

# IBM Consulting



G-Cloud 15

IBM - Sustainability, Climate and Energy Transition Services

Service Definition Document

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## Contents

|                                                  |    |
|--------------------------------------------------|----|
| Service Overview.....                            | 3  |
| Addressing Business Needs .....                  | 5  |
| IBM Exponential and Innovative Technologies..... | 7  |
| Service Definition.....                          | 8  |
| IBM Approach .....                               | 9  |
| About IBM – IBM’s Jounery.....                   | 11 |
| About IBM – Supporting Government .....          | 12 |

# IBM - Sustainability, Climate and Energy Transition Services

## Service Overview

### Features

- Decarbonisation strategy and roadmap
- Business ecosystem development and innovation
- Energy management, efficiency and conservation
- Enterprise emissions management
- Carbon accounting, markets and carbon trading
- Responsible Computing & Green IT
- Journey to net zero
- Climate risk analytics and resilience
- Climate and sustainability policy and regulation
- Alignment with Sustainable Development Goal (SDG) and Task Force on Climate-related Financial Disclosures (TCFD)
- Smarter buildings and transport (including eMobility)
- Smarter waste, water and recycling
- Sustainable consumption and circular supply chain
- Digital change, including dynamic operating model

### Service Benefits

- Compliance with latest policy, regulatory and market developments
- Optimise energy use and operational performance
- Calculate, record, and analyse carbon emissions across all operations
- Define, prioritise and address risks, investments, capital programmes, ecosystems and value-chain initiatives
- Monitor impact alongside business objectives and implement improvements which become embedded in new ways of working
- Identify and implement leading digital infrastructure and platforms
- Discover, experiment, validate and scale new business models



- Holistic view of impacts and dependencies, including supply chain
- Enable stakeholders to make choices based on sustainability dimensions
- Enable transparency and traceability within the supply chain and move from linear to circular based economy

## Key Differentiators

- IBM can engage across the full lifecycle from strategic development, through to Journey to Net Zero
- IBM exponential and innovation technologies: Advanced Analytics, Internet of Things, Blockchain, Artificial Intelligence, Hybrid multi- cloud, geo-spatial data layering
- Long history working with major UK central government departments
- Security cleared professionals across the full lifecycle

# IBM - Sustainability, Climate and Energy Transition Services

## Addressing Business Needs



We work in partnership with you to understand and address your needs and deliver the optimal solutions for your organisation.

### Strategic Approach

Organisations are often challenged by sustainability and climate impacts that present significant opportunities and threats:

- Increasing regulatory controls
- Climate risk (e.g. flooding)
- Utility costs
- Market change

### Improved Operations

IBM firmly believes that an effective sustainability and climate strategy not only delivers tangible environmental benefits, but critically delivers significant organisational benefits. For example:

- Reduced operational costs from lower energy consumption
- Reduced operational costs from portfolio / estate rationalisation
- Increased operational efficiency
- Mitigation of risks and operational threats arising from climate risk and compliance issues
- Stakeholder expectations
- Technological change

Our approach is to firstly understand your sustainability and climate footprints and risk profiles and to then recommend the optimal solution, aligned with your ongoing business requirements and strategic objectives.

### Journey to Net Zero

In order to limit global warming to 1.5C, the UK government aims to achieve Net Zero carbon emissions by 2050. This will require significant shifts in how UK Public Sector operates. Aligned with our Strategic approach, IBM can lever significant consulting and technological capabilities to take you on this journey.

## Mitigating Climate Risk

Using latest Intergovernmental Panel on Climate Change (IPCC) models, we can quantify your climate risk exposure in a robust, and consistent way, aligned with the TCFD's recommendations for financial disclosure.



Fig1. Why now and together? Sustainability and Net Zero Challenges



# IBM - Sustainability, Climate and Energy Transition Services

## IBM Exponential and Innovative Technologies

Our exponential and innovative technologies provide levers to aid the transition agenda, mitigate climate risk, increase resilience and reduce carbon emissions.

### Advanced Analytics

- Supports scenario-based risk assessments to refine Climate Risk Management and Resilience Strategies.
- Supports processing of huge volumes of data, to understand vulnerability and risk susceptibility.
- Supports development and refinement of Strategic Asset Management and Business Continuity Planning.

### Responsible Computing / Green IT

We provide consulting and technologies to optimise infrastructure and computing with AI at the core to enable more efficient, less energy- intensive IT and drive social impact.

### Internet of Things (IoT)

- Providing additional IoT data sets to improve the understanding of climate risk exposure and vulnerability in real-time.
- Triggers alerts and advice to help manage physical risks, i.e. known hazards, such as floods.

### Hybrid Multi-Cloud

- Allows the aggregation of complex data, meshing that which is stored on proprietary systems with that stored on public, private, or managed cloud services.
- Helps to integrate data from across the partner ecosystem to drive reliable insight faster and to build more accurate climate risk models.

### Blockchain

- Supports development of a trusted a shared digital ledger to track provenance, manage transactions and the exchange of value in ecosystems.
- Supports authentication of carbon consumption across the supply chain providing automation, compliance and efficiency to complex reporting and environmental disclosure.

### Generative AI

Generative AI can help to move beyond compliance and embed sustainability across your organisation. Inadequate data is the main challenge across compliance, optimization and embedding of sustainability. We provide consulting and technologies to embed Generative AI into your organisation and accelerate your sustainability journey.



## **IBM - Sustainability, Climate and Energy Transition Services**

### **Service Definition**

We provide full sustainability and climate services, enabling you to benefit from strategic development, data analytics, process and systems implementation, economic modelling, business change and technology systems integration.

**IBM Sustainability, Climate and Energy Transition Services provides a full range of services, including:**

- Access to specialist expertise to assess, advise, plan, manage and report on sustainability and climate performance, risk and compliance.
- Tools to profile your sustainability and carbon footprints and to model the environmental, operational and economic risks.
- IBM's Digital Change Services: focus on new revenue and market activation to address industry disruption; explore new ways of work using better insights and responsive operations; embrace constant business model innovation and create value ecosystems.
- Access to IBM Exponential and innovative technologies, which are key levers to aid the transition agenda, reduce climate risk, increase resilience and reduce carbon emissions.
- Proven methods that scale innovation to the pace of your business: e.g. Digital Reinvention, IBM Design Thinking and IBM Garage Methodology.

### **Full Lifecycle**

We have full lifecycle experience. Clients can engage with us to deliver the full lifecycle from end to end or just for the parts where help is needed.

We offer services ranging from strategy and operating model definitions through cloud platform build, migration, application development to support and operations.

# IBM - Sustainability, Climate and Energy Transition Services

## IBM Approach



We bring the benefit to you of having worked with the world's largest organisations, transforming complex, critical services. Our approach is based on robust methods, processes and personalised engagement.

We focus on your business needs and developing trusted long-term relationships, underpinned by industry-leading experience and capabilities. We want you to get the best out of every engagement and to deliver outcomes that matter for your organisation.

Our approach is tailored to your needs and flexible to support your specific requirements. We offer established Sustainability and Climate capabilities that align with your existing operations, and linking to regulatory requirements, industry standards and reporting standards.

We bring specific skills and attitudes including:

- Proven delivery track record working in complex environments
- Access to specialists who understand the lessons and risks for transformation
- Being able to advise, support and transfer knowledge with your teams
- Implementing strong governance, defined collaboratively within the context of robust methods and processes
- Bringing an integrated and controlled planning approach
- Proactive identification and management of risks and issues based on experience
- Working across complex existing and new platforms
- Experience with the latest technologies, tools and delivery methods

## IBM Garage for Cloud

We can bring our full IBM Garage Method for, or specific elements, to help accelerate your transformation:

The IBM Garage Methodology combines an open, seamless set of proven agile practices with a human-centric, outcome-first approach to quickly guide solutions from idea to implementation to scale.



In Complex Delivery, the ability to work effectively with client teams, suppliers and other stakeholders makes a difference to the ability to achieve success. This is where the garage principles drive results. Client and IBM experts work side-by-side with your stakeholders to create solutions, execute change and deliver value.

Together we:

- **Co-create the future** – Bringing together the right people to define the business goals, solution and plan – this “co-create” approach establishes buy-in and achieves greater certainty of outcomes.
- **Co-execute** – Following a deliver approach that is based on focussing on what matters most, delivering benefits early, iterating change and incorporating feedback.
- **Co-operate** – Establishing full-scale delivery programmes that meet your change objectives and support the operation of business-critical enterprise services.

The principles of how we think and act in our delivery to clients include:

- Building long-term client relationships based on innovation, trust and service excellence
- Using Design Thinking and agile approaches to help frame and execute our client’s change programs
- Infusing cognition and emerging technologies into our clients’ enterprises and core processes
- Exploiting hybrid multi-cloud-based solutions to underpin evolving client processes
- Developing and deploying world-class talent
- Using consistent, modern methods and tools – constantly reviewing and refining to accelerate the value we deliver
- The ability to thrive and succeed in engagements driven by globally dispersed, multi-disciplined teams using our suite of collaboration tools is at our core.

More information on the IBM Garage Method for Cloud is available at [ibm.com/garage](https://ibm.com/garage)

# IBM - Sustainability, Climate and Energy Transition Services

## About IBM – IBM's Journey

### IBM's Journey: Charting the path to a sustainable future.

For IBM, sustainability and climate are top issues. IBM is committed to a 40% CO2 reduction by 2025.

IBM is committed to Sustainability and Climate leadership in all business activities, from its operations to the design of its products and use of its technology. IBM's corporate policy on environmental affairs, first issued in 1971, is supported by the company's global environmental management system, which is the key element of the company's efforts to achieve results consistent with environmental leadership and ensures the company is vigilant in protecting the environment across all of its operations worldwide.

| We have tackled some of the most pressing climate challenges for 50 years                   | Going forward we need a new approach to tackling Sustainability                                                                                                                                                       | IBM is best placed to help our industry in the journey to net zero                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                            |                                                                                    |                                                                                             |                                                                                           |                                                                                            |                                                                                                 |
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|                                                                                             | <p>Design for sustainability</p> <p>Advance decarbonisation, GHG reduction and net zero</p> <p>Climate and energy transition risk management</p> <p>Cross industry open and collaborative systems &amp; processes</p> | <table border="1"> <tr> <td data-bbox="1039 905 1268 1062"> <b>Committed Roadmap</b><br/>           Our CEO commitment to 40% reduction in our CO2 in just 5 years         </td> <td data-bbox="1278 905 1502 1062"> <b>The right relationships</b><br/>           Across multiple industries, geos and governments         </td> </tr> <tr> <td data-bbox="1039 1075 1268 1209"> <b>World leading R&amp;D</b><br/>           to transform our use of carbon, e.g. <a href="#">VolCat</a> </td> <td data-bbox="1278 1075 1502 1209"> <b>Analytics, Architecture, Assets</b><br/>           Enterprise approach to solving complex problems         </td> </tr> <tr> <td data-bbox="1039 1222 1268 1377"> <b>Industry Platforms</b><br/>           Cross industry value chains to create new ways to collaborate         </td> <td data-bbox="1278 1222 1502 1377"> <b>Strong balance sheet</b><br/>           For long term <a href="#">monitisation</a> of industry platforms         </td> </tr> </table> | <b>Committed Roadmap</b><br>Our CEO commitment to 40% reduction in our CO2 in just 5 years | <b>The right relationships</b><br>Across multiple industries, geos and governments | <b>World leading R&amp;D</b><br>to transform our use of carbon, e.g. <a href="#">VolCat</a> | <b>Analytics, Architecture, Assets</b><br>Enterprise approach to solving complex problems | <b>Industry Platforms</b><br>Cross industry value chains to create new ways to collaborate | <b>Strong balance sheet</b><br>For long term <a href="#">monitisation</a> of industry platforms |
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# IBM - Sustainability, Climate and Energy Transition Services

## About IBM – Supporting Government

The problems we solve for clients are complex and cannot be satisfied with technology alone. They require a partner that can also offer deep industry expertise and a relationship of trust.

IBM combines the portfolio, people and sense of purpose necessary to meet today's enterprise demands. Every day, we support and manage complex delivery for government clients where the impact of delivery has wide-reaching impact on citizens and national services.

We bring access to the industry experience, insight, and technology capability to deliver and operate secure, scalable, optimised, and available services for government.

We support you by bringing:

- Industry expertise – Professionals who understand and are passionate about delivering quality public services and can bring industry insights and apply innovation to your business processes
- Trust and security capabilities – Protecting valuable data and insights and deploying new innovations responsibly
- Innovative technology – Expertise in areas such as AI, blockchain, 5G, Automation, IoT, cybersecurity and quantum, delivered in a Hybrid Cloud environment
- Experienced Services professionals to support strategy, innovation and deliver transformation and change to processes, applications, and cloud infrastructure
- Global alliances – valuable partnerships with the world's leading vendors

We help government organisations in the UK and worldwide deliver and transform essential public services – our teams are passionate and proud about helping you to make a real difference to people's lives.

### Government Services Supported by IBM



Defence and Intelligence



Public Safety and Policing



Healthcare



Life Sciences



Tax and Revenue Management



National Infrastructure



Social Care



Education



Works and Pensions

# About IBM

## This is IBM in the UK

We have worked together with organisations in the UK for over 100 years, with a rich history of joint innovation and achievements, built on trusted relationships.



### Cloud

Together, IBM and Red Hat are working to deliver the world's only **next-generation hybrid multicloud platform**



### Economy

IBM has been **integral to the UK economy for >100 years**, and is one of its largest tech employers



### R&D

In the UK alone, IBM **invests £170 million in R&D** each year



### Quantum

IBM Q, the world's most advanced quantum computing initiative for commercial use, is being used by CERN



### Environment

IBM's **focus on sustainability** began in 1971 with our first environmental policy



### Changing the world

IBM was awarded **World Changing Company of the Year 2019** by Fast Company



### Royal recognition

29 UK IBMers received **honours from the Queen** for contributions to tech and society



### Diversity

IBM won the **Global Diversity Award 2019** and the ENEI's **Gold Standard**



### Graduates

IBM is committed to developing future talent – we are **Target Jobs' Graduate Employer of the Year 2019**



### Volunteering

IBM dedicates **>20,000 volunteering hours every year** for a better society



### Tech talent

IBM runs P-TECH schools in 18 countries, helping **>100,000 students build skills for careers of the future**



### Inventors

IBM UK is home to many Master Inventors, with **>250 patents filed last year alone**

IBM