



Megatrends 2025

What might drive transformative change over the next decade?

Scottish Enterprise Strategic Insight May 2025

Anticipating future transformative change

A combination of game-changing trends are driving transformative change in Scotland and globally. Geopolitical tensions, emerging technologies and a global scramble to control access to critical technologies and raw materials, for example, mean that today's world is often uncertain and volatile.

Our [initial megatrends analysis](#) identified five long-term trends driving inter-dependent global change. These drivers are still valid and represent the deep forces shaping global change over the longer-term.

In this latest analysis we asked the question: ***what's likely to drive economic transformation over the medium term?***

We're interested in understanding the disruptive opportunities and challenges influencing Scottish Enterprise's three missions – focusing on accelerating the energy transition, raising productivity growth through capital investment and creating high-value jobs and businesses in future industries.

Disruptions can up-end global markets and destroy business models. But they can also quickly open up new opportunities for adaptive countries and companies. This analysis is both about addressing new, transformational opportunities as well as mitigating strategic risks.

Building on our earlier work, this new analysis highlights **four disruptive trends that are likely to drive transformational change over the next decade**. Not only are these trends defined by the pace of change, but they are significant for the scale of their potential impacts.

1. [The race for security](#)
2. [The skills squeeze](#)
3. [Environmental tipping points](#)
4. [Breakthrough tech](#)

This document is structured in two parts:

- First, we provide a high-level summary of how Scottish Enterprise's missions could address each of the four transformative trends
- Second, we provide an overview of each transformative trend and what they might mean for Scotland. This includes an overview of the implications for Scottish Enterprise and the actions that businesses can take today.

We are not making predictions about the future. Instead, we are highlighting likely shifts – which are already taking shape – to help businesses, industries and ourselves prepare for changes ahead.

The role of Scottish Enterprise

As Scotland's national economic development agency Scottish Enterprise tracks the trends that are likely to shape Scotland's economic future.

We help to shape Scotland's future economy by:

- Anticipating and raising awareness of emerging trends, and sharing our analysis with businesses and partners
- Taking action today – by using futures intelligence to spot opportunities and risks in delivering our support to businesses and projects
- Attempting to 'future proof' our three missions by ensuring they embed actions that can help to create a more resilient and successful Scottish economy.

Four transformative trends

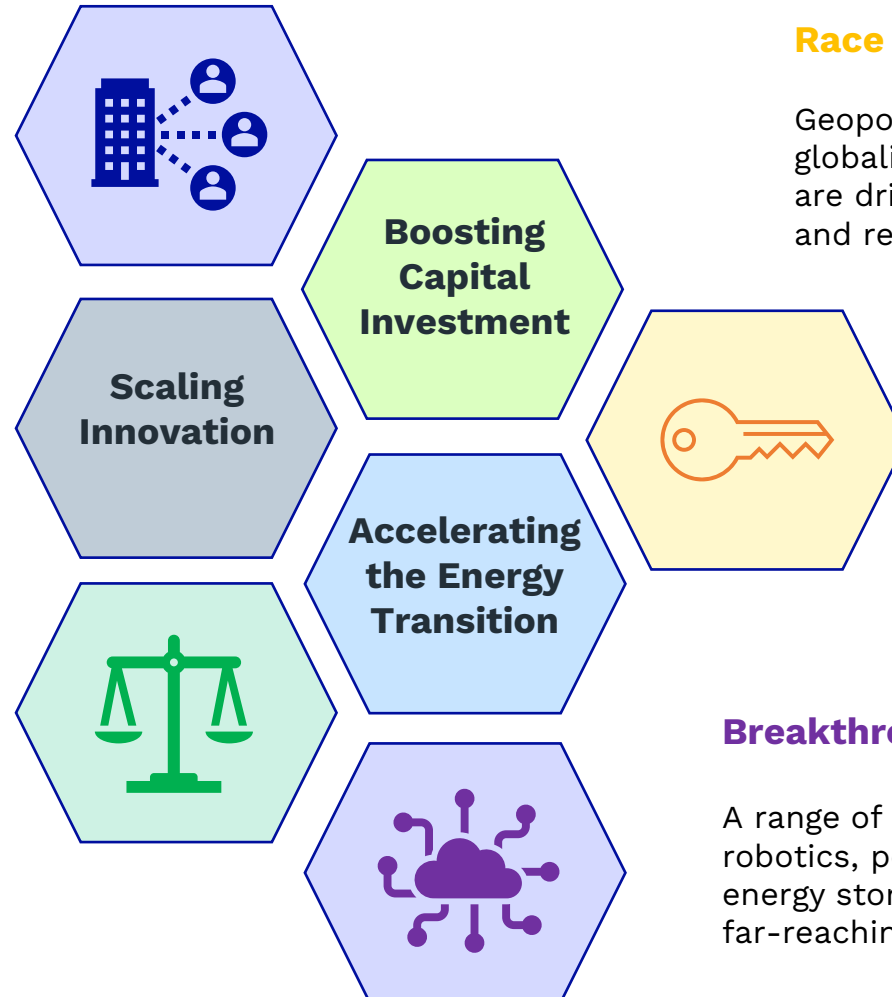
Our analysis identifies four key trends likely to bring major changes in the next decade and beyond. These trends are notable for their rapid pace and scale of potential impacts.

Skills squeeze

Skills shortages in the UK and globally are growing, driven by technology change, ageing and declining working age populations, stricter immigration policies, the green transition and evolving societal expectations.

Environmental tipping points

Global warming has caused significant climate and biodiversity impacts, and critical tipping points could be reached by the mid-2030s. New, nature-based and tech solutions alongside behaviour change can drive transformational impacts.



Race for security

Geopolitical tensions, fragmented globalisation and resource scarcity are driving economic nationalism and reshaping global trade

Breakthrough tech

A range of emerging technologies – including AI, robotics, personalised medicine, quantum and energy storage – have the potential to deliver far-reaching societal and economic change.

How could Scottish Enterprise's missions address the four transformative trends to 2035?

	Race for security	Skills squeeze	Environmental tipping points	Breakthrough tech
Accelerating the Energy Transition	<ul style="list-style-type: none"> Adopt agile ways to avoid harmful trade barriers and subsidies hampering export growth Work with businesses and supply chains to find solutions to barriers in accessing critical raw materials and technologies 	<ul style="list-style-type: none"> Strengthen alignment with the skills and immigration systems to avoid specialist skills and talent shortages constraining the pace of offshore wind deployment 	<ul style="list-style-type: none"> Grow Scotland's renewable energy supply chains to serve Scottish and overseas markets Use the significant investment in the energy transition to drive future-proofed circular business models for components and materials 	<ul style="list-style-type: none"> Develop programmes to help deploy critical technology solutions such as robotics, AI and blockchain to solve energy transition issues
Scaling Innovation	<ul style="list-style-type: none"> Consolidate the focus on critical technologies including quantum, robotics, genomics and space technologies Understand and align with the emerging policy and funding contexts around critical technologies 	<ul style="list-style-type: none"> Work with skills agencies, industry partners and government to address key skills gaps, particularly technical skills Influence skills reforms to incentivise employers to focus investment on reskilling and upskilling for the digital and energy transitions 	<ul style="list-style-type: none"> Scale up the mission focus in unlocking growing net zero market opportunities, including earth observation (space) and industrial biotechnology Support a portfolio approach to supporting early-stage catalytic innovation in potential breakthrough climate technologies including energy storage, synthetic biology and space-based solar power 	<ul style="list-style-type: none"> Consolidate the mission's existing focus on breakthrough tech while finding ways to overcome investment, increase critical mass and tackle skills/talent barriers
Boosting Capital Investment	<ul style="list-style-type: none"> Maintain an agile approach to targeting export-led growth given growing protectionism and harmful trade barriers Consider directing mission priorities to boosting business resilience in accessing critical technologies 	<ul style="list-style-type: none"> Build the capabilities of business leaders and managers to drive productivity gains Focus on technology adoption as a means of boosting productivity and upskilling workers 	<ul style="list-style-type: none"> Prioritise capital investment in net zero solutions with a strong return on investment including industrial decarbonisation and energy efficiency 	<ul style="list-style-type: none"> Prioritise investment in transformative technologies that can stimulate the sustained, long-term productivity growth needed to help pay for rising health and social care costs given Scotland's ageing population

Transformer #1: The race for security

At a glance

Geopolitical tensions, fragmented globalisation and resource scarcity are leading to growing economic nationalism and a reconfiguration of global trade

In more detail...

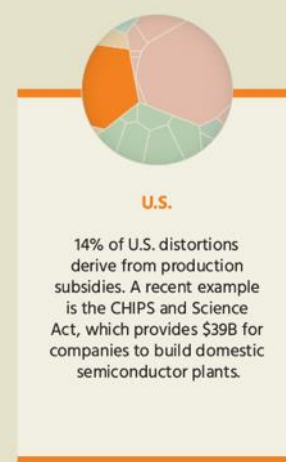
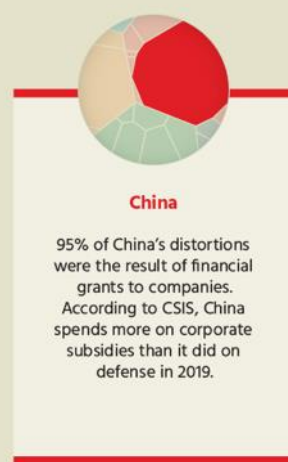
As a small, open economy Scotland's economic growth has been driven by strong global demand. However, globalisation has been stagnant since the 2008 financial crisis and global demand drivers are faltering:

- **Geopolitical tensions** around trade tariffs and conflicts in Russia/Ukraine, the Middle East and China/Taiwan threaten to spill over and affect global economic confidence, trade and investment
- **Global insecurity relating to energy, food and commodities** is rising as the US, China and the EU compete aggressively to control access to key resources. Critical raw materials, including lithium and cobalt, have become the next battleground since these scarce minerals and the technologies that use them are critical to powering the digital and energy transitions
- **Cyberspace** has become a new arena for geopolitical conflict. The UK and US have introduced restrictions on companies like Huawei due to fears that foreign control over 5G networks and other technologies critical to national security could lead to espionage and cyber sabotage
- **Protectionist measures to build national resilience** are on the rise, including import tariffs, tax credits, subsidies and carbon pricing, reshaping the global landscape of production and trade
- **Populist politics** in many countries has been both a driver of and a response to rising protectionism, prompting calls for greater national control over resources and a push-back to globalisation and overseas migration.



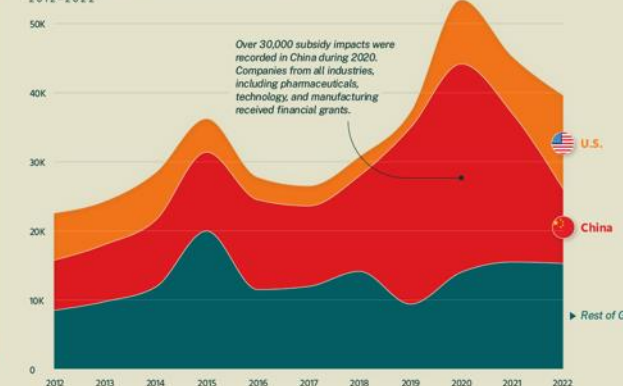
The race for security – Global impacts

- Global trade as a share of global GDP has largely stalled since the global financial crisis after 30+ years of rising globalisation.
- The introduction of tariffs and other trade barriers is driving uncertainty, increasing borrowing costs and could dent global economic growth.
- In 2020, governments globally spent over \$400 billion on subsidies for domestic companies. Non-tariff barriers including quotas, licensing and regulations have also increased.



Tracking subsidy distortions over time

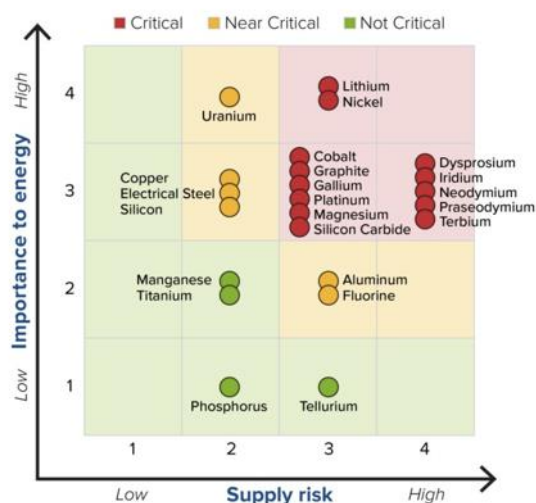
Number of subsidy distortions annually
2012 - 2022



Source: Global Trade Alert Corporate Subsidy Inventory 2.0 (2023), CSIS (2022), The White House (2022), Reuters (2022), Bloomberg (2022)

Source: Corporate Subsidy Inventory 2.0 (2023)

MEDIUM TERM 2025-2035



Source: U.S. Dept of Energy What are Critical Materials and Critical Minerals

Critical raw materials for energy sector decarbonisation

Renewable energy generation	Energy storage	Electric vehicles	Hydrogen production and fuel cells
<ul style="list-style-type: none"> Rare earth elements Silicon Copper 	<ul style="list-style-type: none"> Lithium Cobalt Nickel Vanadium Graphite 	<ul style="list-style-type: none"> Lithium Cobalt Nickel 	<ul style="list-style-type: none"> Platinum Palladium Iridium Graphite

Critical raw materials for energy sector digitalisation

Smart grids	Data centres and ICT	Energy management systems	IoT and smart sensors
<ul style="list-style-type: none"> Copper Aluminium 	<ul style="list-style-type: none"> Rare earth elements Copper 	<ul style="list-style-type: none"> Silicon Gallium Indium 	<ul style="list-style-type: none"> Silicon Gallium Platinum Palladium

- China now controls >80% of the global supply of rare earth elements vital for electronics, renewable energy technologies (e.g. wind turbines, electric vehicles) and military equipment.
- The EU is investing heavily in recycling and the circular economy to reduce dependence on imports, while also looking to establish partnerships with resource-rich countries like Chile (for lithium) and DR Congo (for cobalt).
- The EU's strategic autonomy policy favours EU components, materials and knowledge and sets thresholds on the share of third country imports, including from the UK.

The race for security – Implications for Scotland

The economic uncertainty stemming from geopolitical change and the rise in strategic autonomy presents risks as well as opportunities for countries and businesses who have the strategic agility to adapt quickly to external change.

Strategic implications for Scottish Enterprise



- **Ensure trade support can adapt quickly to changing circumstances:** Given growing protectionism and more fractured global trade consider adopting a more agile approach to trade to overcome barriers and higher costs. Reshoring and ‘friendshoring’ may be part of the solution.
- **Promote Scotland’s comparative advantages:** Scotland/UK lacks the political and economic clout to counter the scale of protectionist measures adopted by the US, China and EU, such as trade tariffs and subsidies. Deploy non-financial levers to attract overseas investment, jobs and business to Scotland. Look for and adapt to opportunities.
- **Understand the risks and solutions related to critical technologies and materials:** Affordable and predictable access to the critical materials and technologies essential for powering the energy and digital transformations will become more uncertain and costly. Address the strategic actions needed now to mitigate risks and create solutions.
- **Look for economic opportunities in an unstable geopolitical environment:** Growing economic insecurity increases economic uncertainty and dampens demand for investment. Conversely, certain investment and projects previously destined for the US could move to Scotland/UK as we offer a familiar and stable political environment.
- **Address cybersecurity risks:** Cyber threats are increasingly becoming a daily reality. Guard against the risk that AI-driven hacking attacks could target UK businesses, the electricity grid and attempt to destabilise society through spreading disinformation.

Business actions



To stay competitive and become more resilient:

- **Review trade strategies** in the face of increasing trade frictions and barriers. Consider changes to pricing and supply chain arrangements, and review procurement and manufacturing strategies to stay competitive. Consider diversifying to new overseas markets.
- **Understand supply chain vulnerabilities** relating to critical raw materials. Explore circular processes across supply chains to reuse, remanufacture and recycle components and materials, cutting costs and building long-term resilience. Investigate R&D into substitute materials to mitigate impacts.
- Pay attention to **growing cybersecurity risks** and take action to strengthen resilience.

Transformer #2: The skills squeeze

At a glance

Skills shortages in the UK and globally are growing, driven by technology change, ageing and declining working age populations, stricter immigration policies, the green transition and evolving societal expectations

In more detail

The global talent landscape is undergoing significant change leading to increased talent constraints and significant international competition:

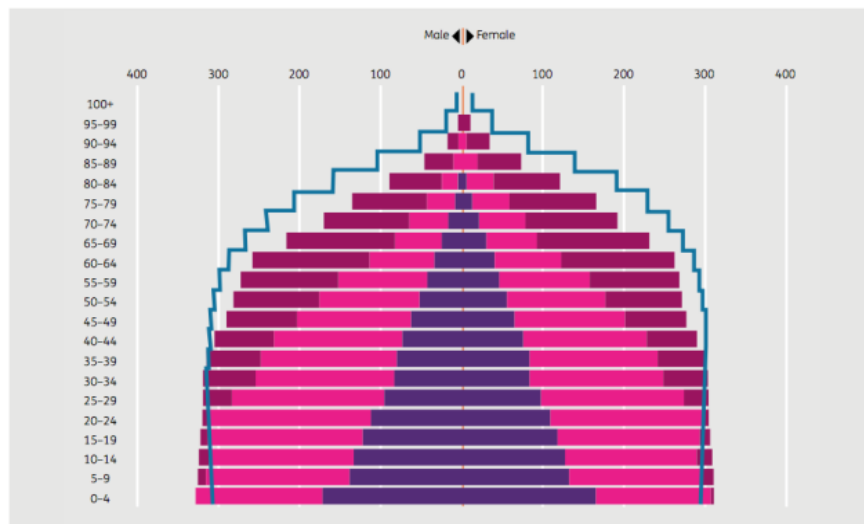
- **Demographic shifts** – Scotland's working age population is forecast to peak in 2027 and slowly shrink thereafter. Globally, an ageing workforce and lower birth rates are creating a simultaneous shortage of experienced talent and a smaller pool of workers in the future.
- **Skills gaps** – lagging education and vocational systems and the accelerating pace of technological change is widening skills gaps in high-demand, emerging areas such as technology and digital, cybersecurity, healthcare, manufacturing, green energy and sustainability.
- **Breakthrough tech** – rapid technology advances are reshaping industries and tasks across all sectors and reconfiguring the working relationship between humans and machines.
- **Changing worker expectations** – in the wake of the COVID-19 pandemic, workers are increasingly prioritising health and wellbeing, work-life balance, flexible working, 'purpose-driven' work and wider opportunities for personal growth, leading to changing choices on jobs and employment.
- **Geopolitical and economic conditions** – global economic uncertainty coupled with a rise in anti-immigrant sentiment in regions experiencing worsening economic conditions are restricting opportunities to attract and retain skilled talent. At the same time fractured globalisation is driving business model transformation and rapid job transitions as companies seek to boost innovation and resilience.
- **Freelancing and gigging** – 'independent work', including contract, freelance, temporary, or gig working is booming, adding more change and complexity to the competition for talent.



The skills squeeze – Global impacts

Two demographic trends are impacting global economies and labour markets: (1) ageing and declining working age populations, predominantly in higher-income economies and (2) expanding working age populations, predominantly in lower-income economies:

World population ageing pyramid by five-year age group



Source: UN, from 'The world in 2100', 13 May 2011, The Economist online.
*Projection.

- Ageing is accelerating worldwide. By 2050, those aged 65+ will have more than doubled to reach 1.5 billion, 16% of the global population.
- Many developing countries have a growing share of young people. In India, there are four 20-year-olds for every 65-year-old; in Western Europe, that ratio is one to one.
- Middle-income non-OECD countries, particularly China and India, are becoming increasingly important destinations for high-skilled labour. As these countries grow, the global economic clout of advanced economies is expected to diminish.

- While global job numbers are expected to grow, skills differences between growing and declining roles could exacerbate existing skills gaps (WEF, The Future of Jobs Report 2025).
- Increased digitisation and climate mitigation and adaption efforts are expected to drive new job creation over the next five years but global demand to fill new roles is outpacing supply.
- Korn Ferry forecast that by 2030 there will be a global human talent shortage of >85 million people (equivalent to the population of Germany) and around an \$8.5 trillion loss in potential annual business revenue.
- Contributing to the skills squeeze the World Economic Forum estimates that women will not achieve pay or leadership equity with men for at least another 135 years.

Future of Jobs Report 2025

Fastest growing and declining jobs by 2030

WORLD ECONOMIC FORUM

↑ Top fastest growing jobs	↓ Top fastest declining jobs
1 Big data specialists	1 Postal service clerks
2 FinTech engineers	2 Bank tellers and related clerks
3 AI and machine learning specialists	3 Data entry clerks
4 Software and applications developers	4 Cashiers and ticket clerks
5 Security management specialists	5 Administrative assistants and executive secretaries
6 Data warehousing specialists	6 Printing and related trades workers
7 Autonomous and electric vehicle specialists	7 Accounting, bookkeeping and payroll clerks
8 UI and UX designers	8 Material-recording and stock-keeping clerks
9 Light truck or delivery services drivers	9 Transportation attendants and conductors
10 Internet of things specialists	10 Door-to-door sales workers, news and street vendors, and related workers
11 Data analysts and scientists	11 Graphic designers
12 Environmental engineers	12 Claims adjusters, examiners and investigators
13 Information security analysts	13 Legal officials
14 DevOps engineers	14 Legal secretaries
15 Renewable energy engineers	15 Telemarketers

Note: The jobs that survey respondents report the highest and lowest net growth (%) by 2030.

Source: World Economic Forum, (2025). *Future of Jobs Report 2025*.

The skills squeeze – Implications for Scotland

The global talent crunch will intensify in the future, leading to higher costs for businesses in Scotland and reduced productivity, innovation, investment and competitiveness. This will widen income and regional inequalities and constrain Scotland's economic development.

Strategic implications for Scottish Enterprise

- **Incentivise employers to increase investment in workforce skills and broaden the talent pool:** Working alongside skills agencies Scottish Enterprise should focus particularly on supporting reskilling and upskilling for the digital and energy transitions. Given Scotland's ageing labour market, the priority is to support the existing workforce to adapt to growing skills demands related to technology, digital, cybersecurity, healthcare, manufacturing, green energy and sustainability skills and encourage companies to improve talent progression and broaden their talent pool.
- **Negotiate greater flexibilities within the UK immigration system:** This would help attract skilled workers to Scotland to address serious skills shortages and gaps. Help the Scottish Government influence UK immigration policy to more fully reflect different demographic contexts across UK regions, including the more rapid ageing of Scotland's working age population.
- **Support start-up and scale-up businesses with growth potential** to help create the new jobs and opportunities of the future for skilled workers.
- **Position Scotland as an attractive destination for global talent** by leveraging strategic domestic and international partnerships and networks to address skills gaps and future talent needs.

Business actions

To stay competitive and become more resilient:

- **Adopt inclusive and progressive employment practices** to help address skills shortages. Look beyond younger workers as the key talent pipeline by also recruiting from disadvantaged groups and older workers, for example. Adopt workplace innovation practices to attract and retain a wider pool of diverse talent and drive increased business performance.
- **Invest in people** alongside equipment, machinery and facilities, processes and business models to increase productivity and realise the potential of employees. Support existing employees to upskill and reskill, retaining and motivating talent to help the business adapt to new technologies and changing market conditions.
- **Align employee and business values to drive business success:** Understand how employee expectations have changed post-pandemic. Adopting workplace policies that promote employee wellbeing can not only reduce lost productivity owing to ill health but attract new workers. Align workplace culture with organisational strategy and values, particularly to drive a stronger 'business purpose'. Treating workers fairly, committing to net zero and becoming a more diverse organisation reflect employees' values relating to equality of opportunity and environmental concern.

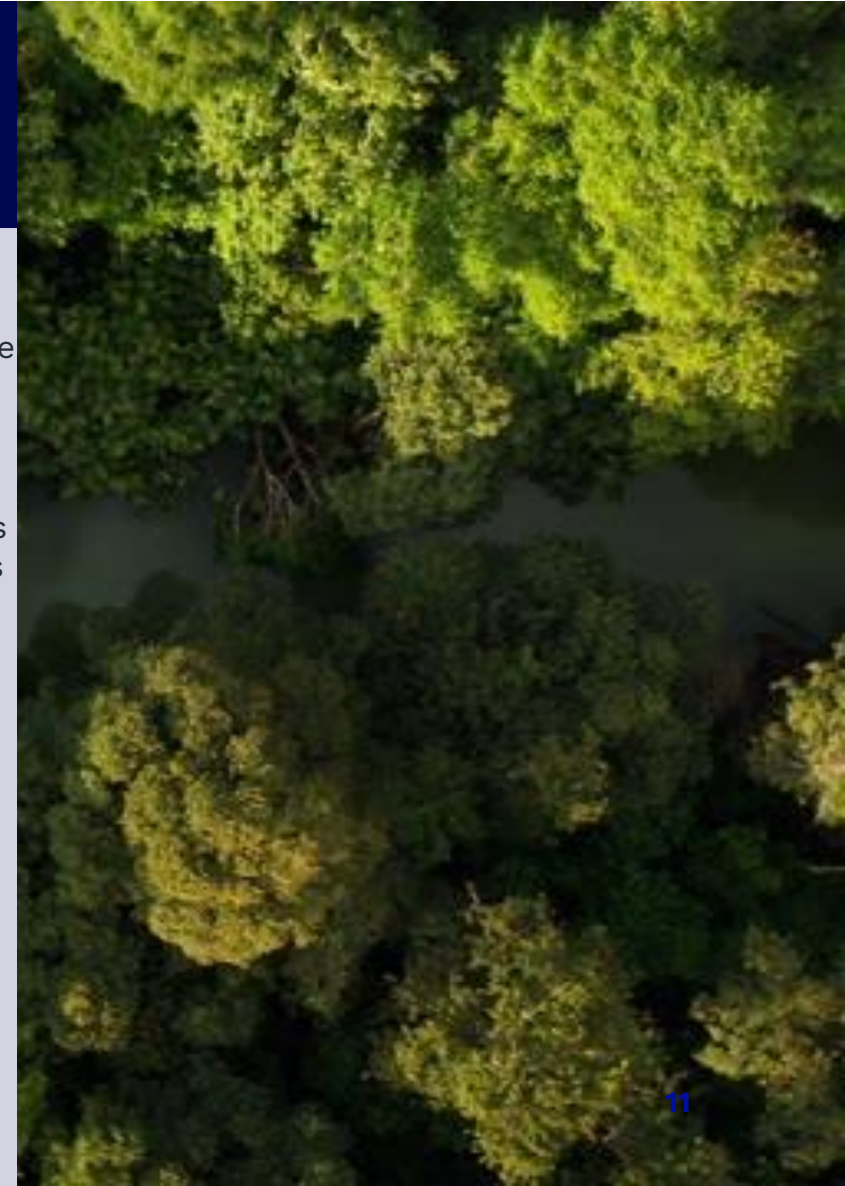
Transformer #3: Environmental tipping points

At a glance

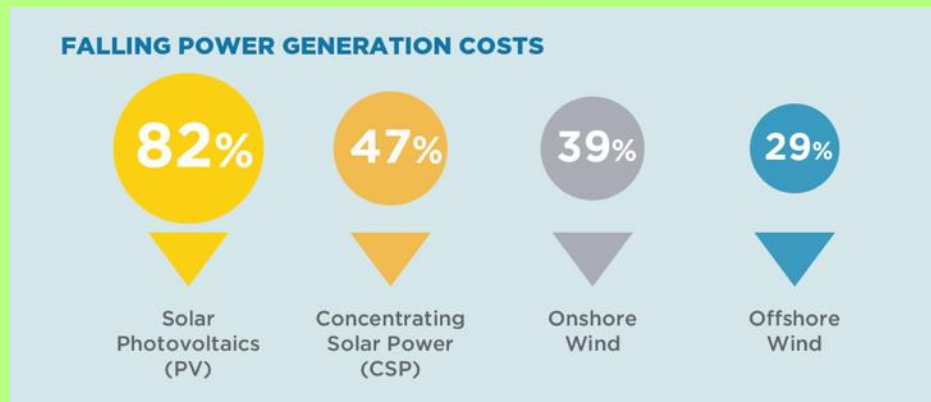
Global warming has caused significant climate and biodiversity impacts, and critical tipping points could be reached by the mid-2030s. Investing in nature-based and tech solutions, plus changing business and public behaviour, can drive transformational change

In more detail ...

- **Profound changes in the Earth's climate and biodiversity loss** have already taken place and we are currently on course for a 2.5 – 4.1% degree increase in the global average temperature by 2100. 41% of UK species have declined in abundance since 1970. Even if we take aggressive action today, emissions already in the atmosphere will continue to create impacts for decades to come.
- Scientists forecast we could pass several **critical and irreversible tipping points** by the mid-2030s with just a 1.5°C rise in average global temperature, leading to catastrophic impacts. This includes the Greenland ice sheet collapse, Arctic winter sea ice collapse, boreal permafrost abrupt thaw and collapse of the Atlantic circulation system.
- Regenerating biodiversity through, for example, restoring peatland and planting forests, are currently the most effective ways to both reduce climate change and reverse nature loss. However, **global investment in biodiversity restoration** is estimated to attract only around 4% of total net zero investment, and offsetting has so far failed to fully demonstrate its credibility as a funding mechanism.
- There is growing **investment in a range of climate technologies** to help test and deploy them at scale. Promising technologies include carbon capture and storage, energy storage, synthetic biology solutions and space-based solar power.
- **ESG (environmental, social, governance) regulations** including UK transition plans and the EU Corporate Sustainability Reporting Directive (CSRD) are driving companies to measure and report on sustainability impacts across their entire value chain.



Environmental tipping points – Global impacts



Falling cost of renewable energy production, 2010-19 Source: IRENA, 2020

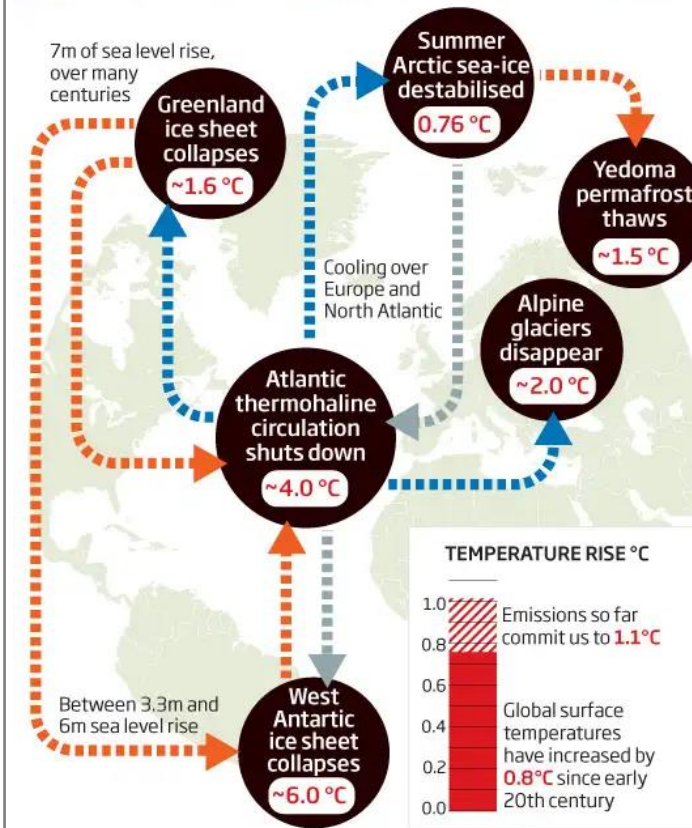
- The levelised cost of renewable energy production continues to fall significantly. The highest reductions, 2010-22, were for solar PV (-89%), onshore wind (-69%) and offshore wind (-59%)
- Global ESG assets are forecast to increase from \$28 to \$80 trillion between 2024-30, with Europe set to remain the largest contributor
- Emerging technologies can offer new breakthroughs e.g:
 - Synthetic biology can create algae that produces cleaner industrial chemicals/fuels, modify trees to absorb more CO2 and create bacteria that repairs cracks in buildings to make them last longer
 - Space-based solar power could generate up to 10GW of electricity a year by 2050, a quarter of the UK's current electricity demand. Beaming energy from the Sun to Earth using wireless technology could deliver clean, baseload energy, 24/7 in all weathers

Tipping point cascade

©NewScientist

Big tipping points are interlinked, say researchers. Models estimate the temperatures after which effects become inevitable. They also suggest all, except the loss of Arctic sea ice, are irreversible

Increases likelihood Decreases likelihood Uncertain



- The global-average temperature in the 12 months to June 2024 was the highest on record, at 1.64°C above the 1850-1900 pre-industrial average
- The global average sea surface temperature in 2023 was the highest ever recorded, contributing to more erratic weather patterns. Hotter oceans result in increased moisture in the atmosphere, leading to stronger storms and more intense rainfall events
- Even limiting the Paris Agreement goal of limiting warming to well below 2°C (and preferably 1.5°C) may trigger multiple, cascading global tipping points
- Ocean currents such as the Gulf Stream and Atlantic Meridional Overturning Circulation (AMOC) play a crucial role in regulating the global climate by distributing heat around the planet. Alterations in their flow can have profound impacts on weather systems and climate stability

Environmental tipping points – Implications for Scotland

While businesses may feel they have limited scope to address global warming and biodiversity loss there is much they can do today to be part of the solution. Visible and assertive action to reverse environmental damage and to align business strategy with climate solutions will deliver positive change and win support from customers, investors and employees.

Strategic implications for Scottish Enterprise



- **Embed environmental sustainability in the design and delivery of public sector support:** Scottish Enterprise's missions play a critical role in actively influencing action by businesses and investors, 'tilting' markets towards win/win solutions. Alongside emissions reduction the missions should also embrace circular economy, biodiversity net gain and adaptation solutions – practices that are central to future-proofed economic development.
- **Unlock green market opportunities:** London Stock Exchange research shows that the global green economy was worth \$7.2trn in the first half of 2024, the fastest-growing industry since 2008 after the technology sector. All three of Scottish Enterprise's missions can support businesses to address growing market opportunities that reduce emissions, reverse nature loss and adapt to climate change.
- **Support businesses to adopt ESG practices:** Responsible and sustainable practices help to drive improved business performance and are also key to attracting investment, customers and employees.
- **Focus support to drive rapid decarbonisation:** Scottish Enterprise's Scope 3 emissions – the emissions resulting from our support to businesses and projects – dwarfs its own carbon footprint. To accelerate decarbonisation Scottish Enterprise is taking a proportional approach that targets our support to reduce emissions on activities that generate the greatest emissions.

Business actions



To stay competitive and become more resilient:

- **Create and deliver a sustainability plan:** A credible, action-oriented plan can set appropriate targets and drive prioritised and costed actions. A plan that addresses environmental, social and governance (ESG) priorities will not only drive increased business performance but will enable the business to more easily access external investment.
- **Align business strategy with environmental goals:** While climate change and nature loss bring risk they also offer significant opportunities to drive business performance and growth. Identify potential market opportunities, at home and overseas. Adopt circular and regenerative strategies to create new value and boost productivity. Increase supply chain resilience by reducing exposure to raw material volatility and climate impacts.
- **Create a 'Green Team':** The best advocates for driving business change are a company's own workforce: they understand the business and know the scope for the most impactful changes. Harness their commitment and enthusiasm by creating a Green Team to implement changes.

Transformer #4: Breakthrough tech

At a glance

Technologies on the cusp of breakthrough applications over the next decade include AI, genetic engineering, personalised medicine, quantum, energy storage, robotics and blockchain

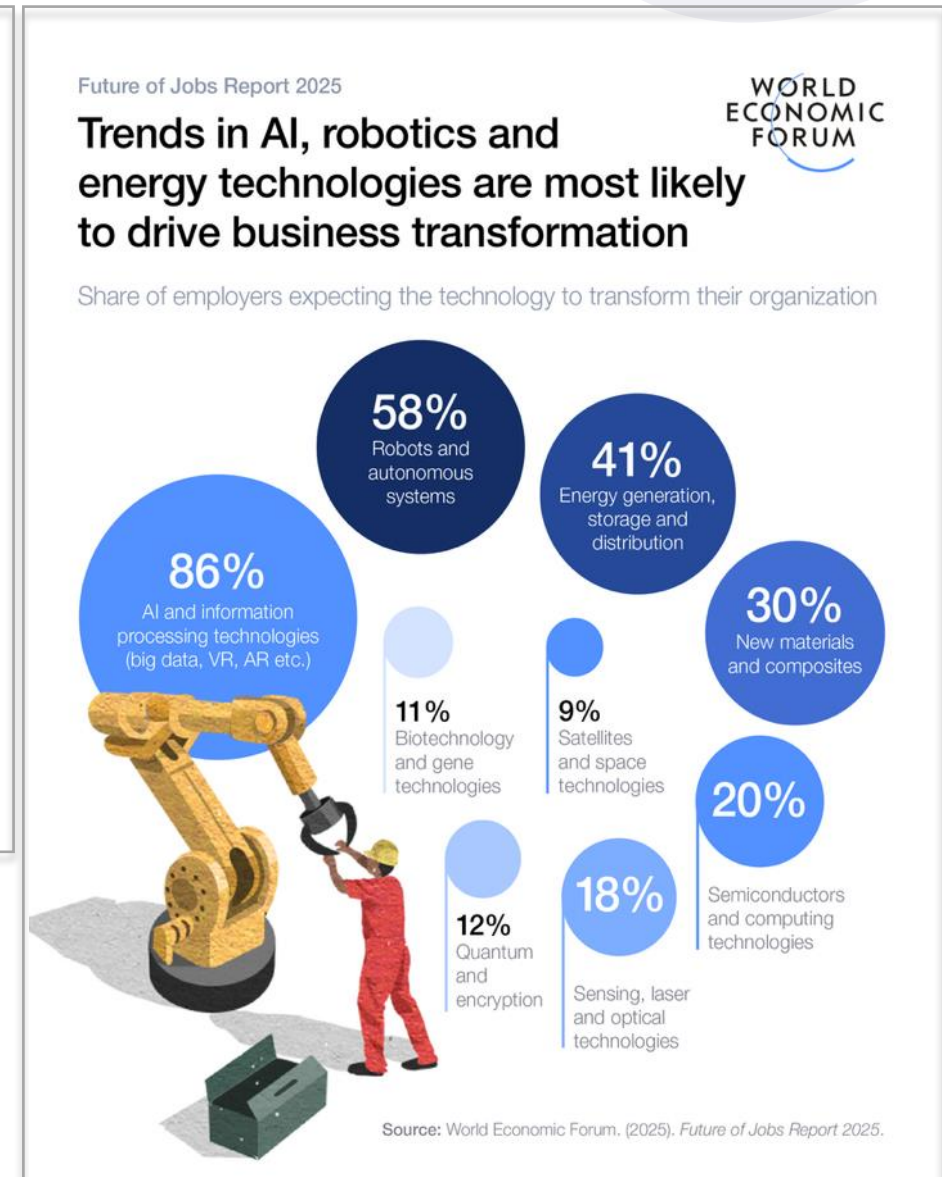
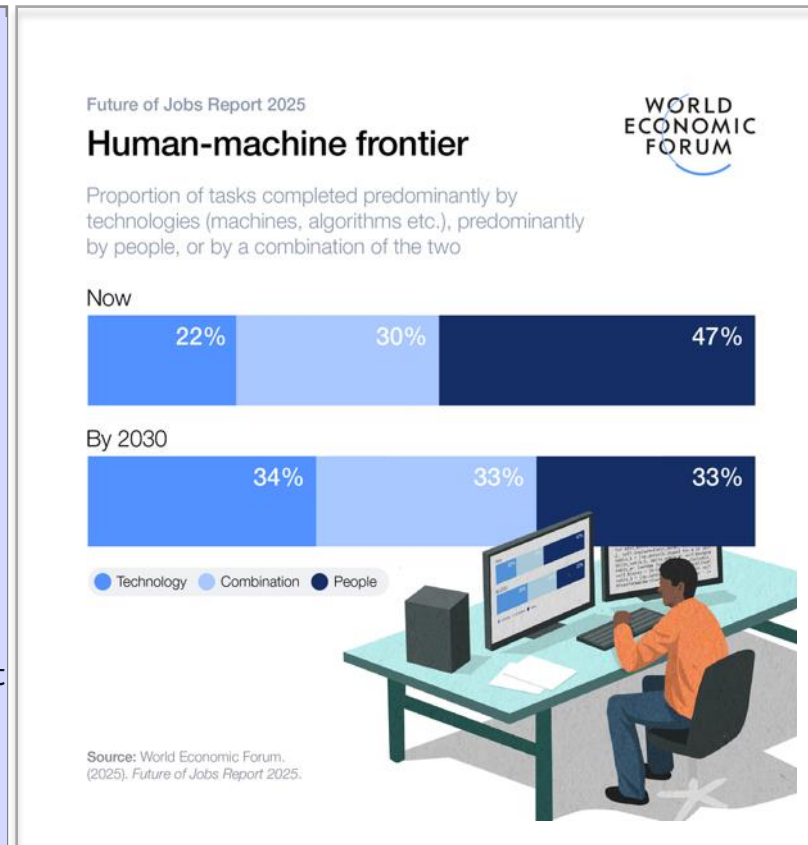
In more detail ...

- **AI and ML** will become more sophisticated, enabling process automation, decision-making and personalised experiences in areas such as healthcare, finance and transportation. AI-driven automation will increasingly replace repetitive, manual tasks, opening up workforce roles requiring human creativity and critical thinking. However, there are concerns around data privacy and ethical decision making, and careful regulation is required.
- **Quantum computing** dramatically increases computing power and enables solutions to problems currently beyond reach of classical computers. In drug discovery this could lead to faster development of new medications; in finance quantum can detect fraud more effectively; in the energy sector it can help optimise complex energy grids and resource use in real time. Some sectors may be disrupted as quantum transforms their ability to process and analyse data.
- **CRISPR and other gene-editing technologies** will advance, potentially curing genetic diseases, improving agricultural productivity and creating new forms of bio-engineered products. Ethical concerns about the potential misuse of gene-editing in humans will demand strong regulation
- Improvements in **battery technology and grid-scale energy storage** will accelerate the transition to a more sustainable energy system. It will also allow people and households to be more energy independent, lowering electricity bills, and help to meet data demand as everyone goes digital
- **Blockchain** will drive innovation in secure, decentralised financial systems, digital identity and supply chain management with increased adoption across industries. It can also improve transparency of supply chains, by tracking the origin and movement of products and allowing businesses to increase efficiency by tracking in real time.



Breakthrough tech – Global impacts

- The near-term boost to business productivity from AI adoption is forecast to be overshadowed by secondary impacts as AI-generated data leads to greater availability of personalised and AI-enhanced products and services
- It is estimated that while only less than 5% of occupations can be fully automated, in around 60% of occupations at least one-third of tasks could be automated, implying substantial workplace transformations and changes for all workers
- The EU and UK have the highest number and density, respectively, of graduates in quantum talent-relevant fields
- Cell and gene therapy is one of the fastest growing markets in the life sciences sector and is projected to reach \$14 billion by 2025
- Approximately two-thirds of the world's population is currently online and as this number grows, the future of consumption is likely to shift towards digitally integrated and digital-first experiences



Breakthrough tech – Implications for Scotland

As the pace of technology development and adoption increases organisations need to be nimble in not only understanding the benefits from productivity but also to ensure that people-related and technological issues are addressed in parallel to create higher value employment.

Strategic implications for Scottish Enterprise



- **Support a 'portfolio' of emerging technologies:** A portfolio approach to technology support within Scottish Enterprise's missions helps to manage risk and opportunity from commercialisation to mainstream adoption. It is essential to work alongside industry to develop a prioritised and agile approach that aims to maximise economic benefits for Scotland.
- **Strengthen policy and funding alignment:** In an environment of shifting policy priorities Scottish Enterprise should ensure its objectives are aligned with wider Scottish, UK and EU policy and funding frameworks. This includes the UK Industrial Strategy, National Wealth Fund and the EU Framework Programme 10.
- **Understand and address the implications of emerging technologies for people and inequalities:** As AI and ML rapidly advance, they will transform many routine tasks and roles. As Scottish Enterprise promotes technology adoption it is important to work with employers to help them create higher value, higher productivity jobs through upskilling and reskilling and avoid displacing roles which may exacerbate inequalities.

Business actions



To stay competitive and become more resilient:

- **Understand the most impactful emerging technologies:** Assess business needs and map potential technologies to understand how they could meet these needs. Develop or recruit team members to assess the costs and benefits underpinning investment decisions.
- **Adopt new technology solutions to drive business performance:** Investing in technological innovation creates new products, services and industries, opens up new markets and boosts business productivity.
- **Create a culture of innovation:** Foster an environment where employees feel empowered to explore and experiment with new technologies and be willing to adapt quickly as new opportunities arise. Provide employees with upskilling and reskilling support to help create higher-value and meaningful work. Pay attention to the barriers employees may face and treat technology adoption as a change management issue.



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