

Manufacturing & Energy Efficiency Policy Innovations To Advance Industry 4.0

**Presentation at
2018 Congressional Clean Energy Expo and Policy Forum
July 10, 2018**

This is a work in progress, comments welcome!

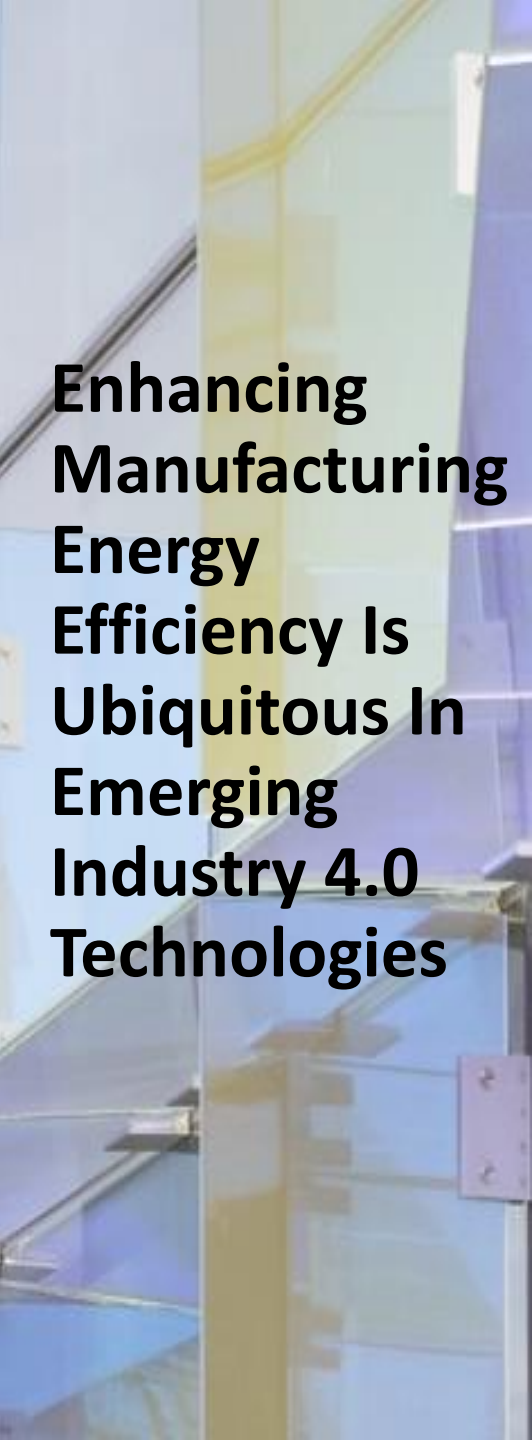


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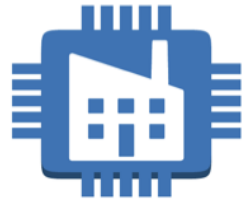
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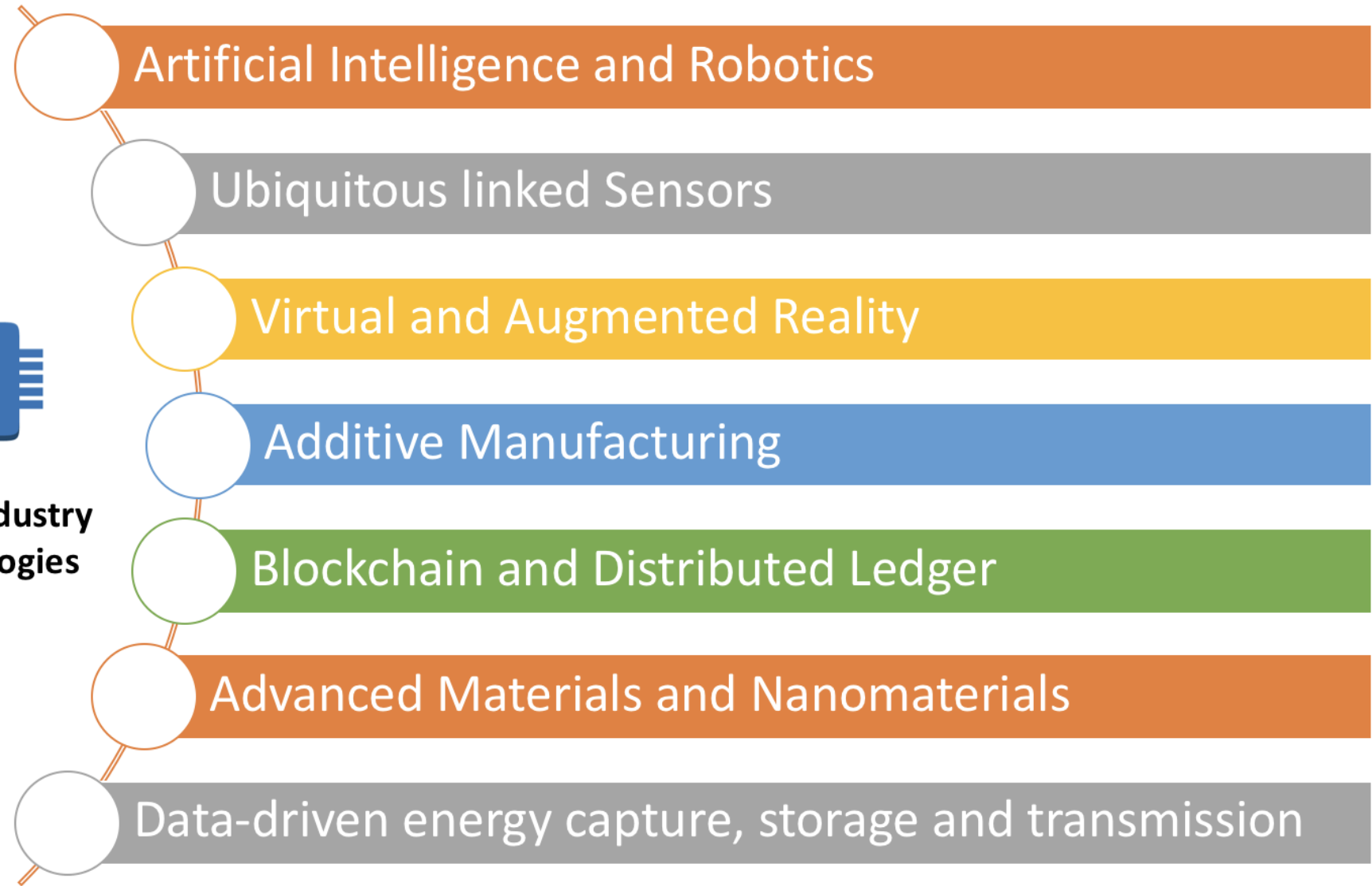
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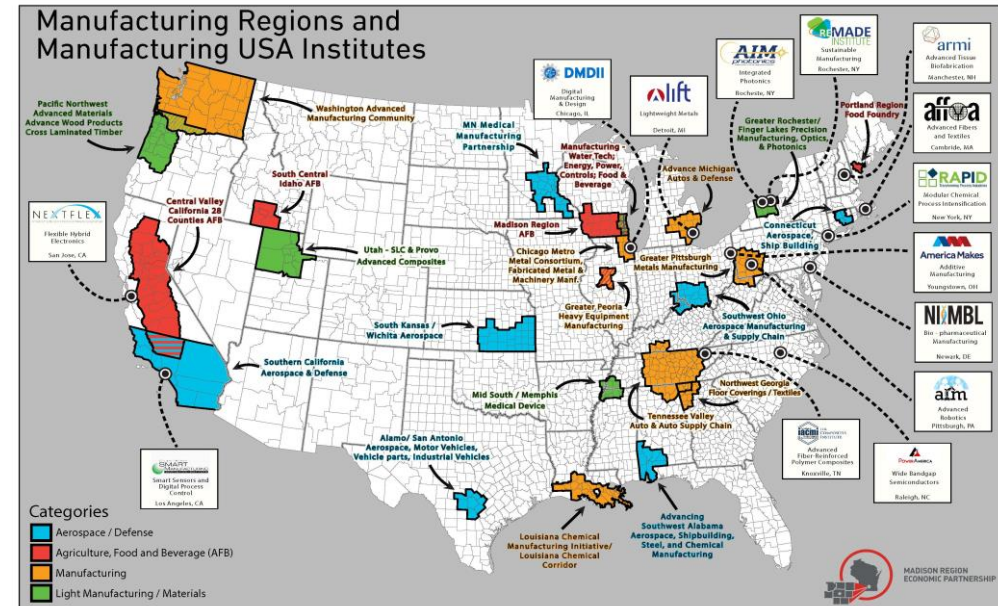
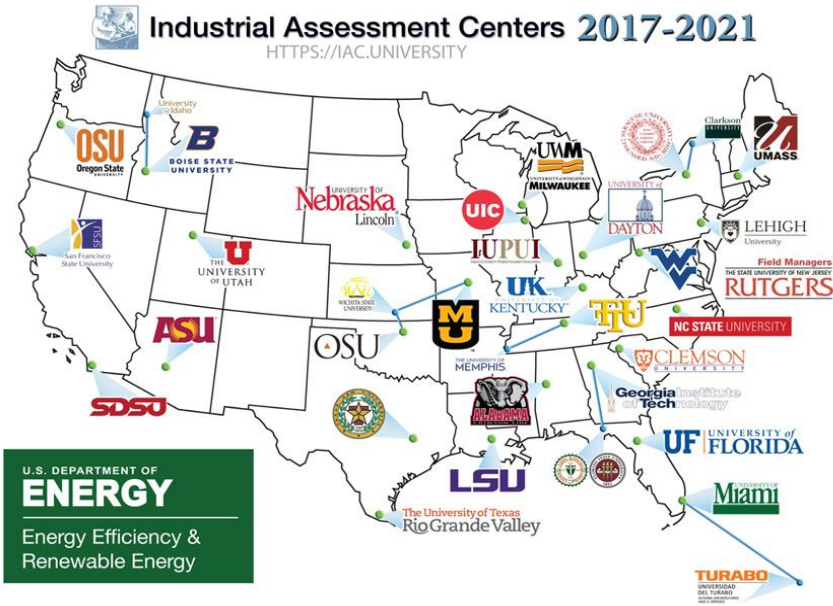
**Enhancing
Manufacturing
Energy
Efficiency Is
Ubiquitous In
Emerging
Industry 4.0
Technologies**



**Emerging Industry
4.0 Technologies**



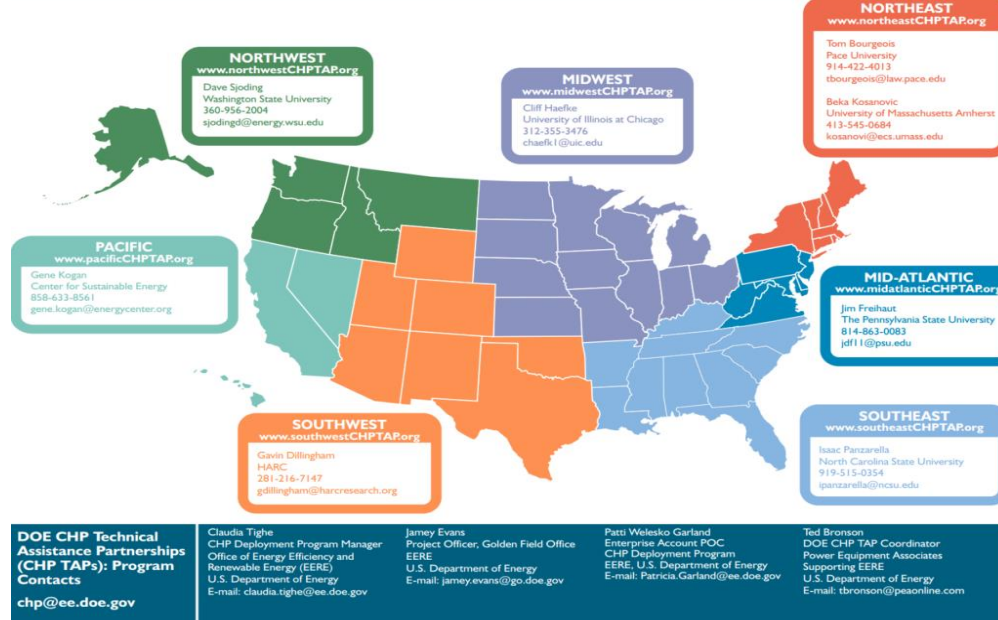
Federal Manufacturing Program Landscape Is Complex and Categorical



MEP National Network



DOE CHP Technical Assistance Partnerships (CHP TAPs)



MEP=Manufacturing Extension Partnership; CHP =Combined Heat and Power

Policy-Maker Considerations

1

Establish a New, More Comprehensive Framework for U.S. Manufacturing Energy Efficiency Policy Supportive of Industry 4.0 Vision. Energy efficiency objectives should:

- Encompass product enhancements and process productivity improvements
- Reduce environmental and climate impact as objectives of this policy.

2

Adopt a Systems Approach across all Federal, State, and Local Manufacturing Programs.

- Highlight energy efficiency opportunities in Industry 4.0 innovations.
- Integrate technical assistance, research and development, and workforce activities– with leadership at the regional level.

3

Exploit Large Combined Heat and Power (CHP) Potential by Undertaking Technical, Financial and Regulatory Actions.

4

Expand Innovative Pilot and Demonstration Projects through Public Private Partnerships (P3) to Mitigate Technical, Financial and Business Risks.

Questions? Comments?

This is a work in progress, feel free to share any thoughts you have.

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