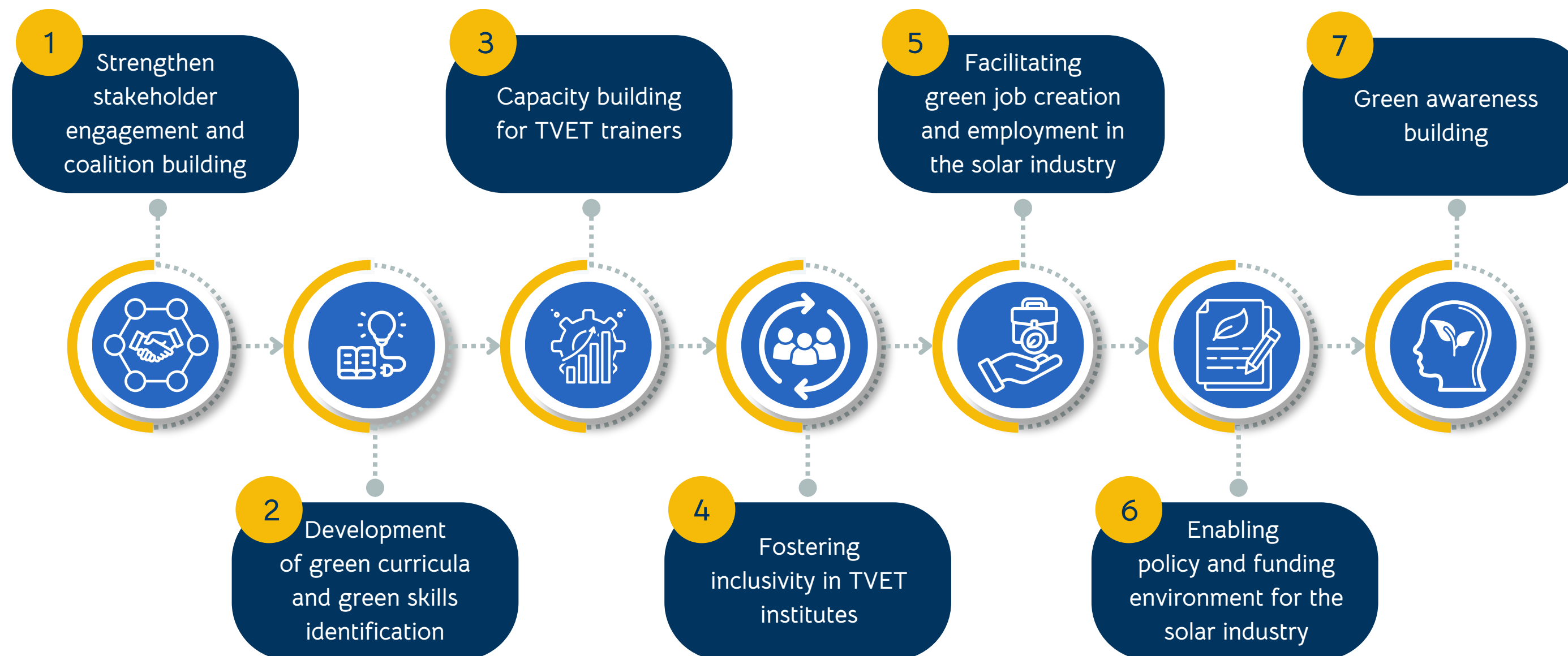


# Roadmap for Greening TVET in Africa in the solar sector

Highlighting the importance of multi-stakeholder collaboration, contextualisation and meaningful youth engagement, this roadmap supports an African and youth-centred approach to greening TVET.



As this paper shows, greening TVET provides a promising avenue for preparing Africa's youth for the growing solar energy labour market and contributing to a just and inclusive energy transition. However, substantial barriers to fulfilling this potential remain. This chapter presents the Greening TVET in Africa Roadmap, which features seven interconnected pathways for change to enhance TVET for the solar industry in Africa.

These pathways are grounded in the case studies on the solar energy and TVET landscapes in Ghana, Nigeria, and Uganda, and provide both tailored recommendations and more general insights for greening TVET for the solar industry. The roadmap thereby serves both as a guide and as a conversation starter for stakeholders committed to greening TVET for the solar energy sector in Africa. Successful implementation requires tailoring approaches and intervention strategies for each pathway to fit the unique policy environments and practical realities of individual countries.

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### 1. Strengthen stakeholder engagement and coalition building

Collaboration among key players in the solar energy and TVET sectors is crucial for aligning TVET programmes with industry demands, developing cohesive policies, and advancing green economy opportunities. Stakeholders should work together to set a strategic direction, share knowledge, and advance greening TVET efforts. An example of how this can be achieved is through the development of a centralized solar energy TVET network and a national greening TVET strategy for the solar energy sector, backed by government funding and setting clear goals, priorities, and guidelines. Additionally, creating a comprehensive database and monitoring system will provide an overview of current TVET programmes and their outcomes, promoting continuous improvement.

### 2. Development of green curricula and green skills identification

Close collaboration between the private sector and other TVET system players is instrumental in forecasting skills needs and therefore key in developing relevant TVET programmes for the solar labour market. In addition, expanding TVET-industry partnerships can help in facilitating relevant internship opportunities and practical experiences for students which is crucial to bridge the practical skills gap. Meaningful youth engagement in curriculum development is also critical to ensure the curriculum does not only match industry standards but also the needs of learners.

### 3. Capacity building for TVET trainers

Invest in specific solar energy teacher training that is up-to-date with the latest sector developments, and provide regular refresher courses. Ensure these training programs meet teachers' needs by assessing their skill levels and requirements. Additionally, collaborate with solar energy companies to offer internships for trainers, enabling them to gain hands-on experience, understand practical applications, and build networks within the industry. Another key aspect of capacity building for teachers is providing them with the necessary and relevant solar energy equipment and teaching materials to ensure they can teach both effectively and practically.

### 4. Fostering inclusivity in TVET institutes

Promoting inclusivity within TVET is crucial for building a diverse and equitable workforce. This involves addressing barriers such as admission fees, spatial inequality, and unsuitable facilities. Recognize and accommodate differences among students by for example offering programs in local dialects, providing part-time courses for women with household responsibilities, ensuring availability of TVET in rural areas and fostering student engagement in TVET institutions and decision-making through student bodies and effective feedback mechanisms. Additionally, strengthen the inclusion of informal workers by supporting TVET providers with financing and resources to offer formally recognized programmes to informal workers who lack formal qualifications. This will help expand their skill sets, validate existing skills, and provide them with nationally recognized certificates.

### 5. Facilitating green job creation and employment in the solar industry

Creating a supportive business environment for solar companies through finance opportunities and policy development and raising awareness among youth and the public about career opportunities in the sector to support employment in the solar sector. In-depth research on the labour market to understand job demands and trends, focusing on the decency of green jobs and advocating for stable employment and service contracts over temporary positions will be instrumental in creating sustainable livelihoods. Furthermore, provide additional support to solar energy technicians employed in the informal sector and willing to start a formal business.

### 6. Enabling policy and funding environment for the solar industry

Establishing a supportive policy and funding environment is crucial for advancing the solar industry and greening TVET in Africa. Key steps include developing education and training policies and standards, as well as implementing policies that guide the transition to a green economy. TVET providers need financial resources and policy guidance to build the capacity of their trainers, invest in solar equipment in the classroom, and ensure an inclusive approach. Furthermore, other key actors in the solar energy TVET system need support as well, for example to conduct research and stay up to date in an ever changing global renewable energy market.

### 7. Green awareness building

Fostering green awareness and embedding sustainability into curricula are crucial for greening TVET strategies. Amplifying the environmental benefits of solar and renewable energy strengthens the impact of solar TVET education beyond economic enhancement. Supporting youth in understanding climate change can ignite interest in other green sectors and enable them to advocate for sustainable practices within their communities. Additionally, grassroots campaigns with community leaders and NGOs can build trust in solar technology and promote environmentally friendly practices."