

Education and Workforce Platform Meeting

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Energy Efficient Buildings Hub

A U.S. Department of Energy Innovation Hub

www.eebhub.org



Task 7: Education and Workforce Development

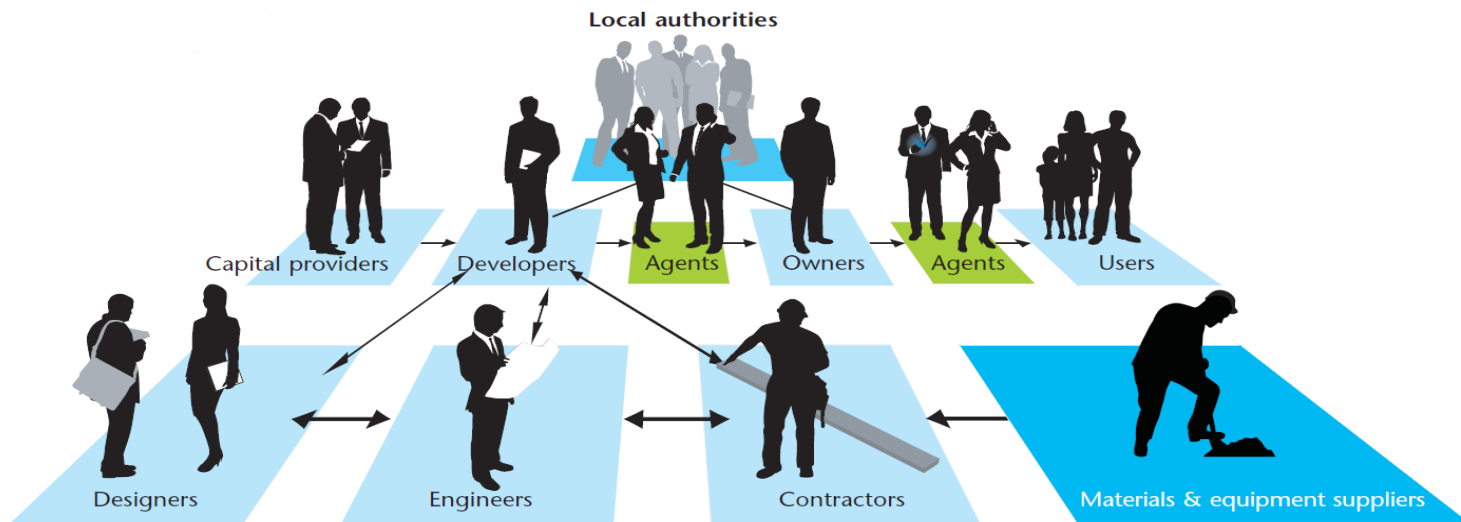
Objective: To inform, train, and educate people about proven energy saving strategies and technologies whether they design, own, construct, maintain or occupy buildings.



Hub Solves a Complex Problem Regionally

The issues impeding energy efficient retrofits are intrinsically regional in nature:

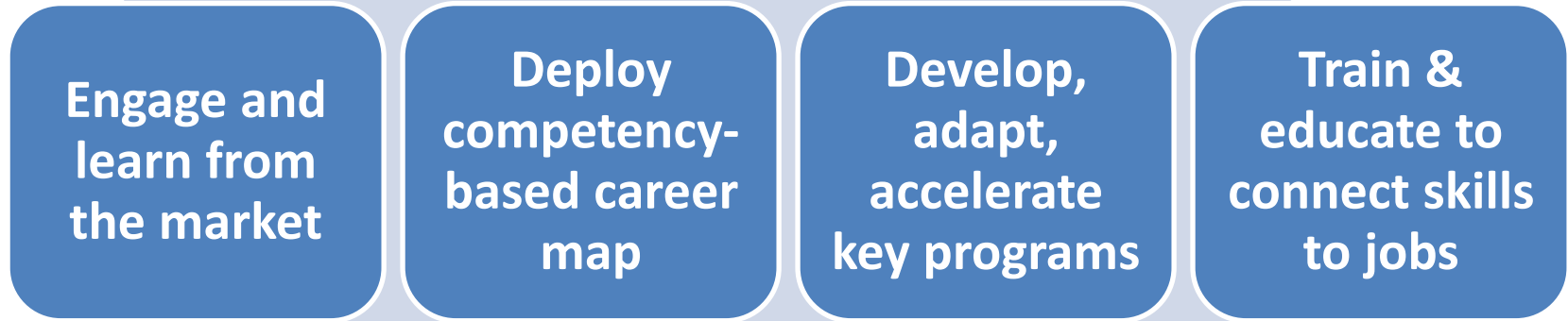
- Design
- Materials of construction
- Infrastructure
- Energy supply
- Economics
- Public policy
- Existing building stock
- Workforce
- Weather



EEB-Hub Education and Workforce Development

Approach:

Explore and test high leverage point strategies for regional transformation



Shaping EEB-HUB Ed. And Workforce Strategy: Guiding Lessons / Observations

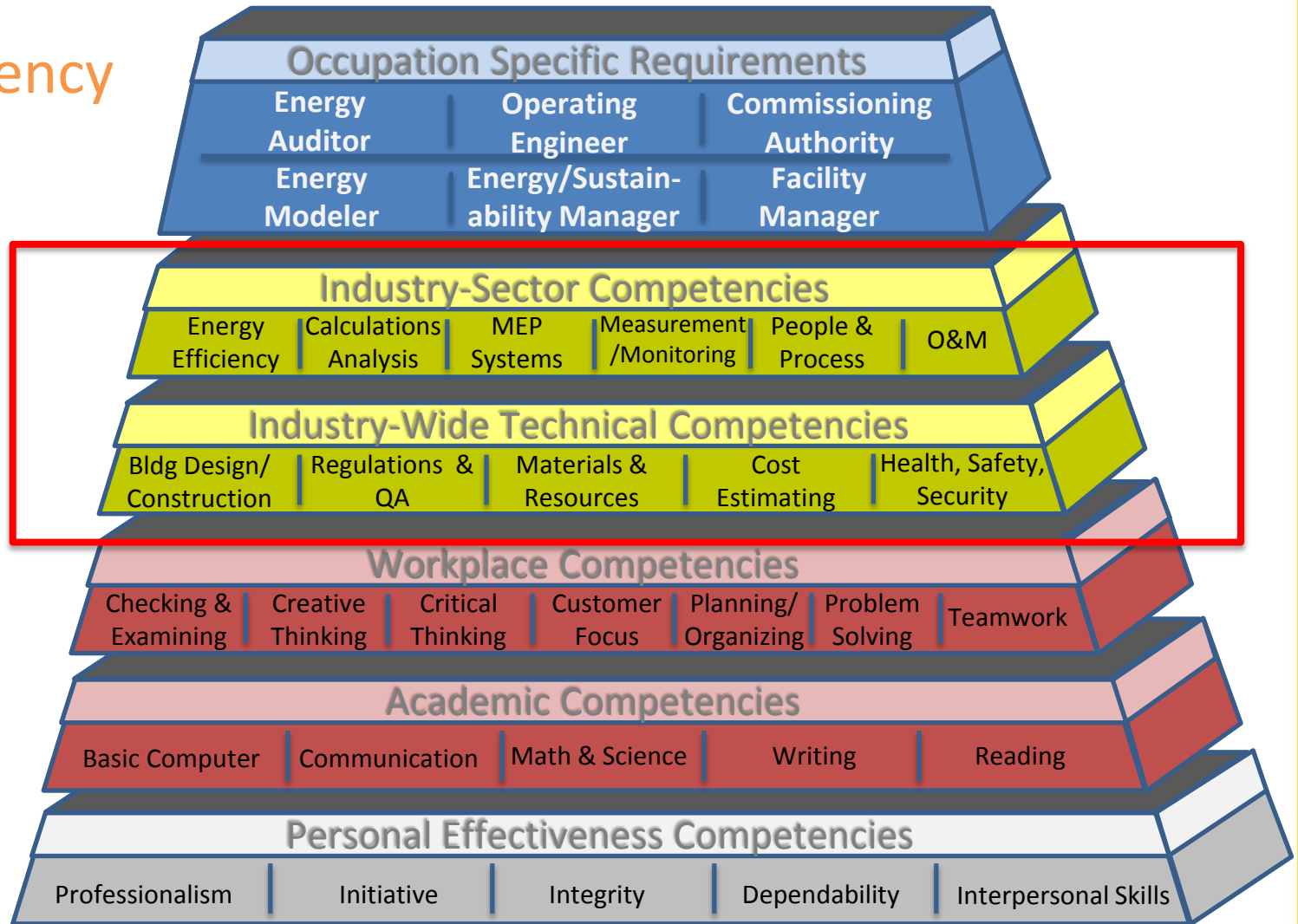
- Energy efficiency **workforce sector is larger** than new building sector
- Education and workforce needs are **vertically distributed** across professional and skilled trades
- Trends in development of standards and **increased numbers/types of credentials** across professional and skilled trades
- Simultaneous need to address **energy priorities and create jobs**
- **Climate** of high unemployment, low confidence, failing green jobs programs
- Talent needed to feed **new age of energy literacy** and independence
- Existing workforce has experience and belief system that will create **barriers to change**

EEB-Hub Education and Workforce Development

Year 2 Priorities

- **Building operator training and certificate programs**
- **Entry-level energy assessment training and apprenticeship program**
- **Cultivate integrated design competencies** for industry professionals
- **Explore schools as can transformational leverage points** in regional building energy efficiency
- **Design business-focused** resource center
- **Build partnerships / awareness** with national training delivery channels
- ***Develop competency map for AER Marketplace***

Base Competency Model



Base Competency Model



Building Energy Assessment

- New professionals
- Service / Maintenance Workforce
- AEC Professionals

Building Operators

- Energy literacy
- Operational strategies
- Advanced “tuning”

Building Commissioning

- Measure and Verify
- Continuous Commissioning

Integrative Design Leadership

- ANSI Standard
- Process design / facilitation

EEB-Hub Education and Workforce Strategic Goals

- **Embed building energy education programs** into tactical industry leverage points that *create demand and reduce activation energy* for AER services
- **Accelerate development of whole-building perspective** of occupants, operators, and AER professionals
- **Tiered approach for engaging next generation** of building occupants, owners, and citizens

Integration of training and business development

Immersive and hands-on experiences

***Schools as laboratories
Home → system
→ building***

Education and workforce engagement entry points

- **For job seekers**
 - Training program advising
 - Career alignment
- **For building owners**
 - Building operator training
 - Energy assessment pilot programs
- **For colleges and universities**
 - Train-the-trainer support
 - Curriculum design / integration
- **Trade associations**
 - Train-the-trainer support
 - Business development support

Thank You

- Contact: driley@psu.edu
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