

TrendRadar:
Future of Sustainability



Table of contents

	Key findings	3
	Trend monitoring – a necessity for businesses	4
	The three-step approach of the TrendRadar	5
	TrendRadar and trends in the Future of Sustainability	8
	Are you prepared for the latest trends?	25
	Contacts and authors	26





Key findings

Sustainability has become a crucial focus for businesses and other organisations across all industries. As the world moves towards a more sustainable future, companies are adopting more and more practices that are socially and ecologically friendly. Consumers are becoming increasingly conscious of their impact on the environment and are demanding more sustainable products and services. Businesses need to empower their organisations for success by assessing their impact, setting clear goals, defining a roadmap to drive action including adapting their business models and strategies to incorporate the latest trends.

The *TrendRadar: Future of Sustainability* provides a systematic overview of the most relevant sustainability trends. It is based on a screening of industry trends, which were assessed by sustainability experts, and the identified trends were subsequently categorised by their levels of urgency. The research for the report was conducted between January and May 2023 and the focus of the analysis is on the sustainability market in Switzerland. This report answers questions such as: What is happening in the market? How important are these trends and what impact will they have? And when are trends expected to become relevant for the majority of companies?

This TrendRadar identifies four broad trend areas (so-called mega trends) comprising 27 concrete trend manifestations (so-called macro trends). The report highlights the

emergence and timing of macro trends but it is important to consider the necessary timeframe for strategy adjustment, design, and implementation.

Not all macro trends are of equally importance to all businesses. In some cases their importance depends greatly on the company's industry and other contextual factors (e.g., business model). However, in aggregate there are six trends with a high impact on industry that will soon be mainstream (or already are): Carbon Tracking & Optimisation, Diversity & Inclusion, Eco-Friendly Building, ESG as a C-Suite KPI, Fight Against Greenwashing, and Sustainability as Stakeholder Value. Businesses should act on these trends if they have not done so yet.

Several other sustainability trends are not high-impact or mainstream in the market yet but are growing in importance. Therefore companies should start preparing for them. Among these trends are Alternative Materials, Emission Handling, Sustainable Incentives, and Systems Thinking.

Some other trends identified by our research should be on companies' watch lists. This is because their impact on industry may still be low (or uncertain) or they might become mainstream in the long run. Energy Harvesting and New Era Income Structures are in this category.



Trend monitoring – a necessity for businesses

Trends come and go – this has always been the case in business. However, what is new is the speed of change in technology, business environment and business models. While a hundred years ago, it took a relatively long time for the next innovation to evolve, trends in the digital age are emerging much faster.

Due to the proliferation of information, it is becoming ever more difficult to keep up to date and to separate relevant from irrelevant trends. For example, the volume of global data has multiplied in recent years (see Figure 1). Forecasts show that this trend will only continue in the next few years.

Against this backdrop, it is more important than ever for companies to identify the important trends in their industries to avoid the risk of missing out on a competitive advantage or losing ground to competition. Companies that are up to date and aware of the relevant trends and their progress can react proactively, identify opportunities and, if necessary, adapt their strategy.

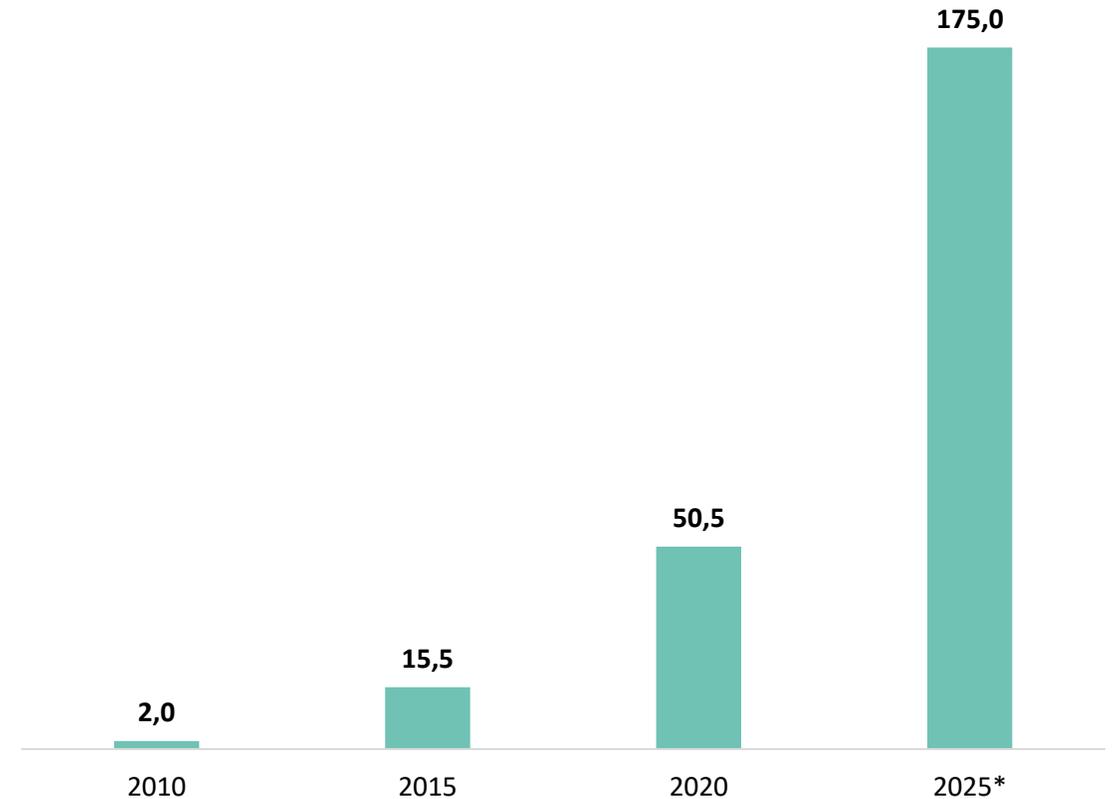


Figure 1 – Development of global data volume in zettabytes, *forecast
(source: IDC t1p.de/The-Digitization-of-the-World)



The three-step approach of the TrendRadar

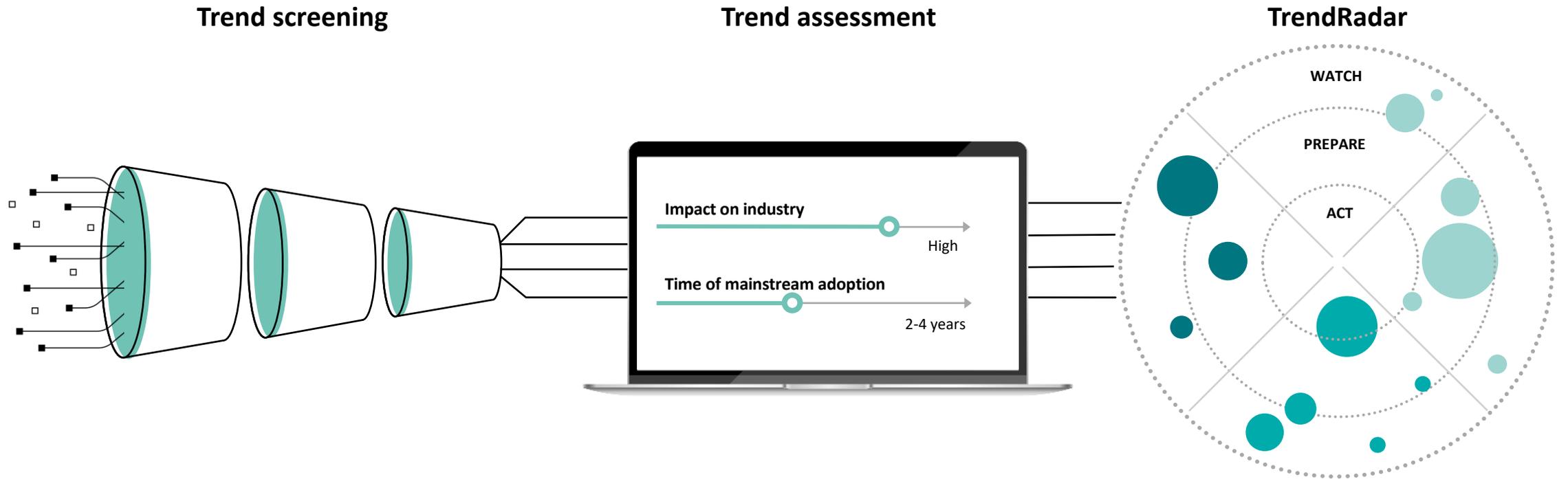


Figure 2 – The three-step approach of the TrendRadar



The three-step approach of the TrendRadar

1. Trend screening

Identifying existing trends and their impact on a specific industry is an essential task. We did this through desk research, using a trend database (TrendManager by TrendOne), and by interviewing various industry experts. The trends fall into a hierarchy with three levels: mega, macro and micro trends. Macro trends derive from micro trends and are in turn grouped into mega trends. The TrendRadar (see p. 8) focuses on mega and macro trends.



Mega trends describe structural changes in society. They provide information on which developments will have a long-lasting influence on society.



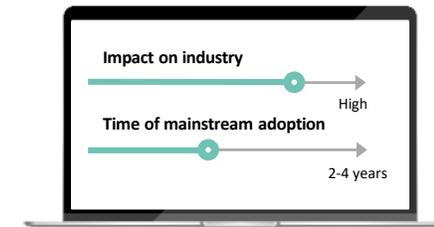
Macro trends are the concrete components of a mega trend. They describe different aspects and facets of a mega trend.



Micro trends are the building blocks for macro trends. They are the first concrete signs of emerging trend movements or use cases. Micro trends can be trend-setting technologies, products, services, or new marketing innovations.

2. Trend assessment

The trends were assessed against two criteria: the impact on industry and the time of mainstream adoption.



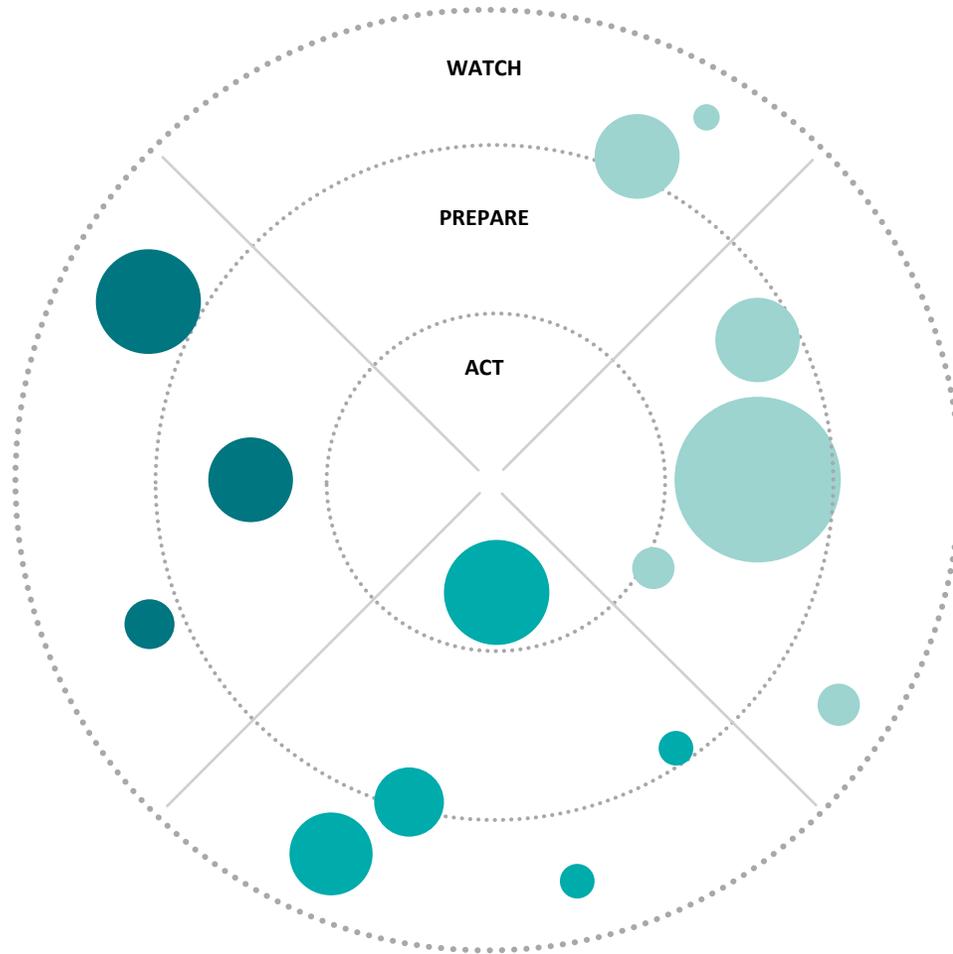
Impact on industry describes the level of influence that the trend currently has or is expected to have. Trends can have an impact on different aspects of an industry, such as market offerings (products & services), company processes or employees and customers. A trend is rated on a scale from very low to very high impact on industry.

Time of mainstream adoption assesses when the trend is likely to be adopted by most market participants within the industry. The time scale goes from “0-2 years” to “10 years plus”.

The trend assessment was conducted by Deloitte professionals and external industry experts.



The three-step approach of the TrendRadar



3. TrendRadar

The TrendRadar is a visual representation of the trends assessed and their subsequent categorisation into three areas: Act, Prepare and Watch.

Act: Trends have a high to very high impact on the industry. The date of mainstream adoption is expected in the near future (0 – 4 years) or has happened already. If companies have not yet reacted to these trends it is time to act.

Prepare: Trends have at least a medium impact on the industry and a medium timeframe of mainstream adoption (4 – 8 years) but are not high in both criteria, as is the case for Act trends. For these trends, companies should actively prepare already today and install frameworks to be well set up for the near future.

Watch: Trends either have a very low to low impact on the industry or their mainstream adoption is not expected in the near future. Trends in this category should be on the watch list.



TrendRadar and trends in the Future of Sustainability

The *TrendRadar: Future of Sustainability* contains 27 macro trends that are grouped into four mega trends (see Figure 3). The mega trends are in coloured boxes along the circumference, whilst the macro trends can be found in the middle.

Out of the 27 macro trends, six fall into the Act category. The majority – 19 trends – was evaluated as being in the Prepare category. The remaining two macro trends, Energy Harvesting and New Era Income Structures, belong to the Watch category. The exact position of a macro trend within Act, Prepare, or Watch does not provide additional information but was chosen to fit the overall optics of the TrendRadar.

In the following, each mega trend and its corresponding macro trends are detailed including the assessment of industry impact and time of mainstream adoption.



Please click on a mega or macro trend to advance to the section with its description and assessment.

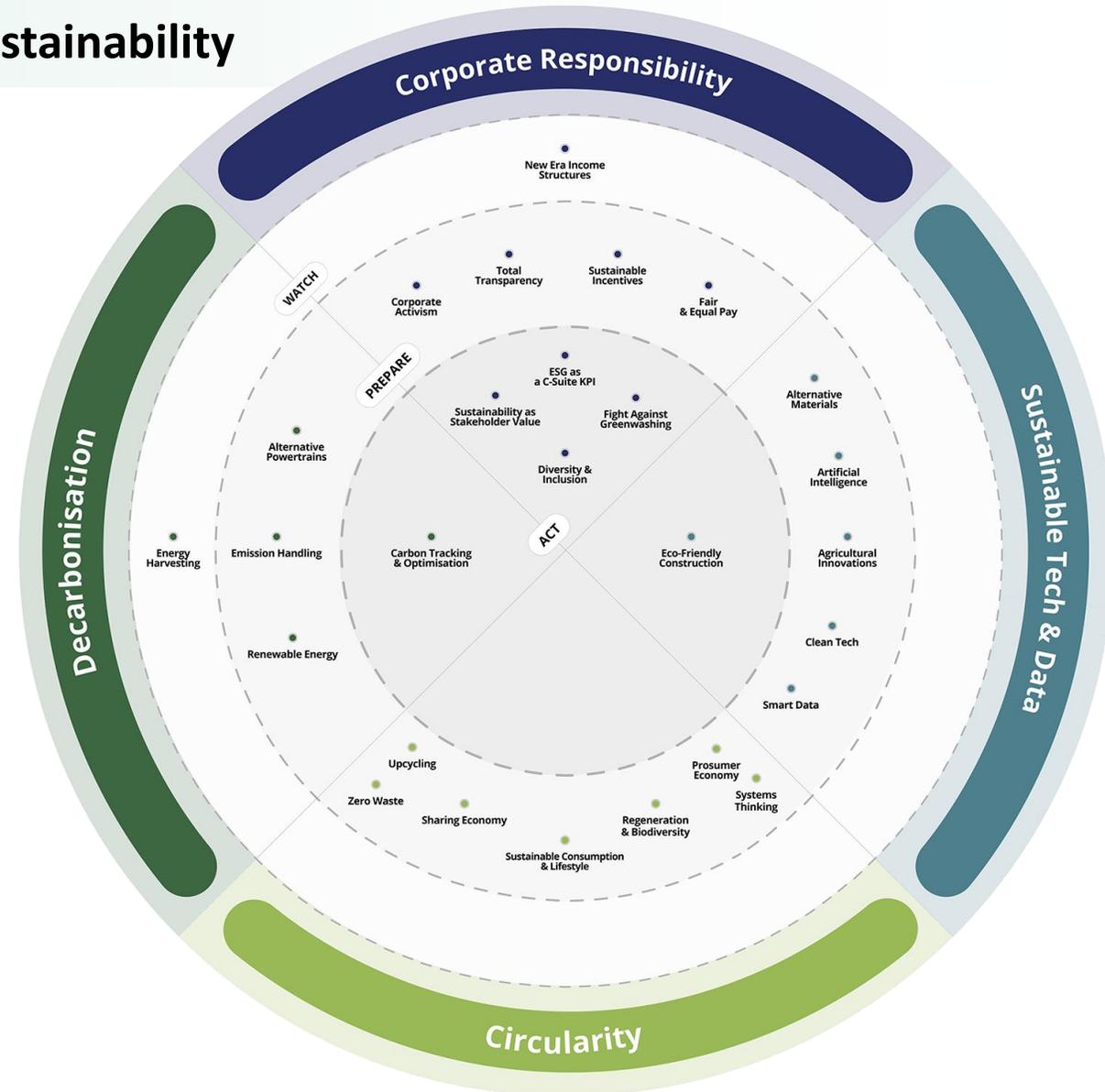
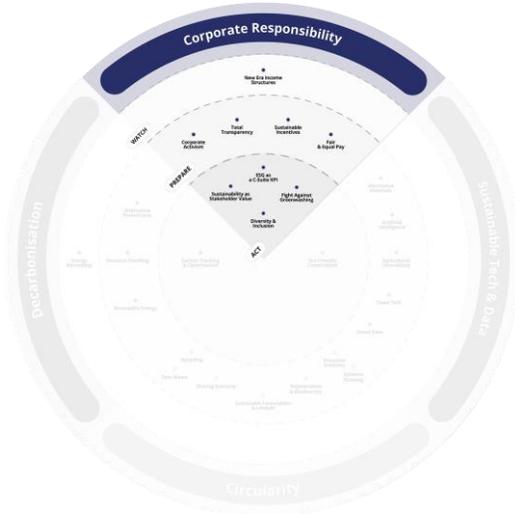


Figure 3 – TrendRadar: Future of Sustainability



Corporate Responsibility

[Back to the TrendRadar](#) 



Corporate Responsibility refers to the ethical and voluntary actions taken by companies to address social, environmental and economic issues in a way that goes beyond their legal obligations. It involves considering the impact of business operations on various stakeholders, including employees, customers, communities, the environment and society as a whole. Corporate responsibility includes, for example, promoting diversity and inclusion, fighting against greenwashing, and engaging in corporate activism.



Sustainability as Stakeholder Value

As governments and societies increase their focus on sustainability, stakeholders are realising that only companies that are effectively pursuing sustainable practices have future value. For example, investors are participating more in political discussions and are exerting more influence on companies' actions, especially regarding sustainability. In the future, internal and external stakeholders will play a significant role in holding companies accountable for their sustainability objectives and actions.

Trend assessment



ACT

Impact on industry



Time of mainstream adoption





ESG as a C-Suite KPI

The value of ESG is becoming increasingly recognised as a framework for risk mitigation and a driver of financial success. It is a key performance indicator against which the C-Suite will be measured. The three dimensions of ESG (environmental, social and governance) are indicators of a company's resilience and the degree to which it is future-proof in the context of growing stakeholder demands for sustainability. This has led to increasing pressure on corporate governance to prioritise the E and S of ESG. Actions taken within the ESG framework have multiple benefits and can be seen as investments in the future of the company.

Trend assessment

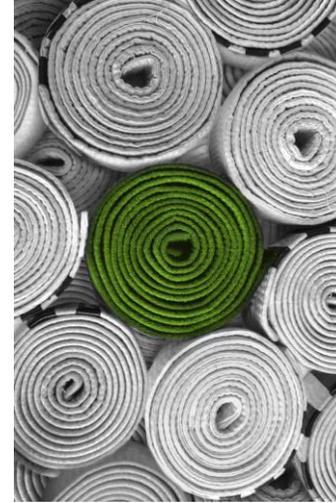


ACT

Impact on industry



Time of mainstream adoption



Fight Against Greenwashing

Companies must be held accountable for their actions and commitments towards sustainability. This includes efforts by various private and public organisations to promote transparency, encourage independent verification, and establish clear standards and regulations to prevent misleading or false claims of environmental sustainability. In addition, consumers can play a role by educating themselves and scrutinising the sustainability claims made by companies. The fear of litigation has pushed several companies towards so-called greenwashing, which is when businesses choose to not communicate about their sustainability efforts.

Trend assessment



ACT

Impact on industry



Time of mainstream adoption





Diversity & Inclusion

Different groups of people have varying needs in everyday life and at work. Over the last few years, diversity and inclusion have evolved from terms primarily associated with activism and academia to key features of attracting and retaining talent. Embracing differences in race, gender, sexuality, and other factors can lead to better decision-making, increased innovation and improved employee engagement. It has therefore become increasingly expected that organisations should intentionally foster inclusivity and diversity in their workplaces.

Trend assessment



ACT

Impact on industry



Time of mainstream adoption



Total Transparency

Societal pressure has been forcing companies to be more transparent. With the rise of social media, users can share information about a company's processes and practices in real time, making accountability more critical than ever. Companies are responding by becoming more open and disclosing their processes, particularly regarding their material sourcing and production processes along the supply chain. In addition, demands for transparent wages, ethical working conditions, and greater diversity in the workplace are on the rise, and these are reshaping the world of work.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption





Sustainable Incentives

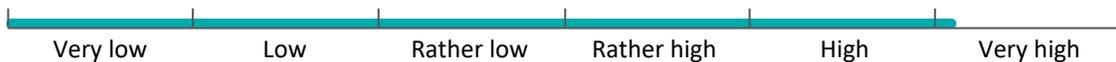
Sustainable incentives encourage companies and individuals to make more sustainable choices. The rewards involved can be monetary or in the form of other services. Public institutions use these incentives to meet sustainability goals; private companies use them to recover materials and products for recycling, reuse or aftermarket needs. Sustainable incentive programme's dual impact of making a beneficial contribution and offering immediate rewards serves as a strong motivation for both employees and consumers. Organisations must consider the benefits as well as the costs of incentive programmes and balance both aspects as they make decisions which impact entire ecosystems.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption



Fair & Equal Pay

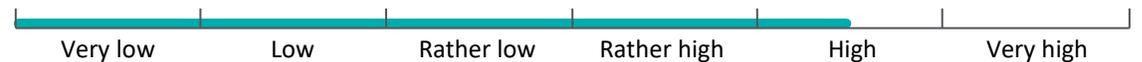
Salaries are a significant factor in a company's social impact, both positively and negatively. Fair and equal pay should encompass a range of factors, such as gender, geographical location, contract type, subsidiary status, diversity, and self-employment. In diverse workplaces with multidisciplinary teams, fair and equal pay are critical for attracting and retaining a diverse workforce. Additionally, the issue of old-age poverty has become increasingly pressing, with unequal pay having a significant impact. It is therefore essential for companies to consider fair and equal pay to promote social responsibility and avoid perpetuating poverty.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption





Corporate Activism

In response to internal and external pressures to take a stand and voice their opinions, corporations are becoming increasingly vocal about geopolitical events, social movements and humanitarian crises. This trend is closely linked to a culture of protest, as both individual employees and companies as a whole feel compelled to speak out. Some of the ways in which this trend is manifested include social media activism and company regulations related to issues such as human rights and the environment. The Ukraine crisis has been a particularly noteworthy example where businesses have shown corporate activism.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption



New Era Income Structures

A growing number of countries and their governments worldwide are recognising the need for new income structures that go beyond traditional full-time employment. With the rise of the gig economy and the increasing prevalence of non-standard forms of work, such as temporary or contract work, there is a need to explore alternative ways of ensuring financial stability and security for individuals. The discussions around new income structures such as universal basic income are driven by a desire to address growing income inequality and the financial insecurity that many people face.

Trend assessment



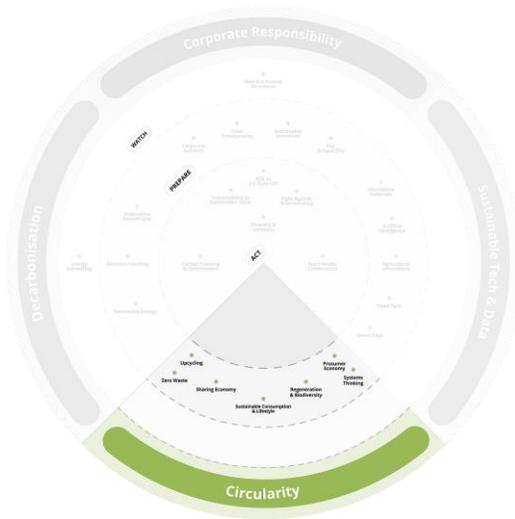
WATCH

Impact on industry



Time of mainstream adoption





Circularity aims at reducing waste, preserving natural resources and creating a sustainable future. It involves designing products, processes and systems that prioritise reuse, recycling, regenerating materials, and minimising waste and pollution. The circular economy seeks to keep materials in use for as long as possible and recover and regenerate them at the end of their life cycle. By moving away from a linear, take-make-dispose model, the circular economy can bring about economic, environmental and social benefits, such as reduced carbon emissions, improved resource efficiency and the creation of new jobs and business opportunities.



Regeneration & Biodiversity

While many companies may not currently consider biodiversity as much of an issue, it is essential to acknowledge that the loss of ecological diversity and climate change are two closely connected environmental disasters. The health of ecosystems can make a lasting contribution to climate protection. Regeneration of ecosystems is also crucial to mitigating the impacts of climate change and restoring balance to the environment. By recognising the value of biodiversity and regeneration, companies can not only protect the environment but also have a positive impact on the planet for future generations.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption





Sustainable Consumption & Lifestyle

Consumers are becoming increasingly conscious of the impact their consumption and lifestyle have on the environment. This has led to a rise in demand for sustainable products and services. Consumers are now more likely to research the sustainability practices of companies before making a purchase and are willing to pay more for products that are environmentally and socially responsible. This shift in consumer behaviour is pushing companies to adopt more sustainable practices, to be more transparent, and to meet the demand for eco-friendly products and services.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption



Systems Thinking

Systems thinking is a perspective that views the world as a set of interconnected and dynamic systems – for example, an ecosystem – with entities that work together in an overlapping and nested network. By thinking in systems, businesses can identify key levers to encourage the economy, society and other systems to work in a more sustainable way. In their operations, businesses can better understand the impact of their decisions on the environment and society and make more informed choices. Additionally, by taking a holistic view of the systems they operate in, businesses can identify opportunities to reduce waste, improve resource efficiency, and create value in new and innovative ways.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption





Sharing Economy

The sharing economy has disrupted traditional business models by allowing anything that is not being used to be rented out. Sharing platforms enable a more efficient use of resources, as users can share products and services instead of owning them individually. This leads to a reduction in waste and a decrease in the production of new goods. Additionally, the sharing economy can encourage more sustainable transportation options, for example carpooling or bike-sharing. Sharing platforms often prioritise environmentally friendly practices, such as using electric or hybrid vehicles.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption



Upcycling

Upcycling offers a fresh perspective on waste, turning it into a valuable resource. Instead of viewing waste as something to be disposed of, upcycling encourages people to use it as a source of economic opportunity to create new products. As natural resources dwindle and waste continues to grow, closing the loop between waste and resources becomes increasingly important. This not only benefits the planet, but also helps to preserve economic value and ensure that society has enough resources to sustain itself.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption





Zero Waste

The philosophy of avoiding or minimising waste has gained attention as a sustainable lifestyle choice. The aim is to send nothing to landfills, incinerators or the ocean. This is achieved through the implementation of a circular economy, which involves reusing and recycling materials, composting organic waste and reducing consumption of single-use items. A zero-waste lifestyle not only benefits the environment but also has the potential to save money by reducing the need for new purchases and waste disposal. The zero-waste approach encourages individuals to take responsibility for their waste and strive for a more sustainable lifestyle.

Trend assessment

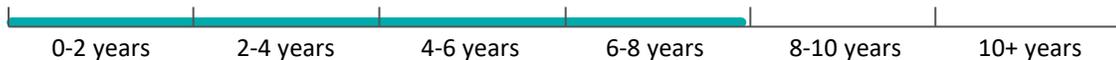


PREPARE

Impact on industry



Time of mainstream adoption



Prosumer Economy

In a prosumer economy, individuals are not only consumers but also producers of goods and services. By producing and sharing their own goods, prosumers reduce the demand for mass-produced products, which can have a positive environmental impact. The prosumer economy can also encourage local and community-based production, reducing the environmental impact of transportation and supporting the development of a more sustainable local economy. Overall, the prosumer economy has the potential to promote sustainability by empowering consumers to take an active role in the production and consumption.

Trend assessment

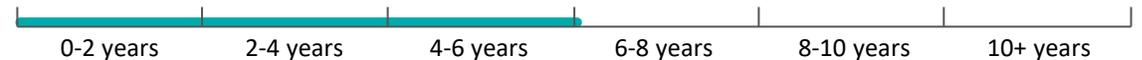


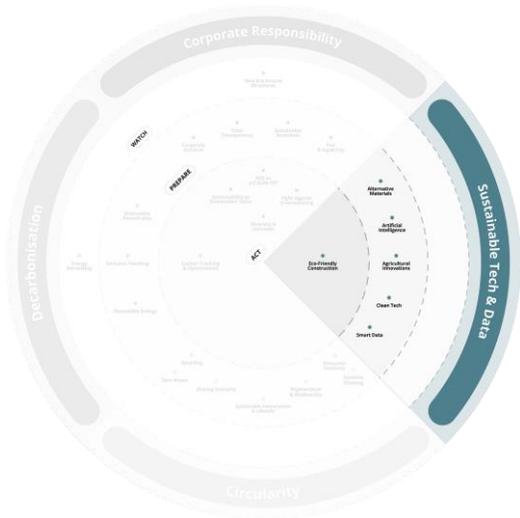
PREPARE

Impact on industry



Time of mainstream adoption





Technology and data-driven solutions play an important role in addressing environmental and social issues. This involves the use of innovative technologies such as eco-friendly construction, alternative materials, and clean tech. Data analysis and management also play a crucial role in supporting sustainable development initiatives by providing insights into patterns of consumption, waste generation, and environmental impact. The field of sustainable technology and data is rapidly evolving, with increasing emphasis on collaboration between technology companies, governments, and civil society to develop and implement sustainable solutions.



Eco-Friendly Construction

In response to the need for a more sustainable built environment, eco-friendly construction is becoming more prevalent. Eco-friendly buildings aim to reduce the use of natural resources, minimise emissions and waste, and even have a positive impact on the environment. Such buildings are also designed to promote occupant well-being through improved ventilation, insulation, and natural lighting – leading to improved health, productivity, and overall quality of life. In addition, cities are also increasingly being built with sustainability and eco-friendliness in mind. One example of this would be bicycle-friendly or car-free infrastructure.

Trend assessment



ACT

Impact on industry



Time of mainstream adoption





Smart Data

By collecting and analysing data on energy use, waste management, and resource consumption, smart data algorithms can provide insights into how to optimise and reduce companies' impact on the environment. This data can be used to design more efficient supply chains, track carbon footprints, and identify areas for improvement in energy and resource use. Furthermore, the use of smart data can lead to more accurate climate forecasting and enable the creation of more effective sustainability policies. Smart data can be a powerful tool in the fight against climate change and the accelerating sustainable practices.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption



Alternative Materials

Advances in material technology have played a crucial role in human progress, but they have also contributed to climate change due to high resource consumption. The challenge now is to find sustainable alternatives to traditional materials. The development of new materials is underway, using sources such as biodegradable plastics made from plant materials, bamboo fibres, and recycled waste. These new materials offer exciting possibilities for innovative products and functions that will be both eco-friendly and highly functional. Material technology will lead to the development of products and functions that contribute to a more sustainable future.

Trend assessment



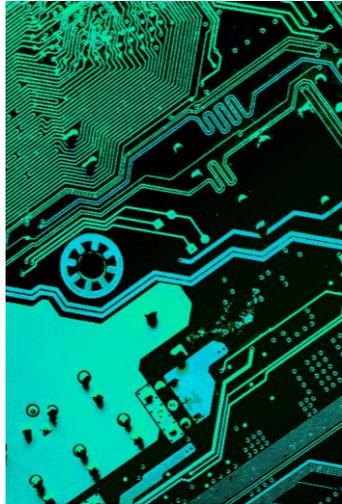
PREPARE

Impact on industry



Time of mainstream adoption





Clean Tech

With the rising concern over climate change and the role of personal consumption, there is a growing need for technologies that promote a better ecological balance. Clean tech has emerged as a crucial component of this transition towards more sustainable technologies. Clean tech values the environmental performance of new technologies, in addition to their functionality. This shift in perspective towards eco-friendliness is essential to achieving a more sustainable future. By prioritising environmental impact in the development of new technologies, clean tech is playing a significant role in shaping a greener world.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption



Agricultural Innovations

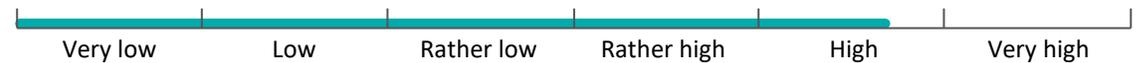
The integration of sustainable technologies in agriculture will be critical to ensuring a secure and sustainable food supply. As urbanisation advances, agriculture must adapt to the limited space available in cities. By using technologies such as aquaponics and vertical farming, a significant amount of food can be produced efficiently in small spaces. In addition, traditional field cultivation is becoming more automated and optimised with the help of geospatial intelligence which uses tools like drones, satellite imagery and remote sensing. These advances not only improve efficiency but also have the potential to reduce negative environmental impacts from agriculture.

Trend assessment



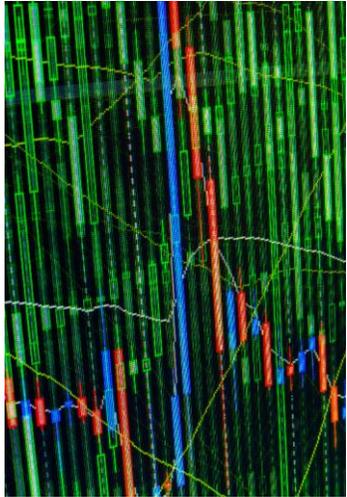
PREPARE

Impact on industry



Time of mainstream adoption





Artificial Intelligence

The increasing severity of climate change-related events such as storms, wildfires and droughts has led to a growing interest in the potential of artificial intelligence (AI) to predict and mitigate their impacts. Governments, investors and tech firms are exploring machine learning systems that can identify patterns in data sets and provide real-time predictions and recommendations. AI can help anticipate potential climate-related disasters that potentially disrupt global supply chains. However, there also many social, environmental, and governance-related challenges associated with AI.

Trend assessment



PREPARE

Impact on industry



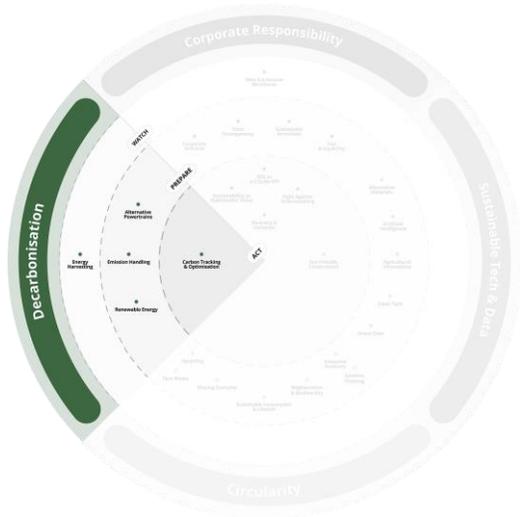
Time of mainstream adoption





Decarbonisation

[Back to the TrendRadar](#)



Decarbonisation refers to the process of reducing or eliminating carbon emissions, including from transportation and energy production. It is an essential component of global efforts to mitigate the impacts of climate change. Decarbonisation involves transitioning away from fossil fuels and implementing alternative sources of energy, such as renewable energy. It also requires the adoption of more sustainable practices and reduction of energy consumption through energy efficiency measures. Decarbonisation is essential to achieving the goals of the Paris Agreement to limit global warming to well below 2 degrees Celsius above pre-industrial levels.



Carbon Tracking & Optimisation

An important step in the fight against climate change is to track, measure and optimise carbon emissions. By tracking carbon output across the entire value chain, containing upstream and downstream component transportation and manufacturing, it becomes possible to reduce the amount of emissions released into the environment. The process involves the use of technology that can track, simulate, analyse and monitor carbon emissions, enabling companies and individuals to make informed decisions about their energy use.

Trend assessment



ACT

Impact on industry



Time of mainstream adoption





Decarbonisation

[Back to the TrendRadar](#)



Renewable Energy

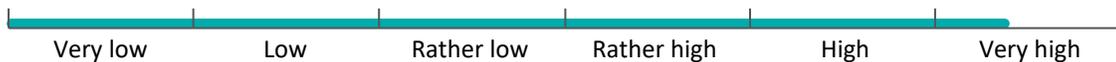
Aiming to reduce environmental impact and to cut energy costs, companies are increasingly use renewable forms of energy. Many companies are investing in solar, wind and hydroelectric power systems to power their operations with clean, sustainable energy. In addition to the environmental benefits, using renewable energy can potentially enhance a company's brand image and reputation among environmentally conscious consumers. Further reducing their reliance on fossil fuels and transitioning to renewable energy is a challenge that many companies will face in the near future.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption



Alternative Powertrains

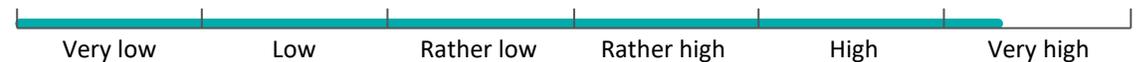
As the world moves towards a post-fossil fuel era, alternative powertrain technologies are emerging as sustainable replacements for combustion engines. These include battery electric vehicles (BEVs), fuel cell electric vehicles (FCEVs) and various hybrids. While there is no one-size-fits-all solution, the adaptability of these technologies offers significant benefits to users. BEVs are currently ideal for urban areas, while FCEVs seem more suited for long distances, and many more alternatives are being explored. As a result, there will be a shift from a 'one powertrain fits all' approach to the use of the most appropriate powertrain for each situation.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption





Decarbonisation

[Back to the TrendRadar](#)



Emission Handling

In recent years, there has been a rise in the development of products and services aimed at handling emissions. These solutions not only include technologies that capture and store emissions, but also services that offset emissions, such as those generated by air travel. However, emission offsetting is increasingly criticised as a questionable and inefficient approach to achieving net zero targets. Emissions trading seeks to reduce the overall amount of greenhouse gases produced by companies by allowing them to trade their emissions allowances with one another. This approach incentivises companies to reduce their own emissions and ultimately helps to mitigate the effects of climate change.

Trend assessment



PREPARE

Impact on industry



Time of mainstream adoption



Energy Harvesting

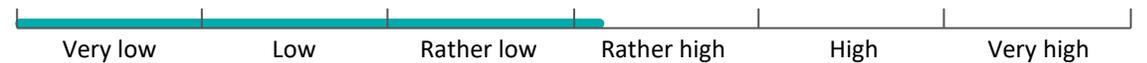
Energy harvesting involves using untapped sources of energy that would otherwise go to waste, such as noise or heat. Companies are recognising the risks associated with relying on a limited number of energy sources, particularly considering political tensions and climate change concerns. This realisation, coupled with advances in alternative powertrains, are driving research and development efforts in the field of energy harvesting. As a result, there is a shift away from a few primary energy sources towards a more diversified and sustainable approach. For instance, annoying car noise could potentially be transformed into a valuable source of energy.

Trend assessment

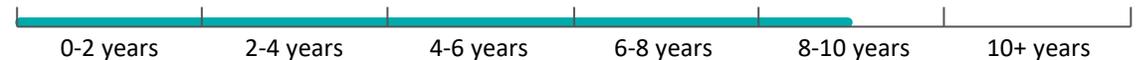


WATCH

Impact on industry



Time of mainstream adoption





Are you prepared for the latest trends?

Do you want to know how well your company performs in these sustainability trends compared to the rest of your industry?

Contact Deloitte Switzerland for a benchmarking and to find out where your organisation should improve its competences.





Contacts and authors

Contacts



Liza Engel
Chief Sustainability Officer
+41 58 279 7736
lengel@deloitte.ch



Marcel Meyer
Sustainability Services lead
+41 58 279 7024
marcelmeyer@deloitte.ch

Authors



Dr. Michael Grampp
Chief Economist & Head of Research
+41 58 279 6817
mgrampp@deloitte.ch



Daniel Laude, PhD
Research Manager
+41 58 279 6435
dlaude@deloitte.ch



This publication has been written in general terms and we recommend that you obtain professional advice before acting or refraining from action on any of the contents of this publication. Deloitte AG accepts no liability for any loss occasioned to any person acting or refraining from action as a result of any material in this publication.

Deloitte AG is an affiliate of Deloitte NSE LLP, a member firm of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee (“DTTL”). DTTL and each of its member firms are legally separate and independent entities. DTTL and Deloitte NSE LLP do not provide services to clients. Please see www.deloitte.com/ch/about to learn more about our global network of member firms.

Deloitte AG is an audit firm recognised and supervised by the Federal Audit Oversight Authority (FAOA) and the Swiss Financial Market Supervisory Authority (FINMA).

© 2023 Deloitte AG. All rights reserved.

Designed by CoRe Creative Services. RITM1081338