Solar Manufacturing Workforce Development: Jordan Market Analysis

A strategic framework for developing skilled workforce in Middle Eastern solar manufacturing through structured training programs.

Educational analysis of workforce development pathways and operational insights - Source: J.v.G. Technology GmbH.

Strategic analysis for Middle Eastern solar workforce development

Created as part of the PVKnowHow Knowledge Network

Prepared by an experienced European turnkey provider

European specialists in automated solar module production lines

Jordan's Solar Manufacturing Context

Jordan's National Energy Strategy establishes renewable energy targets creating substantial workforce requirements for solar manufacturing. The government emphasizes building local industrial capabilities while serving regional GCC export markets. Strategic positioning enables Jordan to become a regional solar manufacturing hub.

Regional Manufacturing Hub

Strategic location for serving GCC markets with solar module production and export capabilities

Skills Development Focus

Government and private sector emphasis on technical workforce development for renewable energy manufacturing

Workforce Foundation

Available technical workforce base provides foundation for specialized solar manufacturing training

Local Workforce Development Benefits

Manufacturing Skills

Solar value chain creates employment opportunities across manufacturing, assembly, quality control, and technical operations

Knowledge Transfer

Technical skill development and industrial capacity building for sustainable manufacturing operations

Economic Impact

Regional manufacturing capabilities advance industrial development and employment creation objectives

Training Program Structure

Technical Skills

- Solar module assembly techniques
- Quality control procedures
- Equipment operation and maintenance

Operational Skills

- Production line management
- Safety protocols and procedures
- Efficiency optimization methods
- Troubleshooting and problem-solving

Workforce Development Implementation Challenges

Skills Gap

- Limited existing technical expertise in solar manufacturing
- Need for specialized training programs
- International quality standards alignment

Infrastructure Development

- Training facility requirements
- Equipment procurement for hands-on learning
- Certification program development

Knowledge Transfer

- International expertise acquisition
- Local trainer development
- Continuous learning systems

International Partnership Requirements

Technology Transfer

Access to proven manufacturing processes and quality systems from experienced providers

Training Expertise

Comprehensive technical training programs delivered by international specialists

Operational Support

Technical assistance during ramp-up and transition to autonomous operation

Quality Standards

International certification and compliance requirements for regional and global market access

Training Program Development Framework

1

Foundation Phase

- Basic manufacturing principles
- Safety procedures and protocols
- Quality control fundamentals

2

Advanced Technical Training

- Specialized training delivered by an experienced European turnkey provider
- Hands-on equipment operation
- Production optimization techniques

Training Resource Allocation

International Provider Contributions

- Technical curriculum development: 40-50% of training investment
- Equipment training and certification
- Ongoing technical support
- Quality systems implementation

Local Partner Contributions

- Training facility development: 10-20% of investment
- Local workforce recruitment
- Basic skill assessment and preparation
- Regulatory compliance and certification

Proven Training Methodology

Structured Curriculum

Standardized training modules and competency assessments based on proven turnkey manufacturing concepts

Practical Training

Hands-on experience with production equipment and real manufacturing scenarios

Skills Certification

Comprehensive assessment and certification program ensuring international quality standards

Continuous Development

Ongoing skill enhancement and knowledge updates for evolving technologies

Key Project Data

50

Scale

MW production capacity

6–8

Investment

USD Million

9–12

Ramp-up

Months to autonomous operation

Line Type

Turnkey / automated production line

Region

Jordan (export to GCC)

Focus

Workforce development for solar manufacturing

Source: PVKnowHow / an experienced European turnkey provider

Strategic Development Alignment

Industrial Development

Supporting Jordan's industrial development strategy through renewable energy manufacturing capabilities

Skills Development

Building local technical expertise for sustainable manufacturing operations and regional competitiveness

Employment Creation

Direct and indirect job creation through solar manufacturing sector development

Technology Transfer

Establishing knowledge base for autonomous solar manufacturing operations and export capability

Implementation Framework Summary

Workforce Opportunity

Technical workforce base creates foundation for developing specialized solar manufacturing capabilities

Partnership Model

International technical expertise combined with local workforce development creates sustainable manufacturing capability

Implementation Timeline

Structured workforce development program enables transition to autonomous operation within 9-12 months

Source & Authorship

Turnkey Solar Module Production Lines

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