are both important to the UK economy. The aerospace industry is included in the UK Government's new Industrial Strategy and is important to all UK countries, with satellite design in Scotland, to Bombardier jet manufacturing in Northern Ireland, Airbus wings made in Wales and BAE Systems assembling the Eurofighter in England as just a few examples.

Airside - Heathrow Airport acts as a hub between the Americas and Europe, is the busiest airport in Europe and the second busiest in the world.

Key Facts:

- Aerospace had a turnover of £31 billion in 2016, and employed 95,000 people
- Almost 90% of aerospace sector produced goods are exported.

- Has experienced consistent growth since the 2008 financial squeeze.
- Over 960,000 people are employed in the UK industry (including aerospace)

The Aerospace Growth Partnership (AGP) and the Aerospace Technology Institute have both been set up in recent years as a collaboration between Government and industry.

The AGP has a Skills Working Group which tests skills solutions for the industry from the Aerospace Industrial Cadet programme for 11 – 19 year olds to the MSc bursary programme which funded 500 individuals to undertake an Aerospace Masters degree, and supported them after graduation with a talent retention project.

SEMTA, the Sector Skills Council supports the works of the AGP and through its nationwide reach is able to coordinate skills initiatives for large and small employers.

Aeronautical and Aviation – Skills Ecosystem



UK - WIDE	NATIONAL VARIANTS
<p>Many Government Departments including Treasury, BEIS, etc</p>	
<p>Aerospace Growth Partnership – SWG, SEMTA, Royal Aeronautical Society, Civil Aviation Authority, IMechE,</p>	<p>ADS Scotland,</p>
<p>NOS Governance Group, trade associations and professional bodies, ECUK, Large Aerospace Employers: BAE Systems, Airbus, Virgin, GKN, QinetiQ, Rolls Royce, Agusta Westland</p>	<p>In England, trailblazer apprenticeship standard development groups. Bombardier in NI,</p>
<p>Universities, Colleges and schools, training providers, employers, voluntary organisations, trade unions,</p>	<p>Aeronautical ‘Hub’ Cluster of colleges in SW England, Preston College, Central Sussex College, Kingston College, Solihull College City of Bristol College</p>
<p>Independent and regulated Awarding and End-Point Assessment bodies, Professional Standards Bodies, non-regulated training organisations</p>	<p>5 Registered independent assessment organisations for Apprenticeships in England; IME, IET, Royal Navy, Royal Aeronautical Society & Pearson</p>

Renewable Energy Industry Profile



The renewable energy sector is a new industry experiencing growth, although in the UK growth is slowing. It includes all those businesses that work with renewable energy, which includes wind, solar, geothermal, hydropower, biogas, biomass and biofuels. It is distinct from businesses that work in the low carbon sector, as those businesses look at using innovative technology to generate the most possible energy from the least possible amount of traditional carbon-based fossil fuel sources.

Key Facts

- Businesses active in renewable energy **generated £14.9 billion** in turnover in 2015.
- The industry employs nearly **48,000 people** (renewables only, not low carbon)
- In total, there was an estimated **£29.8bn** of investment in the [UK] renewables sector during 2010-2013, with most of the investment in **renewable electricity** (£27.7bn).

Since this sector is new and small, although growing, there is not an established skills infrastructure in place – yet. The traditional energy companies are moving rapidly into the renewable space, and as they do, we are seeing the institutions and structures used for skills development by them add renewable strands to their working groups.

There is a growing super-hub in Humberside for development of wind turbines. To support employers the *Grimsby Institute* has just launched a separate programme in 2017 for wind turbine technicians, which had previously been part of the mechanical engineering programme.

Renewable Energy – Skills Ecosystem



UK - WIDE	NATIONAL VARIANTS
Many Government Departments including Treasury, BEIS, Environment, etc	
EU Skills, Renewable UK, National Skills Academy for Power.	
NOS Governance Group, Energy focused trade associations and professional bodies, ECUK,	
Universities, Colleges and schools, training providers, employers, voluntary organisations, trade unions	Humber Catch Super Hub for wind turbines in England
Awarding bodies, Professional Standards Bodies, non-regulated training organisations	England IAO: BPEC Certification Ltd, Energy & Utilities Independent Assessment Service, CABWI Awarding Body, NOCN, Pearson Education Ltd

Automotive Industry Profile



The UK Automotive Industry is a success story the UK government is keen to protect and help grow. The UK automotive worker has the highest individual productivity of any European automotive worker valued at £90,000pa (2015).

Key Facts:

- Turnover exceeds **£70 billion** per annum.
- Employs nearly **170,000** in manufacturing and the parts supply chain.
- Employs a further **4.2 million** in the broader automotive industry including vehicle repair and maintenance and retail.
- **Exports 80%** of vehicles manufactured accounting for **£34 billion** in revenue and fully 12% of the UK's total exports.

The Automotive industry is in a time of rapid technological advancement. Autonomous or 'driverless' cars are a reality, and there is a huge amount of innovation happening in connected or intelligent systems.

The challenge for the industry is to ensure the skills of its workforce can keep pace with this technological change. Industry works closely with relevant government departments to ensure the skills and training needs of employers are prioritised. So, what does this co-operation look like?

Automotive Industry Profile



The Automotive Council was created in 2009 and acts as a forum to strengthen co-operation between the UK government and the automotive industry.

The membership of the council is by invitation only and includes senior representation from industry at CEO or Director level and senior civil servants from the Department of Business, Enterprise and Industrial Strategy and the Department of Transport. Senior members from the automotive trade association (Society of Motor Manufacturers and Traders) and Unite (trade union) are also included.

The council has three working groups:

- 1) Technology,
- 2) Supply Chain and
- 3) Business Environment and Skills.

The Automotive Council has been instrumental in developing skills and employment initiatives over the past eight years and looks set to continue as the leading forum for government and the automotive industry.

<https://www.automotivecouncil.co.uk/wp-content/uploads/sites/13/2017/03/UK-Automotive-Sector-Core-Briefing-March-2017.pdf>

https://www.smmmt.co.uk/wp-content/uploads/sites/2/SMMT-Motor-Industry-Facts-2016_v2-1.pdf

Automotive – Skills Ecosystem



UK - WIDE	NATIONAL VARIANTS
<p>Many Government Departments including Treasury, BEIS, Transport,</p>	
<p>SMMT, Automotive Council, IMI, SEMTA</p>	
<p>NOS Governance Group, trade associations and professional bodies, ECUK, Large Auto Employers including JLR, Ford, Nissan, Toyota, Vauxhall, Mini, Honda</p>	<p>In England, trailblazer apprenticeship standard development groups.</p>
<p>Universities, Colleges and schools, training providers, employers, voluntary organisations, trade unions</p>	
<p>Independent regulated Awarding and End-Point Assessment bodies, Professional Standards Bodies, non-regulated training organisations</p>	<p>Independent Assessment Organisations in England</p>

Relevant Sector Skills Councils | India



**Aerospace and Aviation Sector
Skill Council**
www.aassc.in

Promoters: Hindustan Aeronautics Limited (HAL), Bangalore Chamber of Industries & Commerce and Society of Indian Aerospace Technologies & Industries

Number of Training Partners:
HAL at present

Key job roles: Aerospace Design & Development, Aerospace Manufacturing & Assembly, Airline Operations, Airport Operations, Cargo & Ground Handling, Maintenance Repair & Overhaul etc.

**Automotive Skills Development
Council**
www.asdc.org.in

Promoters: Federation of Automobile Dealers Associations, Automotive Component Manufacturers Association of India, Society of Indian Automobile Manufacturers, Department of Heavy Industries and Public Enterprises, Government of India

Number of Training Partners:
195

Key job roles: Automotive technicians, Auto component assembly fitter, Automotive serviceman, Lathe operator, Mechanical draughtsman, CNC Programmer etc.

**Construction Skill Development
Council and Infrastructure
Equipment Skill Council**
www.csdcindia.org

Promoters: Builders' Association of India, National Highways Builders Federation, Confederation of Real Estate Developers Association of India, Indian Construction Equipment Manufacturers Association

Number of Training Partners:
159

Key job roles: Assistant electrician, Welding technician, Mason, Civil engineer, Supply chain manager etc.

Note: The number of training partner excludes the organisations that are yet to be declared training partners. The AASSC is yet to shortlist their possible training partners, although one is provisionally listed on their website.

Skills Council for Green Jobs
www.sscgj.in

Promoters: Ministry of New and Renewable Energy and Confederation of Indian Industry

Number of Training Partners:
218

Key job roles: Solar PV installer, Solar PV technician, Solar proposal evaluation specialist, Solar technician, Solar grid engineer etc.

Key Industry Partners | India



Aerospace and Aviation Sector Skill Council

Key Industry Partners:

- Hindustan Aeronautics Limited (HAL)
- Society of Indian Aerospace Technologies & Industries
- Boeing India
- International Air Transport Association
- Airbus
- CSIR-National Aerospace Laboratories

Automotive Skills Development Council

Key Industry Partners:

- Mahindra & Mahindra
- Renault India
- Ashok Leyland
- Maruti Suzuki India Ltd
- Toyota Kirloskar Motor
- Heavy Engineering Corporation Ltd.

Construction Skill Development Council and Infrastructure Equipment Skill Council

Key Industry Partners:

- L&T Construction
- Shapoorji Palonji
- Kobelco
- SREI
- Escorts
- Mahindra Construction Equipment

Skills Council for Green Jobs

Key Industry Partners:

- Energy Devices
- Greenway Grameen Infra Pvt. Ltd.
- Ravi Engineering & Chemical Works, Delhi
- Desi Power Foundation
- Ram Electronic & Equipment
- Konark Energy Solution LLP

Note: Skills Council for Green Jobs has six listed industry partners. For the remaining councils, we have listed six organisations that have experience, credibility and network from the comprehensive list that we have found.

Key Skills Providers

Many of the skills providers we obtained survey responses from, and those identified by the PMKVY, had a regional focus often in just 1-2 states. While they may have been working in the four sectors of interest, even within those sectors their most popular courses were often in security, hospitality, chauffeur services and other ancillary jobs. We found few truly pan-India operators. The North-East and South regions are both culturally and skills-wise, different to much of the rest of India. Therefore, providers with a significant presence elsewhere rarely extended it to these regions.

Several established skills providers who had been NSDC partners for many years were looking at opportunities for additional revenue, such as through international collaboration. While they may not have had previous international experience, they were, in all but one instance, keen to explore the opportunity.

The NSDC and the UK SQA worked together to align Indian NSQF qualification standards of their respective courses to the British NSQF levels. A direct alignment is not readily possible in India due to differences in the schooling system etc.

Broadly, it is correct to say Level 5 and above courses are aligned to the employability of undergraduate level students. For example, Associate (Analytics) is a L7 course from IT/ITES Sector Skill Council (NASSCOM), which is for science and technical graduates.

The median course delivered was 12 weeks long. Most of our survey responders said they did Intermediate or Advanced level courses (Level 3,4 and Level 5,6 respectively in NSQF).

The next two pages provide commentary on some of the largest skills providers in India, based on our rapid assessment of their willingness and capacity to work with UK partners.

Key Skills Providers



Eight of **InSkills'** centres in Bihar are accredited with the PMKVY, working with the Construction Skill Development Council of India. In addition, they have experience of a number of international partnerships in education and skills across its other group entities in the UK, including Bournville College, Nisai Group and SQA. The Co-Founders make regular trips to the UK for other business interests and therefore are used to the UK way of working. They currently have one UK partnership with a college that is pending approval from the NSDC.

Rooman Technologies is an example of a small skills company, working solely in Karnataka, but one that has the willingness and capacity to engage in international partnerships. The wider business incorporates several other education ventures, as well as EdTech, and the Founder has initiated several discussions with UK-based partners in the past, some of which they are optimistic will come to fruition in 2018.

ICA EduSkills is one of the most suited skills companies in India for UK partnerships. They have 22 PMKKs and COCOs across Gujarat, Haryana, Karnataka, Rajasthan and West Bengal, across three of the four sectors of interest (except aerospace and aviation). The leadership is entrepreneurial and, while it does not have extensive international experience, it is a company that is able to adapt and scale with new courses quickly, given its existing network and breadth of courses. It is the second largest of the PMKVY skills providers.

B-ABLE is a relatively young company (eight years old) but is present in 21 states and trains for over 135 types of jobs. It has no international experience, but runs CSR / corporate funded programmes for a number of larger companies including *Tata*, *Shell*, *Reliance* and *NTPC*. While of its courses are more generically applied across sectors (security, management, hospitality, retail, construction, automobile), the company may be able to adapt to UK counterparts and scale up across India, similar to ICA.

Key Skills Providers



AISECT has 20 centres for construction and automotive in the states of Madhya Pradesh and Chhattisgarh. While it has significant expertise, UK partners may find it difficult to work in states where English is not widely spoken and training needs may be more basic. It is the third largest of the PMKVY skills providers.

IL&FS has 79 centres and is the largest PMKVY skills provider in India. They are well represented on the Skills Councils as an Industry Partner as well as skills provider, and have extensive international partnerships and experience across three of the four sectors of interest (except aerospace and aviation).

IACM SmartLearn has 600+ ATP facilities across 27 states; and operates five PMKKs and one COCO in Odisha and Delhi. It has been one of the most awarded skills companies in India. While it has explored international partnerships in the past, the revenue opportunities in India have been too great to need to seek foreign partnerships. However, with the next phase of growth of the company, IACM would actively start looking at international partnerships, especially in the UK, from 2018

Mahendra Skills Training and Development Pvt. Ltd.: Mahendra Skills Training & Development Pvt. Ltd. is an affiliated training partner of NSDC and is authorized for PMKK Centre in 4 Clusters of Madhya Pradesh and Uttar Pradesh. They offer various courses across domains like green jobs, construction, electronics, BFSI, retail, tourism and hospitality.

Key Skills Providers



Hindustan Aeronautics Limited (HAL): HAL is a state owned aerospace and defence company based in Bangalore, Karnataka under the management of the Indian Ministry of Defence. It has a history of over 70 years and is synonymous with the growth of the aeronautical industry in India. It is primarily involved in the operations of the aerospace which include manufacturing and assembly of aircraft, navigation and related communication equipment and airports operation. It has collaborations with several other international and domestic aerospace agencies such as *Airbus, Boeing, Dassault Aviation, the Indian Aeronautical Development Agency, the Indian Space Research Organisation* amongst others.

Aaruthal Foundation predominantly works in South India in the area of environmental protection and has 5 PMKK centres across Tamil Nadu with more than 8000 students trained and more than 5000 placed. It provides support and assistance to the under privileged and coordinates with local government agencies to assist this group in availing the benefits at maximum level.

Indian Institute of Entrepreneurship (IIE) is an autonomous organization under the Ministry of Skill Development & Entrepreneurship which has good brand recognition in Assam. It offers a lot of general courses mostly in Entrepreneurship Development which can be tailored to relevant sectors.

Key Skills Providers



Earth and Moon HR Pvt. Ltd. has presence across Uttar Pradesh, Madhya Pradesh and Rajasthan with 19 different centres. It is a training partner for PMKVY and Skill Council for Green Jobs. 15 of its 16 training centres are construction related, all in Madhya Pradesh, Rajasthan and Uttar Pradesh. It is the fourth largest of the PMKVY skills providers.

A.S. Education and Welfare Society: It is the fifth largest of the PMKVY skills providers and works exclusively in construction in Haryana (13 centres) and partly in Rajasthan (one centre).

Acme India Microsys Pvt Ltd: This is the seventh largest of the PMKVY skills providers in India, but we included this instead of the sixth placed Mahendra Skills Training and Development Pvt. Ltd. because it works exclusive in South India, with eleven automotive skills training centres in Tamil Nadu and one in Kerala, where Mahendra Skills focuses on North India (Uttar Pradesh), where many of the other providers already do.

The National Skill Development Corporation (NSDC) in India is currently seeking bidders to become Operating Partners for setting up the operation, maintenance and management of Indian Institutes of Skills (IIS) Centres on a not for profit public private partnership basis (N-PPP mode).

The deadline for submission of proposals is 1 March 2018. As a result more key skills providers may emerge from this process.

Opportunities for Partnerships | UK Organisations



Through our national UK consultation conducted in December 2017 – January 2018 the following highlights just some of the UK organisations that have expressed interest in working with Indian partners. These are indicative at this stage.

Training providers

Yeovil College

Yeovil College is part of the South West cluster of colleges with expertise in aerospace and aviation. Yeovil College itself has 200 staff, 5,000 students and its quality of provision is rated outstanding or good across the board. Yeovil offers **Aviation and Aerospace** at levels 2 to 5 currently, with a BEng to follow shortly. In engineering across Aerospace (sheet metal, mechanical and electronics/avionics), mechatronics, maintenance, fabrication, welding, composites, machining also levels 2 to 5 in most cases. The College is also approved to deliver teacher and assessor training.

NPTC Group of Colleges

This group of colleges have nine campuses across Wales and is one of the largest providers of FE in Wales. It has an annual turnover of £55 million, employs 700 staff and has 23,000 students. NPTC is currently working with organisation in India, China and Saudi Arabia and offers a wide range of courses in **Construction and Automotive**.

South West College

This college has two campuses in Northern Ireland, employs 880 staff and has over 25,000 students. It has a turnover of £42 million and offers programmes in three of our sectors of interest (not aerospace). It has the highest grade inspection rating, has won awards for innovation and is currently operational in India.

Opportunities for Partnerships | UK Organisations



York College

York college has over 460 staff and more than 7,500 students. It is has the highest Ofsted rating and a turnover of £26 million. It offers a full range of qualifications in **Automotive, Infrastructure and education and training** and has experience of delivering programmes internationally, including in India.

Dudley College of Technology

Dudley College has extensive experience of working in India and would like to expand this work. Dudley has delivered leadership and management training to over 300 deans and middle managers across India through a UKIERI-funded project and has trained over 200 teachers in a skills-based pedagogy through our partnership with the Mahatma Gandhi School in Gujarat. Dudley are currently operating three smaller UKIERI projects, one of which is in partnership with the UK Sector Skills Council for Engineering, SEMTA.

REMIT

REMIT are a private training provider with 200 staff and 6000 learners. They have a grade 2 Ofsted rating and a turnover of £20 million. Remit specialise in apprenticeship delivery for employers and offer **automotive apprenticeships**. They are interested in working internationally but do not have any current experience of working in India.

Inspire Learning

Inspire Learning is a private training provider with 10,000 learners and 80 staff. They have an annual turnover of £5.5 million. Inspire Learning offer a range of qualifications in **Construction and Infrastructure**.

Opportunities for Partnerships | UK Organisations

Sector Skills Councils

SEMTA

The Semta Group has 106 Full time employees. The group includes the International Consultancy business, Semta Apprenticeship Service which works with over 200 employers and 50 delivery partners and EAL the UK specialist awarding organisation for the **Advanced Manufacturing and Engineering** sector.

EU SKILLS

EU Skills are the UK experts in skills for energy. They are setting up **renewable energy** employer groups and are well established leaders in the new English apprenticeship systems. EU Skills has its own independent assessment service which is registered to run end point assessments for energy apprenticeships.

CITB

NOTE: Due to its legal status, CITB is not able to offer direct support outside of the UK.

IMI

The Institute of the Motor Industry was established in 1920 and is recognised as the source of professional recognition and industry intelligence for the UK motor industry. The IMI works internationally as well as domestically and has a long history of developing occupational standards for use in the automotive sector.

FISSS

The Federation for Industry Sector Skills and Standards represents, promotes and supports the Sector Skills Councils (SSCs) across the UK, FISSS work with Standard Setting Bodies and National Skills Academies. FISSS also currently issues apprenticeship certifications for apprenticeship frameworks. FISSS have extensive experience of working internationally with partner skills organisations.



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Supporting partners:

