

COP28 and the tech  
opportunity behind  
net-zero action in  
MENA



# COP28 and the tech opportunity behind net-zero action in MENA

Catalyzed by the global agenda set by the Paris Climate Accords in 2015, banks and financial institutions are making net-zero commitments, powered by initiatives like the Global Financial Alliance for Net Zero (GFANZ) and the Net-Zero Banking Alliance (NZBA). The NZBA represents roughly 40% of global banking assets and commits to align lending and investment portfolios with net-zero emissions by 2050<sup>1</sup>.

Financial institutions are at the heart of the net-zero agenda. Lenders and investors support the low-and-zero-carbon businesses and projects of tomorrow. They also design the innovative instruments that finance the transition, such as green bonds and green loans. At the same time, as digitized, data-driven businesses with extensive workforces and facilities, financial institutions also function as major resource-consumers and play their own role in setting net-zero ambitions across their operations.

Going forward, rules and expectations around Scope 1, Scope 2 and Scope 3<sup>2</sup> emissions (refer below table) will only tighten. Enterprise technology emissions are largely accounted for in Scope 2 (such as powering data centers) and Scope 3 (such as the IT hardware lifecycle including production, transport and disposal of equipment such as laptops, phones and printers). Depending on the source of electricity, technology can often comprise 40% to 60% of a financial institution's carbon footprint (excluding financed emissions). However, there is a significant opportunity for reduction through a range of technology and data sustainability initiatives. Companies that accurately and credibly report their emissions will now demonstrate their commitment to genuine progress, rather than greenwashing, thereby building consumer trust and enhancing market competitiveness. As a credible net-zero strategy becomes part of their social license to operate, institutions need to take steps now.



<sup>1</sup> <https://www.computerweekly.com/blog/Green-Tech/How-financial-services-can-accelerate-the-transition-to-a-greener-world>

<sup>2</sup> <https://plana.earth/academy/what-are-scope-1-2-3-emissions>

# COP28 and the tech opportunity behind net-zero action in MENA (contd.)



## Scope 1

### Direct

#### Typical sources

- ▶ Company facilities
- ▶ Company vehicles

#### Technology example

- ▶ Refrigerant gasses emitted from cooling servers

#### Carbon footprint reduction initiatives

- ▶ Update cooling infrastructure to reduce refrigerant use and leakage

## Scope 2

### Indirect

#### Typical sources

- ▶ Purchased electricity, steam, heating, and cooling for own use

#### Technology example

- ▶ Energy used to power and cool enterprise servers, networks, and end-user devices

#### Carbon footprint reduction initiatives

- ▶ Eliminate data duplication and update archiving practices to reduce server requirements
- ▶ Improve processing efficiency through new programming languages thereby reducing workload on servers
- ▶ Use right-size data center resources and manage up-time dynamically
- ▶ Consider carbon emissions in data center location strategy
- ▶ Procure green energy to power the IT estate

## Scope 3

### Indirect

#### Typical sources

- ▶ Purchased goods and services
- ▶ Transportation and distribution
- ▶ Business travel
- ▶ Employee commuting
- ▶ Leased assets

#### Technology example

- ▶ Supply chain emissions of equipment from raw material extraction through to disposal of assets
- ▶ Off-premise cloud storage and computing

#### Carbon footprint reduction initiatives

- ▶ Extend the lifespan of IT equipment
- ▶ Engage with cloud providers on carbon reduction, embed tracking, and consider emissions during the sourcing process

Source: GHG Protocol



# Ahead of COP28, MENA's financial industry steps up

With COP28 set for the UAE in 2023, the spotlight is on the MENA region's leadership in driving the next chapter of climate negotiations and climate action. Businesses and governments in the region have taken significant steps to drive the transition. Importantly, this includes in financial services, a key economic sector in countries including the UAE, Qatar and Saudi Arabia.

There are many shining examples of leadership, such as the Abu Dhabi Sustainable Finance Declaration, a voluntary, member-led initiative launched in 2019 to improve the quality and depth of green financial products offered in the UAE as well as to create a vibrant sustainable finance industry. Some financial centers recognize the need to develop capacity within the banking industry. In coherence to these efforts, DIFC recently launched<sup>3</sup> a climate finance training program to prepare practitioners for COP28 and share best practices on implementing net-zero strategies.

Individual banks in the MENA region are showing leadership too. First Abu Dhabi Bank (FAB) was the first GCC bank to join the NZBA in 2019 and the first MENA bank to issue a green bond, and to have funded over US\$10b in sustainable projects. Abu Dhabi Commercial Bank (ADCB) and Emirates NBD recently

signed the UAE Climate-Responsible Companies Pledge with the Ministry of Climate Change and Environment (MOCCA), reaffirming their commitment to supporting the UAE's climate agenda and Net Zero by 2050 strategic initiative.

COP28 provides an opportunity for host countries to showcase their leadership through initiatives linked to climate goals, including on a sector basis. An example would be UK's announced plan to "rewire the global financial system for net zero" as part of its leadership of the 2021 gathering. MENA financial institutions should look to COP28 as a turning point in their own net-zero journey. This should include a focus on lowering their own emissions profile, which is becoming an expectation of all companies in terms of their social license to operate and will increasingly be mandatory as Scope 1 and Scope 2 emissions reporting regimes take shape. Digital technology investments can help in managing and reporting the data necessary to accelerate this transition, and banks can start investing in them now. More broadly, technology leaders within financial institutions, such as CTOs, CDOs and CIOs, must be engaged as critical stakeholders in an organization's transition to net zero.



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<sup>3</sup> <https://www.difc.ae/newsroom/news/difc-prepares-financial-services-industry-cop28-climate-finance-training-series/>

<sup>4</sup> <https://www.bankfab.com/en-ae/about-fab/group/in-the-media/20211210-fab-joins-uae-race-or-net-zero-carbon-emissions-by-2050>



# The tech imperative to achieve a net-zero operational footprint

All financial services firms need to rapidly accelerate net-zero transformation in their operations. This requires being able to empirically measure, track and reduce emissions over time, all of which relies on best-in-class technologies. There is no achieving net zero without having the right tech stack which includes the right combination of technologies a company uses to build and run its operations.

Financial institutions are already advancing in their digital transformation journey, but is sustainability a part of that transition? Digital transformation can, without care and consideration, actually increase banks' carbon footprint as increased utilization of tools like artificial intelligence (AI), distributed ledger technology (DLT) and advanced data analytics are computationally intensive and energy hungry.

But when net zero and data strategies are aligned and synergistic, they can be mutually supportive. Financial institutions cannot begin a credible net-zero journey without robust data on their current emissions. That means investing in the right data and software to baseline and track performance over time. The sophistication and affordability of software and analytics packages now available offers companies access to tools they would struggle to build themselves. Financial institutions already use robust methodologies to establish that their financial data is appropriately managed. Sustainability data, on the other hand, is handcrafted<sup>5</sup>, scattered across spreadsheets and often hard to understand. That can be improved as a part of the wider transition to a more sophisticated data governance.

Operationally, financial institutions can radically cut energy use through digital transformation efforts they are already undertaking for efficiency and productivity gains. The shift from on-premise server farms to cloud computing providers that use clean energy, for example, can lead to energy efficiency improvements of over 90%<sup>6</sup>. Cloud computing can reduce over one billion tons<sup>7</sup> of carbon dioxide in the coming years compared with legacy IT systems according to the World Economic Forum (WEF).

The cloud infrastructure offered by "hyperscalers" are best-in-class in terms of energy efficiency, and significantly powered by renewable energy, at levels beyond what most companies could achieve themselves. These vendors<sup>8</sup> have also invested in calculators and dashboards that provide transparency into the carbon impact of cloud usage, aiding financial institutions' environmental, social, and governance (ESG) reporting.

Financial institutions can cut emissions related to their data and digital workflows through "green software" and "green IT", which can help coding and computing infrastructure achieve maximal energy efficiency and limit unnecessary power usage through everything from network coordination and demand management to more power-efficient coding. Financial institutions could, as part of wider digital transformation plans, also invest in capabilities like smart offices and buildings, powered by sensors and the Internet of Things (IoT), which can improve energy performance by adjusting to occupancy levels.

Even automation, a key objective of digital transformation, can improve financial institution's net-zero performance. Vastly reducing the labor time involved in routine and repetitive paperwork, particularly in the back-office automation can free up existing resources to focus on value-adding work. This includes dedicating more of staff's time to upskilling, training and delivering on net-zero, digital technology and financial services, a trifecta of competencies that few people currently hold.

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<sup>5</sup> <https://www.forbes.com/sites/forbestechcouncil/2022/09/22/the-five-key-components-of-a-sustainability-data-strategy/?sh=4cdf94f22a30>

<sup>6</sup> <https://www.computerweekly.com/blog/Green-Tech/How-financial-services-can-accelerate-the-transition-to-a-greener-world>

<sup>7</sup> <https://www.weforum.org/agenda/2022/11/banking-cloud-technology/>

<sup>8</sup> [https://www.ey.com/en\\_us/consulting/how-cios-can-take-the-lead-on-sustainability-and-esg](https://www.ey.com/en_us/consulting/how-cios-can-take-the-lead-on-sustainability-and-esg)

# Why CTOs and CIOs need to lead

Given the outsized role of digital technology in reaching net zero, chief technology officers (CTOs) and chief information officers (CIOs) are critical to the transition journey in financial services. Putting in place the right technology framework for operational emissions will accelerate their journey to net zero and provide a foundation for complying with more demanding requirements in the future, especially those related to Scope 3-financed emissions. Ahead of the crucial COP28 gathering in 2023, CTOs and CIOs should take up the initiative, in a make-or-break decade for fighting climate change, to help the region's financial industry take the lead. Understanding and acting on financed emissions is just around the corner. Successful banks will work toward encouraging their CTOs and CIOs to be the key enablers of this. Key considerations include:

## Link digital transformation to net zero



Financial institutions are already on a digital transformation journey and net zero should be part of their thinking while shaping important technology decisions. Shifting to energy-efficient cloud infrastructure, deepening engagement with high-performing ESG tech vendors, and investing in green software and green IT through hiring, upskilling and partnerships can help digital transformation and net-zero goals remain mutually supportive. Financial firms should also review their wider technology vendor ecosystem to help all partners pursue a credible net-zero path.

## Set the C-suite sustainability agenda



Sustainability affects every member of the executive leadership, from the chief financial officer's (CFO) investment decisions to the chief operating officer's (COO) oversight of logistics and supply chains. Given the energy demands of digital technology, and the power of well-designed digital technology to lower emissions, CIOs and CTOs should take a leading role in shaping net-zero strategy and delivery. They can achieve this by rallying their organizations to advance net-zero goals and pursue more sustainable ways of doing business. Technology leaders should also strengthen their engagement with the chief sustainability officer (CSO) and related units and functions, so they move in lockstep.

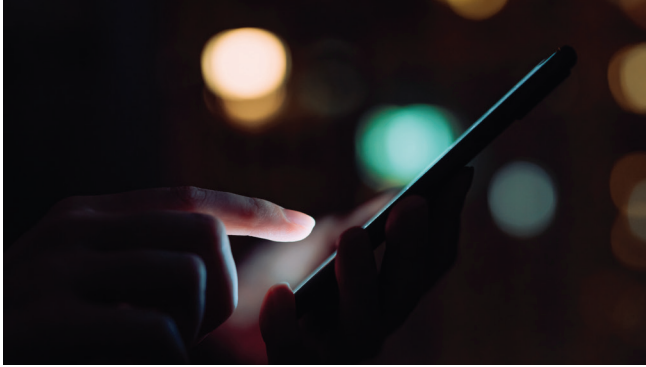
## Create a net-zero talent plan and a fully backed function to deliver



While sustainability has become an increasingly important functional role, the number of people with skills spanning financial services, net-zero and technology is small, especially in the MENA region. Financial institutions should focus on upskilling the existing workforce to deliver a credible net-zero agenda. This can be achieved by freeing up resources by investing in robotic process automation (RPA) and related tools to free up more time of staff who may be burdened by workloads that could be automated. Firms should also invest in the capabilities of their existing data analytics teams. Net zero is a journey, not a one-off project. It needs to be fully resourced.

# Why CTOs and CIOs need to lead (contd.)

## Deepen engagement with technology and software vendors



The number of software startups in climate-related data tools has increased rapidly in recent years, which can be overwhelming. The challenge for financial firms is to pick the right partners, especially when startups face uncertain futures during the current downturn. Locking into software provisioned by companies with an uncertain future is a procurement risk factor. Decision-makers should start by looking at their existing suite of providers, since many cloud and software as a service (SaaS) companies are now offering ESG-related capabilities layered on top of their existing solutions.



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