G-Cloud 14
Digital for sustainability
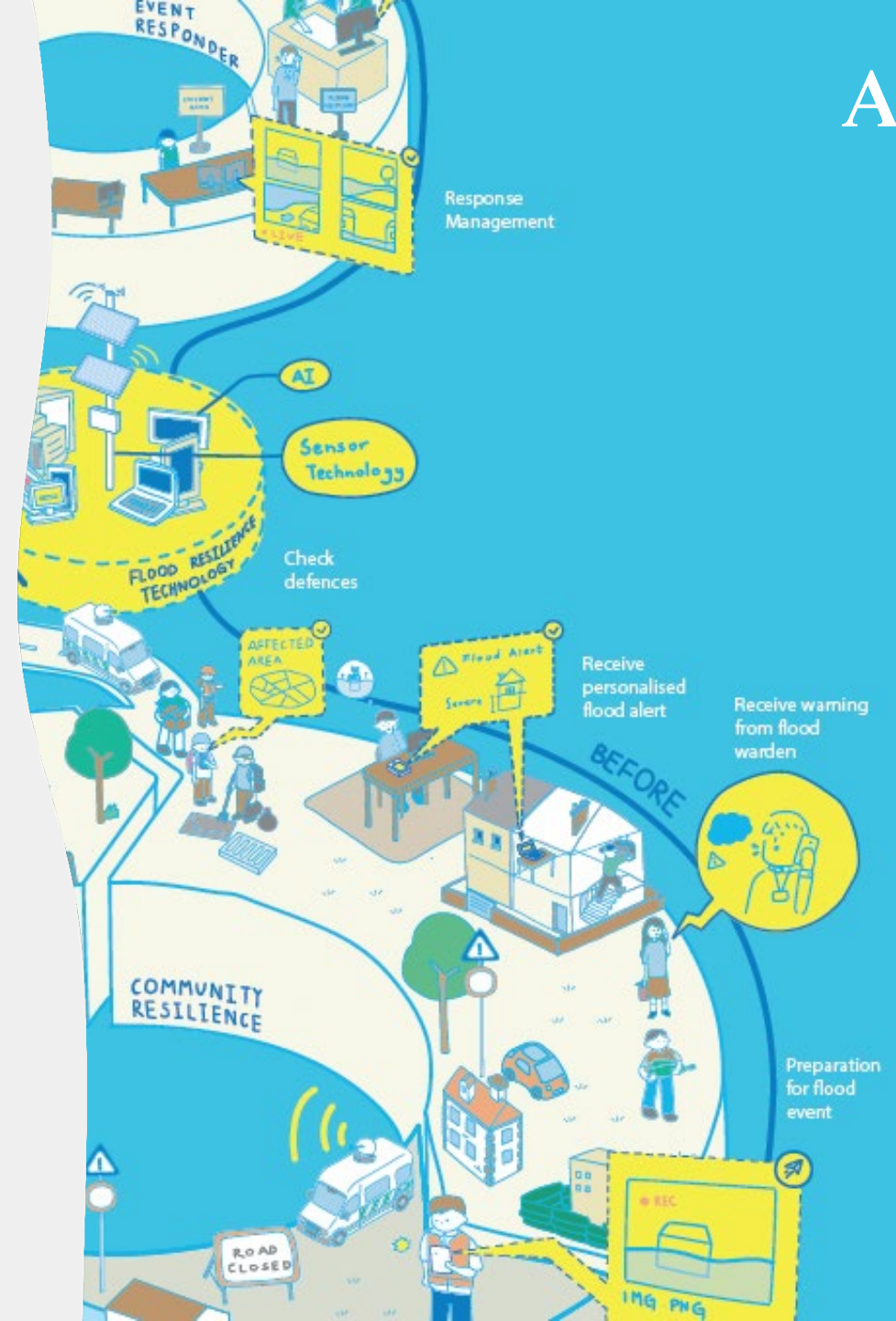
G-Cloud 14
Service definition document

ARUP

Our firm

Arup is a global collective of designers, consultants and experts dedicated to sustainable development, and to using imagination, technology and rigour to shape a better world

Our aims

The aims and principles laid out by Sir Ove Arup in his Key Speech, continue to underpin our firm today

- Social usefulness
- Total architecture
- Humane organisation
- Straight and honourable dealings
- Quality of work
- Reasonable prosperity

Who we are

We combine digital expertise with market knowledge to advise on the role of digital and data in the built and natural environment

We deliver services and solutions that solve complex challenges for our clients

Our strategy

We work with clients, partners and practitioners who share our commitment to create a sustainable future for everyone

Our partnerships

From climate change to city resilience, our long-term collaborations help us to tackle some of the world's toughest problems

Some of our clients

Our G-Cloud 14 services

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| Digital service design and development | Discovery phase | Alpha phase | Beta phase |

| Digital Asset Information Management | Digital Strategy and Architecture | Built Environment Data Advisory | Digital Transformation |

| Digital Energy | Digital Water | Digital Transport | Experience Design |

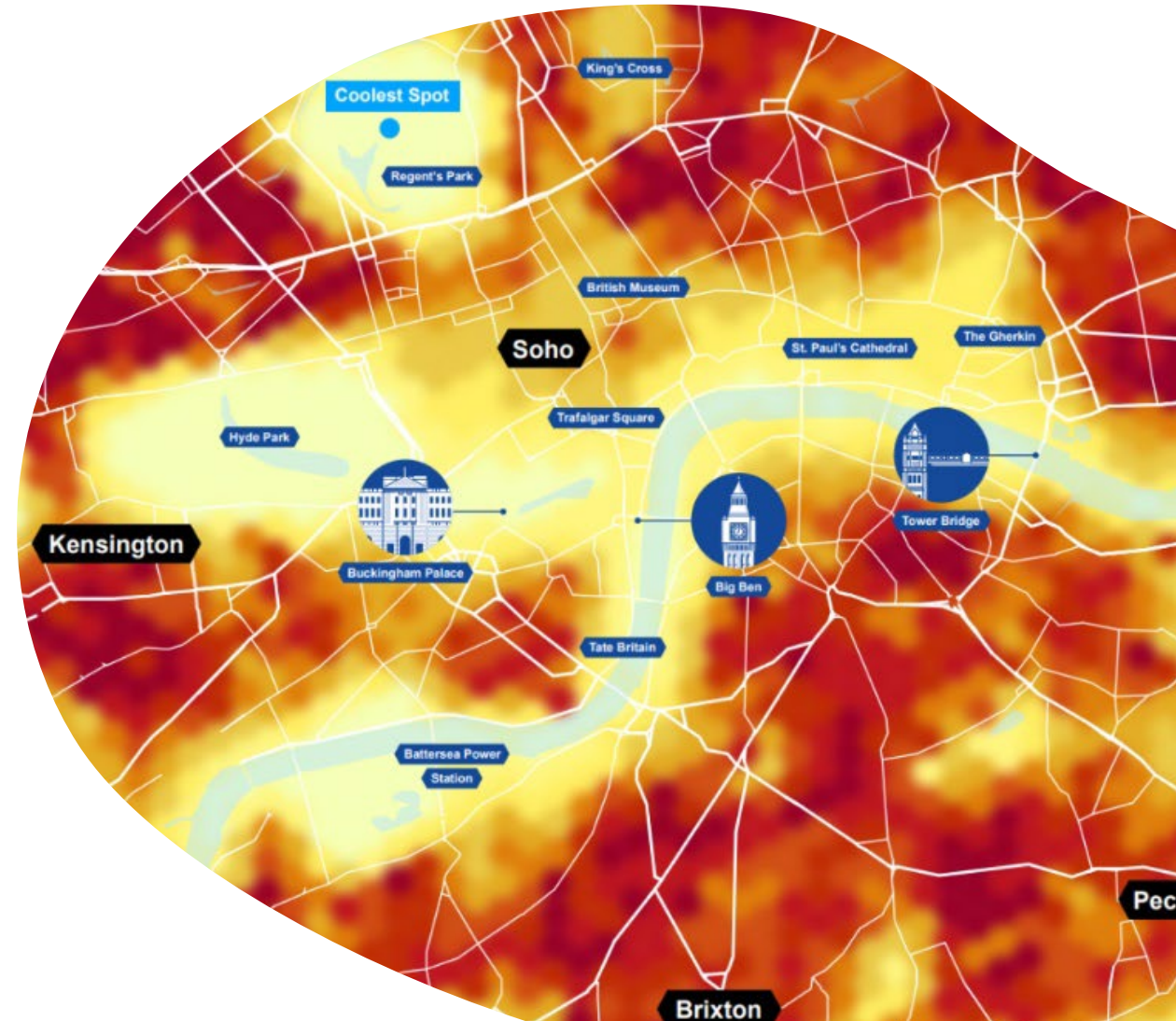| Digital for Sustainability | Digital Twins | Digital Planning | Co-Design |

| GIS (Geographic Information System) |

Digital for Sustainability

Digital for Sustainability

Introduction

Arup designs and develops digital tools and services bespoke to client need, enabling clients to utilise carbon and climate data to support their investment plans and overall strategy to achieve sustainability and resilience outcomes.

Features

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- Digital Solutions for Carbon, Climate, ESG and Nature data management and analysis

- Development of client specific Carbon Data Strategies to identify sources of carbon emissions data and establish rules for using, processing and sharing data in a consistent manner.

- Advanced data analytics for quantifying carbon risks and impacts on operations, supply chain and reputation, to inform interventions to achieve a net zero carbon future

- Digital Tools to analyse Climate change projection data, Climate change scenarios and Climate hazard assessment

- Technical Architectures to integrate sustainability tools and data sources

- Routemaps for Decarbonisation pathways based on Carbon Analysis

- Technology agnostic – developing solutions that utilise existing client technologies where possible

- Powering ESG platform services with carbon and climate data and analytics

- Combine client asset information with climate hazard assessment using latest data science and geospatial visualisation

- Scenario-based analysis for climate risks facing clients

Benefits

Benefits

- Supporting clients to identify and optimise existing tools for Carbon emissions capture and calculation or develop requirements for new tools where required

- Developing digital tools and services bespoke to client need, enabling clients to utilise carbon and climate data to support their plans and strategy to achieve sustainability and resilience outcomes

- Deep expertise on climate change data and uncertainties with appropriate data manipulation to deliver climate risk insights

- Use of data science and geospatial visualisation to provide insights to climate risks to inform strategy

- Client specific emissions baseline to understand true extent of carbon emissions, identify peak emission factors and focus intervention areas to reduce emissions

- Carbon accounting solutions that can assess product level carbon footprints by engaging with suppliers to yield better insights into where and how interventions can be made and monitor progress

- In-house tools to characterise and assess existing and future climate hazards and vulnerabilities for client assets and systems.

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Data Strategy, Health Care Without Harm

Designing an organisational data strategy for HCWH's journey towards net zero in healthcare institutions

Arup worked with HCWH to deliver a data strategy aligned to our client's key business priority, to drive sustainability across the healthcare sector globally. We did this by focusing on identifying use cases that deliver the most value to HCWH and its stakeholders. We defined a roadmap to implement their strategy as well as specifying enables and capabilities needed to deliver.

Health Care Without Harm | U.S.A.
2021-2022

ARUP

Developing a carbon benchmarking model to drive sustainable infrastructure planning

Arup, with our consortium partners, developed a model to create carbon benchmarks based on cost and carbon data from historical projects to decarbonise the economy and meet Net Zero emissions by 2050. Arup also spearheaded efforts to reduce legal challenges, promote PAS2080 standards, and develop online resources for Whole Life Carbon assessment.

Department for Transport | UK
2021-2022

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