



# Scenario Planning: Building Resilience in Uncertain Times

September 15, 2021 | 7:45 - 8:30 PM ET



**Moderator:  
Brad Fravel**  
Virginia Tech



**Alba Clivati McIntyre**  
The Ohio State  
University



**Keith Aspinall**  
Arizona State  
University



**Karen Walker**  
Arizona State  
University



**Matthieu Karamoko**  
The Ohio State  
University



**Jamie Burns**  
Arizona State  
University



# SCENARIO PLANNING

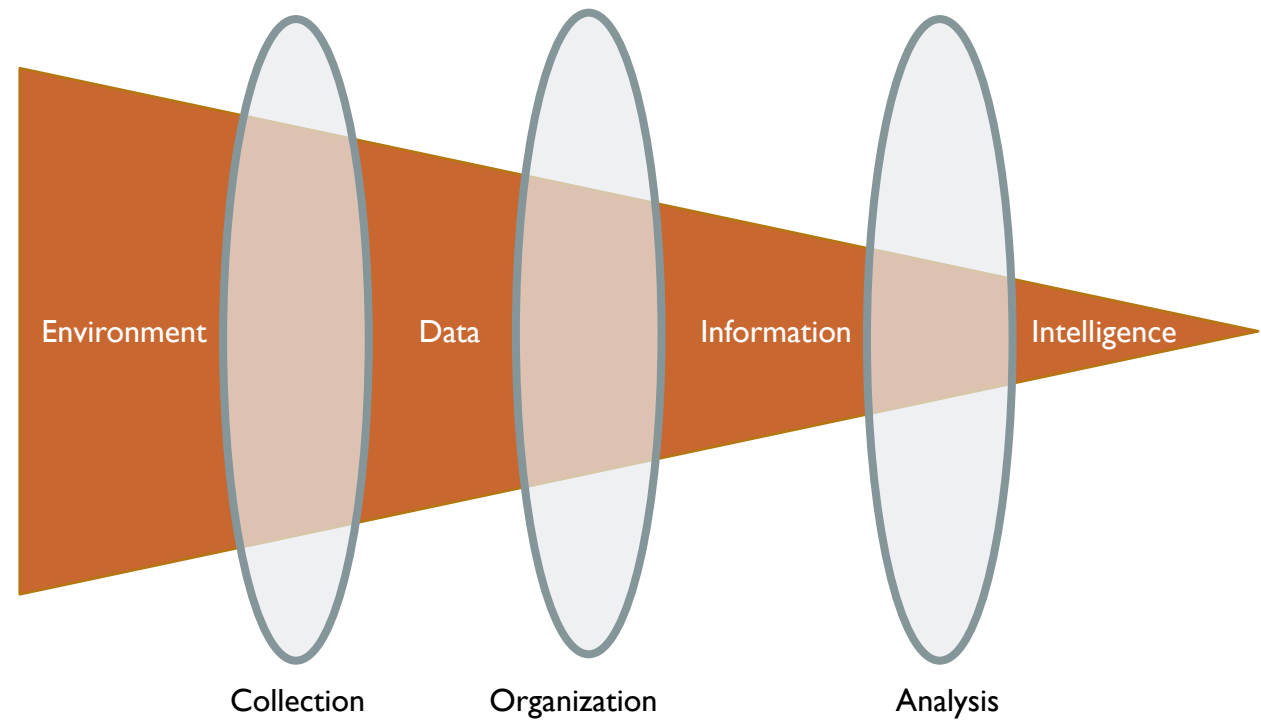
Building Research Resilience

Arizona State University  
Research Development  
Keith Aspinall, Senior Analyst  
Jamie Burns, Senior Analyst  
Karen Walker, Associate Director

Ohio State University  
Strategic & Comp. Intelligence Office  
Alba Clivati McIntyre, Director  
Matthieu Karamoko, Senior Analyst

## WHAT IS COMPETITIVE INTELLIGENCE?

Competitive Intelligence (CI) is the ethical collection and analysis of information which informs decision-making



## CI IN ACADEMIA

### ASU

8 years in existence

2.5 analysts

- Focused on research enterprise
  - Sponsor and program analysis
  - Research landscapes
  - Funding landscapes
  - Capacity analyses
  - External profiling
  - Federal budget monitoring
  - Strategic intelligence
  - Future casting

### OSU

8 years of existence

2 analysts

- Focused on corporate engagement
  - Research
  - Affinity deals
  - Company/sector strategy
  - Holistic strategy for engagement
  - Market analysis
  - Technology development analysis
  - Capacity and competency analysis
  - Center/institutes strategic planning

# WHY SCENARIO PLANNING

Provides resilient actionable intelligence

When outcomes/ impacts are difficult to determine

It is uncertainty based and elucidates associated risks and opportunities

It is not forecasting or future envisioning

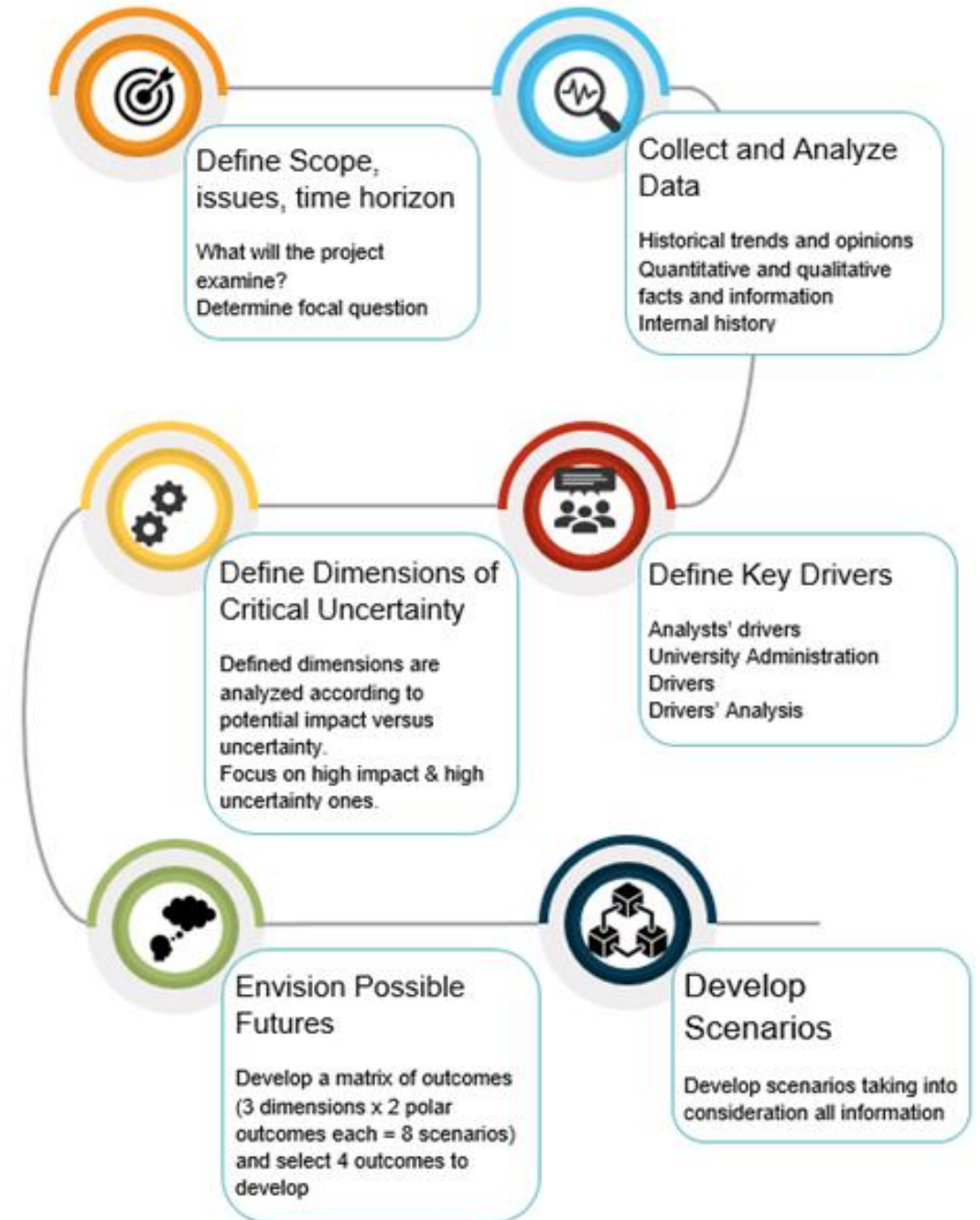
Scenarios must be plausible

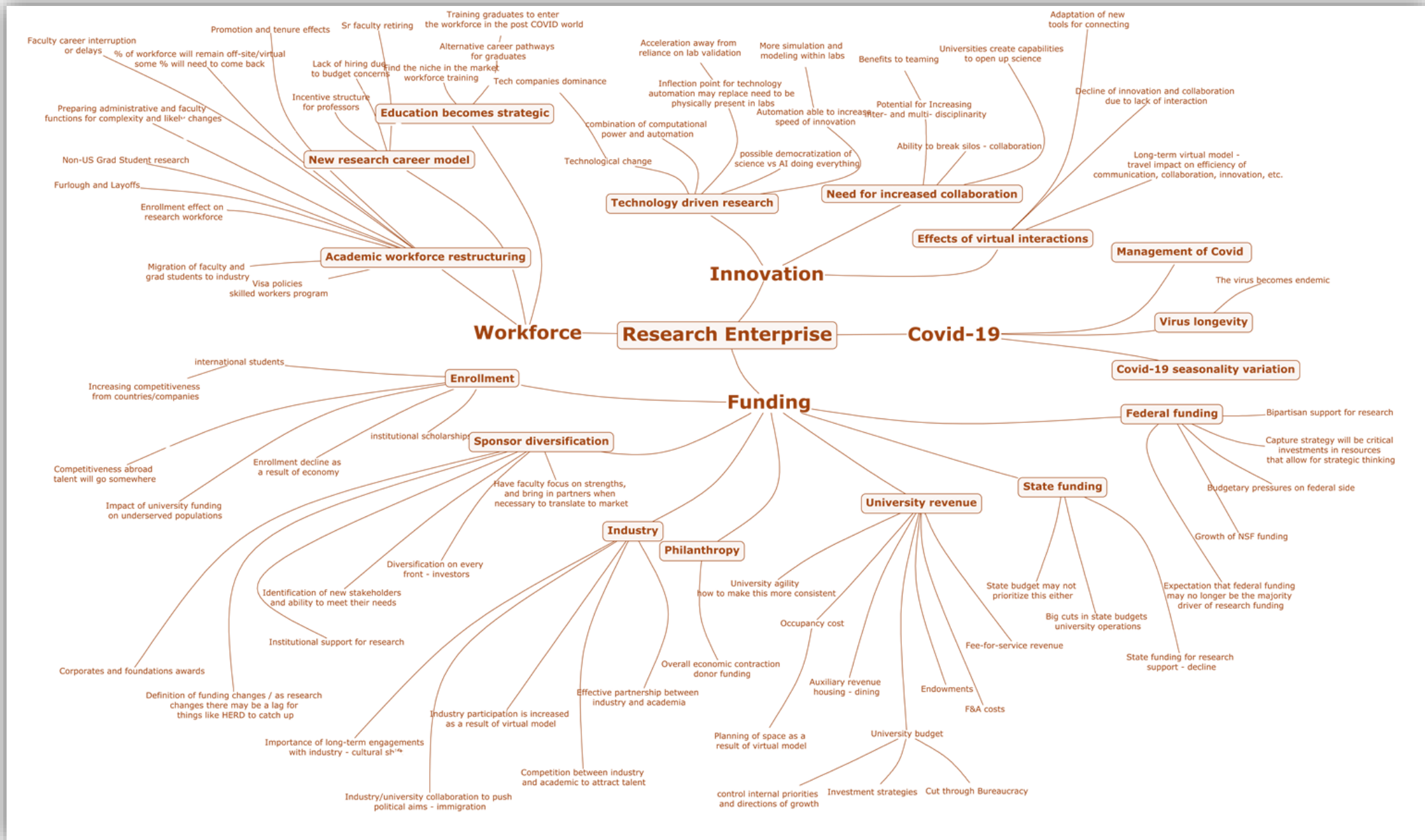
**V**olatile  
**U**ncertain  
**C**omplex  
**A**mbiguous

**T**urbulent  
**U**ncertain  
**N**ovel  
**A**mbiguous

# METHODOLOGY OVERVIEW

- Arduous process
- Quantitative and qualitative metrics/HUMINT
- Multiple perspectives needed
- **STEEP** holistic approach
- Determine critical dimensions of uncertainty
- Develop narratives
- Recommend





**Volatile**  
**Uncertain**  
**Complex**  
**Ambiguous**



**Drivers**



**S**  
**T**  
**E**  
**E**  
**P**

# SCENARIO MATRIX

*What will the research enterprise look like at research intensive universities in 2025?*

	Funding Pipeline		Research Workforce		Innovation Culture	
	Traditional	Diverse	Reduced	Robust	Reactive	Proactive
Scenario A ('Best')		<b>X</b>		<b>X</b>		<b>X</b>
Scenario B		<b>X</b>		<b>X</b>	<b>X</b>	
Scenario C		<b>X</b>	<b>X</b>			<b>X</b>
Scenario D		<b>X</b>	<b>X</b>		<b>X</b>	
Scenario E	<b>X</b>			<b>X</b>		<b>X</b>
Scenario F	<b>X</b>			<b>X</b>	<b>X</b>	
Scenario G	<b>X</b>		<b>X</b>			<b>X</b>
Scenario H ('Worst')	<b>X</b>		<b>X</b>		<b>X</b>	



# SCENARIO A: THE PROMISE OF SPRING

- Dissipating COVID & Rebounded Economy
- Investment into science and technology
- Growth of digital offerings
- Diverse sponsor portfolio
- Quality over quantity partnerships
- Free and open data sharing
- Growing and diversifying workforce

Funding Pipeline

**Diverse**

Research Workforce

**Robust**

Innovation Culture

**Proactive**

## SCENARIO B: DOING TOO MUCH

- Minimal COVID & economic impact
- Inclusive engagement of campus communities
- Focus on morale
- Pursuit of diverse funders
- Lackluster open science policies
- Student generator, but not research partner
- Over extension
- Lack of agility

Funding Pipeline

**Diverse**

Research Workforce

**Robust**

Innovation Culture

**Reactive**

## SCENARIO E: HOPE ON THE HORIZON

- Strained global economy
- Many universities made cuts to programs and personnel
- Proactive administration supports faculty, invests in research infrastructure, and supports open science
- Research is focused on federal government priorities and opportunities.
- Philanthropic funding lacking, but industry partnerships more targeted for success

Funding Pipeline  
**Traditional**

Research Workforce  
**Robust**

Innovation Culture  
**Proactive**

## SCENARIO H: SEASON OF DARKNESS

- Coronavirus is endemic
- Federal government and industry focused on the here and now
- Universities face declining enrollment and closures
- Academic research is contracting, to mostly applied research in biomedical and select technological fields
- Lack of targeted investment and decline of innovation culture has reduced funding diversification
- Reduced workforce and less diverse students, staff and faculty

Funding Pipeline  
**Traditional**

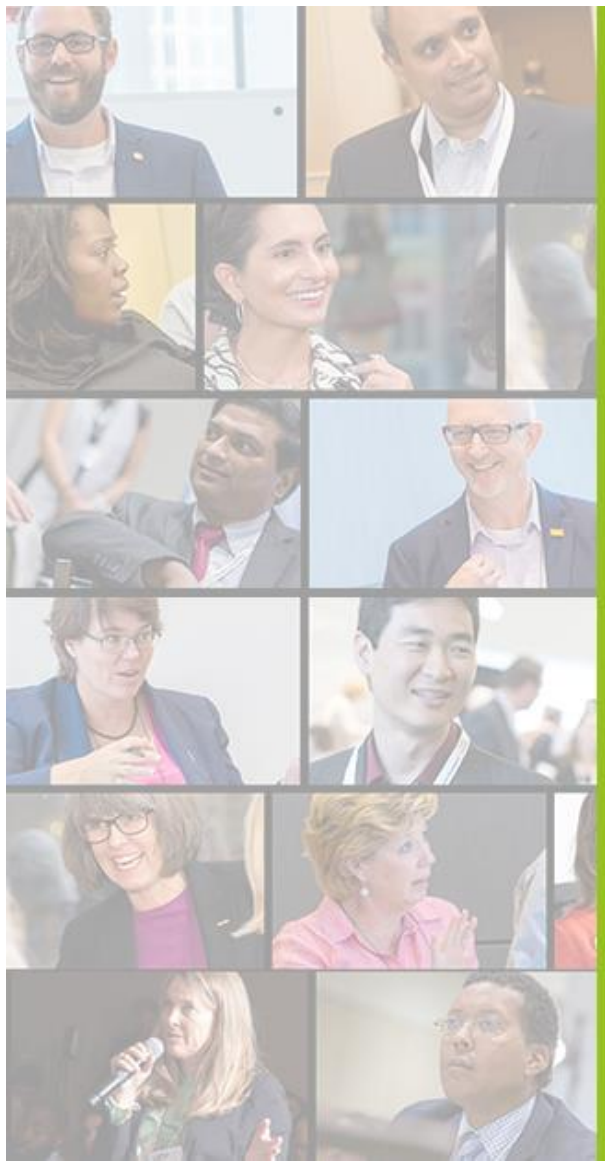
Research Workforce  
**Reduced**

Innovation Culture  
**Reactive**

# SELECTED RECOMMENDATIONS

Objective: increase research enterprise resilience

1. Prepare for new competition
  - Industry is entering the workforce training and education space
  - Be proactive in developing learning/research relationships with companies
2. Secure, diversify, and guarantee the research workforce
  - Work with industry to secure faculty by jointly offering endowments, co-location, and access to technology
  - Certification programs for students to build the workforce
3. Embrace AI
  - As AI is being integrated into all fields, it is critical to find industry partners to help create an AI-proficient organization



# Unlocking Innovation: Insights into the UK's Mackintosh Report

September 16, 2021 | 8 - 9 AM ET

---



**Moderator:**  
**Martin Davies**  
University College London



**Hetti Barkworth-Nanton**  
Ploughshare Innovations