

# BLUEPRINT FOR ACTION

The New Engineering Frontier: Manufacturing for the Grand Challenges

*Private-Public Partnerships for U.S.  
Advanced Manufacturing  
The National Network for  
Manufacturing Innovation*

Dr. Frank W. Gayle  
Advanced Manufacturing  
National Program Office

[www.manufacturing.gov](http://www.manufacturing.gov)



**BACKGROUND**

# U.S. Trade Balance of Advanced Technology

11% of U.S. GDP      12 million U.S. jobs      • ~ half of U.S. Exports

**U.S. Trade Balance for  
Advanced Technology  
Manufacturing Products**



**BACKGROUND**

President's Council of Advisors on Science and Technology

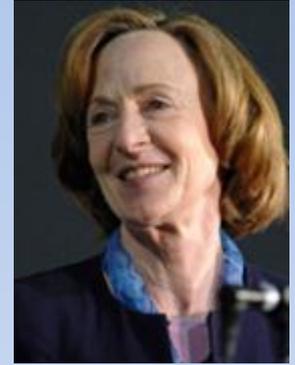
# Advanced Manufacturing Partnership



## AMP Co-chairs

Andrew Liveris  
CEO, Dow Chemical

Susan Hockfield  
President, MIT



**PCAST / AMP report released July 17, 2012 on [whitehouse.gov](http://whitehouse.gov)**

- 16 Recommendations in three areas: innovation, talent, and policy

**Two early actions announced by Administration:**

- 1) Coordinated “whole of government” effort via **Advanced Manufacturing National Program Office**
- 2) Pursue the “missing middle” via **manufacturing innovation hubs**

**NEW:  
AMP 2.0**

# State of the Union Announcement

*Our first priority is making America a magnet for new jobs and manufacturing.*

*And I ask this Congress to help create a network of fifteen of these hubs and guarantee that the next revolution in manufacturing is Made in America.*



*In the interim:*

- Three full scale institutes, to be awarded in 2013
- \$200M federal investment over five years

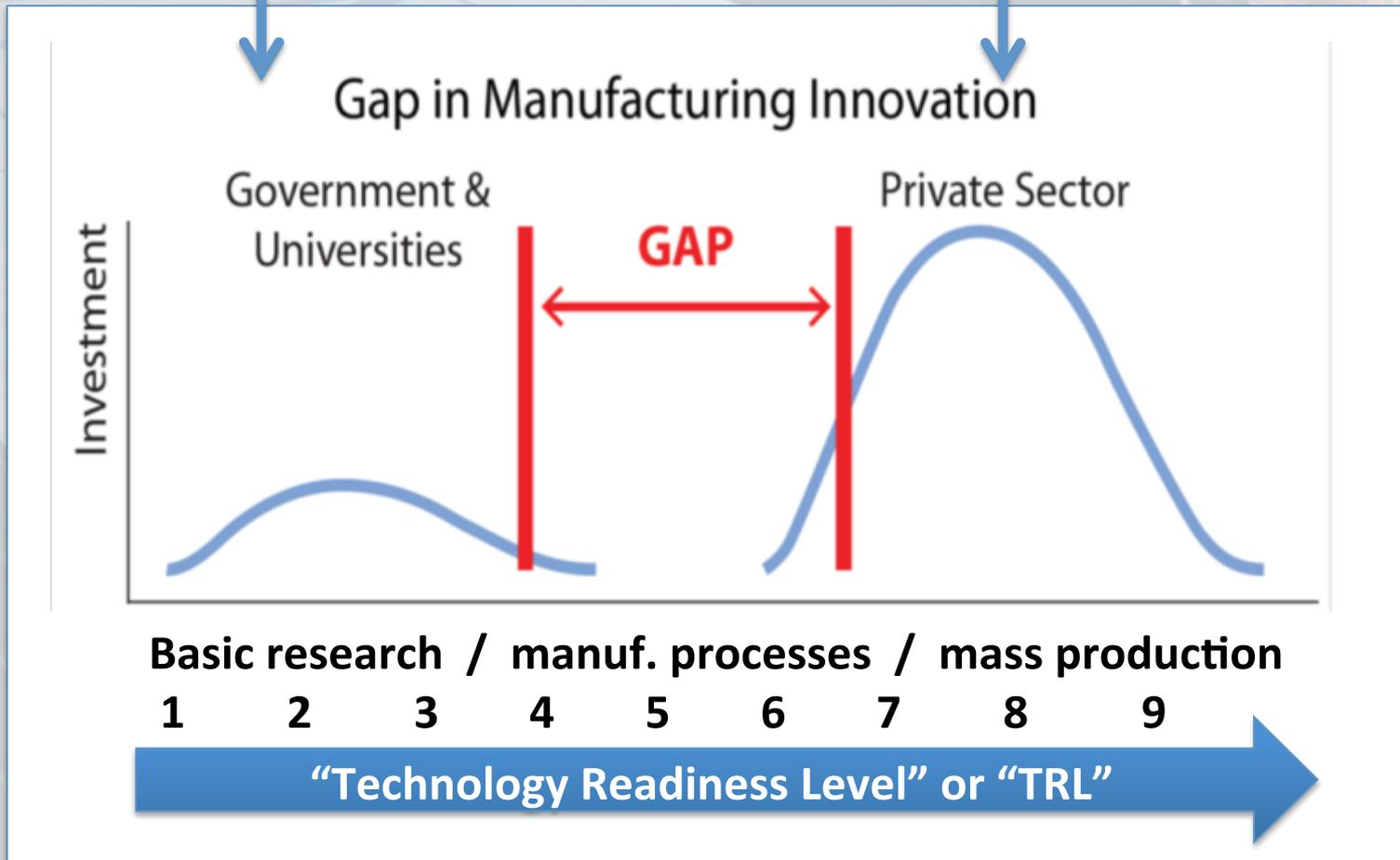
President Obama

State of the Union Address, February 13, 2013

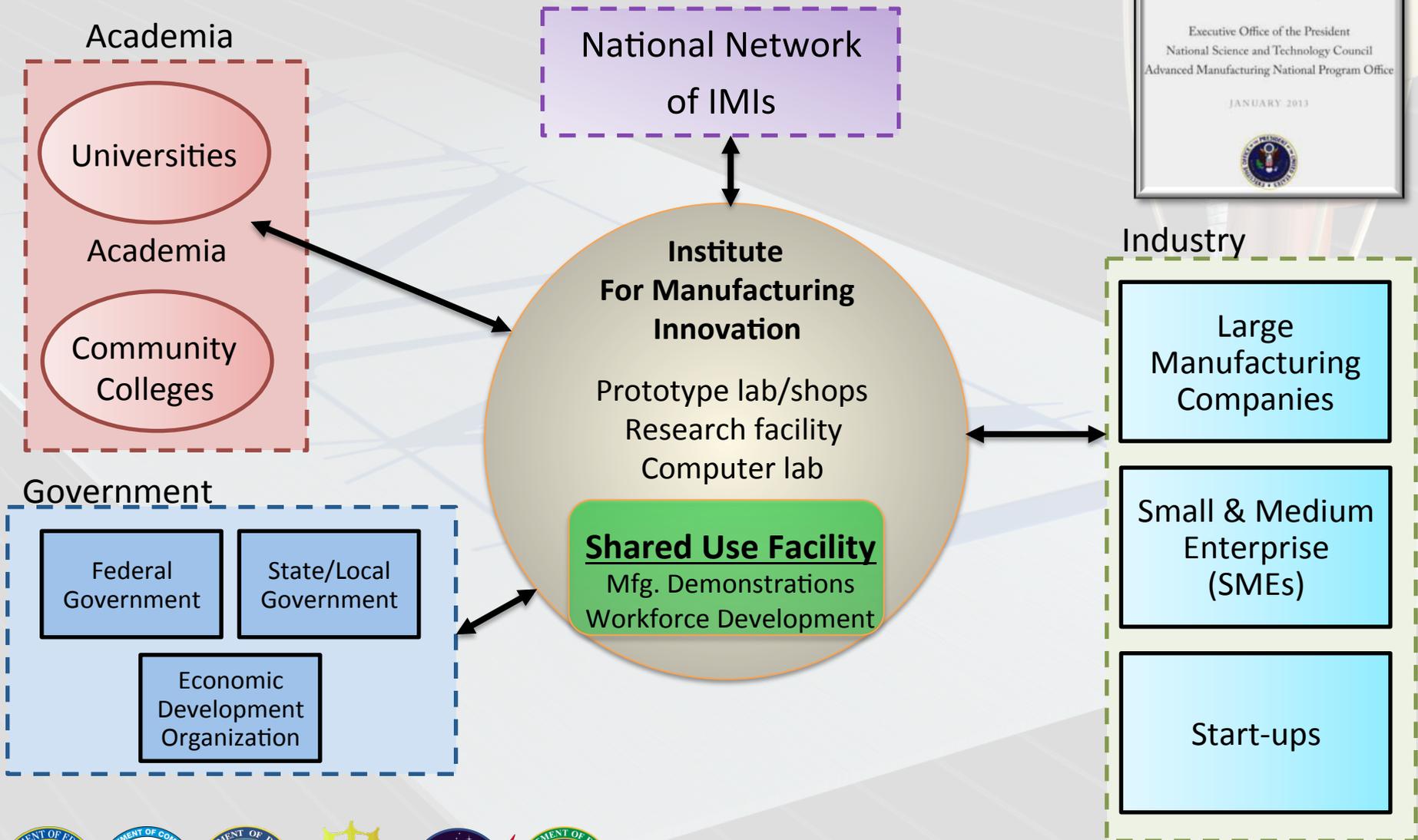
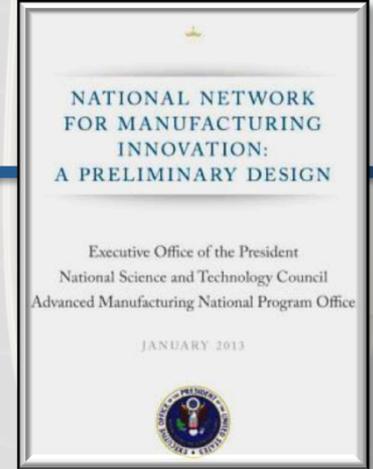
# The Missing Middle, or the “Valley of Death”

US is envy of the world in invention and innovation

Private sector adept at commercialization



# Institute Design



# NNMI Vision – 45 institutes



AP Photo/Susan Walsh

*“In my State of the Union Address, I also asked Congress to build on a successful pilot program and create 15 manufacturing innovation institutes that connect businesses, universities, and federal agencies to turn communities left behind by global competition into global centers of high-tech jobs.*

*“Today, I’m asking Congress to build on the bipartisan support for this idea and triple that number to 45 – creating a network of these hubs and guaranteeing that the next revolution in manufacturing is Made in America.”*

July 30, 2013

## ***With Congressional Legislation***

- Open competition on **ANY** topic proposed by Industry and Academia
- Selection of topics made on merit
  - let best proposals of greatest impact to US industry move ahead
  - Institutes by Administrative Action limited to topics Federal agencies need
- **Revitalize American Manufacturing & Innovation Act of 2013**

*Advanced Manufacturing National Program Office*

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