

Section two

International Benchmarking

What is the TVET Model in place that helps raise standards amongst students?

China	India
<ul style="list-style-type: none">- Emphasises strong industry collaboration, integrating real-world industry standards into the curriculum.- Utilises advanced technology and simulation software extensively in training programs.- Focuses on continuous skill improvement and innovation through rigorous training camps and workshops.	<ul style="list-style-type: none">- Emphasises vocational training with a strong focus on practical skills and industry readiness.- Implements competency-based training modules tailored to the needs of the renewable energy sector.- Strong government support and funding for skill development initiatives in renewable energy.

How do these countries work with Industry to develop their TVET systems?

China	India
<p>Strong partnerships with leading PV companies to provide hands-on training and access to the latest technologies.</p> <ul style="list-style-type: none">- Regular industry-led workshops and seminars to keep educators and students updated on the latest trends and innovations.	<ul style="list-style-type: none">- Collaborates with global renewable energy companies to provide state-of-the-art training facilities and equipment.- Facilitates internships and industry placements to give students hands-on experience.

In terms of training and developing WorldSkills Competitors – what do these countries do differently?

China	India
<ul style="list-style-type: none">- Extensive use of simulation software for design training, allowing students to experiment and learn in a risk-free environment.- High frequency of practical exercises and real-world projects to ensure comprehensive skill development.	<ul style="list-style-type: none">- Integrates traditional training methods with modern simulation and design tools to provide a balanced learning experience.- Focuses on problem-solving and critical thinking skills through project-based learning and competitions.

What do international Standards of Excellence look like in Renewable Energy?

Integration of Soft Skills Training:

Insight: During international competitions and visits, it has become evident that top-performing countries place significant emphasis not just on technical skills but also on soft skills such as teamwork, communication, and leadership.

Importance: Integrating soft skills training into the UK TVET curriculum can significantly enhance the employability and overall performance of students. These skills are crucial in the workplace and can differentiate good technicians from great ones.

Use of Advanced Simulation Tools:

Insight: Leading countries utilise advanced simulation tools that are continuously updated to reflect the latest industry standards and technological advancements.

Importance: Investing in similar tools for UK training centres can provide students with hands-on experience and better prepare them for the complexities of real-world applications.

Industry Partnerships and Real-World Projects:

Insight: Successful TVET systems often have strong partnerships with industry leaders, allowing students to work on real-world projects and gain practical experience.

Importance: Strengthening industry partnerships in the UK can provide students with valuable exposure to current industry practices and technologies.

Focus on Sustainability and Environmental Impact:

Insight: International programs emphasise the importance of sustainability and the environmental impact of renewable energy projects.

Importance: Incorporating sustainability into the UK curriculum can prepare students to be mindful of environmental impacts and to develop solutions that are both innovative and eco-friendly.

Continuous Professional Development for Educators:

Insight: Continuous professional development (CPD) for educators is a key component in maintaining high standards. Countries like China and India regularly update their educators through workshops, international training camps, and exchange programs.

Importance: Encouraging and facilitating CPD for UK educators can ensure they remain at the forefront of their field, equipped with the latest knowledge and teaching methods. This can lead to improved teaching quality and better outcomes for students.

Current key trends, practices and techniques we can share:

- Integration of AI and machine learning in PV system design and optimisation.
- Use of augmented reality (AR) for training and remote assistance.
- Advances in PV materials and technology, such as bifacial panels and perovskite solar cells.

