

Unleash the Power of Green Manufacturing



- *Mike O'Donnell is the program director for the EDA University Center program at the Center for Industrial Research and Service (CIRAS) at Iowa State University. In this program, he works with regional economies and their core businesses to implement sustainability initiatives. In addition to his efforts on the University Center program, he provides services to Iowa manufacturers in supply chain management and business continuity planning. He has a B.S. and M.S. in Mechanical Engineering from Bucknell University. Mike worked in the defense industry for six years in a variety of manufacturing, project and program management roles. He then moved to Australia, where he spent 18 months leading engineering and quality for a variety of products for the nation's leading small appliance brand. In his various positions, his focus has been on operations management and process/quality improvement in all aspects of the supply chain.*

Unleash the Power of Green Manufacturing

Mike O'Donnell

Center for Industrial Research and Service
Iowa State University Extension and Outreach

Agenda

- State of Manufacturing in Iowa
- Role of Green in Iowa Manufacturing
- Strategies and approaches to implementing green

IOWA STATE UNIVERSITY
College of Engineering

IOWA STATE UNIVERSITY
Extension and Outreach



Manufacturing
Extension
Partnership

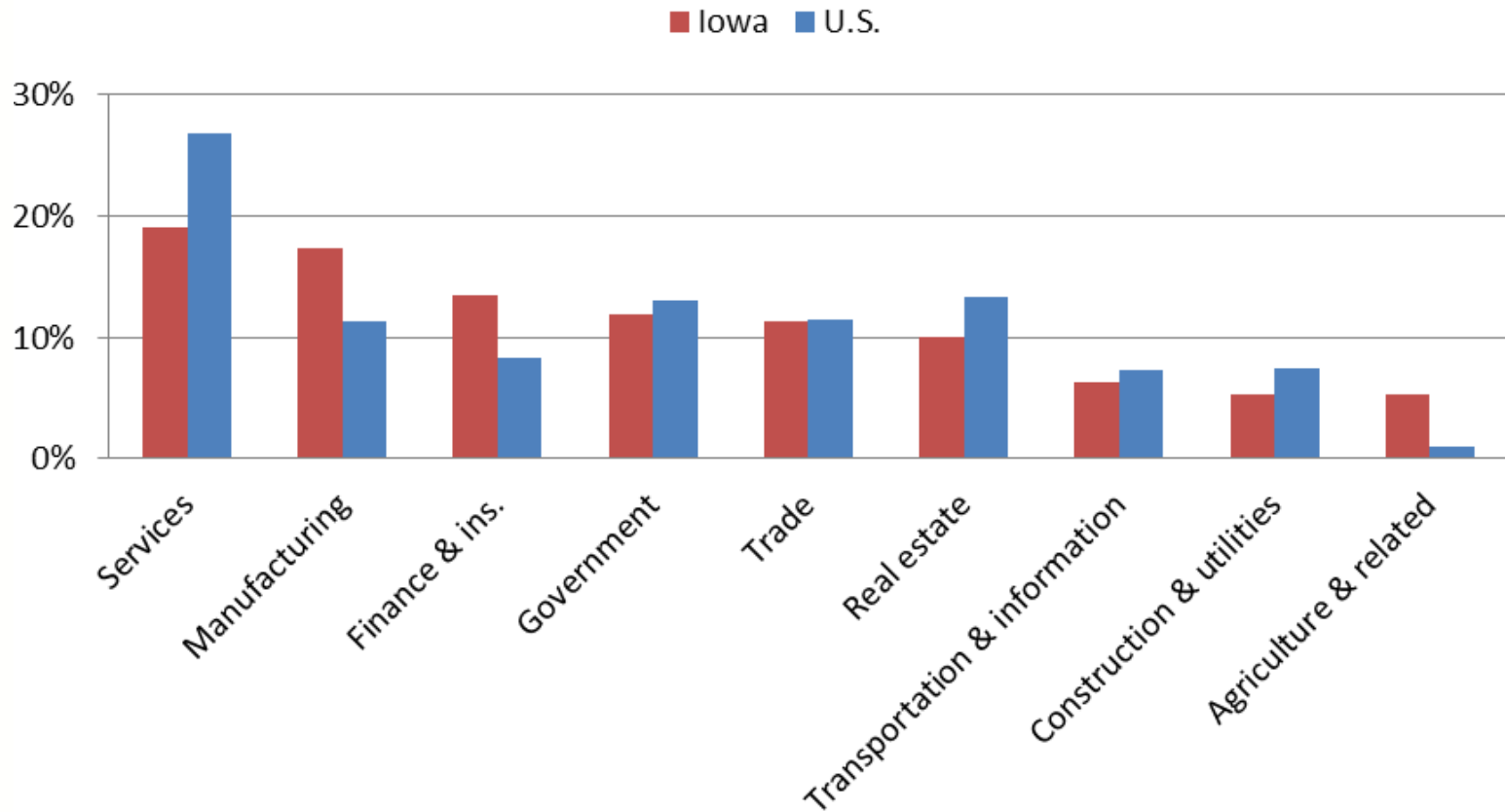
USDA
BioPreferred
Program

Economic
Development
Administration
University Center

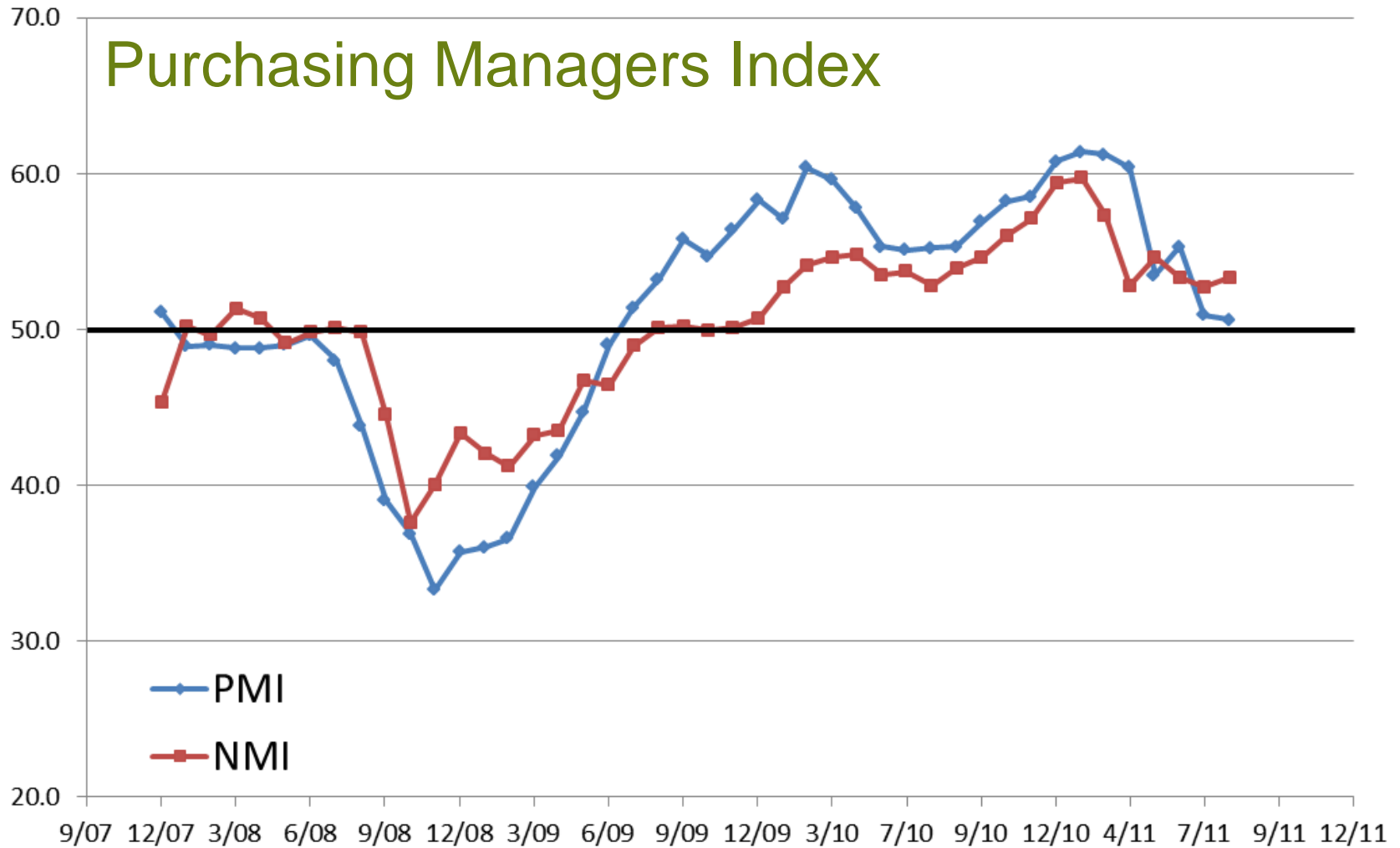
Procurement
Technical
Assistance
Program

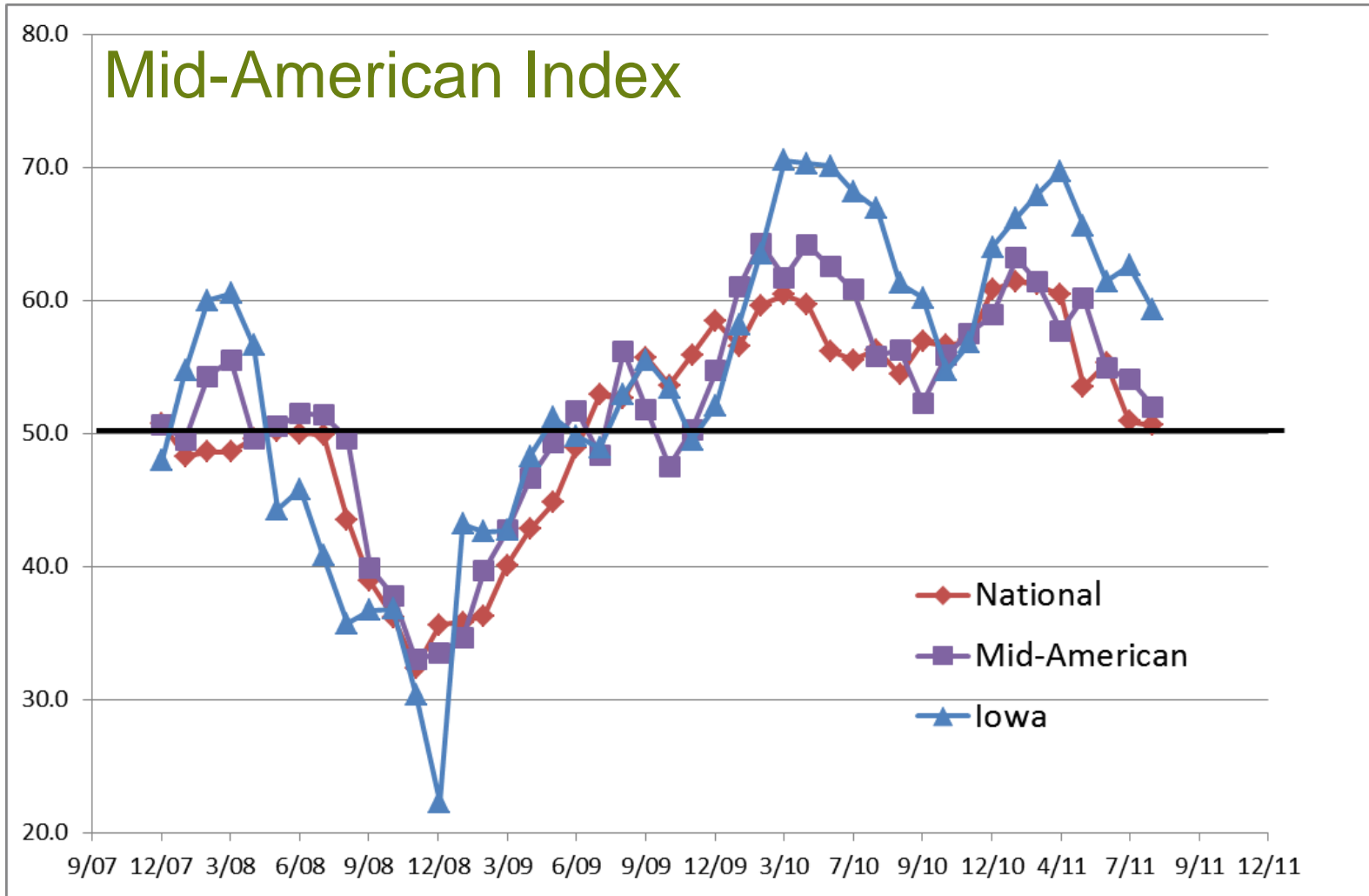
State of Manufacturing

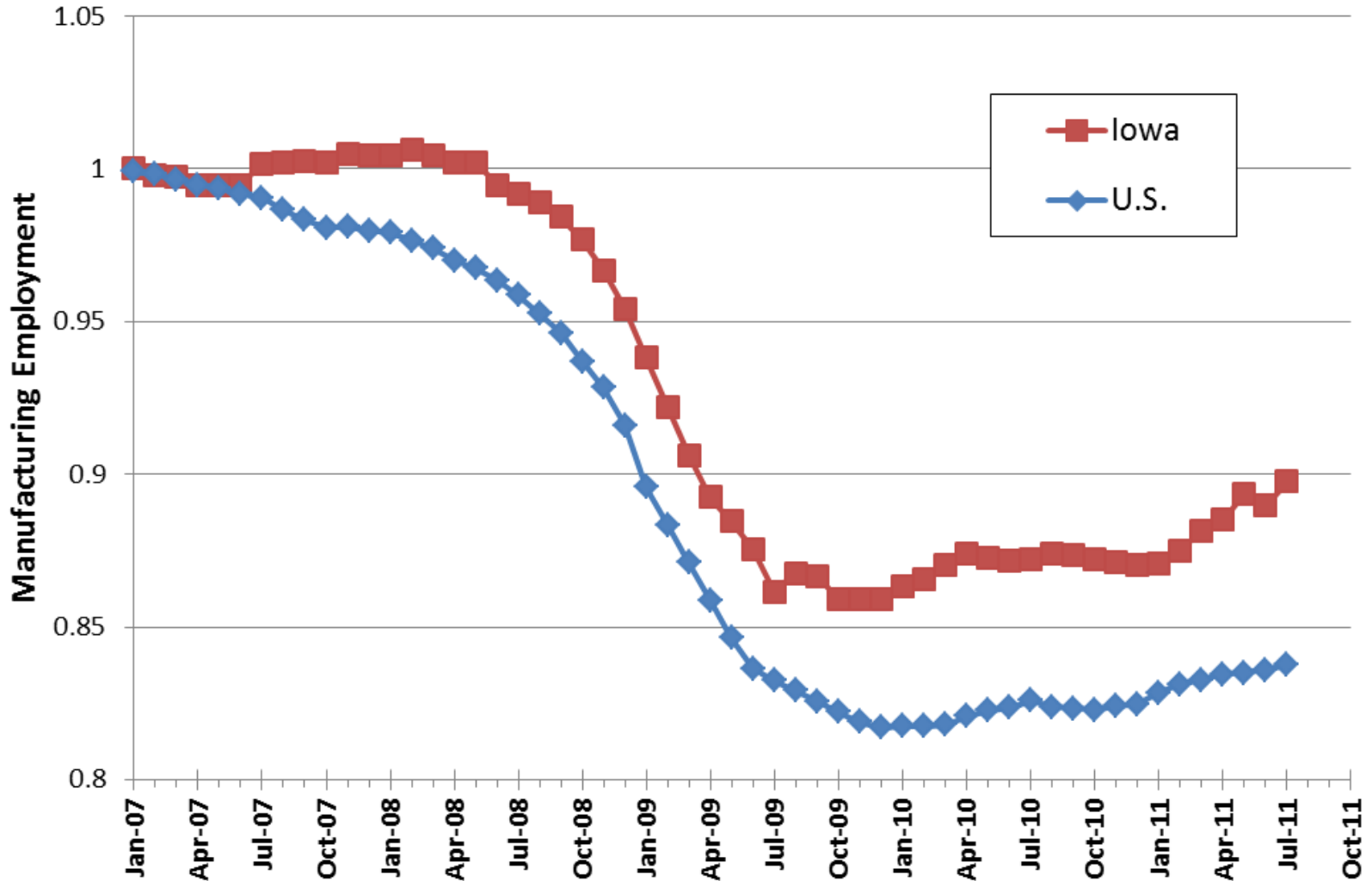
Contributions to GDP by Sector, 2009



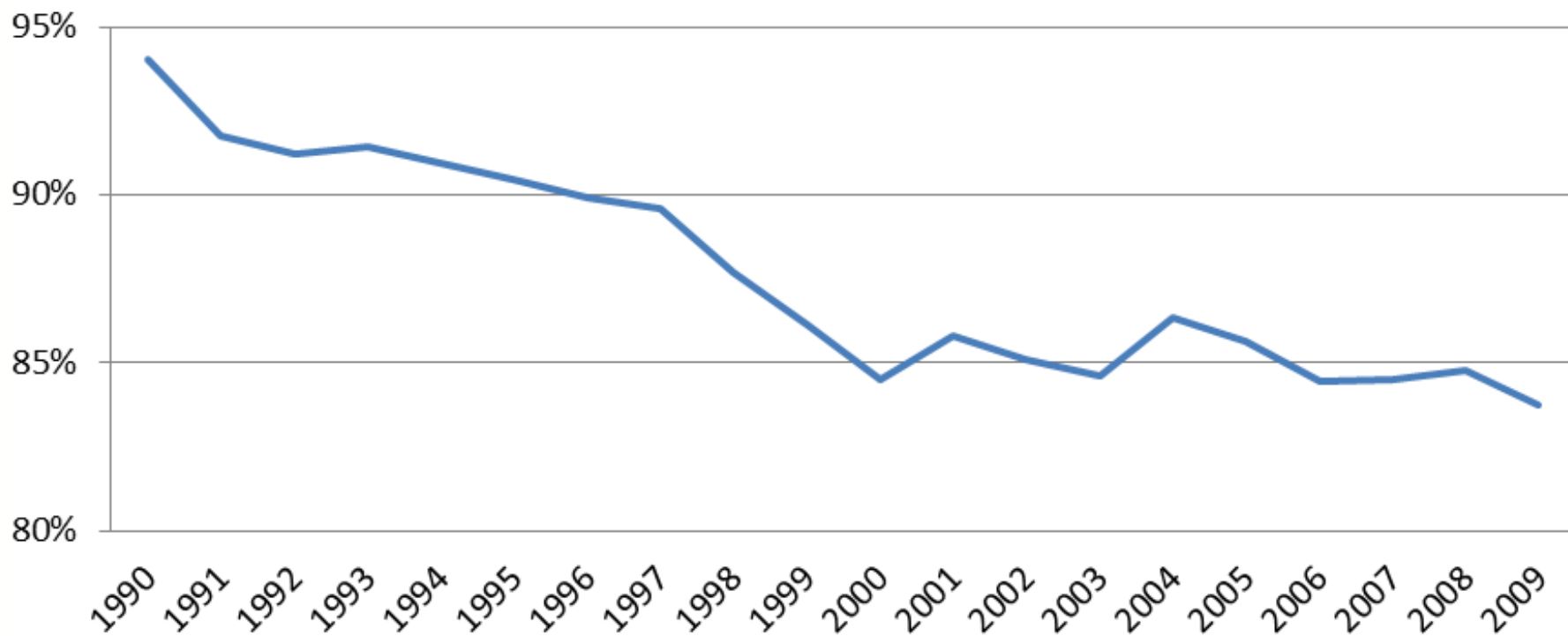
Purchasing Managers Index





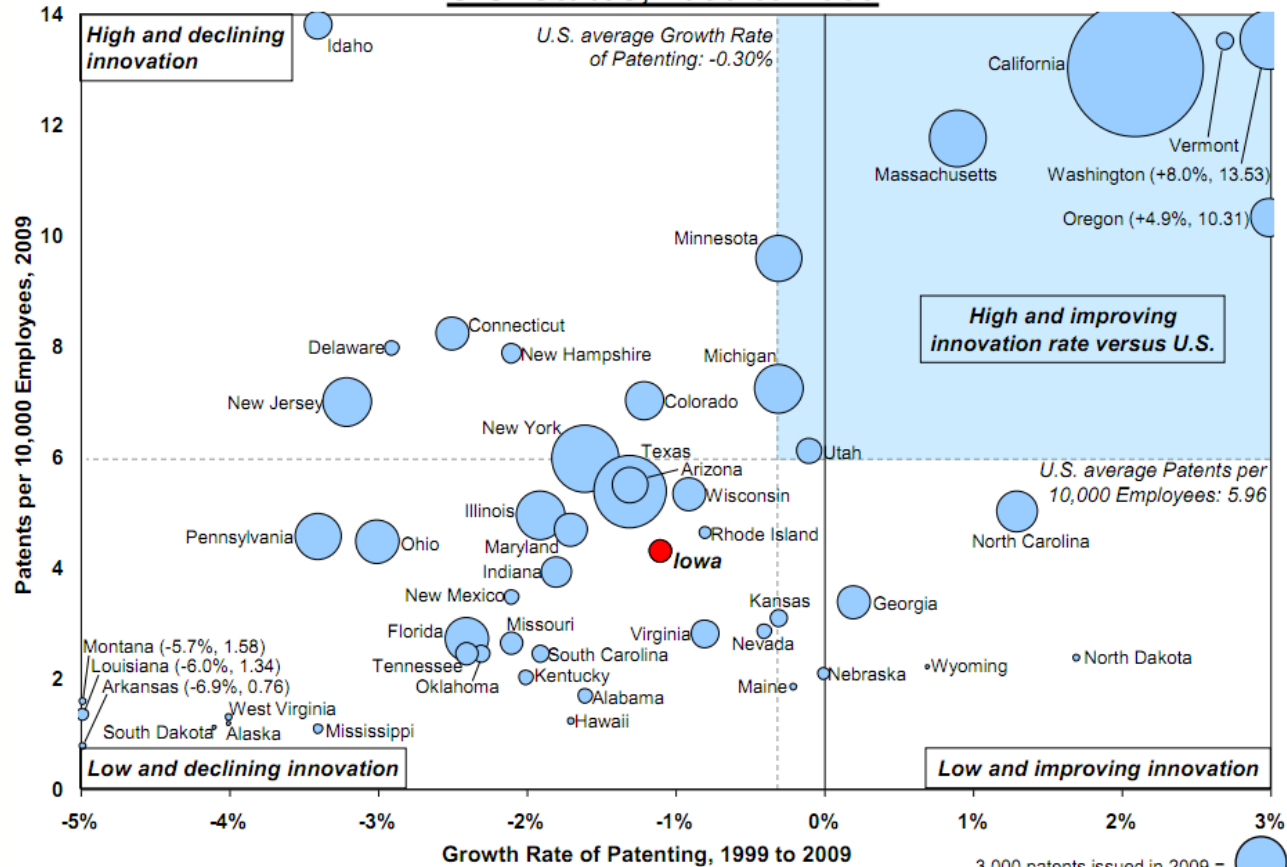


Average Compensation per Manufacturing Job (Iowa as a Percentage of U.S. Average)



Long Term State Patenting Performance

U.S. States, 1999 to 2009



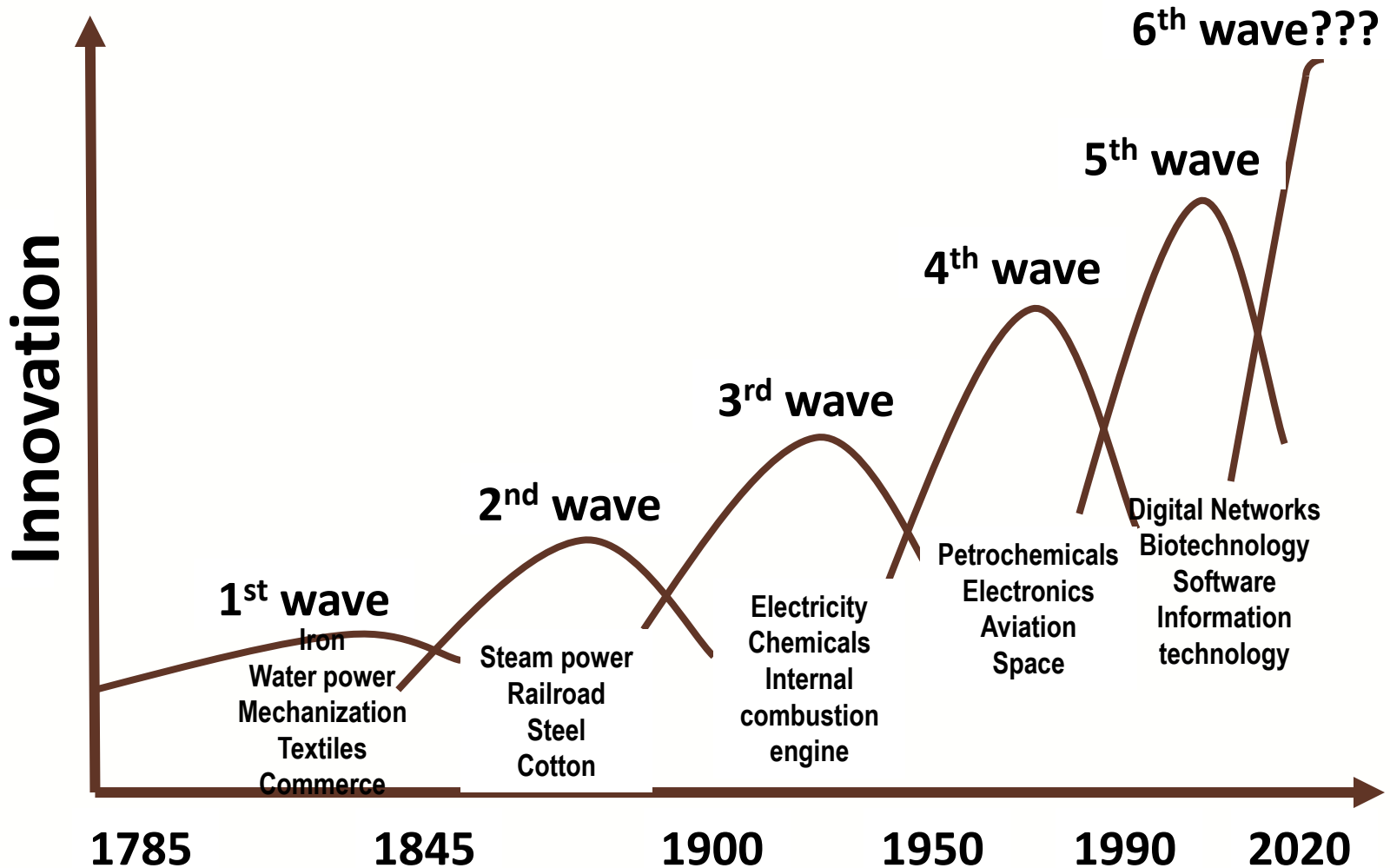
Source: USPTO, Bureau of Labor Statistics. Note: Growth rate calculated as compound annual growth rate (CAGR).

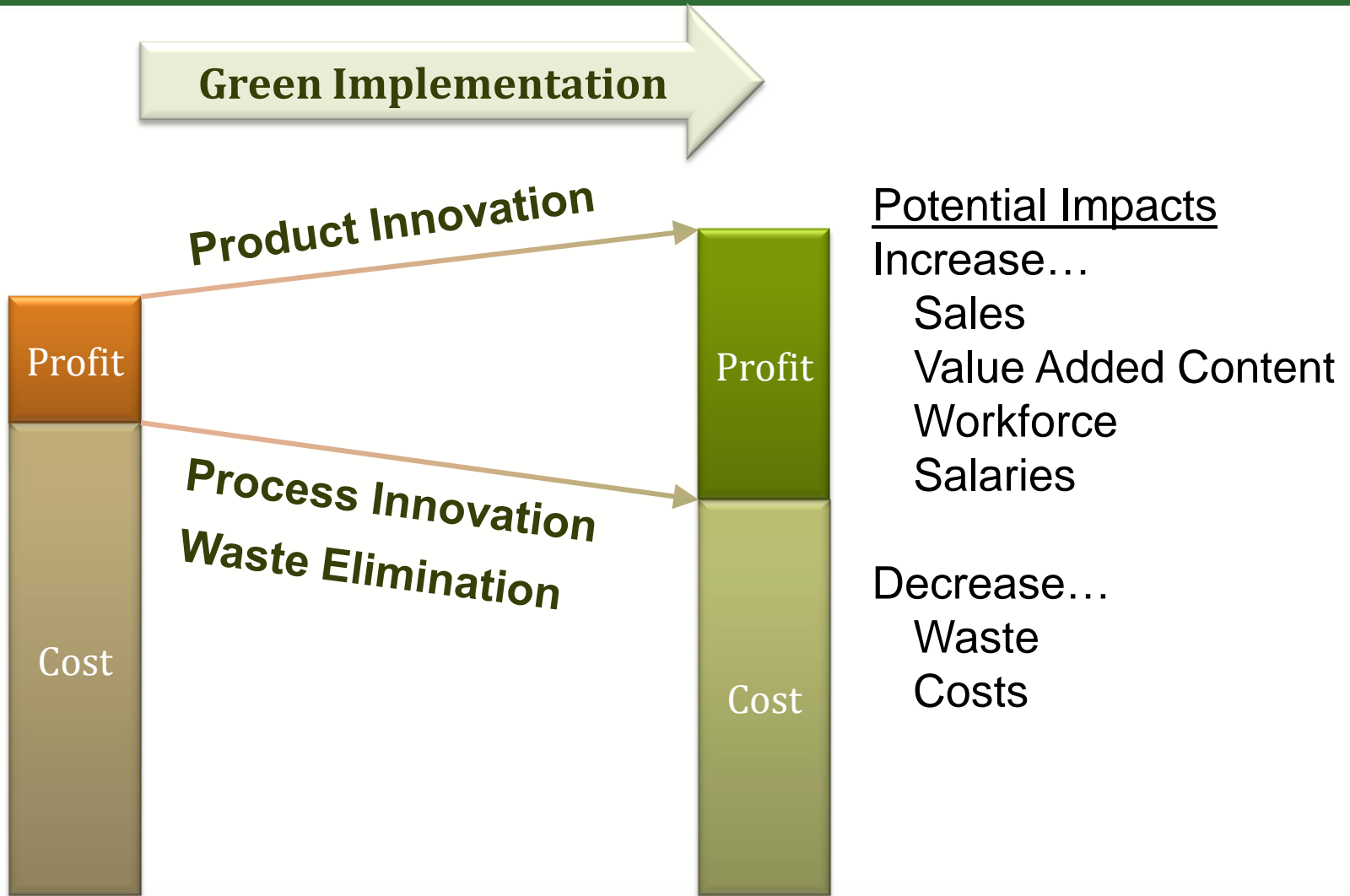
NGA 2011 - Iowa

14

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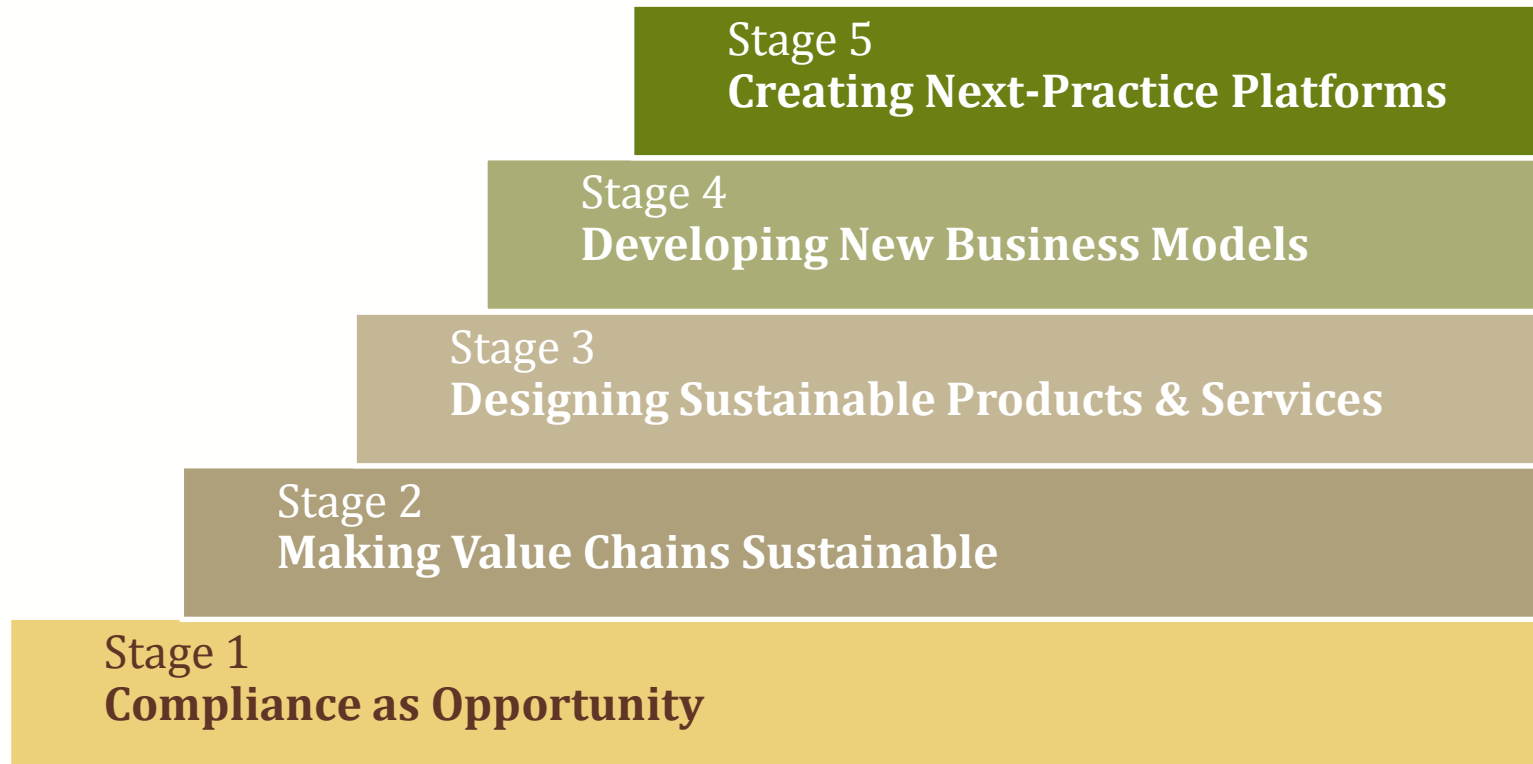
Role of Green in Iowa Manufacturing



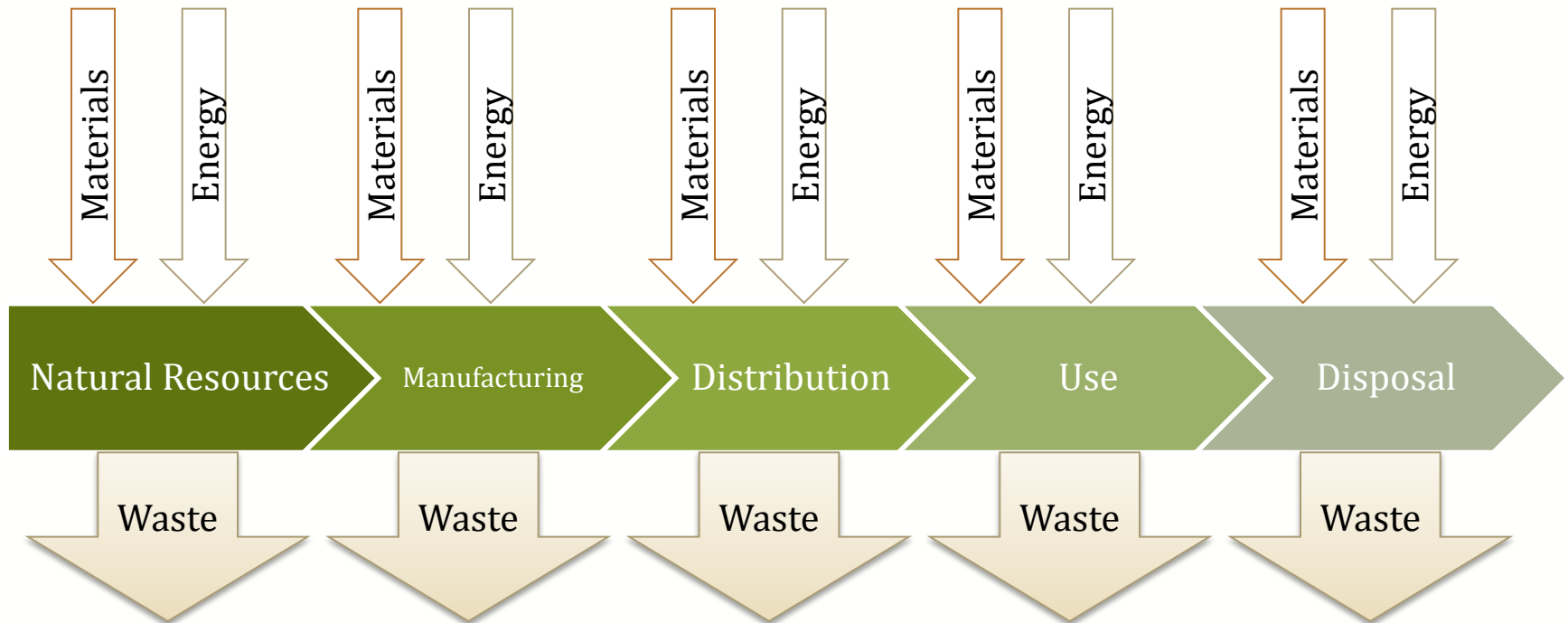


Strategies & Approaches to Implementing Green

Stages in Green Innovation



Sustainable Value Chains



Water



Air



Solids



Toxicity
(Chemicals)



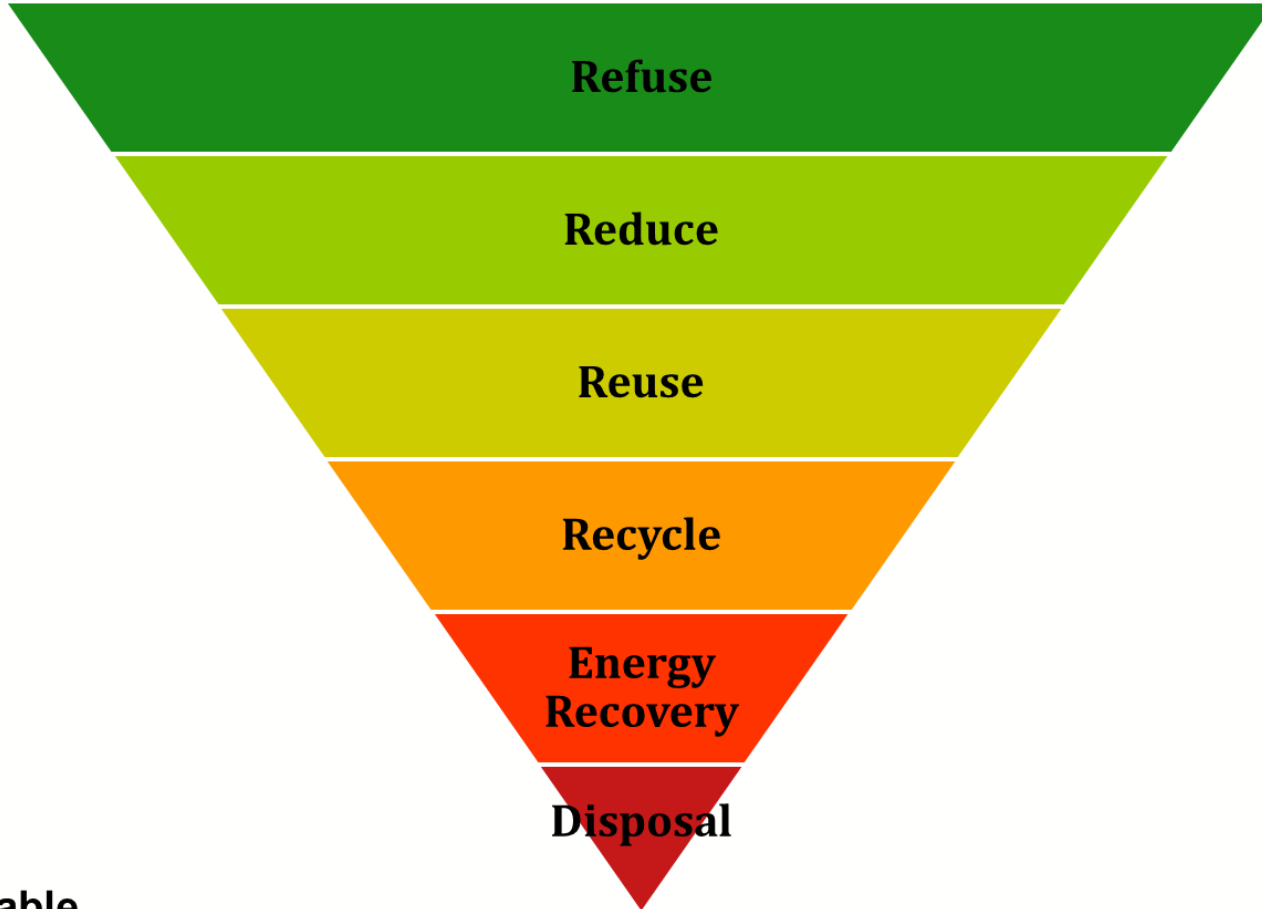
Energy



Most desirable



Least desirable



Refuse

Reduce

Reuse

Recycle

Energy
Recovery

Disposal

Sustainable Value Chains

