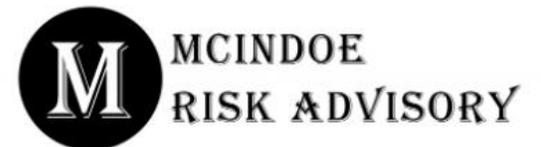


MEGATRENDS

Global Forces Shaping Tomorrow
Require Innovation Today

D. Bruce McIndoe

McIndoe Risk Advisory LLC



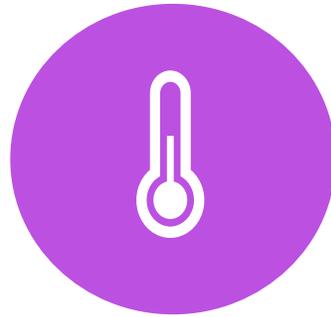
Drivers and Disruptors



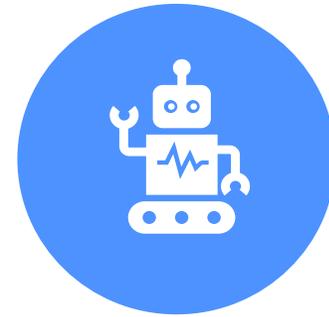
**GLOBALIZATION/
NATIONALISM**



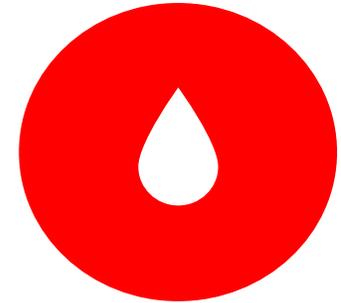
**DEMOGRAPHIC
DYNAMICS**



**CLIMATE
CHANGE**



**TECHNOLOGY
INNOVATION**



**RESOURCE
SCARCITY**



Globalization/ Nationalism

**THESE IMMINENT THREATS HAVE
BEGUN TO SHAPE THE NEXT 20 YEARS**

Nationalism is Resurgent

Self-Interest vs. Mutual Satisfaction

Deglobalization is Accelerating

Driven by shifts in production and labor markets, technology and climate change

Fragmentation is Increasing

Coming Now: Team China vs. Team West



“United Federation of the Americas”

Wealth: US GDP/P \$64,767 is 8x China’s \$8,033

Demographics: 1.1B people in a blended labor force

Resources: Minerals, Forests, Farmland, Water

Innovation: Best schools, investment, track record

Technology: Advanced to on par with China

Protection: Military and natural (2 oceans)

Climate Resiliency: Continuous growing season



Demographic Dynamics

7.9B TODAY WILL BE UNEVEN 9.7B IN 2050

Developed World

- LOWER growth rates, aging populations
- FEWER hands-on deck
- GAPS between the need for skilled labor and priority of high-tech

Developing World

- HIGH growth rates and “youth bulge”
- MANY hands-on deck
- LIMITED jobs

Watch For

- Megacities and the 100M+ megalopolis
- Urban vs. Rural tensions escalating
- Mass migrations due to social, political and economic hardships



Climate Change

INCREASINGLY COMPLEX WEATHER PATTERNS

Impacts of climate change compound already stressed migratory and assimilation pressures:

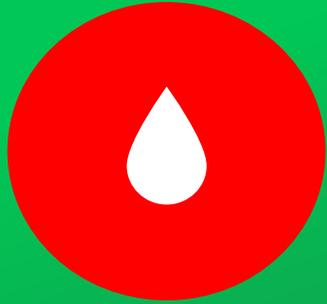
SEVERE and more frequent incidents

COSTS for recovery escalate

COASTLINES erode

SHIFTS in arable land

CROPS fail



Resource Scarcity

Increased conflict and political tensions are certain as food, energy and water consumption patterns continue to change.

STRATEGIC partnerships between governments and businesses will be needed

SECURING resources domestically will be a scramble as prospectors step in

REGULATORY expansion is inevitable (restrictions, taxation, (dis)incentives)



Technology Innovation

“Robots will be able to do everything better than us...and I think people should be really concerned by it.” —Elon Musk

Advanced materials and 3-D printing

Robotics and genetic manipulation
(hacking the human)

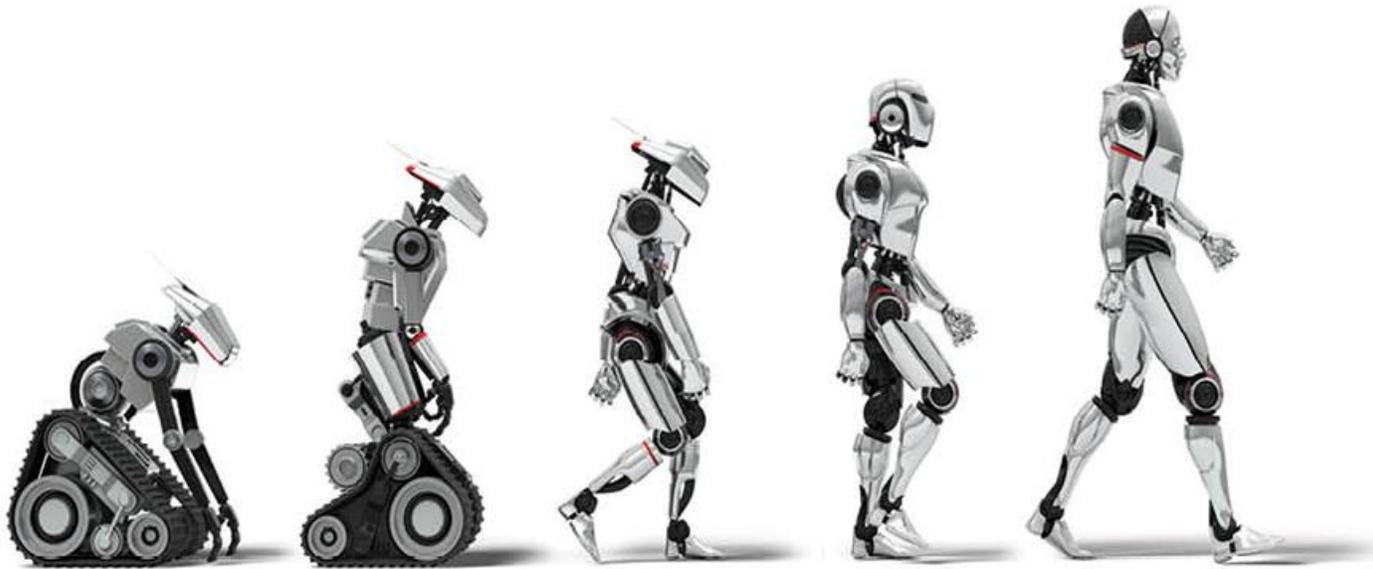
Ubiquity/IoT and “universal access”
broadband by 2027

Artificial Intelligence (AI) and Machine
Learning (ML)

Biofuels and energy storage

Quantum and nanotechnology

Robots are Here!

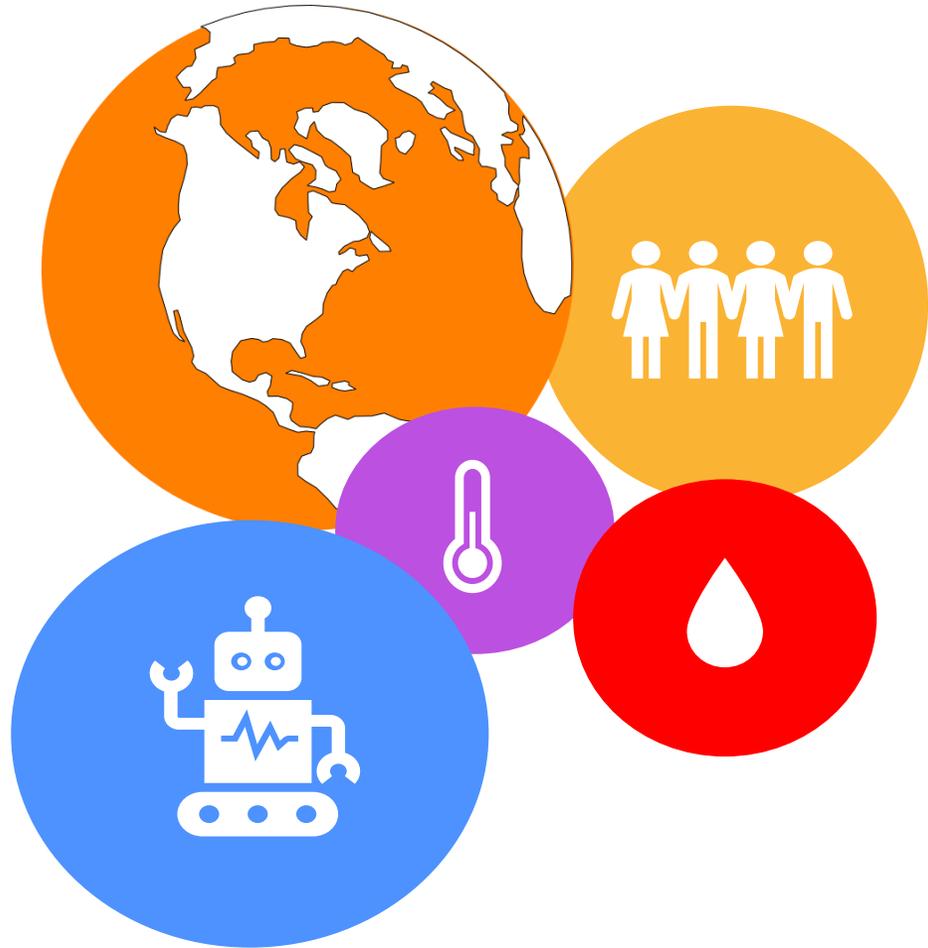


Robots could replace as many as 2 million US workers in manufacturing alone by 2025.

MIT and Boston University



Reasons for Hope



Water Technology: Solar desalination, moisture conversion, recycling

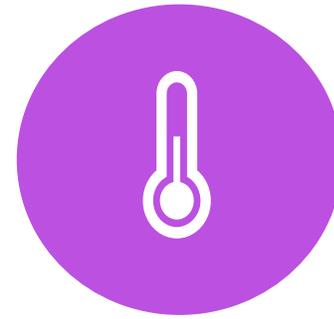
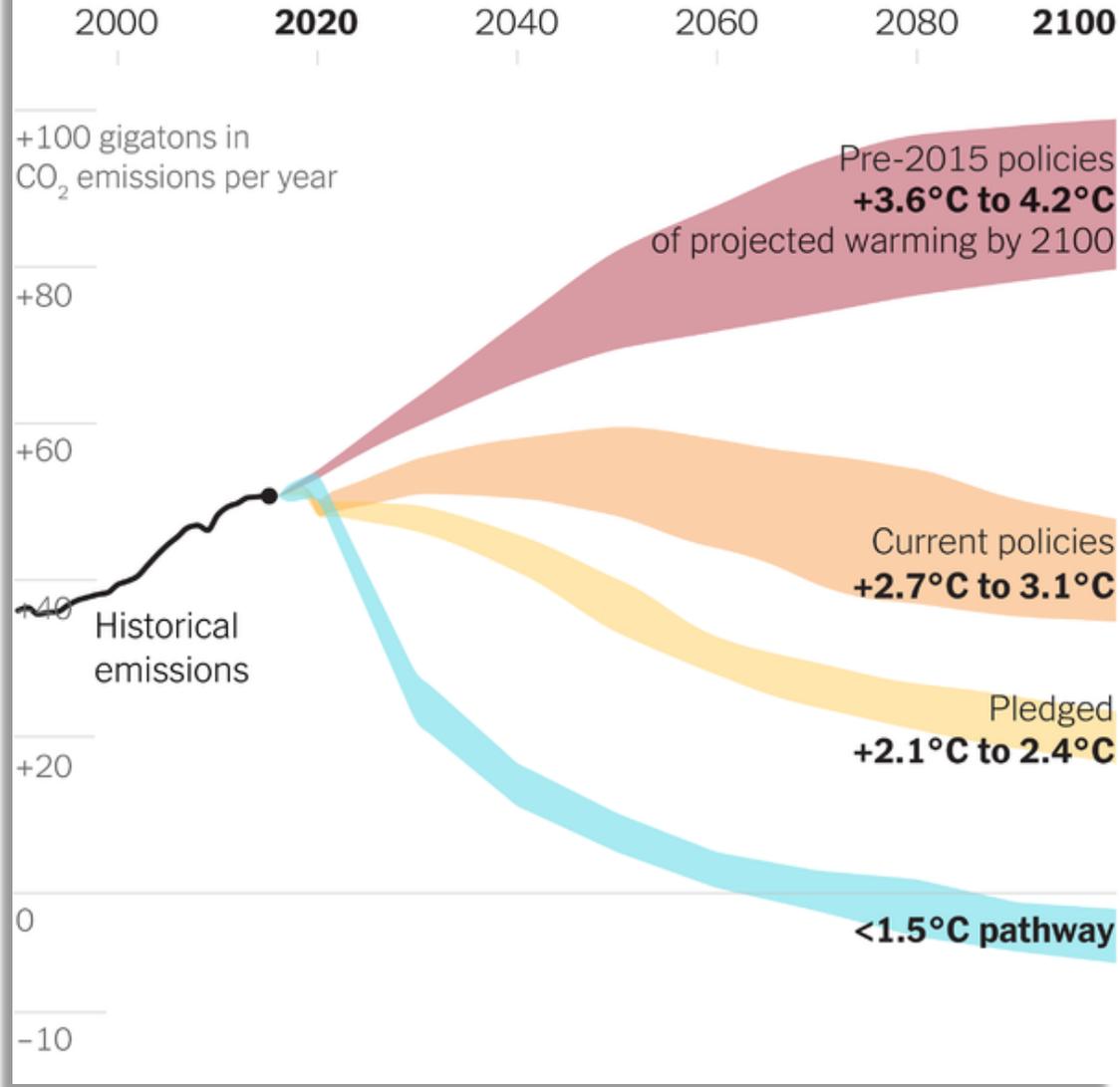
Advanced Farming: Aeroponics, protein production, etc.

Power Gen/Storage Technology: Move from fossil fuels, distribute production/storage

Materials Advancement: Alternative supply, parts on demand

Modular Recyclable Materials: Reuse/Reduce

Pathways of global greenhouse gas emissions



Climate Optimism

PROGRESS has been made!

RENEWABLE is cheaper than oil and gas

INVESTMENTS in \$100s billions

UNITED global citizens led by youth
exert collective pressure through
individual contributions

Better, Safer, Smarter

McIndoe Risk Advisory helps enterprise leaders achieve Agile Operational Resiliency™ to maintain productivity and grow through the most difficult challenges. We work with Global 2000 & SME clients to adopt a predictive, proactive posture to threats by leveraging our proprietary continuous risk management model and harnessing leading edge technologies.

- > Operational Resilience Enablement
- > Active Threat/Shooter Management
- > Workplace Violence
- > Travel & People Risk Management
- > Protective Services Assessment
- > Agile Business Continuity Programs
- > Geopolitical Security Briefings
- > Future Forecast Briefings
- > Asset & Supply Protection
- > Integrated Intelligence & Risk Management

BRUCE@McIndoeRiskAdvisory.com / +1 (540) 328-0217

