



Advancing Manufacturing

Jeannine Kunz
Chief Workforce Development Officer
SME



Our Vision

An inspired, educated, and prosperous manufacturing community



Our Mission

Promote manufacturing technology and develop a skilled workforce

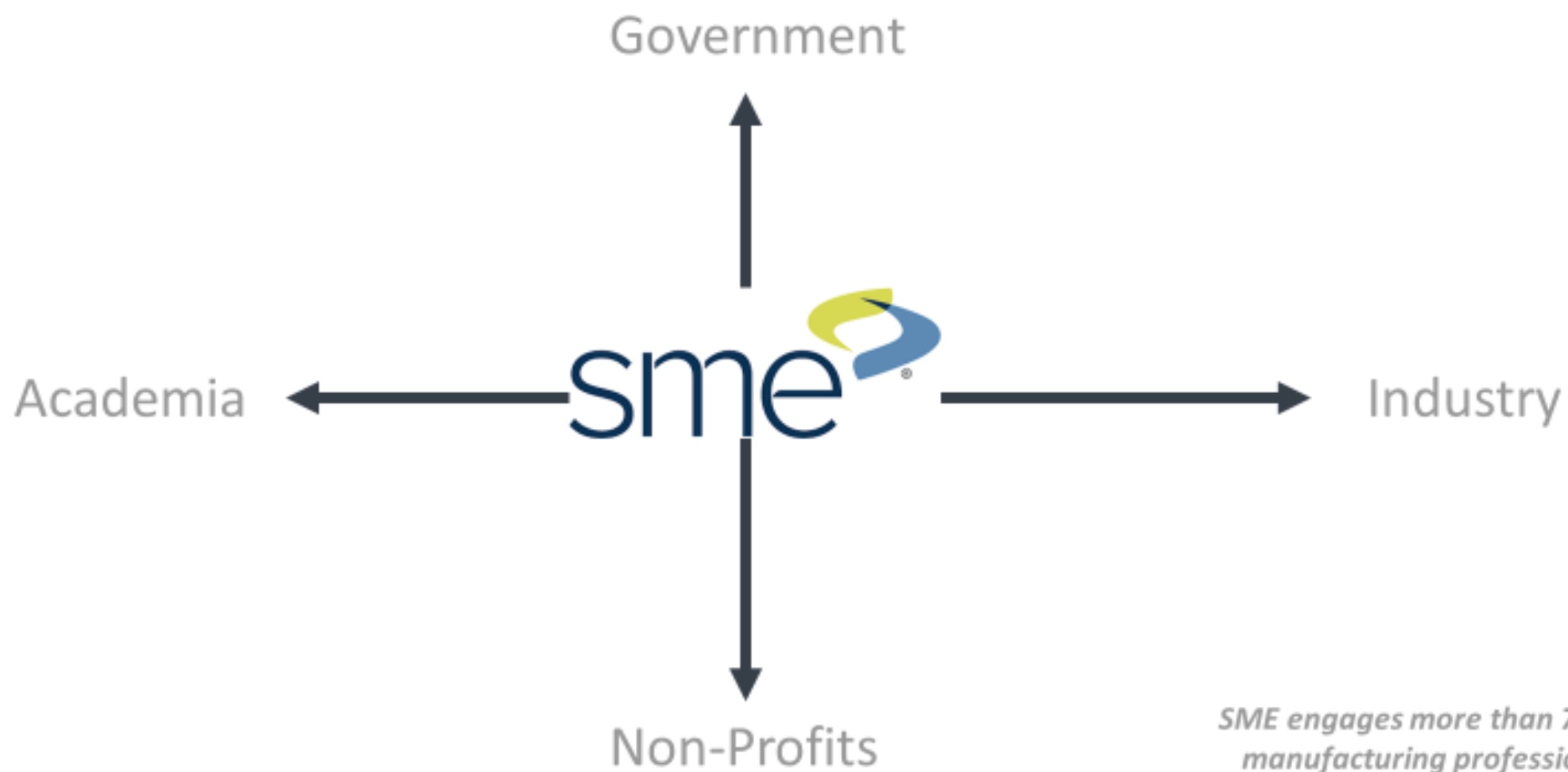


Our Purpose

Advancing manufacturing and attracting future generations

SME is a nonprofit organization that supports manufacturing based on our core belief:
Manufacturing is key to economic growth and prosperity.





*SME engages more than 750,000
manufacturing professionals,
educators and students each year*

SME Core Capabilities

Building Community

Networking, partnering,
fostering collaboration

Attracting Students

Introducing youth to
manufacturing careers and
promoting the industry

Industry Insights

Delivering insightful content
via multiple vehicles



Advancing Technology

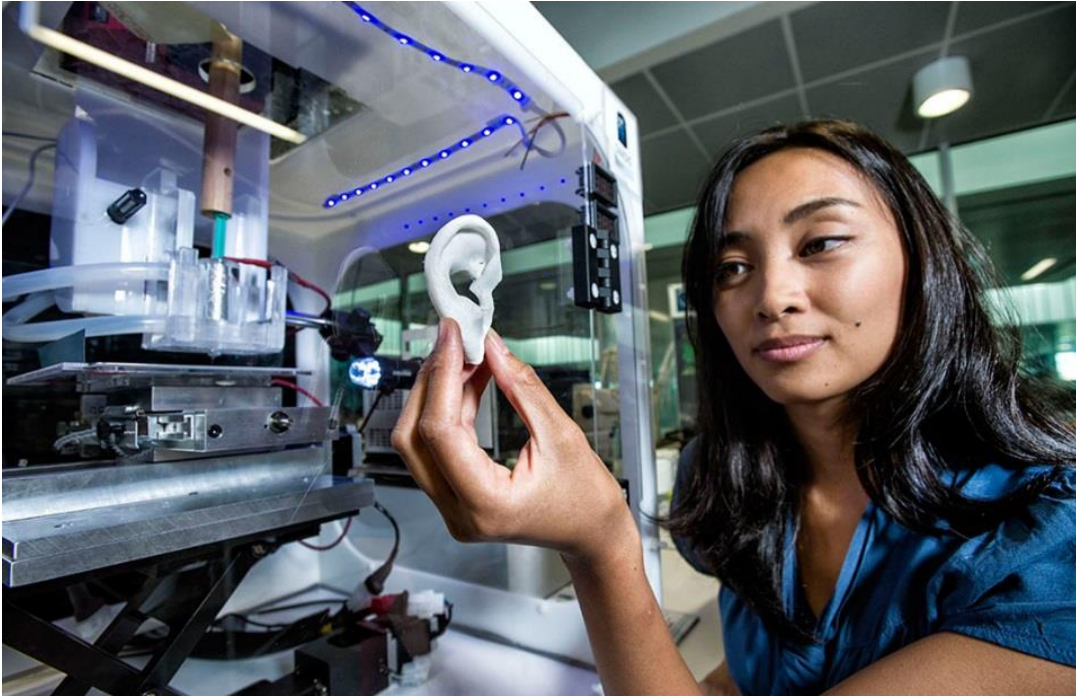
Facilitating the advancement of
technology thru connections and
identifying opportunities

Technology Adoption

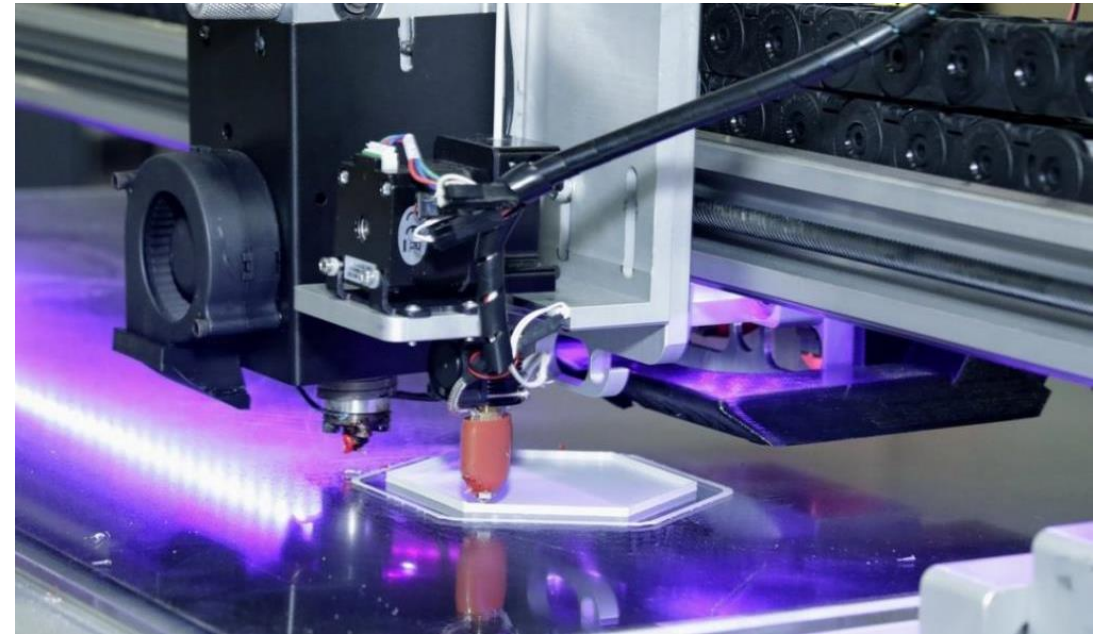
Increasing the adoption of
technology via partnerships, tools
and education

Developing Skills

Solving workforce challenges
thru customized solutions



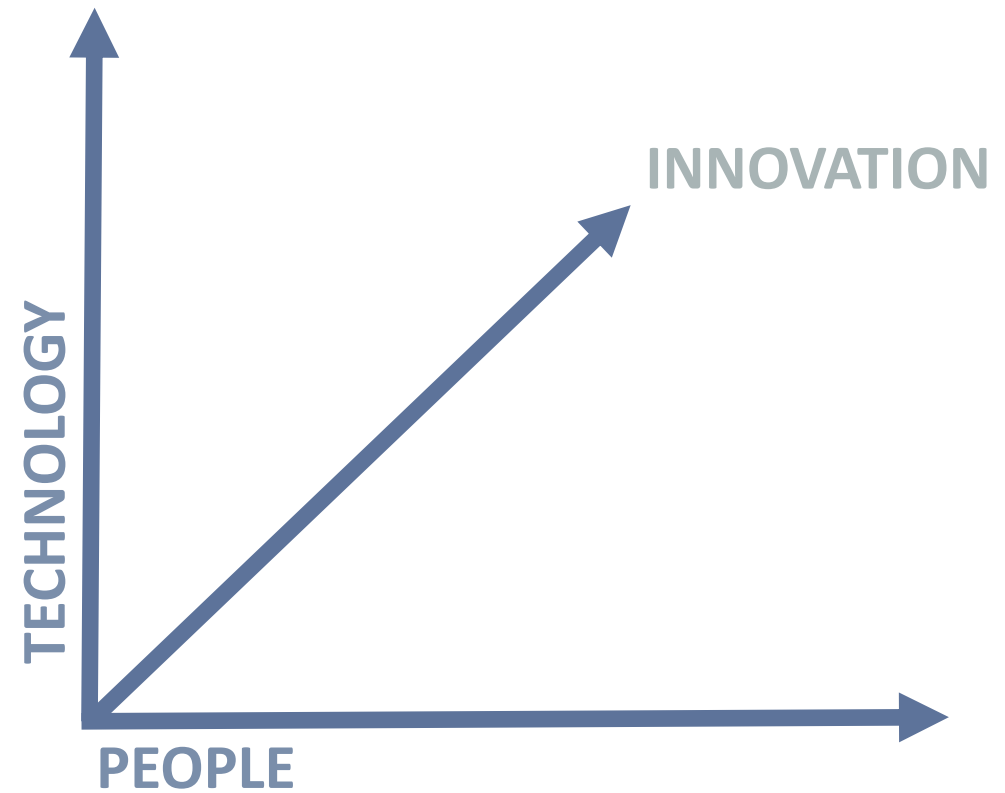
PEOPLE



TECHNOLOGY



Building Innovation Capabilities



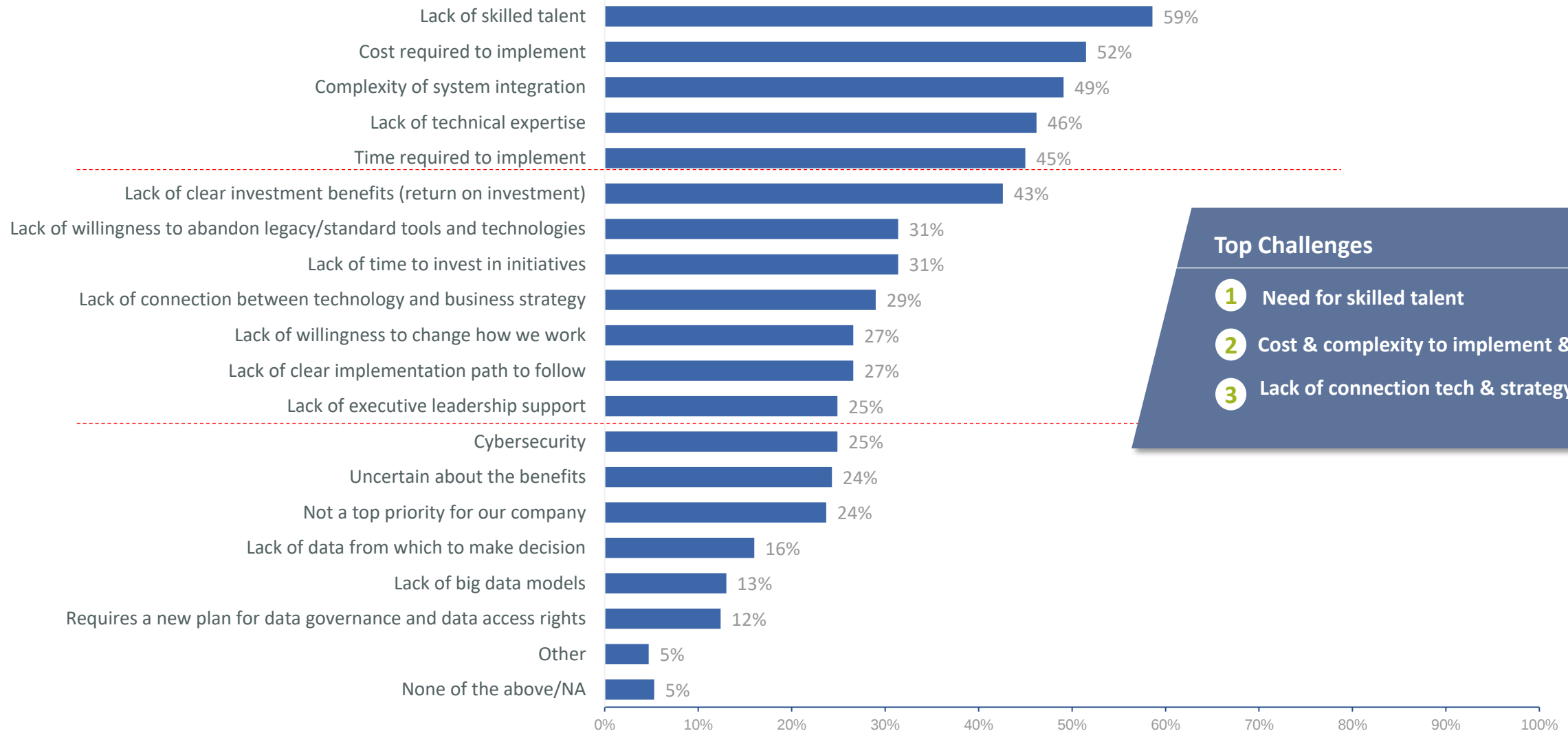
Global Manufacturing Competitiveness Index

TOP INDICATOR OF A COUNTRY'S COMPETITIVENESS

- ▶ Access to talented workers
- ▶ followed by a country's trade,
- ▶ financial and tax system, and
- ▶ the cost of labor and materials



Challenges to achieving Smart Manufacturing

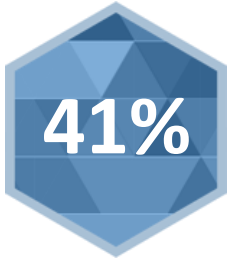


Insufficient Investments Despite Need



76%

Three-quarters (76%) say their company does not have a talent development strategy for manufacturing employees



41%

Only two out of five (41%) acknowledge their company trains people to develop the right knowledge and skills



51%

Only about half of companies evaluate critical job tasks with structured evaluations



28%

Only 28% say their company provides employees with training that meets the organization's needs for the future



Reskilling needs

WORLD
ECONOMIC
FORUM



of current workers' core skills are expected to change in the next 5 years.

Source: Future of Jobs Report 2020, World Economic Forum.

Technology.
People.
Work.



*Confluence of People and
Technology*

Disruption of How we Work

Top 10 skills of 2025



Analytical thinking and innovation



Active learning and learning strategies



Complex problem-solving



Critical thinking and analysis



Creativity, originality and initiative



Leadership and social influence



Technology use, monitoring and control



Technology design and programming

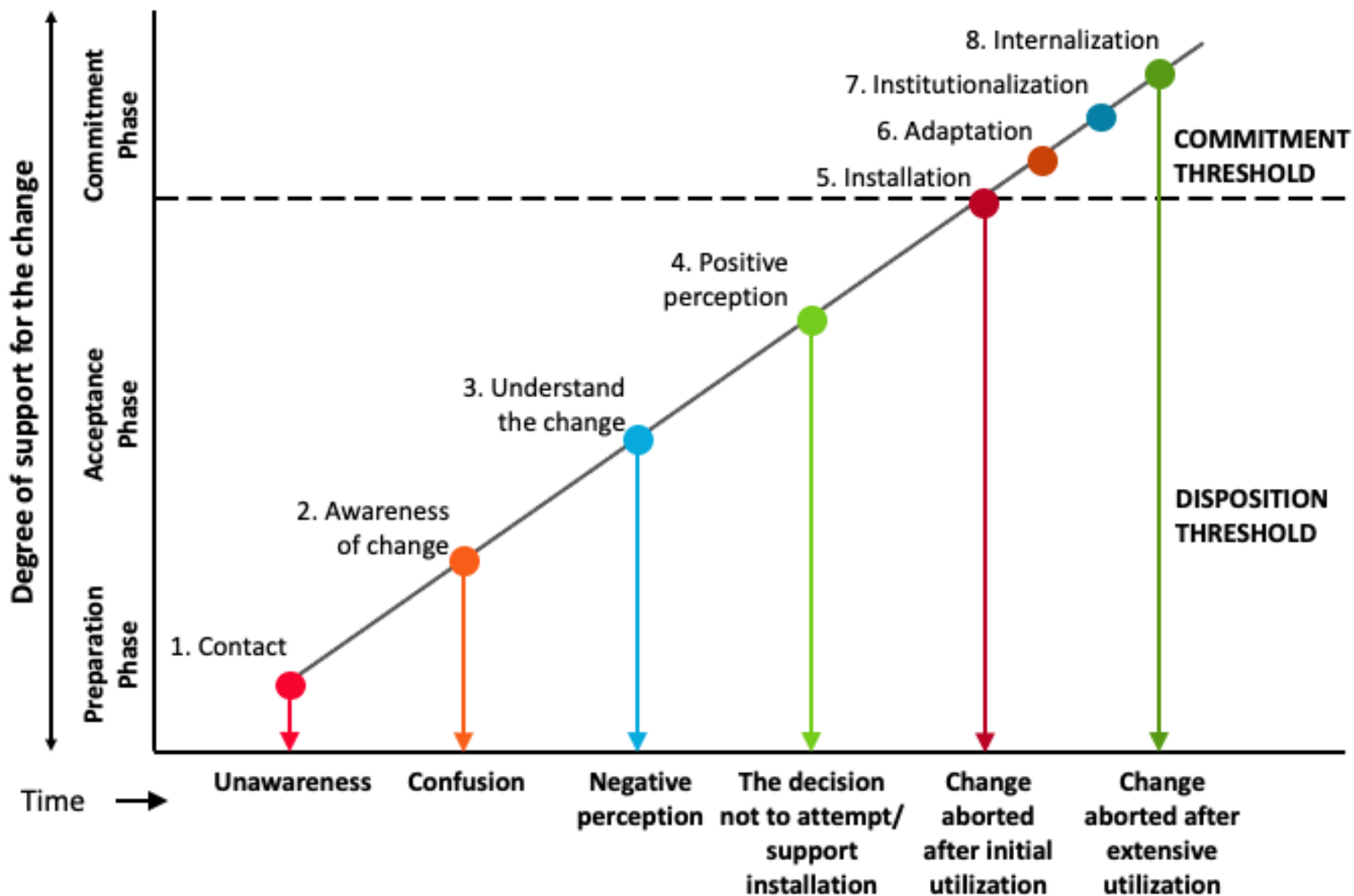


Resilience, stress tolerance and flexibility



Reasoning, problem-solving and ideation

DARYL CONNER 8 STAGES OF CHANGE





Partnering for Impact



Attract/Diversify



Educate/Train



Retain

“If we were to today, snap our fingers and have ten new fabs with the world’s leading chips, we probably wouldn’t have enough people to staff them. That’s the biggest bottleneck to the expansion of America’s fab capacity, not capital.”

Scott Kennedy, Senior Advisor

Center for Strategic and International Studies

The US is spending billions to boost chip manufacturing. Will it be enough?

CNN Business Media, Oct 18, 2022

Closing Thoughts...

1. Human capital must be a top priority
2. Consider the whole ecosystem of roles, education institutions and communities
 - Production roles, 2-year and high schools
3. Have clear specifications to what qualifications and quantity is needed
 - Current, future and educators
4. Ensure the ecosystem can support it – identify where and how
5. Utilize technology in all learning and workforce development
6. Design for adoption and scale: Think nationally. Act locally. Scale aggressively
7. Innovation everywhere.
8. Unprecedented collaboration



**THANK
YOU**

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