



# Adapt and transform: Finding business value in a regenerative economy

Report for the Department of Planning,  
Industry and Environment and WWF-Australia

July 2020

The EY logo consists of the letters 'EY' in a bold, white, sans-serif font. A yellow triangle is positioned above the 'Y', pointing to the right.

Building a better  
working world

COVID-19 will alter life as we know it.

The question remains: will it alter the way we think,  
invest and do business?



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# Introduction

## Thought leadership objectives

### Sustainability Advantage Impact Challenge

This thought leadership report on the regenerative economic opportunities post COVID-19 was commissioned by the Department of Planning, Industry and Environment (the Department) and WWF-Australia as part of the Sustainability Advantage Impact Challenge launching in July 2020.

The Sustainability Advantage Impact Challenge seeks to uncover and support businesses which are driving a regenerative economic recovery (including the labour market) and making real progress on the United Nations Sustainable Development Goals. The Challenge's mission is to transform the way NSW does business and solve wicked sustainability problems to advance the circular economy, speed transition to net-zero and benefit nature.

Based on these three sustainability problems, the following definitions have been agreed between EY, the Department and WWF-Australia to be utilised throughout the report.

	<b>Nature-based solutions</b>	Actions that protect, sustainably manage, and restore ecosystems by balancing economic and societal needs with biodiversity benefits. <sup>1</sup>
	<b>Net-zero emissions</b>	Economic activities that result in the achievement of zero total net impact of human-induced Greenhouse Gas (GHG) emissions. <sup>2</sup>
	<b>Circular economy</b>	Restorative and regenerative by design, a circular economy minimises waste and optimises efficiency through value chains. It aims to redefine growth, focusing on positive society-wide benefits that entails decoupling economic activity from the consumption of finite resources and designing waste out of the system. <sup>3</sup>

### Regenerative economy thought leadership

This thought leadership report is positioned to serve as an inspiring thought-starter to The Sustainability Advantage Impact Challenge participants formalising the conversation by and identifying the growing market opportunities in the regenerative economy, including the benefits for future focused businesses and start-ups capitalising on new markets.

Based on this, EY has identified key trends which align to a regenerative economic recovery post COVID-19, and are likely to spark innovative solutions aligned with circular and nature based solutions, and achieving net-zero. This is aligned to the mission of the Sustainability Advantage Impact Challenge, the UN Sustainable Development Goals (see Appendix 4 for SDG mapping with the regenerative economy trends) as well as a broader objective to shift our current lens of value to rebuild a more regenerative and resilient future.

At a high level, EY's approach was as follows:

- ▶ Identified an initial "long list" of internationally relevant and Australian specific trends, based on EY's expertise and additional thought leadership relating to the COVID-19 crisis and other key economic trends
- ▶ Refined the long list of trends to a short list of trends with regenerative opportunities, through expert interviews and EY analysis
- ▶ Scored the final list of trends based on **impact** in a regenerative economy (utilising the eight regenerative economy principles from the Capital Institute) and ability to support impact on three key sustainability problems: to advance the circular economy, speed transition to net-zero and benefit nature.
- ▶ Scored the final list of trends based on **gravity** by considering likelihood of the trend occurring and the magnitude of impact across the economy.
- ▶ Prioritised the trends based on their impact and gravity scores.

EY's detailed methodology and approach is detailed in Appendices 1 through 3.

# The landscape

## Setting the scene for change

### A new economy post COVID-19

The impacts from COVID-19 are being felt today, and will continue to be felt as the Australian economy, and economies around the world, adapt and transform.

This post-pandemic economic redevelopment period will be an opportunity to reconsider our previous world view, develop new ways of catalysing productivity, and building Australia's comparative advantage. Specifically, as Australia begins to emerge from the acute phase of its COVID-19 response, there is an opportunity to plan and build a more resilient future economy, capitalising on Australia's unique economic and environmental ecosystem.

COVID-19 has accelerated transformation. The scene for change has been set, and the pandemic has provided a moment in time to consider three fundamental things:

1. Long-term economic priorities, growth trajectories and the value associated with non-financial contributions to the economy.
2. The commitment and pace of change to address the most pressing environmental and social issues within society.
3. The role individuals, government and business will play to support the development of an environmentally and economically resilient future.

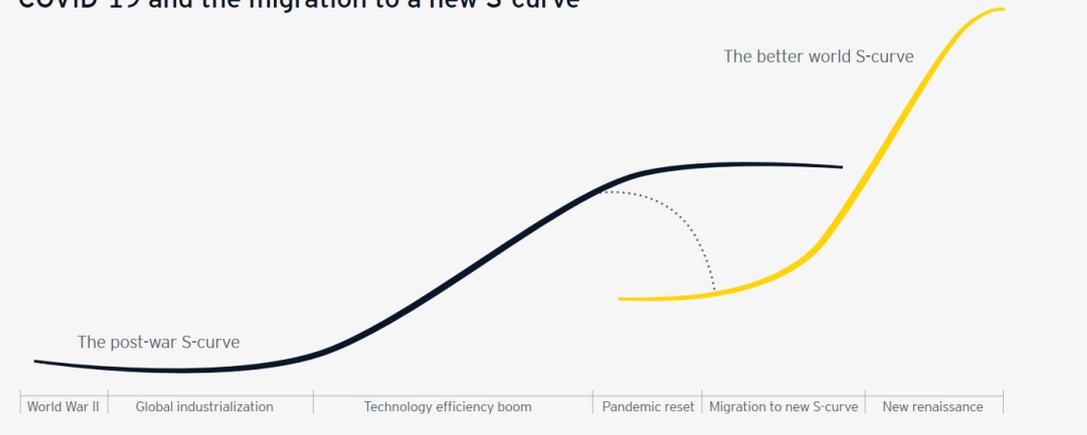
The COVID-19 pandemic also demonstrated that no sectors are immune from disruption. Directly hit sectors such as hospitality, air travel and tourism, and the arts and entertainment, were largely forced to cease operation. Secondly hit sectors such as store-based retail, tertiary education and construction were able to continue operating with innovative solutions, however, also saw a decline in business and revenue.

For businesses across Australia, the impacts from COVID-19 undermined existing assumptions in relation to business growth while also catalyzing new models and approaches focused on efficiency and additional value.

The COVID-19 pandemic has created an opportunity to pause and reflect on existing patterns of growth. One approach to consider growth is the S-curve pattern which sees a paradigm or technology gaining gradual adoption at first, then rapidly growing, followed by slowing again at a point of maturity which delivers diminishing returns.

The next S-Curve has now become visible, and further amplified by COVID-19, which aligns to the regenerative trends identified in this report. In this future, social contracts will be strengthened to promote inclusivity and sustainability and businesses will undergo significant re-evaluations of long term value. The global economy will be shaped by everything from digital advancements to changing consumer behaviours and the nature of work.

#### COVID-19 and the migration to a new S-curve



EY, 'Are you reframing your future or is the future reframing you?' Megatrends 2020 and beyond.

In recent years market leaders have been operating in alignment with regenerative outcomes and strategic priorities. In the world beyond COVID-19 a regenerative economy will create new markets and re-invigorate existing markets as considerations of regenerative outcomes will become a first order priority. Businesses with strategies aligned to this new environment will be primed to capitalise on the new opportunities for contributing to a more resilient economic ecosystem.

# The landscape

## Setting the scene for change

### Introducing the regenerative economy

As Australia rebuilds its economy post COVID-19, there is an opportunity to consider the relationship between existing economic priorities and the state of our natural environment. The introduction of the regenerative economy has the potential to underpin a new economic system.

*A regenerative economy is built on patterns and principles which views the economy as a sustainable system for creating conditions conducive to life for current and future generations.*

The principles of a regenerative economy are not new. The concepts of biophilia, deep ecology and intergenerational equity have long been developed. However, these principles have not been effectively captured and integrated into today's economies. For many centuries Indigenous People have lived regeneratively, in connection with the natural world. To effectively transition to a 21<sup>st</sup> Century regenerative economy, rediscovering and conserving the wealth of Indigenous knowledge and wisdom is fundamental.

A regenerative economy views wealth holistically, seeks balance and empowers participation, providing a systematic opportunity to address many of these issues. It moves beyond viewing the environment as an externality, and instead, views it as an internality. An economy that is regenerative by design supports people to become full participants in regenerating thriving ecological systems.

A regenerative economic model goes further than sustainable development and stopping climate change: it offers a route to reversing it, which is essential for the world to realign to planetary boundaries. In addition, as a model, it values the environmental and social contributions to the economy and protects this value over the long term, as opposed to short-term economic gain.

The Capital Institute, a global leading authority on the regenerative economy, has developed eight principles that it suggests could underpin this new economic approach (further analysis available in Appendix 5). These principles have been used to identify and evaluate post COVID-19 trends through a regenerative lens.

A regenerative recovery would create opportunities for new businesses, and disruption to existing ones, that may support the development of this economy.



Capital Institute, Principles of a Regenerative Economy

Sectors within the economy are already reflecting this inflection moment, and it is manifesting in corporate action. For example, shifting consumer preferences are changing the food and energy sectors, as well playing a role in the rise of less resource-intensive industries such as technology, media and entertainment.

It is the innovative, adaptive and resilient businesses, particularly entrepreneurially minded sectors of the economy, which will thrive in a regenerative economy as the prioritisation of meeting the needs and well-being of all segments and levels of global civilisation trickles through all sectors.

*“We can - and must - bring our economic theory and practice into alignment with our latest understanding of how the universe and our humanity actually work”*

John Fullerton - Founder and President, Capital Institute

# The trends and opportunities

## *An overview*

Seven trends have been identified as opportunities for aligning a post COVID-19 Australia to a regenerative economy. These seven trends will be critical enablers of a new regenerative world order, which prioritises the interdependence between natural and human systems. (See Appendices 1 through 4 for details of the approach taken).



### **A new consumer agenda**

The EY Future Consumer Index on behaviour and sentiment shows how COVID-19 is creating new consumer segments and consumer mindset shifts towards consuming local and sustainable



### **A new leadership paradigm**

The world was facing a leadership crisis before COVID-19, and following the pandemic stakeholder capitalism will disrupt current approaches to business around the world



### **A resilient energy system**

The decarbonisation of energy through renewable electrification, hydrogen and a decentralised and digitised electricity grid is set to have geopolitical, economic and national security impacts



### **Disruptive digitalisation**

Technology and big data will continue to influence sectors - health and energy through to automation and advanced robotics - increasing transparency, trust and empowerment opportunities



### **Expanding the social contract**

An expanded social contract will prioritise the immediate economic impacts with a longer term mindset to more fairly, equitably and sustainably share burdens and benefits across the economy



### **Prioritising sustainable finance**

Increased investor expectations on environmental, social and governance factors influencing long-term value, aligned with global fiscal stimulus, will see a prioritisation of sustainable investments



### **Supply chain disruption and localisation**

A renewed focus on Nationalism for production, coupled with changing international relationships, resource security concerns and an increased focus on sustainability and localisation of supply

# The trends and opportunities

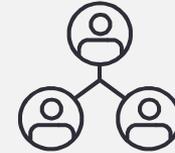
## *Key findings from the trends*



Consumers are prioritising sustainable and local service offerings<sup>4</sup>



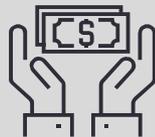
Capitalising on new technology creates additional business expansion opportunities<sup>5</sup>



The role of businesses is continuing to evolve as stakeholder capitalism grows<sup>6</sup>



Decarbonisation reframes solutions for a climate positive future<sup>7</sup>



New capital is unlocking for environmentally and socially aligned ventures<sup>8</sup>



Trust and transparency in decision-making is crucial to long-term value<sup>9</sup>



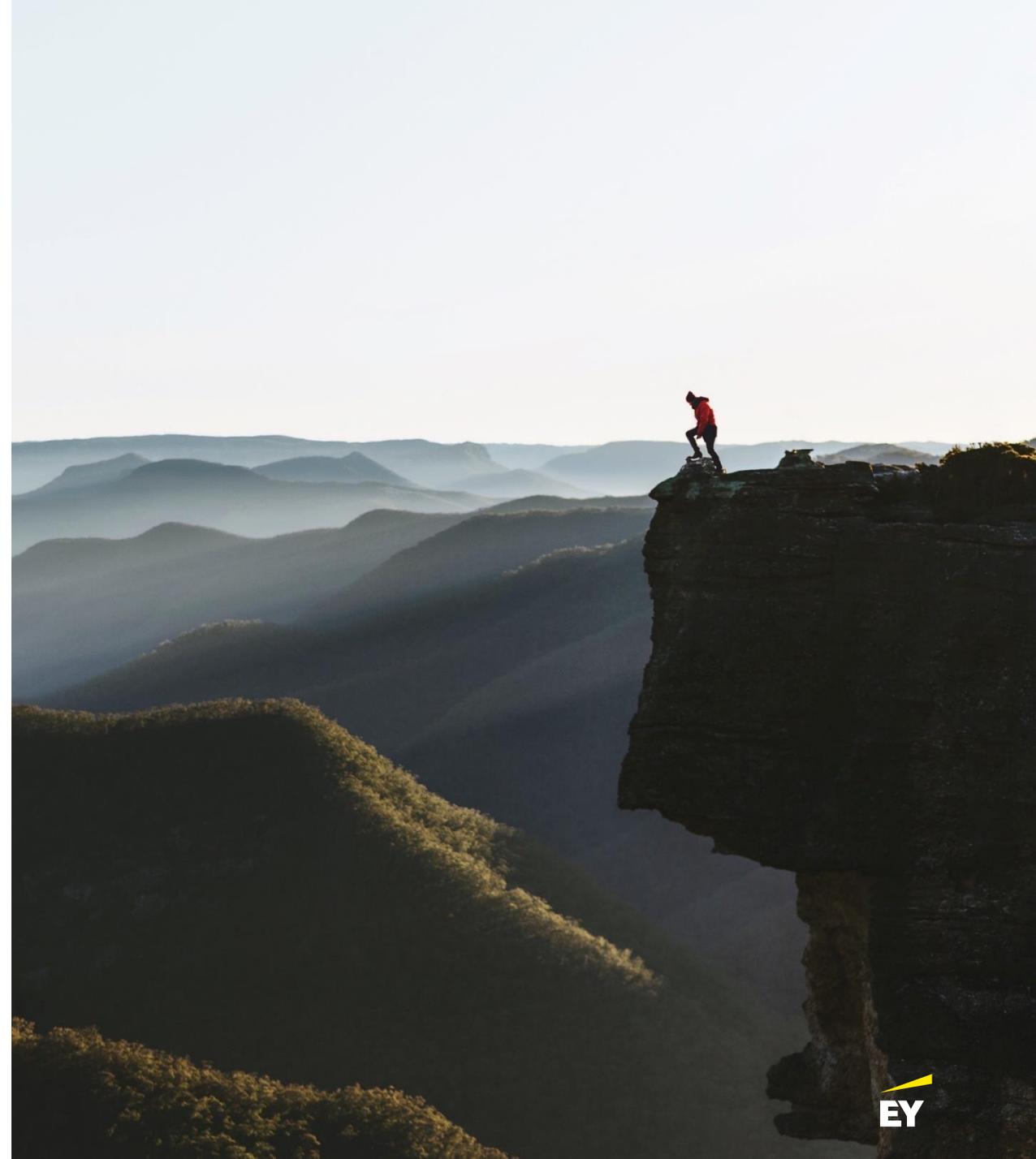
Designing cradle-to-cradle supply chains enhances value chains<sup>10</sup>



International appetite for Australian innovation, knowledge and solutions is growing<sup>11</sup>

# The trends in detail

*Key regenerative trends for the future*



# The trends in detail

## *Findings and impact*

The trends have been selected based on their ability to impact a regenerative economy (i.e. each of the eight Capital Institute Regenerative Economy Principles) and key sustainability problems (i.e. nature-based solutions, net-zero emissions and circular economy). An impact score has been allocated to each trend to demonstrate the degree of impact the trend could create in a regenerative economy. In addition, a gravity score has demonstrated the scale of economic impact projected for each trend.

	<i>Regenerative economy</i>	<i>Nature-based solutions</i>	<i>Net-zero emissions</i>	<i>Circular economy</i>	<b>Overall impact</b>	<b>Gravity*</b>
<b>A new leadership paradigm</b>					4	
<b>Expanding the social contract</b>					4	
<b>Prioritising sustainable finance</b>					3	
<b>A new consumer agenda</b>					3	
<b>Disruptive digitalisation</b>					2	
<b>A resilient energy system</b>					2	
<b>Supply chain disruption and localisation</b>					2	

\* Gravity is a combination of likelihood and magnitude: see Appendix 3 for detailed method and scoring.

# A new leadership paradigm

## Overall impact



Gravity



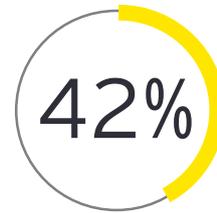
Empowered participation and models of **decentralised leadership** are enablers of a healthy human economy, which are also beneficial to the planet and society. This demonstrates the important role for leaders to **pioneer business models** which prioritise **long-term value creation** and navigate the growing trend of **stakeholder capitalism**.



**Only 20% of value is shown on the balance sheet**

As little as 20% of a company's value is captured on its balance sheet - a decline from 83% in 1975.<sup>12</sup>

The rise of valuing intangible aspects of a business such as innovation, culture and sustainability moves beyond financial performance as the metric of value.



Purposeful companies outperform the market by 42%,<sup>13</sup> demonstrating that business success and purpose are not mutually exclusive.

*A new leadership paradigm in a regenerative economy will amplify...*



### Systems thinking

Increased expectations for business leaders to view businesses as in relationship with nature and society.<sup>14</sup>



### Redefining value

A redefinition of value will extend beyond financial and involve turning business into a force for good.<sup>12</sup>



### Diversity and inclusion

Diversity and inclusion will become a competitive advantage for innovation and empowered action.<sup>15</sup>

# A new leadership paradigm

## A new leadership paradigm in practice...



### Unilever sets out new actions to fight climate change, and protect and regenerate nature to preserve resources for future generations

Unilever will achieve net-zero emissions from all products by 2039. In addition, Unilever plans to empower, and work with, a new generation of farmers and smallholders, driving programs to protect and restore forests, soil and biodiversity; and work with governments and other organisations to improve access to water for communities in water-stressed areas.



### Danone adopts new legal status to reflect social mission and progress stakeholder value creation

Danone shareholders voted in June 2020 to integrate the business' mission to bring "health through food" to consumers into its corporate bylaws, becoming France's first large listed entity to adopt the new legal status of *entreprise à mission* (purpose driven) and progress their leadership role in stakeholder capitalism.

## The opportunities

You've already focused on how to lead your organisation - prioritising value on the balance sheet, and considering non-financial impacts.

*Now its time to be more ambitious.*

The COVID-19 crisis has presented an opportunity for business leaders to re-evaluate commitment to and focus on environmental, social and governance performance and value. Business leaders who pioneer a new paradigm of leadership, realign themselves to the stakeholder capitalism agenda to serve all stakeholders (employees, customers, suppliers, local communities and society) and prioritise long-term value creation are well positioned to experience a competitive advantage in coming years.

## Where to begin: critical questions

- ▶ How are you measuring value in your business beyond financial performance and how are you communicating this as your business' purpose?
- ▶ How are you engaging with key stakeholders and creating value for them?
- ▶ How are you ensuring you foster diversity and inclusion to ignite innovation and empowered participation?

# Expanding the social contract

## Overall impact



Gravity



Impacts on social systems have historically not been at the forefront of business considerations: however, a regenerative economy will **prioritise the private sector as good corporate citizens**. An expanded social contract will build trust through private sector, public sector and not-for-profit collaborations.



Ethical drivers - integrity, purpose and dependability - are seen as three times more important to company trust than competence.<sup>9</sup>

Competence  
24%



Ethics  
76%

Edelman Trust Barometer, 2020

This establishes the importance of ethical decision making and the expectations of businesses to be ethical. For businesses grounded in ethics, this could lead to market leadership through trust.



of Australians agree that a company can take actions that both improve profits and improve conditions in communities where it operates.<sup>9</sup>

*The social contract in a regenerative economy will amplify...*



### Trust and transparency

Hyper transparency will become leading practice to develop community trust and accountability.<sup>16</sup>



### Indigenous wisdom

Incorporating the wisdom and guidance from Indigenous communities will reshape social contracts.<sup>17</sup>



### New ways of collaborating

Cross-pollinating ideas and solutions to address intergenerational inequity will be a core role for institutions.<sup>9</sup>

# Expanding the social contract

## *The social contract in practice...*



### **Atlassian prioritises positive societal impact**

Atlassian have publicly stated that as business leaders they have a responsibility, and their employees want to ensure the business is making the planet better, not worse. The co-founders have committed to focusing on Atlassian's impact on society, in addition to profit for shareholders, to build trust around the ethical premise of decision making.



### **H&M assures garment suppliers it will pay for orders per agreed payment terms during pandemic**

In March 2020, as the COVID-19 crisis escalated, H&M made a public statement assuring garment suppliers of taking shipments of goods that have already been manufactured. H&M sources garments and textile items worth nearly \$4 billion from over 230 Bangladeshi factories every year.<sup>1</sup>

## **The opportunities**

You're aware of the role of business to be good corporate citizens - to build trust.

*Now its time to be more ambitious.*

There has been growing calls for the formation of a new social contract. The UN Guiding Principles on Business and Human Rights, together with the Paris Agreement, are driving an increased emphasis on ethics, corporate due diligence, worker's rights and protections, will build a more resilient, human centric and inclusive future.

Businesses that embrace, care for, and have plans to ensure resilience for human rights and the environment will emerge as leaders supporting the new social contract.

### ***Where to begin: critical questions***

- ▶ What mechanisms and frameworks do you have in place to ensure ethics is a key driver in decision making?
- ▶ How are you supporting and building trust with the most vulnerable people impacted by your business and justifying your social licence to operate?
- ▶ Do you have policies and procedures for managing human rights within your business and your value chain, and hold similar expectations for any partners?

# Prioritising sustainable finance

## Overall impact



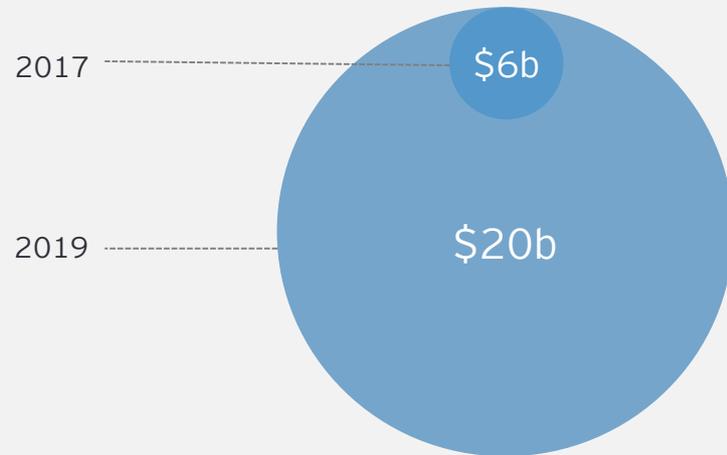
Gravity



Redirecting investment flows from exploitive and extractive industries towards **positive impact enterprises** focused on nature based, circular and net-zero emissions solutions is a critical enabler for creating a **regenerative economy**.



The Australian impact investing market has more than tripled in two years.<sup>8</sup>



This increased capital represents a significant market opportunity for innovative businesses to access funding.



of institutional investors would immediately rule out or reconsider a prospective investment on the basis of disclosures on the risks of climate change.<sup>18</sup>

*Sustainable finance in a regenerative economy will amplify...*



### Research and development

Increased demand is evident for innovative and sustainable technologies as capital begins to flow towards clean tech.<sup>19</sup>



### The redirection of capital

New and increased financing options for climate positive opportunities such as sustainable infrastructure<sup>20</sup> and transitioning from fossil fuels.<sup>21</sup>



### International opportunities

Sustainable innovation opens export opportunities (for expertise and innovation) and new international markets.<sup>9</sup>

# Prioritising sustainable finance

## *Prioritising sustainable finance in practice...*



### **HSBC has committed to \$100 billion of green financing by 2025**

HSBC's commitment to finance clean energy, low carbon technologies and projects which will help deliver the 2015 Paris Agreement and the UN Sustainable Development Goals demonstrates a changing investor mandate.



### **Australia's first 100% carbon neutral shipping service**

Sendle secured impact investment funding as a result of its model to abate carbon emissions by utilising unused capacity and the purchase of carbon offsets.

The Impact Investment Group invested in Sendle's Series A capital raising round in August 2016 and since this time Sendle has experienced exponential growth. The Impact Investment Group is committed to proving that finance is a force for good, and finance can be great for people and planet, therefore increasing impact investments.

## **The opportunities**

You've already focused on how your organisation can attract capital - to achieve financial sustainability.

*Now its time to be more ambitious.*

Today, there are more sustainable finance opportunities than ever before, from venture capital to institutional investors. The shift from allocating mainstream capital for financial success exclusively to more environmental and social impact has happened. Innovative solutions are at the forefront of unlocking new flows of capital and debt mechanisms necessary to finance a regenerative economy.

## ***Where to begin: critical questions***

- ▶ How could you demonstrate the positive environmental and social impact of your business to attract sustainable finance?
- ▶ When deciding on new business activities, do you consider your eligibility for securing sustainable debt mechanisms (e.g. green and blue bonds)?
- ▶ What export opportunities could your business capitalise on in mature international markets that value sustainable solutions?

# A new consumer agenda

## Overall impact



Gravity



Transitioning to new business models that maintain a **consumer-based economy** while addressing climate change is a priority for enterprises in a regenerative economy. Consumers are already expecting businesses to **re-establish local community and place connections**.



Post COVID-19, Australian consumers have spoken about their commitment to a sustainable agenda<sup>4</sup>

1/4

of consumers will value **sustainability** in five years' time

Changing consumer behaviours post COVID-19 is an opportunity to develop a business case for new regenerative priorities, initiatives and start-ups.

1/4

of consumers are willing to pay a premium for **sustainable products**



Nudging online consumers by telling them that other people are buying sustainable products led to a 65% increase in other consumers making at least one sustainable purchase.<sup>22</sup>

*A new consumer agenda in a regenerative economy will amplify...*



### Climate positive commerce

Consumers are continuing to advocate with their dollars, and supporting sustainable and circular businesses.<sup>4</sup>



### The local economy

Local economies will flourish as consumers continue to look in their local communities for goods and services.<sup>4</sup>



### New business models

A shift towards online retail and goods-as-service models will create opportunities to capture new consumers.<sup>23</sup>

# A new consumer agenda

## A new consumer agenda in practice...

### patagonia

Patagonia has built a brand focused on environmental conservation, circular waste reduction and humane supply chain conditions

Patagonia's commitment to regenerative practices has resulted in greater customer loyalty and price premiums on products. For example, Patagonia is committed to embracing regenerative organic agriculture with the opportunity to reclaim the farming system on behalf of the planet and human health, and create more sustainable garments for consumers.



Wide Open Agriculture is an Australian regenerative food and farming company and have created the Dirty Clean Food brand

Wide Open Agriculture is Australia's leading ASX listed regenerative food and agriculture company. The target market for this business is conscious consumers who are committed to purchasing food that has a positive impact on farmers, farmland and regional communities.

### The opportunities

You've already prioritised a consumer lens for your business - to develop products and services consumers want and need.

*Now its time to be more ambitious.*

The COVID-19 crisis has rapidly transformed consumer attitudes and businesses must adapt to and anticipate the type of consumers that will emerge from the crisis. Looking beyond the immediate impacts of the pandemic, very few consumers are expected to return entirely to their old behaviours. It is anticipated that the "intention-action gap" for sustainable purchases will narrow as consumer recognise their ability to influence global change with every purchase, creating an opportunity for businesses who meet this new market and demand.

### Where to begin: critical questions

- ▶ Which consumer future are you designing your business model and service offerings around?
- ▶ Are you prioritising value-led communications to demonstrate the commitment of your business to a regenerative economy?
- ▶ How are you nudging consumers to make better purchasing decisions?

# Disruptive digitalisation

## Overall impact



## Gravity



Evolving digital solutions and technology offer a route to **innovate, adapt and respond** with agility. Digitalisation **connects, empowers** and above all, acts as a **pivotal enabler** in the development of a regenerative economy.



There is a global trend of strong enthusiasm for technology and the life-improving power of technology.<sup>5</sup>

# 75%

of people agree that technology generally makes life better

New technological solutions will likely see growth and adoption from consumers as technology continues to play a critical role in people's lives.



of CEOs place driving successful digital transformation *at the top* of their agenda.<sup>24</sup> The next step is having digital transformation actually *set* the agenda.

**Disruptive digitalisation in a regenerative economy will amplify...**



### Sustainable food

Technology is transforming the food sector including changes to how food is produced, packaged, tracked and disposed.<sup>25</sup>



### Blockchain integration

Blockchain possesses the power of transparency and process integrity for uses including supply chain transparency, food safety and assurance of ethical partners.<sup>26</sup>



### Future focused city planning

Driverless transit networks, smart buildings and green spaces inhabited by increasingly connected citizens are starting to emerge.<sup>27</sup>

# Disruptive digitalisation

## Disruptive digitalisation in practice...



### OpenSC enables businesses to track their products at the point of origin

WWF-Australia and BCG Digital Ventures launched a new online platform called OpenSC that uses blockchain to track food and help people to avoid illegal, environmentally-damaging or unethical products.



### Slack enhances collaboration and productivity by building an ecosystem for work

Slack provides a platform for workplace conversations that integrates over 2,000 apps and has an \$80 million fund that supports developers building apps as a mechanism to maintain its disruptive influence.

Slack is also aiming to be an active part of the regenerative transition, having committed to become carbon neutral by 2030, eliminate single-use plastic from its buildings by 2030 and support regenerative and sustainable agriculture through purchasing.

## The opportunities

You've already focused on how your organisation can innovate and adopt new technologies - to improve operational efficiency.

*Now its time to be more ambitious.*

Technology, through a regenerative lens, provides a unique opportunity for existing businesses to pivot towards emerging markets, as well as for start-ups to identify gaps in existing offerings and emerge as industry leaders. The rise of digital solutions supports empowered participation with increasingly inclusive approaches - breaking down barriers and designing human-centric solutions through technology will be a key driver of a new economy.

## Where to begin: critical questions

- ▶ What innovative and new technologies could you leverage to ensure transparency and process integrity throughout your operations?
- ▶ How can big data analytics and automation improve the operational efficiency of your organisation and what other businesses, such as start-ups, could you partner with to make this a reality?
- ▶ Do you have confidence in your data privacy and IT infrastructure security?

# A resilient energy system

## Overall impact



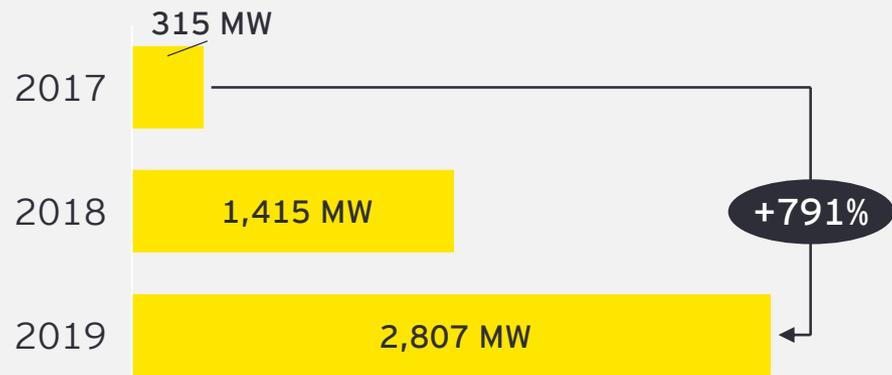
Gravity



The **decarbonisation, decentralisation and redistribution** of energy systems will improve national productivity, security and trade, accelerating the shift to an **emissions positive, regenerative economy**. This will open up **export opportunities** for businesses, reduce input costs and mitigate climate risks.



The Australian large-scale solar market has increased almost eightfold in the past two years.<sup>28</sup>



This clean energy generation allows businesses to reduce their carbon risk exposure.

133%

employment increase in Australia's renewable energy industry over the past four years,<sup>29</sup> with a continuing growth trajectory.

*A resilient energy system in a regenerative economy will amplify...*



### Rethinking transportation

The electrification and automation of road transport will reshape infrastructure planning and utilisation.<sup>7</sup>



### The international appetite

Australia's competitive advantage in low carbon energy will open up domestic and global opportunities across the value chain.<sup>30</sup>



### Distributed participation

Distributed participation unlocks consumer groups for businesses able to capitalise on changing energy and capital flows.<sup>31</sup>

# A resilient energy system

## *A resilient energy system in practice...*



### **Amazon has committed to 100% renewable energy by 2030 and carbon neutrality by 2040**

Amazon Australia recently signed a renewable PPA (power purchase agreement) to buy electricity from a 105MW solar PV development as a means to mitigate energy price and climate risks through smarter procurement. The emissions-free PPA approach is something many medium and large businesses are already doing, and the opportunity will continue to grow.



### **Australia's only solar panel manufacturer is expanding**

Tindo Solar is expanding its Adelaide factory as global supply chains are disrupted and solar PV demand increases. The value proposition of local and reliable clean energy continues to grow in manufacturing, as well as other sectors, across Australia.

## **The opportunities**

You've already focused on how your organisation can reduce carbon emissions - to support a more positive climate future, and manage your costs.

*Now its time to be more ambitious.*

Electricity markets are decarbonising, transportation and the built environment are electrifying and heavy industry is pursuing alternative carbon neutral solutions such as green hydrogen and carbon capture and storage. Distributed energy resources, customer participation and changing consumption patterns present an opportunity for new grid management systems, service provider innovation and smart data utilisation.

## ***Where to begin: critical questions***

- ▶ What renewable energy procurement options are you incorporating into your energy supply, and could this be improved?
- ▶ What carbon removal solutions could you adopt, not only to accelerate achievement of your organisation's current climate commitments, but expand them?
- ▶ How much of your waste emissions could you turn into value, either independently or with partners?

# Supply chain disruption and localisation

## Overall impact



Gravity



Hyper localisation and **repurposing of supply chains**, with an increased focus on sustainability in the form of waste reduction, human rights transparency and resource use, will assist in a regenerative transition by **disrupting prominent linear value chains**.



Today's supply chains are more webs than chains, and therefore are becoming increasingly vulnerable to disruption.<sup>32</sup>

**50%**

of businesses experience a supply chain disruption event in any 12-month period

Agile businesses with an adaptable and transparent supply chain are well placed to not only survive future, unexpected disruptions but thrive through uncertainty.



of Australian consumers indicated they will be willing to pay a premium for local products after COVID-19.<sup>4</sup>

*Supply chain disruption in a regenerative economy will amplify...*



### A resurgence of local supply

Greater demand for local suppliers at all stages of the product value chain is being induced by macro and microeconomic factors.<sup>23</sup>



### Supply chain transparency

Increasing requirements for responsible supply chains will create opportunities for more transparent and responsible disclosures to demonstrate leadership.<sup>10</sup>



### Circular supply chains

Conventional supply chain operations will transition towards a regenerative and circular system through closed-loop business models.<sup>10</sup>

# Supply chain disruption and localisation

## Supply chain disruption and localisation in practice...



### Ikea has recently launched a furniture buy-back scheme in a bid to circularise its value chain

Ikea has committed to a furniture buy-back scheme in addition to commitments of 100% sustainable cotton and wool and only recycled or reused plastic to be used in its products by 2030. These programs and commitments highlight the growing trend in business of embedding regenerative solutions into business as usual, while also de-risking the organisation's supply chain.



### Woolworths Group has committed to improve recyclability of Own Brand packaging and contribute to a circular economy

Woolworths has committed to move towards zero food waste to landfill, achieve net-zero, no supply chain deforestation, and sourcing raw materials sustainably. Woolworths also has an evolving Responsible Sourcing Policy that applies criteria of business integrity, labour rights, fair and safe working conditions and environmental compliance on its partners to ensure supply chain transparency and sustainability.

## The opportunities

You've already sought to optimise and secure your logistics and value chains - to minimise operational risk.

*Now its time to be more ambitious.*

Mitigating human rights breaches and resource scarcity in the supply chain now is a proactive strategy to create a longer-term competitive advantage and business resilience as supply chains are disrupted. Growing consumer demand for local products, alongside increased global trade tensions, will open up higher value markets for new and innovative product and service offerings.

## Where to begin: critical questions

- ▶ What degree of transparency do you have throughout your business' value chain, and what steps are you taking to continue increasing transparency?
- ▶ How can you minimise resource use and waste in your supply chain through design, behaviour and process?
- ▶ Which of your markets and product ranges have a growing demand for local produce, and do you have a strategy to meet this demand?

# Appendices



# Appendix 1: Trend identification methodology

## Trend Identification Method

To identify potential global and Australian specific trends across industries and sectors, EY’s cross-sector trend themes were leveraged and EY’s 2018 and 2020 Megatrend Reports. These themes formed the initial consideration for post COVID-19 economic trends, which had the potential to be included in this thought leadership piece. A long list of trends were rated based on their alignment to the EY trends, as below. In addition, EY discussed these trends with industry leaders within the organisation in the context of COVID-19 recovery, as well as subject matter experts including Jason Twill (Director, Urban Apostles) and Damon Gameau (Creator, 2040 documentary) to capture their leading insights.

Legend		
Low alignment	Moderate alignment	High alignment

	EY sector trends					
	Customers	Supply chain	Digitisation	Talent and workforce	Governments	Sustainability
A new consumer agenda	High	Moderate	High	Moderate	Moderate	High
A new leadership paradigm	Moderate	Moderate	High	High	High	High
Closing the loop	High	High	Moderate	Moderate	High	High
Disruptive digitalisation	High	High	High	High	High	High
Expanding the social contract	High	High	Moderate	Moderate	High	High
The future of work	Moderate	Moderate	High	High	High	Moderate
Transforming higher education	Moderate	Moderate	High	High	High	Moderate
A new philanthropic response	High	Moderate	Moderate	Moderate	High	High
A post-pandemic generation	Moderate	High	Moderate	High	High	High
Prioritising “green” investment	Moderate	High	Moderate	High	High	High
Sustainable mobility	Moderate	High	Moderate	High	High	High
A resilient energy system	Moderate	Moderate	High	Moderate	Moderate	High
Community resilience	High	Moderate	Moderate	Moderate	High	Moderate
Hyper transparency in business	High	Moderate	Moderate	High	Low	Moderate
Long-term value creation	Moderate	Moderate	Low	Moderate	Moderate	High
Food innovation	Low	Low	Moderate	Low	Low	Low
Localised travel	Moderate	Low	Low	Low	Low	Moderate
Synthetic biology	Low	Low	Moderate	Low	Low	Low

# Appendix 1: Trend identification methodology

## *Extended list of trends considered*

The extended list of trends considered (not included in thought leadership) are defined as follows.

Trends	Definition
<b>Transforming higher education</b>	Increasing online tertiary education offerings and the changing skills needs of the workforce may see an upheaval of traditional higher education institutions and methods
<b>A new philanthropic response</b>	The heightened impact of COVID-19 on societies' vulnerable and growing inequality within nations, between countries and across generations may drive a more empathetic, philanthropic global response
<b>A post-pandemic generation</b>	The shared experiences created through COVID-19 and increasing intergenerational equity issues may form a more or less connected demographic coming out of this pandemic
<b>The future of work</b>	Increased remote working and changed attitudes towards work will have profound implications for collaboration, productivity, diversity, property values, energy and broader economic activities
<b>Sustainable mobility</b>	The tension between transportation systems underpinning social and economic structures and their traditionally adverse environmental effects, creates an opportunity for significant change in the future
<b>Community resilience</b>	The need for shared sacrifice in responding to COVID-19 and shared benefit in its recovery may build community resilience at different levels moving forward
<b>Hyper transparency in business</b>	Breakdowns in trust and increasing expectations of investors and consumers may compel business into more highly transparent organisations with greater connection to stakeholders
<b>Long-term value creation</b>	More active and conscious investors and consumers may force businesses to optimise their financial, social and environmental value over the long term
<b>Food innovation</b>	A growing population may compound food scarcity issues, providing the opportunity for innovative agriculture, genetic engineering and altered production processes
<b>Localised travel</b>	The spread of COVID-19 has dampened international travel and created a heightened emphasis on local tourism which may continue into the future depending on the recovery and vaccine development
<b>Synthetic biology</b>	The re-engineering of organisms poses opportunities to revolutionise the fields of health, manufacturing and agriculture with profound implications for all classes of society globally

# Appendix 2: Trend categorisation

The COVID-19 crisis has demonstrated the fragility of our globalised economy, which has resulted in the growth and decay of existing megatrends, as well as the emergence of new global trends. The rebuilding of economies in a post COVID-19 world will largely be influenced by these trends.

EY has undertaken a high level analysis to identify 18 potential megatrends which will be globally relevant, but also significant in Australia post COVID-19, and based on the following criteria, allocated a “regenerative trend” score.

### Opportunity impact

- ▶ Economic disruption: What degree of disruption (positive and negative) is caused by the trend?
- ▶ Scale: What reach and degree of impact does the trend have across the Australian and global economies?

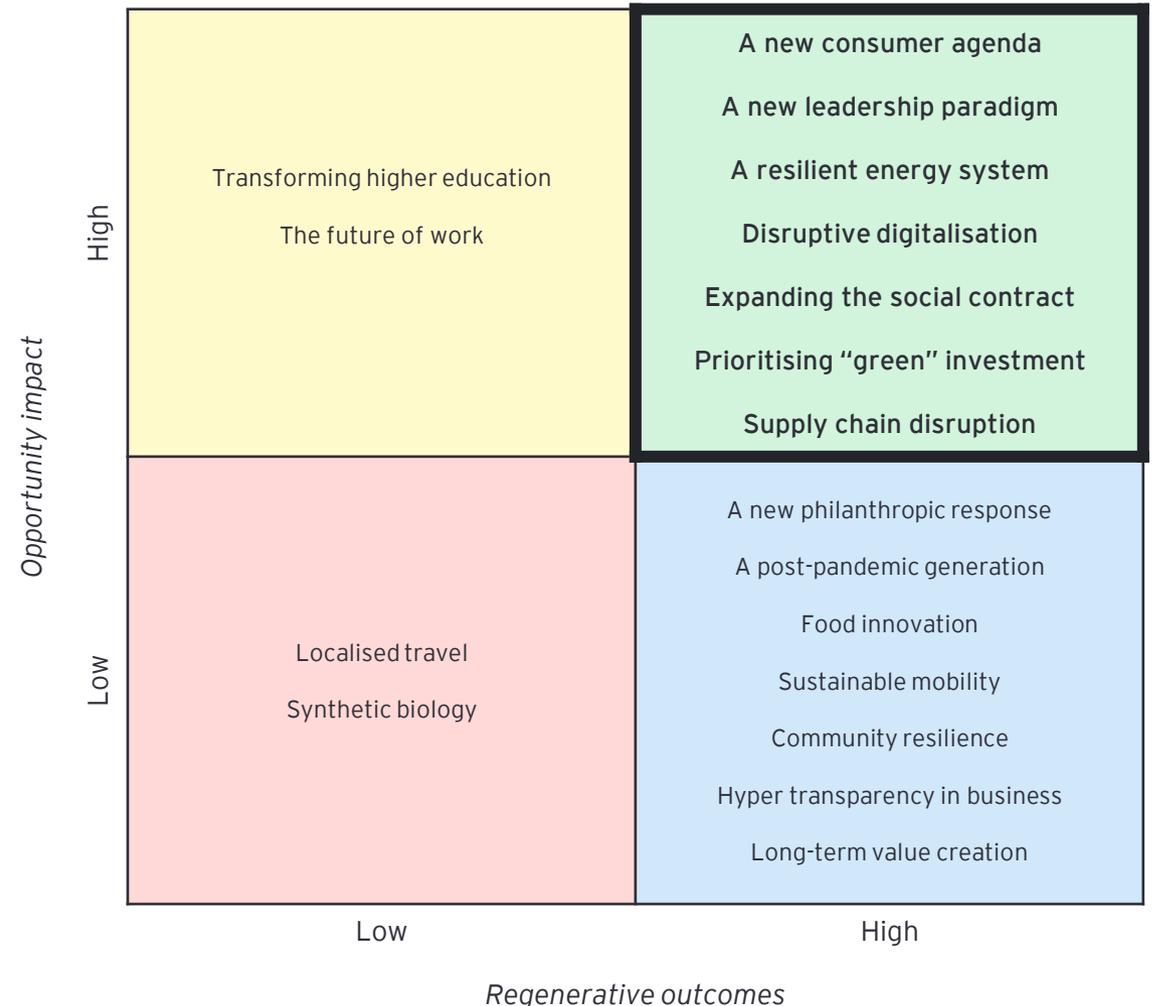
### Regenerative economy outcomes

- ▶ Regenerative impact: What degree of alignment does the trend have to the principles of a regenerative economy (specifically, the eight Capital Institute principles)?

Based on the regenerative trend scores allocated, seven trends were identified as having a high opportunity impact and high regenerative outcomes. EY analysed the opportunities and impacts associated with these seven trends in further detail, which informed ideas associated with innovation, growth and disruption in a post COVID-19 world order.

*A regenerative economy is built on patterns and principles which views the economy as a sustainable system for creating conditions conducive to life for current and future generations.*

### Categorising the megatrend opportunities and outcomes



# Appendix 3: Trend scoring

## Impact score

In determining the impact score, each trend was assessed against the eight Capital Institute Regenerative Economy Principles to determine a regenerative score and against each of the Sustainability Advantage Impact Challenge sustainability problems.

A score of 1 represents a trends ability to **directly** impact in the regenerative economy and/or directly impact action on a sustainability problem

A score of 0.5 represents a trends ability to **indirectly** impact in the regenerative economy and/or directly impact action on a sustainability problem

A score of 0 represents a trends **inability** to impact in the regenerative economy and/or directly impact action on a sustainability problem

These were combined to form an overall impact score (out of four). The overall impact score weighted the trends ability to impact in the regenerative economy and ability to impact the three key sustainability problems equally (i.e. the regenerative score equates to 50% and each sustainability problem equates to 16.7%, 50% in total for the three problems).

	Regenerative economy - Capital Institute Principles (50%)								Sustainability solutions (50%)			Overall impact score*	
	In right relationship	Views wealth holistically	Innovative, adaptive, responsive	Empowered participation	Honours place and community	Edge effect abundance	Robust circulation	Seeks balance	Regenerative score	Nature-based solutions	Net-zero emissions		Circular economy
A new leadership paradigm	1	1	1	1	1	1	1	1	1.0	1	1	1	4
Expanding the social contract	1	1	1	1	1	1	1	1	1.0	1	1	1	4
Prioritising sustainable finance	1	1	0.5	0	0	0	1	0.5	0.5	1	1	1	3
A new consumer agenda	0.5	0.5	0.5	1	0.5	0	1	1	0.6	0	1	1	3
Disruptive digitalisation	0.5	0	1	0.5	0	0.5	0.5	0.5	0.4	0.5	0.5	0.5	2
A resilient energy system	0.5	0.5	0	0.5	0	0	0.5	0.5	0.3	0.5	0.5	1	2
Supply chain disruption and localisation	0	0.5	1	0	1	0	1	0.5	0.5	0	1	0.5	2
Supply chain disruption and localisation	0	0.5	1	0	1	0	1	0.5	0.5	0	1	0.5	2

\*Note: Calculated scores have been rounded.

# Appendix 3: Trend scoring

## Gravity score

Each regenerative trend was awarded a gravity score, which was calculated by combining the trend's likelihood and probability. The gravity score demonstrates the trend's overall importance in the broader economy. Within the report, gravity has been represented visually on a dial (as below).

	Likelihood	Magnitude	Gravity score	
A new leadership paradigm	2	5	3.5	
Expanding the social contract	1	5	3	
Prioritising sustainable finance	5	4	4.5	
A new consumer agenda	4	3	3.5	
Disruptive digitalisation	5	4	4.5	
Supply chain disruption and localisation	3	3	3	
A resilient energy system	4	3	3.5	

### Scoring criteria

**Likelihood:** defined as the probability of the trend occurring

*The likelihood of each regenerative trend maturing in full was ranked out of 5*

**Magnitude:** defined as the extent of impact the trend will have across the economy

*The magnitude of impact of each regenerative trend should it mature in full was ranked out of 5*

**Gravity:** calculated as likelihood x magnitude

*Likelihood and magnitude were combined with an equal weighting of 50% to yield a gravity score*

# Appendix 4: UN Sustainable Development Goal mapping

The UN Sustainability Development Goals (SDGs) are a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. While a regenerative economy moves beyond sustainable development, towards positive impact compared to net harm, the SDGs are an important stepping stone to achieving a truly regenerative economy.

The Sustainability Advantage Impact Challenge seeks to uncover and support businesses which are driving a regenerative economic recovery, including the labour market and making real progress on the United Nations Sustainable Development Goals. As such, EY has mapped each of the seven regenerative trends to the SDGs to demonstrate the strong correlation with these trends, and their ability to support the achievement of the SDGs by 2030.

	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS
A new leadership paradigm	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation
Expanding the social contract	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation
Prioritising sustainable finance	Correlation	No Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation
A new consumer agenda	Correlation	Correlation	Correlation	No Correlation	No Correlation	Correlation	Correlation	Correlation	No Correlation	No Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation
Disruptive digitalisation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation
A resilient energy system	Correlation	No Correlation	No Correlation	Correlation	No Correlation	No Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation
Supply chain disruption and localisation	No Correlation	Correlation	No Correlation	No Correlation	No Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	Correlation	No Correlation	Correlation	Correlation	No Correlation

# Appendix 5: Regenerative economy models

## Capital Institute

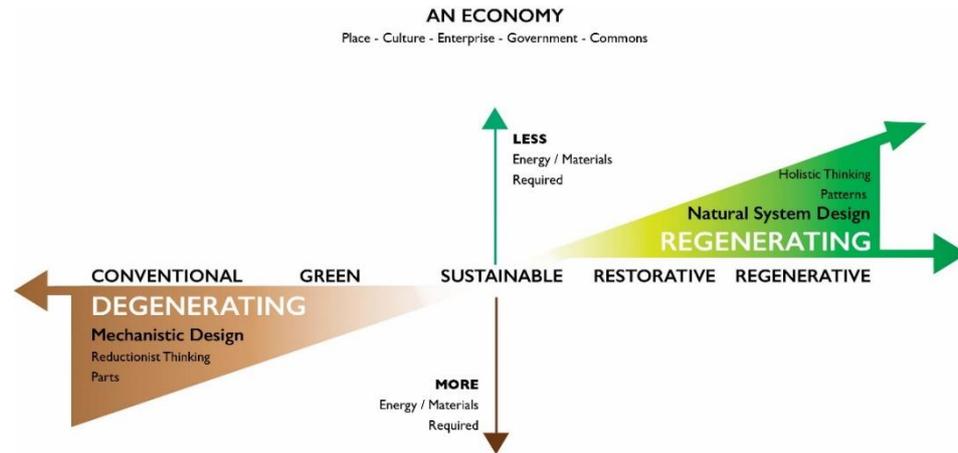
As agreed with WWF and the Department, EY utilised the Capital Institute's leading eight principles of a regenerative economy to ensure the regenerative economy was appropriately represented and integrated into each trend. Further detail to explain the tangibility of each of the principles to business is included below.

Principle	Capital Institute definition	The principle in business
<b>In right relationship</b>	Humanity is an integral part of an interconnected web of life in which there is no real separation between "us" and "it." The scale of the human economy matters in relation to the biosphere in which it is embedded. What is more, we are all connected to one another and to all locales of our global civilization. Damage to any part of that web ripples back to harm every other part as well.	The primary function of business alters when it is viewed through the prism of its relationship with the planet, transforming business into a force for good that prioritises environmental, social and economic imperatives equally.
<b>Views wealth holistically</b>	True wealth is not merely money in the bank. It must be defined and managed in terms of the well-being of the whole, achieved through the harmonisation of multiple kinds of wealth or capital, including social, cultural, living, and experiential. It must also be defined by a broadly shared prosperity across all of these varied forms of capital. The whole is only as strong as the weakest link.	A regenerative business appreciates human, cultural and natural capital in balance with financial capital.
<b>Innovative, adaptive, responsive</b>	In a world in which change is both ever-present and accelerating, the qualities of innovation and adaptability are critical to health. It is this idea that Charles Darwin intended to convey in this often-misconstrued statement attributed to him: "In the struggle for survival, the fittest win out at the expense of their rivals." What Darwin actually meant is that: the most "fit" is the one that fits best i.e., the one that is most adaptable to a changing environment.	Creative and innovative thinking by business allows more optimal problem solving to challenges in a way that benefits local ecosystems and communities as well as bottom line.
<b>Empowered participation</b>	In an interdependent system, fitness comes from contributing in some way to the health of the whole. The quality of empowered participation means that all parts must be "in relationship" with the larger whole in ways that not only empower them to negotiate for their own needs but also enable them to add their unique contribution towards the health and well-being of the larger wholes in which they are embedded.	Businesses that give influence to their employees and customers through decentralised leadership and participation ensure greater shared value creation for all.
<b>Honours place and community</b>	Each human community consists of a mosaic of peoples, traditions, beliefs, and institutions uniquely shaped by long-term pressures of geography, human history, culture, local environment, and changing human needs. Honoring this fact, a Regenerative Economy nurtures healthy and resilient communities and regions, each one uniquely informed by the essence of its individual history and place.	Businesses which incorporate local knowledge and customs to create bespoke solutions can gain competitive advantage over larger generic service offerings.
<b>Edge effect abundance</b>	Creativity and abundance flourish synergistically at the "edges" of systems, where the bonds holding the dominant pattern in place are weakest. For example, there is an abundance of interdependent life in salt marshes where a river meets the ocean. At those edges the opportunities for innovation and cross-fertilization are the greatest. Working collaboratively across edges - with ongoing learning and development sourced from the diversity that exists there - is transformative for both the communities where the exchanges are happening, and for the individuals involved.	Diverse and inclusive perspectives in business facilitate greater innovation, employee satisfaction and profits. This occurs through greater creativity, representative decision-making and respect.
<b>Robust circulation</b>	Just as human health depends on the robust circulation of oxygen, nutrients, etc., so too does economic health depend on robust circulatory flows of money, information, resources, and goods and services to support exchange, flush toxins, and nourish every cell at every level of our human networks. The circulation of money and information and the efficient use and reuse of materials are particularly critical to individuals, businesses, and economies reaching their regenerative potential.	Reducing waste streams through design, consumption patterns and recycling to delinearise product and service flows, reconceptualises the product lifecycle and repositions businesses.
<b>Seeks balance</b>	Being in balance is more than just a nice way to be; it is actually essential to systemic health. Like a unicycle rider, regenerative systems are always engaged in this delicate dance in search of balance. Achieving it requires that they harmonize multiple variables instead of optimizing single ones. A Regenerative Economy seeks to balance: efficiency and resilience; collaboration and competition; diversity and coherence; and small, medium, and large organisations and needs.	A balance between people, profit and planet by business allows enterprises to act as a supportive force for economic, social and ecological system equilibrium.

# Appendix 5: Regenerative economy models

## *Tipping point and doughnut economy*

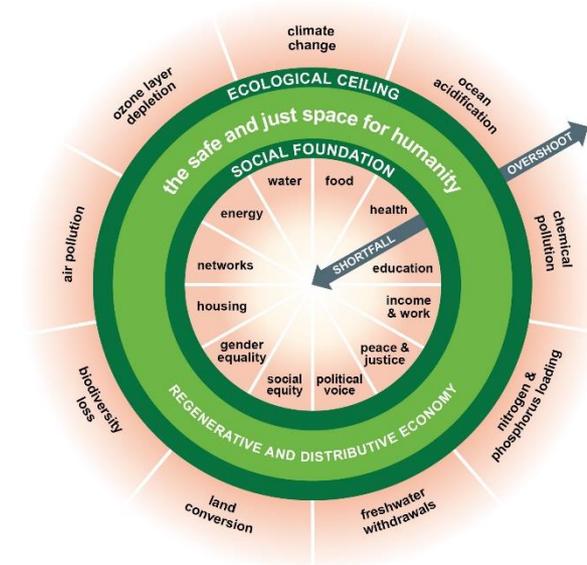
In addition to the Capital Institute's eight principles, EY considered and integrated key themes and considerations from additional models and concepts of regenerative economics.



### Tipping point economics

Tipping point economic theory dictates that past a sustainable equilibrium point in a restorative direction, the economy will start to automatically regenerate through natural system design. It also dictates the converse whereby, past the equilibrium position in the degenerative direction, mechanistic design and reductionist thinking will degrade capital and social assets.

Current corporate approaches to sustainability would predominantly be categorised as “green” and therefore require significant additional investment to position corporate action as supporting the reversing of climate change.



### Doughnut economics

Doughnut economics and more specifically the doughnut diagram was developed by Oxford economist Kate Raworth. The Doughnut is a sustainable economic model that positions the human economy between minimum social foundations and upper planetary boundaries. Overshoot beyond the ecological ceiling of the outer circle induces unsustainable environmental degradation while a shortfall beneath the social foundation of the inner circle leads to inadequate living conditions for society.

This theory is useful as a practical framework for considering the regenerative economy which operates between the inner social and outer environmental boundaries.

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