

مؤسسة دبي للمستقبل
DUBAI FUTURE FOUNDATION

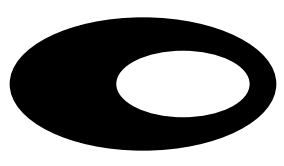


FUTURE OPPORTUNITIES REPORT

THE GLOBAL 50

SUMMARY

2023



NAVIGATING OPPORTUNITIES

The opportunities shared in The Global 50 report are not exhaustive; they present some of the different pathways and approaches to growth, prosperity and well-being.

Each opportunity includes a question for the future with a tagline that answers it driving further thinking.

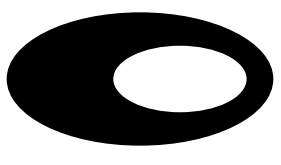
The megatrends are the most significant megatrend driving the opportunity and the trends are area to use to look for relevant trends and signals and they are non-exhaustive.

The diagram illustrates the layout of an opportunity card. It features a blue header with the Dubai Future Foundation logo and report title. The main content area includes an opportunity title, a question for the future, a short title, and a descriptive paragraph. At the bottom, there are two sections: 'MEGATREND' and 'TRENDS', each with a list of related areas. Labels on the right side point to these specific elements.

- Category:** Points to the report title in the header.
- Question for the Future:** Points to the main question: "What if we improved our natural internal armour?"
- Short Title:** Points to the bolded title "FIERCE FASCIA".
- Opportunity Most Significant Megatrend:** Points to the descriptive paragraph about gene therapies and nutritional approaches.
- Areas to look for relevant trends and signals:** Points to the 'TRENDS' section, which lists "Genomics" and "Longevity & Wellbeing".

Download the Future Opportunities Report: The Global 50 and explore the opportunities on our website

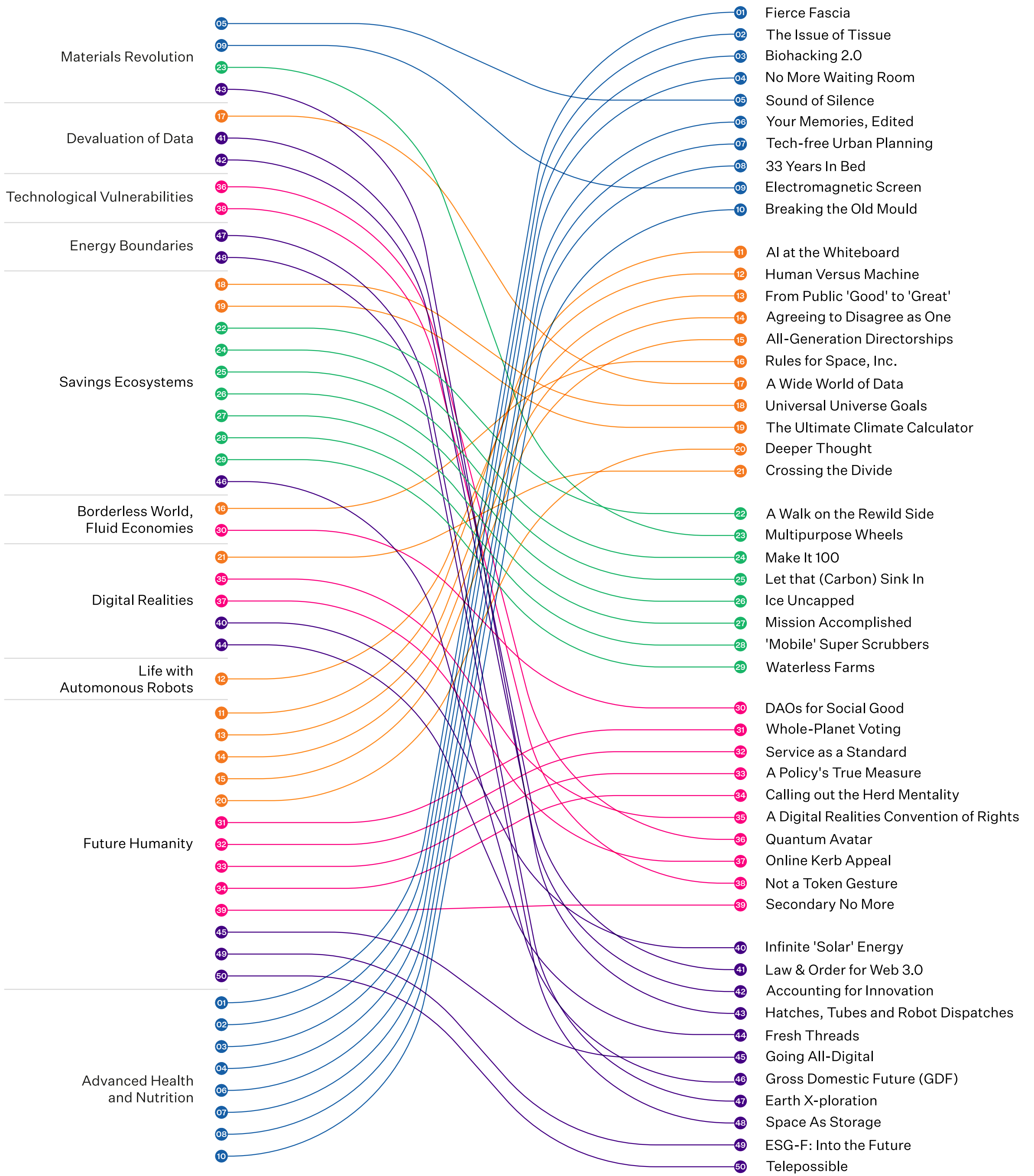
<https://www.dubaifuture.ae/the-global-50>

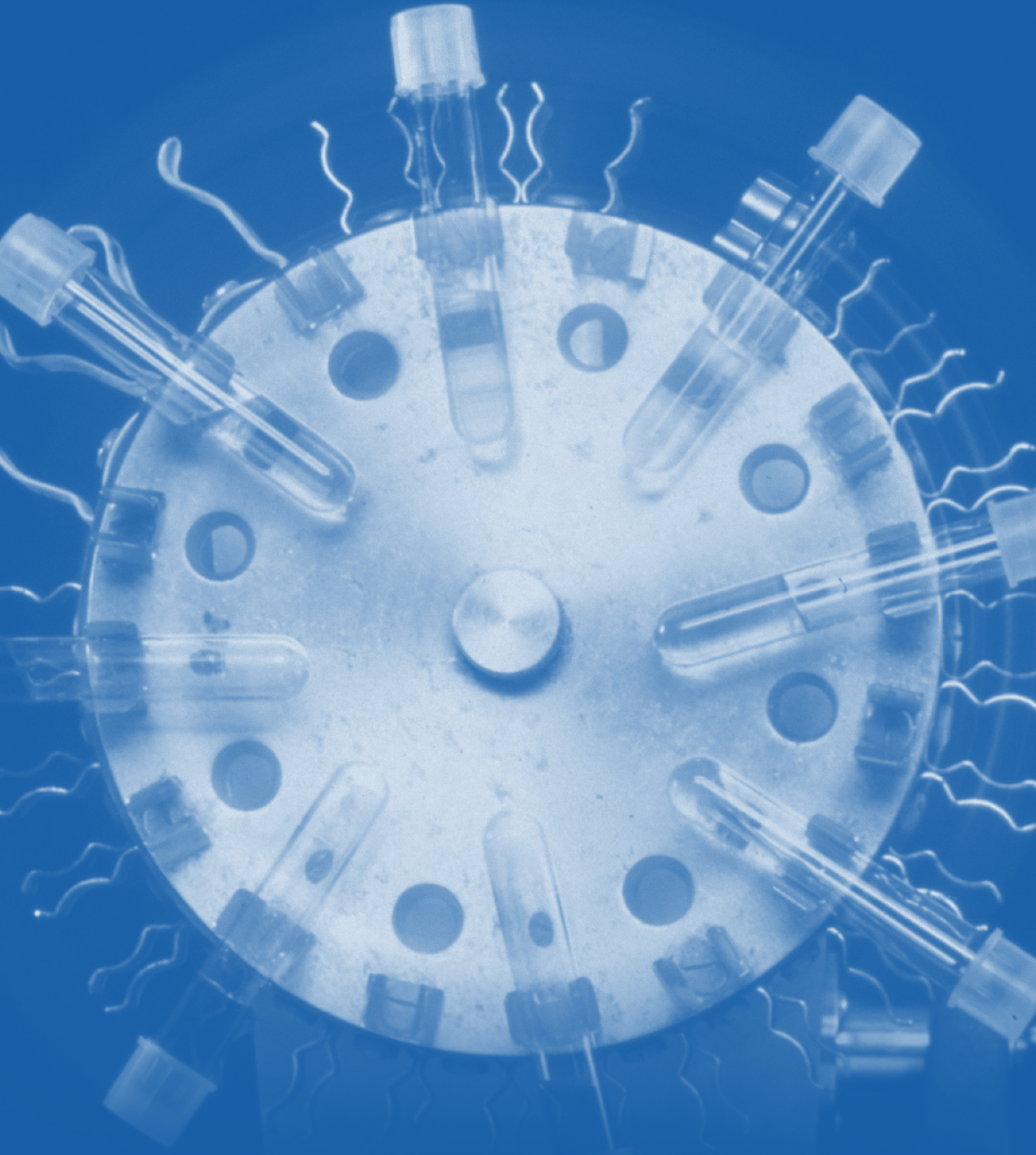


OPPORTUNITIES MAP

MOST SIGNIFICANT MEGATREND

OPPORTUNITY





HEALTH REIMAGINED

Redefine mental and physical health, support longer lives, drawing on science, technology and nature towards better health and new ways to personalise access for individuals and communities everywhere.



Opportunity #1

What if we improved our natural internal armour?

FIERCE FASCIA

Gene therapies and advanced nutritional approaches boost the body's natural internal armour, scientifically known as the fascia, preserving biomechanical health over a lifetime.

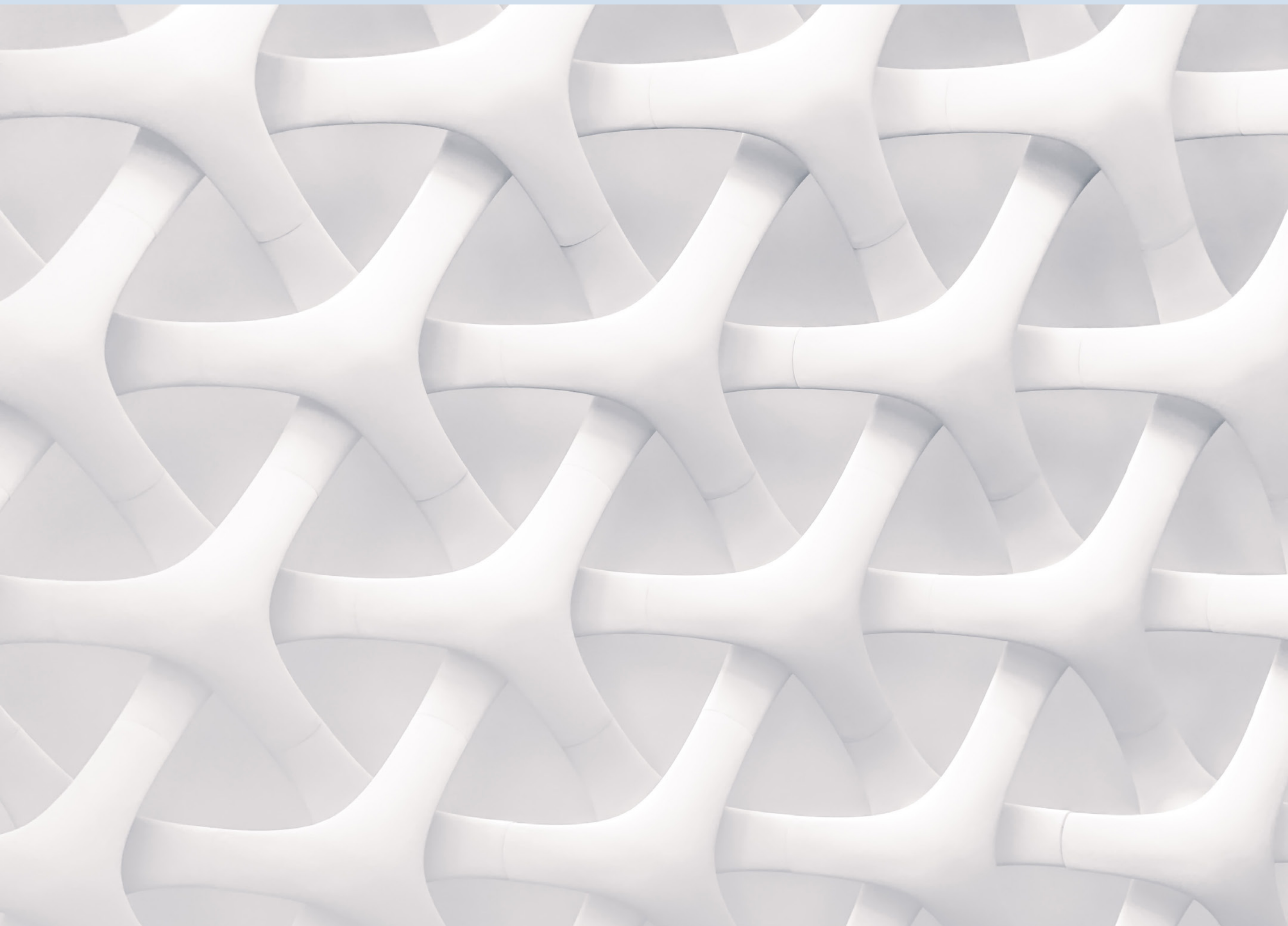
MEGATREND

Advanced Health and Nutrition

TRENDS

Genomics

Longevity & Wellbeing





Opportunity #2

What if we all held on to our stem cells?

THE ISSUE OF TISSUE

Long-term self-storage of an individual's stem cells become a standard of care, giving everyone the possibility of regenerating their own critical tissues throughout life.

MEGATREND

Advanced Health and Nutrition

TRENDS

Nanomedicine
Nanotechnology
Personalised Medicine





Opportunity #3

What if we could reprogramme proteins?

BIOHACKING 2.0

A complete map of the protein structures and functions enables exponential advances in genetics and bioengineering, rethinking disease, agri-food chains and the ability to create new organic-based materials.

MEGATREND

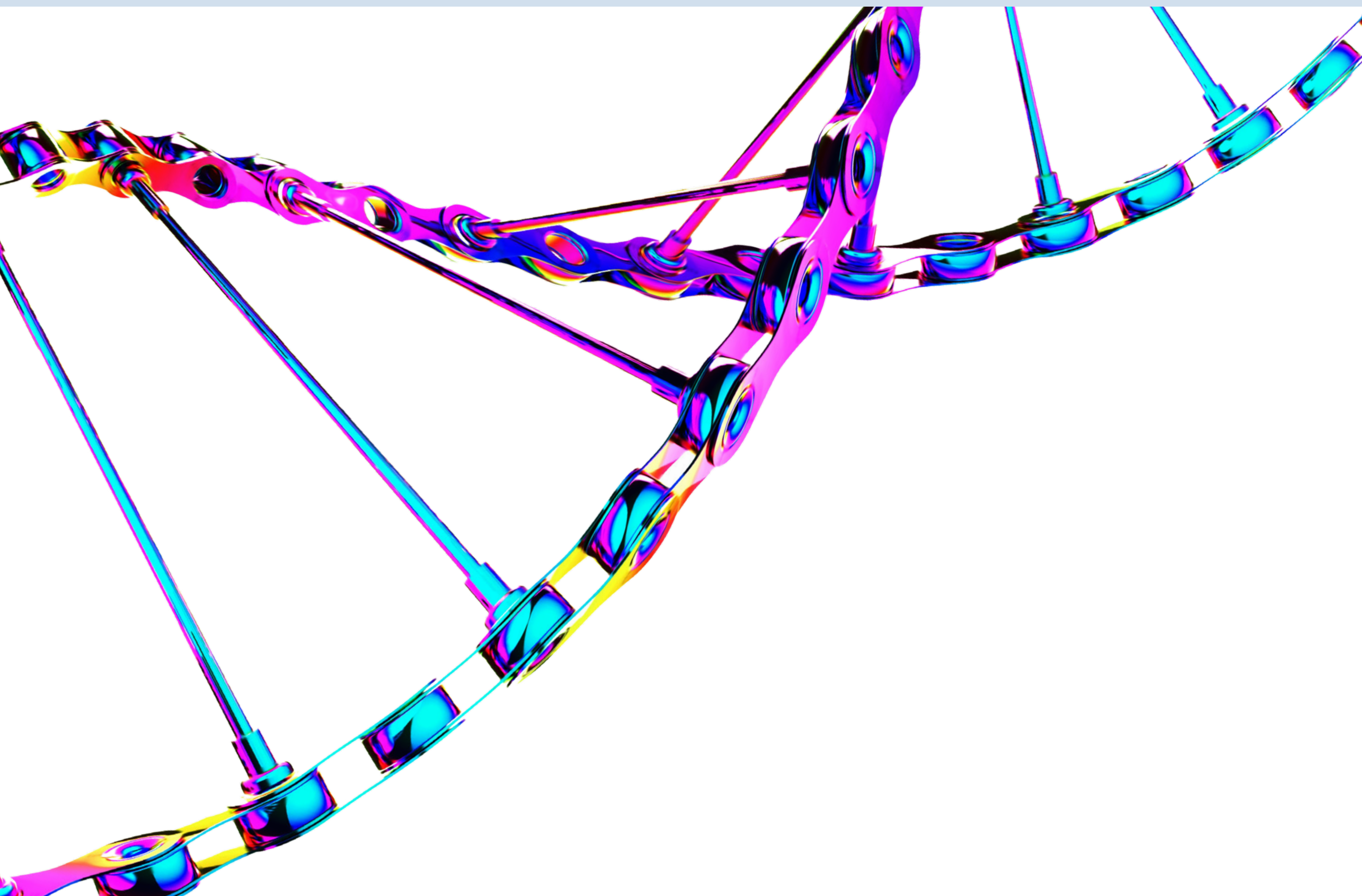
Advanced Health and Nutrition

TRENDS

Artificial Intelligence

Genomics

Proteomics





Opportunity #4

What if the world's most disadvantaged had access to real-time diagnostics?

NO MORE WAITING ROOM

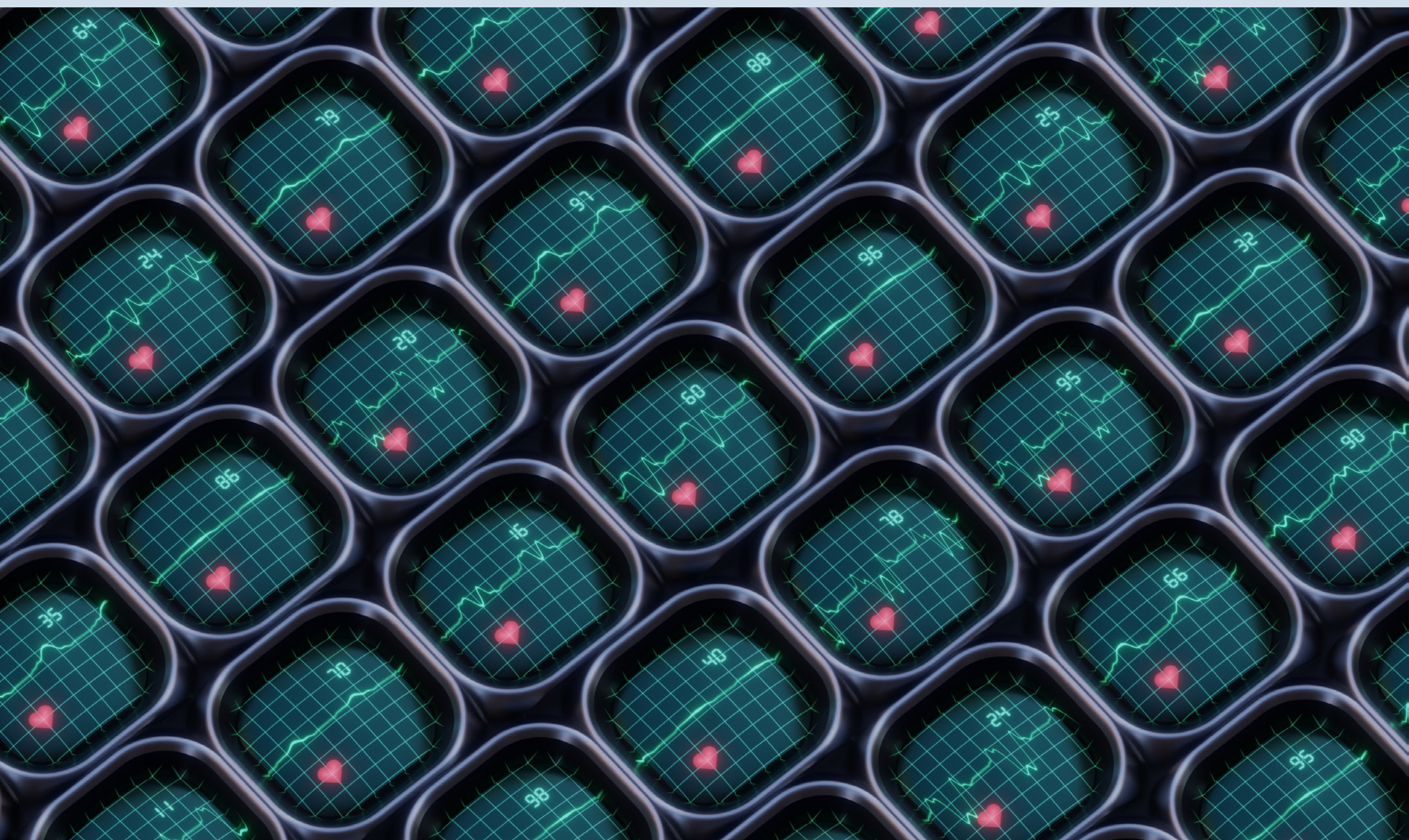
The costs of cutting-edge HealthTech drop, making optimal prevention, diagnosis and treatment accessible to more people around the world.

MEGATREND

Advanced Health and Nutrition

TRENDS

Genomics
HealthTech
Mobilising Innovation
Proteomics





Opportunity #5

What if cities went silent?

SOUND OF SILENCE

Advances in noise-absorbing materials and noise-cancelling technologies make the sound of silence - in cities - a reality, reducing stress and improving sleep.

MEGATREND

Materials Revolution

TRENDS

New Materials
Urban Design





Opportunity #6

What if we could protect our future selves from past trauma?

YOUR MEMORIES, EDITED

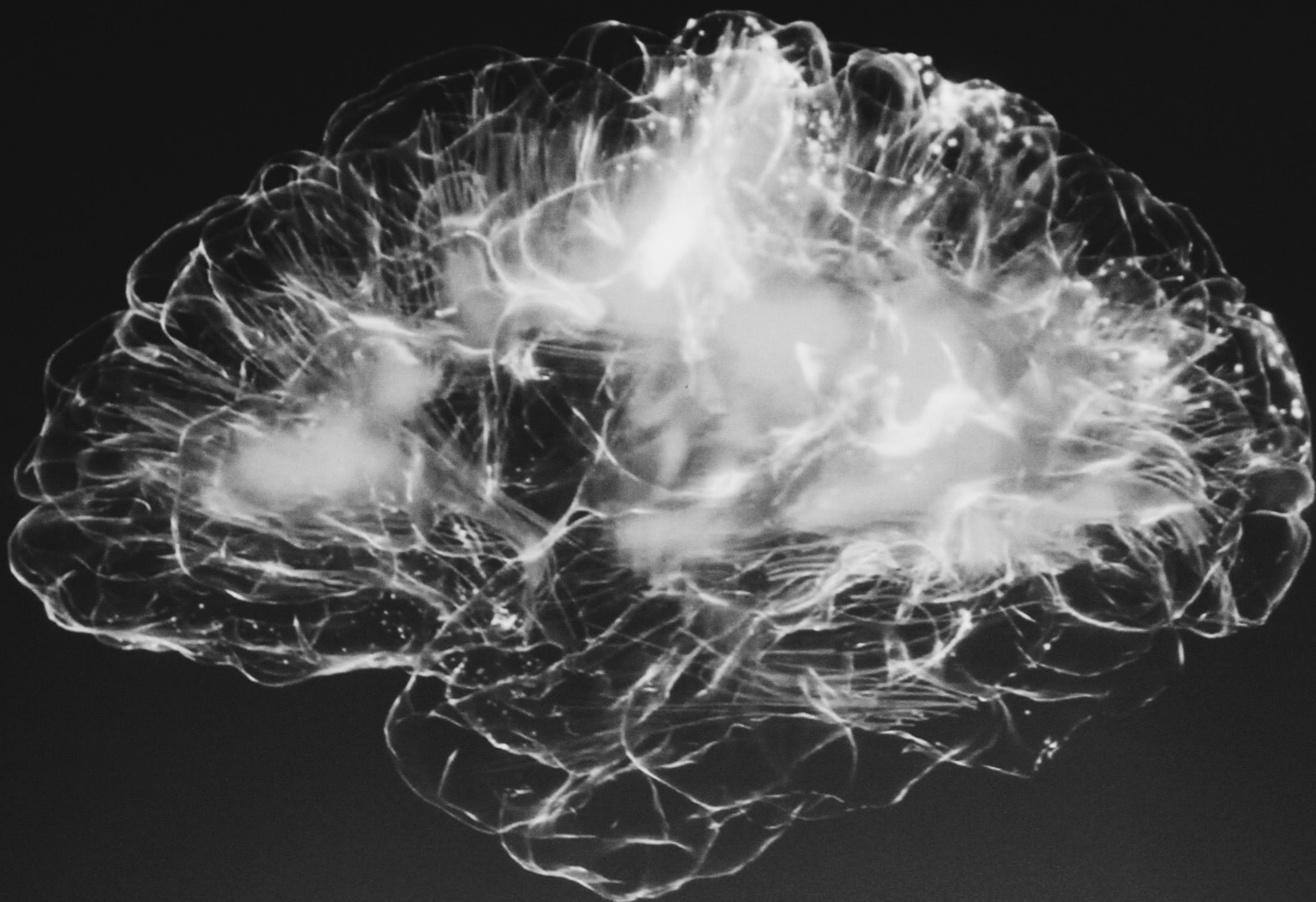
Advances in neuroscience enable the development of approaches to treat and erase past trauma enabling better life outcomes for trauma sufferers and their families.

MEGATREND

Advanced Health and Nutrition

TRENDS

Mental Health
Neuroscience





Opportunity #7

What if technology-free zones were part of urban planning?

TECH-FREE URBAN PLANNING

Establishing zones disconnected from devices and digital realities gives residents the freedom to unplug and recharge.

MEGATREND

Advanced Health and Nutrition

TRENDS

New Materials
Urban Design





Opportunity #8

What if we spent more time awake?

33 YEARS IN BED

Advances in circadian biology, neuroscience, the science of sleep and purpose-designed spaces, enable higher quality rest and recuperation, leading to improved physical and mental health and a significant boost in productivity.

MEGATREND

Advanced Health and Nutrition

TRENDS

Digital Therapeutics
Longevity & Well-being
Neuroscience





Opportunity #9

How can we protect ourselves from the possibility of electromagnetic harm or disruption?

ELECTROMAGNETIC SHIELD

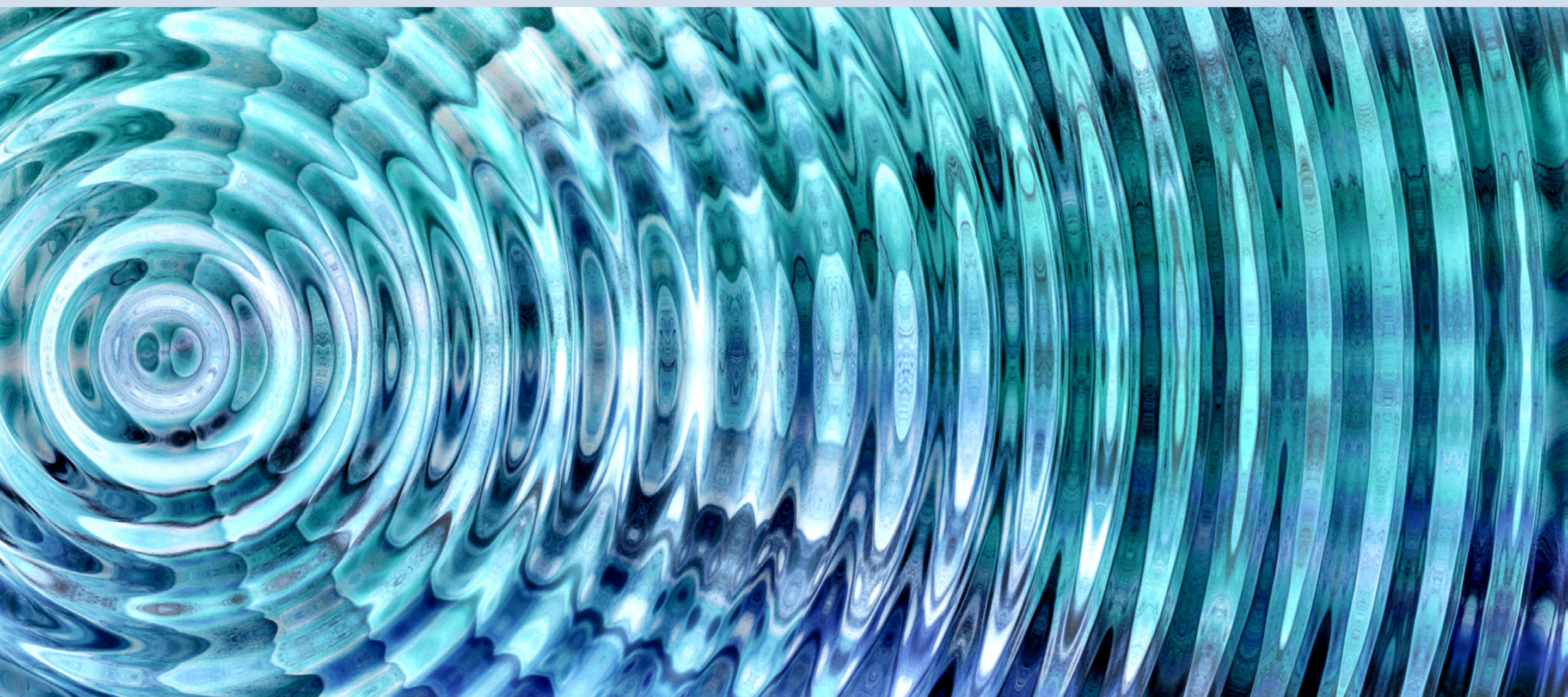
Between nanoengineering and the rapid and scalable development of new materials, we can create or evolve existing powerful shields to block electromagnetic radiation and interference.

MEGATREND

Materials Revolution

TRENDS

Advanced Connectivity
Electromagnetic Radiation
New Materials





Opportunity #10

What if geriatrics was the new paediatrics?

BREAKING THE OLD MOULD

Geriatric medicine evolves into a flourishing field, as large and vital to society as paediatrics.

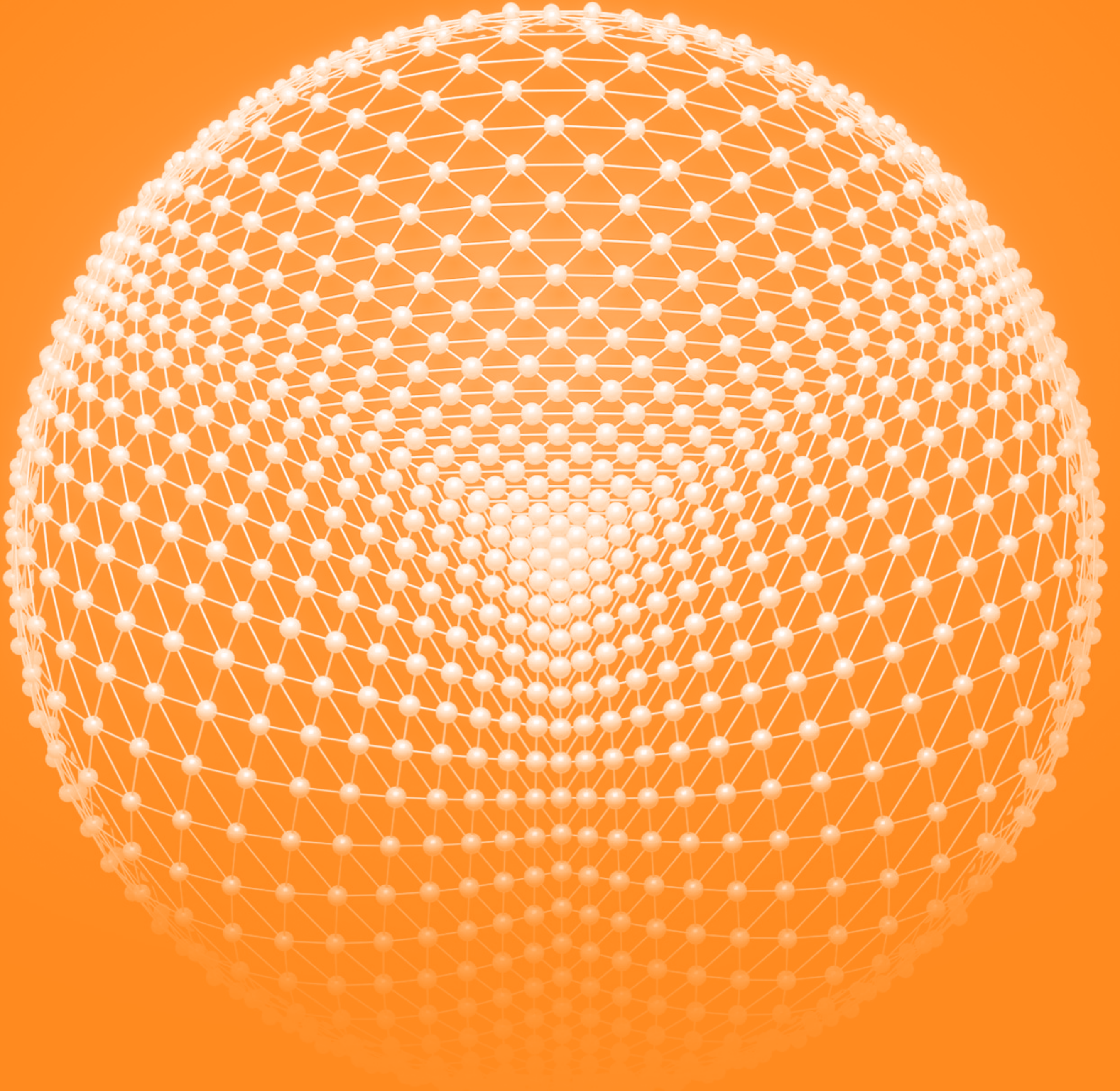
MEGATREND

Advanced Health and Nutrition

TRENDS

Future of Purpose & Work
Immersive Technologies & Wearables
Longevity & Well-being
Neuroscience
Internet of Things (IoT)





COLLABORATION ADVANCED

Enhance problem-solving, innovation and trust by redesigning collaborative structures and processes between humans – including across generations – as well as between machines and between humans and machines.



Opportunity #11

What if machines could brainstorm ideas?

AI AT THE WHITEBOARD

Advanced machine intelligence identifies the innovations and business ideas that are most likely to succeed reducing volatility in venture funding and increasing innovation and growth.

MEGATREND
Future Humanity

TRENDS
Artificial Intelligence
HumanXMachine
Ideation, IP & Entrepreneurship





Opportunity #12

What if the future of work was to challenge the machine?

HUMANS VERSUS MACHINE

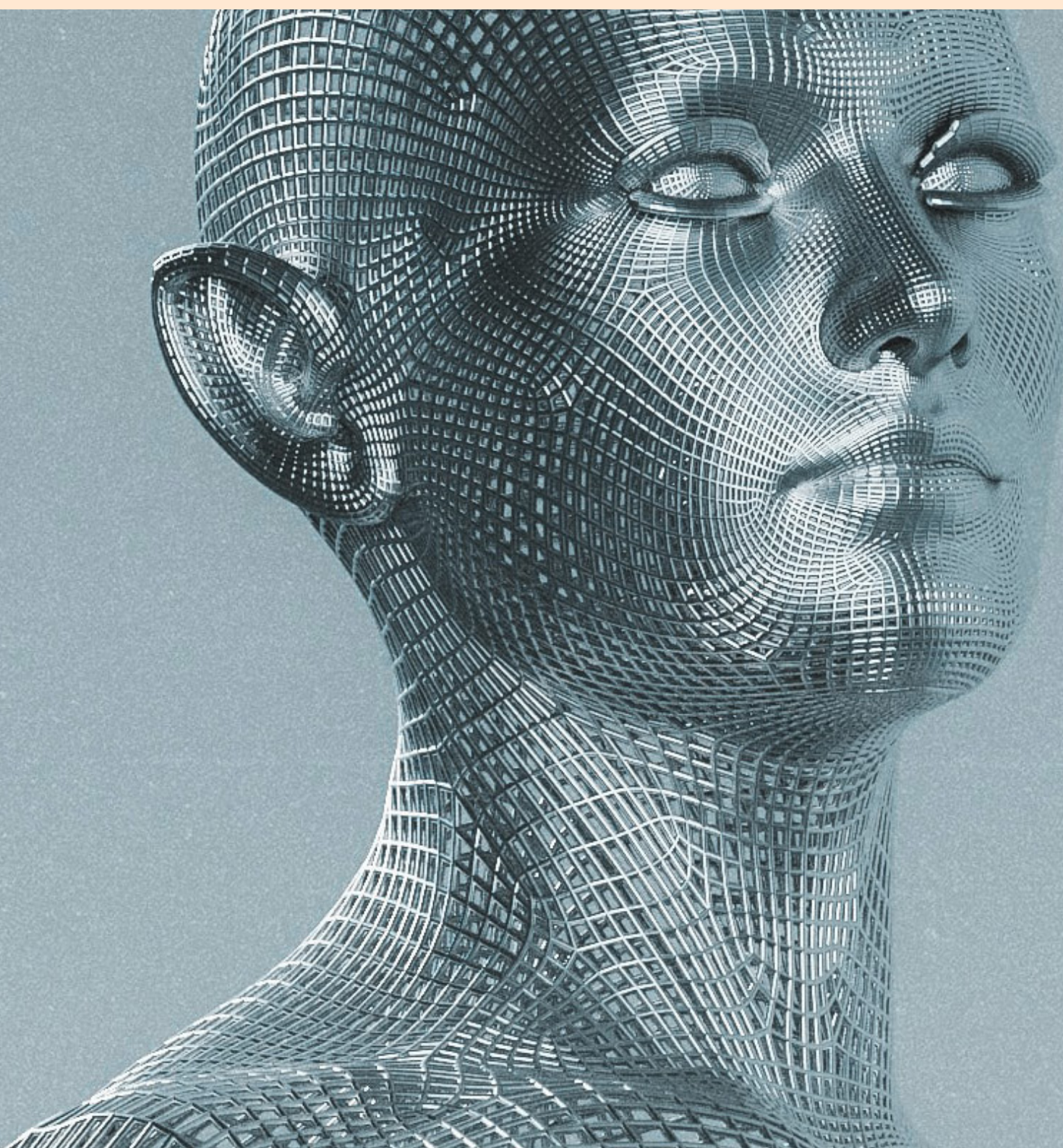
The value of human creativity and imagination grows into roles that intentionally challenge machines and counterbalance embedded Artificial Intelligence (AI) logic uncovering new areas for research, development and innovation.

MEGATREND

Life with Autonomous Robots

TRENDS

Artificial Intelligence
Future of Purpose & Work
HumanXMachine





Opportunity #13

What if we had a new model for public goods?

FROM PUBLIC 'GOOD' TO 'GREAT'

Reframing the provision of public goods to a new model of Society-Public-Private (SPP) cooperation for public goods opening up new solutions in health, the environment and elsewhere.

MEGATREND
Future Humanity

TRENDS
Cross-sectoral Partnerships
Community-based Solutions





Opportunity #14

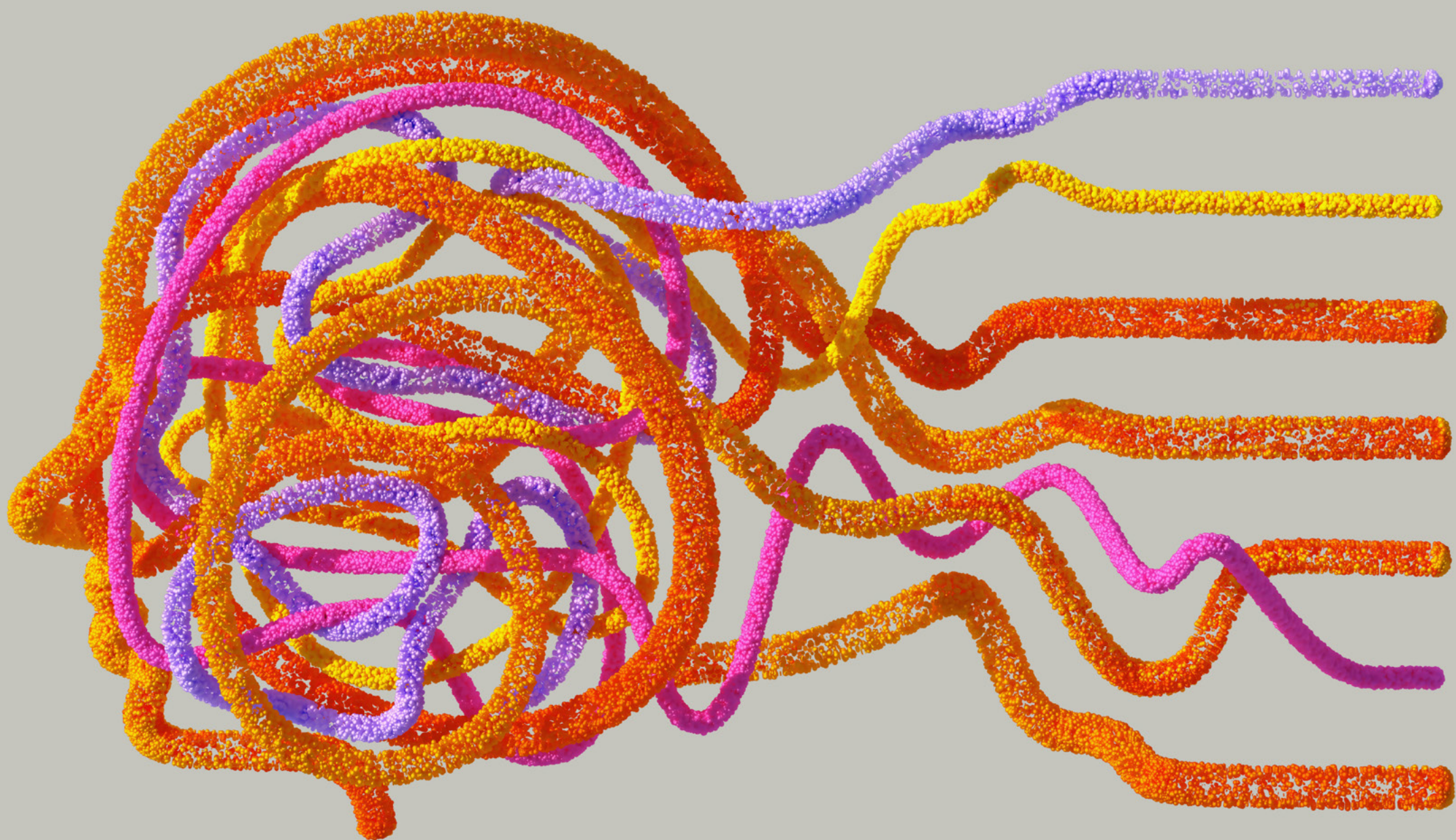
What if differing opinions could connect and improve business and society?

AGREEING TO DISAGREE AS ONE

Brain-computer interfaces (BCIs) and advances in brain-mapping techniques make the most of diverse human thought, promoting cooperation and tolerance, reversing fragmentation in societies, and fostering cognitive diversity and the ability to have productive discussions.

MEGATREND
Future Humanity

TRENDS
Future of Purpose & Work
Generational & Cognitive Diversity





Opportunity #15

What if generational diversity was a must in the board room?

ALL-GENERATION DIRECTORSHIPS

Company, public sector and civil society boards of directors and trustees systematically include people of all generations as a principle of corporate governance embedded in all legal, regulatory and international standards.

MEGATREND
Future Humanity

TRENDS
Generational & Cognitive Diversity
Community-based Solutions





Opportunity #16

What if space traffic was internationally regulated?

RULES FOR SPACE, INC.

Using the analogy of air traffic control, an international space transport association defines and enforces 'space traffic' rules for safety and best practice for future growth in space transport and commercial development.

MEGATREND

Borderless World - Fluid Economies

TRENDS

Future of Space
International Collaboration
Legal Transformation





Opportunity #17

What if comprehensive data was a public good?

A WIDE WORLD OF DATA

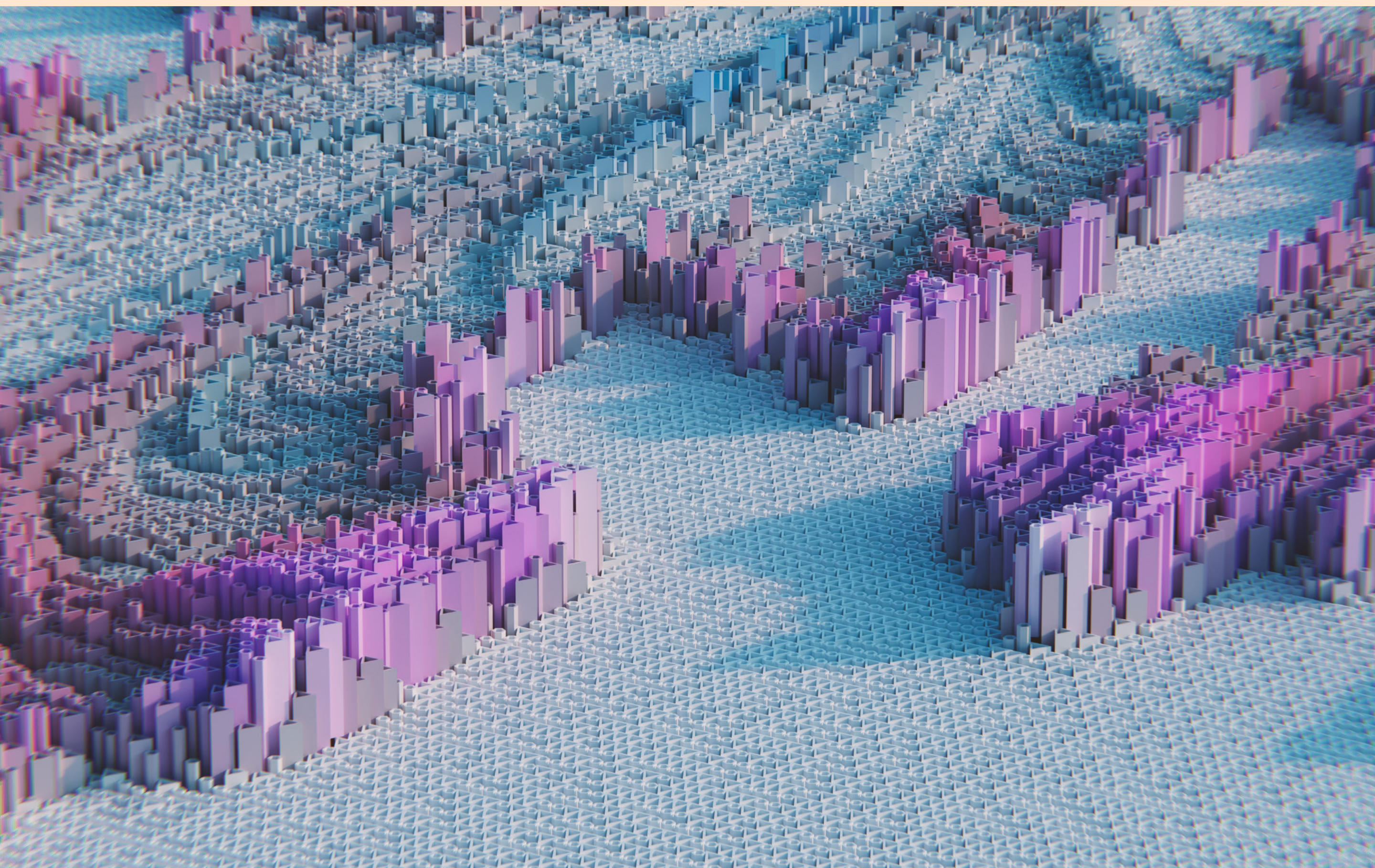
Enabled by incentives for data-sharing, a secure platform is set up where entrepreneurs, researchers and policy-makers can share and access vast aggregated and anonymised user datasets and related analysis, which aids global innovation, learning and discovery.

MEGATREND

Devaluation of Raw Data

TRENDS

Artificial Intelligence
Distributed Ledger Technologies (DLT)
Ideation, IP & Entrepreneurship
Open Data





Opportunity #18

What if we adopted Space Development Goals (SpDGs)?

UNIVERSAL UNIVERSE GOALS

A set of universal goals acts as a call to action to protect space and ensure that all who want to access it can do so without unduly increasing debris or space pollution and safeguarding space for generations to come.

MEGATREND

Saving Ecosystems

TRENDS

International Collaboration
Future of Space





Opportunity #19

What if we built a digital climate catalogue?

THE ULTIMATE CLIMATE CALCULATOR

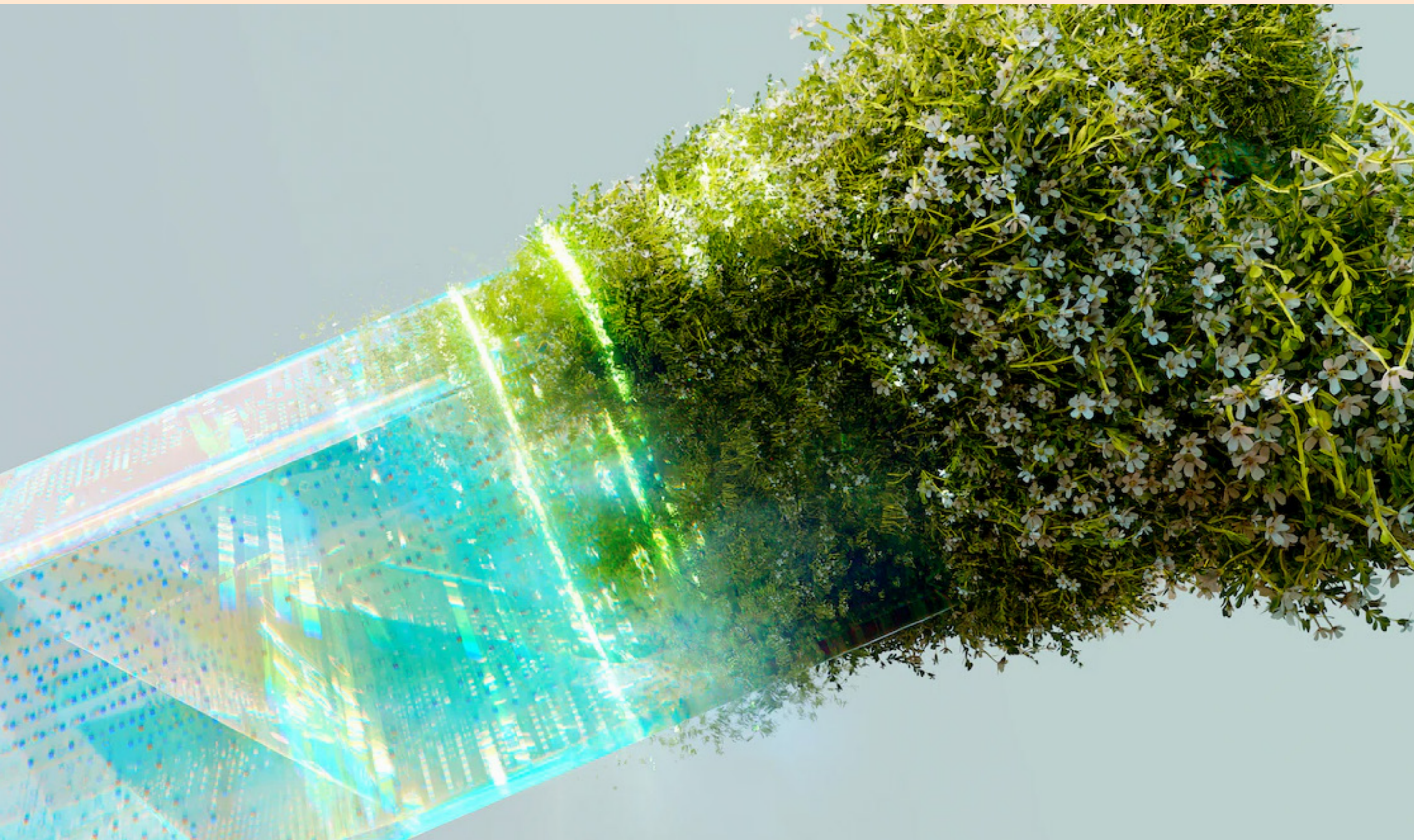
Going beyond the carbon footprint, a digital climate catalogue allows governments, businesses and even individuals to calculate their environmental impact in real time. Fully automated, this valuation system reveals the likely impacts of potential policy and investment choices.

MEGATREND

Saving Ecosystems

TRENDS

Artificial Intelligence
ESG & Beyond GDP
Internet of Things (IoT)
Net-zero





Opportunity #20

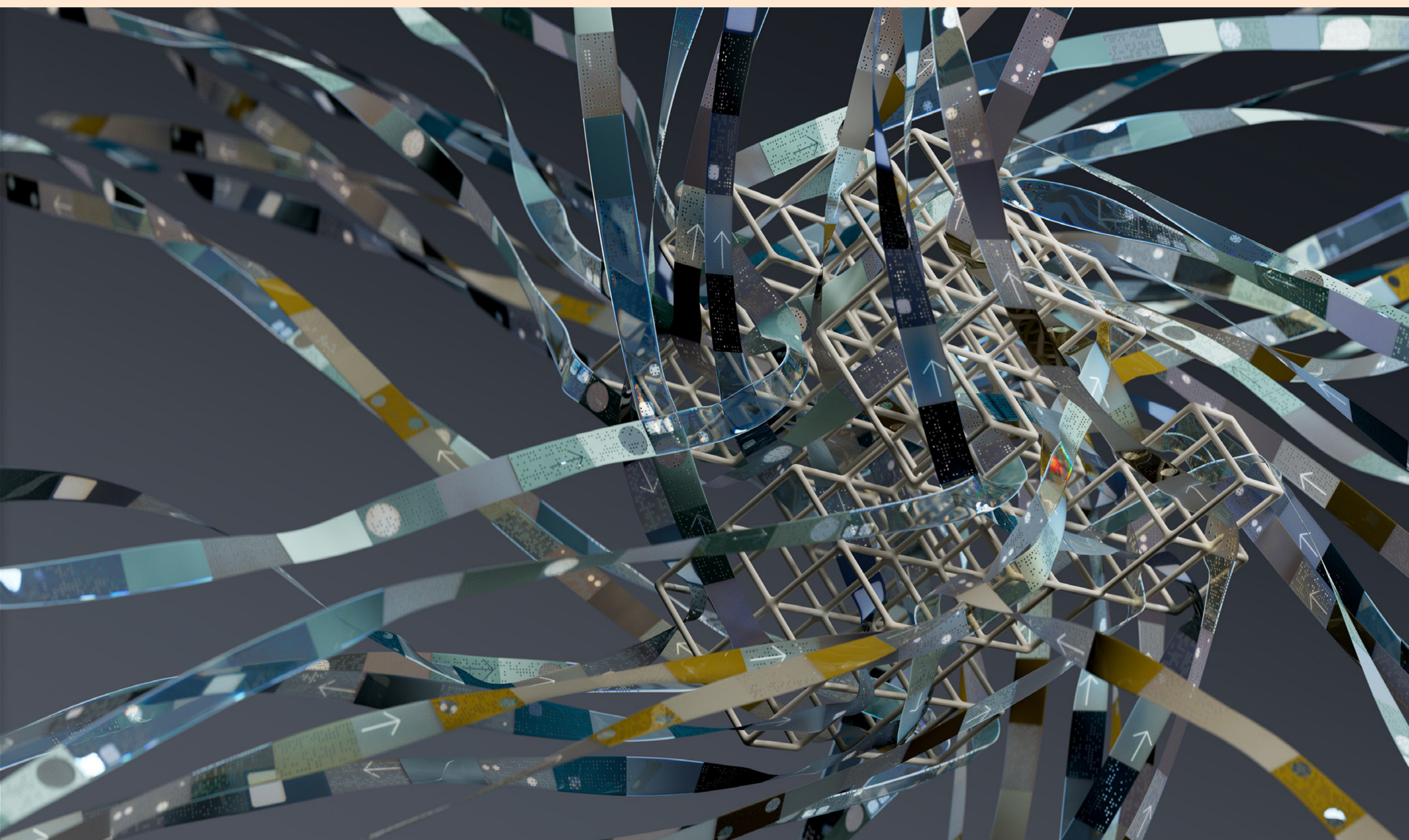
What if knowledge was effortlessly shared?

DEEPER THOUGHT

Shaped by advances in brain–computer interfaces (BCIs) and advanced machine intelligence, knowledge sharing becomes cross-disciplinary, cross-geographical and cross-generational, with ever increasing speed and minimal effort, shaping the future of knowledge.

MEGATREND
Future Humanity

TRENDS
Artificial Intelligence
Brain-Computer Interfaces (BCI)
Future of Purpose & Work
Quantum Technology





Opportunity #21

What if no one was left behind in the transition to digital realities?

CROSSING THE DIVIDE

A global task force adopts a 'nexus' approach to ensuring that every person on earth is included in the transition to digital realities.

MEGATREND

Digital Realities

TRENDS

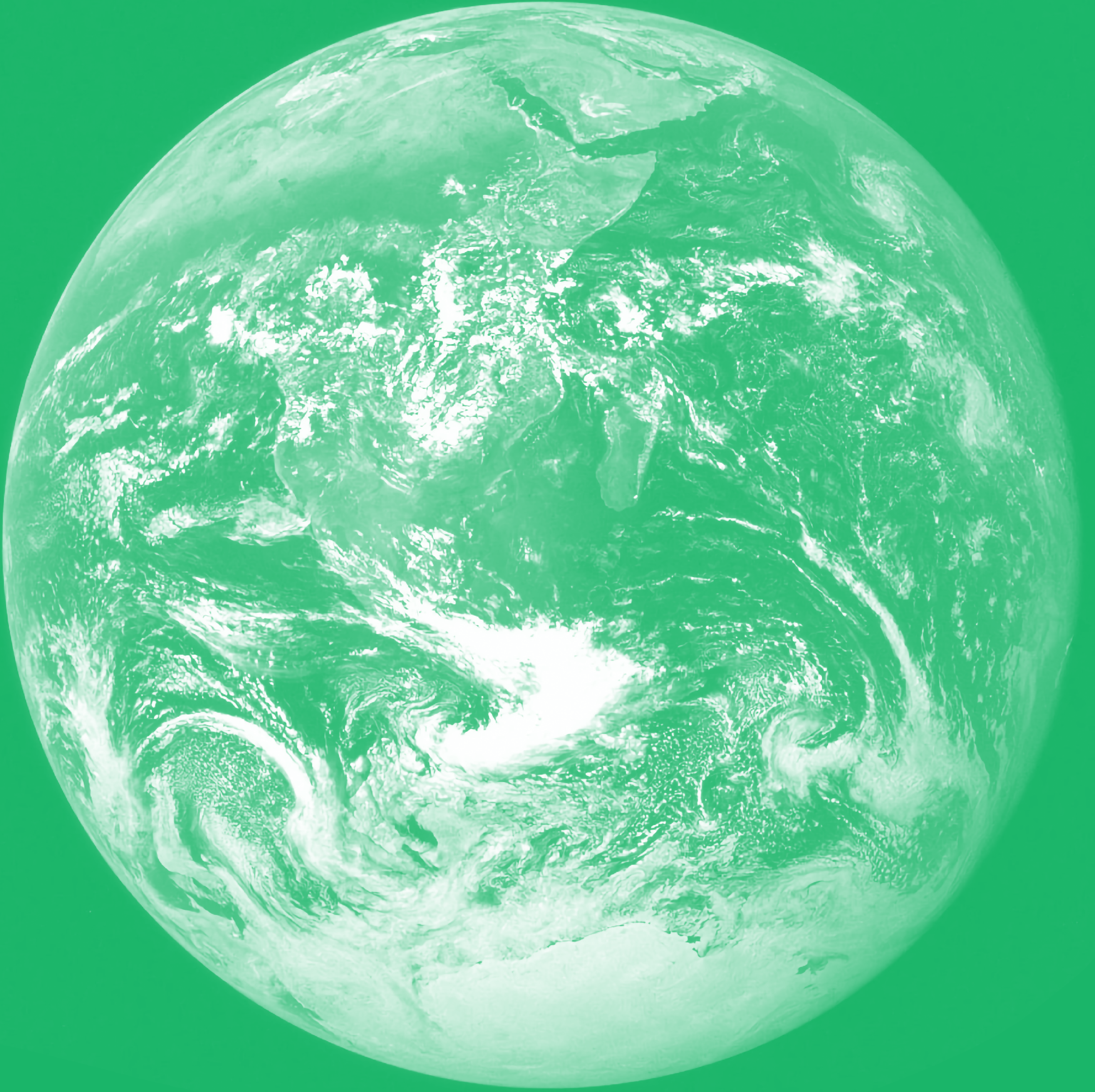
Future of Purpose & Work
Immersive Technologies & Wearables
Internet of Things (IoT)
Mobilising Innovation
Virtual Reality





مؤسسة دبي للمستقبل
DUBAI FUTURE FOUNDATION

FUTURE OPPORTUNITIES REPORT
THE GLOBAL 50 (2023)
NATURE RESTORED



NATURE RESTORED

Minimise environmental risks, harness nature's capacity to restore itself or have a positive impact on crucial environmental ecosystems and habitats, creating a more stable, healthier planet for all.



Opportunity #22

What if we returned the planet to its natural state?

A WALK ON THE REWILD SIDE

Phasing out land use for food production accelerates biodiversity and ecosystem restoration – hence rewilding - while mitigating climate change risks.

MEGATREND

Saving Ecosystems

TRENDS

Deforestation & Desertification
Restoration
Bioeconomy





Opportunity #23

What if the next wave of car technology innovation was in the wheels?

MULTIPURPOSE WHEELS

A series of technological innovations in the wheels redefine the future of car transport – from maglev (magnetic levitation) solutions and drone-like technologies, to the replacement of rubber in tyres and new ways of conceptualising the function of wheels on a car.

MEGATREND

Materials Revolution

TRENDS

Advanced Mobility

Air Pollution

New Materials





Opportunity #24

What if we had a responsive centennial plan for the planet?

MAKE IT 100

Beyond the Sustainable Development Goals, Planetary Development Goals are set up and agreed on a rolling 100-year time frame, creating a long-term global cooperation framework for restoring and preserving ecosystems and biodiversity.

MEGATREND

Saving Ecosystems

TRENDS

ESG & Beyond GDP
International Collaboration
Restoration





Opportunity #25

What if the atmosphere was given the ability to self-heal?

LET THAT (CARBON) SINK IN

Using the example of the ozone layer's capacity to repair itself, advances in nanotechnology build a self-repairing atmosphere that absorb greenhouse gases, restoring balance for the benefit of earth's climate and allowing nature to regenerate.

MEGATREND

Saving Ecosystems

TRENDS

Air Pollution
Nanotechnology
Restoration





Opportunity #26

What if we could recool the planet by saving the ice caps?

ICE UNCAPPED

A multi-pronged effort to restore the Arctic's sea ice, the Antarctic's ice sheet and mountain glaciers around the world leads to the cooling of the planet and oceans and prevents the further release of trapped methane into the atmosphere.

MEGATREND

Saving Ecosystems

TRENDS

Air Pollution
Geoengineering
Ice Cap Shrinkage
New Materials





Opportunity #27

What if we achieved zero emissions?

MISSION ACCOMPLISHED

Technological breakthroughs and unprecedented global collaboration bring greenhouse gas emissions to zero¹, restoring ecosystems and creating new ones.

MEGATREND

Saving Ecosystems

TRENDS


Air Pollution

International Collaboration

Nanotechnology

Transforming Energy

¹ Close to zero.





Opportunity #28

What if we could absorb greenhouse gas emissions and particulate matter on demand anywhere in the world?

‘MOBILE’ SUPER SCRUBBERS

Enabled by materials science, automation and advanced machine intelligence, emissions and particulate matter are absorbed on an as-needed basis, anywhere in the world, independent of technological capabilities available on hand.

MEGATREND

Saving Ecosystems

TRENDS

Air Pollution
Nanotechnology
New Materials





Opportunity #29

What if agriculture cut its dependence on water?

WATERLESS FARMS

Advances in nanotechnology enable the delivery of micronutrients and pesticides through spray coatings that boost yields, safely protecting agriculture from pests and reducing the need for excessive watering.

MEGATREND
Saving Ecosystems

TRENDS
AgriTech
Food-Water-Energy Nexus
Nanotechnology





SOCIETIES EMPOWERED

Empower societies by offering solutions to humanity's most complex and universal needs, optimising systems they rely on, safeguarding risks that could make societies more fragile in the face of crises and extending individual and collective potential for growth and development.



Opportunity #30

What if decentralised autonomous organisations (DAOs) became a force for positive change?

DAOs FOR SOCIAL GOOD

Advanced connectivity and digital realities enable globally minded individuals and communities around the world to collaborate and exchange knowledge, data and services and become partners in DAOs focused on specific global social issues or challenges.

MEGATREND

Borderless World - Fluid Economies

TRENDS

Advanced Connectivity
Community-based Solutions
Digital Communities
Distributed Ledger Technologies (DLT)





Opportunity #31

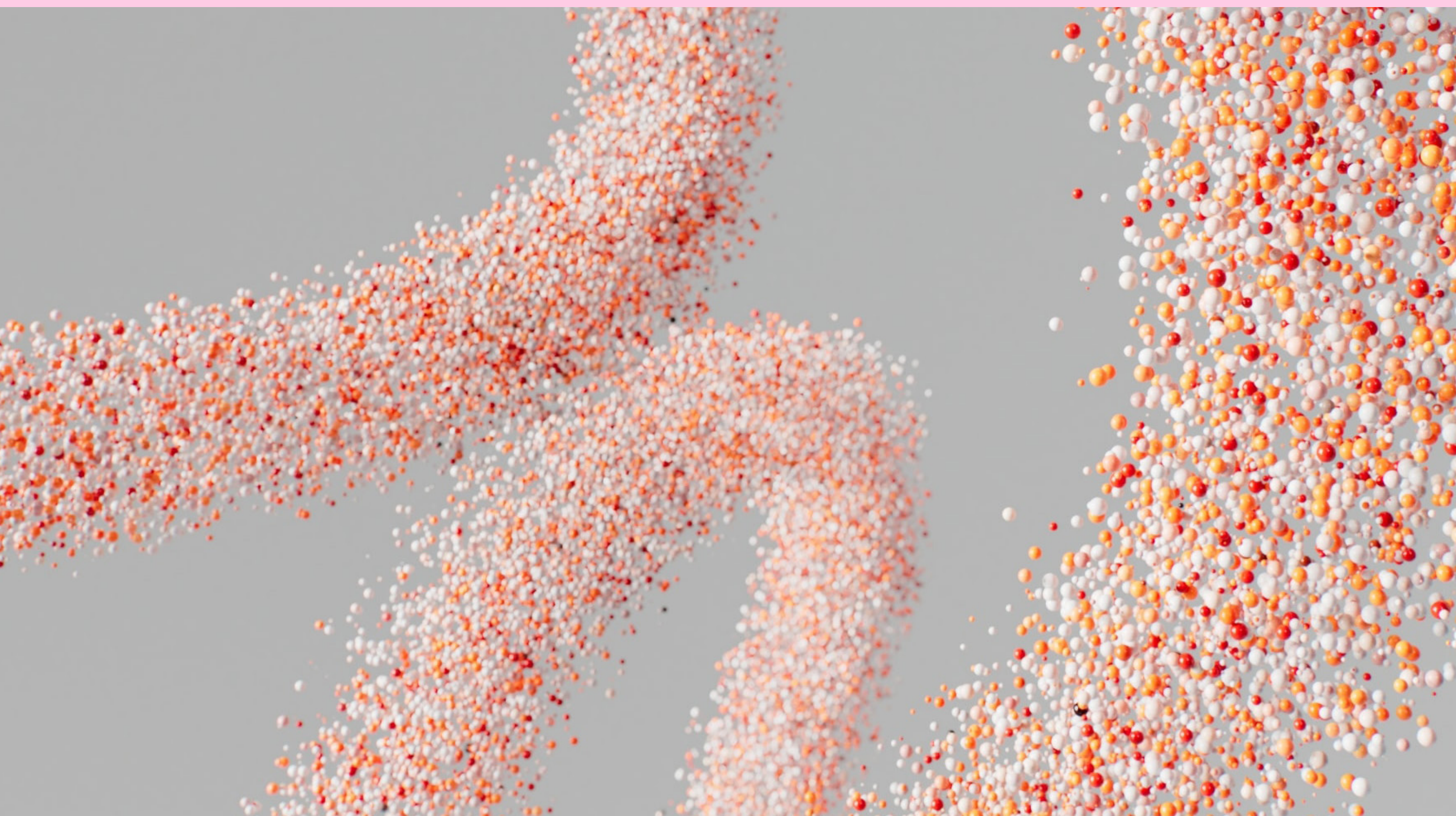
What if the people of the world voted for action on global challenges?

WHOLE-PLANET VOTING

Global voting systems enable whole-planet decision-making around global challenges, building a sense of solidarity and empowerment among people living around the world.

MEGATREND
Future Humanity

TRENDS
Advanced Connectivity
Artificial Intelligence
Community-based Solutions
Digital Communities





Opportunity #32

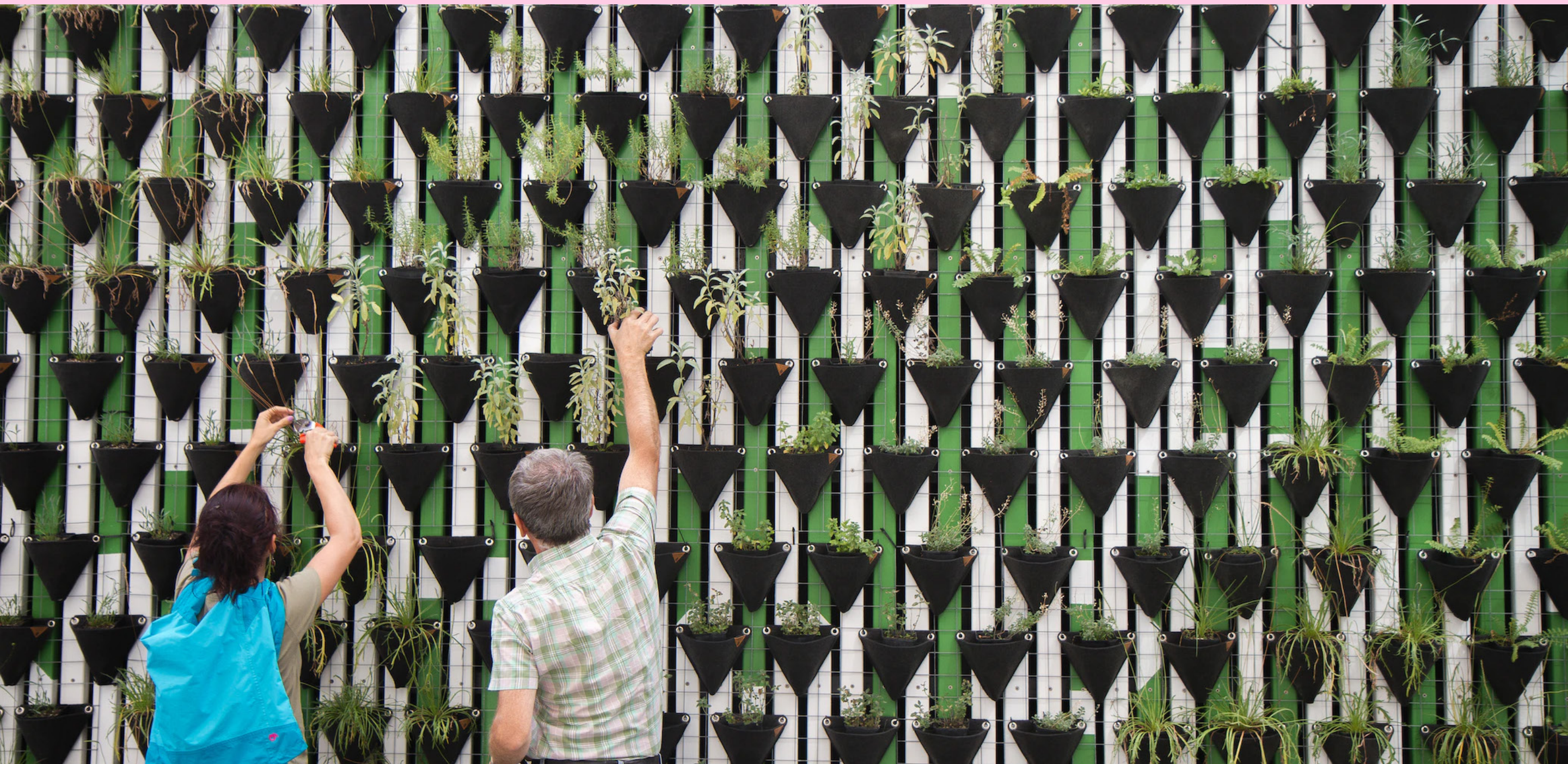
What if paid social national service was standard?

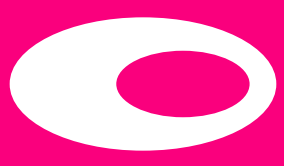
SERVICE AS A STANDARD

Paid social national service is legally available for everyone, resulting in changed views of working life, community, social and environmental engagement, allowing people to contribute to their community and society before embarking on a new career or transition to the next phase of their life.

MEGATREND
Future Humanity

TRENDS
Community Engagement & Volunteerism
Future of Purpose & Work
Longevity & Well-being





Opportunity #33

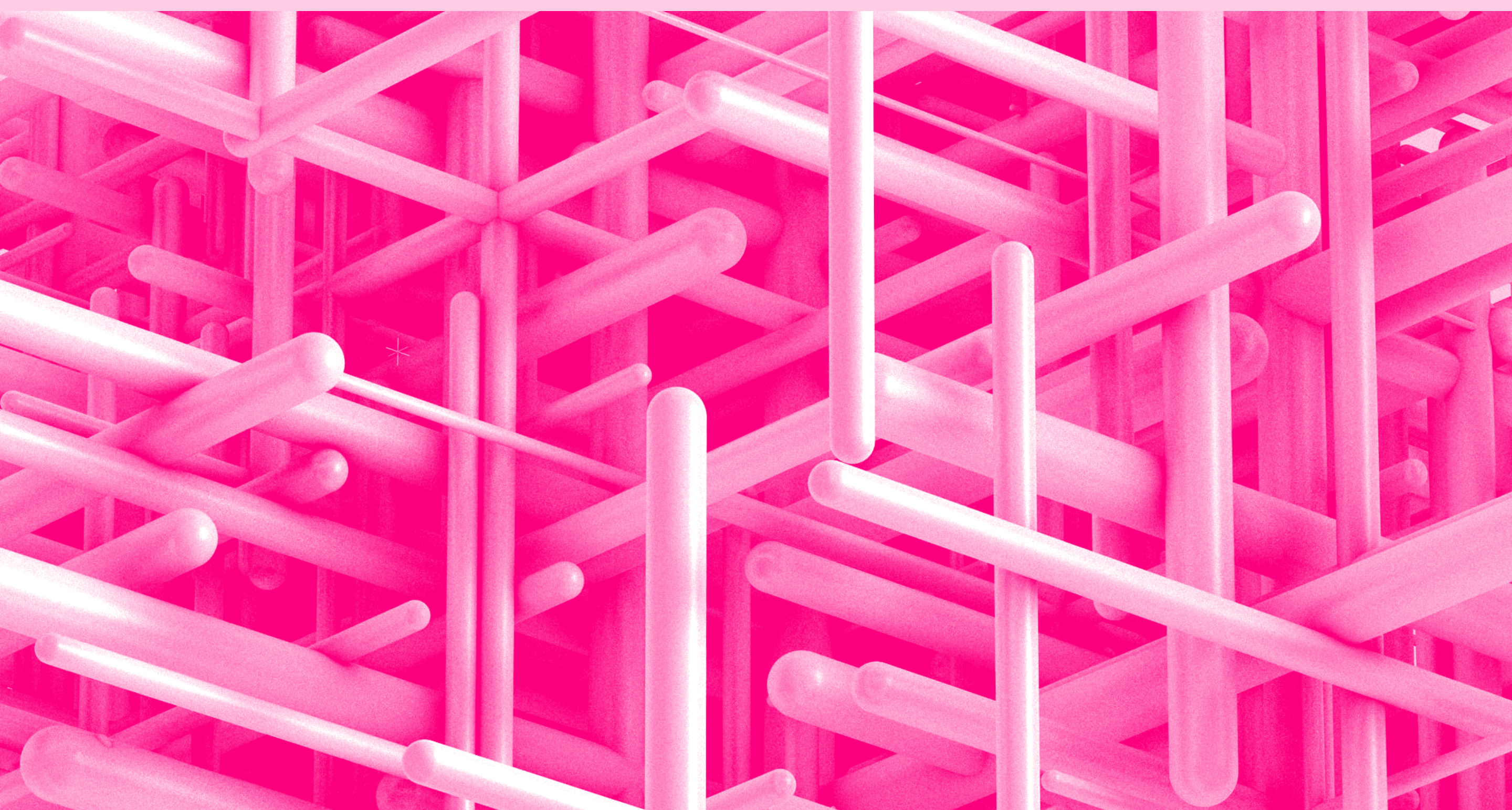
What if social policies were designed and monitored at a community level and in real time?

A POLICY'S TRUE MEASURE

Advanced machine intelligence helps policy-makers design and implement effective social programmes and policies at a community level that are adjusted in real time, taking into account people's diverse characteristics and backgrounds while protecting the privacy of all.

MEGATREND
Future Humanity

TRENDS
Community-based Solutions





Opportunity #34

What if hybrid intelligence reduced groupthink?

CALLING OUT HERD MENTALITY

Advanced machine intelligence and new conceptual models of social psychology inform decision-making, reducing the impact of groupthink.

MEGATREND
Future Humanity

TRENDS
Artificial Intelligence
(HumanXMachine)





Opportunity #35

What if we had a convention of rights for digital realities?

A DIGITAL REALITIES CONVENTION OF RIGHTS

An international convention of digital human rights for life in a virtual world providing levels of protection for people as they live, work and socialise in digital realities.

MEGATREND
Digital Realities

TRENDS
International Collaboration





Opportunity #36

What if we secured our digital identities using quantum encryption?

QUANTUM AVATAR

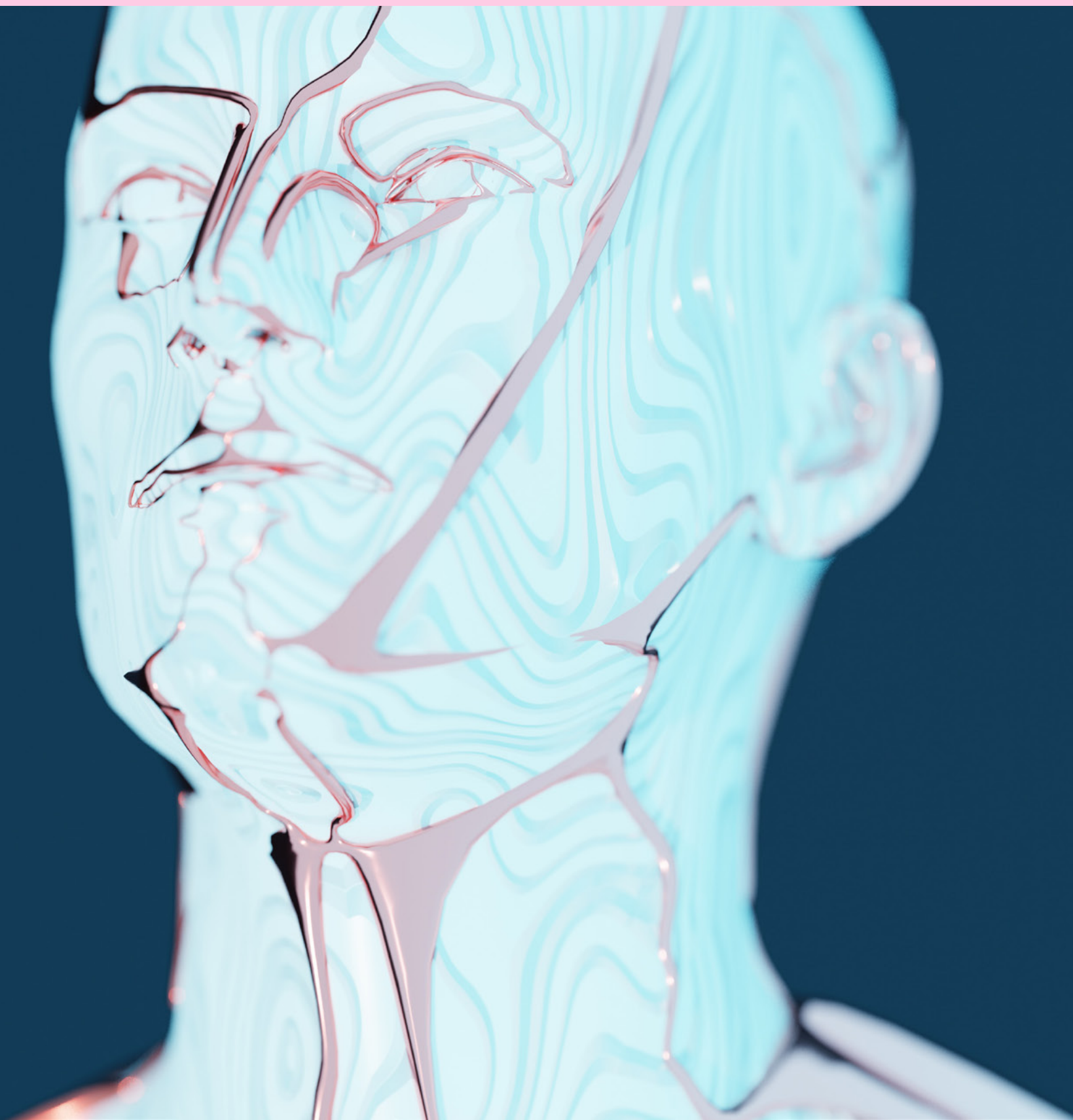
Quantum encryption protects the integrity of avatars in digital realities, creating an environment of trust that uplifts creativity, commerce and security.

MEGATREND

Technological Vulnerabilities

TRENDS

Cybersecurity
Digital Art & Design
Metaverse
Virtual Reality





Opportunity #37

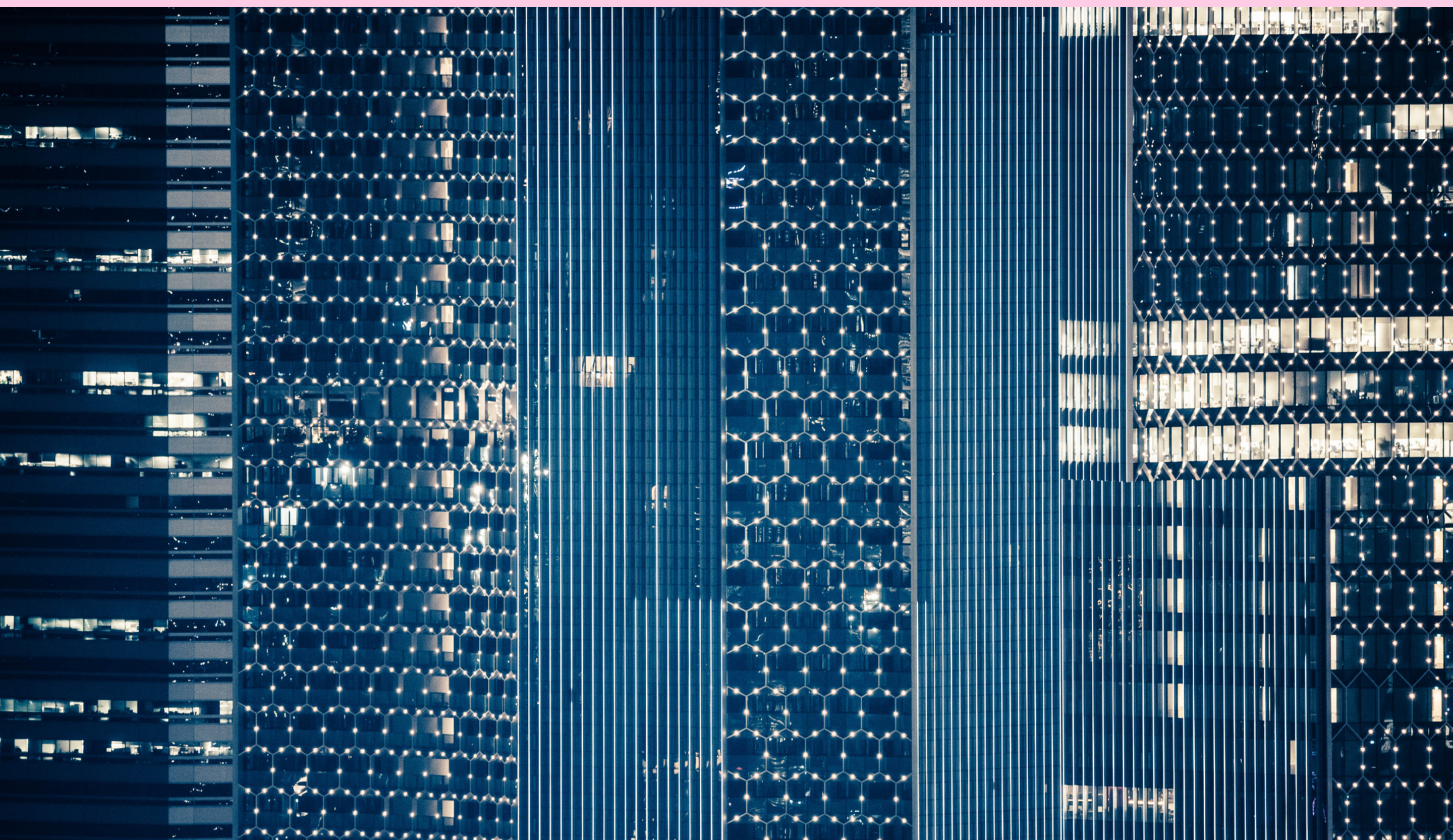
What if we designed a liveability index for digital realities?

ONLINE KERB APPEAL

As more businesses, sources of entertainment and social interactions move to immersive, virtual environments, establishing a comparable measure for liveability in digital realities quantifies the challenges faced by individuals and their avatars.

MEGATREND
Digital Realities

TRENDS
Immersive Technologies & Wearables
Virtual Reality





Opportunity #38

What if we tokenised our most sensitive data?

NOT A TOKEN GESTURE

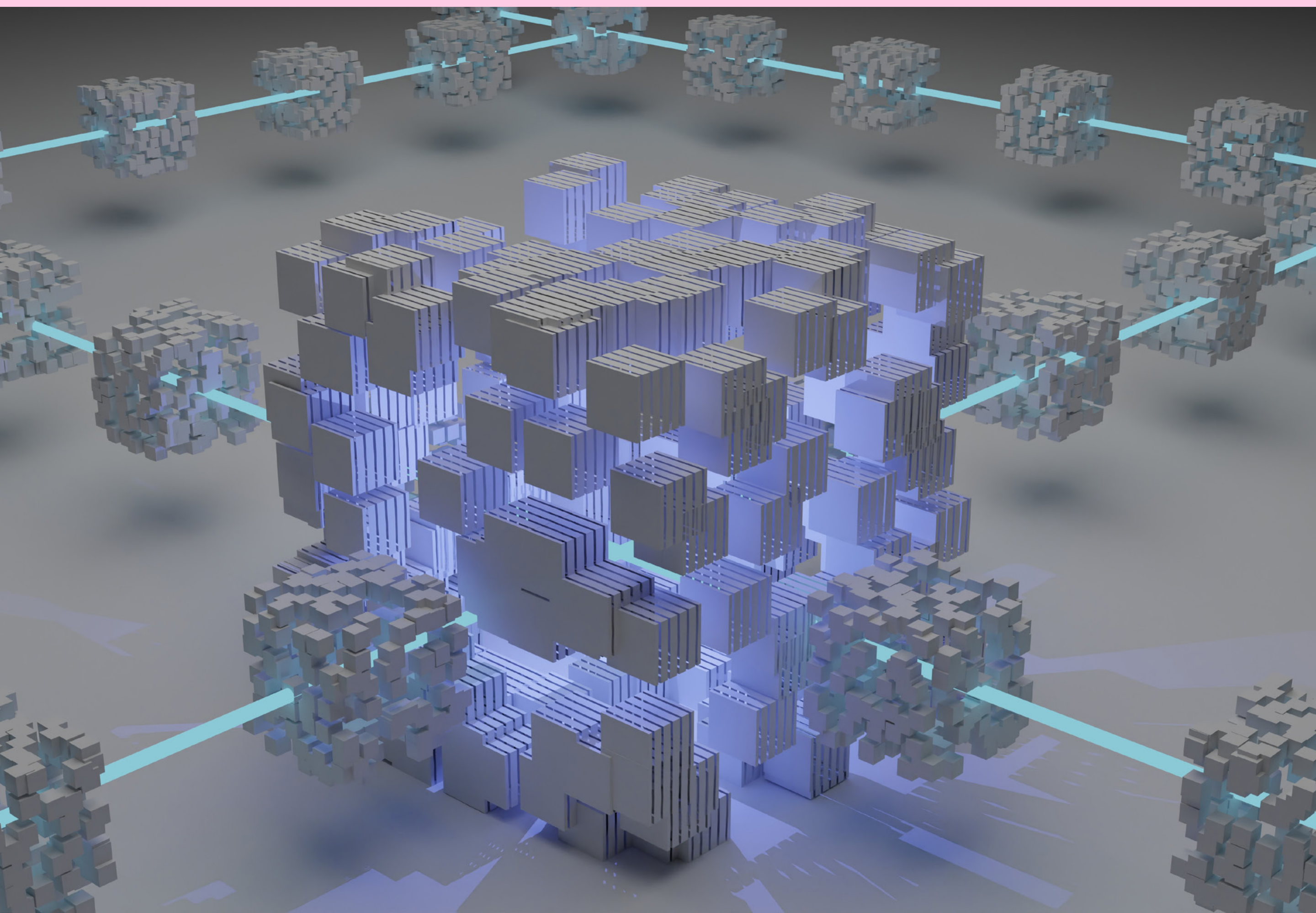
Individuals tokenise sensitive personal data to protect its integrity and retain control over who has access – with a possible commercial upside.

MEGATREND

Technological Vulnerabilities

TRENDS

Artificial Intelligence
Data Protection & Privacy
Tokenisation





Opportunity #39

What if this is the end of secondary education as we know it?

SECONDARY NO MORE

Dissolve grade levels and equip youth in secondary education with the confidence, resilience and strong mental health to explore potential futures and make informed decisions through entirely personalised, adaptive and cognitively diverse environments.

MEGATREND
Future Humanity

TRENDS
Future of Purpose & Work
HumanXMachine
Mental Health
Neuroscience
Transforming Education





TRANSFORMATIONAL

The power to radically change ways of life by replacing the models that countries, communities and individuals live by. These new models enable individuals and communities to innovate, improve and aid the transformation of humanity to new digital and non-digital realities.



Opportunity #40

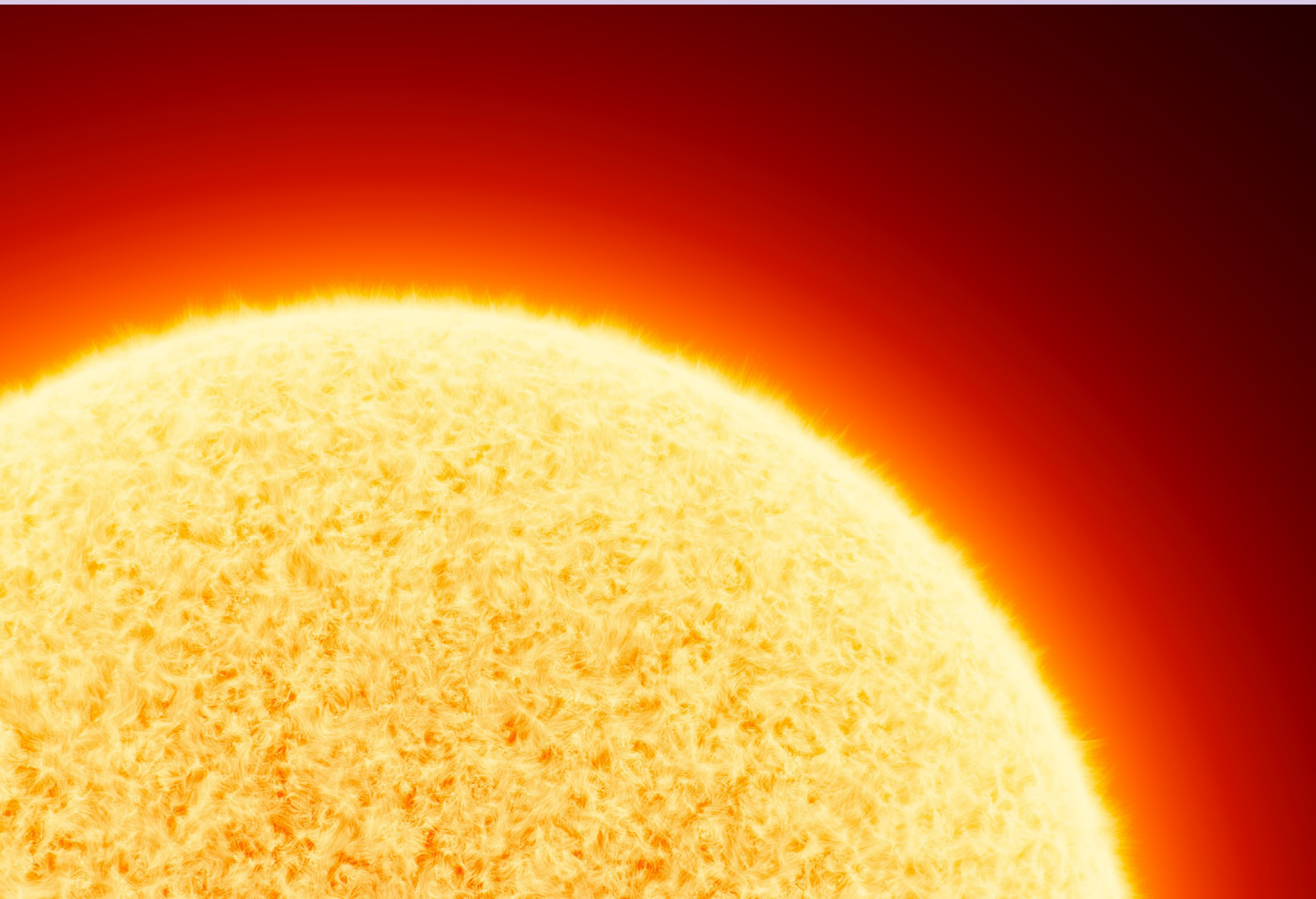
What if solar farms were moved to space?

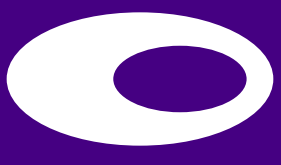
INFINITE 'SOLAR' ENERGY

Floating solar panel farms are installed in space and are operated by advanced machine intelligence to ensure optimal positioning, allowing unlimited renewable energy to be generated and transmitted to earth.

MEGATREND
Energy Boundaries

TRENDS
Future of Space
Transforming Energy





Opportunity #41

What if digital realities rewrote liability laws in the real world?

LAW AND ORDER FOR WEB 3.0

New models of liability emerge from our online lives and reshape liability laws and regulations in the real world.

MEGATREND
Digital Realities

TRENDS
Cybersecurity
Legal Transformation
Metaverse





Opportunity #42

What if accounting reinvented itself?

ACCOUNTING FOR INNOVATION

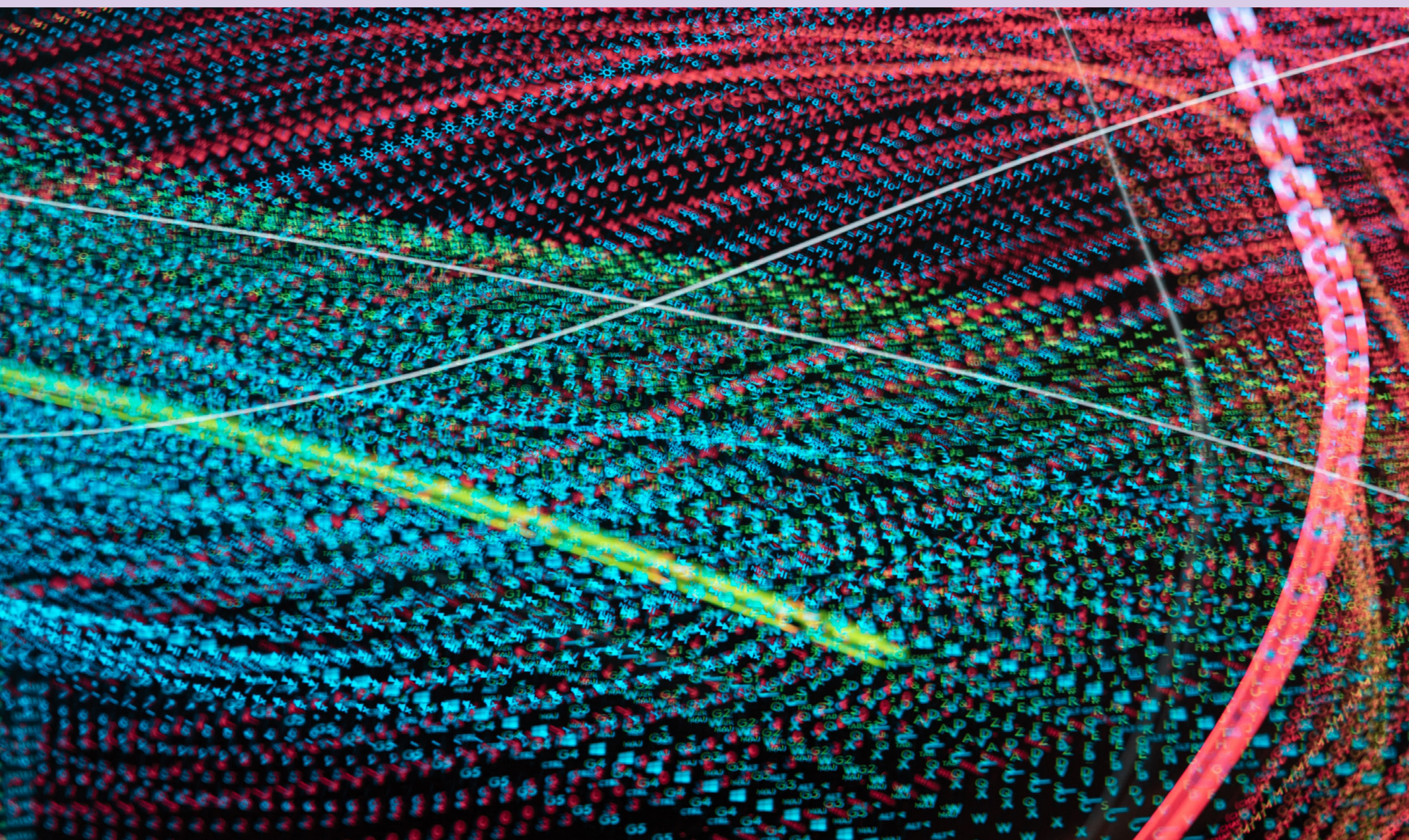
Enabled by a range of technological advances, new means of valuation, measurement and reporting make historical accounting approaches redundant, opening up new opportunities for innovation in problem-solving and fraud detection.

MEGATREND

Devaluation of Raw Data

TRENDS

Artificial Intelligence
Edge Computing
Future of Purpose & Work
Internet of Things (IoT)





Opportunity #43

What if deliveries went underground?

HATCHES, TUBES AND ROBOT DISPATCHES

An AI-powered pneumatic tube system for city-wide delivery on demand that offers a completely integrated on-demand delivery model reviving an old approach with the technological advances needed.

MEGATREND

Devaluation of Raw Data

TRENDS

Artificial Intelligence
HumanXMachine
New Materials
Quantum Technology





Opportunity #44

What if we could make new materials in seconds?

FRESH THREADS

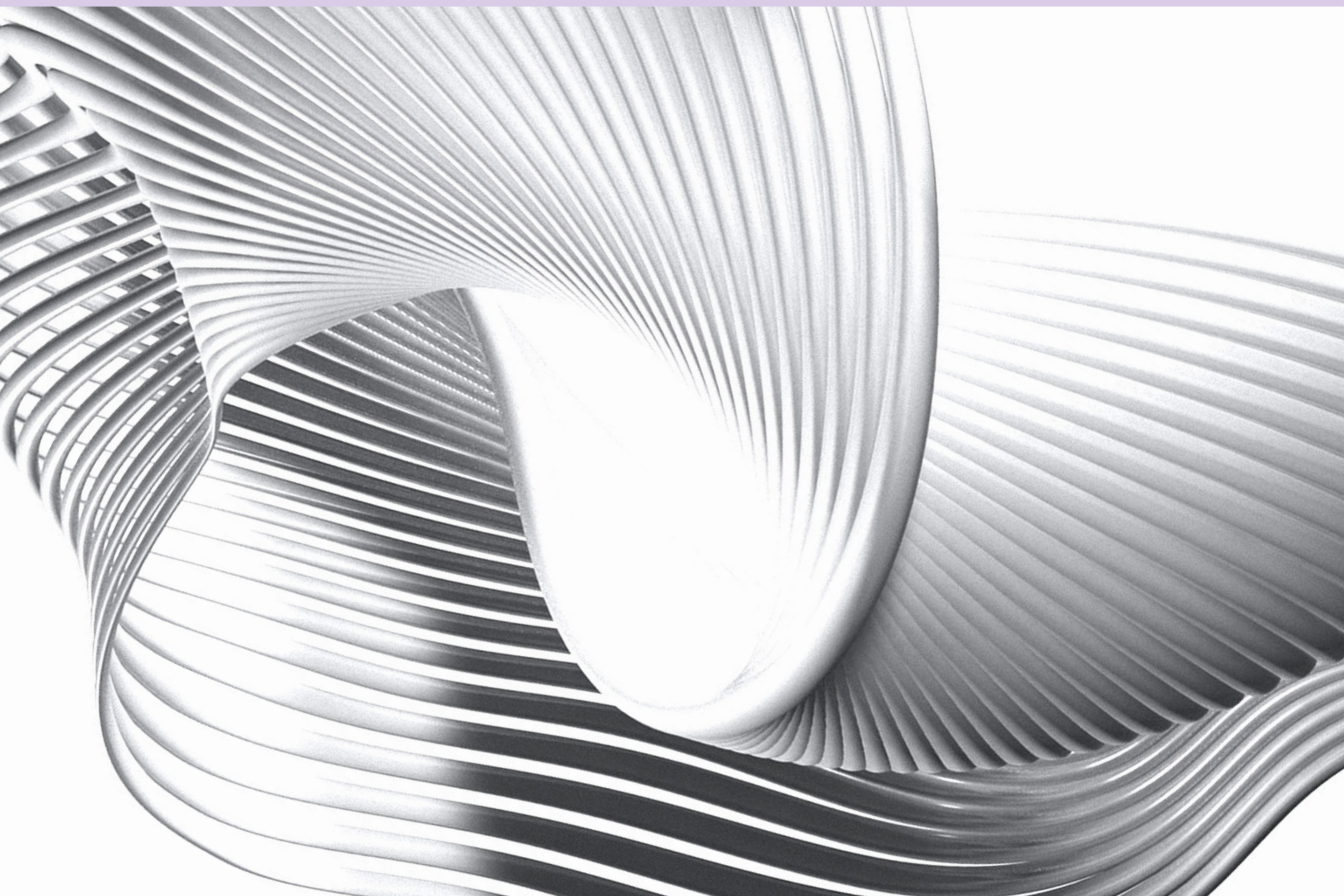
Advanced machine intelligence enables novel algorithmic models and techniques for predicting how new materials will function, accelerating the discovery of new materials.

MEGATREND

Materials Revolution

TRENDS

Artificial Intelligence
HumanXMachine
New Materials
Quantum Technology





Opportunity #45

What if the Fortune Global 500 was purely virtual?

GOING ALL-DIGITAL

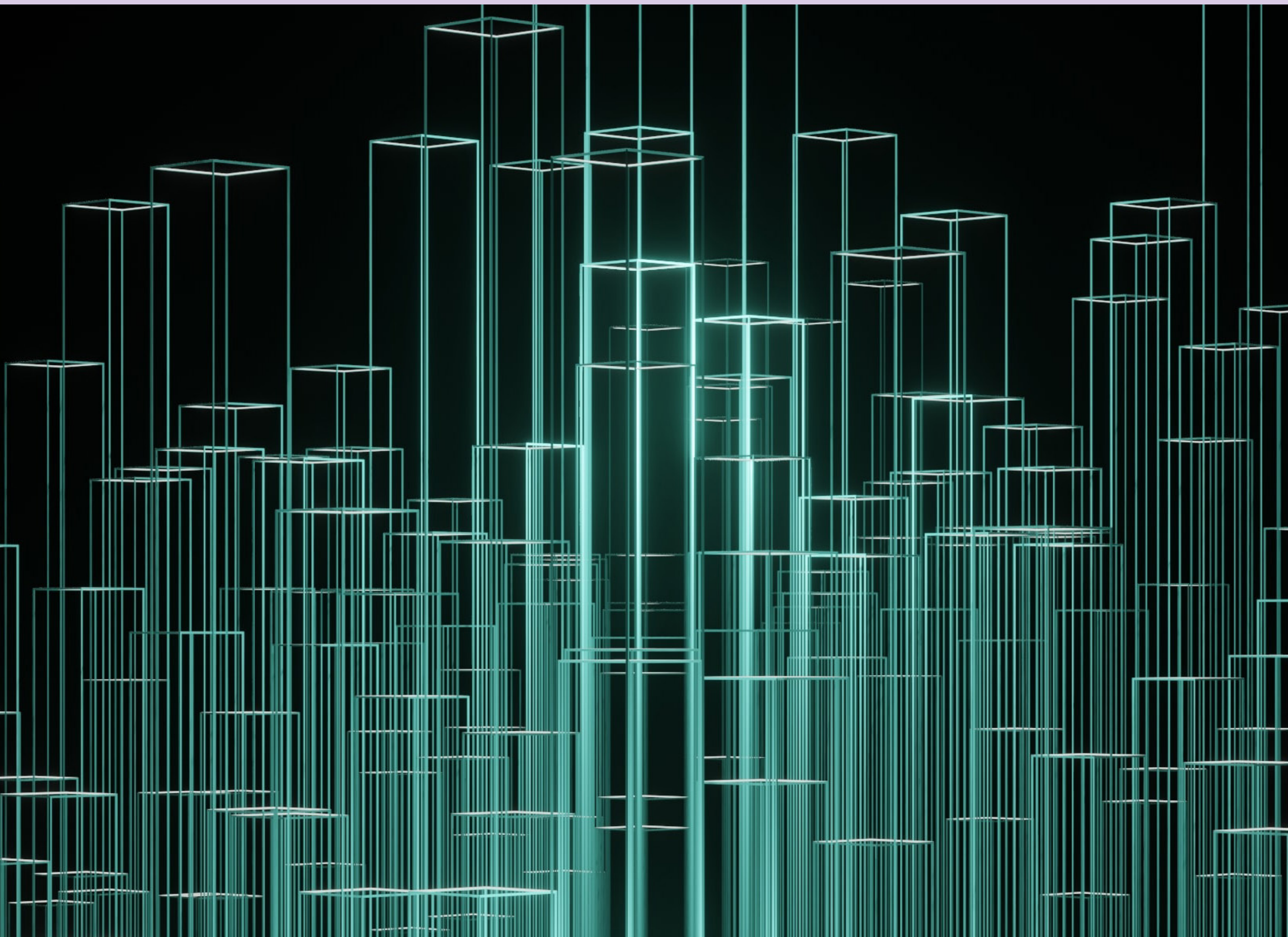
Operating entirely in digital realities, virtual companies generate more revenue than physical ones.

MEGATREND

Digital Realities

TRENDS

Digital Economy
Future of Purpose & Work
Metaverse





Opportunity #46

What if future potential was reported alongside GDP?

GROSS DOMESTIC FUTURE (GDF)

The stock of various national assets complement GDP as a measure of a country's future potential growth, or gross domestic future (GDF). These assets include natural resources, human capital, intellectual capital, physical capital, and capacities for innovation and technological development.

MEGATREND
Future Humanity

TRENDS
Artificial Intelligence
ESG & Beyond GDP
Real-time Analytics





Opportunity #47

What if we could X-ray the whole planet?

EARTH X-PLORATION

Cosmicray imaging technology makes it possible to ‘X-ray’ the entire world, revealing new sources of water, energy, minerals and other resources while helping to identify geological and structural problems.

MEGATREND

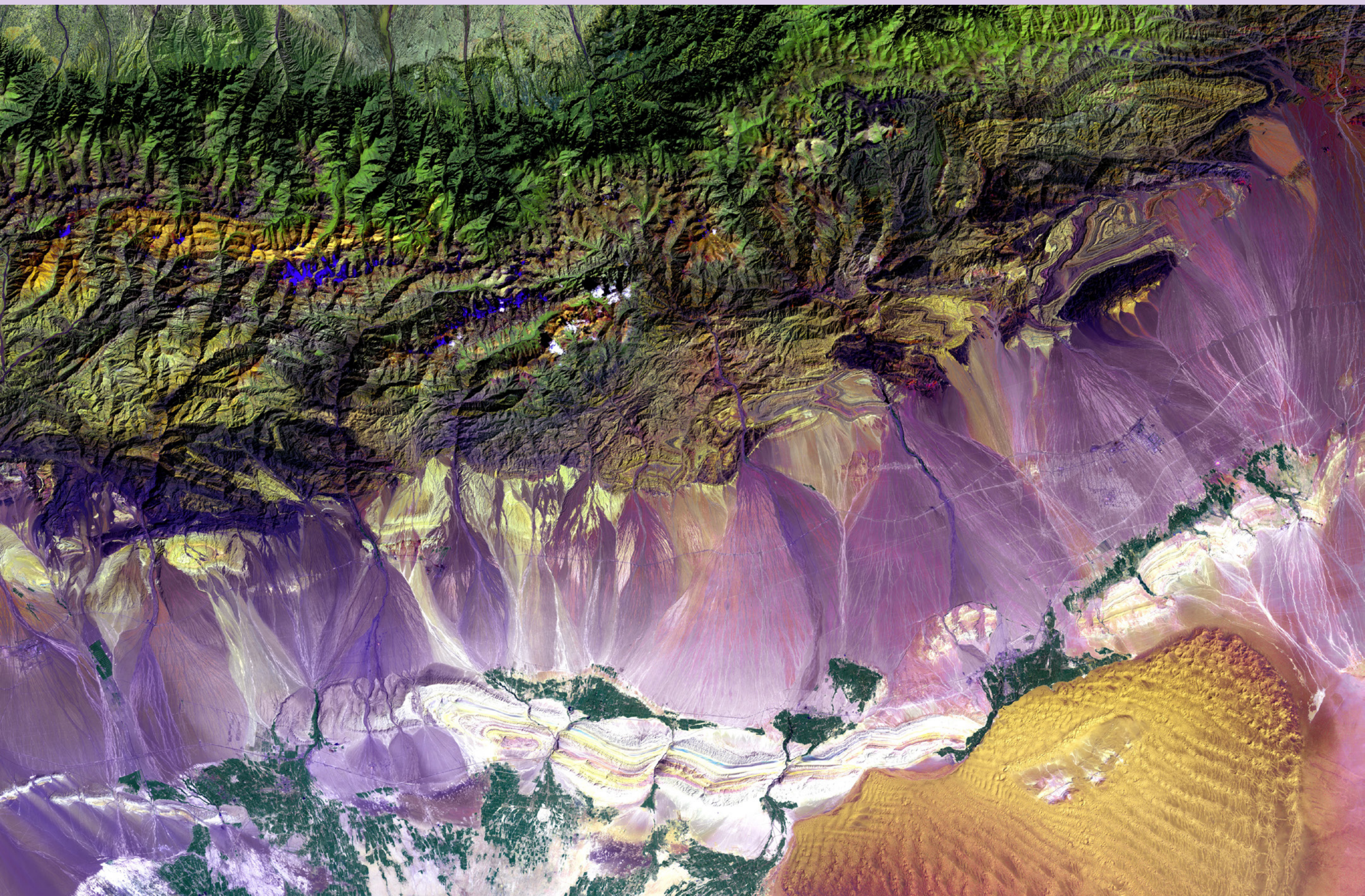
Saving Ecosystems

TRENDS

Food-Water-Energy Nexus

Future of Raw Materials

Transforming Energy





Opportunity #48

What if energy was stored in space?

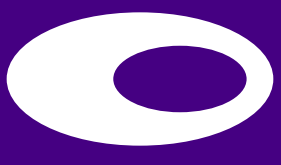
SPACE AS STORAGE

Space becomes a site for mass energy storage, with supercapacitors transmitting energy to meet all human needs both on earth and in space.

MEGATREND
Energy Boundaries

TRENDS
Future of Space
Transforming Energy





Opportunity #49

What if businesses considered the future beyond ESG?

ESG-F: INTO THE FUTURE

Beyond environment, social and governance (ESG), businesses report on how their approaches to ESG are fit for long-term impact, preventing gaps from arising and anticipating the concerns of stakeholders in the future.

MEGATREND
Future Humanity

TRENDS
ESG & Beyond GDP





Opportunity #50

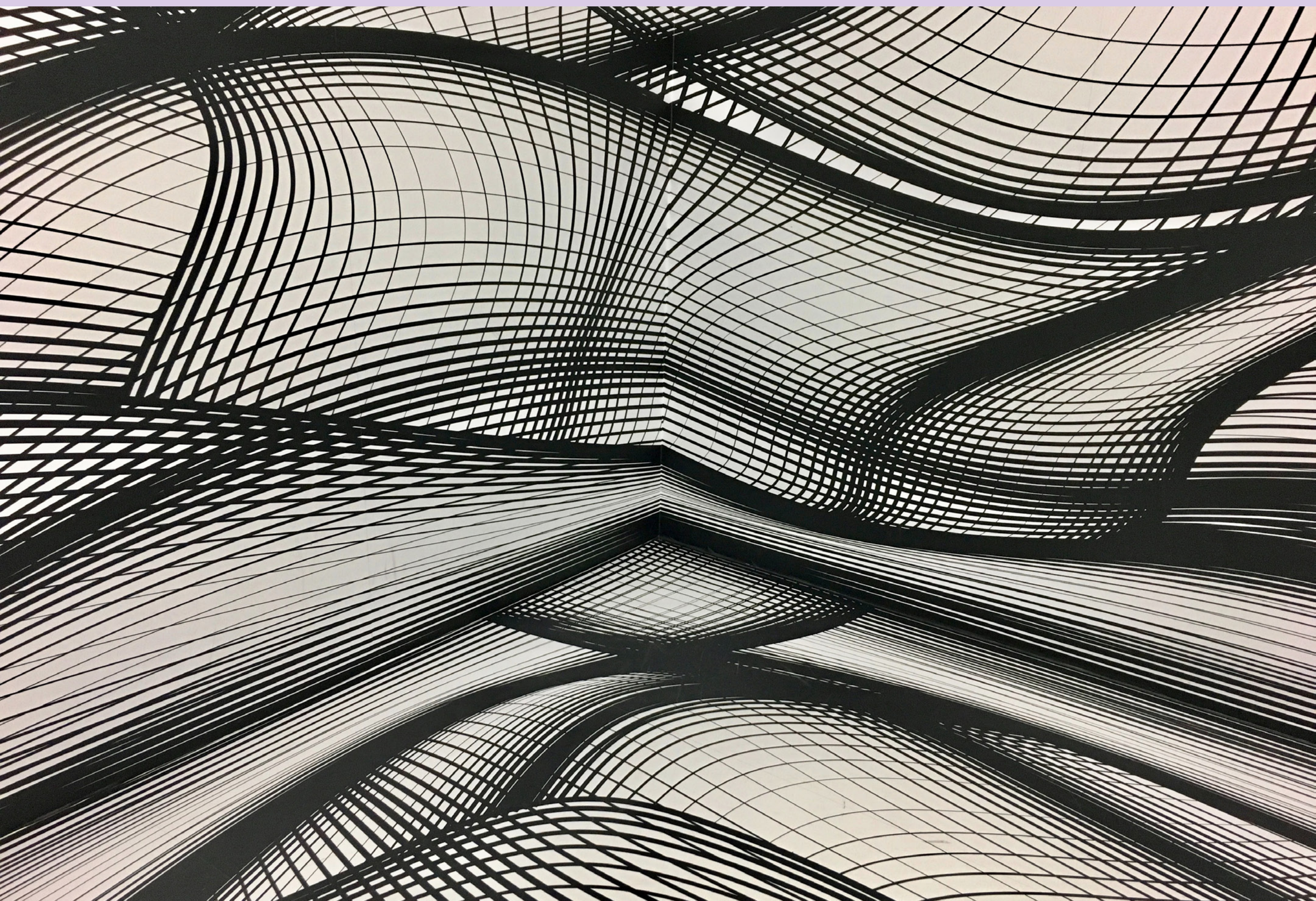
What if teleportation was a reality?

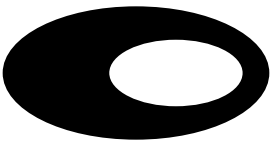
TELEPOSSIBLE

Leaps in quantum physics revolutionise communication, encryption and computation, transforming digital realities into true realities and one day enabling teleportation of people and things.

MEGATREND
Future Humanity

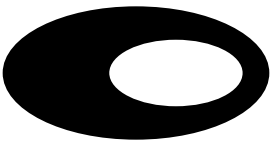
TRENDS
Advanced Connectivity
Quantum technology





This research was undertaken by Dubai Future Research, the research arm of the Dubai Future Foundation. The Dubai Future Foundation produces insights and foresight reports using evidence-based analysis and imagination that enable stakeholders to anticipate and better navigate the future. Our publications can be found at

www.dubaifuture.ae/insights/

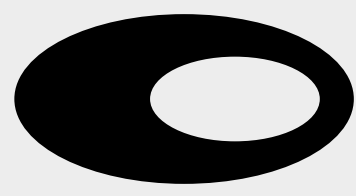


GLOSSARY

<https://www.dubaifuture.ae/global-50-2023-glossary>

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