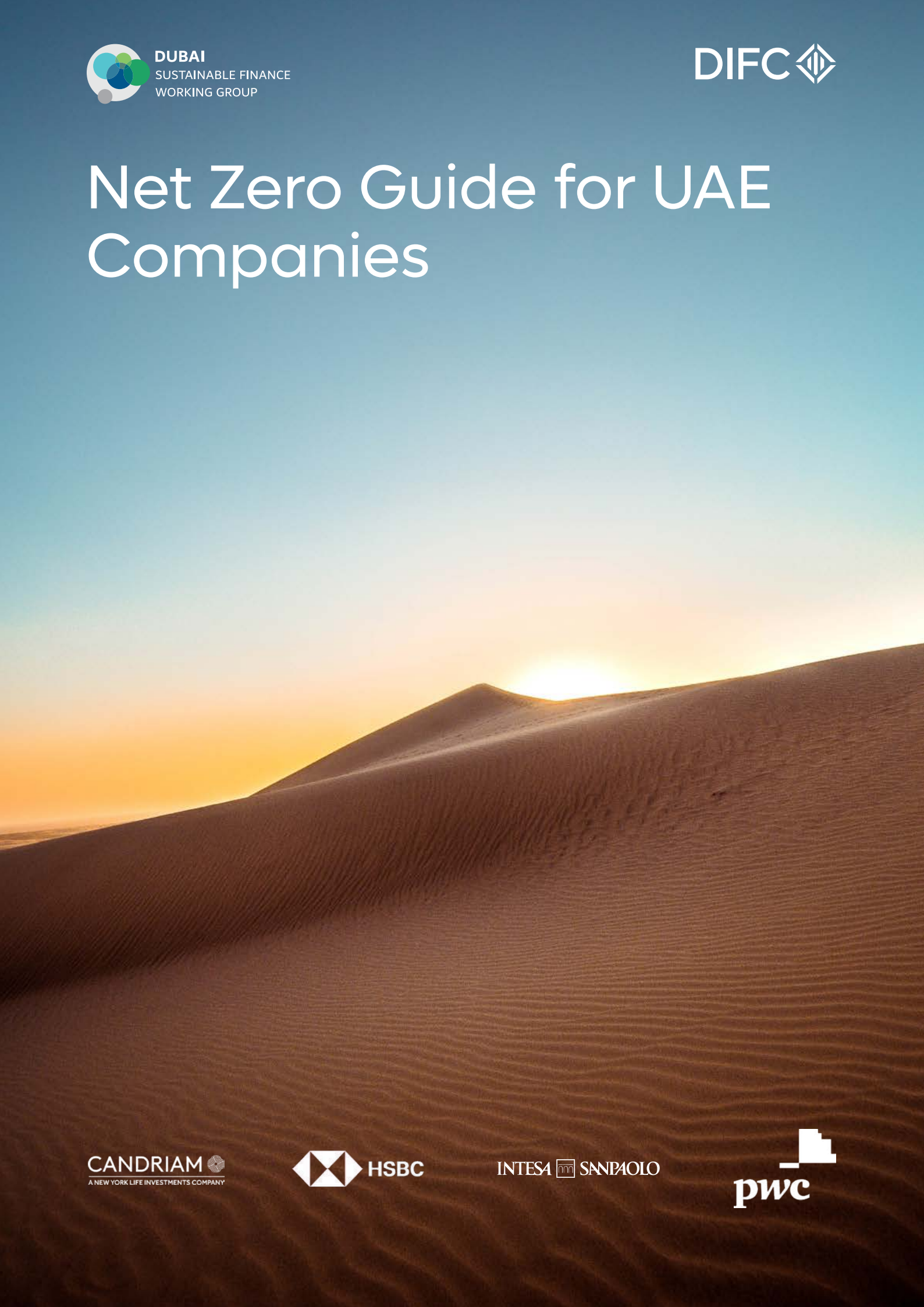
DUBAI
SUSTAINABLE FINANCE
WORKING GROUP

DIFC

Net Zero Guide for UAE Companies



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A NEW YORK LIFE INVESTMENTS COMPANY

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Contents

Introduction

Climate change and its associated physical and financial impacts are now widely recognised as a real and present danger to lives and livelihoods globally. In 2015, with the signing of the Paris Climate Agreement, countries and governments, for the first time made commitments to transition to a lower carbon economy and limit the global average temperature rise to 2°C above pre-industrial levels (and preferably no more than 1.5°C).

The Intergovernmental Panel on Climate Change's 2022 report, Climate Change 2022: Impacts, Adaptation and Vulnerability, re-emphasised the need to limit warming to 1.5°C to 'substantially reduce projected losses and damages related to climate change in human systems and ecosystems'. This latest report underlines the importance that Net Zero plays in bringing about the reduction in greenhouse gases (GHG) necessary to limit warming to 1.5°C and avoid the worst impacts of climate change.

In 2021, at COP 26, the United Arab Emirates (UAE) became the first Middle Eastern nation to commit to achieving Net Zero by 2050. Achieving this ambitious target necessitates a structural transformation of a major oil-producing economy and can only be achieved through concerted action from government and businesses alike.

As the commercial hub of the UAE, the Emirate of Dubai has a key role to in transitioning the economy of the UAE to a Net Zero footing. All businesses (across the corporate and financial sectors) have a collective responsibility to move the economy towards Net Zero. While this will undoubtedly be a challenge requiring changes to strategies and, in some cases, business models, it also provides opportunities in terms of greater access to capital, access to new markets and possibilities and sustainable, long term, growth.

Starting on the journey to Net Zero can seem daunting proposition for any business and this guide aims to act as a roadmap. It provides useful information and tools that can be used by companies, financial institutions and critical sector stakeholders in the Emirate of Dubai (as well as the wider UAE) to both formulate and realise their Net Zero ambitions. It also contains sector-specific guidance focused on the major industries in Dubai and the UAE that can be used as a high-level toolkit on the methods and resources available to develop sectoral decarbonisation strategies.

Successful transition to Net Zero will require collaboration between a wide range of stakeholders, and a mutually beneficial relationship between businesses and the financial institutions, funds and investors that provide the necessary financial support. There will be many challenges along the way, but there will also be exciting opportunities.

Dubai Sustainable Finance Working Group

Launched in July 2019, the Dubai Sustainable Finance Working Group (DSFWG) was established to facilitate the Emirate's transition to the most sustainable financial hub in the Middle East, Africa and South Asia (MEASA) region. The Working Group focuses its efforts on four strategic pillars: Responsible Business Operations, Responsible Investing, Growing Sustainable Finance, and Gender Diversity and Inclusion.

Today, the Working Group is comprised of more than 30 active member institutions from across the public and private sectors with seven sub-working groups. The DSFWG has established itself as a key translator and change agent between high-level groups, in the United Arab Emirates (UAE) and globally, that focus on policy and national goals, and private and public sector entities committed to catalysing and actioning change for a sustainable future.

Executive Summary

This Net Zero guide (the "Guide") aims to provide local businesses with an introduction to Net Zero and what this means in a contextual sense to their business in a low carbon future. It is divided into five segments, each of which provide knowledge, practical advice and frameworks to begin the journey toward Net Zero and a long term, sustainable future.

After a brief introduction, the first segment of the Guide provides a contextual definition of what is meant by the term "Net Zero" from a business perspective. It also provides an outline of the global journey towards Net Zero – both from a global and local perspective.

The Guide then presents the business rationale for adopting Net Zero strategies, summarising the threats and opportunities driving businesses towards Net Zero as well as outlining the key risks businesses face from climate change in the future and how a Net Zero strategy can act as an effective risk mitigation tool.

The third segment introduces businesses to a framework and key principles on developing an effective Net Zero transition plan, which would involve defining a vision and baseline for the company, setting goals and targets, and implementing action plans to ensure that the strategy takes root throughout the organisation, with continuous feedback and improvements over time. A summary of the framework is below:

Step 1 – Set your vision: Before starting the development of a transition plan, it is critical to develop a shared vision with senior leadership and your stakeholders.

Step 2 – Define your baseline: This involves not just understanding what current emissions are, but also the sources and drivers behind them.

Step 3 – Study decarbonization pathways and set targets: study the various pathways to achieving Net Zero and the levers that will help you get there. Capital and operational expenditure, as well as potential opportunity cost, should be used to assess levers, as well as other factors that determine the ease of implementation and highlight trade-offs.

Step 4 – Define initiatives and set out an implementation roadmap: based on the strategic levers identified, a roadmap will outline a detailed plan of programmes and supporting initiatives to deliver on the agreed targets, underpinned by a high level business case of the costs and benefits.

Step 5 – Embed across your organization and enhance continuously: implementation should be monitored by senior leadership on a regular basis. In addition, robust external reporting, in line with disclosure regulations and stakeholder expectations, will set out progress and can reflect positively on the organisation's reputation in the market.

Next, the Guide illustrates the diverse sources of sustainable funding available to businesses in order to fund their transitions to Net Zero and demonstrates how banks and other financial institutions can play a key role in the pivot to a Net Zero future. This segment also touches upon the opportunities and challenges that face banks in the sustainable finance space.

The Guide concludes by outlining the standards and methodologies available to businesses as they seek to make climate related disclosures, as well as the key steps to be taken to ensure effective reporting.

Appended to the Guide are detailed, sector analyses on the Net Zero transition for the biggest business sectors in the UAE, along with a case study on a successful transition sukuk financing.

What is Net Zero, and why does it matter?

The February 2022 IPCC report makes it clear that achieving the objectives of the Paris Agreement to limit average global temperature rises to ideally no more than 1.5°C will not be possible without a global shift towards Net Zero. One of the consequences of this is that a hive of activities geared towards addressing GHG emissions have been being labelled as 'Net Zero', which itself lacks a consistent definition.

So, what is Net Zero? There are several definitions:

- "a target of completely negating the amount of greenhouse gases produced by human activity, to be achieved by reducing emissions and implementing methods of absorbing carbon dioxide from the atmosphere" (OED)
- "a state in which the greenhouse gases going into the atmosphere are balanced by removal out of the atmosphere" (Oxford Net Zero)
- "cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance" (United Nations) While these definitions are helpful, they lack context for any individual company on its own Net Zero path. Indeed, Net Zero will imply different actions and objectives for nations, regions, cities, and businesses.

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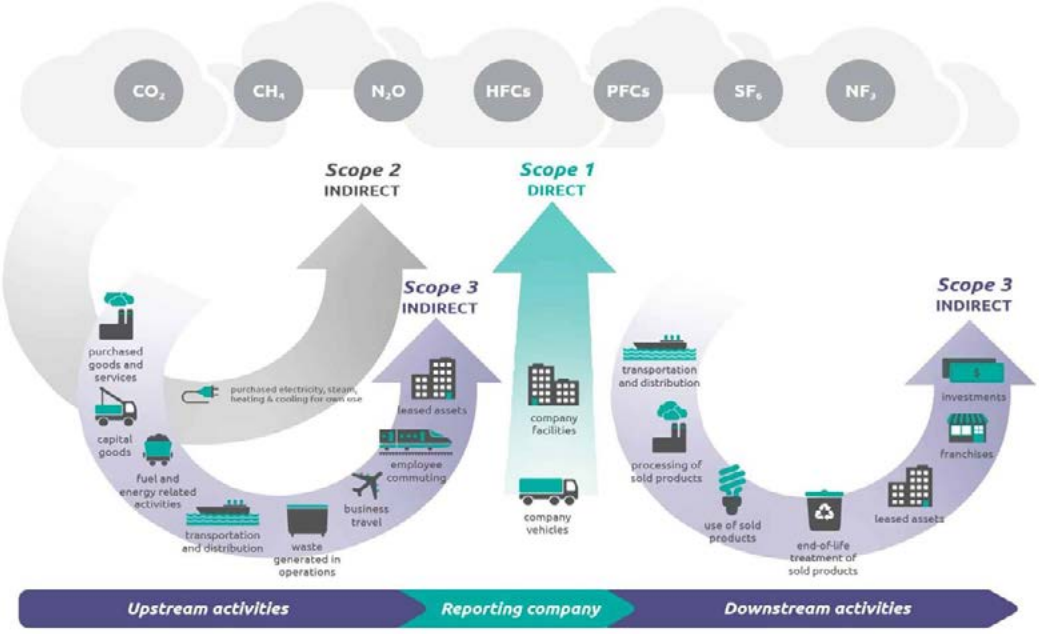
Emission scopes according to the GHG Protocol

The Greenhouse Gas Protocol, the global standard for corporate emissions inventories, distinguishes between three categories ("scopes") of emissions

- **Scope 1:** Emissions from sources directly controlled or owned by your organisation, such as company cars.
- **Scope 2:** Emissions related to purchased electricity, steam, heat, or cooling.
- **Scope 3**: : Emissions from assets not owned or controlled by the organisation, but that are indirectly impacted by the organisation across its value chain. For example, emissions related to purchased goods and services. Note that scope 3 emissions of one organisation are the scope 1 and 2 emissions of other organisations.



Source: PCAF (2020). The Global GHG Accounting and Reporting Standard for the Financial Industry. The Global GHG Accounting and Reporting Standard for the Financial Industry (carbonaccountingfinancials.com).

What is Net Zero, and why does it matter?

Net-zero: A contextual definition

In 2019, the Carbon Trust published a paper calling for contextualised definitions of Net Zero. In September 2020, the Science Based Targets initiative (SBTi) defined Net Zero for companies as follows (emphasis added):

- To achieve a scale of **value-chain emission reductions** consistent with the depth of abatement achieved in pathways that **limit warming** to 1.5°C with no or limited overshoot, and
- To **neutralise** the impact of any source of residual emissions that remains unfeasible to be eliminated by permanently removing an equivalent amount of atmospheric carbon dioxide.

Net-zero: Our definition

Using the SBTi definition as a base, our definition of Net Zero for business is:

- A reduction of organisation-wide value-chain GHG emissions in line with a pathway that limits warming at or close to 1.5°C, and
- **Neutralising** the impact of residual emissions that are unfeasible to eliminate through investments in projects that are proven to remove an equivalent amount of GHG emissions from the atmosphere.

How does Net Zero compare to other approaches?

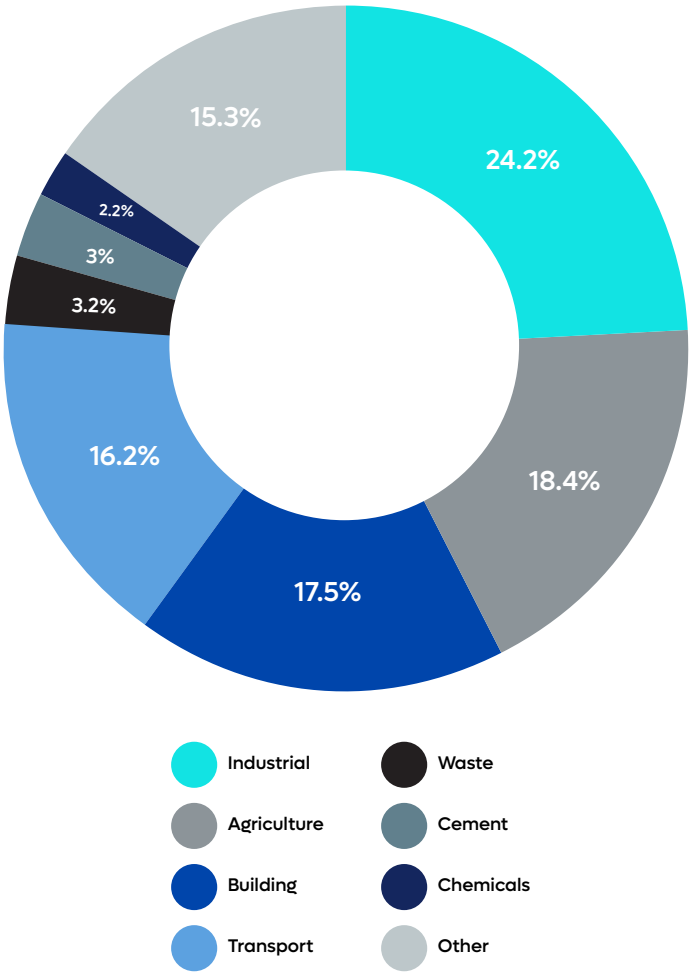
Approach	Carbon Neutrality	Net Zero	Net Negative
Definition	Balancing organisation-wide GHG emissions with an equivalent amount of offsets that avoid or remove GHG emissions	Reducing organisation-wide value-chain GHG emissions in line with a pathway that limits warming at or close to 1.5°C and neutralising residual emissions through investments in projects that are proven to remove an equivalent amount of GHG emissions	Reducing organisation- wide GHG emissions beyond achieving Net Zero so that the organisation has a net effect of removing GHG emissions from the atmosphere.

What is Net Zero, and why does it matter?

A story of sectors

While all sectors are exposed to a Net Zero transition, some are more exposed than others, notably those that directly emit significant quantities of greenhouse gases. Five heavy industries - cement, steel, chemicals, heavy-duty transport and aviation - together represent 80% of all industrial emissions.

Share of global emissions by sector (%), 2020



Source : IPCC Report 2021

The world's – and UAE's – journey towards Net Zero

Progress towards international agreement on tackling GHG emissions has been long and steady, with momentum gathering since the turn of the century.

Government

2021

Glasgow Climate Pact (GCP, COP 26)

1. Ratified by almost 200 countries, the GCP reinforced commitments to building climate resilience and emissions reductions, as well as financing climate action in developing countries.
2. Resulted in the Paris Rulebook which formalised practical approaches to the implementation of the PA, and parameters on setting out individual NDCs, frameworks for transparency in reporting on actions undertaken, timelines for reductions in emissions, and standards for international carbon offsets.
3. Most importantly there was a collective agreement in escalating efforts so that the rise in global temperatures may be limited to 1.5° Celsius by mid-century, and energy generation efforts be shifted to renewable sources from fossil fuels.

https://unfccc.int/process-and-meetings/the-paris-agreement/the-glasgow-climate-pact-key-outcomes-from-cop26

2015

Paris Agreement (PA, COP21)

1. The PA was the first legally binding international treaty on climate change, aimed at limiting global warming to 1.5-2° Celsius as compared to pre-industrial levels.
2. It proposed ambitious nationally determined contribution (NDCs) targets that call for a climate neutral planet by 2050.
3. Has had a significant impact on shaping policy as well as opportunities for businesses for sustainable growth.

https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

2010

Cancún Agreement (COP 16)

1. COP16 witnessed the first commitments on limiting global temperature rises to 2° Celsius above pre-industrial levels (1.5° Celsius on best-effort basis).
2. Established the Green Climate Fund, the Clean Development Mechanism (CDM) for carbon capture, and international cooperation on mitigation.

https://unfccc.int/conference/cancun-climate-change-conference-november-2010

2009

Copenhagen Accord (COP15)

1. Attended by 115 world leaders, COP15 was the first global political agreement to limit GHGEs and mitigate climate change via actions that rely on science based information.
2. It was also the first time a reference was made to attempt limiting global temperature rise to 1.5° Celsius.

https://unfccc.int/conference/copenhagen-climate-change-conference-december-2009

1997

Kyoto Protocol (COP 3, ratified in 2005)

1. The first global acceptance by governments that policies were required to limit GHGEs and maintain temperatures below 2° Celsius, and that they would periodically report on their achievements.

https://unfccc.int/kyoto_protocol

1994

United Nations Framework Convention on Climate Change (UNFCCC)

1. Formed to coordinate a global response to stabilise Green House Gas Emissions (GHGEs) "at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system."
2. Created the Conference of the Parties (COP), an annual summit that reviews the implementation of the targets, as well as development of new tools and instruments that facilitate reductions of global GHGEs.

https://unfccc.int/

The world's – and UAE's – journey towards Net Zero

Progress towards international agreement on tackling GHG emissions has been long and steady, with momentum gathering since the turn of the century.

Sectoral

2021

Energy Sector - Institutional Investors Group on Climate Change (IIGCC) - "Net Zero Standard for Oil & Gas"

1. The IIGCC in collaboration with the Transition Pathway Initiative (TPI) and Climate Action 100+ (CA100+) inititiatives have published a comprehensive roadmap to achiveing Net Zero in the Oil & Gas sectors, with Ten actions that energy firms can adopt ranging from setting targets, creating decarbonisation strategies and policies and disclosures on actions via the TCFD framework.

https://www.iigcc.org/resource/net-zero-standard-for-oil-and-gas-companies/

2021

Metals Sector - International Aluminium Institute (IAI) - "Aluminium Sector Greenhouse Gas Pathways to 2050"

1. The IAI has published three achievable approaches to GHGEs reductions for the aluminium industry that focus on electricity decarbonisation, direct emissions, recycling and resource efficiency, and is compatible with the International Energy Agency's Beyond 2 Degree Scenario.

https://international-aluminium.org/resource/aluminium-sector-greenhouse-gas-pathways-to-2050-2021/

2021

Financial & Investment Sector - "Glasgow Finance Alliance for Net Zero (GFANZ)"

1. GFANZ is a global initiative that brings together the financial sector under the umbrella of the UN's Race to Zero campaign that is committed to accelerate and mainstream the decarbonisation of the worldwide financial sector in order to reach net zero by 2050.
2. Each subset within the financial sector has a specific alliance- Net-Zero Banking Alliance (NZBA), Net Zero Asset Managers initiative (NZAM), Net-Zero Asset owner Alliance (NZAOA), Paris-Aligned Investment Initiative (PAII), Net-Zero Insurance Alliance (NZIA), Net Zero Financial Service Providers Alliance (NZFSPA), and the Net Zero Investment Consultants Initiative (NZICI), all aiming to set standards and strategies for the financial industry to reach Net-Zero

https://www.gfanzero.com/

2021

Aviation Sector - International Air Transport Association (IATA) - "Fly Net Zero by 2050"

1. IATA member airlines have committed to achieving Net-Zero in their carbon emissions by 2050 in line with the Paris Agreement.
2. It calls for coordinated efforts by the industry and ancillary business such as "airlines, airports, navigation providers, and manufacturers"

https://www.iata.org/en/programs/environment/flynetzero/

2020

Cross Sectoral - "United Nations Race to Zero Campaign (UNRTZC)"

1. The UNRTZC is a global organisation that combines global initiatives targeting Net Zero into one cohesive coalition.
2. It coalesces commitments by a thousand cities, five thousand businesses, four hundred investors (and others), collectively covering nearly 25% global GHGEs and over 50% of global GDP.

https://unfccc.int/climate-action/race-to-zero-campaign
https://unfccc.int/climate-action/race-to-zero/who-s-in-race-to-zero

2019

Cross Sectoral - Science Based Targets Initiative's (SBTi) - "Business Ambition for 1.5° Celsius Campaign"

1. Cross-Sectoral coalition that has pledged to achieve Net-Zero via the 'STBI's Net-Zero Standard', the worlds first framework for corporates to set and achieve Net Zero.
2. Signatories from the U.A.E. include Aramex Group, DP World, Majid Al Futtaim.
3. Partnered with the UNRTZC.

https://sciencebasedtargets.org/business-ambition-for-1-5c

2019

Cross Sectoral - "The Climate Pledge (TCP)"

1. Founded by the largest global businesses in the world, it's members have pledged to achieve Net Zero by 2040, committing to regular reporting, carbon elimination, and credible offsets.
2. Signatories are cross-sectoral, including JetBlue Airways and Uber (transportation), Mercedes-Benz (Manufacturing), Schneider Electric (Energy Utility), Siemens (Infrastructure), Unilever (Chemicals), JLL (Real Estate), Klarna (Financial Services), Maersk (Marine Transport), amongst others.

https://www.theclimatepledge.com/us/en

2018

Logistics & Shipping Sector - International Maritime Organisation (IMO) "Initial IMO GHG Strategy"

1. The IMO GHG strategy aims to reduce GHGEs in international shipping by at least 40% by 2030 on average, while targeting 70% in reductions by 2050, as compared to 2008, and eventually phase GHGEs out as soon as possible within this century.

https://www.imo.org/en/MediaCentre/HotTopics/Pages/Reducing-greenhouse-gas-emissions-from-ships.aspx

2016

Real Estate Sector - World Green Building Council (WGBC) "Advancing Net Zero programme"

1. The WGBC aims to transform the construction sector globally, and assist with building the capacity and knowledge required to achieve net zero carbon buildings.
2. The U.A.E. Emirates Green Build Council is a regional member of the WGBC, and partner businesses include Majid al Futtaim and DarGroup.

https://www.worldgbc.org/

The world's – and UAE's – journey towards Net Zero

The UAE has been at the forefront of the campaign on climate change and transition to Net Zero within the Middle East. Before announcing its intention to achieve Net Zero by 2050, several programmes were already in place to target its GHG emissions and champion the transition to a greener economy. To underline this commitment, the UAE recently won the bid to host COP 28 in 2023.

At UAE Federal Level

2023

COP 28 in Expo City Dubai, U.A.E.

OBJECTIVE
Achieving sustainability and promoting international action as essential steps towards facing global challenges

ACTION
The UAE invested around USD 17bn in commercial renewable energy projects on six continents and provided over USD 1bn of grants and soft loans for renewable energy power plants, including through the UAE-Pacific Partnership Fund and UAE-Caribbean Renewable Energy Fund

https://www.mofaic.gov.ae/en/mediahub/news/2021/5/23/23-05-2021-uae-minister

2022

UAE Climate-Responsible Companies Pledge

OBJECTIVE
The initiative will intensify efforts to fight against climate change, by measuring and reporting greenhouse gas emissions

ACTION
Increasing the engagement of the private sector in the country's decarbonisation drive, in line with the UAE Net Zero 2050 Strategic Initiative

https://www.moccae.gov.ae/en/media-center/news/29/8/2022/uae-climate-responsible-companies-pledge-to-boost-private-sectors-contribution-to-uae-net-zero-by-2050-strategic-initiative.aspx#page=1

2022

Sustainable Aviation Fuels Initiative (SAFI)

OBJECTIVE
SAFI aims to guarantee the aviation industry's license to grow by enabling, promoting, and developing a vibrant Sustainable Aviation Fuel industry in the UAE

ACTION
Power-to-Liquids Roadmap

https://www.ku.ac.ae/wp-content/uploads/2020/11/Presentation-Alejandro-Rios-G_compressed.pdf

2021

The UAE Net-Zero 2050

OBJECTIVE
The first initiative towards Net-Zero in the Middle East and North Africa. The UAE Net Zero by 2050 strategic initiative aligns with the Paris Agreement

ACTION
So far, the UAE invested over USD 40bn in clean energy projects. The target is to improve production capacity of clean energy, including solar and nuclear, reaching 14 GW by 2030 (vs 100 MW in 2015) and 2.4 GW in 2020, respectively

https://u.ae/en/information-and-services/environment-and-energy/climate-change/theuaesresponsetoclimatechange/uae-net-zero-2050

2021

The UAE Circular Economy Policy

OBJECTIVE
A comprehensive framework to achieving sustainable governance and the ideal use of natural resources

ACTION
The UAE began construction on its four-unit Barakah nuclear reactor plant in 2012. Units 1 and 2 are both fully operational, with Units 3 and 4 expected within the next few years. Each reactor generates 1.4GW and the whole four-unit plant will meet approximately 25% of the UAE's electricity needs

https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/policies/economy/uae-circular-economy-policy

2020

The UAE Environment Policy

OBJECTIVE
Launched in November 2020, with a mission to transition the U.A.E. economy from a linear to a circular economy model. The Policy aims to ensure the conservation and sustainable management of biodiversity, ecosystems, water and natural resources utilization

ACTION
DEWA completed 44% of 250MW Hatta hydroelectric power plant

https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/policies/environment/uae-environment-policy

2017

The UAE Energy Strategy 2050

OBJECTIVE
The strategy aims to increase the contribution of clean energy in the total energy mix from 25% to 50% by 2050 and reduce carbon footprint of power generation by 70%, thus saving AED 700bn by 2050

ACTION
UAE's environmental goals: 44% clean energy, 38% gas, 12% clean coal, 6% nuclear
The UAE government aims to invest AED 600bn by 2050 to meet the growing energy demand and ensure a sustainable growth

https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/strategies-plans-and-visions/environment-and-energy/uae-energy-strategy-2050

2010

Green Building and Sustainable Building standards

OBJECTIVE
The project is expected to save AED 10bn by 2030 and reduce around 30% of carbon emissions

ACTION
Abu dhabi: Estidama Pearl Rating System
Dubai: Smart City strategy
Dubai: Green Building Regulations
Dubai Green Building Regulations and Specifications and Al Sa'fat Rating System
Ras Al Khaimah: Barjeel, the Green Building Regulations

https://u.ae/en/information-and-services/environment-and-energy/climate-change/theuaesresponsetoclimatechange
https://u.ae/en/information-and-services/environment-and-energy/the-green-economy-initiative/efforts-to-achieve-green-economy-/green-building-codes

The world's – and UAE's – journey towards Net Zero

The UAE has been at the forefront of the campaign on climate change and transition to Net Zero within the Middle East. Before announcing its intention to achieve Net Zero by 2050, several programmes were already in place to target its GHG emissions and champion the transition to a greener economy. To underline this commitment, the UAE recently won the bid to host COP 28 in 2023.

At Emirates Level

2018

Ras Al Khaimah Energy Efficiency and Renewables Strategy 2040

OBJECTIVE

Defines the long-term strategy of the emirate in the field of energy efficiency and renewable energy

ACTION

Some of key strategic points: green buildings, energy management, water source efficient, solar programs, waste to energy, efficient vehicles.
The strategy will achieve at least 30% savings in electricity consumption, 20% savings in water consumption, and 20% contribution from renewable energy in the supply mix.
The strategy is expected to bring more than AED 9bn of net benefits to the economy of Ras Al Khaimah.

https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/local-governments-strategies-and-plans/ras-al-khaimah-energy-efficiency-and-renewable-energy-strategy-2040

2016

Dubai Green Mobility

OBJECTIVE

Encouraging the use of hybrid cars and electric vehicles to support low carbon economy

ACTION

EV Green Charger initiative, to establish electric vehicle charging stations across the emirate

https://u.ae/en/information-and-services/transportation/plans-and-initiatives-for-sustainable-transportation

2015

Dubai Clean Energy Strategy

OBJECTIVE

The infrastructure pillar includes initiatives such as Mohammed Bin Rashid Al Maktoum Solar Park, which is the largest generator of solar energy in the world from a single location with a capacity to produce 5,000 MW by 2030 and a total investment of AED 50bn

ACTION

Dubai aims to produce 75% of its energy requirements from clean sources by 2050, making Dubai the city with the least carbon footprint city in the world

Goals: solar energy 25%, nuclear power 7%, clean coal 7% and gas 61% by 2030

https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/local-governments-strategies-and-plans/dubai-clean-energy-strategy

The business case for Net Zero

Compelling reasons for companies in the Middle East to set a Net Zero strategy:

Regulations are pushing companies toward a lower GHG future. Governments around the world are setting Net Zero targets, moving the fight against climate change from an ambition to concrete government policy.

Investor pressure is increasing. Investors are demanding to know how companies are addressing the risks of climate change.

Consumers have concerns about climate change and expect businesses to respond.

Company-wide and industry-wide decarbonisation strategies allow businesses to explore new and emerging opportunities, including efficient energy usage, more sustainable operations, and the potential to attract new customers.

Transitioning to Net Zero should not be seen as purely a burden; it also presents opportunities, including:

Cost reduction.
Energy-efficient improvements in highly emitting and heavy industry sectors such as oil and gas, mining and agriculture will reduce ongoing costs.

Diversification into green sectors, goods, and services.
Global Net Zero transition will be capital intensive; 80% to 90% of the demand for green capital equipment, transport solutions, building works, and infrastructure is likely to emerge outside of the UK and the EU, including in the world's largest economies such as China and the US.

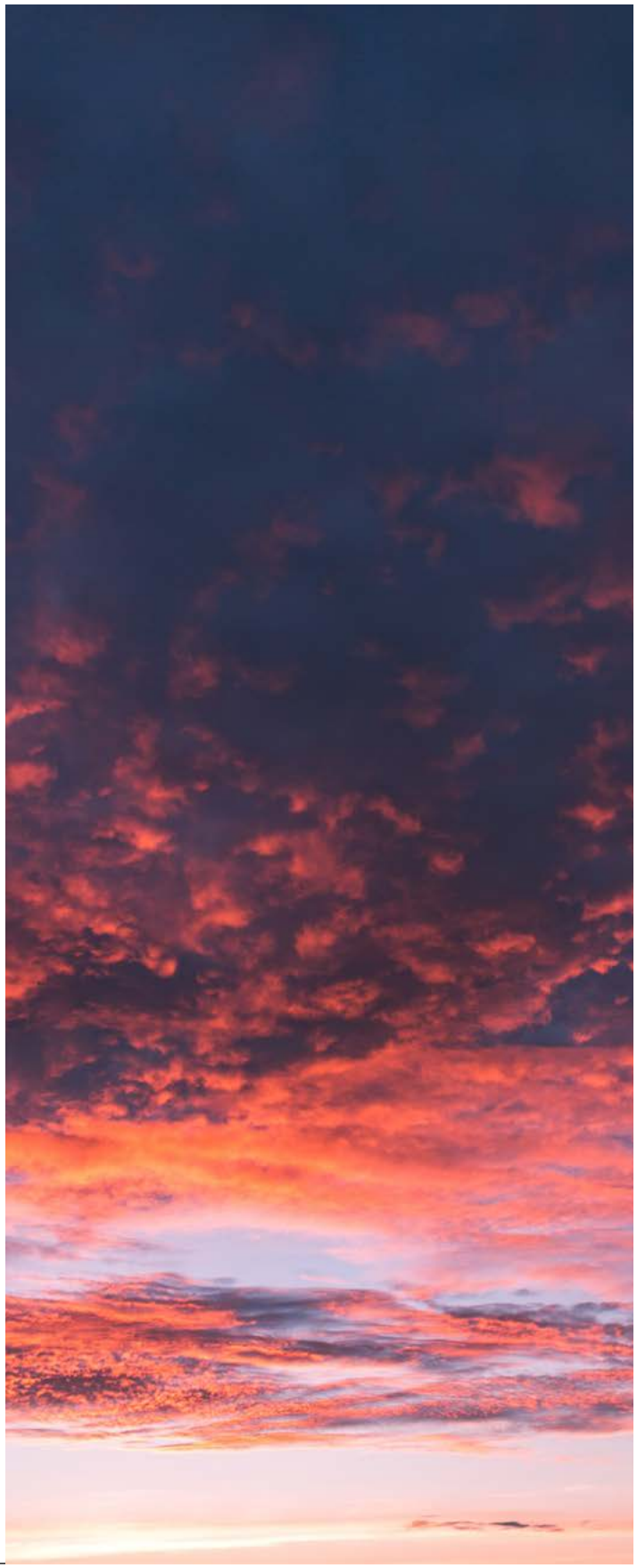
The business case for Net Zero

Transition to Net Zero can also be a useful risk management strategy and be used to mitigate several risks, including operational risk, reputational risk, strategic risk and/or financial risk.

Quite apart from direct risks, there are also risks associated with a business continuing to operate in a commercial environment that is transitioning to a low-carbon future. Such risks include but are not limited to:

- Physical – damage to buildings and infrastructure and increased costs of insurance
- Decreased demand – reduced demand for goods and services that are not environmentally friendly, or competitors with more sustainable products or services target your customers. of value in assets or capital goods
- Increased costs - higher costs for resources and/or legal and regulatory compliance (fines & licensing)
- Access to finance – inability to obtain adequate financing and/or insurance

Risks	Operational	Reputational	Strategic	Financial
Physical	✓	✓		
Decreased demand			✓	
Increased costs	✓	✓		✓
Access to finance		✓		✓



The business case for Net Zero

Two companies, two very different ESG stories

Companies that operate in the same sector may be viewed very differently by investors depending on how resilient their business model is to a lower carbon future. The resilience (or lack thereof) of a particular business may impact investment decisions.

An example of how investors may approach ESG assessment of a company for the purposes of evaluating an investment opportunity is set out in the table below:

	Company 1	**Company 2**
Sector	**Utilities**	**Utilities**
Business Activities	Operates in electricity and gas, a large player in the European renewables market	Operates in the transport and market of Liquefied Petroleum Gas (LPG).
Alignment with Net Zero	Power generation represents about half of the company's activities (based on EBITDA). It operates a range of hydroelectric, thermoelectric, nuclear, wind-power, and geothermal power stations. In 2020, approximately half of electricity generation was derived from renewable sources, primarily from hydroelectric sources, followed by wind, with solar and geothermal making smaller contributions. The other half of the company's power generation was derived from traditional sources. The proportion of power derived from coal significantly decreased over the past years, from over 25% in 2018 to less than 7%. The results of the in-depth ESG analysis provide confidence in this power producer's ability to keep its emissions in line with the goal of keeping the increase of global temperature within 2°C by the end of the century.	Used for the heating, cooking and transport, LPG is able to reach isolated areas and is less polluting than oil. However, there are more environmentally friendly alternatives for each of its main use cases, such as electric vehicles for transport, electric heat pumps for heating purposes, and electricity to power cooking appliances. In other words, for all main use cases of LPG, more sustainable solutions are available.
Effort towards Net Zero	The company has implemented a solid plan to develop renewable assets and has a good track records and strategy on decarbonisation of production. The company has demonstrated good dialogue with investors committed to aligning capex to the 1.5°C scenario, even though the analysis shows that caution is warranted over its ability to reach the target of 1.5°C. The analysis also reveals that there is still room for improvement in terms of the company's biodiversity targets and quantitative indicators.	No disclosure of main environmental or H&S KPIs. This casts serious doubts on the company's ability to adapt to the many changes underway in the energy sector and overcome its challenges in terms of energy use, carbon emissions or type of products distributed.
ESG decision	Overall, after thorough analysis, Company 1 obtains a relatively positive ESG rating.	Company 2's business activities and of lack of sustainability in its stakeholder management and strategy means it receives a relatively mediocre ESG rating.

Developing a Net Zero transition plan

While there is no one-size-fits-all approach to developing a Net Zero transition plan, there are clear steps that most organisations will need to take.

The purpose of a transition plan is to have a clear, evidence-based understanding of where the organisation stands and form a roadmap to deliver against its Net Zero commitments. It supports in managing the transition and can also be a powerful tool when communicating with stakeholders.

The transition plan must be built in close alignment with overall corporate strategy, because any decarbonisation pathway is likely to impact the organisation's strategic trajectory. For early reductions, operational changes may be enough – but a full Net Zero transformation is likely to require a fundamental reassessment of the business model.

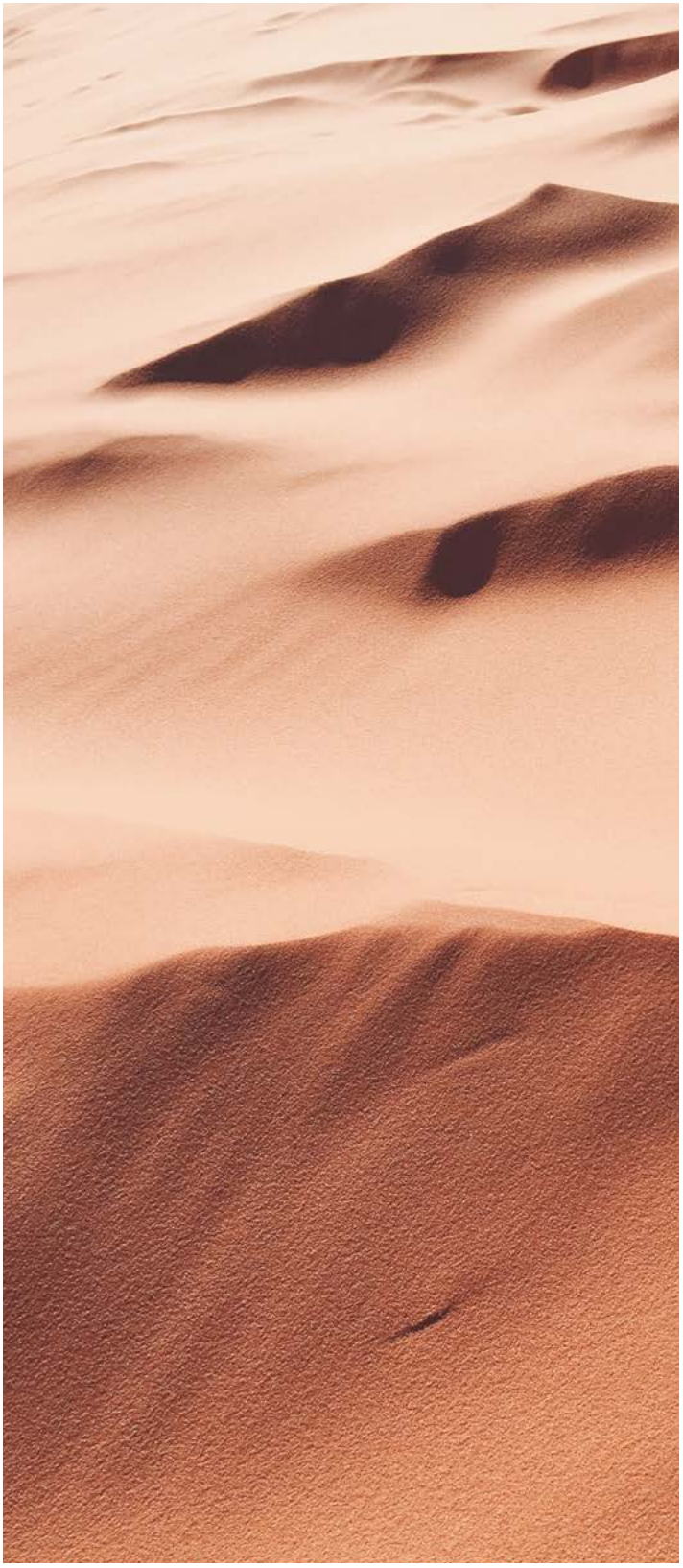
Climate science, policy and technology move quickly. For this reason, it is critical to revise the transition plan regularly and put in place a proper monitoring framework to track its performance and fine tune it along the way.

Developing an effective Net Zero transition plan

- Set your vision
- Define your baseline
- Study decarbonisation pathways and set targets
- Define initiatives and set out an implementation roadmap
- Embed across your organisation and enhance continuously

Key principles for an effective Net Zero transition plan. It is...

- It is championed by senior leadership and has stakeholder buy-in
- It is embedded in the corporate strategy and business model
- It is underpinned by data
- It is delivered in partnership with customers, suppliers, and regulators
- It is backed-up by the right capabilities and sufficient resources



Developing a Net Zero transition plan

Step 1: Set your vision

Early buy-in is essential. Before starting the development of a transition plan, it is critical to develop a shared vision with senior leadership and stakeholders.

This can be done through a series of workshops, supported by insight on the organisation's current efforts and the actions of peers. Achieving Net Zero is an organisation-wide effort and requires organisation-wide support.

Key questions to ask:

- What are the expectations from key stakeholders?
- What are peers doing?
- How do you expect the policy and technology landscape to evolve?
- What What is the organization currently doing and what are its capabilities?
- How does this fit with corporate strategy and business model?

Step 2: Define your baseline

With a shared vision in place, the next step is to develop a baseline understanding of the business' current carbon footprint. This involves not just understanding what current emissions are, but also the sources and drivers behind them.

Depending on data maturity, an initial baseline may be high-level. However, it is important to evolve the quality and granularity of data over time to get better sight of the business' carbon footprint and develop more targeted solutions over time.

Key activities involved:

- Define the scope of assessment. Decide on organisational boundaries (control versus equity) and the extent of your value chain (scope 1, 2 and 3 emissions).
- Identify key emissions sources. This involves understanding the direct, physical source of emissions and the business driver behind them. For example, a significant source of emissions may be company cars, which are required for the logistics of retail operations. It is critical to focus on the emission sources that matter most. This, in turn, differs significantly between sectors (see table below).
- Collate data for each source. Data may include direct emissions measurement, physical quantity of activity data, or even financial data.
- Estimate current emissions based on available data. There are several approaches for quantifying emissions through either direct measurement or estimation.
- Project emissions forward under different organisational growth scenarios and assumptions around technological change that may impact carbon intensity.

Developing a Net Zero transition plan

Step 3: Study decarbonisation pathways and set your targets

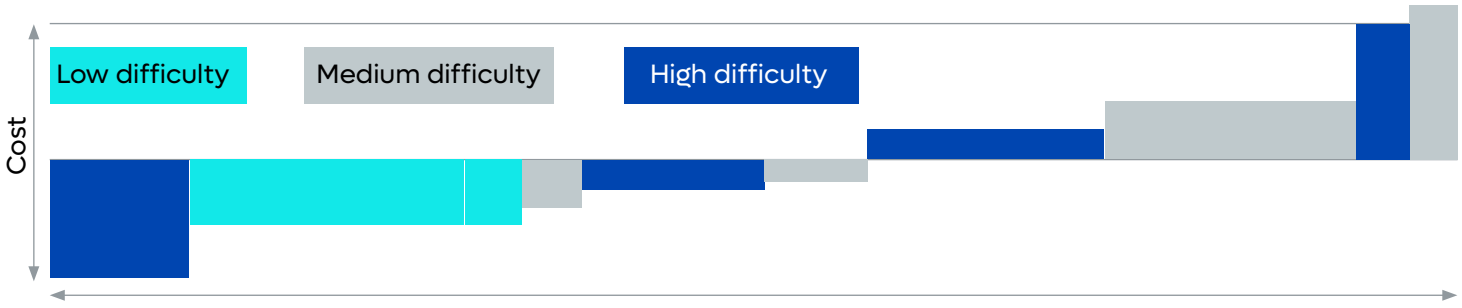
Armed with an understanding of current and projected emissions, the next step is to study the various pathways to achieving Net Zero and the levers that will help get there. The levers available will vary widely by sector and by emission scope and source.

Capital and operational expenditure, as well as potential opportunity cost, should be used to assess levers, as well as other factors that determine the ease of implementation and highlight trade-offs. A Marginal Abatement Cost Curve see (figure below), which sets out abatement potential against cost (and/or benefit), can help prioritise efforts.

Key activities involved:

- Develop an understanding of the levers available to you (see table below).
- Assess levers in terms of abatement potential, cost, and other factors important for the organisation.
- Develop pathways based on different uses of the levers identified.
- Identify the most appropriate pathway for the organisation.
- Set interim targets (in accordance with international standards, where relevant).
- Develop the business case for introducing levers.

Example output of the MACC Curve



Illustrative Marginal Abatement Cost Curve

Scope 1				Scope 2	
Stationary Combustion	**Mobile Combustion**	**Processing**	**Fugitive Emissions**	**Purchased electricity, heat or steam**	**Transmission and distribution (only if energy or utility company)**
Decarbonise heating within the firm's buildings and infrastructure	Move to lower emitting fuel source	Reduce emissions emitted during the manufacturing process	Decarbonise heating within the firm's buildings and infrastructure	Reduce electricity usage within the firm	Source electricity from renewable resources
Implement energy efficiency measures within the firm's buildings and infrastructure	Reduce vehicle usage	Improved energy efficiency in processing	Reduce the amount of leaks in refrigeration and air conditioning equipment	Increase the firm's low carbon electricity supply Increase the firm's low carbon heat/ stem supply.	Improve efficiency of transmission and distribution to reduce the electricity lost during T&D
Decarbonise the firm's manufacturing activities	Improve vehicle efficiency		Reduce leaks in industrial processing	Reduce heat and steam usage within the firm	
			Remove emissions from waste leakage		

Illustrative decarbonisation levers

Developing a Net Zero transition plan

Step 4: Define initiatives and set out an implementation roadmap

Based on the strategic levers identified, a roadmap will outline a detailed plan of programmes and supporting initiatives to deliver on the agreed targets, underpinned by a high-level business case of the costs and benefits.

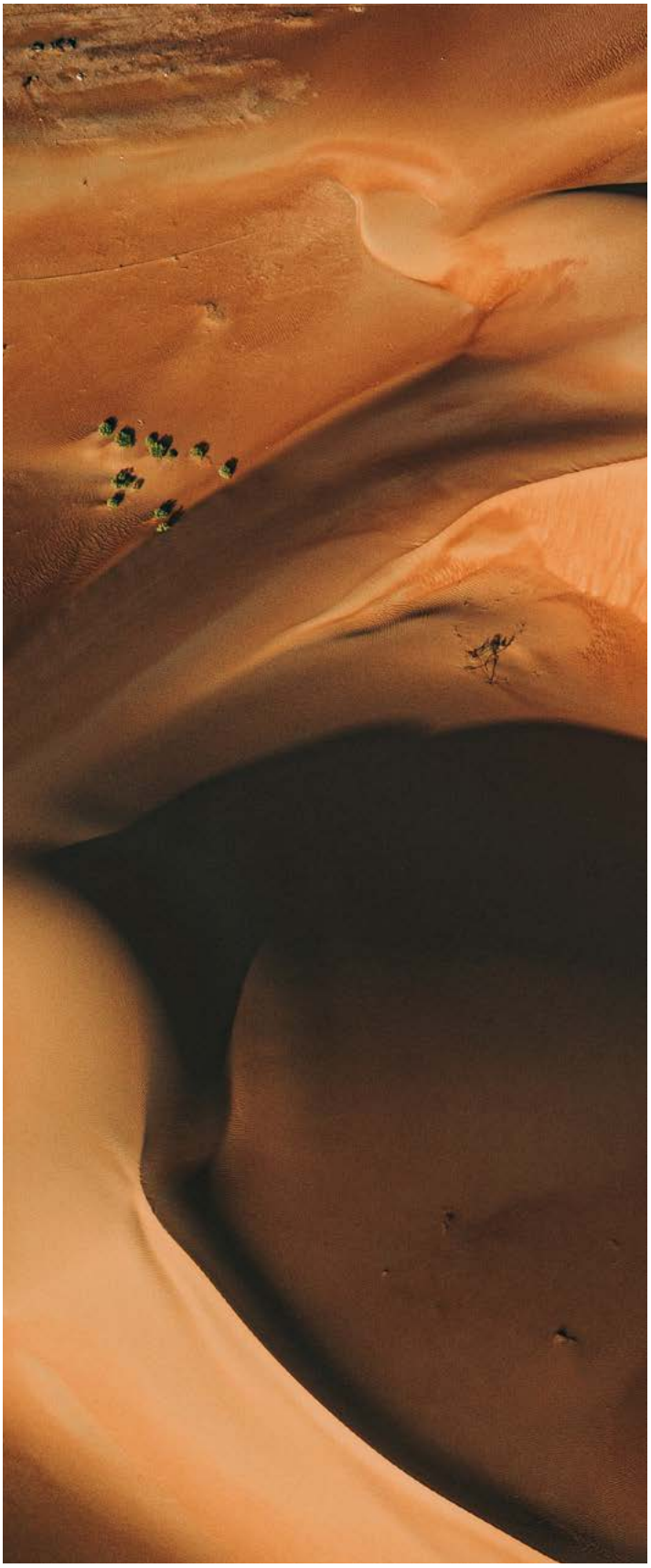
The existing governance structure and operating model may need to be adapted as part of the implementation. A capabilities assessment will help to identify any organisational changes that are needed, as well as sustainability governance requirements.

These initiatives will vary by sector, location, and nature of the business, but may include:

- Operational efficiency
- Renewable energy (if possible)
- Supply chain and procurement
- Transport and logistics
- Waste management
- Purchase of carbon offsets (for residual emissions).

The roadmap should include relevant information for each initiative, including timeline, the governance model and stakeholders involved, internal processes, and KPIs to track progress.

Initiatives could also be prioritised according to the expected reduction in emissions, cost, ease of implementation, and time frame.



Key activities involved:

- Develop initiatives around the decarbonisation levers.
- Assign clear ownership, roles and responsibilities, and budgets.
- Chart out a timeline for rolling out initiatives.
- Underpin the plan with a clear governance structure.

Useful references:
The Science-Based Targets Initiative provides guidance on how to set targets. IPCC Scenarios are the go-to source for the outlook of global emissions.

Developing a Net Zero transition plan

Step 5: Embed and continuously improve

During the implementation period (which will be defined by budget and timeframe), different parts of the organisation will work together on initiatives, monitored by senior leadership on a regular basis. Robust external reporting, in line with disclosure regulations and stakeholder expectations, will set out progress and can reflect positively on the organisation's reputation in the market. Not all employees will be familiar with the concept of Net Zero, a communication programme may be required to explain internally what is to be achieved.

In addition to embedding the Net Zero strategy across the organisation, continuous revision and improvement of the strategy and the action plan is critical, as climate science, technology, and policies evolve rapidly.

Key activities involved:

- Operationalise the Net Zero implementation roadmap.
- Track progress against Net Zero KPIs.
- Report emissions and seek external assurance.
- Revisit the Net Zero strategy and action plan on a regular basis, and cascade down relevant updated policies to functions such as procurement, R&D, and corporate finance.

Funding the Net Zero transition

If Net Zero commitments are to be met and GHG emissions drastically reduced, businesses will need the support of clear policy signals from governments and the right allocation of capital from the finance sector. As of Mar 2023, of the 2,000 largest public companies in the world, just 870 have a Net Zero or Climate Positive Strategy.

According to a recent analysis by BloombergNEF, investment in energy supply and infrastructure will need to increase significantly to meet current targets. Global investment in energy infrastructure alone will need to double to between $3.1trn and $5.8trn a year on average over the next three decades, including a tripling of current annual clean-energy investment.

While accelerated delivery of international public finance will be critical to energy transitions, especially in developing economies, ultimately the private sector will need to finance most of the extra investment required.

Financial institutions recognise that the transition to Net Zero will involve more than simply investments and underwriting for green assets and businesses such as renewables and electric vehicles. In order to achieve Net Zero across the whole economy, more carbon intensive assets and companies will require financing to help them transition to green and sustainable activities.

For many businesses, the transition will mean a fundamental change to their operations, and that requires capital. Insurers, lenders, and investors will play a crucial role in making that capital available and in incentivising and supporting their clients and investees as they make their transitions.

Four key approaches in which the financial sector can support the real economy net zero transition

Financing or enabling the development and scaling of climate solutions to replace high-emitting technologies or services. This approach proactively encourages the expansion of climate solutions in the real economy, critical to achieving economy wide emissions reductions and a prerequisite for providing clean alternatives to high-emitting activities and a just transition

Financing or enabling the transition of real economy firms according to transparent and robust Net Zero transition plans in line with 1.5C aligned sectoral pathways. This approach supports the implementation of transition plans by firms in both high emitting and low emitting sectors, and should be appropriately conditional. Firms can also work to influence others to support the transition, e.g. policymakers and standard setters.

Financing or enabling companies that are already aligned to a 1.5C pathway. This approach supports climate leaders and signals that the finance sector is seeking transition alignment behavior from the real-economy companies with which it does business.

Financing or enabling the accelerated managed phaseout (e.g. via early retirement) of high emitting physical assets, as outlined by a managed phaseout framework.

Source: https://zerotracker.net/

Bloomberg - New Energy Outlook 2021, BNEF, 2021

Funding the Net Zero transition

THE PUSH AND PULL EFFECT OF BANKS

The finance sector will play a key role in the transition of economies to Net Zero, not only by financing environmental initiatives and supporting the transition of companies to Net Zero, but also through the targets that banks themselves have set for their own transition.

Financed emissions (emissions produced by the companies and projects they bank) account for 80% of banks' total emissions. Many banks have already declared that they aim to meet a Net Zero target by 2050, which would mean that their financed emissions will need to be zero by that deadline. Many have also set specific targets for their financing of sectors - Crédit Agricole, for example, plans to reduce CO2 emissions from oil and gas financing by 30% by 2030, while HSBC plans to reduce its absolute on-balance sheet financed emissions for the oil and gas sector by 34% by the same date.

As a result, banks and other financial institutions will be actively seeking to engage with their clients to encourage and support their transition journey, primarily to address their scope 3 financed emissions, as well as providing capital and resources. Throughout this journey the credibility of an organisation's Net Zero and transition plans will come under close scrutiny, from the transition timeline to the business strategy and operational adaptations that will be needed to meet emissions reductions goals.

Assessing businesses and their activities through this detailed lens will help financial institutions understand which sectors and companies will need more support in establishing their pathways to transition, which activities will need to be phased out, and where opportunities for investment in transition-enabling projects and technologies may lie.

Net Zero alliances

Investment of the scale required calls for the mobilisation, re-alignment and adaptability of the entire financial system – and this has led to the formation of a number of banking and financial alliances.

Net zero alliance for banks

- 116 banks with over $70trn in assets (approx. 40% of banking assets)
- Signatories have committed to aligning their lending and investment portfolios with net-zero emissions by 2050
- Banks will be targeting 50% emissions in financed emissions by 2030

Net Zero alliance for asset managers

- 273 signatories representing c.$57trn in AUM (almost two thirds global AUM)
- Signatories have committed to transition their investment portfolios 'financed emissions' to net zero GHG by 2050
- Investors will be targeting a 50% reduction in financed emissions by 2030

Net Zero alliance for asset owners

- 74 signatories (institutional investors) representing over $10trn in AUM
- They have committed to transition their investment portfolios to net zero GHG emissions by 2050 consistent with a maximum temperature rise of 1.5°C above pre industrial levels, as per the Paris Agreement
- Targets are set on the asset owner's own Scope 3 emissions, or "portfolio emissions" and they are also encouraged to set targets on both Scope 1 and 2 emissions

Net Zero alliance for insurers

- 29 signatories representing more than 11% of world premium volume globally
- Commitment to transition their insurance and reinsurance underwriting portfolios to net-zero greenhouse gas (GHG) emissions by 2050, consistent with a maximum temperature rise of 1.5°C above pre- industrial levels by 2100

Funding the Net Zero transition

OPPORTUNITIES AND CHALLENGES

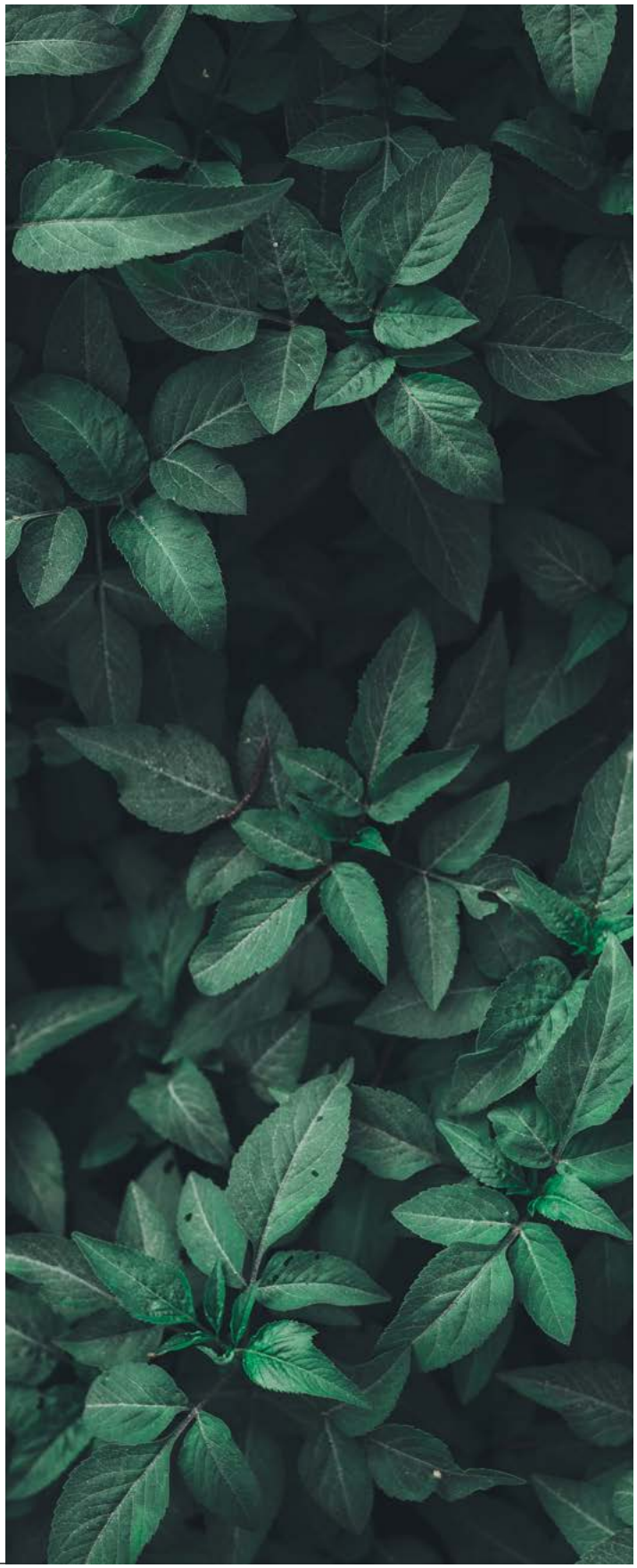
Net Zero transition brings considerable investment opportunities. Estimates suggest that $4-$5 trn in addressable market value will be created from 10 decarbonisation investment themes by 2030:

Investment Theme	Example Opportunities
Decarbonisation of power	-Renewable power -Microgrids -Energy storage -Advanced solar PV technology
Low carbon mobility	-Electrification of vehicle power trains -Next-gen batteries -Charging infrastructure
Circular products	-Sorting and processing tech -Sustainable packaging -Reverse logistics.
Water and waste management	-Industrial water treatment -Infra rehabilitation water analytics Waste management.
Carbon markets, offsets, financing	-Offset project design and supply -Marketplaces and exchanges -Carbon credit brokers and retailers
Carbon capture, utilization, storage	-CO_2 to fuel -Direct air capture -Novel point-source capture -CO2pipelines and transport
Hydrogen and low-carbon fuels	-H_2 electrolyzers -H_2 blending materials -Hydrogen mobility -Bio-refineries
Low carbon agriculture & food	-Low-carbon proteins -Sustainable timber -Crop preservation
High efficiency buildings	-Energy efficiency and building controls -Green building materials -On-site clean energy
Industrial decarbonisation	-Green cement and CO_2 negative aggregates -Industrial process heat -Green mining

Funding the Net Zero transition

However, challenges remain that could limit the scope for financial institutions to provide traditional financing. These include:

- High capital requirements, technology risk, and volatility in the price of production inputs and outputs mean that financial institutions may not be willing or able to finance some opportunities at low levels of returns
- Net Zero investment opportunities require longer-term financing and in the case of large scale decarbonisation infrastructure, liquidity is limited
- The economic disruption of COVID-19 has resulted in stressed balance sheets for many companies, and production inputs remain expensive. As a result, companies may choose to delay green projects until the price and volatility of critical inputs have declined
- Capacity and resource constraints within financial institutions are leading to a preference for investments in a portfolio of ready projects and counterparty-level financing as opposed to project- specific financing, which tends to require significant time, effort and the upskilling of front office teams.



Funding the Net Zero transition

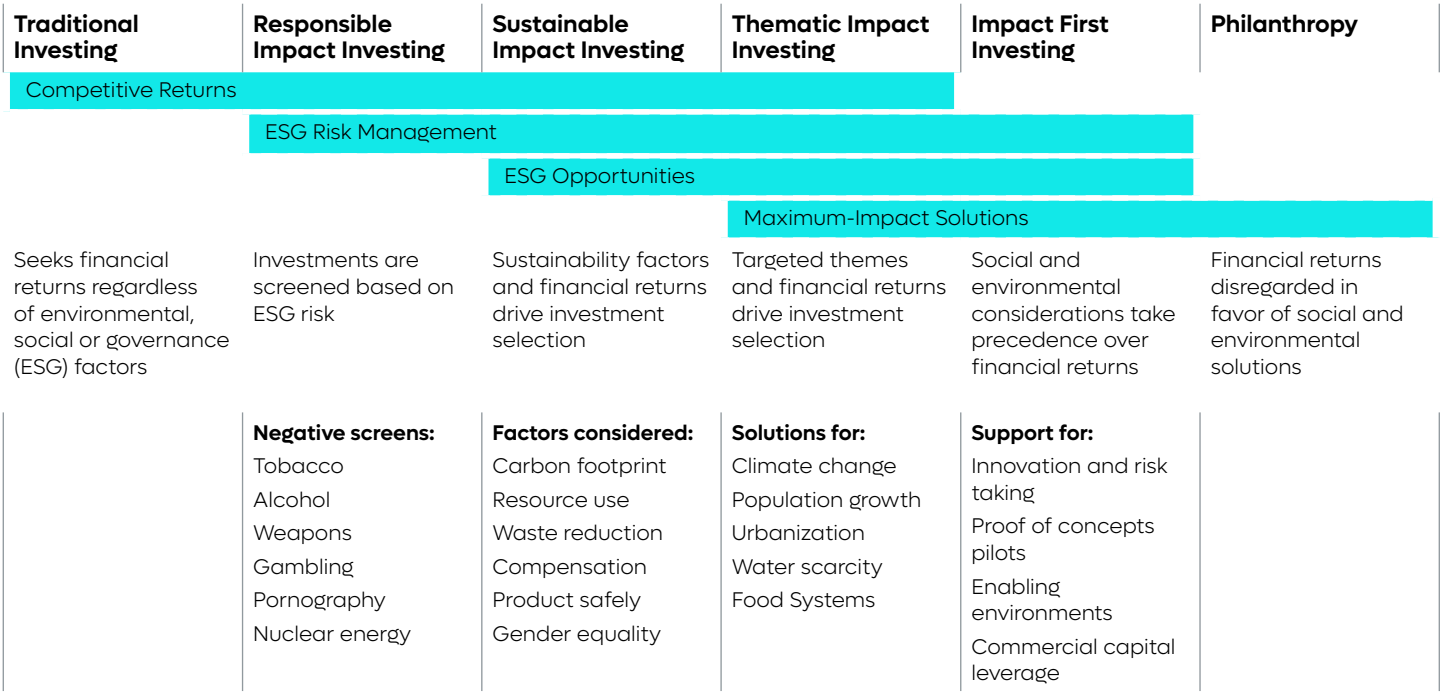
THE RISE OF SUSTAINABLE FINANCE

Sustainable finance and investing – defined as investment decisions that take into account the environmental, social and governance factors of an economic activity or project – covers a range of activities, from investing in green energy projects, transition journeys and technologies, to investing in companies that demonstrate sustainable development ambitions and/or social values, such as social inclusion or good governance.

Assets allocated to ESG investments have grown at a rapid rate in recent years, According to Refinitiv, the sustainable bonds market grew to $1trn in 2021, a 20-fold rise since 2015, and now account for 10% of global debt markets.

Investors are also embracing sustainable options and while ESG funds are overall cheaper than their non-ESG peers (between 7% and 21% depending on the asset class), the top selling ESG classifications shows that they have clearly outperformed conventional funds over three and five years. In other words, there are clear financial as well as societal benefits to integrating ESG into investment approaches.

ESG-driven investing approaches



Source: Sustainable finance continues surge in 2021 | Refinitiv Perspectives
https://lipperalpha.refinitiv.com/reports/2021/11/everything-green-flows-q1-q3-2021/#

SUSTAINABLE FINANCE PRODUCTS OVERVIEW

Sustainable finance product offerings come in many shapes and sizes from financial institutions globally and across the UAE, including:

1. Green, Social and Sustainable (GSS) Bonds and Sukuk focus on use of proceeds and provide a platform for capital expenditure raising activities and financing for projects related to green, social or sustainable (mix of green & social) projects.

2. Sustainability linked bonds/Sukuk are bonds and sukuk where there is no restriction on use of proceeds. Instead they incorporate ESG metrics in the form of sustainability performance targets (SPTs). If met within a certain time frame there is a structural change in the instrument which is designed to incentivise the issuer to achieve the target.

3. GSS loans are loans whose proceeds are targeted at financing for specific green or sustainable projects.

4. Sustainability linked loans are loans where there is no restriction on use of proceeds. Instead they incorporate ESG metrics in the form of SPTs. Unlike in the bond market, there is more frequently a symmetrical margin change associated with such instruments, meaning that reaching the targets reduces the pricing and missing them will cause an increase.

ESG-driven financing options

Financial Instrument	Sustainability impact via	Use of Proceeds	ICMA/LMA Guidelines
GSS Bond/Sukuk	Use of Proceeds	Green, Green & Social, Social	• Green Bond Principles (GBP) • Sustainability Bond Guidelines (SBG) • Social Bond Principles (SBP)
Sustainability-linked bonds/ Sukuk	Sustainability performance	General Corporate Purposes	Sustainability Linked Bond Principles (SLBP)
GSS Loans	Use of Proceeds	Green, Green & Social, Social	• Green Loan Principles (GLP) • Social Loan Principles (SLP)
Sustainability-Linked Loan	Sustainability performance	General Corporate Purposes	Sustainability Linked Loan Principles (SLLP)

Source: https://www.dfm.ae/docs/default-source/guides/issuancesustainable-guide_en_28.pdf?sfvrsn=ab665c81_0

Funding the Net Zero transition

Sustainable Finance Instruments

	Examples/Types/Products	Asset owner	Asset managers	Corporates	Hedge funds
Green, Social and Sustainable Bonds (GSS)	Primary market bonds Secondary market bonds Bond Private Placements Bond portfolio repack	✓	✓	✓	✓
Money market/ Treasury	Green Certificate of Deposit (CD) Environmental, Social, and Governance (ESG) -Linked / Green Repo	✓	✓	✓	✓
Beta replacement (ESG ETFs [Exchange Traded Fund] /Indices)	Listed Futures / Total Return Swap (TRS) / Notes: Equity TRS/ Notes: Fixed Income TRS/ Notes: Funds ETFs (market making / seeding)	✓	✓		✓
Structured Products	Equity indices Fund underlying Rates underlying Foreign Exchange (FX) underlying Charitable giving feature Basket of single names	✓			
Sustainability-linked hedges	GSS bonds Issuance swaps Rates or (FX) + Charitable giving Rates or FX + Negative / Positive price incentive feature			✓	
Thematic investing	Bonds (single name, basket, repack) Delta one Structured Note	✓	✓		✓
Systematic investing / Bespoke ESG indices	Paris agreement/Transition aligned (2021)	✓	✓		✓

Disclosure and reporting

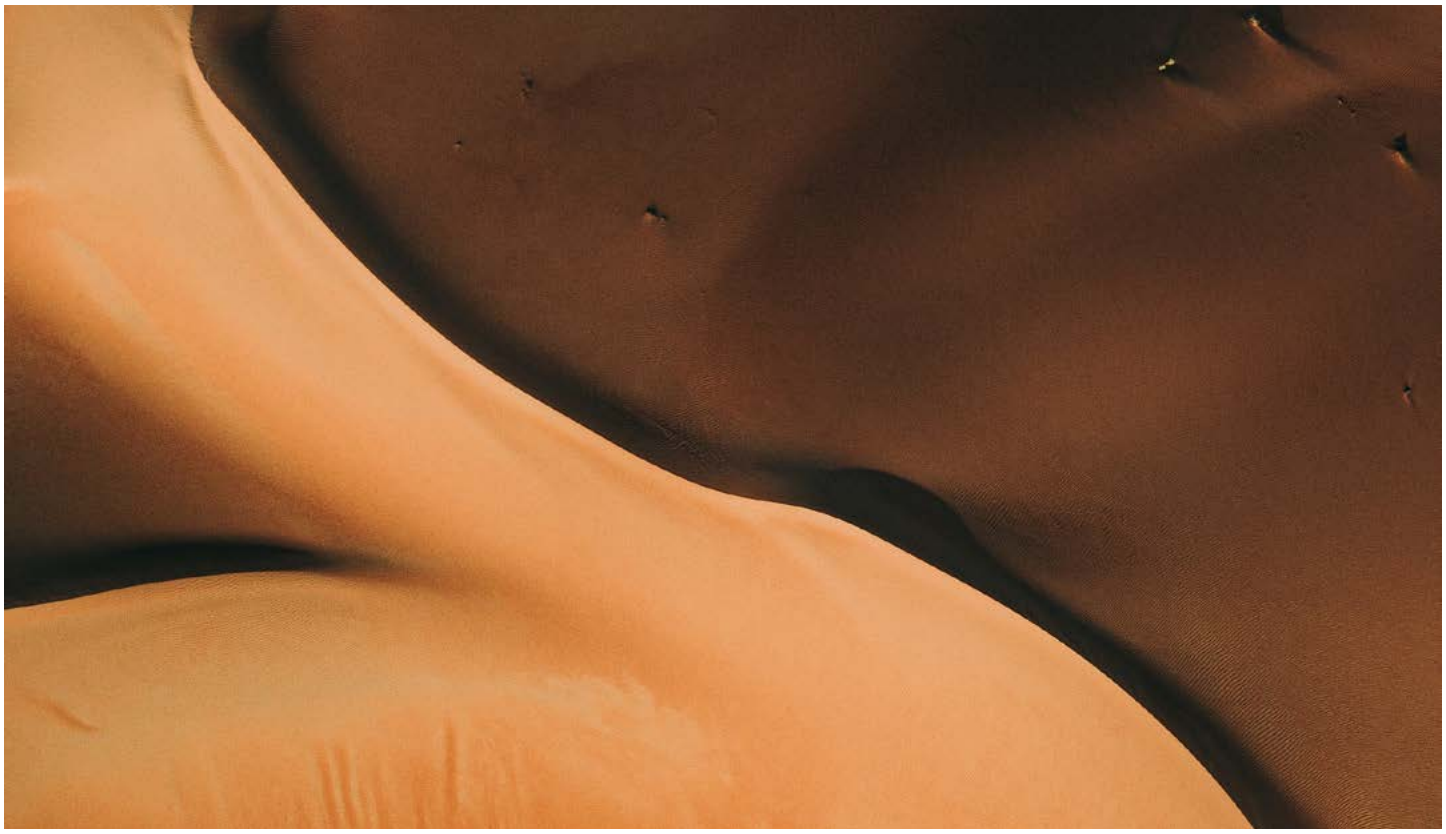
Climate-related disclosure is becoming more critical and is attracting increasing attention from regulators, investors, and other stakeholders; all demand clear, relevant and reliable information which they can trust.

Climate disclosure standards, frameworks, and regulations are evolving as the landscape continues to establish itself. Despite this challenge, it is important that you adopt global standards which set the foundation for comparable and transparent reporting of climate-related factors affecting the businesses.

Reporting standards and methodologies

Climate-related disclosures often align to ESG reporting standards, such as the Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), the international Sustainability Standards Board (ISSB), and/or climate-specific frameworks such as the Task Force on Climate-Related Financial Disclosures (TCFD). The two most widely-used reporting frameworks are developed by the GRI and SASB.

The reporting landscape is evolving fast and in recent months there have been significant moves towards a common set of standards. In November 2021, the IFRS Foundation Trustees announced the formation of the ISSB, consolidating the Value Reporting Foundation and the Carbon Disclosures Standards Board. The goal is to develop, in the public interest, a single set of high quality, understandable, enforceable, and globally accepted sustainability standards based upon clearly articulated principles. The G7 ministers backed the momentum towards the creation of global sustainability reporting standards, expressing their support for the ISSB.



TCFD Disclosure and reporting

The reporting ecosystem

The two most widely-used standard frameworks

	Global Reporting Initiative (GRI)	Sustainability Accounting Standards Board (SASB)
Context	• GRI is an independent, international organization providing global standards for sustainability reporting to help organisations communicate their impacts • In 1997 the first version of GRI was launched to provide the first global framework for sustainability reporting	• Founded 2011, SASB helps businesses develop a common language about the financial impacts of sustainability • SASB has developed a complete set of 77 industry standards which provide a complete set of globally applicable industry specific standards
Materiality approach	• GRI focuses on **(1) significant economic, environmental and social impacts and (2) topics with substantial influence on assessment of stakeholders decisions.** • GRI standards offer a **more generic approach to the selection of material topics,** a sector specific guidance is being developed	• SASB's Standards offers a more **industry-focused perspective** by identifying issues that are likely to be **financially material** for the typical company in an industry • SASB identifies the **sustainability topics that are likely to be material for a specific industry within a sector** and then develops corresponding metrics to be reported by an entity in that sector
Key features	• **Multi stakeholder focused** for variety of users • **Broader materiality** with non industry specific standards • **Principle based framework** that is voluntarily followed	• **Investor** and other providers of financial capital focused • **Financial materiality** with industry specific standards • **Required by SEC** for publicly listed entities in the USA

Task Force on Climate-Related Financial Disclosures

Audience	Investors, lenders and insurance underwriters.
Materiality	The TCFD recommendations expect disclosures to sit within mainstream, (i.e public) annual financial fillings and be used to more effectively comply with existing disclosure obligations. Therefore, materiality is defined as what is material to the financial fillings.
Industry	Industry agnostic
Format (Standard vs Framework)	Framework
Principles	The Task Force structure its 11 recommendations around four thematic areas that represent core elements of how organisations operate, governance, strategy, risk management, and metrics and targets, it focuses on the financial impact of climate change on the entity
What is covered	**TCFD recommendations** help an entity assess the risk of climate change and consider the financial implications it has on the entity, i.e. both the impact of climate on the entity as well as the impact of the entity on climate. The TCFD recommendations classify risk of climate change into the following categories: **Physical risks** • **Acute physical risk :** Event driven, one off impacts • **Chronic physical risk :** Longer term shifts in climate patterns **Transition risks** • **Market risk :** Shifts in supply/demand, viability of certain business models • **Technology risk :** Write offs for disrupted technologies, required investment in new technologies • **Reputation risk :** Damage to brand value or reputation • **Policy and Legal risk :** Compliance costs, stranded assets, climate related litigation claims etc.

TCFD Disclosure and reporting

The new ISSB

The ISSB

The ISSB has now published its first two proposed IFRS Sustainability Disclosure Standards which, once finished, will form a comprehensive global baseline of sustainability disclosures designed to meet the information needs of investors when assessing enterprise value.

This approach is consistent with the recommendations of the TCFD, but extends them to sustainability related risks and opportunities beyond those related to climate.

1

The proposed IFRS S1 General Requirements for Disclosure of Sustainability related Financial Information (General Requirements Exposure Draft) would require companies to disclose information about all of their significant sustainability related risks and opportunities.

2

The proposed IFRS S2 Climate related Disclosures (Climate Exposure Draft) focuses on climate related risks and opportunities. It incorporates the recommendations of the Task Force on Climate-related Financial Disclosures (TCFI) and includes metrics tailored to industry classifications derived from the industry based SASB Standards.

Key steps for successful reporting

1. A strategic approach.

Setting an overarching strategic approach to climate change means that the focus is on creating sustainable advantage and value, rather than on ticking a regulatory box. ESG and/or climate-related strategies, milestones and reporting should be connected to the overall business strategy.

2. Quality data.

Effective reporting requires accessible and quality data, including GHG measurement.

3. Upskill corporate directors.

Boards, especially audit committee members, need to better understand how ESG fits into the overall business strategy to appropriately manage governance oversight responsibilities.

4. Independent reviews and assurance.

Many things can undermine trust in ESG reported information, including concerns over its integrity, diverse standards or frameworks and inconsistent application. Independent assurance will improve transparency, communication and trust.

Appendix 1: Net Zero transition in the UAE & MENA region - sector analysis

Like all regions, MENA's transition journey has its own unique challenges and priorities. Here we will look at the implications for six key sectors, and the progress each sector has made to date.

AVIATION

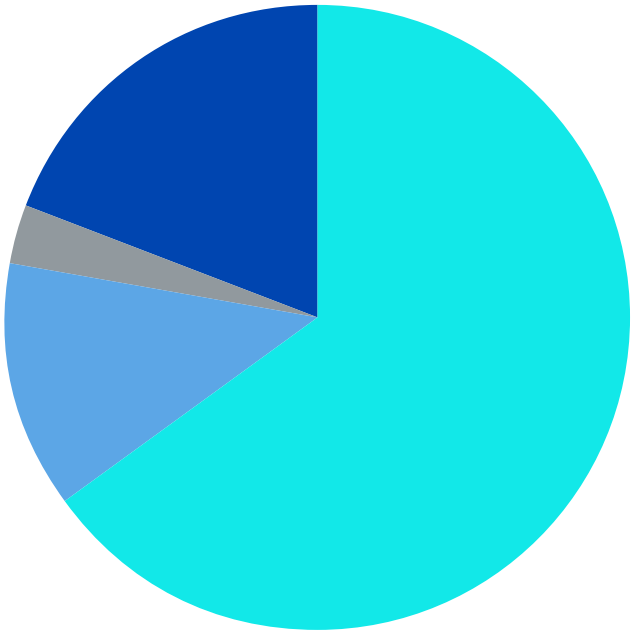
Jet fuel is the primary pollutant from aviation, representing more than 90% of most airlines' value chain emissions (including production, refinement, distribution and combustion).

On 4 October 2021, the International Air Transport Association (IATA) member airlines passed a resolution (known as Fly Net Zero), committing them to achieving Net Zero carbon emissions from their operations by 2050. This pledge brings air transport in line with the objectives of the Paris agreement to limit global warming to 1.5°C. This means that the aviation sector is required to reduce average carbon intensity by approximately 35% to 40% between 2019 and 2035, or approximately 65% between 2019 and 2050.

The IATA's plan centres mainly around the use of Sustainable Aviation Fuel (SAF) – fuel produced from renewable sources such as agricultural residue and used cooking oils – which the IATA believes could provide 65% of the reduction in emissions needed by 2050. Emissions will also be addressed through carbon offsetting schemes, and the exploration of electric and hydrogen fuel cell (HFC) technology, where fuel cells combine hydrogen with oxygen from the air to produce electricity.

IATA – contribution to achieving Net Zero by 2050

Achieving Net Zero by 2050 will require a combination of maximum elimination of emissions at the source, offsetting and carbon capture technologies.

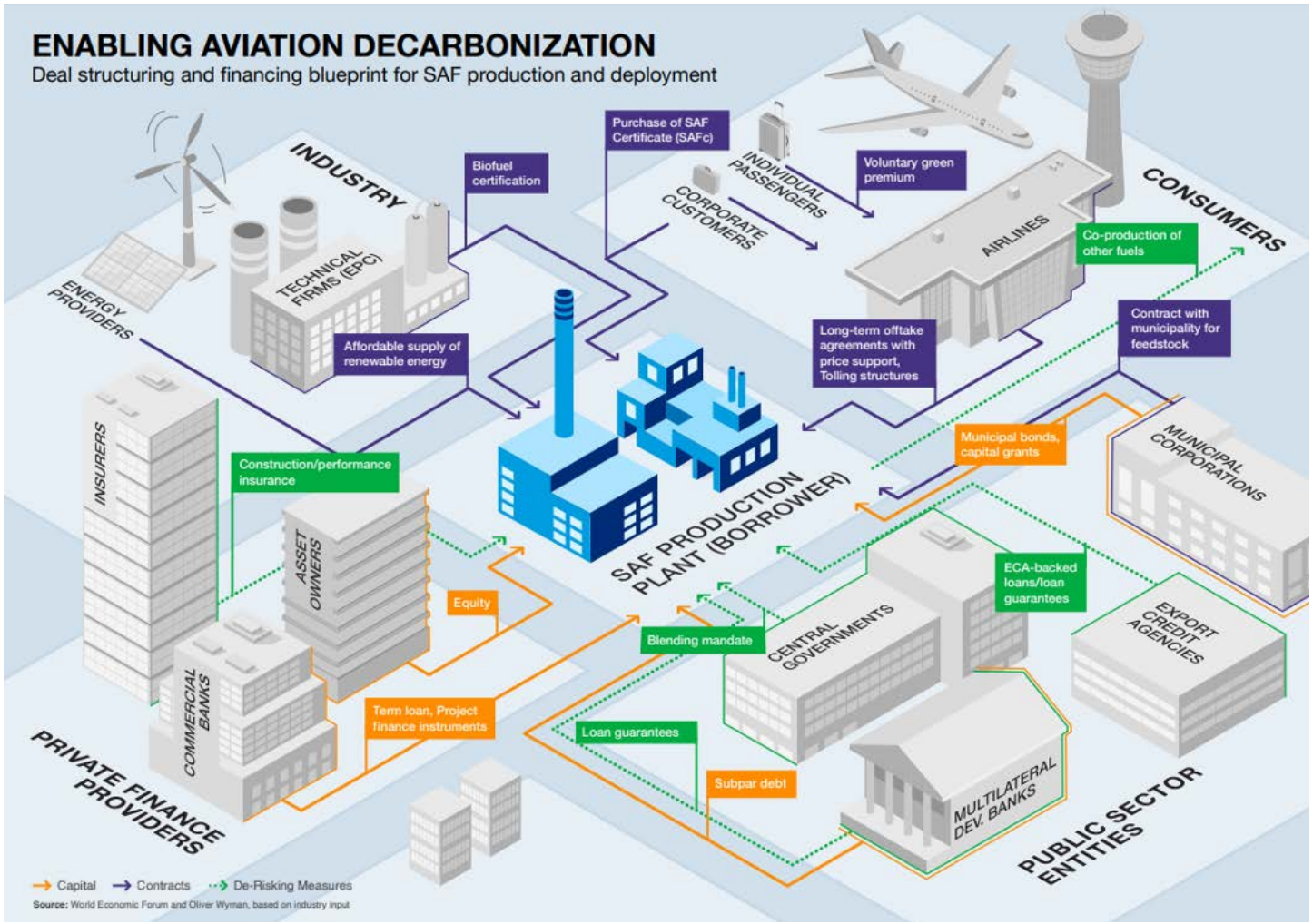


- 65% Sustainable Aviation Fuel (SAF)
- 13% New technology, electric and hydrogen
- 3% Infrastructure and operational efficiencies
- 19% Offsets and carbon capture

Source: https://www.iata.org/en/programs/environment/flynetzero/

Appendix 1: Net Zero transition in the UAE & MENA region - sector analysis

As a result, most of the sustainable financing opportunities in the aviation sector will be focused around SAF.



Source: https://www3.weforum.org/docs/WEF_Financing_the_Transition_to_a_Net_Zero_Future_2021.pdf

Appendix 1: Net Zero transition in the UAE & MENA region - sector analysis

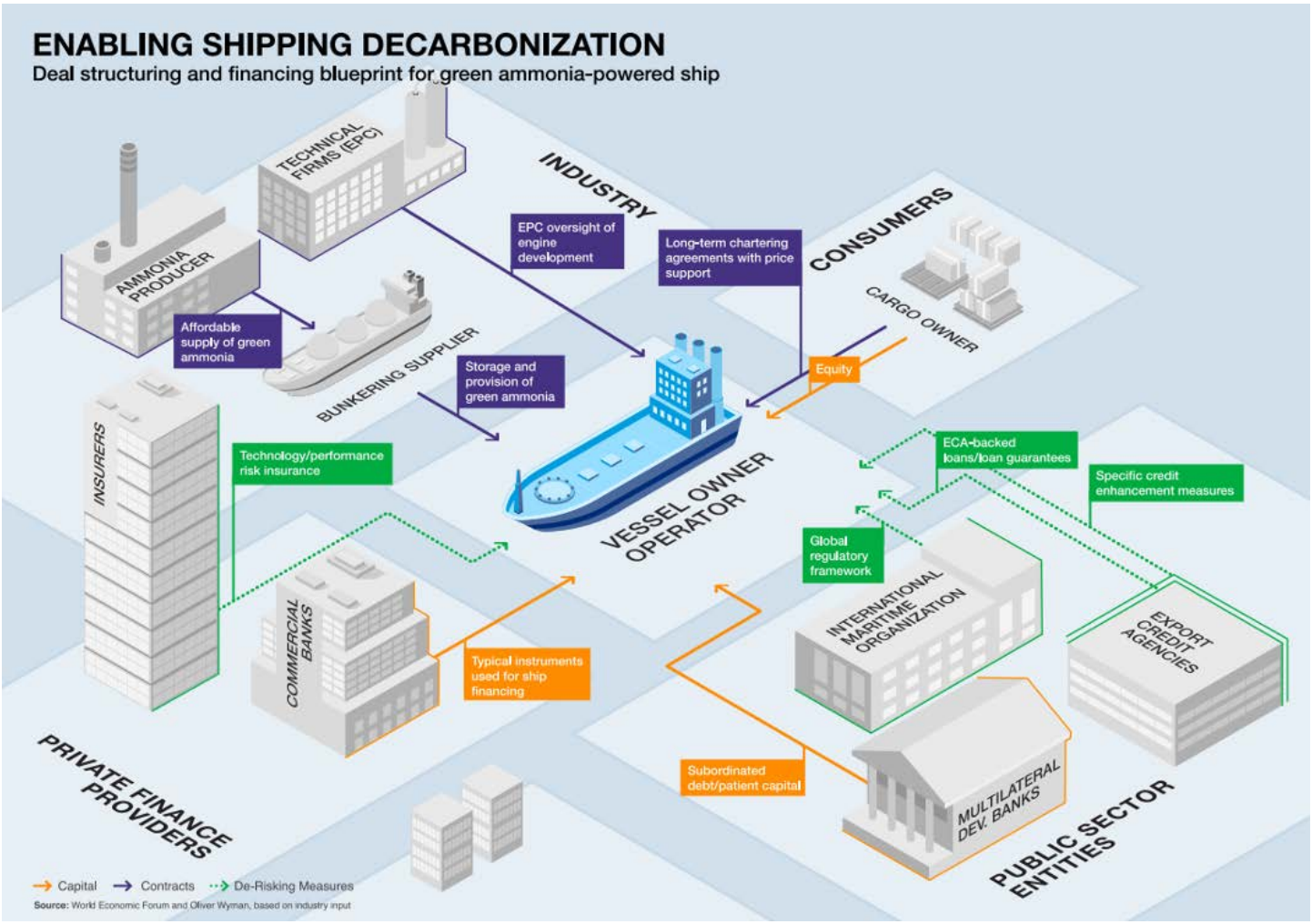
LOGISTICS AND SHIPPING

The transition pathway for shipping has been designed by the International Maritime Organisation (IMO), a UN agency with responsibility for the safety and security of shipping and prevention of marine and atmospheric pollution. The IMO first introduced measures to improve the energy efficiency and greenhouse gas emissions of ships in 2011 as part of the International Convention for the Prevention of Pollution from Ships. Since then, the shipping industry's transition pathway has developed in scope and ambition with initiatives to reduce the carbon intensity of new and existing vessels.

Important components of the transition pathway include:

- **Shipbuilding.** The Energy Efficiency Design Index was introduced in 2011 and requires new ships to be 10% more efficient from 2015, 20% more efficient from 2020, and 30% more efficient from 2025.
- **Enhancement and modification.** The IMO's Ship Energy Efficiency Management Plan is an energy management plan that aims to optimise a ship or fleet's operational and technical performance to best conserve energy for new and existing ships.
- **Use of Vessels.** In 2018 the IMO set its Greenhouse Gas Reduction Strategy with the aim of reducing the carbon intensity of shipping by 40% by 2030 compared to 2008 levels. The organisation introduced a Carbon Intensity Indicator (CII) to rate ships against a 2019 reference line; a vessel is awarded a CII rating from A-E depending on how efficiently it transports goods or pass engers and per nautical mile.

Sustainable financing investment opportunities in the logistics and shipping sector are mainly focused on alternative fuel sources, namely biofuels, and ammonia (produced with zero-cardon hydrogen.



Source: https://www3.weforum.org/docs/WEF_Financing_the_Transition_to_a_Net_Zero_Future_2021.pdf

Appendix 1: Net Zero transition in the UAE & MENA region - sector analysis

METALS

Aluminium

Producing aluminium, one of the world's most commonly-used materials, is an energy-intensive practice. According to the International Aluminium Institute (IAI), the sector contributes more than one gigatonne of carbon dioxide equivalent (Gt CO2e) to annual global GHG emissions.

The IAI sees three main pathways to reducing emissions by 2050:

1. Electricity decarbonisation. More than 60% of the aluminium sector's CO2e emissions (which reached 1.1 billion tonnes in 2018) is from the production of electricity consumed during the smelting process. Decarbonised power generation and the deployment of carbon capture utilisation and storage (CCUS) offer the most significant opportunity to reduce emissions to near zero by 2050.

2. Direct emissions. Emissions from fuel combustion make up 15% of the industry's emissions. Electrification, fuel switching to green hydrogen and CCUS offer the most credible pathways. Process emissions make up a further 15% and require new technologies, such as inert anodes. These emissions and those in transport and raw materials will need to be reduced by 50-60% by 2050.

3. Recycling and resource efficiency. Increasing collection rates to near 100% as well as other resource efficiency progress by 2050 would reduce the need for primary aluminium by 20%, which in turn will cut the sector's emissions by an additional 300 million tonnes of CO2e per year.

Steel

Producing a tonne of crude steel results on average in 1.4 tonnes of direct CO_2 emissions (Scope 1) and 0.6 tonnes of indirect CO_2 emissions (Scope 2). Today, nearly all the world's steel is made through one of three main production routes:

1. Blast Furnace-Blast Oxygen Furnace: Iron ore is reduced in the blast furnace to molten iron, which is subsequently refined to crude steel (CS) in the basic oxygen furnace. About 70% of the world's steel is produced via this process, which emits an average of 2.3 tonnes of CO_2 per tonne of crude steel (2.3 tCO_2/tCS).

2. Electric Arc Furnace: This method uses electricity to melt scrap steel and accounts for 25% of global production. Emissions are highly dependent on the carbon intensity of the electricity supply, but are on average 0.6 tCO_2/tCS

3. Direct Reduced Iron-Electric Arc Furnace (DRIEAF): Direct reduction is the process of reducing iron ore without melting it, using a reducing gas. This process emits 1.4 tCO2/tCS on average when using natural gas.

Source: https://international-aluminium.org/resource/aluminium-sector-greenhouse-gas-pathways-to-2050-2021/

Appendix 1: Net Zero transition in the UAE & MENA region - sector analysis.

The mix of these technologies varies significantly by region. In the Middle East, DRI-EAF technology typically plays a larger role because of the abundance of natural gas.

The main options for emission reduction are:

1. Hydrogen-based Direct Reduced Iron: pure oxygen is used in place of methane (or syngas) as the reductant

2. Carbon capture and storage or use: carbon dioxide is captured and stored before being released into the atmosphere or recycled for future use

3. Biomass: the use of charcoal instead of fuel as a feedstock in blast furnace or blast oxygen furnace production

4. Electrolysis: reducing iron ore through direct electrolysis.

Steelmakers can take 'transitional' steps to reduce some of their emissions immediately, including energy efficiency improvements such as top gas recycling, utilising lower-emissions inputs where available (e.g., biogas, biochar), or switching to lower-emissions steelmaking processes. But this cannot eliminate all emissions.

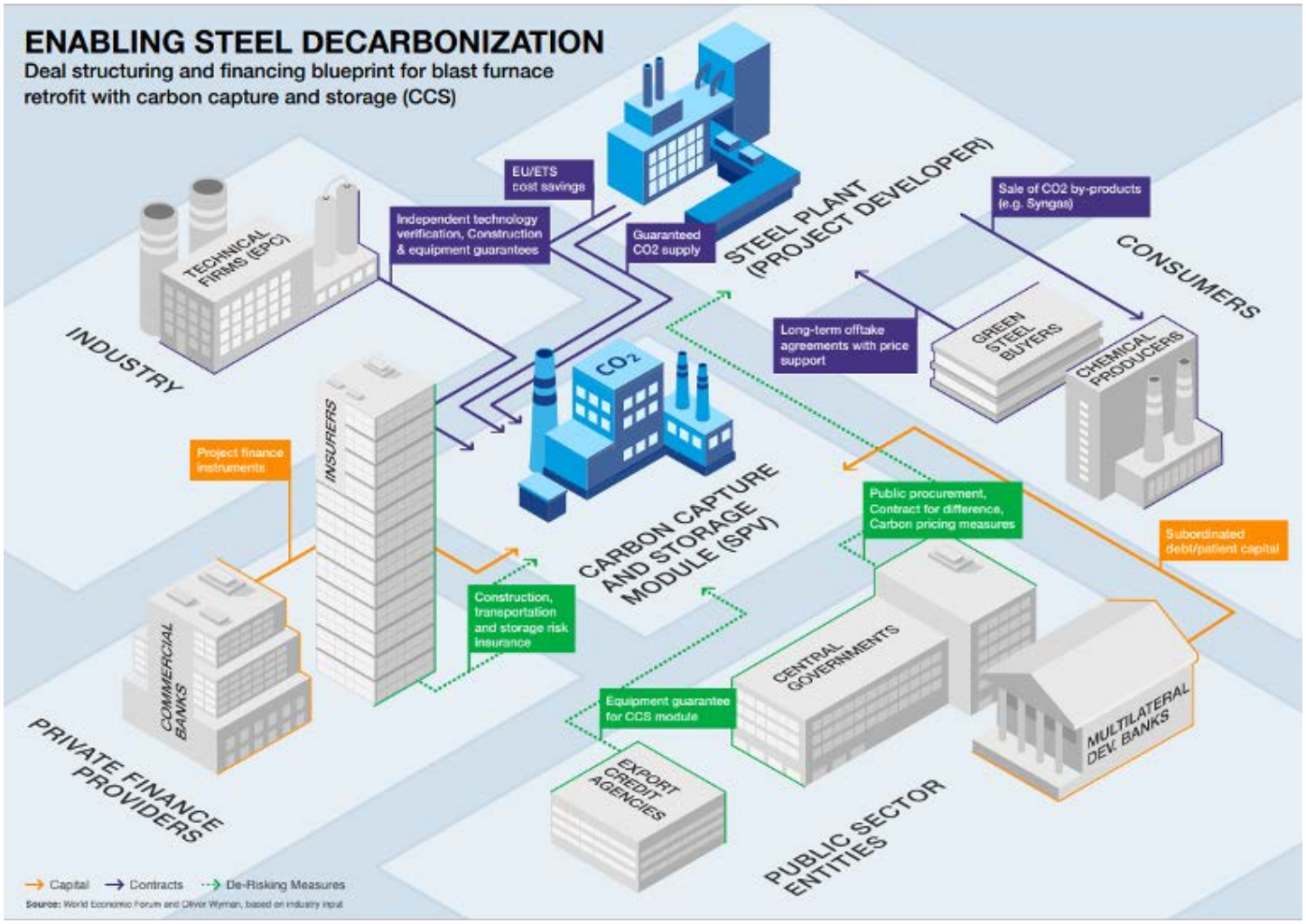
The challenges to be addressed provide sustainable finance opportunities in a number of areas:

1. Developing a (near-) zero-emissions steelmaking processes

2. Initiate switching to (near-) zero-carbon steelmaking early to avoid stranded assets

3. Covering the 'green premium' on low-CO2 steel

4. Reducing demand and increasing scrap recycling.



Source: https://www3.weforum.org/docs/WEF_Financing_the_Transition_to_a_Net_Zero_Future_2021.pdf

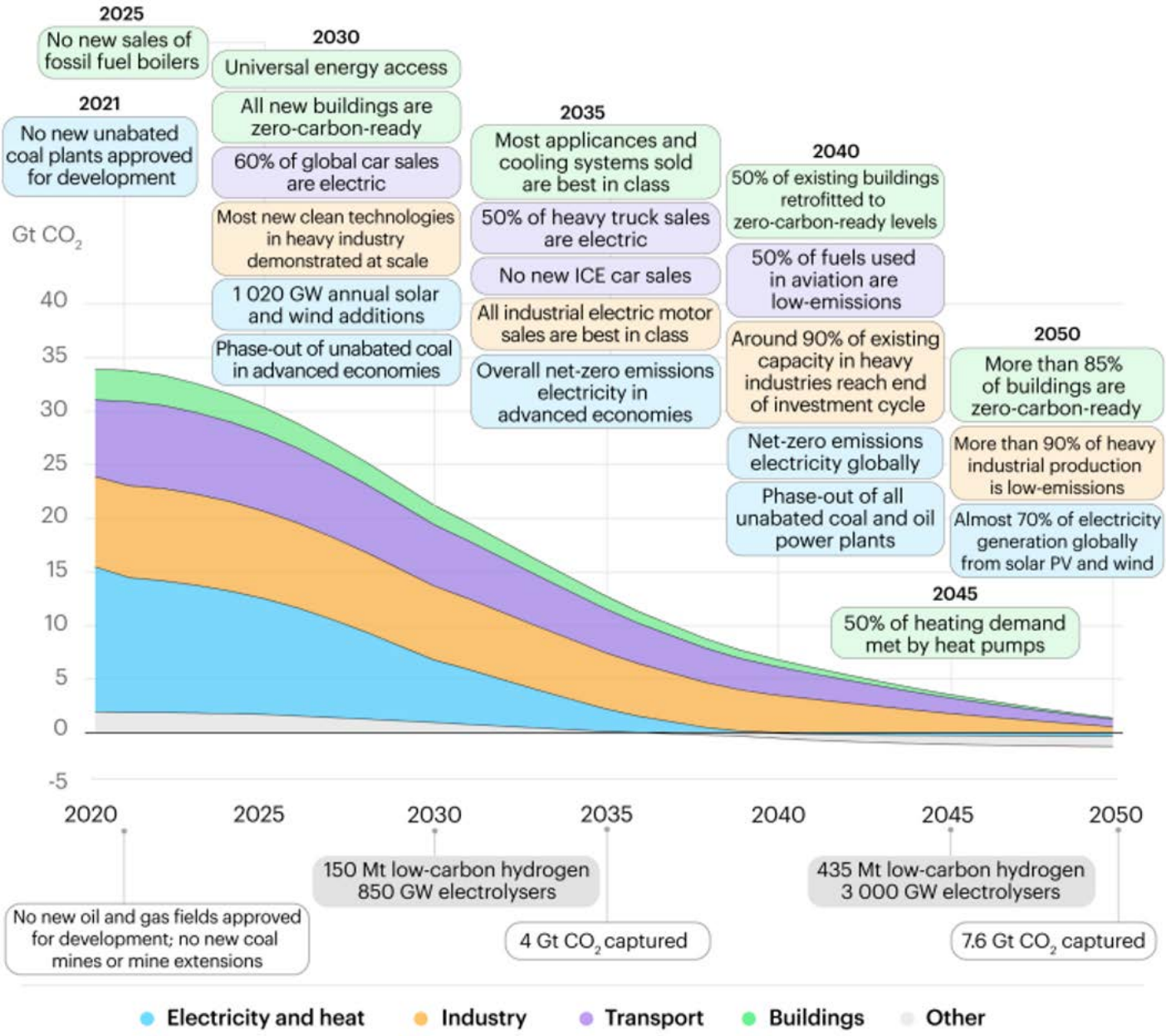
Appendix 1: Net Zero transition in the UAE & MENA region - sector analysis

ENERGY

The energy sector is the source of around three-quarters of greenhouse gas emissions and holds the key to averting the worst effects of climate change.

To meet the target of reducing carbon dioxide emissions to Net Zero by 2050, many oil and gas producers are investing in renewable projects for the future. At the same time, they must also respond to current market demand for low-carbon oil and gas supplies.

Key milestones in the pathway to Net Zero



Source: https://www.iea.org/reports/net-zero-by-2050

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The Institutional Investors Group on Climate Change (IIGCC) and the Transition Pathway Initiative (TPI) have set out a Standard for Net Zero transition plans in the oil and gas sector. The Net Zero Standard sets minimum expectations for what must be included in transition plans from oil and gas companies, to create a level playing field in corporate reporting and meet investor expectations for credibility and comparability.

The Standard stresses need for comprehensive absolute and intensity emissions reduction targets, which cover all material emissions, as well as alignment of capital expenditure and production plans with a Net Zero target. It acknowledges 'winding-down' as a legitimate strategy, as well as diversifying energy offerings or working through a company's value chain to re-shape demand.

Summary of the actions oil and gas companies should take to meet a Net Zero Standard

CA100+ disclosure indicator and description		Supplemental O&G actions/disclosure
1.Ambition	If the company has set an ambition to achieve net-zero GHG emissions by 2050 (or sooner)	A net zero ambition should be comprehensive, covering all energy-related activities across all divisions, regions, equity stakes, and material emissions (it should include Scope 3 use of sold products and methane)
2-4. Targets	If clearly-defined short-, medium- and long-term targets to reduce GHG are in place covering all material emission scopes and aligned ro a goal of limiting global warming to 1.5°C	Companies can set targets based on absolute and/or intensity metrics but should indicate how an intensity target translates into absolute emissions and vice versa Companies should focus on reducing gross emissions; the total expected impact of measures to "net-off" residual gross emissions should be reported Integrated oil and gas companies should set separate medium- and long-term emissions targets for their upstream businesses
5. Decarboni-sation Strategy	If a decarbonisation strategy to meet its long-, medium, and short-term GHG reduction targets is in place and if it includes a commitment to 'green revenues'	Companies should disclose the actions they intend to take to reach net zero and the contribution of each action to its medium- and long-term targets It may not be possible to identify and quantify all actions today but companies should ensure that the total of all quantified actions accounts for at least 75% of the medium-term reduction and at at least 50% of the long-term reduction Oil and gas companies should reduce operational emissions to net zero Oil and gas companies should have the flexibility to use a range of available measures to reduce emissions, however they should state their production plans for boil oil and gas in their targets. If a company does not commit to production decline in line with net zero, it should justify this through additional cost and capex disclosure (see below) Companies intending to rely on offsets, CCUS or third-party actions to "net off" gross emissions should also state the individual contribution of these measures and provide additional disclosure on these actions Companies should disclose the total contribution of "green" energy sales towards their medium- and long-term targets and specify the "green" energy they intend to produce (where the definition of "green" references the relevant regional taxonomy)

Appendix 1: Net Zero transition in the UAE & MENA region - sector analysis

CA100+ disclosure indicator and description		Supplemental O&G actions/disclosure (see Exhibit 13 for details)
6. Capital Allocation Alignment	If a company is working to decarbonise its future capital expenditures and discloses the methodology used to determine the Paris alignment of its future capital expenditures	Companies should confirm that their investment strategy is aligned with the net zero and set out the assumptions (oil price, carbon tax, depletion rates etc) underpinning that conclusion Companies should disclose a forward-looking capex budget (at least three years), specifying upstream and exploration elements. Additional disclosure on breakeven costs for new projects should be provided if targeted production declines are inconsistent with net zero (see above). Investment in CCUS and other CDR measures should also be specified Companies opting to invest in green energy should specify "green" capex
7. Climate Policy Engagement	If a clear commitment and set of disclosures clarifying intent to support climate policy has been developed by the company together with a demonstration of how direct and indirect lobbying is consistent with this intent	No supplementary, sector-specific, disclosure proposed
8. Climate Governance	If the company's board has clear oversight of climate change sufficient capabilities/ competencies to assess and manage the risks and if climate targets are included in the executive remuneration scheme	The link between executive remuneration and climate targets should be prominently disclosed with who it applies to, share of the pay linked to the target, and the impact of the under/over performance explicitly stated. Any link between remuneration and fossil fuel production growth should be removed
9. Just Transition	If it considers the impacts from transition to a lower-carbon business model on its workers and communities	No supplementary, sector-specific, disclosure proposed
10. TCDF Disclosure	If it has committed to implement the recommendations of the Taskforce on Climate-related Financial Disclosures (TCDF) and employs climate-scenario planning to test its strategic and operational resilience	To enable investors to understand, track and compare decarbonisation strategies, companies need to improve and standardise their existing emissions and energy disclosure Companies should disclose the fossil fuel and price forecasts underpinning their accounts and the underlying assumptions If a company is not yet adopting assumptions consistent with a net zero scenario, then it should show the impact of a net zero scenario on revenue and profits, the balance sheet and cashflow

As part of the Net Zero Standard, multiple paths are emerging for companies, including:

- Diversifying into new areas of business and renewables
- Working through value chains with customers to reshape demand for oil and gas
- Offering solutions to reduce emissions
- Ceasing exploration and running existing assets down in order to return cash to investors.

Source: https://www.iigcc.org/resource/net-zero-standard-for-oil-and-gas-companies/#:~:text=The%20net%20zero%20standard%20sets,company%20net%20zero%20transition%20plans.

Appendix 1: Net Zero transition in the UAE & MENA region - sector analysis

REAL ESTATE

The World Green Building Council's Net Zero Carbon Buildings Commitment calls on the building and construction sector to take action to decarbonise the built environment, inspire others to take similar action, and to remove barriers to implementation.

The sector is globally responsible for 36% of energy consumption, 38% of energy related carbon emissions, 50% of resource consumption, and is expected to double in total footprint by 2060. As part of the Commitment, which helps companies reach a Net Zero goal, organisations are required to consider the whole lifecycle impact of buildings and builds and best practice principles for implementation.

The Commitment requires that by 2030:

- Existing buildings reduce their energy consumption and eliminate emissions from energy and refrigerants removing fossil fuel use as fast as practicable (where applicable). Where necessary, compensate for residual emissions.
- New developments and major renovations are built to be highly efficient, powered by renewables, with a maximum reduction in embodied carbon and compensation of all residual upfront emissions.

To manage the up-front costs and help incentivise spending by end consumers, financial institutions can play a role by devising new creative financial products and by helping to align incentives across stakeholders. Already, a slew of newer technologies make low-carbon heating and cooling systems, such as heat pumps and energy-efficient air conditioning, more cost competitive in many markets and climates. In addition, smart building controls and improved insulation help reduce energy demand.

Another driver of change in the sector is the World Economic Forum's Future of Real Estate initiative, which sets out a vision and roadmap for the future of buildings and cities to become more liveable, sustainable, resilient and affordable. To meaningfully reduce carbon emissions, the Green Building Principles aim to support the transition of real estate portfolios across all industries, asset types and regions.

Uniquely to the real estate and built environment sector, the question of who pays for adopting the transition to Net Zero – since the benefits of energy efficiency optimisation and renewable energy supply are often gained by the occupiers. Historically, attempts to share cost burdens across this divide have not been successful. It is important to note that in order to claim Net Zero carbon, a company does not need to have paid for all the emissions reductions itself. Companies are able to find the most appropriate mechanisms to share the costs of these interventions equitably with those who will benefit from them, including the company's tenants, the building's owners, or managers.

A key element of an engagement plan is reviewing the use of green leases and/or clauses, under which the owner and the occupier undertake specific responsibilities and obligations regarding the sustainable operation or occupation of a property. These leases and clauses are most effective as part of a broader engagement plan.

Appendix 1: Net Zero transition in the UAE & MENA region - sector analysis

FINANCIAL INSTITUTIONS

A guiding principle for financial institutions (FIs) is the Net Zero Banking Alliance (NZBA) Guidelines, which state that banks will set and publicly disclose long-term and intermediate targets to support meeting the temperature goals of the Paris Agreement. This means that banks will be targeting their financed emissions (meaning the emissions produced by companies and projects they bank), which make up to 80% of banks' total emissions.

While a bank's targets for reductions in financed emissions may be supported by other approaches (such as production volume trajectories or technology mix) or measurements (such as financing targets), they will generally be set in absolute and/or intensity terms.

Absolute emissions – an overall reduction in total/combined emissions

Sector-specific emissions intensity (such as the CO_2 e/ metric) – specific sectorial-based reductions, focused at hard-to-abate and challenging sectors.

This means that financial organisations will begin to scrutinise lending and the flow of capital to activities that contribute emissions and align financing with their own sector-specific targets and policies.

The most obvious area of innovation for FIs to focus on is to develop new financial products, services, processes, structures, and tools, including:

- **Green finance hubs.** Creating more green financial centres – stable, trusted hubs providing high quality green finance to every region and market.
- **New products and services.** Looking beyond large corporate clients to create flexible climate-aligned propositions such as green deposits, green mortgages or EV insurance for retail, SMEs and other customers.
- **Transition pathways.** Understanding and developing transition plans for key sectors andclients.
- **Insurance.** Insurers' risk appetites and underwriting capabilities allow them to de-risk projects and allow for greater capital mobilisation in the early stages of transition (e.g., underwriting weather, product liability or intellectual property risks).
- **New intermediation mechanisms.** Developing entirely new ways to match the providers and users of capital – for example, by using distributed ledger technology to give retail investors tokenised access to green assets.
- **Trusted disclosure.** Producing auditable climate-related reporting that commands stakeholder trust and reduces the costs of capital issuance, underpinned by new assurance techniques for emissions.
- **M&A and other strategic tools.** Making greater use of spin-offs and developing 'bad bank' structures to fund legacy activities and establish clearing prices.
- **Automating data analysis.** Applying AI and other forms of machine learning to capture and analyse climate-related risks, corporate reporting, and other financial and non-financial data.

Source: The Commitment – United Nations Environment – Finance Initiative (unepfi.org)

Appendix 2: Case study - Etihad Airways

Etihad Airways

The World's First Transition Sukuk and first USD Issuance from Aviation Sector

On Wednesday 28th October 2020, Etihad Airways priced the first ever transition sukuk globally and the first ever transition bond or sukuk issued by an airline in the USD market

Etihad established its Transition Finance Framework in order to issue a Sukuk with a use of proceeds commitment and a sustainability linked carbon emissions metric to demonstrate its commitment to reducing the emissions intensity of its business.

Etihad was able to capitalize on its strong credit rating of 'A' by Fitch, one of only a few airlines to have maintained an investment grade rating since the onset of the COVID-19 pandemic and its impact on the aviation sector.

Etihad combined its new issue of $600m with a tender offer of $300m in order to partially refinance its USD Sukuk maturing in 2021.

Summary Terms:

Issuer	Unity 1 Sukuk Limited
Obligator	Etihad Airways P.J.S.C.
Issue Ratings	A by Fitch
Status and Format	Senior Unsecured RegS only Unlisted Transition Sukuk
Issue Size	US$ 6,000,000,000
Pricing Date	28 October 2020
Tenor	5 years bullet
Maturity	3 November 2025
Re-offer Spread	200bps
Re-offer Yield	0.394%
Re-offer Price	2.394%
Government Law	English Law
Denominations	$200,000 and internal multiples of $1,000 in excess thereof
SPO Provider	Vigeo Eiris
Use of Proceeds	An amount equal to the proceeds will be allocated to finance and/or refinance new and/or existing projects from in accordance with the Transition Finance Framework
Listing	Unlisted

Execution highlights

- On 20 October 2020, Etihad announced a series of fixed income investors calls to discuss a potential unlisted 5-year RegS senior unsecured Transition Sukuk with investors
- The issuance would be undertaken under Etihad's transition framework and their $3.0bn unlisted Sukuk programme. To receive a copy of the information Memorandum and the recent financial statements of Etihad, a Non-Disclosure Letter of Undertaking in favour of Etihad was required to be executed by an investor prior to receiving such information
- Following a five-day marketing exercise, on 27 October 2020 at UAE open, Etihad released initial price thoughts (IPTs) of 'mid-2% area' for a USD five-year Transition Sukuk. The order book gained strong momentum, growing to more than $ 700m by the end of the first day of book building, which allowed Etihad to release price guidance of MS+200bps at the beginning of the second day of book building
- The order book continued to grow, which allowed Etihad launch the issuance at $600m at a fixed rate price of 2.394%
- The transaction attracted strong interest from local international investors with more than 150 investors viewing the oVerview Presentation and the Transition Finance Framework of Etihad online

Appendix 2: Case study - Etihad Airways

Transition Finance Framework – Use of Proceeds Framework

Etihad established a Transition Finance Framework (the "Framework") to demonstrate how the Group and its other entities intend to transition the business in alignment with the goals of the Paris Agreement.

The Transition Finance Framework has two components: 1) A use of proceeds framework and 2) A sustainability linked finance framework:

1. Use of proceeds framework

Eligible Category	Eligibility Criteria	Example Green Assets	Exclusions	UN SDGs
Energy Efficiency	Development, manufacture and/or installation of energy efficiency aviation technologies and products with a view to improve energy efficiency Eligible Assets should have an energy efficiency (weighted average) that leads to energy savings of at least 15% against previous technologies R&D in sustainable aviation fuels, including biofuels, for improved fuel efficiency. Direct emissions from the production of biofuels will be at least 80% lower than fossil fuel counterfactual	Investments in next generation aircraft to replace old fleet (such as Boeing 787-9 and Boeing 787-10) Research and development into Sustainable Aviation Fuels	Investments in next Aviation fuels derived from non-RSPO certified palm oil Non-waste biofuels that compete with food production Biofuels that negatively impact biodiversity, e.g. habitat loss or displacement of natural ecosystems	

Governance – Selection Process and Management of Proceeds	• Etihad established an Environmental Performance Taskforce with responsibility for governing and implementing the initiatives set out in the Framework • The respective project team will identify potential eligible projects based on the eligibility criteria outlined in the Use of Proceeds section • Once identified, all transaction assets will be subject to an extensive due diligence process that will examine all aspects of the projects including, but not limited to, validation of selected targeted group, confirmation of alignment with SDGs, financial analysis of project costs, assessment of project feasibility, scrutiny around the stated benefits and their measurement • The proceeds of each issuance under the Framework will be deposited in the general funding accounts and to be earmarked to eligible projects, with management of proceeds overseen by the Treasury, Tax and Finance department • Etihad has established a Sustainable Financing Register to record the allocations and track the use of proceeds of issuances under this framework
Reporting	**Allocation Reporting:** • The amount of percentage of allocationto the Eligible Transition Portfolio • Examples of Eligible Assets invested in from the proceeds and issuance • The geographic distribution of assets funded • The portion of proceeds from each issuance that is for new financing vs, refinancing, and • The balance of the unallocated proceeds of each issuance under the Framework **Impact Reporting – Energy Efficiency:** • Reduced and/or avoided GHG emissions (in t.CO2e/year) • CO2/Revenue Tonne Kilometre • Use of sustainable aviation fuel (adjusted distance travelled using biofuels) • Number of research programs funded • Types of research studies launched • Qualitative case studies on R&D projects

Appendix 2: Case study - Etihad Airways.

Transition Finance Framework – Sustainability Linked Framework

Etihad established a Transition Finance Framework (the "Framework") to demonstrate how the Group and its other entities intend to transition the business in alignment with the goals of the Paris Agreement.

The Transition Finance Framework has two components: 1) A use of proceeds framework and 2) A sustainability linked finance frameworkthe latter of which is below

Key Performance Indicator (KPI)	Sustainability-Performance Targets (SPTs)
Etihad selected the Carbon-dioxide emissions to Revenue tonne kilometres (CO_2e/RTK) metric to measure the emissions intensity of its fleet over the short-, medium- and long-term. The KPI selected is consistent with Etihad's strategic priority to reduce its carbon emissions as part of its sustainability strategy Commitment to Net Zero Carbon emissions as per Etihad Aviation Group (EAG)'s 2050 target 50% reduction in net emissions by 2035, based on CORSIA-established baseline (2019) and a 20% reduction in emissions intensity (CO_2/RTK) in Etihad's passenger fleet by 2025, based on EAG fleet transformation plan initiated in 2017	The sustainability Performance Target is set at 714 kg CO_2/RTK for the passenger fleet, which results in a total of CO_2/RTK of 574, with a Target Observation Dater of 31 December 2024. This is an aggregate reduction of 17.8% over the 2017 baseline of 869 g CO_2/RTK

Sukuk Characteristics	• In issuing a Sustainability-linked Sukuk Etihad is voluntarily adding to its existing commitments under CORSIA, committing to also invest in additional climate reduction projects to promote its target to reduce carbon emissions intensity by over 20% from the 2017 baseline (based on Fleet Transformation efforts) • However, if the target is not met, Etihad commits to purchasing additional offsets
Reporting	• On an annual basis, until the Observation Date, Etihad will disclose performance on burn, RTK and CO2/RTK for the passenger fleet across the entire fleet on its website as part of its annual press release on performance • This reporting will be made available within six months of each calendar year and will also include information on the efforts made to improve emissions intensity and any other relevant information to enable progress on the SPT • Reporting on fuel burn and RTKs is also submitted in an annual basis to ICAO as part of Etihad's reporting under CORSIA agreement. Etihad will provide a final report on the performance of the KPI against the predefined SPT within six months of the Target Observation Date
Verification	• Etihad will obtain annual verification of performance on fuel burn, RTK and CO2/RTK from an External Verifier. The External Verifier means KPMG Lower Gulf or any such other qualified provider of third-party assurance or attestation services appointed by Etihad • Fuel burn and RTK reporting is also audited for Etihad's submission to ICAO. This verification will be confirmed in the company's annual result disclosure • Etihad's performance on the KPI at the Target Observation Date will be verified by an External Verifier, who will provide reasonable assurance on the performance of the company under the ISAE 300 and AA 1000 2008 AS standards (or equivalent) • This verification will be included on the company's website within six months of financial year-end

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