



United Nations  
Educational, Scientific and  
Cultural Organization

UNEVOC

International Centre  
for Technical and Vocational  
Education and Training

A large yellow sun with a gear-like center and long, thin rays.

First BIBB Global Partners Meeting

# The role of UNEVOC Network in Advancing Greening TVET Agenda

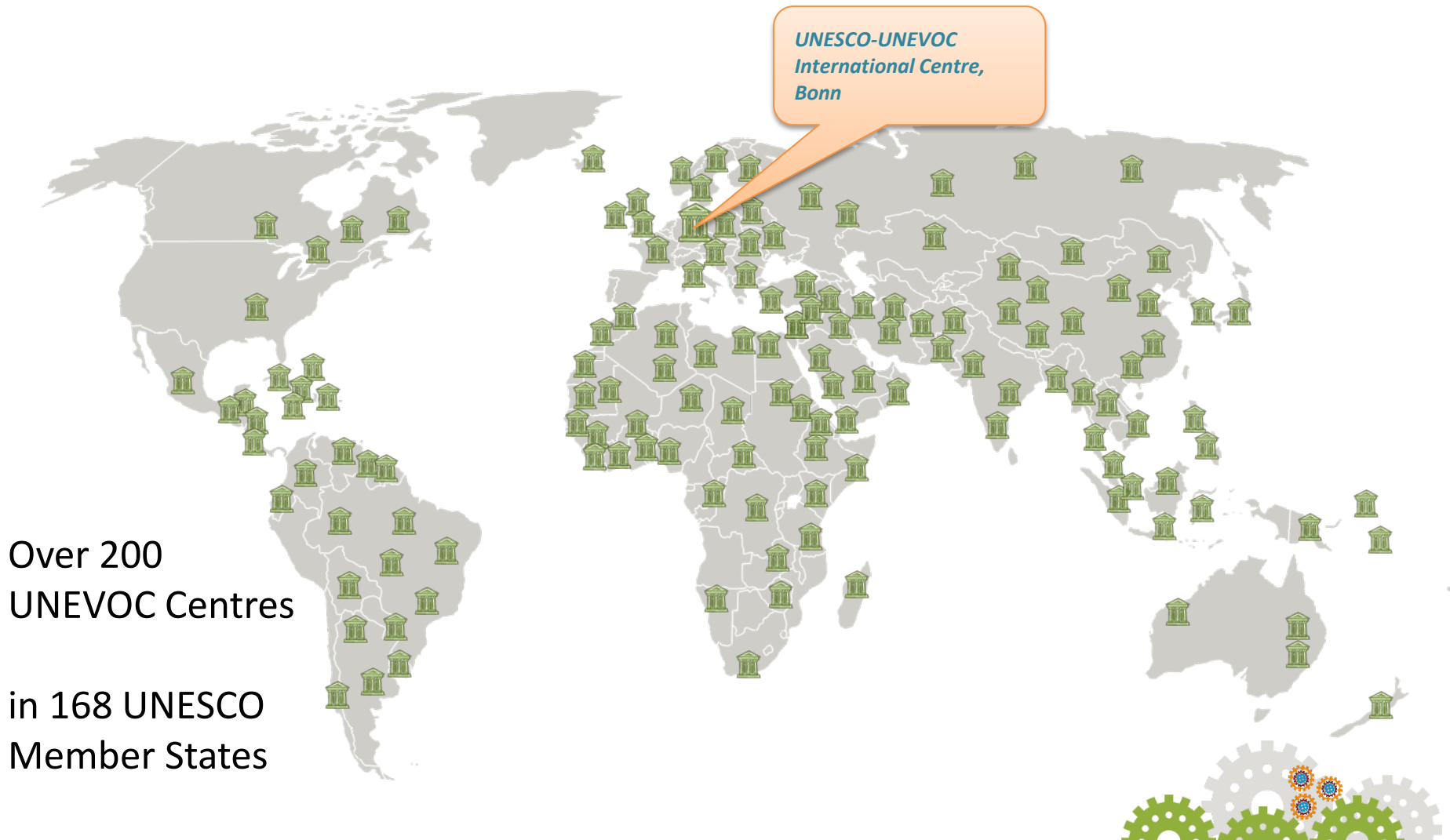
Shyamal Majumdar  
Head, UNESCO-UNEVOC



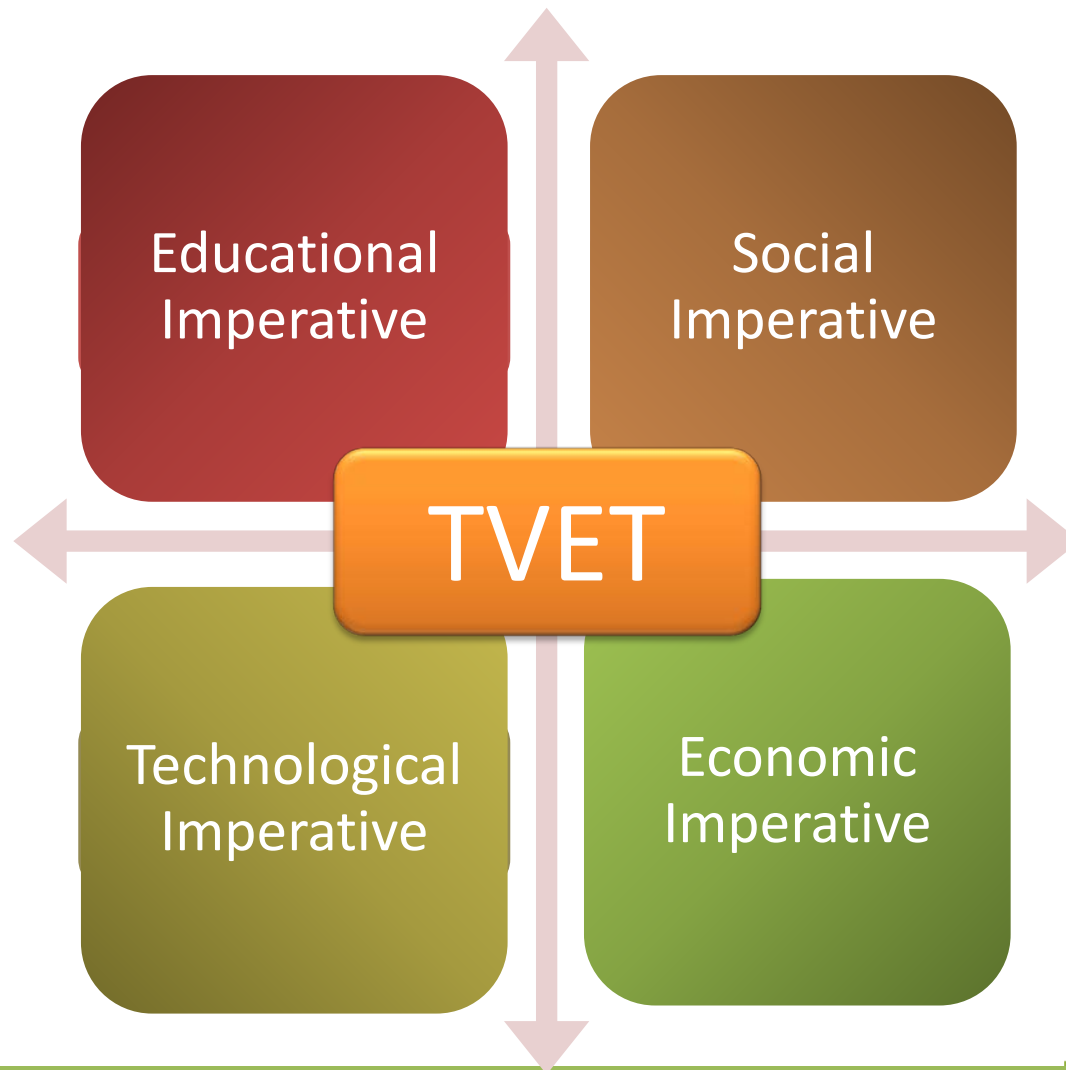


*Promoting learning for the world of work*

# Worldwide Network of TVET Institutions



# Time is Changing: TVET at Centre Stage



# TVET and ESD become **High Priority** within UNESCO

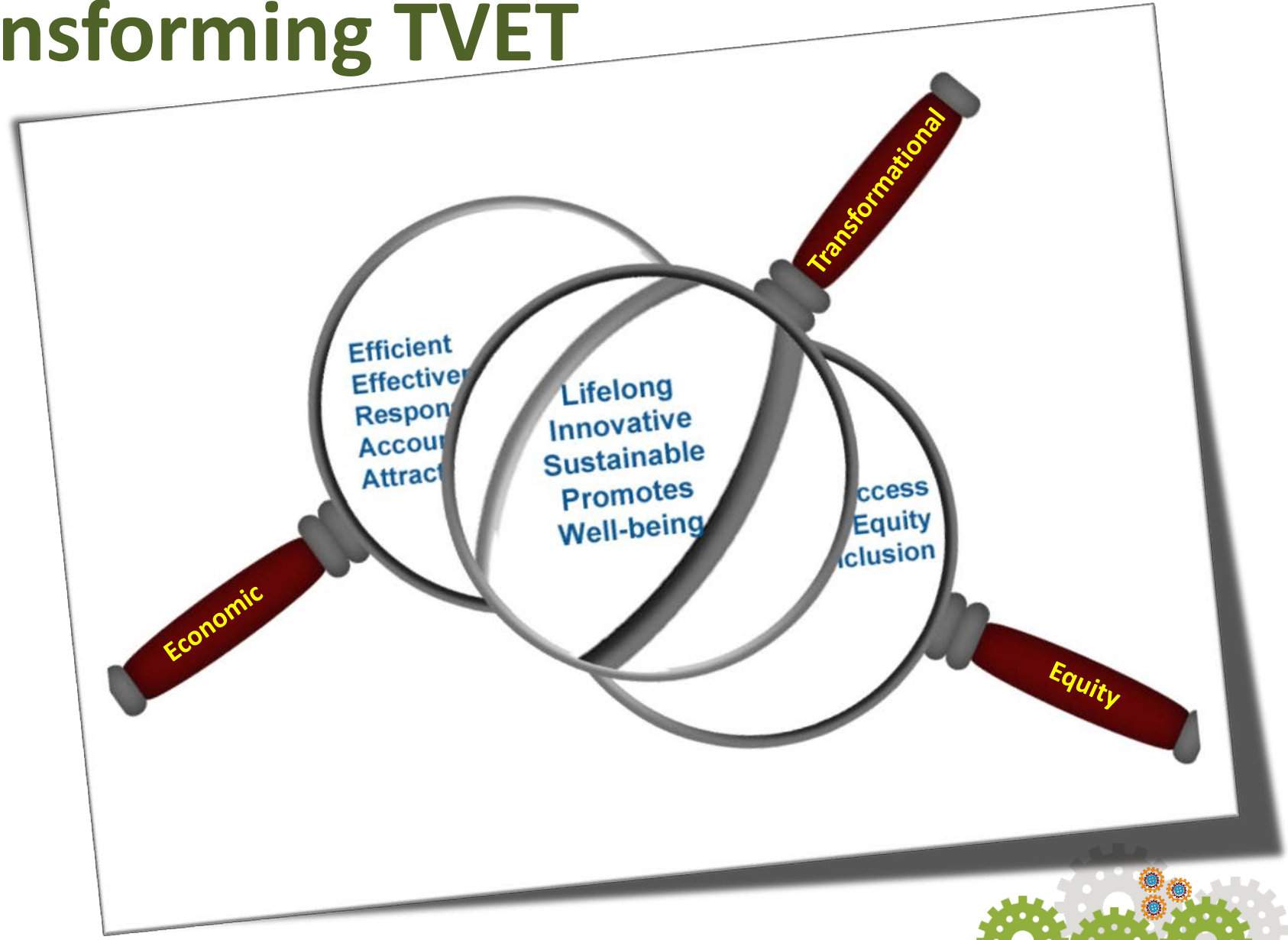


## **3<sup>rd</sup> International TVET Congress**

- Transform TVET first, then scale up.



# Transforming TVET



# Current Production and Consumption System is Unsustainable

## We simply can not grow like this and clean up later

### TVET for Sustainable Development, Employability & Citizenship

- *Greening TVET is crucial for making transition from emission intensive to cleaner production and services*



Factory operation in an industrial city

(Pollution source: mining, processing | Source: [www.time.com](http://www.time.com) (2007))



# There is no S. D. without Education

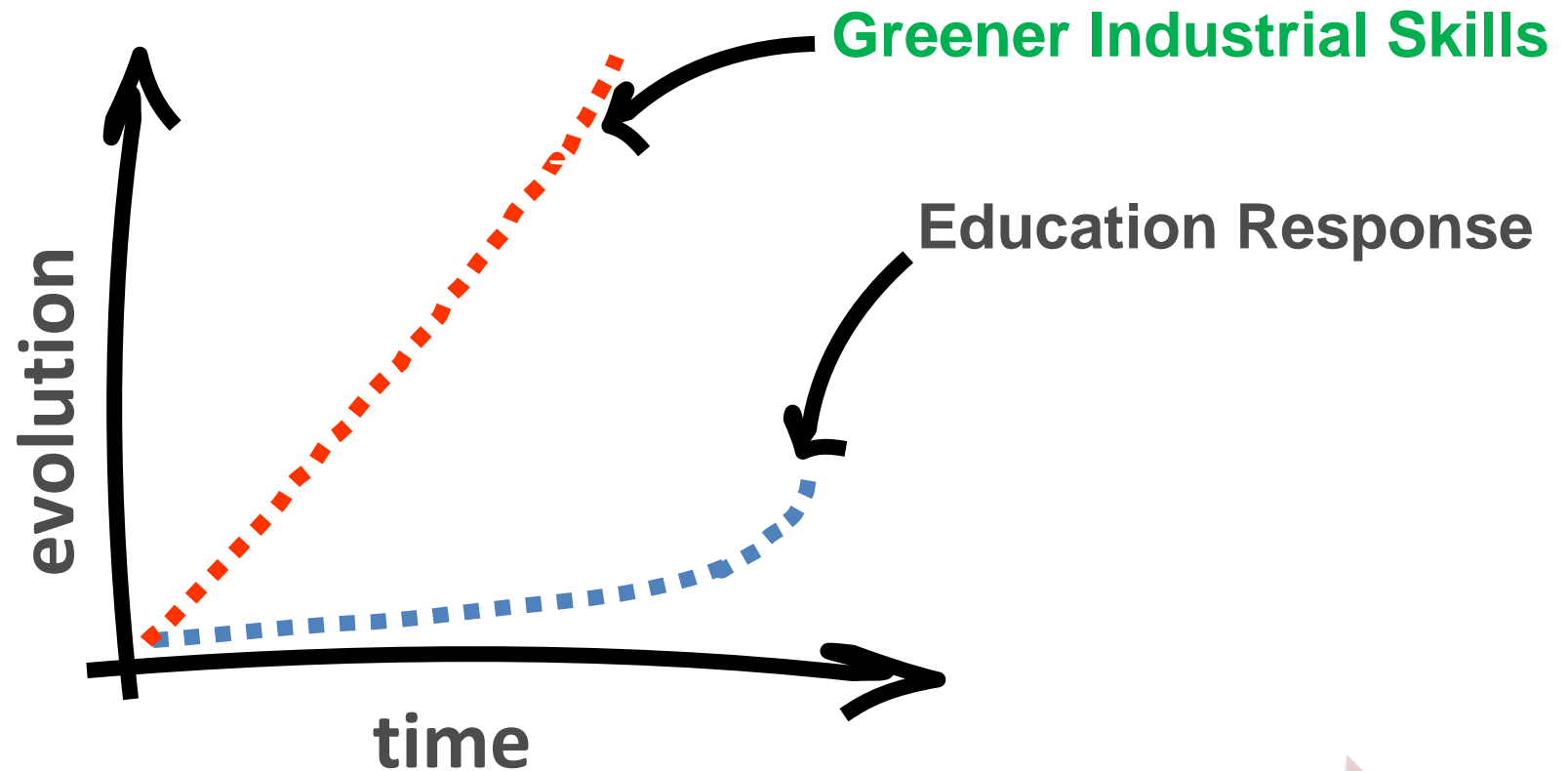


***“The crisis can not be solved by the same kind of **EDUCATION** that helped in creating the problem”.***

**We need a change in the way people think and act**







**Adaptation**

**HOWEVER, the DESD campaign penetrated media faster than in education sector/ schools (that are notoriously slow to incorporate scientific, social and environmental problems into mainstream curriculum and pedagogy)**

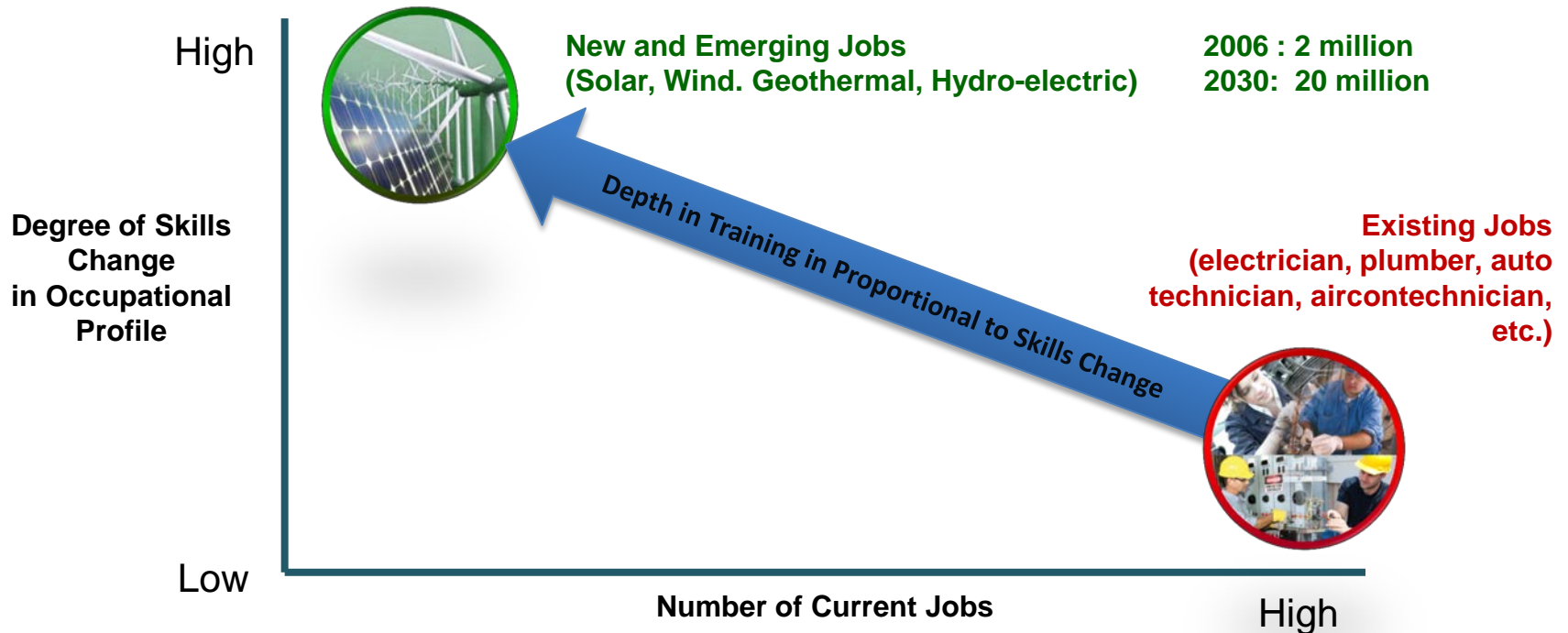
Sahlberg, P et al. Pedagogy for Competitiveness and SD, 2010, European Journal of Ed. Vol. 45 No 2





# Key Global Human Resource Challenges in Greening Transition

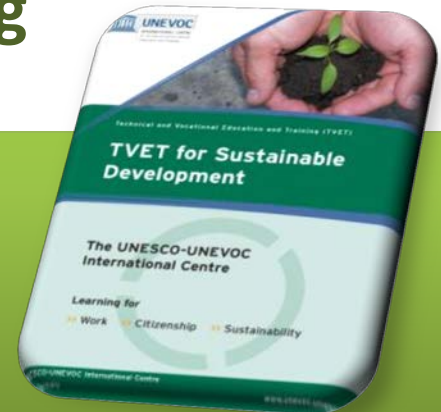
## Changes in existing occupations outnumbered new ones



Key Message: Shortage of skill manpower is severe in greening industry (UNEP)  
(Even in USA & Germany)



# How UNEVOC is shaping the Greening TVET Agenda since 2004



## 1<sup>st</sup> Bonn Declaration (2004)

“If education is the KEY to any successful development strategy, TVET is the MASTER KEY that can alleviate poverty, improve the quality of life for all and help achieve sustainable development.”

## ESD: Advocacy, Networking, and Knowledge Sharing

### 2nd Bonn Declaration (2009) [Mid-Term Review]

#### Call for Action at Policy Level

- Promote ESD to all of Education: Formal & Non Formal
- Reorient Education & Training to address SD through coherent policies

#### Call for Action at Practice level

- Integrate ESD in curriculum and teacher education
- Develop mechanism to transform institution towards greening

### Follow up: International Experts Meeting: 2011

- Transforming TVET institutions (Whole Institutional Approach)
- Greening TVET framework and Interagency initiative



# International Meeting on “Extending ESD: Greening TVET Initiative ” UNESCO-UNEVOC, Bonn, 2011

**What extent of re-thinking and actions are needed at:**

■ ■ **Institutional Level?**

■ ■ **National Level?**

■ ■ **International Level?**

■ ■ **Industry Level**





# Three Tier Approach and Strategic Strands to Greening TVET

## Three-Level Approach plus one

### Institutional Level

- Transforming institution into greening TVET
- Education & Training for SD framework
- Capacity development

### National Level

- Coherent and Coordinated Policies for green growth
- Integration of Greening TVET
- Enhancing the profile of TVET

### Global Level

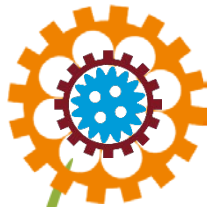
- Sharing evidence based policy & practices
- Facilitating multi-directional dialogue
- Forging new partnerships towards supporting capacity building and research

### +Industry

- Integrating S.D components in all occupations
- Training for greening workplace practices and processes
- Sectorial greening skills development strategies

Strategic  
Strands for  
Actions

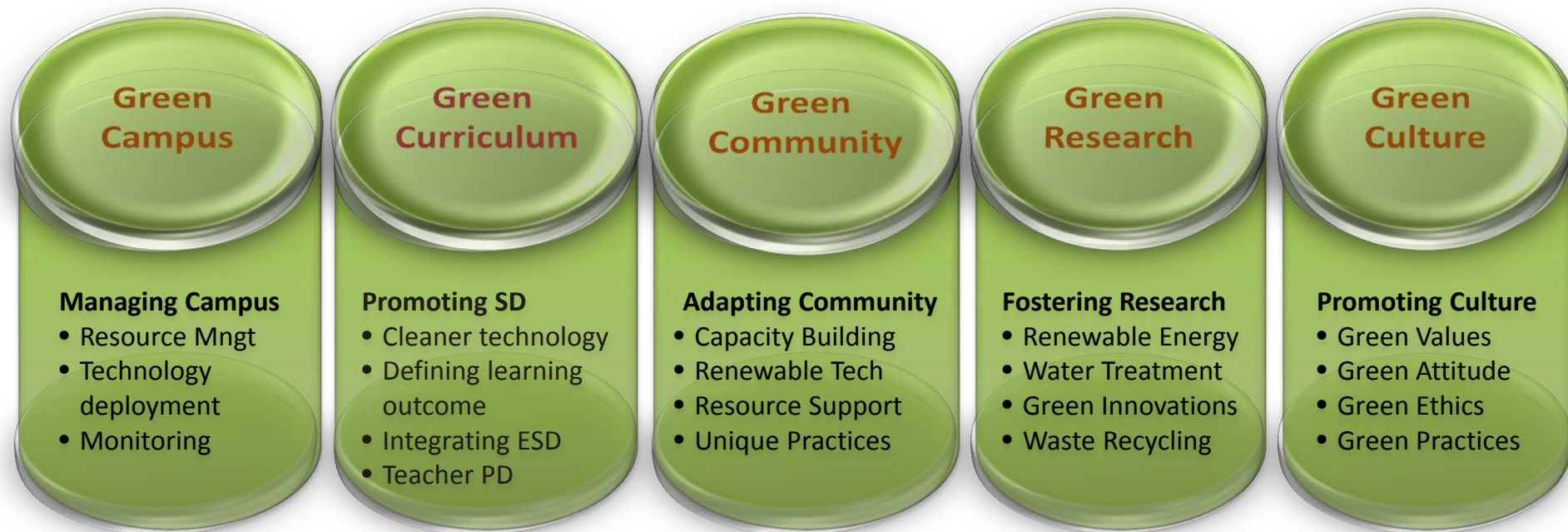




# Transforming institutions for greening TVET

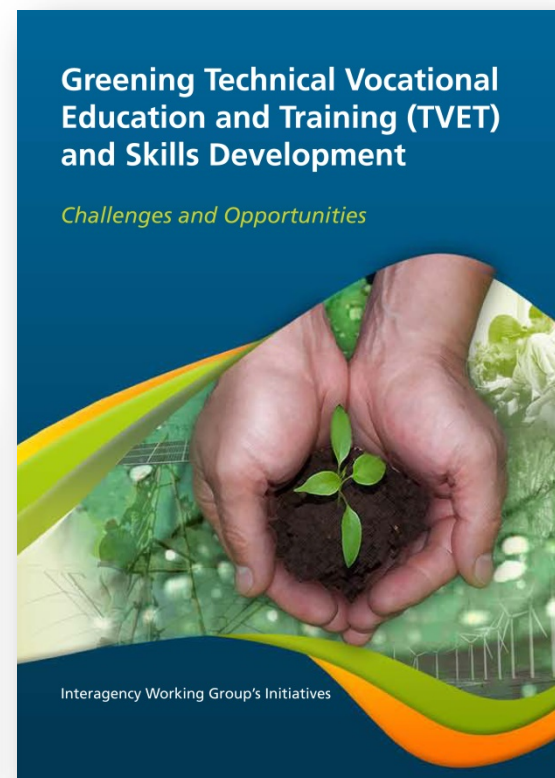


# Transforming TVET: A Whole Institute Approach



# Recent UNEVOC Network Initiatives

- Promising practices
- e-Forum discussion
- Greening TVET framework
- KM and capacity building







# Greening Skills Development is a Global Challenge Requires Global Response

## Inter-Agency Working Group



## Main Objectives of IWG

- ✿ Awareness raising and advocacy
- ✿ Information and knowledge sharing
- ✿ Development of knowledge and learning resources
- ✿ Capacity building and skill development



# Key concerns

**C0: Incorporating greening skills strategies in national greening policy**

**C1: Cascading greening TVET policy into practice**

**C2: Capacity development at all levels**

**C3: Strengthening SD principles in occupations: Training & Retraining**

**C4: Multi Stake holder partnership at all levels**

**C5: Knowledge sharing and clearing house functions**

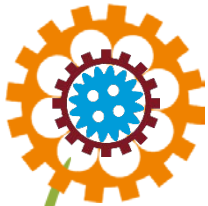
**C6: Curriculum and teacher development**

**C7: Integrating generic and higher order thinking skills**



# Thank you!!!

Without **Education**,  
there can be  
**NO Sustainable Development**



# Innovations and skills requirement

## Dematerializing products

Developing new products that require less materials and energy over their lifecycle



## Increasing process efficiency

Developing new products that require less materials and energy over their lifecycle



## Minimizing process emissions

Adopting clean technologies to minimize the generation of non-energy greenhouse gases



## Switching to low-carbon inputs

Using renewable and low-carbon sources of energy and materials



## Closing the carbon loop

Recovering organic wastes for reuse as feedstock for energy and materials

