

BREATHING NEW LIFE INTO THE PUBLIC SECTOR

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LIFE INTO THE PUBLIC
SECTOR

DATA IS THE KEY TO
ACHIEVING NET ZERO
IN OUR SOCIETIES

SOCIAL
RESPONSIBILITY

INFORMATION IS ALL
AROUND – BUT THAT’S NOT
THE WHOLE STORY

CHALLENGES FACING
NET ZERO
OBJECTIVES

FROM INFORMATION
TO KNOWLEDGE
AND DECISION

PREVENTION IS
BETTER THAN A
CURE

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68%

of people believe future generations are at risk of being failed on climate change unless immediate action is taken by both governments and businesses.¹ The public sector is uniquely placed to lead transformative changes on net zero that can profoundly impact society’s well-being and quality of life.

¹Earth Day 2022, Public opinion on climate change: GB and the world, Ipsos Global Advisor, April 2022

In 2015, all 193 member states of the United Nations adopted the Sustainable Development Agenda, a global initiative that aims to eradicate poverty and embrace sustainability by 2030. Goal 13 on this agenda – Climate Action – focuses on taking urgent action to combat climate change and its impacts.

A central focus of Climate Action is the reduction of greenhouse gas emissions. Over 70 countries, including major polluters like China, the United States, the United Kingdom, and the European Union, which cover approximately 76% of global emissions, have pledged to achieve net zero greenhouse gas emissions by 2050.² However, these pledges are not on track. An analysis of the 193 United Nations member states reveals that only around 20% of countries possess internationally comparable data from 2015 or later related to climate action.³ This statistic illustrates the substantial data and insights gap that hinders sustainability objectives worldwide. **Data equips organizations to identify trends, make informed policy decisions, allocate resources efficiently, and devise targeted interventions to effectively respond to current and potential challenges, such as those posed by climate change.** Yet, when it comes to Climate Action, leveraging data collection remains a key challenge for both the private and public sectors.

Unfortunately, global greenhouse gas emissions are projected to rise by nearly 14% throughout the current decade.⁴ The alarming impacts of global warming are already evident. The summer of 2023 saw heatwaves and forest fires in Europe, the US, and China, alongside devastating floods in India, China, and the US. These events underscore the imperative for immediate and resolute actions to

reverse this destructive trend and work towards achieving net zero emissions.

With public health and natural disaster mitigation and response as driving causes for action, the public sector is at the forefront of these efforts – and robust data infrastructures are vital to accomplishing these goals.



² [For a livable climate: Net-zero commitments must be backed by credible action, United Nations](#)

³ The Sustainable Development Goals Report 2022, United Nations

⁴ [With Emissions Set to Rise 14 Per Cent by 2030, Secretary-General Calls for Urgent Climate Action Now, in Economic and Social Council Address, United Nations, July 13 2022](#)

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SOCIAL RESPONSIBILITY

It is projected that by 2027, cities that embrace and integrate sustainability initiatives will experience a quality of life that is 50% greater than cities that do not.⁵ This highlights the transformative potential of net zero goals in promoting more sustainable and livable communities.

While on average 71% of organizations measure scope 1 emissions and 56% measure scope 2 emissions, scope 3 emissions are largely unmeasured. This is a significant cause for concern, given that they account for an estimated 65%-95% of a company’s carbon footprint.⁶ The lack of reporting in the public sector may be perceived by private companies as double standards, as the public sector advocates for transparency in mandatory disclosures while not fully providing it themselves. **Collecting emissions data, however, is not simple or straightforward and requires the application of established frameworks and expertise.**

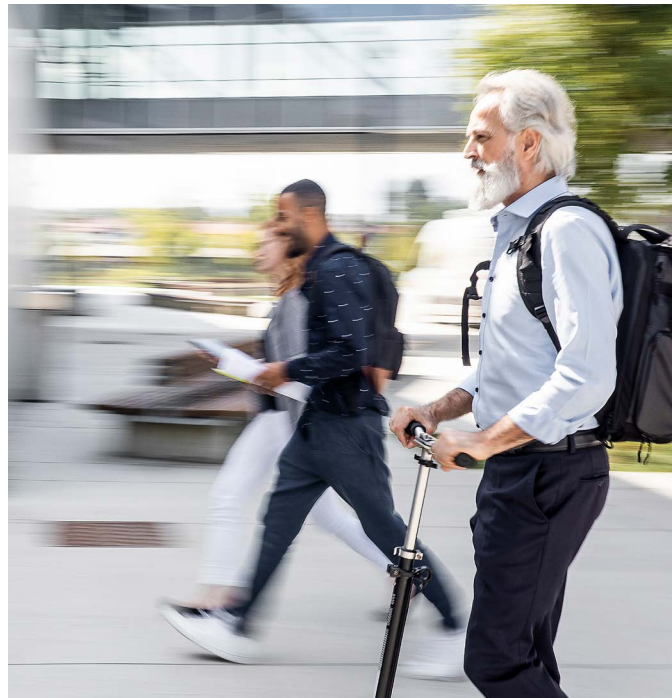
⁵Urban data, Gartner, 2023

⁶Data for Net Zero Report, Capgemini Research Institute, 2022

INFORMATION IS ALL AROUND – BUT THAT’S NOT THE WHOLE STORY

There is a vast amount of data available to the public sector. However, public services must prioritize building trust in their data in order to use data effectively. There are six key areas that can result in a lack of data trust.

Poor data quality: Data that is difficult to control or take accountability for can result in inaccuracies. Using inaccurate data may lead to wrong conclusions. To build trust, organizations must establish robust data governance mechanisms.



Lack of standardized methods: Accurately tracking emissions is a complex process. Scope 3 emissions pose the biggest challenge since it requires the application of data management techniques across the organization’s entire value chain. To track emissions produced by the products and services that the customer, citizen or supplier directly uses.

Data complexity: Often, data requires complicated calculations, and handling this data manually is not easy. Automation and the use of sophisticated data analysis tools are necessary to streamline this process and ensure data accuracy.

Limited data availability: Siloed data systems make it challenging to access valuable information. This can be avoided by implementing centralized data repositories and data-sharing practices.

High external dependency: External consultants are frequently used to aggregate environmental data and address data gaps. While this expertise can be invaluable, it can lead to organizations becoming less independent in managing their own data. It is important for public services to build internal capabilities to minimize reliance on third parties and maintain better control over their data processes.

CHALLENGES FACING NET ZERO OBJECTIVES

The public sector faces three main data challenges that must be addressed to achieve their net zero objectives.

THE ABSENCE OF BASELINES OR STANDARDIZED DATA FRAMEWORKS

Without a common set of standards, there are inconsistencies and inefficiencies both within and across organizations. This lack of data standardization inhibits the effective monitoring and comparison of emissions data, hindering progress toward net zero goals. Establishing a baseline and implementing standardized data practices becomes imperative to ensure accurate and comparable measurements.

THE UNDERUTILIZATION OF DATA IN DECISION-MAKING PROCESSES

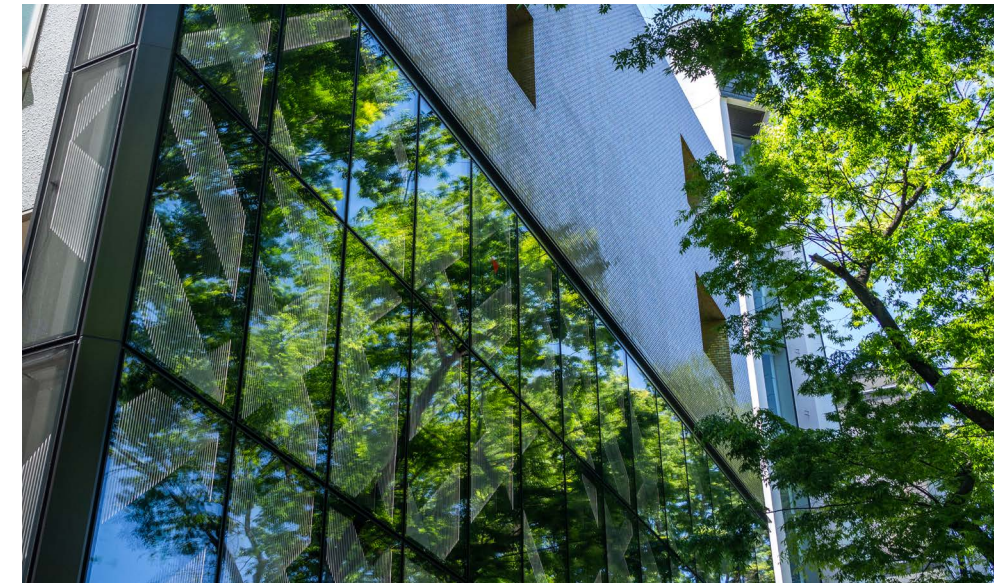
To make informed choices that accelerate the net zero journey, it is necessary to embed emissions data into the decision-making process. By leveraging

data insights, public sector organizations can gain a comprehensive understanding of their emissions profile and identify opportunities for improvement. This data-driven approach enables informed decision-making, guiding organizations toward the most effective strategies and actions to reduce emissions.

THE LACK OF COORDINATED APPROACHES TO SUSTAINABILITY

Collaboration and knowledge sharing at both national and international levels are essential to bridge this gap. By establishing a robust data infrastructure, including a platform for exchanging raw data, data insights, and strategies, public sector organizations can foster a coordinated approach to tackling net zero initiatives. Exchanging information across a data ecosystem enables the sharing of best practices, lessons learned, and innovative solutions, ensuring a more effective and unified response to sustainability challenges.

If the public sector makes data more available and transparent, it may inspire the private sector to “lead from the front” and act more quickly. This could result in faster progress and greater innovation that both the public and private sector can benefit from.



FROM INFORMATION TO KNOWLEDGE AND DECISION

Analyzing data can turn raw information into usable insights. Data can help the public sector see which services are popular among users, identify areas for improvement, and help understand the needs of their community. Using this knowledge, the public sector can make informed decisions, such as developing new services that align with public preferences or enhancing the quality of their services.

Studying data also lets public sector organizations detect trends and patterns. **Acting on data insights means public services can adapt and refine their strategies to achieve greater success and deliver enhanced value to the public.**

Through the implementation of data analytics, organizations can capture, analyze, and share crucial data among key stakeholders. This empowers

TRUSTED CARBON FOOTPRINT REPORTING FOR A GOVERNMENT BRANCH

A government administration required an automated system to gather data and calculate their carbon footprint alongside a set of tools to monitor the progress of their decarbonization efforts.

To achieve this, several government departments collaborated to develop a carbon cockpit, enabling the efficient collection of necessary consolidated data.

This capability empowers the administration to implement appropriate and effective measures to reduce carbon emissions, based on reliable predictions.

entities such as hospitals, cities, or armed forces to assess their progress in meeting net zero targets. Data analytics facilitates identifying emission hotspots and formulating coordinated strategies to achieve sustainability goals.

Correct data management and utilization lead to quantifiable results. Public sector organizations that have implemented emissions measurement and analytics have witnessed an average reduction in emissions of 10% per year.⁷ By leveraging data effectively, organizations can drive meaningful change and make tangible progress towards their net zero objectives.

The public sector’s net zero objectives rely on an organization’s ability to collect, process, and share data. There are several solutions that help public services achieve this such as:

⁷Data for Net Zero Report, Capgemini Research Institute, 2022

CARBON COCKPITS

Management platforms designed for the monitoring and reporting of CO2 emissions, including specialized applications like fleet management, play a crucial role. Carbon cockpits help stakeholders to visualize, understand, and track their net zero effort – to better understand what happens, why it happens, what will happen next, and what should be done.

FEDERATED LEARNING ARCHITECTURES

New decentralized data source models help to train machine learning models collaboratively while maintaining data security. These technologies enable multilayered solutions to complex challenges – and help to address the connections between different greenhouse gas emission scopes.



DATA-DRIVEN COLLABORATION FOR A REGIONAL ADMINISTRATION

A State Government sought to establish a comprehensive data ecosystem, aimed at facilitating the sharing of data between directorates, federal government, and other stakeholders. There were several challenges faced when building the ecosystem including limited time, a lack of transparency regarding net zero targets and economic growth, and a need to enhance capabilities to support data management, data storage, discovery, analytics, and reporting in information-led environments. Recognizing these requirements, a business and technological partner was brought onboard to provide their expertise. A data ecosystem was designed to support informed decision-making and evidence-informed policy which enables businesses to seamlessly connect with government information and services in a personalized and secure way that improves the well-being of the state’s citizens.

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In healthcare, preventative measures such as exercise and nutrition have better patient outcomes and a lower impact than pharmaceuticals and procedures.

Similarly, what you may call “preventative” sustainability efforts can boost long-term benefits for the public sector. These preventative measures can be implemented alongside traditional metrics, but the effectiveness of this approach is dependent on the availability of data.

When it comes to climate change, there is a consensus, supported by evidence from current climate-related events, that we are now in a phase of adaptation since we have already gone past the point of solely mitigating the effects of climate change. However, organizations should still focus on reducing the impact of climate change as much as possible while also adapting.

The public sector will be pivotal in achieving decarbonization – and without comprehensive data infrastructure, it will be impossible to meet net zero targets and climate action goals greenhouse gas. At Capgemini, we have the expertise and resources to support your net zero goals. Contact us today and let us help you reach your sustainability targets.



About Capgemini

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