



Implementing sustainability for the healthcare sector

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Executive Summary

The delivery of healthcare services directly and indirectly contributes to greenhouse gases (GHG) emissions through energy consumption as well as value chain activities from product manufacturing, to transportation and distribution, water usage and end-of-life disposal of healthcare waste. Carbon emissions will follow rising healthcare spend unless we actively intervene.

The three key takeaways from 2021 World Health Organisation's (WHO) health and climate change global survey report found that:

- There is strong nexus between climate change and health;
- COVID-19 pandemic distracted resources from addressing climate change; and
- Implementation of climate change plans are impeded by insufficient funding and other resources.

With the COVID-19 pandemic under control and relaxation of border restrictions, it is timely for the healthcare sector to urgently consider addressing climate change as part of its overall roadmap.

Bold commitments by industry leaders suggest that the healthcare sector could move ahead of other sectors to meet the 1.5°C global goal set out in the Paris Agreement, ahead of its mid-century target.

UOB has a suite of sustainable frameworks and solutions designed to support companies in the healthcare sector on their sustainability journey. This suite of solutions aims to address the industry's lack of access to financing to support their climate change plans.

UOB's sustainable framework & solutions can be executed using the following types of sustainability instruments:

- Green bilateral loans/ bonds/ trade products
- Green syndicated or club loans
- Green sustainability-linked loans/ bonds/ trade products

With access to sustainable financing, it is important for healthcare players to start taking action now.

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Take action for climate change now

Heal Earth, Heal People



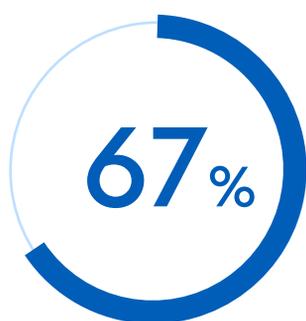
There is a paradox that healthcare products and services benefit people, yet the provision of healthcare services inevitably emits greenhouse gases (GHG). The delivery of healthcare services directly and indirectly contributes to GHG emissions through energy consumption as well as value chain activities from product manufacturing, to transportation and distribution, water usage and end-of-life disposal of healthcare waste.

Rising GHG emissions could lead to extreme weather events like floods, heatwaves or droughts, air quality and risk of climate-sensitive diseases. Therefore, it is imperative to start building a climate resilient and environmentally sustainable healthcare sector by increasing climate awareness, building capacity and strengthening the case for investment in climate mitigation as a form of investment in health protection.

The environment is ready to address climate change in the Healthcare Sector

Countries have significantly increased health considerations in their net-zero target setting. Findings from the 2021 World Health Organisation (WHO) health and climate change global survey report showed that almost all (94%) of the 142 new or updated nationally determined contributions published in 2020 - 2021 mentioned health, compared to 70% of 184 contributions in 2019.

There are three key takeaways from the 2021 WHO health and climate change global survey report:



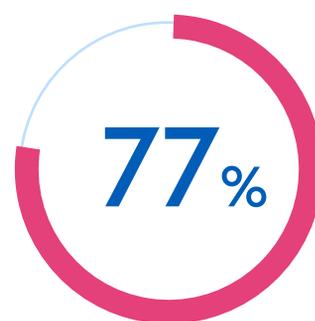
Awareness of the nexus between climate change and health:

Two-third (67%) of the countries surveyed have conducted a climate change and health vulnerability and adaptation assessment or are currently undertaking one.



COVID-19 pandemic distracted resources from addressing climate change:

About half (52%) of the countries surveyed reported that the COVID-19 pandemic significantly slowed down the implementation of protective measures to combat climate change, healthcare personnel and resources were diverted to controlling the pandemic.



Implementation of climate change plans are impeded by insufficient funding and other resource constraints:

Over three-quarters (77%) of surveyed countries have developed or are currently developing national health and climate change plans or strategies. However, implementation is impeded by insufficient financing, manpower, and limited research, evidence, technologies and tools.

With the COVID-19 pandemic under control and relaxation of border restrictions, a sense of normality has returned. It is timely for the healthcare sector to start addressing the urgency of climate change as part of its overall roadmap.

Source: The 2021 WHO health and climate change global survey report is based on a triennial, voluntary survey sent to all 194 WHO Member States and a small number of non-Member Territories. Its findings are based on 95 country participants. <https://www.who.int/health-topics/climate-change>

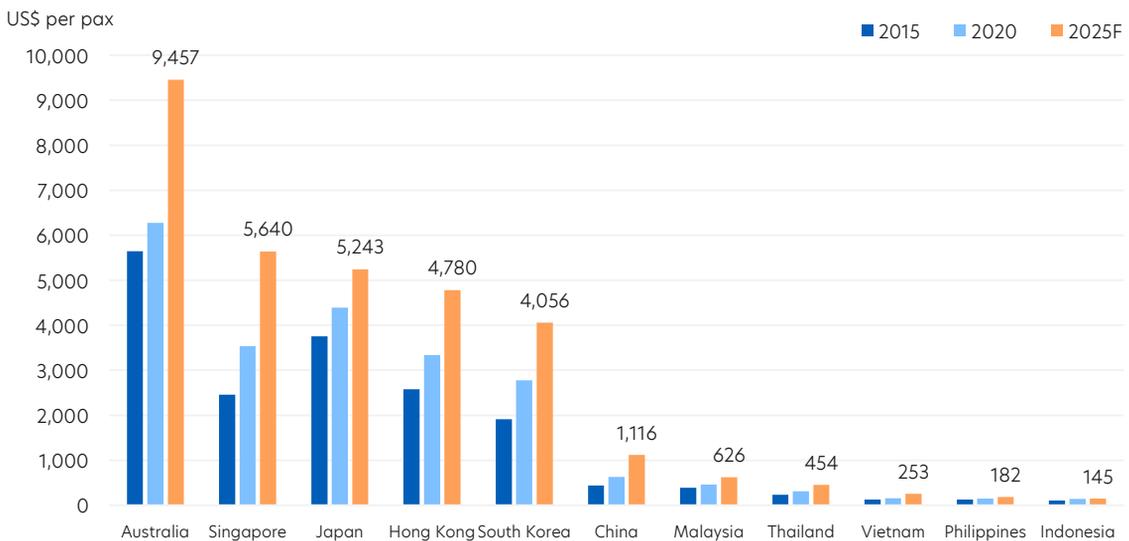
Healthcare’s carbon footprint is linked to healthcare spending

Rising healthcare spending



Asia Pacific faces wide disparities on per capita healthcare spending. There are countries where highly sophisticated healthcare delivery systems exist, supported by a rich ecosystem of suppliers, manufacturers and distributors, and there are countries which are less well-resourced. Nevertheless, all countries are confronted with common challenges of ageing population, rise of chronic diseases, and continually investing in a system with preparedness to deal with the next infectious disease. Like the rest of the world, Asia Pacific is trending towards spending a higher portion of its Gross Domestic Product (GDP) on the healthcare sector going forward.

Figure 1: Key Asia Pacific countries healthcare spend per capita



Source: Fitch Solutions estimates based on historical data from WHO and Department of Health (Hong Kong), UOB analysis

Carbon emissions will follow rising healthcare spend unless we make active interventions

Carbon emission on a per capita basis follows the same ranking as countries’ healthcare spend. This suggests that each additional dollar spent on healthcare could lead to higher carbon emissions. Continual carbon emissions is not good for the environment and individuals’ health. The healthcare sector needs to make active interventions to build a climate resilient and environmentally sustainable healthcare sector.

Figure 2: Carbon footprint of key Asia Pacific countries

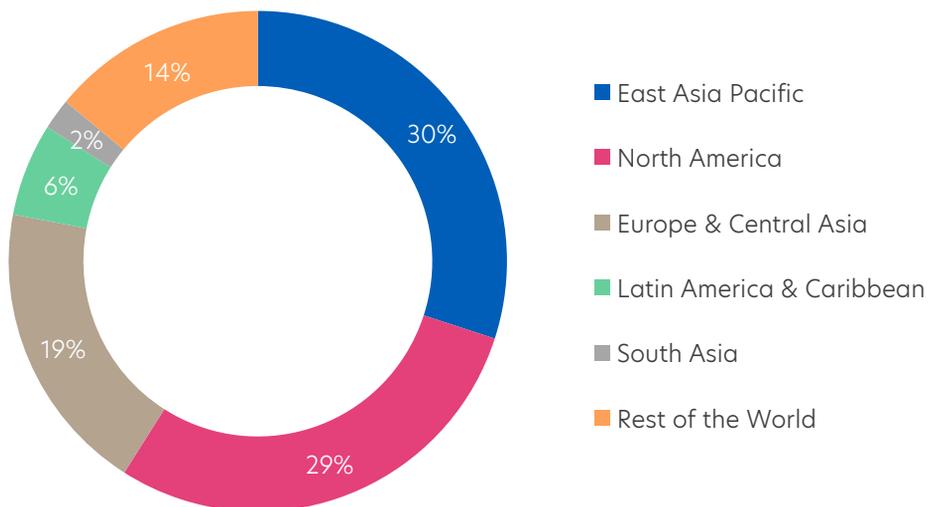
Over 1.0 Ton of carbon-equivalent per capita	Between 0.5 and 1.0 Ton of carbon-equivalent per capita	Less than 0.28 Ton of carbon-equivalent per capita
Australia Singapore	Japan South Korea	China Indonesia Malaysia Philippines Thailand Vietnam

Source: Global Roadmap for Healthcare Decarbonisation 2021 by Healthcare without Harm in collaboration with Arup. Based on the study, the average emission from countries are between 0.28 and 0.50 Ton of carbon-equivalent per capita.

East Asia Pacific countries hold the biggest share of gross emissions

The healthcare sector in East Asia Pacific accounts for circa 30% of the gross carbon emissions, which was the biggest contributor to carbon emissions globally. Unlike Europe or North America, the region typically does not lead in sustainability. However, the era of sustainability in the healthcare sector is dawning as governments made their net-zero commitments during COP26 in 2021 and will continually refine their nationally determined contributions to meet these targets. All sectors in each country will have to play their part for governments to achieve their committed reductions.

Figure 3: Carbon emissions by region



Source: Healthcare’s Climate Footprint 2019 by Healthcare without Harm in collaboration with Arup, UOB analysis.

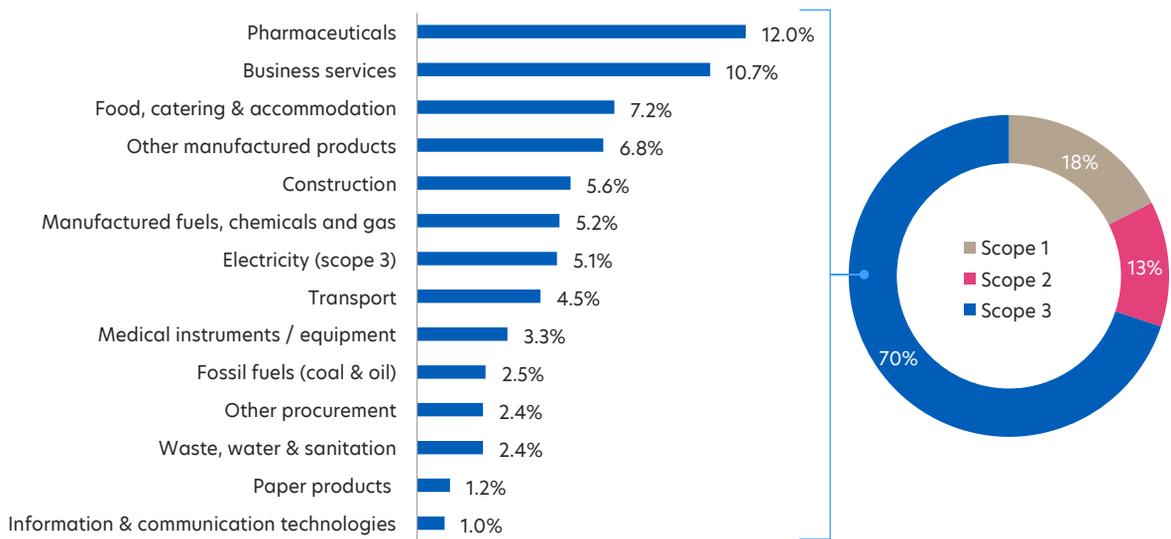
Sources of carbon emissions in the healthcare sector

Healthcare sector's carbon footprint came out as #5 largest emitter, if ranked by country

Globally the healthcare sector's total carbon footprint was reported to be 2.0G Ton of carbon-equivalent or 4.4% of global emissions, according to the tracking and estimates made by non-governmental organisation (NGO), Healthcare without Harm and Arup in the Healthcare's Climate Footprint 2019 study. More than half of the sector's footprint can be attributed to energy use, from operating a healthcare facility (scope 1 emissions*) , emissions from its source of electricity (scope 2 emissions*) and emissions arising from its supply chain (scope 3 emissions*).

Figure 4: Categories of carbon emission from a healthcare facility's perspective

Details of scope 3 emission:



Source: Global Roadmap for Healthcare Decarbonisation 2021 by Healthcare without Harm in collaboration with Arup, UOB analysis

After understanding the breakdown of emissions coming from the healthcare sector, there are various ways for the sector to de-carbonise:

- 1) Actively reducing emissions from own operations (scope 1 emissions)
- 2) Using electricity from clean sources (scope 2 emissions)
- 3) Influencing and working with your value chain, including suppliers and distributors to reduce their emissions, which will in turn reduce your own emissions (scope 3 emissions).

* Please refer to Appendix for definition of scope 1, 2 and 3 emissions.

Environmental commitments made by healthcare sector

Bold commitments by industry leaders suggest that the healthcare sector could move ahead of other sectors to reach net-zero

Just like many other sectors, the players working actively to reduce their carbon footprint in the healthcare sector are mainly led by multinational companies (MNCs) from Europe, United States or other western countries. Their environmental commitment announcements suggest that, with determination, it is possible for the healthcare sector to reach net-zero by 2050 to be aligned with the Paris Agreement. In fact, some of the sustainability leaders in the healthcare sector have made commitments to reach net-zero earlier than 2050.

Figure 5: Examples of environmental targets set by various players in the key segments of the healthcare value chain

Companies	Country	Healthcare segment	Carbon neutrality* target	Net-zero** target
1. Ramsey Healthcare	Australia	Operator	-	2040
2. Mediclinic	United Kingdom/ South Africa	Operator	2030	-
3. GSK	United Kingdom	Pharmaceutical Manufacturer	-	2030
4. Pfizer	United States	Pharmaceutical Manufacturer	-	2040
5. Medtronic	United States	Medical Devices Manufacturer	-	2045
6. Smith & Nephew	United Kingdom	Medical Devices Manufacturer & Pharmaceutical Distributor	-	Scope 1 & 2 net-zero by 2040 Scope 3 net-zero by 2045

Source: Various company commitments

Even though Asia has yet to be at the fore front of sustainability, there is a gradual trend of moving towards greater environmental awareness as various Asian governments have stepped forward at COP 26 in 2021 to make net-zero commitments. As seen in Figure 3: carbon emissions by region, Asia Pacific is responsible for circa. 30% of the carbon emissions from the Healthcare sector. It is timely for Asian healthcare companies to consider how they could do their part to contribute to a greener healthcare sector.

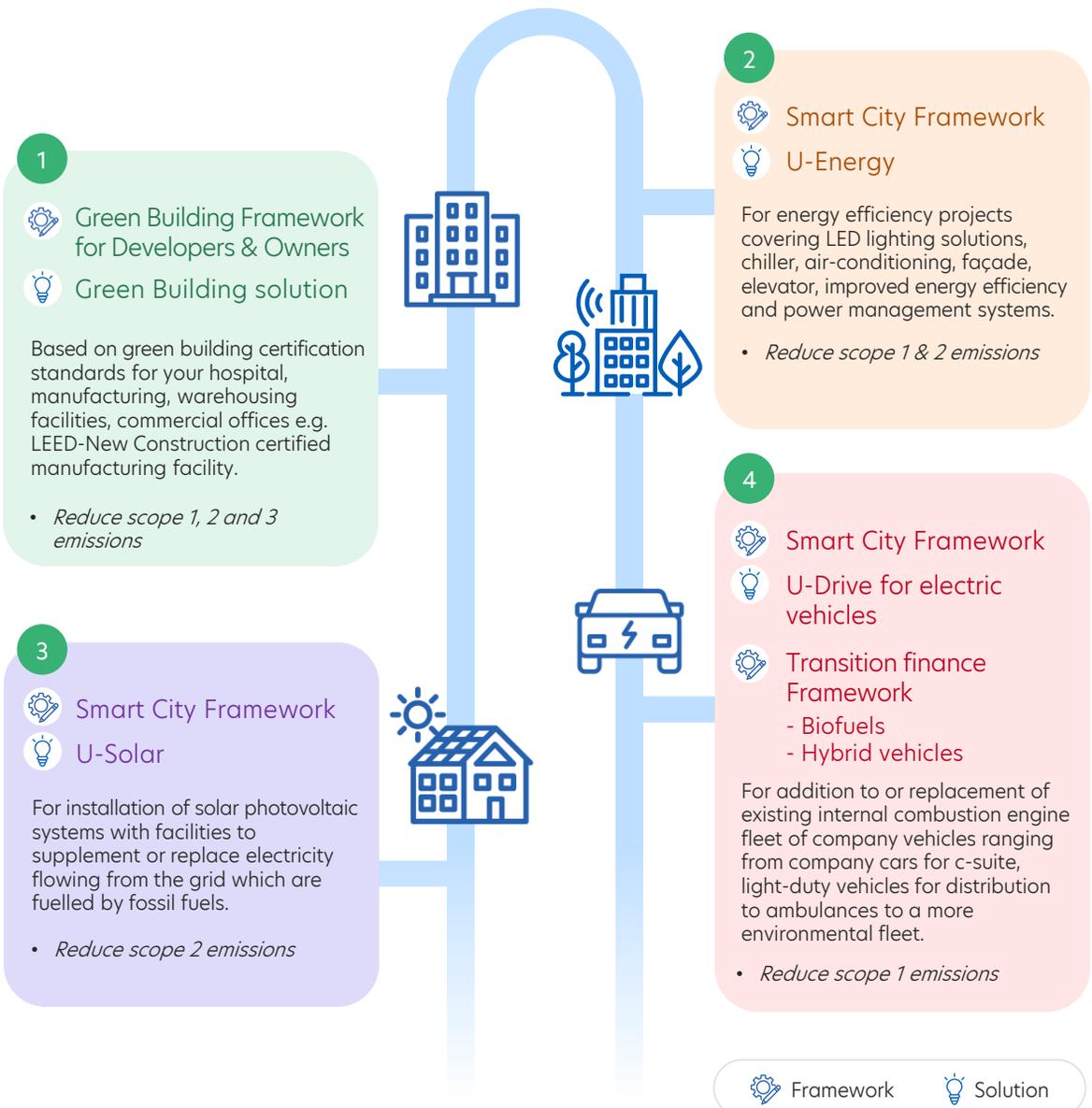
* Carbon neutrality generally refers to compensation of an entity's annual emissions through a policy of voluntary carbon credits.

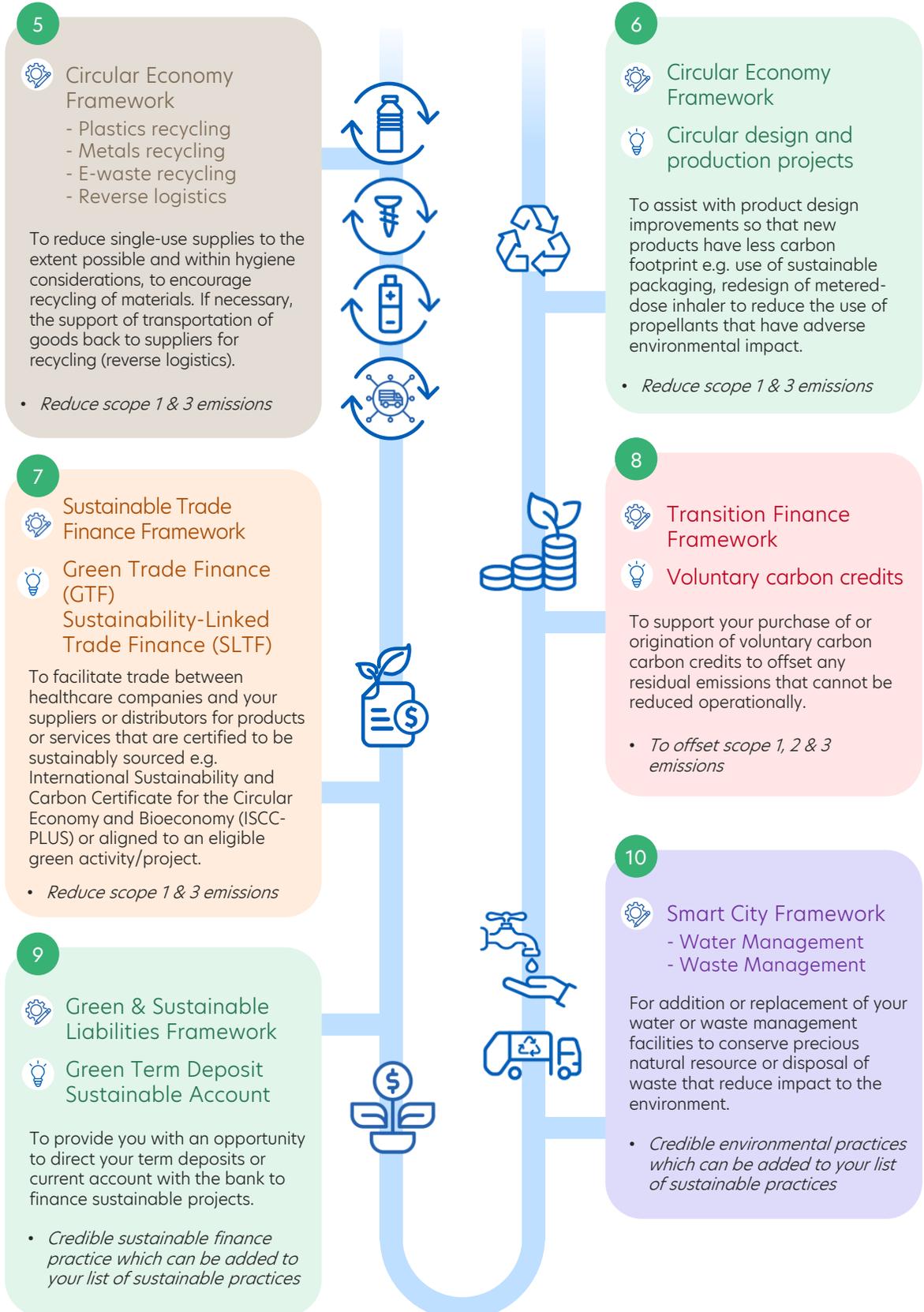
** Net-zero target generally refers to achieving long-term emissions reduction to residual emissions in line with climate science and neutralise residual emissions thereafter.

UOB's suite of sustainable financing solutions for the healthcare sector

UOB's suite of sustainable financing solutions is designed to support companies in Asia healthcare sector on their sustainability journey. This suite of solutions aims to address the industry's lack of access to financing to support their climate change plans. UOB has identified the urgency and importance of addressing climate change issues within the healthcare sector through this suite of financing solutions.

Figure 6: Areas of environmental improvements in the key segments of the healthcare value chain (*continue next page*)





5

Circular Economy Framework

- Plastics recycling
- Metals recycling
- E-waste recycling
- Reverse logistics

To reduce single-use supplies to the extent possible and within hygiene considerations, to encourage recycling of materials. If necessary, the support of transportation of goods back to suppliers for recycling (reverse logistics).

- *Reduce scope 1 & 3 emissions*

6

Circular Economy Framework

Circular design and production projects

To assist with product design improvements so that new products have less carbon footprint e.g. use of sustainable packaging, redesign of metered-dose inhaler to reduce the use of propellants that have adverse environmental impact.

- *Reduce scope 1 & 3 emissions*

7

Sustainable Trade Finance Framework

Green Trade Finance (GTF)

Sustainability-Linked Trade Finance (SLTF)

To facilitate trade between healthcare companies and your suppliers or distributors for products or services that are certified to be sustainably sourced e.g. International Sustainability and Carbon Certificate for the Circular Economy and Bioeconomy (ISCC-PLUS) or aligned to an eligible green activity/project.

- *Reduce scope 1 & 3 emissions*

8

Transition Finance Framework

Voluntary carbon credits

To support your purchase of or origination of voluntary carbon carbon credits to offset any residual emissions that cannot be reduced operationally.

- *To offset scope 1, 2 & 3 emissions*

9

Green & Sustainable Liabilities Framework

Green Term Deposit Sustainable Account

To provide you with an opportunity to direct your term deposits or current account with the bank to finance sustainable projects.

- *Credible sustainable finance practice which can be added to your list of sustainable practices*

10

Smart City Framework

- Water Management
- Waste Management

For addition or replacement of your water or waste management facilities to conserve precious natural resource or disposal of waste that reduce impact to the environment.

- *Credible environmental practices which can be added to your list of sustainable practices*

Framework Solution

Key types of sustainable financing instruments

UOB's sustainability framework & solutions can be executed using the following types of sustainability instruments. The benefits of using UOB's sustainability frameworks include:

1. They are aligned with international sustainable loan/ bond principles and have been certified by internationally recognised second party opinion providers.
2. You do not need to incur additional cost to set up your own sustainable finance framework. You only pay for the fees and/or interests associated with usage of the financing facilities.



Green Bilateral Loans/Bonds (GBL/GB)

- Between UOB and borrower for GBL
- Lending is focused on the use of proceeds that directly have a positive impact on climate or environment
- To provide annual impact metric reporting to UOB



Green Syndicated or Club Loans (GSCL)

- Between UOB, other club banks and borrower
- Lending is focused on the use of proceeds that directly have a positive impact to climate or environment
- To provide annual impact metric reporting to UOB



Sustainability-linked Loans/Bonds (SLL/SLB)

- Between UOB and borrower for SLL
- Lending could be used for general corporate purpose or used for proceeds that directly have a positive impact on climate/ environment, social and or governance
- Peg interest rates to achievement of agreed upon sustainable performance targets
- To provide annual impact metric reporting to UOB



Green/ Sustainability-linked Trade

- Between UOB and borrower for green/ sustainability-linked trade
- Lending is focused on supporting trade of products or services that are certified to be sustainably sourced or aligned to an eligible green activity/ project.

Start implementing your sustainability initiatives now



It is possible for the healthcare sector to meet the 1.5°C global goal set out in the Paris Agreement, ahead of its mid-century target. There is an urgency for Asian companies in the healthcare sector to take action to reach net-zero, as sustainability concerns were deferred over the last three years due to the pandemic. With access to sustainable financing, it is important for players to start taking action now.

For information on implementing sustainability for the healthcare sector, please email: industry-insights@UOBgroup.com

Appendix

According to Greenhouse Gas Protocol Corporate Standard, GHG emissions are classified into the following three 'scopes':

- **Scope 1** emissions are direct emissions that occur from sources that are owned or controlled by the Company.
- **Scope 2** emissions are indirect emissions associated with the purchase of electricity, steam, heat or cooling.
- **Scope 3** emissions are all indirect emissions as a consequence of the Company's activities, but occurring from sources not owned or controlled by the Company.

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