Capgemini

Cloud FinOps and GreenOps
G-Cloud 15

Table of Contents

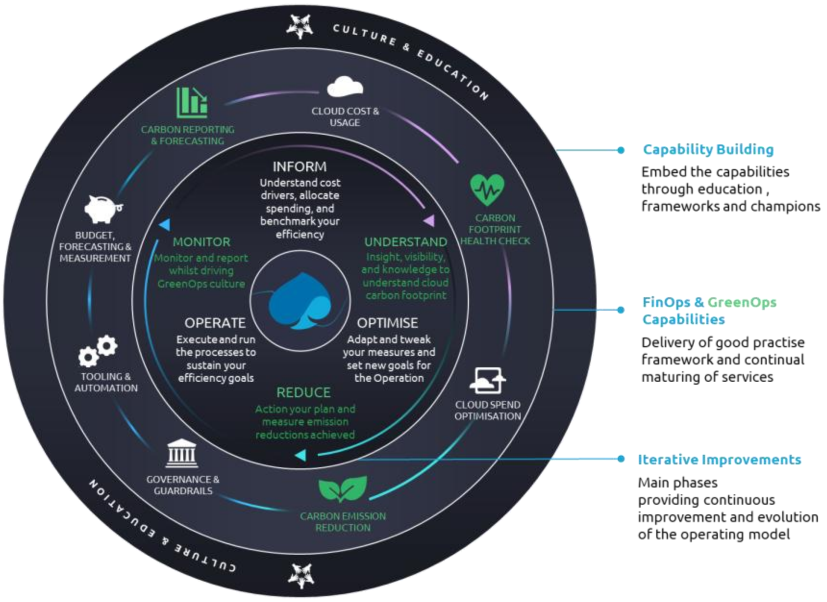
1 Service Overview

As a discipline, Cloud FinOps and GreenOps, are a culture backed by people, tools and processes. Both will bring financial accountability to the variable spend model of cloud, enabling distributed teams to make business trade-offs between speed, cost, quality, and sustainability.

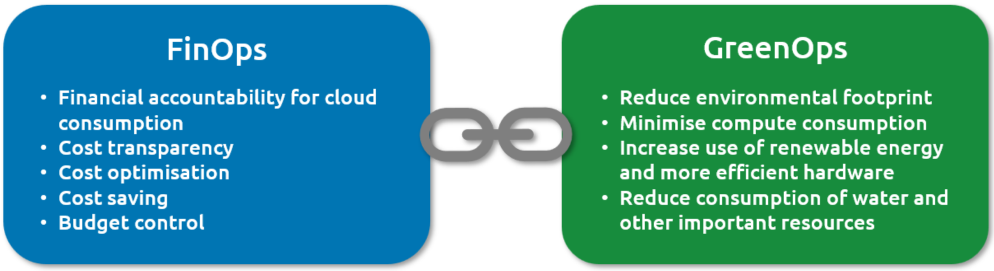
Capgemini's FinOps and GreenOps services provide Advisory, Business Analysis, and Implementation in support of the management of the Buyer's Cloud infrastructure both in terms of usage and how much the organisation pays. This is carried out by experienced and qualified cloud and FinOps practitioners and professionals. Capgemini can also offer services through our market-leading tooling providers for Buyers to use for carbon emission and water consumption data analysis and visualisation to support the activities mentioned or Capgemini can use tools provided by the Buyer.

Capgemini's has developed a proprietary FinOps and GreenOps Framework, based on industry best practice outlined by the FinOps Foundation, that provides the high-level target operating model and suggested ways of working to support the Buyer in building or enhancing their FinOps and GreenOps capabilities. Capgemini's Framework underpins all Cloud FinOps and GreenOps service activities provided to the Buyer.

Capgemini's FinOps & GreenOps Framework



GreenOps draws significantly from FinOps practices to align both environmental and financial goals. This alignment allows for a robust strategy that benefits the environment and delivers organisational value. GreenOps as a practise builds on fundamental components delivered by a FinOps Function. It also engages more stakeholders internally and externally and can add a whole new value stream to your FinOps activities. The following shows the potential distinction between the two functions:



1.1 Capgemini's FinOps Phases

An effective FinOps capability performs by working iteratively on the Framework Capabilities through three phases:

- Inform
- Optimise
- Operate

Capgemini can apply the three FinOps phases to continuously iterate on strategies and refine FinOps processes that involve the activities described within Capgemini's FinOps Framework Capabilities.

Capgemini can continuously measure results, make incremental improvements where necessary, and finally mature the process to reduce the time required to cycle through these phases.

1.1.1 Inform Phase

During the Inform phase of Capgemini's FinOps Framework, the focus can be on gathering cloud cost, usage, and efficiency data from the Buyer. This information serves as the foundation for cost allocation, analysis, and reporting efforts, equipping teams with the insights needed for effective budget management, trend forecasting, establishing performance benchmarks through KPIs, and formulating metrics that underscore the value derived from the Buyer's cloud investments.

The attribution of the Buyer's cloud bill to specific metadata (for example, cloud cost tags), cloud provider accounts, or organisational groupings is crucial to enable the Buyer to generate detailed reporting and instil accountability as well as appropriate cost and sustainability-conscious behaviours amongst their colleagues. It's imperative for business and finance teams to collaborate and balance achieving a return on investment with adherence to budget constraints.

The Buyer’s cloud spend data can also be integrated with additional metrics on sustainability, resource efficiency, utilisation rates, and organisational performance benchmarks, essential for identifying critical performance indicators and metrics to measure the impact of the organisations cloud usage.

Given the cloud's variable and scalable nature, alongside intricate pricing structures and discounts, organisations are encouraged to frequently reassess their FinOps strategies. This supports alignment with goals as they evolve through decisions informed by current, detailed insights into cloud consumption patterns.

The Inform Phase helps to provide visibility and allocation of cloud spend across the Buyer’s organisation and provides the foundational capabilities to enable colleagues to take accountability for their cloud usage.

1.1.2 Optimise Phase

Capgemini’s Optimise Phase can be focused on ways to enhance the Buyer’s overall cloud efficiency and explore options to reduce the rate of cloud resources, leveraging insights and tools honed during the Inform phase.

Capgemini have refined various strategies for optimising the Buyer’s usage of cloud resources. This includes but not limited to enhancing the efficiency of underused resources through right-sizing, embracing cloud native architectures, optimising workload management through scheduling, and automating the removal of cloud waste linked to dormant resources.

With improved visibility of cloud spend and usage from the Inform Phase, the Buyer can perform analysis to facilitate the adoption and management of Cloud Service Provider (CSP) pricing models that offer commitment discounts, such as Reserved Instances (RIs), Savings Plans (SPs), and Committed Use Discounts (CUDs), thereby maximising the financial benefits of cloud investments.

This phase can also prioritise cross-team collaboration to bolster visibility, streamline reporting, and refine optimisation management practices, especially in instances where unit metrics suggest cloud performance is deviating from the Buyer’s cloud value objectives.

While optimisation may present various paths, the primary objective remains to identify and pursue a robust set of opportunities that help the Buyer to realise more value from existing and future cloud investments.

1.1.3 Operate Phase

In the Operate phase, Capgemini’s FinOps approach can enable organisational change to embed FinOps practices effectively, utilising insights and capabilities shaped in the Inform and Optimise phases. This process can involve the creation of cloud governance frameworks, the monitoring of compliance, and the empowerment of team members through tailored training programmes, guidelines, and automation policies that reflect the Buyer’s goals.

The essence of FinOps success lies in fostering a culture of shared responsibility and individual accountability, encouraging collaboration among engineering, finance, and business units to undertake continuous, data-driven improvements. This collaborative effort focuses on harnessing the most promising opportunities identified in the Optimise phase, enabled by a proactive and thoughtful organisational culture.

Navigating this phase typically requires a commitment from the Buyer to iteratively enhance strategies and refine processes. This can include regularly revisiting the Inform and Optimise stages to advance the practices derived from Capgemini’s FinOps Framework Capabilities, exploring new capabilities, and continuously evolving the Buyer’s FinOps procedures.

1.2 Capgemini’s FinOps Framework Capabilities

Capgemini’s FinOps Framework Capabilities constitute a structured suite of skills, tools, and processes designed to optimise the financial, operational, and strategic management of on-demand technology - such as Cloud (public, private, and hybrid environments), SaaS, and AI - within the Buyer’s organisation.

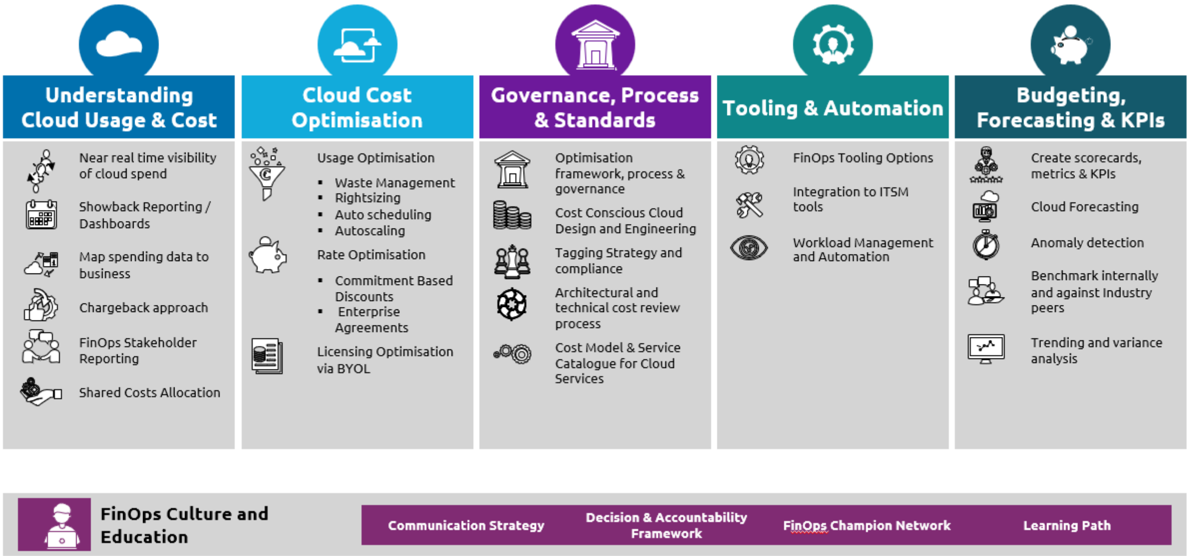
Central to the FinOps framework, these capabilities can empower stakeholders across finance, technology, and business units to collaboratively manage on-demand technology investments. By implementing these capabilities, the Buyer’s organisation can:

- Achieve end-to-end cost visibility across on-demand technologies
- Improve budget accuracy by aligning forecasts with real-time usage data
- Drive cost-effective consumption through informed decision-making and governance

Through continuous monitoring, analysis, and optimisation, Capgemini's FinOps Capabilities can facilitate a dynamic and responsive strategy to on-demand technology management, adapting to the evolving needs of the Buyer's organisation and the market landscape.

As such, the framework is regularly reviewed and updated to reflect changes across different on-demand technologies, pricing models, and industry best practices, ensuring that the Buyer's FinOps strategy remains current, scalable, and aligned with business goals.

Capgemini's Industry Best Practice FinOps Framework Capabilities



Capgemini's core framework capabilities are:

Understanding & Visibility

This capability focuses on providing clarity on all on-demand related costs including emerging IT scopes e.g. private cloud, SaaS licenses, and AI. Ownership and mapping costs to business units and services or products provides accountability for the spend.

- **Cost Allocation Strategy:** Enables accurate attribution of spend to business units, applications, and services, across both public and private cloud.
- **Dashboards and Visibility:** Provides real-time, role-based insights into usage, cost, and performance.
- **Spend Analysis:** Identifies cost drivers, trends, and anomalies to support proactive decision-making.
- **Data Ingestion and Normalisation:** Integrates and standardises data from diverse cloud platforms and private infrastructure.
- **Anomaly Management:** Detects and flags unexpected usage or cost spikes for investigation.
- **Reporting and Management Info:** Delivers actionable insights through tailored reports and KPIs.

Optimising

This capability ensures that any waste is removed on an ongoing basis and guardrails and processes are in place to help avoid it from the outset. We have documented processes and designs for all elements of the optimisation process and partner with tooling providers that provide deeper and faster identification of waste.

- **Usage Optimisation:** Aligns resource consumption with workload needs through rightsizing, workload scheduling, and decommissioning of idle resources.
- **Rate Optimisation:** Selects optimal pricing models (e.g., RIs, SPs for public cloud; chargeback/showback for private cloud).
- **Cloud Sustainability:** Reduces environmental impact by improving infrastructure efficiency and energy usage.
- **Licensing & SaaS:** Tracks and optimises software licensing across on-demand environments, ensuring compliance and cost-effectiveness.
- **Guardrails and Automation:** Enforces policies and automates actions to prevent waste and ensure governance.

Enabling Business Value

This capability unlocks the correlation between spend and business value and as a result helps ensure value driven decisions are made.

- **Planning and Estimating:** Supports scenario modelling and capacity planning across on-demand environments.
- **Forecasting:** Projects future spend based on historical trends and business growth.
- **Budgeting:** Aligns cloud budgets with organisational goals and tracks variance.
- **Unit Economics:** Measures cost per unit of value (e.g., per transaction, per VM) to assess efficiency.
- **Benchmarking:** Compares performance and cost metrics against industry standards or internal baselines.
- **Architecting for Cloud:** Promotes cloud-native and cost-aware design principles to maximise ROI.

Driving FinOps Culture and Service

This capability focuses on running the FinOps service whilst continually improving it. It brings all the functions together and embeds the capabilities ensuring an effective adoption and operation of FinOps through an inclusive communication strategy, providing education and upskilling activities at specific persona levels, and creating a FinOps Champion network to help evangelise FinOps practices.

- **FinOps Practice Operation:** Establishes a central FinOps function to drive consistency and maturity.
- **Policy & Governance:** Defines and enforces financial policies across on-demand environments.
- **FinOps Assessment:** Evaluates current FinOps maturity and identifies improvement areas.
- **FinOps Education & Enablement:** Upskills teams through training, role-based guidance, and community building.
- **Invoicing and Chargeback:** Augments existing finance processes to ensure teams are charged for the spend they incur across on-demand scopes.
- **FinOps Tools and Services:** Selects and integrates tools that support FinOps workflows.
- **Onboarding Workloads:** Ensures new workloads are aligned with FinOps best practices from day one.

- **Software Asset Management:** Manages software entitlements and usage to optimise licensing and reduce risk.

1.3 Capgemini's GreenOps Framework Capabilities

Capgemini's GreenOps Framework Capabilities constitute a structured suite of skills, tools, and processes designed to optimise the sustainability of cloud resources within the Buyer's organisation. With our partnerships, Capgemini can help deliver solutions that address the business' cloud sustainability goals and needs.

Our framework is based on three phases:

- Understanding
- Reducing
- Monitoring

The Understanding and Reducing phases can be carried out as a standalone piece of work to provide a point in time view or plan.

The Monitoring phase embeds the processes into business-as-usual deliverables and provides a continuous improvement.

1.3.1 Understanding Phase

During this phase, Capgemini can bring visibility through snapshots of your cloud carbon footprint. Capgemini can enhance visibility of the Buyer's cloud carbon emissions and water consumption by leveraging solutions from our tooling partners to provide dashboards that provide an understanding of the impact of your cloud workloads on the environment. By mapping data to your cloud estate with carbon emission metrics, Capgemini can enable enterprises to take control of their carbon footprint, making it simple to identify key areas for reducing carbon emissions. This phase can identify the Buyer's top carbon emission contributors and the services operating with highest energy consumption.

This phase can be carried out as a one-off data gather and presentation based on cloud billing data for a three-, six- or twelve-month period.

1.3.2 Reducing Phase

During this phase Capgemini can create a plan to reduce the environmental impact of your cloud estate. Following good practises, we help can help the Buyer minimise the cloud carbon footprint, tailor a plan for your organisation based on academically endorsed, audit-compliant, and ESG-aligned methodology and data.

A case for change can be created by leveraging key metrics and data and by actively evaluating opportunities for reduction across various sustainability levers. Capgemini can enact focused initiatives aimed at achieving reductions. Prior to implementing any engineering changes, we can conduct an impact assessment to ensure your cloud infrastructure remains resilient.

1.3.3 Monitoring Phase

During this phase Capgemini can implement continual understand and reduction phases to drive impactful management and reduction of carbon emissions. Using show back of reduction successes can help embed long lasting GreenOps culture transformation. This phase can implement a self-sustaining green workflow in your organisation with governance, accountability and automation built in.

2 Business Need

One of the UK government's main challenges is achieving efficiency savings and this is a key focus area for Digital Leaders. Digital transformation and modernisation of government services and data are instrumental in achieving efficiencies, with huge gains to be achieved if all services were modernised (NAO Report 2023).

The management of these services presents various challenges, including the complexity of technologies, intricate reconciliation of cloud consumption, difficulty in implementing cost reduction opportunities, and the dynamic nature of cloud consumption forecasting. To address these challenges, specialised Cloud Financial Management (FinOps) services are offered to provide a modular approach that can be tailored to specific goals and each stage of cloud adoption and maturity. They can enable you to achieve financial objectives and capitalise on cloud-provided opportunities to achieve value for Money and support generation of Citizen Outcomes.

The UK government has set ambitious sustainability targets to reduce carbon emissions by 68% by 2030. Adopting GreenOps is essential to achieving this as it assures optimal and sustainable resource selection and usage thereby reducing carbon footprint as well as optimising cost. The multitude of use cases within the cloud, each with unique carbon intensities means that estimating your carbon footprint can be incredibly complex and challenging to deliver.

A key challenge can be to create the financial and operational agility to adopt and exploit the new technologies, frequently, to address inefficiency in a complex legacy estate of unfashionable but mission critical services and solutions.

Concurrently, Digital Leaders may require the ability to understand the current estate and its costs and understand where and how sustainable cost reductions and optimisations can be achieved to re-invest in transformational IT initiatives.

Another key challenge can be creating the financial and operational capacity to ensure that cloud costs are actively managed and monitored and accountability is delivered as part of the digital transformation. As a result, organisations can see uncontrolled cloud spend, strain on stretched budgets and a lack of clarity on what is causing the spend. Often, before the root causes can be resolved there is a driving need to reduce the cloud bill through a rapid cost optimisation assessment.

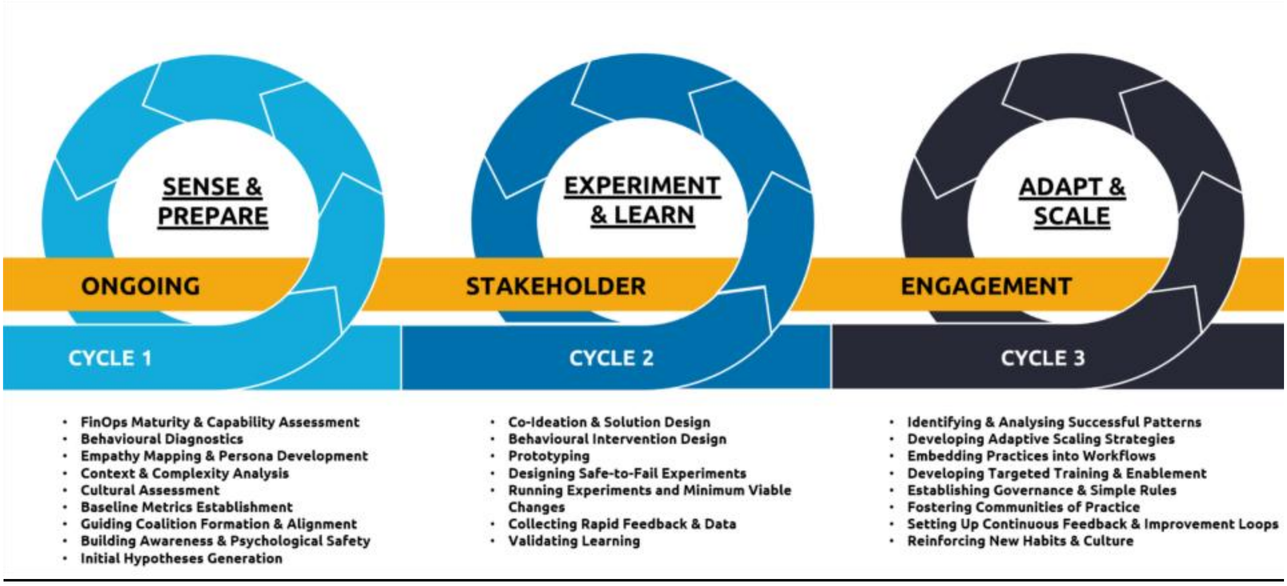
However, without a maturing FinOps Capability in place these 'quick win' cost reduction activities can be short lived, as the root cause is not addressed. This can result in the Buyer's organisation retuning to a similar position where there is a significant amount of 'cloud waste' adding to organisational cost pressures.

3 Our Approach

Capgemini's focus on the public sector is delivered by security-cleared, UK-based teams. Our FinOps and GreenOps methodologies are informed by industry best practices based on the FinOps Foundation and developed through our partnerships including the leading Cloud Service Providers and GreenOps Tooling Providers.

Capgemini underpin our capabilities using our proprietary FinOps Change Management framework, which uses an evidenced-based yet adaptive approach leveraging behavioural science and organisational change theory to manage cloud costs and enable data-driven decision-making.

Capgemini's FinOps Change Management Framework for embedding outcome-based and lasting change with measurable capability enhancement:



Capgemini design and deliver all our services using our proprietary Capgemini FinOps and GreenOps Frameworks. These frameworks focus on manageability and sustainability whilst optimising cloud infrastructure costs and enabling data driven decision making. Additionally, if required, Capgemini can provide managed support for your newly transformed services or help the Buyer with resource augmentation so that that the organisation have the necessary staff capable of operating within existing or new environments, technologies, and processes.

Capgemini offer a combination of standalone services that are inter-linked to manage and optimise the Buyer's cloud environment, whilst helping to build or enhance the Buyer's core FinOps or GreenOps capabilities.

The Service can begin by getting an understanding of the Buyer's current capabilities and broader cloud operations. This can be achieved through a series of stakeholder workshops and interviews. Capgemini can also leverage our FinOps Maturity Assessment to understand at what stage of maturity the Buyer's organisation is at present and get clarity of their ambitions and desired state.

Capgemini can provide an assessment across all the FinOps Framework capabilities or focus on specific areas based on the Buyer's needs. The assessment is designed with a collaborative approach with multiple stakeholders across the Buyer's organisation, including IT Finance, Product and Application Owners, Architects and Engineering Leads, Executives and FinOps personas.

Capgemini can engage with the Buyer's stakeholders in order to prioritise key capability areas to address, leveraging our proprietary Frameworks to define and embed an initial target operating model. This can include a set of FinOps processes required to establish and mature each capability, along with a proposed responsibility and accountability matrix required to operate and maintain the capability. Capgemini can provide tailored organisational performance benchmarks and metrics to measure how the Buyer's FinOps or GreenOps capability is maturing.

Capgemini can also use data analysis and visualisation tools to support the activities mentioned or use tools provided by the Buyer. This information can be used to report to key stakeholders on the value being realised from the activities associated with the specific capability i.e., Capgemini's FinOps and GreenOps success metrics.

Capgemini partners with leading Cloud Carbon Emission monitoring and Sustainability tooling providers, using academically endorsed, audit-compliant, and ESG-aligned methodology that can effectively process customer cloud data to integrate essential cloud emissions metrics. This supports in effective and robust sustainability reporting and can include comprehensive assessments to identify opportunities for improved cloud sustainability.

In addition, Capgemini can provide the Buyer with additional training to upskill and educate colleagues across their organisation. By helping to set up or enhance FinOps governance and reporting mechanisms within the Buyer's organisation, Capgemini can provide the foundation for an enduring & maturing FinOps and GreenOps capability.

Capgemini can work within the construct of the Buyer's existing FinOps function or can help to establish a new one. The period of work can be determined in conjunction with the Buyer based on current or future needs.

Capgemini's overall approach to building and maturing the Buyer's FinOps and GreenOps capabilities remains consistent with industry best practice as outlined by the FinOps Foundation and importantly centred around people and ways of working.

4 Buyer Responsibilities

Please refer to the Supplier Terms listed with this service on the Platform. These may contain additional Buyer obligations/costs the Buyer is subject to that are not identified anywhere else in the Supplier's Application or on the Platform.

If these responsibilities do not match your expectations, then please contact us in order that we can explore options to vary our approach.

5 Service Management

The service can be delivered as a defined project or on a day rate basis.

6 Protection of Data

This service is based on a security classification of 'Official', however should you have a requirement for a different security classification that you would like us to consider, please contact us to discuss.

7 On-boarding and Off-boarding

Capgemini shall undertake on-boarding and off-boarding activities agreed within the Order Form (including as a minimum an exit plan in line with the Call-Off Contract terms) which will be charged for in accordance with the Pricing section for this service.

8 Skills and Knowledge Transfer

Capgemini recognises that skills and knowledge transfer is a critical element in the provision of GCloud services to public sector clients. Where possible and applicable, this forms part of the delivery plan for the service agreed at the start of the engagement. Our consultants and engineers are experienced in providing skills and knowledge transfer for major private and public sector clients.

Where appropriate, we may use a standard approach, tailored to topic, skills-gap and individual, to provide consistency and effectiveness. The approach, Capgemini's Assess-Plan-Implement framework, has been used repeatedly by our teams to structure the work involved in transferring skills and creating new teams capable of driving and sustaining change long after the end of the formal programme. The framework can be applied throughout a project to understand knowledge transfer objectives, plan training delivery methods and materials, and deliver and evaluate success.

9 Partnerships/Alliances

Capgemini has strategic alliances with Amazon Web Services, Microsoft and Google. Capgemini can leverage these alliances to find potential funding and preferred rate negotiations with these Cloud Service Providers. This option can be requested by you when you request this service.

In addition, Capgemini can use its partnerships with Cloud Cost Management and Optimisation software organisations to accelerate the service. This option can be requested by you when you request this service.

Capgemini's GreenOps services are carried out in partnership with Cloud Carbon Emission Monitoring tooling providers.

10 Vendor Accreditations/Awards

For the 13th year in a row, Capgemini has been recognised as one of the World's Most Ethical Companies® by the Ethisphere® Institute. This is an acknowledgement of our ethical culture that makes us an employer of choice and responsible player in the eyes of our clients, shareholders, and the wider community.

ISO 9001 Quality Management for Management Consultancy and IT Implementation and services to the Public Sector

ISO 27001:2013 - Provision (Delivery) of IT services including business applications development, maintenance and Data, Digital and Cloud technologies.

NelsonHall has identified Capgemini as a Leader in its 2022 NEAT Vendor Evaluation for Learning Services due to its ability to meet future client requirements as well as its capability to deliver immediate learning benefits to them.

Capgemini is the first amongst consultancy and technology firms to be recognised six times in a row for its thought leadership reports.

2023 Ecovadis Platinum Rating: We maintained a platinum rating, recognising us as a responsible and sustainable business in the top 1% of companies assessed.

Better Society Awards: Our collaboration with Code Your Future to offer digital skills training won a Better Society Award in 2022. The awards celebrate efforts by commercial organisations to create a better society.

Inclusive Top 50 UK Employers List: We achieved second place in the Inclusive Top 50 UK Employers List 2022/23 – a list that assesses companies for best practice on diversity, equality and inclusion

UK Best Workplaces for Women: We were listed as a Best Workplace for Women by Great Place to Work®. This listing is based on responses from our team to an anonymous survey about their employee experience.

UK Best Workplaces for Wellbeing: We are listed by Great Place to Work® as a Best Workplace for Wellbeing

Great Place to Work: We were certified as a Great Place to Work® in 2023, reflecting our employees' experience of working at Capgemini in the UK.

11 Sub-contractors

Capgemini UK may use the following subcontractors to deliver this service:

- Capgemini Technology Services India Limited.

12 Business Continuity and Disaster Recovery

No disaster recovery plan is provided as part of these Services.

13 Pricing

This service is priced in accordance with the SFIA Rate Card attached. Capgemini can also provide offshore resources at reduced rates where appropriate. Projects can be priced either on a Time & Materials or Fixed Price basis.

14 Ordering and Invoicing

Please refer to the Supplier Terms for this service.

We would be pleased to arrange a call or meeting to discuss your requirements of our service in more detail.

15 Termination Terms

Please refer to the Supplier Terms for this service.

16 Further Information

For more information about this or any of our G-Cloud services, please contact our Public Sector Team.

Phone: 0370 904 4858

Email: publicsector.opps.uk@capgemini.com including the following information:

1. The name of this service.
2. The name of your organisation.
3. Your name and contact details.
4. A brief description of your business situation.
5. Your preferred timescales for starting the work.

About Capgemini

Capgemini is a global business and technology transformation partner, helping organizations to accelerate their dual transition to a digital and sustainable world, while creating tangible impact for enterprises and society. It is a responsible and diverse group of 340,000 team members in more than 50 countries. With its strong over 55-year heritage, Capgemini is trusted by its clients to unlock the value of technology to address the entire breadth of their business needs. It delivers end-to-end services and solutions leveraging strengths from strategy and design to engineering, all fueled by its market leading capabilities in AI, generative AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2024 global revenues of €22.1 billion.

Make it real. | www.capgemini.com