

Constructing Social Futures

- Sustainability, Responsibility and Power



Dr Michael Jackson, Shaping Tomorrow, 12–13 June 2019 in Turku, Finland

Constructing Social Futures - the process

1. Conference survey results

The screenshot shows the 'CONSTRUCTING SOCIAL FUTURES' website interface. At the top, there is a search bar with the text 'ENTER KEYWORD' and a 'Forecasts' dropdown menu. Below the search bar is a navigation menu with options: HOME, INVITE, FEEDBACK, GLOSSARY, LIBRARY, APP, PRINT, ADMIN, LOGOUT, and UPGRADE. The main content area is titled 'CONSTRUCTING SOCIAL FUTURES' and 'Sustainability, Responsibility and Power 12-13 June 2019, Turku, Finland'. It features a sidebar with categories like PROFILE, GUIDE, SOURCES, CHALLENGES, DECISIONS, MEMBERS, and PERSONALIZE. The main content area contains several survey questions with text input fields, such as 'How might the future be different?', 'Why is this important?', 'Who will shape our future?', 'What might we do about it?', 'When will action be needed?', and 'Where should we focus?'.

Fully human-produced with summation by a text analyser

2. Digital foresight from our robot

The screenshot shows the 'SHAPING TOMORROW' website interface. At the top, there is a search bar with the text 'ENTER KEYWORD' and a 'Forecasts' dropdown menu. Below the search bar is a navigation menu with options: HOME, INVITE, FEEDBACK, GLOSSARY, LIBRARY, APP, PRINT, ADMIN, LOGOUT, and UPGRADE. The main content area is titled 'SHAPING TOMORROW' and 'MAKING BETTER DECISIONS TODAY'. It features a sidebar with categories like PROFILE, GUIDE, SOURCES, CHALLENGES, and PERSONALIZE. The main content area contains a 'Driving Forces' section with a list of bullet points, a radar chart, and a section titled 'Organizations' with various logos. The radar chart shows data points for categories like growth, technology, production, policy, city, population, power, energy, data, economy, and food. The 'Organizations' section lists various entities like U.S. Government, IDC, Gartner, IBM, Yahoo!, Apple, Facebook, NATO, European Central Bank, NASA, European Union, Uber, Amazon, United Nations, Google, Microsoft, National Health Service, OPEC, International Energy Agency, and U.S. Energy Information Administration.

Almost fully robot-produced except for the bulleted summaries



Summary conclusions



Conference Survey

- ▶ Climate Change is top concern
- ▶ Privacy is also a high concern
- ▶ Societal education is key
- ▶ Promote foresight far more
- ▶ IT is seen as an enabler of change
- ▶ Kindness needs to top hostility
- ▶ Accent the good, minimise the bad
- ▶ Use less, recycle, repair more
- ▶ Encourage long-term value generation
- ▶ Action now!

Robot's Findings

- ▶ Increasing societal demands for action
- ▶ Accelerate push for global sustainability through greater societal education
- ▶ Need for common societal vision, values and goals
- ▶ Concentrate on creating sharing economies, improving cities and their organizations with the use of better intelligence and reducing consumption
- ▶ Engage with Generation Alpha
- ▶ Action now!

Conference results

Key messages

- ▶ Educating people and business is key
- ▶ Climate change is where to start
- ▶ Use technology to spread the message and improve lives
- ▶ Be kind, accent the good, use less



How will the future be different?

- × Climate change
- × Environmental management
- × Environmental education
- × Information technology
- × Climate change policy



Climate change
and IT stand out

TOPICS

- Afterlife
- Carbon footprint
- Climate
- Climate change**
- Climate change adaptation
- Climate change migration
- Climate change policy**
- Climatology
- Conservation programs
- Consumer behavior
- Copenhagen Accord
- Digital humanities
- Energy consumption
- Environmental certification
- Environmental control systems
- Environmental education**
- Environmental management**
- Future interests
- Green economics
- Heating ventilation and cooling
- Humanities instruction
- Income inequality
- Information technology**
- International environmental cooperation
- International politics
- Knowledge
- Mind
- Mountain passes
- Mountain peaks
- Mountaineering
- Mountains
- Old time music
- Project management
- Renewable energy
- Subtropics

LOCATIONS

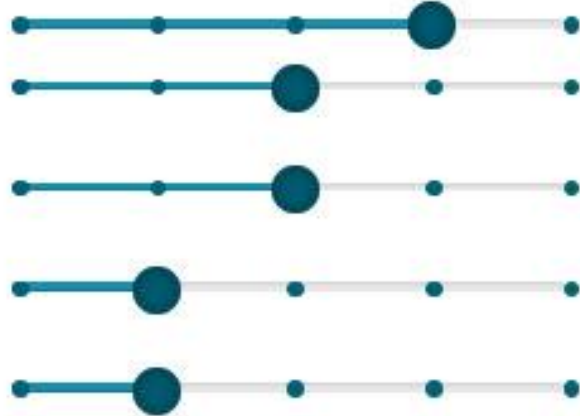
- China
- Europe
- Society
- US
- United Nations

ORGANIZATIONS

- AI
- Artificial Intelligence
- ESG
- European Union
- Google

Why is this important?

- × Climate change
- × Ecological sustainability
- × Information technology
- × Employment interviews
- × Multicultural education



Climate change
and IT again stand
out as well as
education

TOPICS

- Academic motivation
- Afterlife
- Analytical forecasting
- Climate change**
- Climate change adaptation
- Community capacity building
- Ecological sustainability**
- Economic externalities
- Economic principles
- Educational technology
- Electric cars
- Electronic reference services
- Emissions policy
- Employee skills
- Employment interviews**
- Environmental governance
- Environmental management
- Experiential learning
- Farming systems
- Future light cones
- Futures contracts
- Futurology
- Income inequality
- Information access
- Information technology**
- International environmental cooperation
- International politics
- Love
- Mass extinction events
- Multicultural education**
- Occupational psychology
- Petroleum
- Social organization
- Sustainable agriculture
- Sustainable economies
- Sustainable food systems
- Term birth
- Travel industry
- Urban sociology
- Vocational education

PEOPLE

- Mandkind
- don't
- hugh

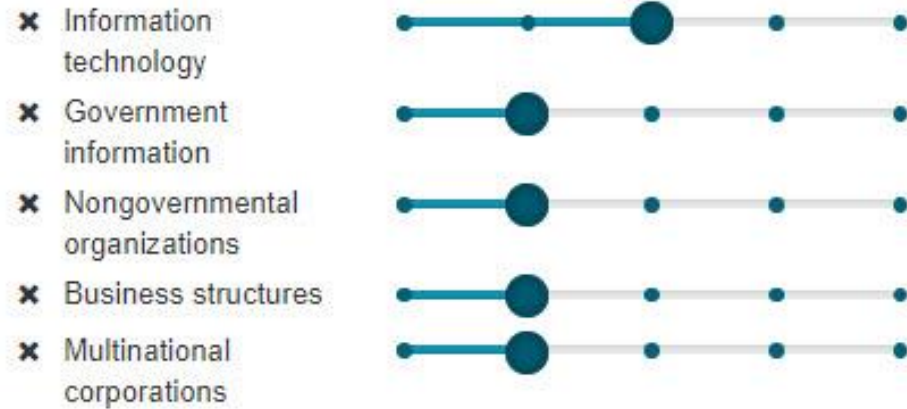
LOCATIONS

- Australia
- Europe
- Finland
- Latin America
- London
- Saudi Arabia
- Venice
- Venice, Louisiana

ORGANIZATIONS

- AI
- Cloud
- IPCC
- Intergovernmental Panel on Climate Change

Who will shape our future?



Focus on IT!

TOPICS

- Business aircraft
- Business structures**
- Buyout firms
- Civil society
- Consumer goods industries
- Corporate policies
- Corporate regulation
- Corporations
- Cybercrimes
- Economic conditions
- Environmental nongovernmental organizations
- Foreign direct investments
- Future interests
- Future value
- Global corporations
- Government
- Government information**
- Information technology**
- International nongovernmental organizations
- International organizations
- International political organizations
- International politics
- Labor legislation
- Multinational corporations**
- Nongovernmental organizations**
- Nonprofit corporations
- Occupational psychology
- Outsourcing
- Politicians
- Private military industry
- Public debt
- Public sector industries
- Research organizations
- Self determination
- Start up firms
- State government
- World government

PEOPLE

- Greta Thunberg
- Greta Thunberg
- Individuals
- Rep. Alexandria Ocasio-Cortez

LOCATIONS

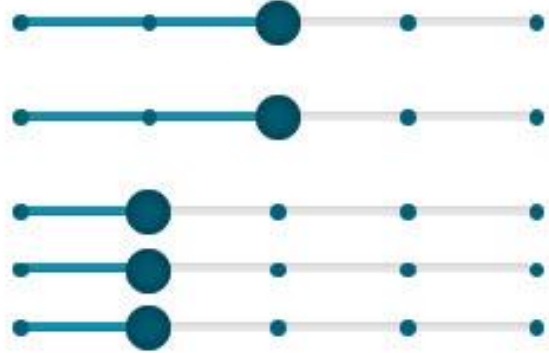
- China
- Russia
- United Nations
- United States

ORGANIZATIONS

- AI
- EU
- Technology industries
- UNESCO
- civil society
- youth-based Sunrise Movement

What might we do about it?

- ✘ Environmental education
- ✘ Information technology
- ✘ Futures contracts
- ✘ Future interests
- ✘ Future value



Educate people using IT

When?

Overwhelmingly now!

TOPICS

- Academic motivation
- Afterlife
- Analytical forecasting
- Best available technology
- Comparative psychology
- Computer modeling
- Corporate responsibility
- Creativity
- Economic growth
- Economic growth models
- Economic modeling
- Educational activities
- Educational technology
- Electronic learning
- Environmental education**
- Environmental management
- Experiential learning
- Figured pottery
- Future interests**
- Future light cones
- Future of civilization
- Future value**
- Futures contracts**
- History
- Human capital flight
- Information modeling
- Information technology**
- Long run economic growth
- Mind
- Modeling
- Political power
- Probabilities
- Psychological stress
- Quality of life
- Renewable energy
- Robotics
- Simulation training
- Utilitarianism
- Womens education

PEOPLE

- Ivana
- Mark
- Putin

LOCATIONS

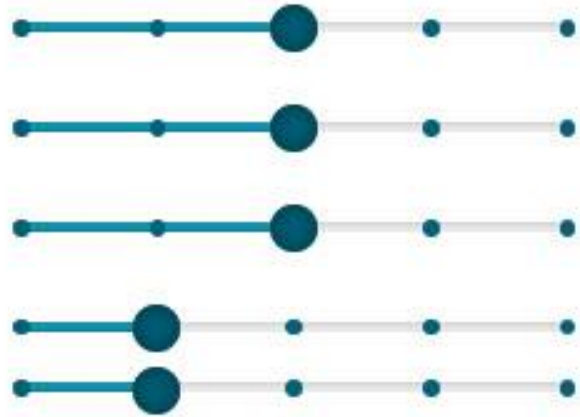
- China
- Finland
- Republic of China (1912–1949)
- Russia
- US
- United States
- Washington

ORGANIZATIONS

- AI
- State Dept
- United States Department of State

Where should we focus?

- ✘ Information technology
- ✘ Environmental management
- ✘ Environmental education
- ✘ Renewable energy
- ✘ Experiential learning



Educate people using IT

TOPICS

- Afterlife
- Best available technology
- Climate change
- Climate change policy
- Colleges
- Community capacity building
- Community organizing
- Conservation programs
- Consumer behavior
- Economic principles
- Educational resources
- Educational technology
- Electronic learning
- Emergence
- Environmental education**
- Environmental management**
- Environmental programs
- Experiential learning**
- Farming systems
- Fisheries law
- Future interests
- Future value
- Global education
- Higher education
- Information technology**
- International environmental cooperation
- International politics
- Internet information resources
- Knowledge
- Lifelong learning
- Marine resources
- Ozone depletion
- REDD program
- Reading instruction
- Renewable energy**
- School districts
- Sharing economy
- Teaching methods
- Urban schools

PEOPLE

- Greta Thunberg
- Ivana utopia/dystopia

LOCATIONS

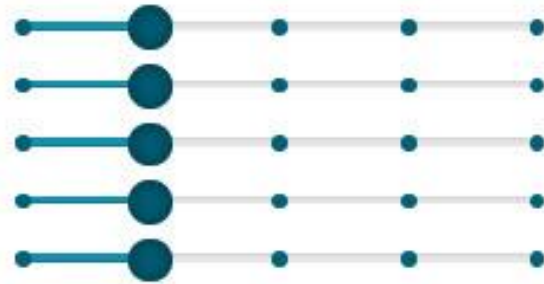
- Earth

ORGANIZATIONS

- AI
- EU
- amazon

What's in it for you?

- ✘ Futures contracts
- ✘ Future value
- ✘ Future interests
- ✘ Labor legislation
- ✘ Afterlife



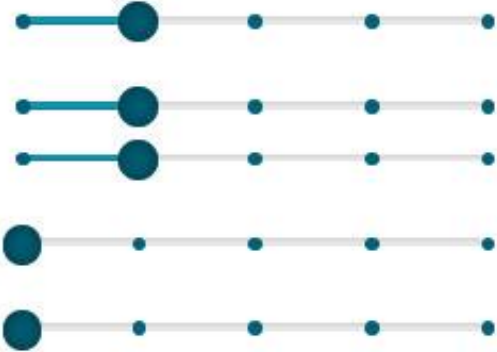
Value generation!

TOPICS

- Adult literacy
- Afterlife**
- Analytical forecasting
- Bankruptcy procedures
- Community service programs
- Contracts
- Death
- Drivers licenses
- Educational counseling
- Educational equipment
- Educational opportunities
- Educational technology
- Environmental education
- Environmental management
- Expected utility
- Future interests**
- Future light cones
- Future of civilization
- Future value**
- Futures contracts**
- Futurology
- Information technology
- Jewish culture
- Labor legislation**
- Literacy
- Lutheranism
- Marginalization
- Minimum wage
- New Testament
- Old Testament
- Opportunity equality
- Orthodox Church
- Public assistance programs
- Social insurance
- Vocational education
- Volunteer labor

What threatens you?

- ✘ Personal information
- ✘ Fear
- ✘ Climate change policy
- ✘ Environmental management
- ✘ Climate change



Privacy and climate change dominate

TOPICS

- Artificial intelligence
- Best available technology
- Blindness
- Carbon footprint
- Climate
- Climate change**
- Climate change adaptation
- Climate change migration
- Climate change policy**
- Copenhagen Accord
- Cybercrimes
- Educational environment
- Emissions policy
- Environmental control systems
- Environmental education
- Environmental management**
- Fear**
- Future interests
- Future light cones
- Future value
- Green economics
- Hate crimes
- Health policy
- Heating ventilation and cooling
- Information economy
- International environmental cooperation
- Interpersonal communication
- Mediterranean climates
- Middle Eastern politics
- National Environmental Policy Act
- Nuclear politics
- Personal information**
- Population planning
- Public policy
- Renewable energy
- Resources conflict
- Student anxiety
- Text analytics
- Visas
- Visually impaired persons

PEOPLE

- Finn
- Tinders

LOCATIONS

- 2002-ish
- Australia
- Europe
- France
- Germany
- Middle East
- North Korea
- Russia
- Turkey
- United States

ORGANIZATIONS

- Hezbollah

Robot's findings



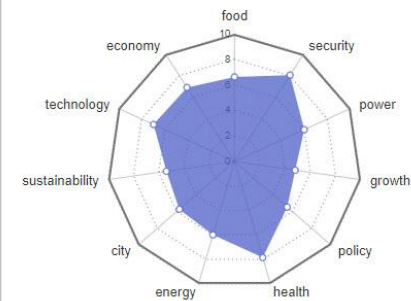
Driving Forces

What is changing?

- ▶ “In 2019, consumers, businesses and governments will no longer simply seek meaningful change, they will have to actively take responsibility for it.”
- ▶ “The European Union (GDPR) initiative taps in to a global debate about when or whether companies should put ethical concerns before business interests, and how tough a line regulators can afford to take on new projects without risking killing off innovation.”
- ▶ “While the UN PRI is a voluntarily regime, local regulators are beginning to implement their own ESG frameworks. Responsible investment is gaining ground in China after a slow start.”

- ❑ Researchers suggested that global consumption of red meat and sugar will need to decrease by more than 50% by 2050. ✕
- ❑ Government directives the world over are striving for nearly zero-energy buildings by the end of next year, and for net zero carbon buildings by 2030, meaning they will have to be 100% sustainable as far as heating, hot water, ventilation and cooling requirements are concerned. ✕
- ❑ Global climate change and decarbonization is perhaps the most important issue SRP will face over the next several decades, impacting operations, customer demands for sustainable energy options, water availability, and forest health. ✕
- ❑ Freshwater has reduced by 60 percent in the last four decades in the MENA region and is expected to fall a further 50 percent by 2050. ✕
- ❑ WWF recently estimated that land use and sustainable agriculture could provide up to 30% of the solutions needed by 2030 to tackle the global climate crisis. ✕
- ❑ The FAO says agriculture, including forestry, fisheries and livestock, generates around a fifth of the world's greenhouse gas emissions; a figure that will need to fall if global warming is to be kept at 1.5 C by 2030, as leading climate scientists advise. ✕
- ❑ There will be a specific focus on drought and agricultural risk and the cascading impacts that can ensue. ✕
- ❑ According to DNV GL, the global energy consumption will peak in 2035 - and afterwards, decline. ✕
- ❑ If the natural environment continues to be degraded and unsustainable pressures put on global water resources, 45 per cent of the global gross domestic product, 52 per cent of the world's population and 40 per cent of global grain production will be put at risk by 2050. ✕

More

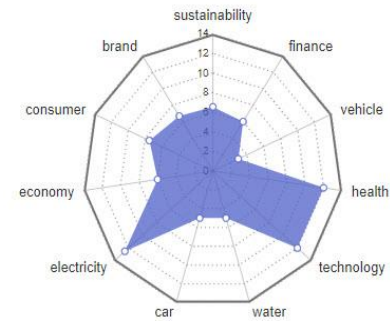


Causes

Who and what are causing these changes:

- ▶ “From global school strikes led by Swedish 16-year-old Greta Thunberg to the Green New Deal, led by the youth-based Sunrise Movement and 29-year-old Rep. Alexandria Ocasio-Cortez, young people across the globe are making it clear they will not accept inaction.”
- ▶ “The environmental crisis has sharply accelerated and economic development is not happening for too many people while inequality has reached dramatic levels, putting basic human rights at threat.”

- ❑ Lithium-ion batteries are predicted to be the key technology of the next decade, the world's next biggest commodity and an essential factor in the widespread market adoption of EVs. ✕
- ❑ Climate change is expected to cause approximately 250,000 additional deaths per year between 2030 and 2050. ✕
- ❑ G-20 leaders could make a significant contribution to providing the impetus toward advancing systemic sustainability by creating a G-20 Global Sustainable Development Council charged with pulling together the national statistical indicators and implementing benchmarks on the SDGs in G-20 countries. ✕
- ❑ There are thousands of workers' lives at risk across Australia from accelerated silicosis and other OLDs. ✕
- ❑ All basmati rice sold under the world's largest rice brand will be sourced under a sustainability platform to address human rights issues in supply chains and improve the environmental impact of farming practices. ✕
- ❑ Tiny plastic particles washed off products such as synthetic clothes and car tyres could contribute up to 30% of the 'plastic soup' polluting the world's oceans and are a bigger source of marine plastic pollution than plastic waste. ✕
- ❑ At least two thirds of the world's population will face 'water stress' by 2025 and the number of people affected by floods could increase by a factor of three by 2100. ✕
- ❑ More than 90% of consumers around the world today will move to brands associated with a good cause. ✕
- ❑ Groundwater depletion threatens the sustainability of the Colorado River. ✕

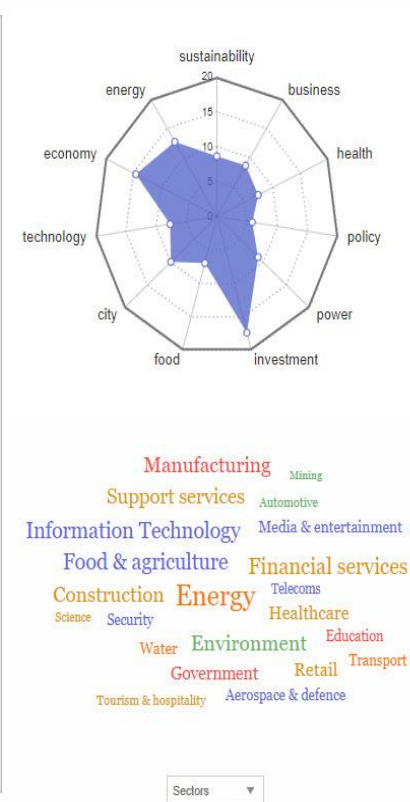


Potential solutions



- ▶ Solutions emerge through many future crises
- ▶ Demise of traditional right/left politics
- ▶ Rise of populism, liberalism and greens
- ▶ Focus on sustainability education
- ▶ Rise of business/investment for good?
- ▶ Rise of well-being initiatives
- ▶ Rise of proactive vs reactive responses

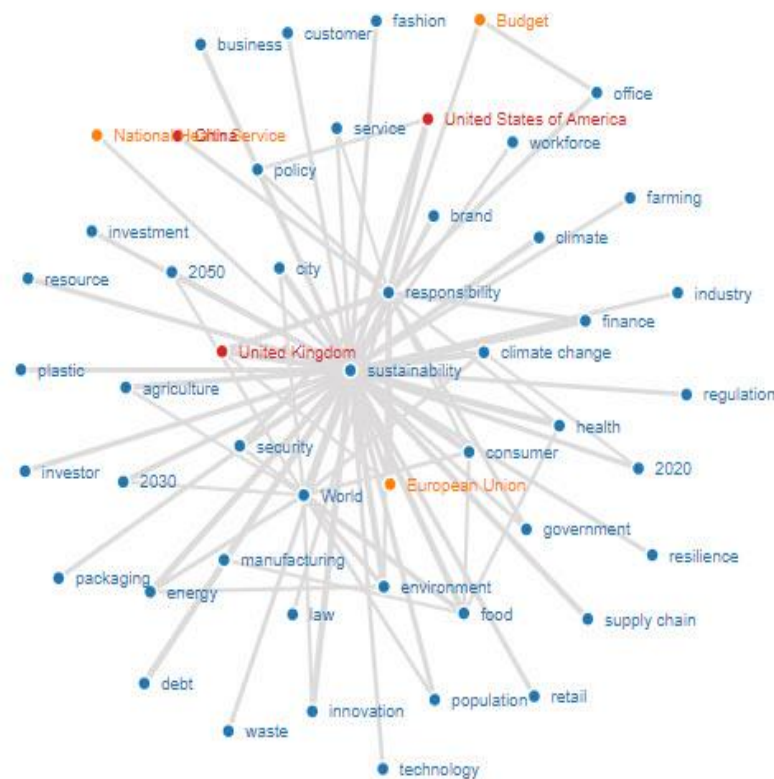
- ❑ WWF recently estimated that land use and sustainable agriculture could provide up to 30% of the solutions needed by 2030 to tackle the global climate crisis. ✕
- ❑ The recent takeover of The Body Shop by an ethically-minded global cosmetics firm could represent a "major turning point" in the transition towards the private sector operating as a force for good. ✕
- ❑ Costa Rica will become the first country to set up a transparent accountability system to inform the world about the social and environmental performance of its main commodity. ✕
- ❑ The global economy is on the cusp of a sustainability revolution that will have meaningful implications for investors. ✕
- ❑ Space mining could be the basis of the Earth international energy transition and industrial sustainability. ✕
- ❑ G20 policymakers have identified climate change as a 'systemic risk' to future global financial stability. ✕
- ❑ Fresh water scarcity will be the defining global crisis of the 21st century. ✕
- ❑ A global unified approach to combating black market fishing will help address the single biggest threat to sustainable fisheries. ✕
- ❑ The concept of sustainability now encompasses the environment as well as social justice issues such as economic and social inequality-any large global issue that represents a threat to overall well-being. ✕



New technologies e.g. big data, robots, drones sensors, renewables solutions, 3D printing, 5G

System map

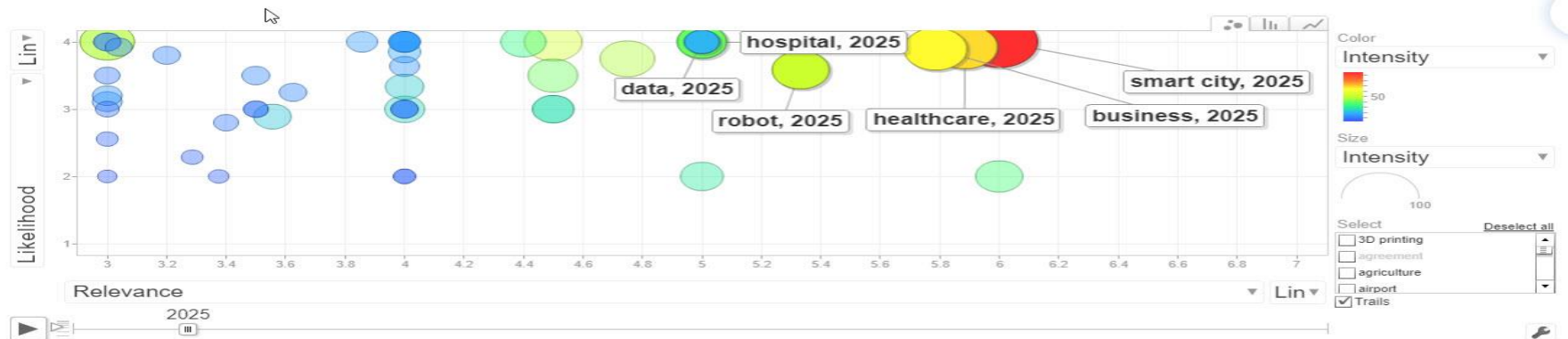
- ▶ Mapping these onto a systems map, shows that the prime responsibility for achieving sustainability rests with consumers, business and city/regional governments.
- ▶ The complexity of achieving sustainability will require everyone to work to a common vision, values and goals and for communications and education to be consistent in their message.
- ▶ The question is how with different parts of the world moving at different speeds, needs and future interests?



Graph-It



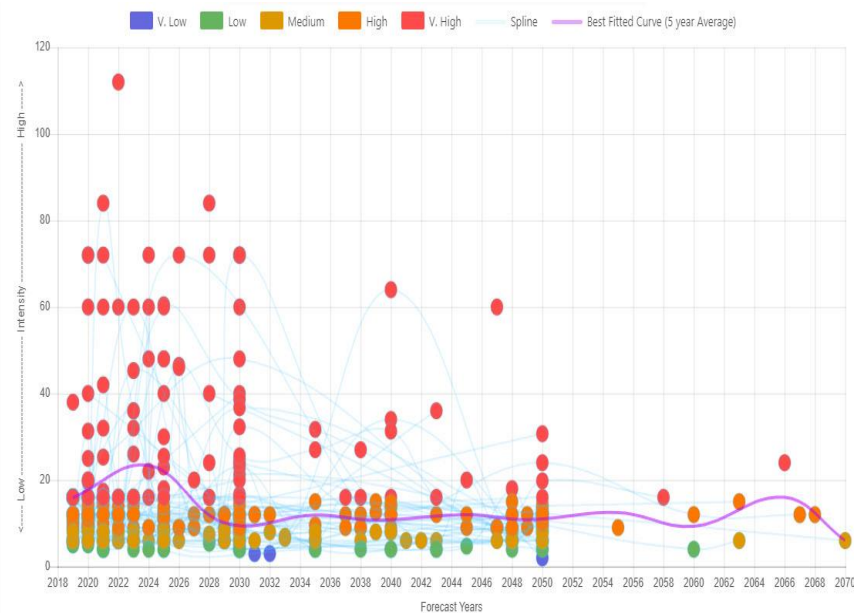
- ▶ By 2025, we can expect to see smart cities, health organizations and business significantly embracing social futures.
- ▶ They'll be assisted by an exponential explosion in data analysis and robotics to help begin solving many of today's existing challenges.



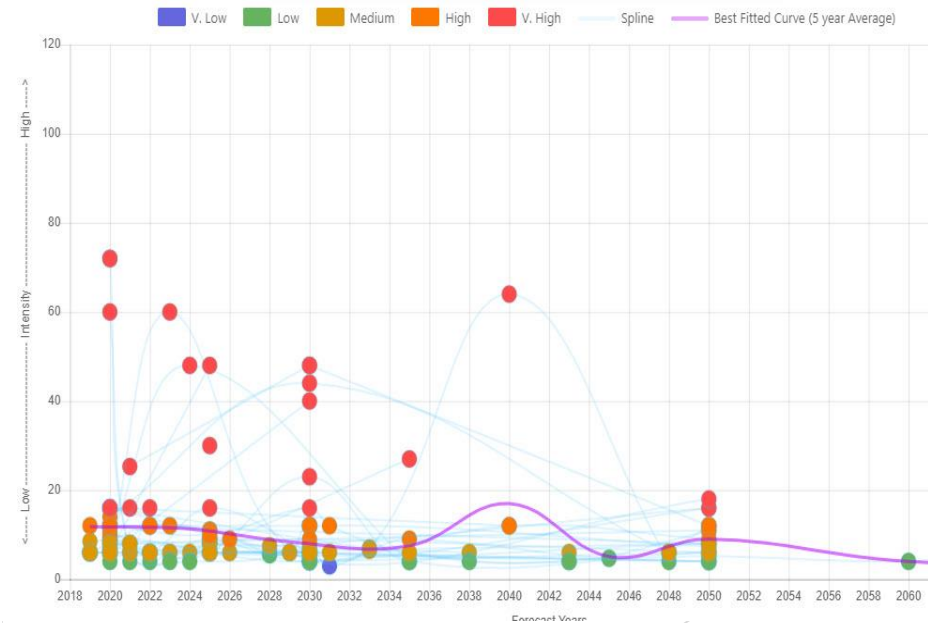
Spline chart

- ▶ In the past three years the two presented Trend Wave charts show there has been a significant raising of awareness about the need to embrace social futures with many experiments underway.
- ▶ We are currently likely to see efforts reach a peak in 2024 but it is entirely possible that new solutions might see the peak arrive around 2040.
- ▶ Failure will likely produce mounting rage, particularly among young people.

Today

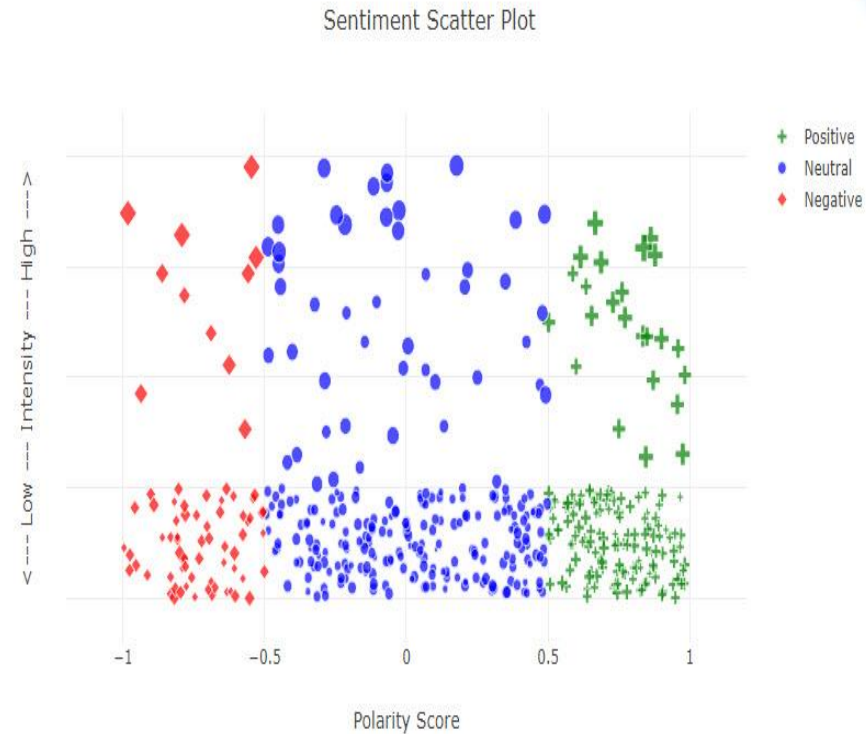


Three years ago



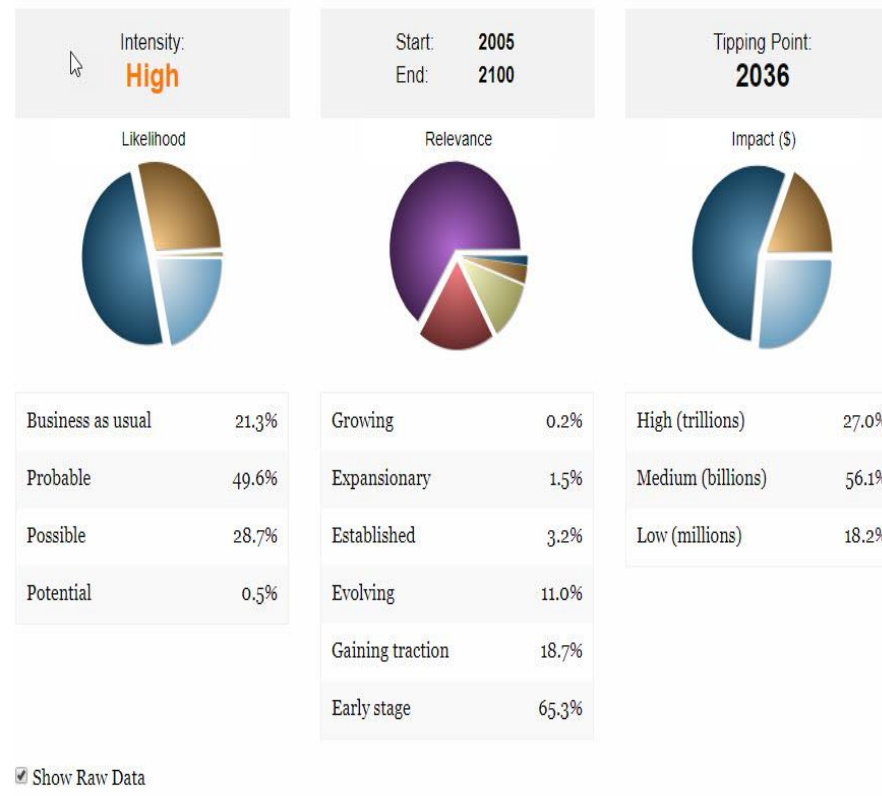
Sentiment

- ▶ Overall sentiment is relatively balanced. Positive sentiment is being expressed by pundits and the public towards efforts to increase resiliency, better energy use and associated emissions reduction.
- ▶ But, while there is also a hope for peace, negative sentiments revolve around the threats of continued terrorism, new and existing crises that could lead to war,
- ▶ These include North Korea, Ukraine, US/China/Russia conflict and a Middle East conflagration involving Iran, Israel, Hezbollah, Syria, Turkey et al and threats to global supply and productivity through escalating trade wars.



Pie charts

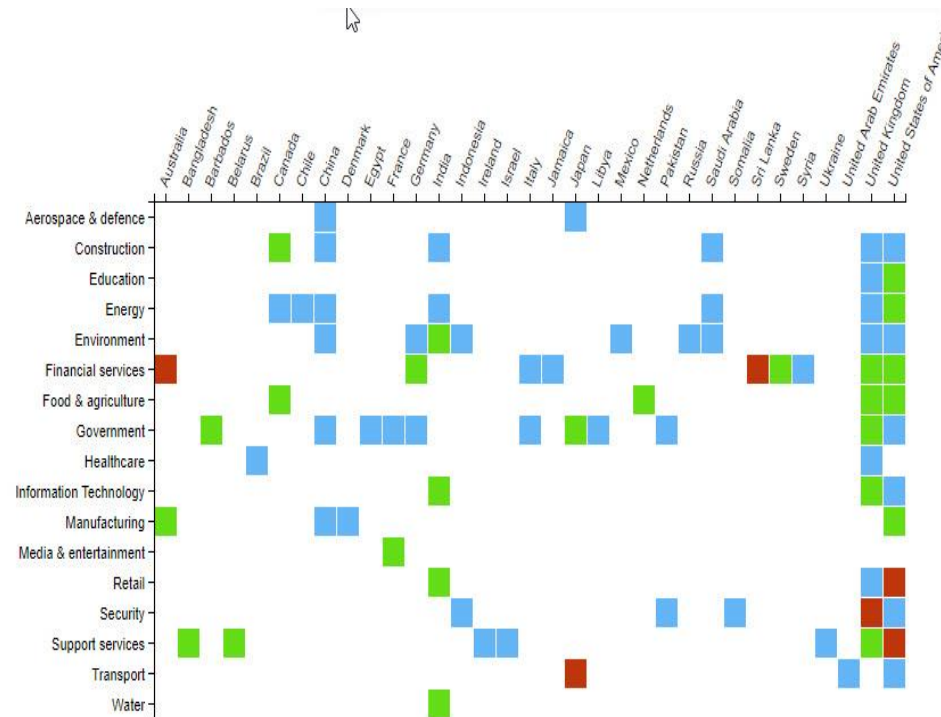
- ▶ Achieving sustainability is likely to take the rest of this century but it's a prize worth having in terms of the billions and trillions of dollars that experts attach to delivering social futures worldwide.
- ▶ However, most initiatives are still at early stage (65%) with almost all the remainder still evolving or gaining traction.
- ▶ Much more needs to be done for the world to accept a new social future compact by the estimated tipping point of 2036.



Heat Map



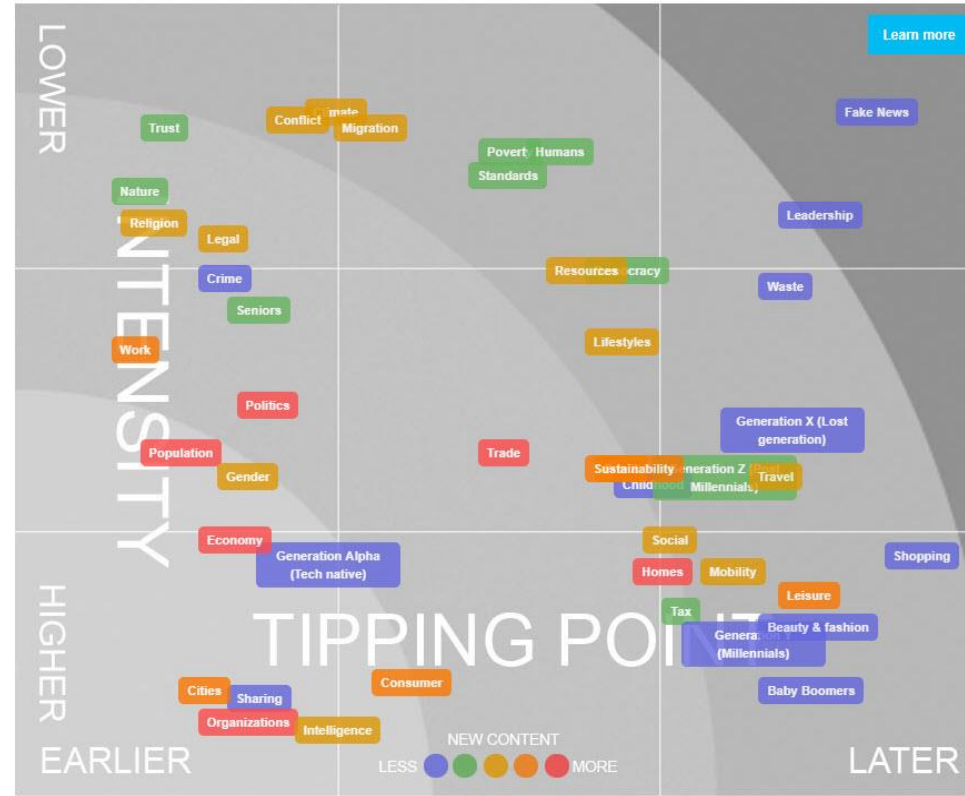
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- ▶ Much more needs to be done for the world to accept a new social future compact by the estimated tipping point of 2036.



Emergent drivers

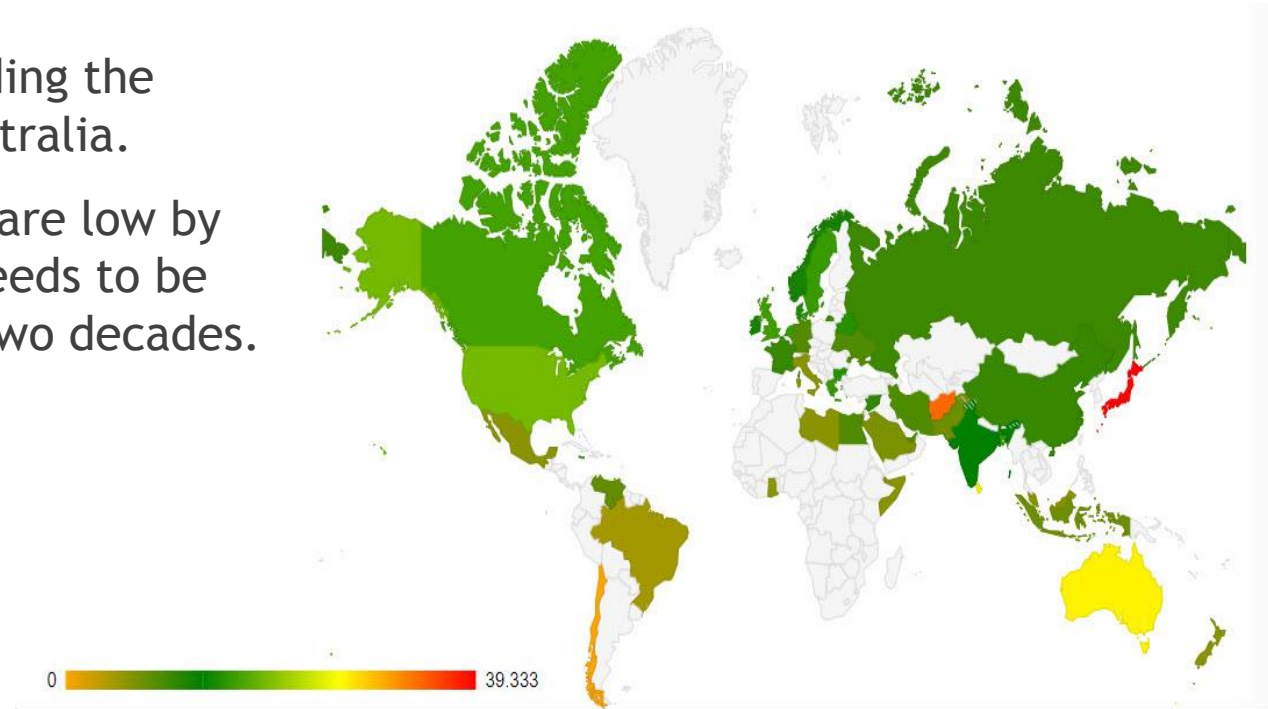


- ▶ As a starting place the emergent drivers chart shows experts suggesting that the initial focus for now should concentrate on creating sharing economies, improving cities and their organizations with the use of better intelligence and reducing consumption.
- ▶ And, very importantly, engaging with Generation Alpha, the first generation born entirely within the 21st century (e.g., Greta Thunberg), to create the future world they want to live in, today.



Geography

- ▶ Two countries are leading the charge: Japan and Australia.
- ▶ But efforts elsewhere are low by comparison to what needs to be achieved in the next two decades.



Leader board



- ▶ The Leader board also shows the paucity of global leaders pushing for global sustainability but also the EU taking a longer term and welcome positive approach to be the leading, sustainable region.

Topics	
sustainability	730
economy	139
environment	130
energy	129
city	125
food	107
technology	106
government	98
consumer	96
resource	92

Organizations	
European Union	69
National Health Service	26
United Nations	16
CSR	16
IMF	8
Walmart	6
International Energy Agency	6
Bank of England	5
Mintel	5
ISIS	5

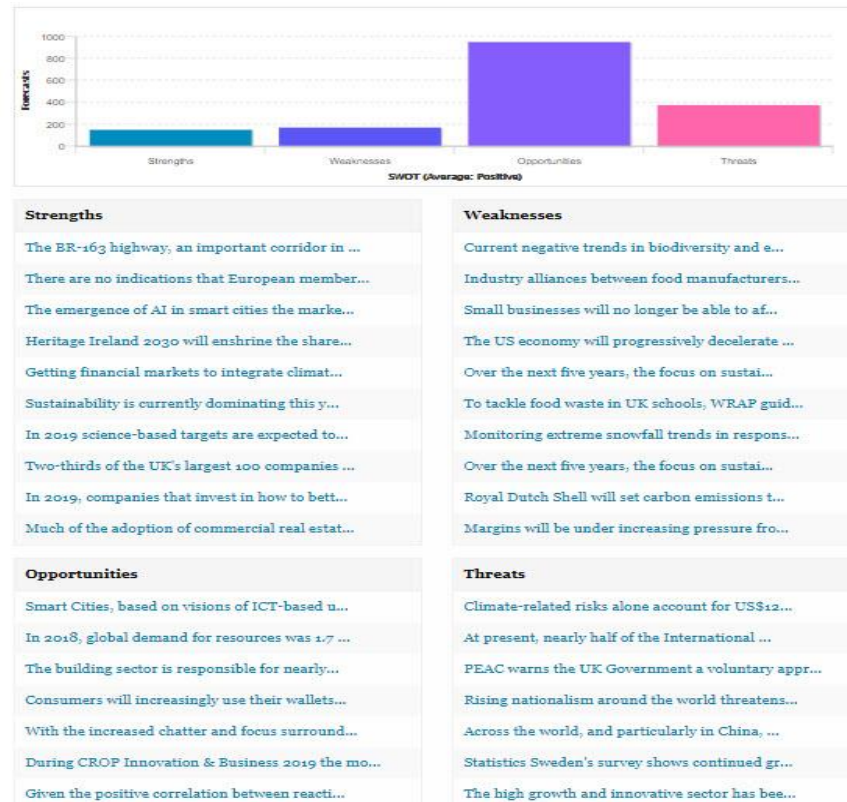
Countries	
United States of America	114
United Kingdom	95
China	62
India	26
Australia	21
Iran	14
Canada	13
France	13
Russia	11
Japan	10

Actors	
Donald Trump	3
Wang Yi	1
Elon Musk	1
Emmanuel Macron	1
Michael Carlos	1
George Osborne	1
Carney, Mark	1
Philip Hammond	1
Xi Jinping	1

SWOT



- ▶ Given the above it is not surprising that opportunities for improvement considerably outweigh the threats associated with delivering social futures.
- ▶ Come on in, the water's warm!



Discussion

- ▶ Next steps?



Sources

- ▶ Athena used these sources as the top ones to create this report and determined which embedded forecasts are included in this Trend Alert.
- ▶ She found 6,648 forecasts in seconds on 23rd May 2019 to allow us to publish the full report in less than two hours and produce this presentation in under one hour from a standing start!
- ▶ Copies of the full report are available on request from

mike.jackson@shapingtomorrow.com

RSS feeds	
GreenBiz	25
Digitalist	15
edie.net - the latest World news head...	9
edie.net - the latest UK news headlin...	8
GreenBiz	8
World Resources Institute	6
Lawfare - Hard National Security Choi...	6
Renew Economy	5
Economy The Guardian	5
edie%2Enet+%2D=Energy-efficiency-%26+...	5

Web searches	
Global trends PDF search	9
Palm oil	7
Scenario	7
Consumer Trends	6
Ecological OR Sustainability - Trends...	6
Brexit	5
2020	5
African futures	4
Driving	4
urbanization - Trends (Contexts)	4

Twitter searches	
Sustainability plan	7
#Environmental	5
Megatrends	5
Bioenergy	3
#millennials	3
#cities	2
Aquaculture	2
FMCG	2
#politicaleconomy	2
Urbanism	2

Twitter feeds	
Environmental Leader	11
International Monetary Fund	8
Bain & Company	6
IEEE Smart Cities	5
ConservativeHome	5
Article 13	4
Resilience	4
HP Labs	4
Business and Sustainable Development ...	4
Sustainable Brands	4