Presentation at 04/06/2014

for GREEN STAR Focus-Group

Subject: Reskilling and Up-Skilling of Green Skills

- **BIBB, Bundesinstitut für Berufsbildung, Bonn**

(Federal Institute of VET)

- **Green Skills in VET**

Speaker:

Name: Andrea Mohoric

Section: "Quality, Sustainabilitiy, Permeability“

Management: pilot projects VET for sustainable Development (“Unit” Sustainability)

content

- Role of BIBB in VET
- Sustainable development and Green Skills
- BIBB projects and activities in sustainable development
- Pilot project results and the case of training regulations
- Relevance of VET and programs on sustainability
- Political support and energy turn
- Green Skills what we have – what we need

The Federal Institute for Vocational Education and Training (BIBB)

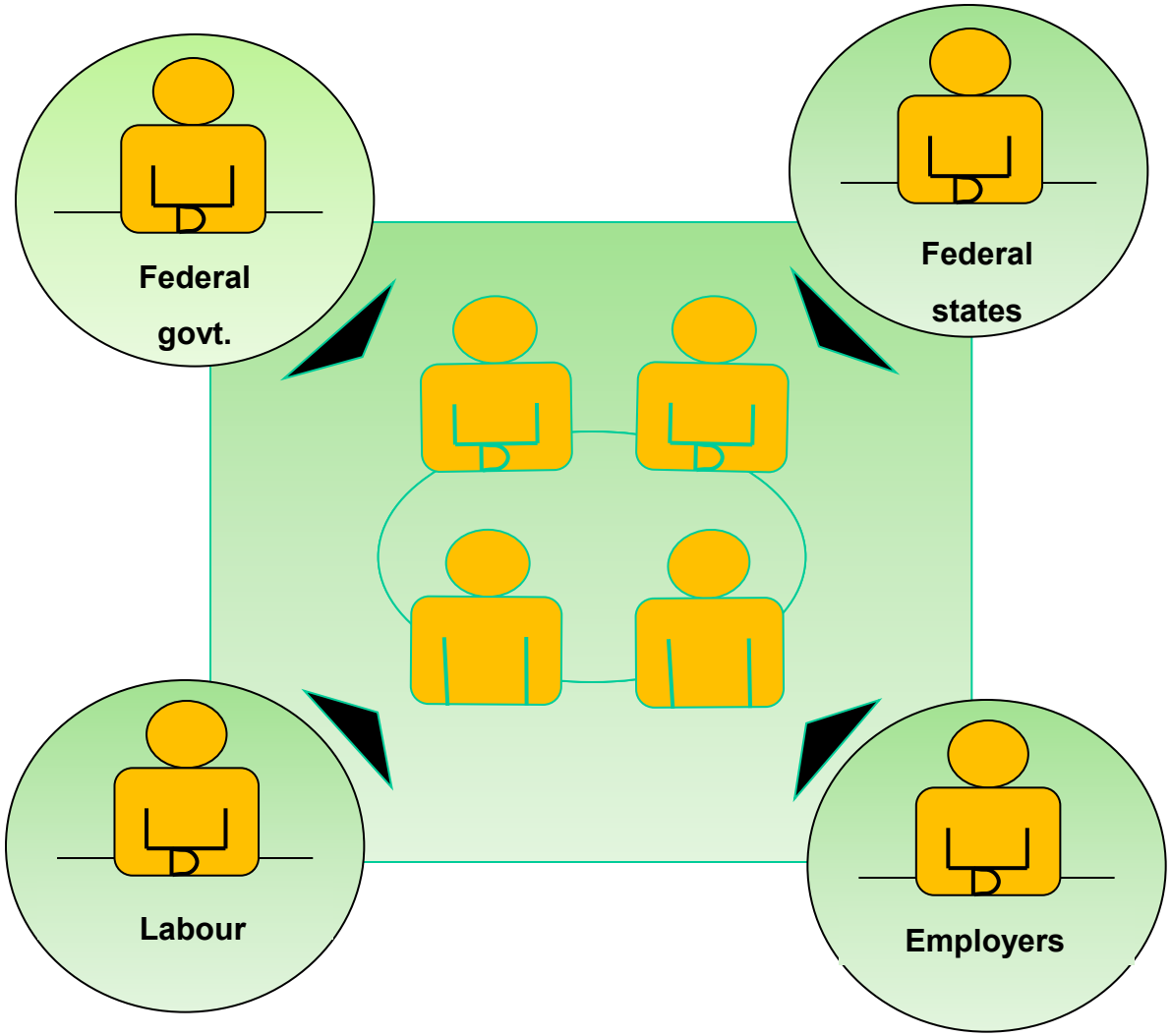
Bundesinstitut für Berufsbildung BIBB

- Forschen
- Beraten
- Zukunft gestalten

… is the **national and international centre of competence for initial and continuing vocational education and training** in Germany,

and contributes to the **improvement** of vocational education and training by means of **research, advisory services and development**.

Board of BIBB



Procedure for modernising training occupations

Start of process

Time-scale approx. 9 - 12-months

Development and research phase
Agreement among social partners

Preliminary procedures:
Approval of Bund-Länder coordinating committee;
Submission meeting at the responsible ministry
(usually BMWi) for the purpose of defining parameters

Drafting and consultation phase

Federal government

parallel

Länder

Draft (company):

Draft (school)

Enactment phase and publication

Entry into force

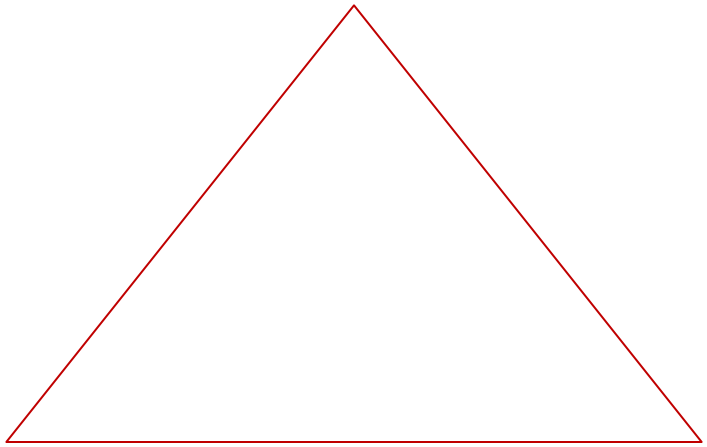
The Challenge: Sustainable Development

Sustainability is to meet the needs of the present without compromising the ability of future generations to meet their own needs

World Commission on Environment and Development.

Brundtland-Report, 1987

The balance of….



… needs

Pilot projects at BIBB: Ways to integrate new tasks and issues in VET

Vocational Training Act:
federal state funded
pilot projects in VET

Pro-
grams

Training regulations

Policy and VET systeme

Research

Sustainabilty and
Green Skills
in VET

Legal Frameworks

Research on VET

Prac-
tise

Company training

VET schools

Berufliche Bildung für eine nachhaltige Entwicklung BBnE

Modellversuche: http://bbne.bibb.de/de/56741.htm

Entwicklung, Implementierung und Evaluation des Fortbildungsganges zum/zur Fachwirt/in - Erneuerbare Energien und Energieeffizienz http://www.fee.uni-oldenburg.de/ Prof. Dr. Karin Rebmann, Uni Oldenburg	**Offshore-Kompetenz** **Analyse und Sicherstellung beruflicher Kompetenzen und des Qualifikationsbedarfs von Fachexperten bei Montage, Inbetriebnahme und Service von Offshore-Windenergieanlagen (WKA) sowie Entwicklung und Implementierung nachhaltiger regionaler Aus- und Weiterbildungsmaßnahmen** http://www.offshore-kompetenz.net/ Prof. Dr. G. Spöttl, Uni Bremen	**BEE-Mobil** **Berufliche Bildung im Handwerk in den Zukunftsmärkten E-Mobilität und Erneuerbare Energien** http://www.bibb.de/bee-mobil Dr. René Leicht, Universität Mannheim; Daniel Bannasch, MetropolSolar Rhein-Neckar
Netzwerk KOMZET Bau und Energie **Zukunftssicherung durch Nachhaltigkeit in der beruflichen Bildung** www.komzet-netzwerk-bau.de Jens Schwarz, AZB Hamburg	**NaBiKa** **Nachhaltige Bildungskarrieren in der Chemieindustrie** http://www.nachhaltige-berufsbildung.de/ Rainer Overmann, Bernhard Keppeler, RHEIN-ERFT AKADEMIE GmbH	**Nachhaltigkeitsorientiertes Rahmencurriculum für die Ernährungs- und Hauswirtschaftsberufe** http://www.fh-muenster.de/bbne Prof. Dr. Irmhild Kettschau, FH Münster

BIBB-„Unit“ pilot projects VET for sustainable development

- Series of pilot projects in the past on sustainable development (environment, forest-management, renewable resources, sustainable management/ economy etc.)

BIBB currently project partner:

- national project **AgroForNet** (BMBF): energy wood and VET qualification needs and training requirements
- EU-project: ACT **Agricultural Alliance for Competence and Skills based Training:** to support and improve farming business by developing tools for defining competences on agricultural innovations and management

Further BIBB-coordinated projects in Green Skills

- Electrical Mobility and good practice in VET http://www.schaufenster-elektromobilitaet.org/programm/

- Green economy/ Renewable Energy and qualification needs and structures https://www2.bibb.de/tools/fodb/pdf /at_78100.pdf

- BIBB as Partner in: Building and construction industry: BUILD UP SKILLS http://www.bauinitiative.de/?1 http://www.bauinitiative.de/index.php?id=3

BIBB-activities in UN-Decade education for sustainable development

Barbara Hemkes head of Unit quality, sustainability, permeability:

- Member National Comitee
- Head of Working group: VET

- Strategy paper on sustainable development in VET 2015+ will be issued in Summer 2014

Berufliche Bildung für eine nachhaltige Entwicklung BBnE

Pilot projects for sustainable development in VET

Current serie of 6 pilot projects on VET for sustainable development (4 sectors: construction, food/nutrition, chemical industry, electro-mechanical industry)

Produced results on three levels of VET-system:

- **Job specification**
- **Curricula**
- **Learning modules**

The projects developed

- Sustainable issues and technical content for training regulation **in Green Economy**
- **Didactical guideline** for sustainable development in VET
- More understanding for sustainable development within VET-discourse

http://www.bibb.de/dokumente/pdf/Infoblatt_BBnE_Web.pdf

Nachhaltigkeit lernen

Weltdekade der Vereinten Nationen 2005-2014
Bildung für nachhaltige Entwicklung
UNESCO

Ausgezeichnet als offizielle Maßnahme der Weltdekade
Nationaler Aktionsplan

BIBB Modellversuche
Nachhaltige Entwicklung

Training regulations

- 2010: BIBB-Hauptausschuss/ VET board of BIBB: effort on standard training element and integrative content for sustainable development in training regulations didn`t succeed
- Companies and trade unions don`t see the need yet
- 2014: Pilot project results on sustainable development and training regulation haven`t been recognised yet
- All political papers 2015+ postulate sustainable development in VET training regulations
- BIBB postion is missing
- current interest of social partners might be: sustainable development in CVET only

Relevance of VET in programs

BMBF ministry education research:

Lots of funding for reseach programs:

- Sustainable economy program
- Sustainable landscape management program

Pilot projects in VET at BIBB:

- Far less funding
- New program still open question

- VET pilot projects in other ministry programs but coordinated overview is missing

Political support and energy turn

Findings of our pilot project:

- Political support for renable energy is not strong enough
- Erneuerbare Energien Gesetz/ Law: consequent transformation missing
- No clear option und support (funding) for new business fields – companies hesitate (SMEs) – development get stuck

What we have …

Standard Training Elements in Training Regulation

Integrative skills, knowledge and abilities

<u>Goal: Avoiding or minimizing the environmental damage at the job by</u>

a) gaining knowledge on potential environmental damage by the company, and workplace

b) complying to legal framework on environmental protection

c) using the possibilities of environmentally sound use of energy and materials

d) minimizing waste; environmentally sound disposal of waste and toxic substances

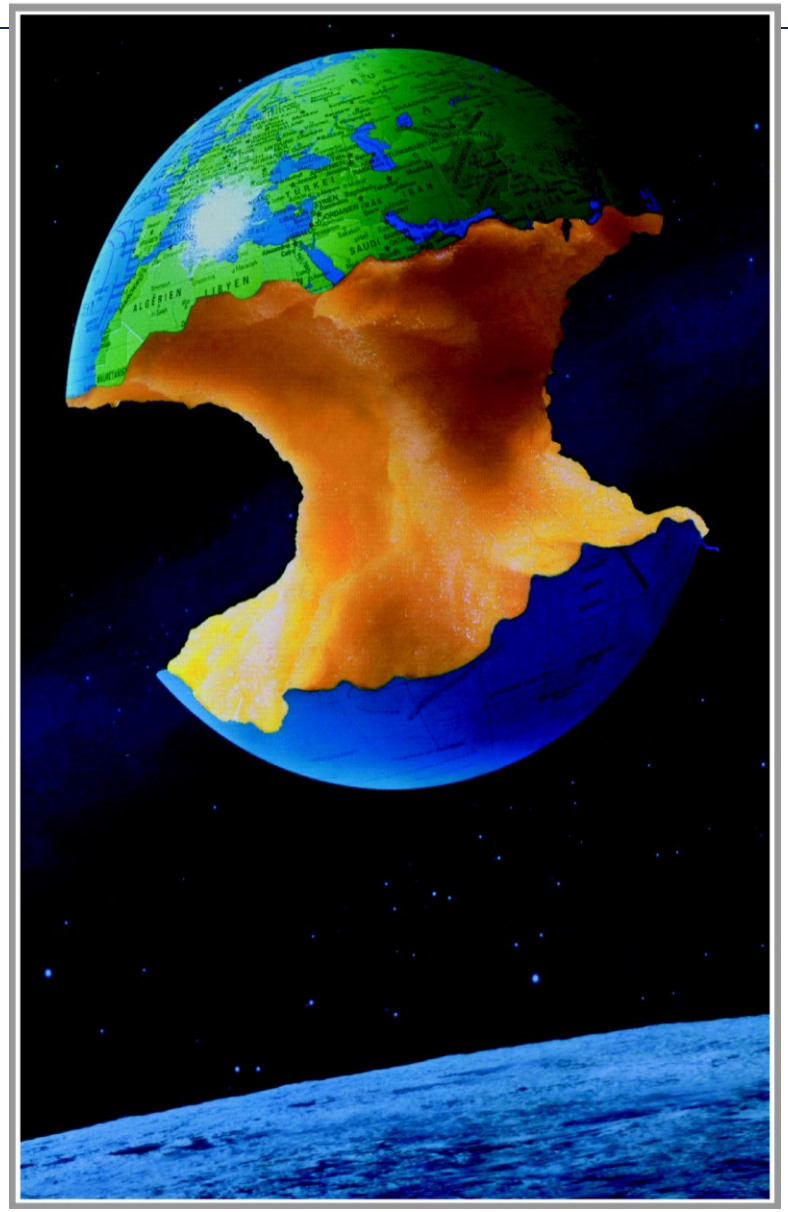
What we have …

Integration of Green Skills in VET

- ➢ New Green Vocations, (2002) e.g.
- Specialist on Waste Water Technologies
- Specialist on Waste and Recycling
- ➢ Modernisation of Training Regulations, e.g
- Electronic Technican, specialised in building and energy services
- Plant Mechanic on plumbing, heating and air-conditioning technology, specialised in environmental techniques and renewables
- ➢ Full-time School-based Training, e.g.
- State-certified Technician on Energy and Environment
- State-certified Technicial Assistant for Procession of Renewables
- ➢ Chamber-certified CVET, e.g.
- Building Energy Consultant
- Specialist in Solar Techniques

The importance of renewables for VET

- Increasing number of jobs in the sector of renewables or connected to the sector
- ca. 41% of the employees are skilled and specialised workers (Bühler et al. 2007)
- Ca. 30- 40 different professions are needed (Bühler et al. 2007) – from the following sectors:
  - metal
  - electronics and IT
  - measuring and control technology
  - green technologies
  - agriculture
  - chemistry
  - logistics
  - commercial professions



Thank you for your attention

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