



Hewlett Packard
Enterprise

Playbook

HPE IT Sustainability Solutions

Helping customers on their sustainability journey.

Get started [>](#)

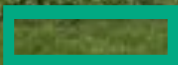


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What is your IT Sustainability Journey?

HPE brings its IT sustainability capabilities together, and partners with you, the customer, on your environmental journey, no matter where you sit within the market or within your IT sustainability and efficiency journey.





The market

Meeting the demands of a changing market

There are several key market demands driving our engagement with customers and partner, with one of these being the focus on sustainability. As more countries start to bring Environmental, Social and Governance (ESG) regulations out, we are uniquely positioned to help both customers and our partners.

Cloud



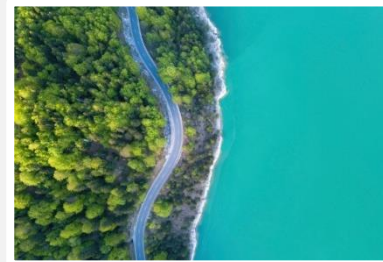
Cloud has changed the way customers view and purchase IT, having it as a service

Sovereignty



Challenges related to global data flows, data localization laws, and cross-border data sharing

Sustainability



Environmental goals are an increasing focus for customers, and they are looking for solutions to help

Artificial Intelligence



Leveraging AI to transform businesses, but customers need help across their AI journey

How HPE can help

- Hybrid cloud portfolio
- HPE GreenLake: scale when required and pay for what you use
- Help partners provide a local public/private cloud
- Aligned to geo regulations
- Take a holistic approach
- Operate at peak efficiency
- Make it observable
- Drive circularity
- Avoid heavy upfront investment
- Technologies and solutions built for AI



Accelerate your AI strategy more sustainably

As organizations harness the transformative power of AI, navigating its IT sustainability challenges becomes crucial. AI's rapid growth and energy demands pose challenges to energy management and ethical standards, underscoring the need for strategies that ensure AI deployments advance IT sustainability goals effectively.

AI is expected to skyrocket to 10% of global data center power use by 2025 from 2% today.¹

The compute and power to train Gen AI models is doubling every 3-4 months.²

GenAI is driving up water usage for cloud providers, up 34% for Microsoft and 20% for Google³

Every time you talk to ChatGPT conversation it drinks 500ml of water⁴

Minimize your data and AI carbon footprint

Assess workload and data center inefficiencies and develop a more sustainable approach

Monitor your hybrid cloud for energy efficiency

Gain insights into energy use across your hybrid IT estate

Develop, train, tune and run your AI models more sustainably

Optimize your models for energy-efficiency at each stage of the lifecycle

¹ The Uptime Institute: 2024 <https://uptimeinstitute.com/resources/research-and-reports/five-data-center-predictions-for-2024>

² The Economist

³ Microsoft Annual Sustainability Report <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RW15mgm>

⁴ Research by Shaolei Ren, Researcher UC Riverside

Being a force for good is now also a source of business advantage

83%

of business leaders say sustainability
activities create value for their organization¹

¹ 2022 Sustainability Survey: Use Sustainability to Drive Value and Mitigate Disruption", Sarah Watt, Kristin Moyer, Lauren Wheatley, September 26 2022

Reaching sustainable IT targets is not trivial

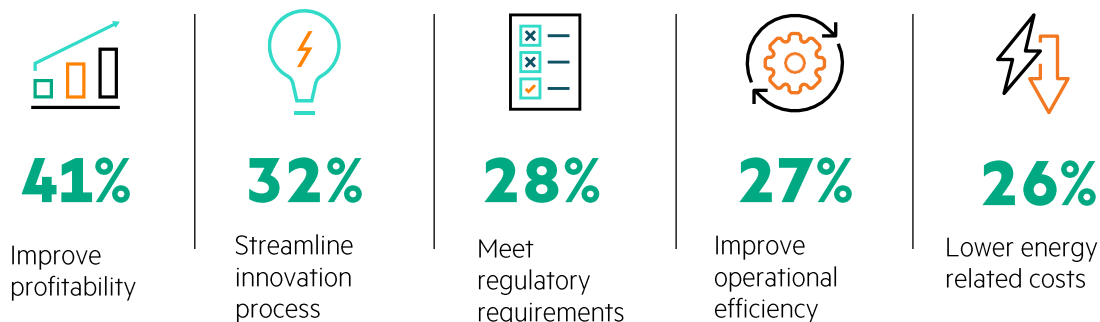
Organizations of all sizes have announced plans to reach sustainable IT targets, but making progress is not simple

Customer challenges

- Lacking visibility or metrics to make intelligent decisions on sustainability
- Finding the expertise to help understand where to start and how to make intelligent lifecycle decisions
- Identifying the true environmental impact of a workload or service across edge to cloud
- Maintaining an innovation advantage and building a sustainable future in a resource-hungry, hybrid IT reality
- Scarcity of specialized IT talent with sustainability focus
- Escalating mandates and regulations

What is the market insight on IT sustainability?

How do companies benefit from a more sustainable IT strategy?



Source: IDC, European Custom Survey, July 2022 (n = 500)

IT Sustainability is the number 2 priority for CIOs in Europe, right behind operational efficiency, according to participants at the CIO Summit organized by IDC.

Investment in modern, intelligently automated infrastructure helps lower energy costs and enables better operational efficiencies throughout the business — directly improving profitability.

IDC Snapshot - The Top Approaches to Turning a Sustainable IT Strategy into Business Success ([hpe.com](https://www.hpe.com))

To find out more about improving your IT infrastructure efficiency, visit [HPE.com/info/Sustainable-IT](https://www.hpe.com/info/Sustainable-IT)

Top 5 most effective approaches to meeting sustainable IT targets:

Move IT infrastructure to a colocation facility



Make use of flexible consumption model solutions to provide IT as a service



Third-party management of own infrastructure



Enhance on-premises datacenters



Migrate legacy workloads to the public cloud




Source: IDC, European Custom Survey, July 2022 (n = 500)


As-a-service solutions can have a dramatic impact on sustainable IT infrastructure and operations by reducing overprovisioning through automated workload consolidation and proactively modernizing the underlying hardware.




Key challenges



How do you maintain an **innovation advantage and build a sustainable future** in a resource-hungry, hybrid IT world?



What is the **true environmental impact** of a workload or service across edge to cloud, now – and over time?



Where do we find the **expertise** to help us understand where to start and how to make intelligent **lifecycle decisions**?



How HPE can help with your IT sustainability journey



Your IT Sustainability Journey

HPE IT Sustainability Solutions has been designed to meet our customers IT sustainability requirements, across industries, aligned to where you are on your sustainability journey, from discovery exercises, installing and delivering new environments in the most sustainably efficient way, through to aligning to your business and corporate objectives.

Strategy development

HPE IT Sustainability Strategy Framework

HPE has a unique IT sustainability framework focused on five key levers of efficiency and customer resources to help you begin your IT sustainability journey

HPE's Discovery and Sustainability Assessment. We start by thoroughly analyzing your current sustainability practices to pinpoint areas that need enhancement. Based on this evaluation, we categorize your sustainability status within our predefined levels to tailor support that best fits your needs. Our customized solutions then guide you towards aligning with environmental standards and improving long-term operational efficiency. Let us help you understand and enhance your sustainability posture, ensuring you receive the most effective support every step of the way.

New IT Environment

If you are deploying a new environment and sustainability is a priority for your business, then this will provide the most efficient solution. We provide a comprehensive suite of services that includes reducing your power and cooling and energy consumption, through deploying capacity when required and the HPE Sustainability Insight Center provides energy & emissions reporting.

Existing IT Environment

We expand your sustainability efforts by focusing on your existing environment.

Using HPE tools, we take a holistic approach to increase efficiency of your existing environment. You can retire your existing IT assets in a sustainable and secure manner, and extract value to help fund your sustainability journey.

Business and IT Environment

Receive tailored, end-to-end sustainability consulting with our Business environment solution. Aimed at enterprise customers requiring bespoke solutions, this consultative approach takes into consideration your entire environment, addressing specific sustainability challenges and opportunities. Our comprehensive support ensures that your sustainability goals are met and aligned to your ESG corporate objectives.

Discovery and Sustainability Assessment Process

Begin your sustainability journey with precision and insight using HPE's Discovery and Sustainability Assessment Process. We start by thoroughly analyzing your current sustainability practices to pinpoint areas that need enhancement. Based on this evaluation, we categorize your sustainability status within our predefined levels to tailor support that best fits your needs. Our customized solutions then guide you towards aligning with environmental standards and improving long-term operational efficiency. Let us help you understand and enhance your sustainability posture, ensuring you receive the most effective support every step of the way.

Find out more on our sustainability solutions [here](#)

Customer pain points

- Conform to current and future regulations
- Market provides overwhelming options
- Limited budget and limited time frame
- Lack of expertise
- Worries about the ROI

HPE IT Sustainability Strategy Framework

HPE's Discovery and Sustainability Assessment



HPE IT Sustainability Strategy Framework

The HPE IT Sustainability Strategy Framework focuses around the five key levers of efficiency and customer resources to help you begin your IT sustainability journey.

Our Sustainable Transformation technologists meet with decision-makers in companies across the globe to discuss how they can successfully develop and implement a sustainable IT strategy. The team's knowledge is built on HPE internal insights, external education and experience shared by companies operating hybrid IT environments.

This, combined with the team's horizontal understanding of HPE's IT Sustainability offerings, enables them to provide you with nuanced and objective recommendations on the topic of sustainability.

For further information download the [Six steps for developing a sustainable IT strategy workbook](#)

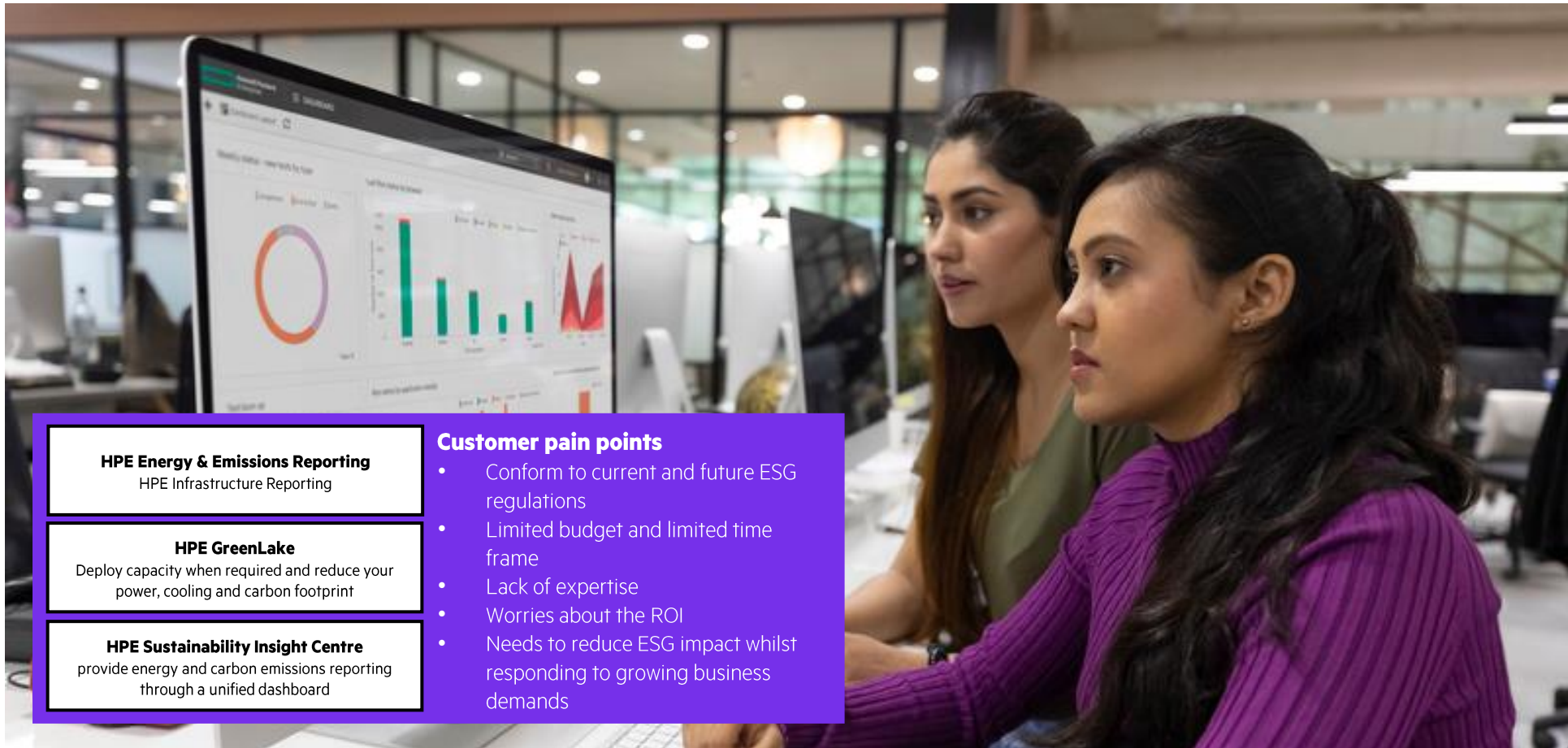
Customer pain points

- Conform to current and future regulations
- Looking for efficiencies and reducing energy implications across their hybrid IT estate
- Improving IT sustainability and efficiency KPIs



Your new sustainably focused IT environment

If you are installing a new environment and require a sustainability focus, then this solution will help you meet your organization's sustainability goals. We provide a comprehensive suite of IT sustainably focused services that includes reducing your power and cooling and energy consumption, through deploying capacity when required with our platform for [HPE GreenLake Cloud](#). You can monitor your environment through the [HPE Sustainability Insight Center](#) providing energy & emissions reporting on your new HPE infrastructure.



The image shows two women in a modern office setting, looking at a large computer monitor. The monitor displays a dashboard with various charts and graphs, including a donut chart and several bar charts, representing sustainability data. The women are focused on the screen, and the background shows a typical office environment with other desks and monitors.

Service	Description
HPE Energy & Emissions Reporting	HPE Infrastructure Reporting
HPE GreenLake	Deploy capacity when required and reduce your power, cooling and carbon footprint
HPE Sustainability Insight Centre	provide energy and carbon emissions reporting through a unified dashboard

Customer pain points

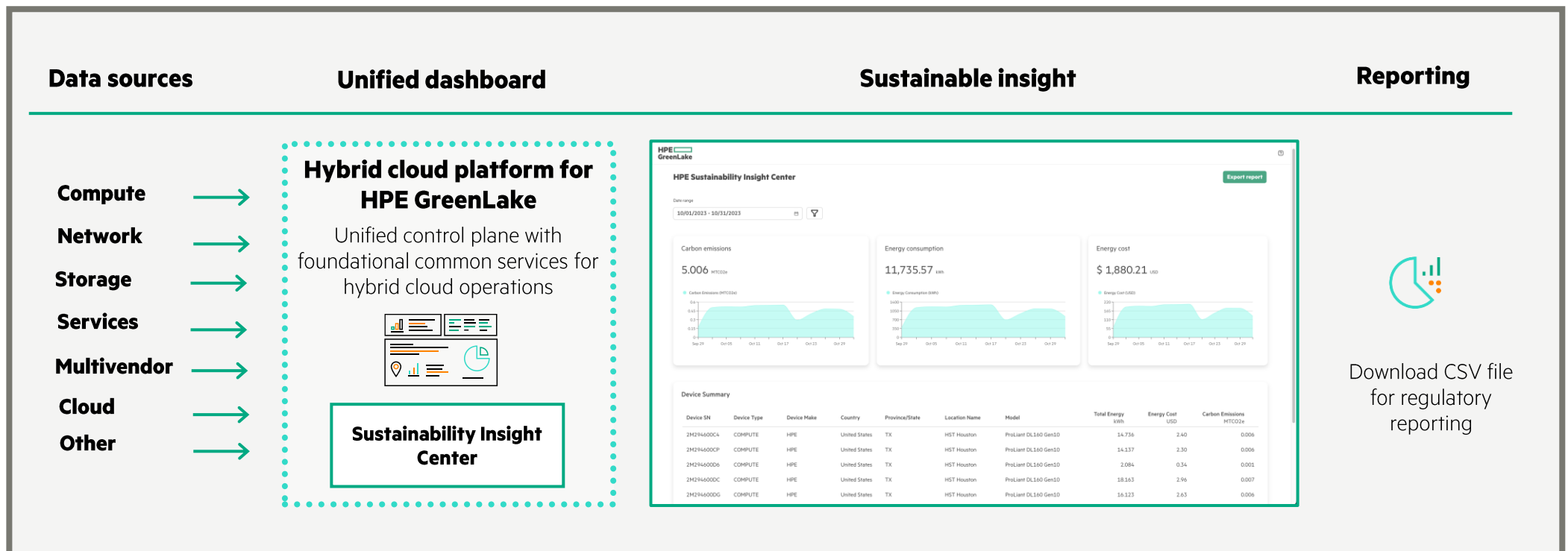
- Conform to current and future ESG regulations
- Limited budget and limited time frame
- Lack of expertise
- Worries about the ROI
- Needs to reduce ESG impact whilst responding to growing business demands



HPE Sustainability Insight Center

The [HPE GreenLake Sustainability Insight Center](#) is part of the [hybrid cloud platform for HPE GreenLake](#). The platform gives you one place to go to consume, operate, or manage your IT environment with a consistent experience, from infrastructure to workloads. You are also able to order new solutions on the platform and take advantage of a wide range of services within the HPE portfolio including managing your virtual machines within a matter of clicks, or have complete AI solutions, all managed from one place.

You will be equipped to make better decisions because telemetry from your environment feeds reporting on usage, capacity, and sustainability-related data including carbon emissions, energy consumption, and energy costs.



HPE GreenLake + HPE Sustainability Insight Center*

A winning combination and the foundation of the HPE IT sustainability journey, that will help your organization achieve sustainable IT goals.

53%

reduction in infrastructure
energy consumption

36%

fewer servers required
for equivalent workloads

27%

decrease in energy consumed
per server (kWh) per year

45%

lower cost of operations
for equivalent workloads

10 month

breakeven on the
initial investment

37%

more efficient IT
infrastructure teams

54%

reduction in spending for
equivalent server capacity

86%

reduction in
unplanned downtime

*IDC Business Value White Paper, sponsored by HPE, Quantifying the Sustainability Benefits and Business Value of HPE GreenLake, doc #US51565623, April 2024

HPE Sustainability Insight Center

Unified, heterogenous, frequently updated
dashboard

Aggregates telemetry

Historical view

Collects data over time

Customizable reporting

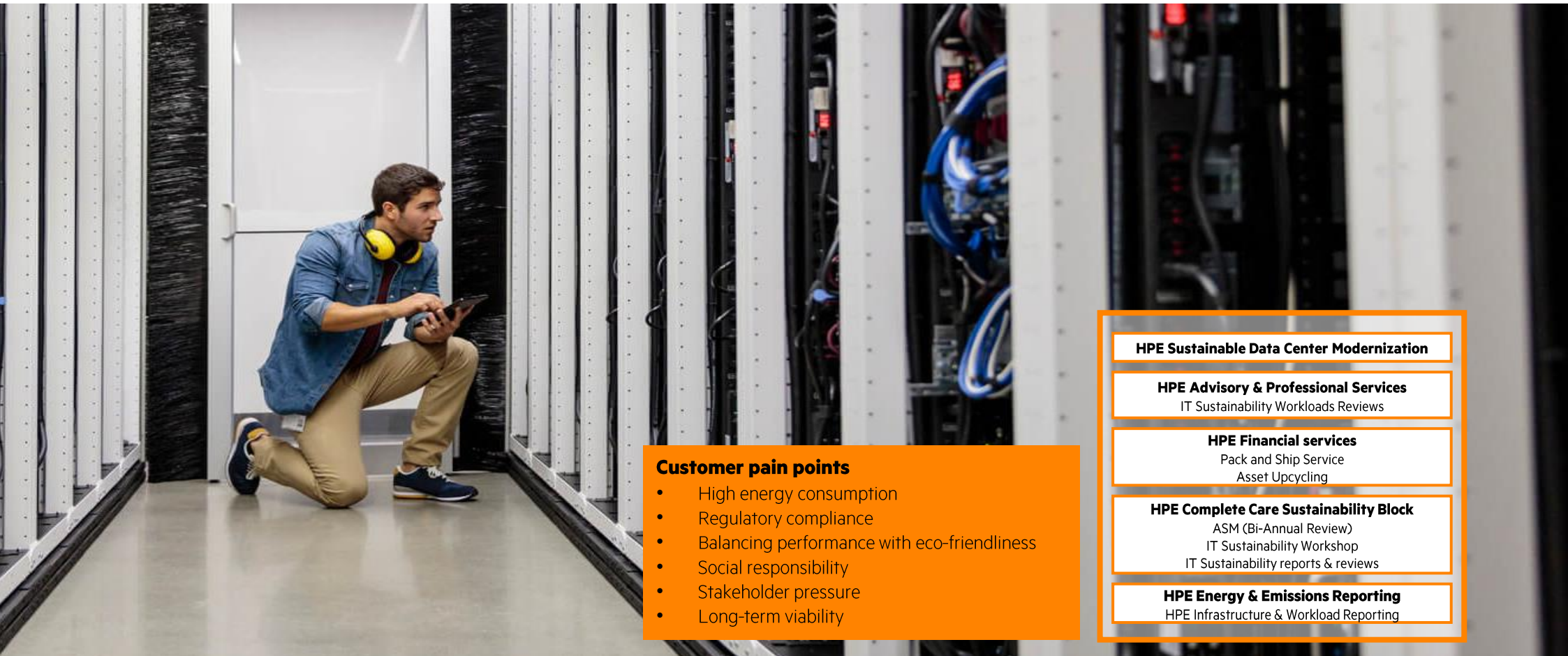
**= Informed sustainable
decisions**



Further information: [HPE GreenLake Cloud](#)

Your existing sustainably focused IT environment

Building on the deliverables from the new environment solution this expands your sustainability efforts by focusing on your existing environment. Retire your existing IT assets in a sustainable and secure manner, and extract value to help fund your sustainability journey. We include an IT sustainability workshop and expand the reporting to include your workloads.



Customer pain points

- High energy consumption
- Regulatory compliance
- Balancing performance with eco-friendliness
- Social responsibility
- Stakeholder pressure
- Long-term viability

HPE Sustainable Data Center Modernization

HPE Advisory & Professional Services

IT Sustainability Workloads Reviews

HPE Financial services

Pack and Ship Service
Asset Upcycling

HPE Complete Care Sustainability Block

ASM (Bi-Annual Review)
IT Sustainability Workshop
IT Sustainability reports & reviews

HPE Energy & Emissions Reporting

HPE Infrastructure & Workload Reporting



HPE Financial Services (HPEFS)

We provide more than just IT equipment removal, you can retire IT assets in a sustainable and secure manner, and extract value to help fund your innovation. We can include data cleansing and environmentally responsible removal, upcycling or recycling. You can transform outdated technology into opportunities for reinvestment, while contributing to a more sustainable future. Our services are designed to:

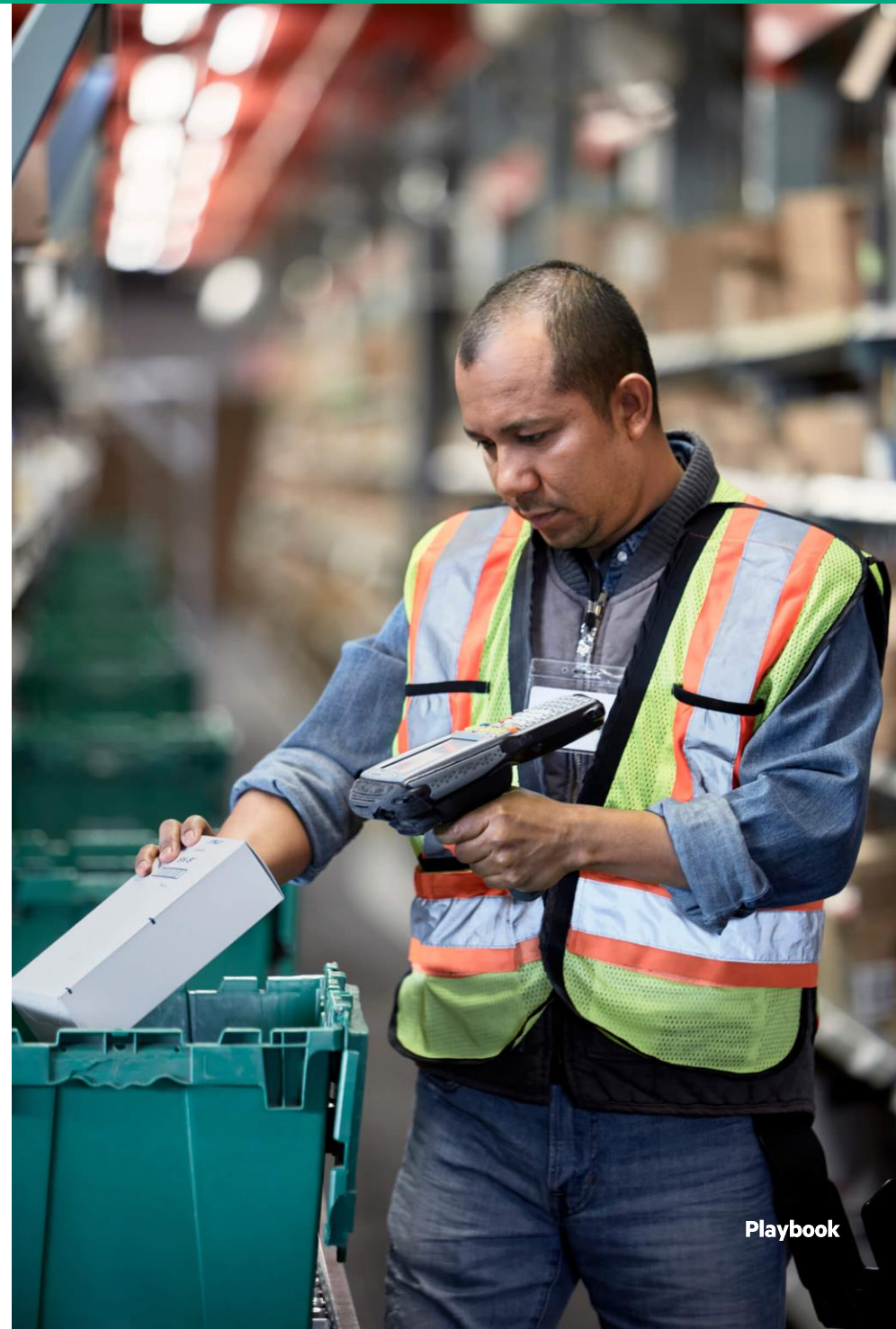
- **Maximize Asset Value:** Turn underutilized or retired IT equipment into capital to fund new technology investments.
- **Simplify IT Asset Management:** We handle the entire process, from pickup and data security to recycling and reporting.
- **Promote Sustainability:** Upcycle your assets responsibly, reducing e-waste and supporting your organization's sustainability goals.

Simple

Secure

Compliant

Auditable

Deinstallation**Data Overwriting****Physical Destruction Services****Pack and Ship Services (PASS)**

Sustainability aligned to your business and corporate goals

Receive tailored, end-to-end sustainability consulting with our business and IT environment solution. Aimed at enterprise customers requiring bespoke solutions, this consultative approach supports your entire environment, addressing specific sustainability challenges and opportunities. Our comprehensive support ensures that your sustainability goals are met with precision and expertise, aligning perfectly with your corporate objectives.

Customer pain points

- High energy consumption
- Regulatory compliance
- Balancing performance with eco-friendliness
- Social responsibility
- Stakeholder pressure
- Long-term viability
- Needs to align ESG goals across the business and link to corporate objectives

HPE Advisory & Professional Services

Energy efficiency and carbon analysis
IT Sustainability Workloads
Choice of 8 other services

HPE Financial services

Circular Economy report

HPE Energy & Emissions Reporting

EER enhancements + customization
HPE Infrastructure Reporting
HPE Workload Reporting

HPE Financial services

Pack and Ship Service
Asset Upcycling

HPE Complete Care Sustainability Block

ASM (Bi-Annual Review)
IT Sustainability Workshop
IT Sustainability reports & reviews

HPE GreenLake

Platform, Sustainability Insight Center, Flex Solutions, Private
& Hybrid Cloud SaaS and IaaS



HPE Sustainable Data Center Modernization

Modernize infrastructure to reduce your footprint, optimize workloads efficiency, and consume less power without compromising performance. HPE Sustainable Data Center Modernization (SDCM) mission is to guide you in your end-to-end data center modernization journey, from IT to network to facilities infrastructure, provide best-in-class solutions to assess the current state, define strategy, design and build future data centers, and reach operational intelligence supporting sustainability goals.

As HPE SDCM group we can tackle all aspects of the whole life-cycle of the POD modular DC projects from Assessment, strategy/advisory to planning/design, building and operating and back to assessments.

Full data center lifecycle coverage

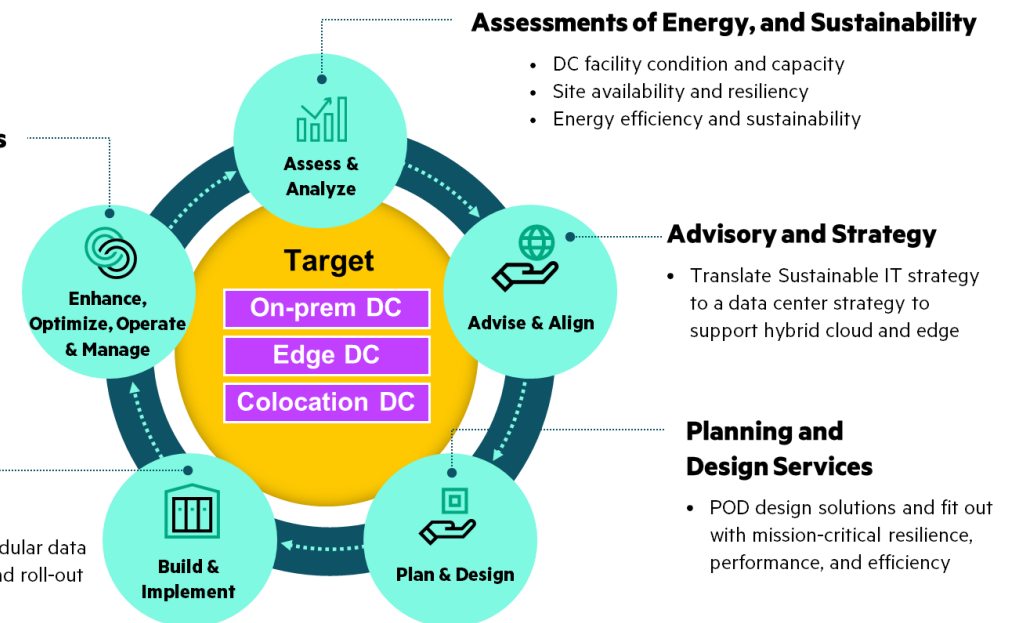
- Advisory and professional services
- Operations consulting
- Trusted advisor for all project stages

Management and Operations Consulting

- Improve ability to meet operational goals and service level objectives
- End-to-end DC management services
- Digital twin, bridging hybrid cloud, edge, and DC

Modular DC Solutions and Professional Services

- Solutions and services to support modular data center implementation, integration and roll-out in regions, countries or ww






HPE investing in building future IT sustainability services

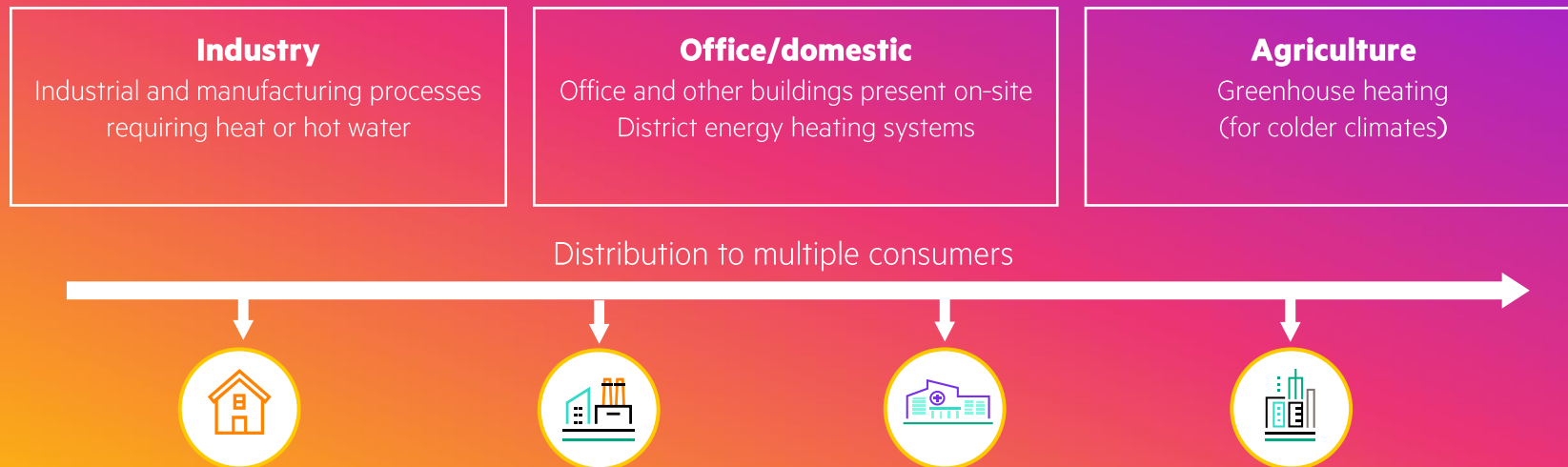
Heat released from IT equipment needs not to be wasted

An example of our continued development of IT sustainably focused services is our collaboration with Danfoss to deliver [HPE IT Sustainability Services – Data Center Heat Recovery](#), an off-the-shelf heat recovery module, helping organizations manage and value excess heat as they transition towards more sustainable IT facilities. The new energy efficient data center solution from HPE and Danfoss offers:

- **HPE's scalable Modular Data Center (MDC)**, in the form of small footprint, high-density (kW/rack) containers, can be deployed nearly anywhere in the total absence of heavy industry and incorporates technologies such as direct liquid cooling, reducing overall energy consumption by 20%.
- **Danfoss' innovative solutions**, including heat reuse modules that capture excess heat from data centers to provide renewable heating onsite and to neighboring buildings and industries for various applications, and Turbocor® oil-free compressors that enhance data center cooling efficiency by up to 30%

 **Heat released by IT, is energy that can be reused, reducing the need to generate additional heat by other means, such as fossil fuel or additional electricity consumption**

Potential use cases for heat reuse





Next steps

Next steps

If you would like to know more about how HPE and our partners can help you in your sustainability journey, then please contact your aligned HPE account manager or HPE partner.

Further information

Further content specific to HPE's sustainability capabilities can be found here:

- [Make sustainable IT part of your transformation](#)
- [Sustainability Insight Centre video](#)
- [What is sustainable technology?](#)
- [HPE sustainability video](#)
- [Customer example](#)
- [Sustainability with HPE GreenLake for Aruba](#)
- [Sustainable IT strategy six-step workbook](#)
- [Data efficiency WP](#)
- [Sustainable IT Solutions](#)





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