

# DISRUPTION CHANGES, CRISIS AND MEGATRENDS

**A Global Perspective**

# Objectives of the session

The session will address disruptions, changes, crisis and megatrends in from a Global perspective using three separate lenses.

- (a) Technology driven disruption
- (b) Economic, social, political and physical Global Megatrends
- (c) Challenges from a global risk horizon perspective

(d) Discussion sessions



Technology driven disruption  
Society and Business  
Transformation



Megatrends -Economic, social,  
political and physical and  
Global



Global risks and Societal  
Challenges.

# Today's Session

- 1 Introduction to the Session
- 2 Technology driven disruptions
- 3 Global megatrends
- 4 Global Risks and Challenges
- 5 Conversations
- 6 Questions and possible answers

# Technology Disruptions

# Technology Disruptions

**HEALTH**

“Breakdowns create breakthroughs.  
Breakthroughs create more breakthroughs.

More breakthroughs create friction  
because idiots be jealous or don't get it or  
protect their little corner and act out of  
spite.

So you breakdown for another  
breakthrough.

If you're about to break, go for broke.  
If you're not breaking, you're not really  
living.”

RICHIE NORTON

Artificial  
Intelligence

Advances in  
omics'  
technologies

mobile health  
application

telemedicine

Superplatforms

Disruptive  
Innovations  
basic science ,  
diagnostics,  
digital health,  
education,  
processes and  
techniques

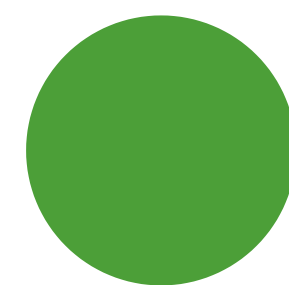
health  
informatics

@sureshgeorge

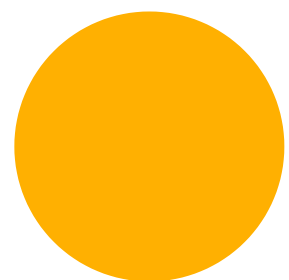
# Artificial Intelligence

“The greatest opportunity offered by AI is not reducing errors or workloads, or even curing cancer: it is the opportunity to restore the precious and time-honored connection and trust—the human touch—between patients and doctors. Not only would we have more time to come together, enabling far deeper communication and compassion, but also we would be able to revamp how we select and train doctors.”.

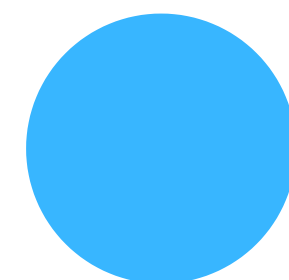
ERIC TOPOL, DEEP MEDICINE: HOW ARTIFICIAL INTELLIGENCE CAN MAKE HEALTHCARE HUMAN AGAIN



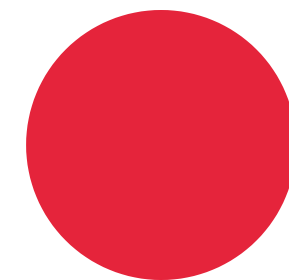
**AI and Empathy**



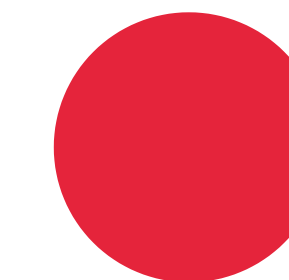
**Replacing Doctors with Robots**



**AI in diagnostic decision support systems**



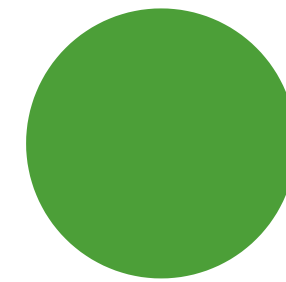
**Replicating Trust through AI**



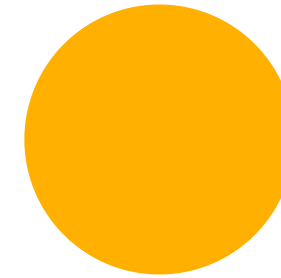
**Superplatforms AKA Deepmind**

# Super Platforms

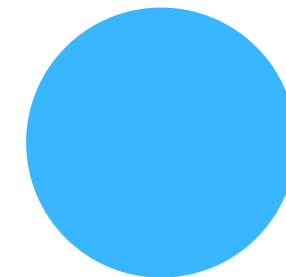
'super-platform' > an online-to-offline (O2O) type of digital infrastructure, which spans across multiple sectors of economic activity providing a way for users (both businesses and consumers) to operate with multiple resources, products and services within a uniform, standardized, and highly interconnected way (Buvalio, 2018)



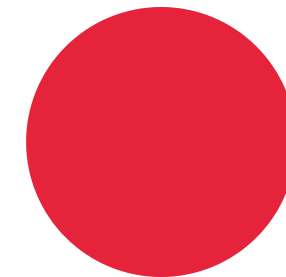
**Google DeepMind, Tencent, Responsum Health, IBM watson**



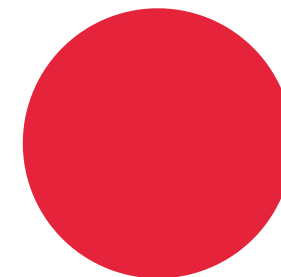
**Social Media, Online business ecosystems moving into mediated healthcare info access**



**Tencent with Babylon Health apps and iCarbonX**



**Super-platforms in pharmaceutical research**



**Challenges from the online 'Informed' patient and the need to empower the patient.**

# Technology Disruptions

**TRENDS**

 **The Bio Revolution**

 **Industrial IoT and speed of manufacturing**

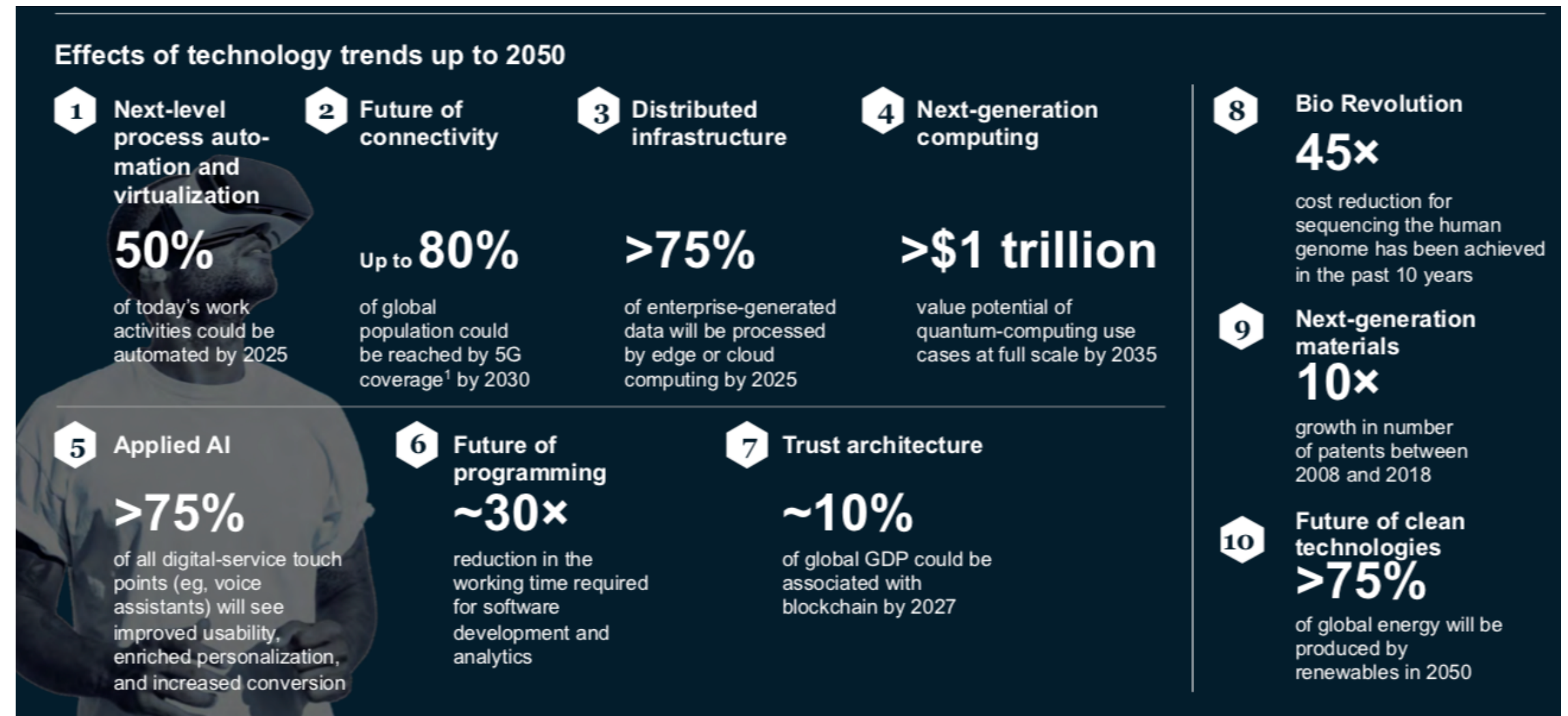
 **Future of clean technologies**

 **Next-generation materials**

“In the next 10 years, we’ll reinvent every industry’ ”

“In the next decade, we will experience more progress than in the past 100 years. ”

PETER DIAMANDIS



source:McKinsey & Company

@sureshgeorge

NHS Management Training

8 October 2021



# Megatrends

# Megatrends

“The modernization of Asia will forever reshape the world as we move toward the next millennium.”

JOHN NAISBITT

 **Rapid urbanisation**

 **Climate change and resource scarcity**

 **Shift in global economic power**

 **Demographic and social change**

 **Technological breakthroughs**

source:pwc

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NHS Management Training

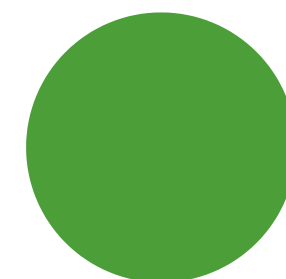
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# Rapid Urbanisation

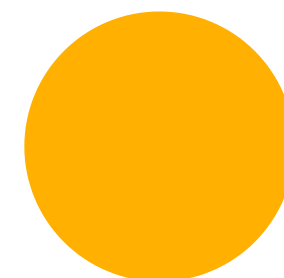
Cities consume **75%** of the world's natural resources and account for **80%** of global greenhouse gas emissions



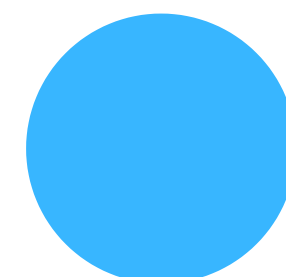
Source: United Nations, 2015



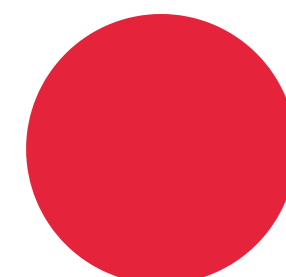
**1.5 million people are added to the global urban population every week**



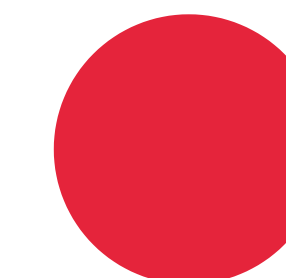
**A staggering 90% of this urban population growth will take place in African and Asian countries with rapid urbanisation placing huge demands on infrastructure, services, job creation, climate and environment**



**85% of global GDP was generated in cities**



**Urbanisation 'dividend' in Developing countries**



**Uncontrolled rapid urbanisation and pressures on society and infrastructure**

source:pwc

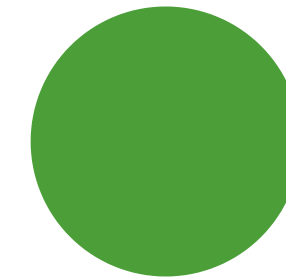
# Shift in global economic power

*Emerging markets will dominate the world's top 10 economies in 2050 (GDP at PPPs)*

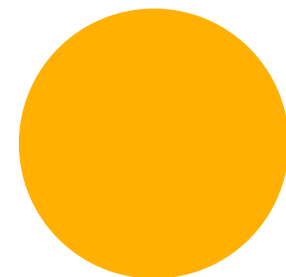
	2016	2050	
China	1	1	China
US	2	2	India
India	3	3	US
Japan	4	4	Indonesia
Germany	5	5	Brazil
Russia	6	6	Russia
Brazil	7	7	Mexico
Indonesia	8	8	Japan
UK	9	9	Germany
France	10	10	UK

E7 economies
  G7 economies

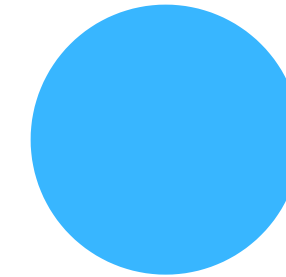
Sources: IMF for 2016 estimates, PwC analysis for projections to 2050



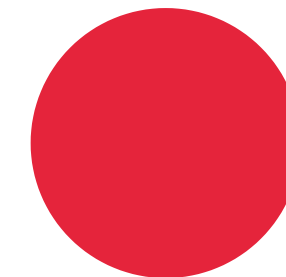
The fallout from a drop in commodity prices has hit engines of growth in emerging markets.



Commodity dependent economies in Africa hit hard



China is unquestionably experiencing slower growth, Indian economy is growing due to lower commodity prices.



Diversification an increasing priority for commodity-dependent economies

source:pwc

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# Global Risk & Challenges

# Global Risks

**Businesses that reflect societal values can strengthen societal trust and reduce inequality**

- Health fallout from the pandemic & uneven recovery
- Worsening Underlying disparities in gender, race, age and income inequalities
- Lack of access to quality and affordable healthcare, education or digital tools is rising
- Private and public debt has been accumulating since 2019.
- Societal fragmentation, social cohesion erosion” and “livelihood crises

source:WEF

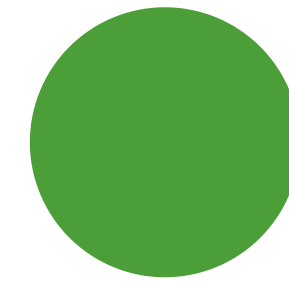
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NHS Management Training

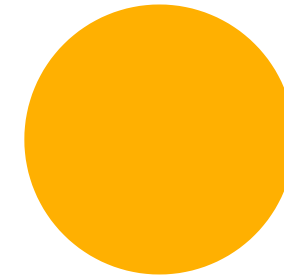
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# Societal fragmentation

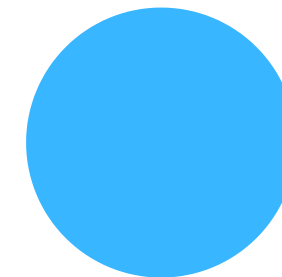
"Pandemics" are at risk of becoming the double lost generation of the 21st century"



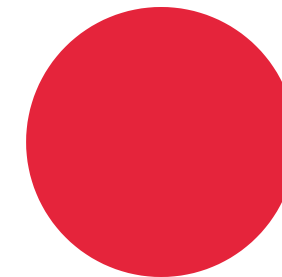
**Youths–A scarred generation .School closures aggravated youth inequalities between and within societies**



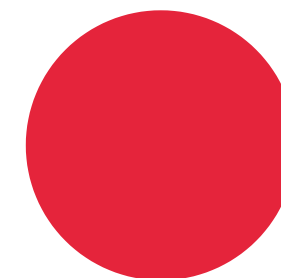
**Employment turmoil**



**Fear, anger and backlash**



**Subversive influences, Misinformation, cyberattacks, targeted strikes and resource grabs**



**Growing nationalism**

source:WEF

# Let's talk!

**Discussions and Scenarios**



You have been called into help with colleagues in A&E who are struggling to understand why large numbers of patients have turned up with strange symptoms.

A group is says they heard a low hum and intense pressure in their skulls; another felt a pulse of pain.

Yet another group have complained of dizziness and fatigue for months

The intrigue continues when the clinical director is visted by MI6 and asked to isolate all the patients.

## WHATS HAPPENNING!

# Conclusion

Growing societal fragmentation—manifested through persistent and emerging risks to human health, rising unemployment, widening digital divides, and youth disillusionment—can have severe consequences in an era of compounded economic, environmental, geopolitical and technological risks

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## Tech.Disruption

Technology will disrupt everything beyond imagination.

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## Megatrends

An interconnected world will force structural changes in the way we live and work.

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## Global Risks

Societal dynamics has changed due to the damages caused by both economic stagnation in regions and the impact of the pandemic.

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**SCAN ME**

for additional readings on this  
presentation

# Questions

