



NEC Digital Studio

Service definition document



Made for Life.

An introduction to NEC Digital Studio



Bringing the power of digital to life

We're a people-first digital studio designing and delivering evidence-led solutions to transform the services used by everyone, every day.

We are a team of *solutionists*, made up of researchers, strategists, designers, technologists and developers. Our skills can be used in isolation or all together, depending on your need.

We empower organisations to be more effective through tools and systems that are intelligent, integrated and intuitive.



Our end-to-end service delivery

Exploring the Problem

We'll help you learn about your users, what they're trying to achieve and what's causing them frustration. We'll also explore the technology and any constraints that get in the way of change happening.

Understanding What Works

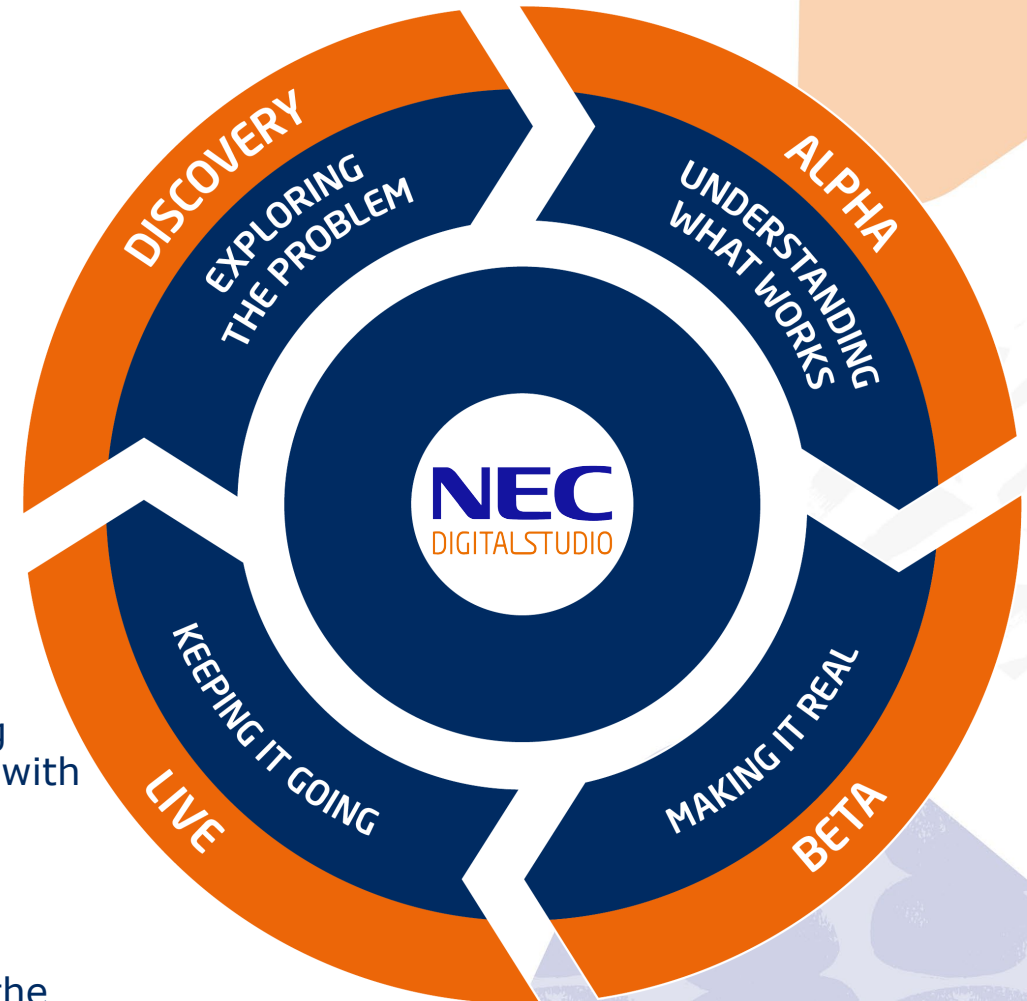
We'll design and test a series of ideas and prototypes and not be afraid to challenge how things are done now. If there's a better way, we'll strive to discover what that is.

Making it Real

We take the strongest ideas and bring them to life. Through evolving iteration, we'll develop the product or service and continue to test it with real users.

Keeping it Going

We'll support the launch and maintain your product or service in a sustainable way to ensure it is continually getting better by serving the needs of your organisation, staff and customers.



User-Centred Design (UCD)

We have a team of User Centred Designers that help design your product or service to balance the needs of its users, business goals and the realities of technology. They help your teams make better decisions by:

- Using research (not just assumptions) to understand what different types of users need and struggle with
- Understanding where time and money is being wasted on fixes and support
- Testing ideas early to avoid expensive rework later
- Prioritising changes that have the biggest impact for users AND the business.
- Designing solutions that are usable, efficient, and aligned with business value

UCD helps to reduce friction, improve satisfaction, and focus development on what really matters.



If a digital product takes more than 3 seconds to load, 40% of people leave

88% of users are less likely to return to a digital product after a bad experience

Every £1 invested in UX research shows a return of £100

Our project partners

We have over 15 years' experience delivering world-class products and services.

"The (NECDS) team were enthusiastic, passionate, and delivered the workshops and on-site support in a way which both gave councils the skills, tools and knowledge, but more importantly helped them move forward in addressing practical and real challenges."

Mark Golledge - Local Government Association



Our services



NEC Digital services

- **User-centred design**
- **Service design**
- **Interaction design**
- **Content design**
- **User research**
- **Discovery service**
- **Alpha service**
- **Beta service**
- **Legacy transformation**
- **Accessibility services**
- **Product management**
- **Data engineering**
- **Digital delivery**
- **Digital teams**
- **End-to-end digital service**
- **Digital transformation**

User Centred Design

Our UCD process ensures that products and services meet the needs of users, deliver policy goals, and achieve business outcomes. Undertaken with empathy and in line with the GDS Service Manual, our rigorous, inclusive methods provide a deep understanding of what is needed and how best to deliver it.

Features

- Product design, user-experience design, and non-digital user journey design
- User-research, service design, interaction design, content design, UX design
- Collaboration across teams, disciplines, users and stakeholders using co-design
- Systems thinking to understand, communicate and work with complexity
- Rigorous, inclusive approach to qualitative and quantitative user research
- Expertise in working with audiences experiencing vulnerability
- Agile, iterative design approach including prototyping and usability testing
- Outputs including personas, user journey maps and service blueprints
- Service strategy informed by the factors affecting a service
- Accessibility consulting and audits against the latest WCAG guidelines

Benefits

- Extensive experience in local government/central government and the NHS
- Supporting capacity gaps, phases of work or complete end-to-end
- Understanding issues with services and how to improve services
- Accessible and inclusive user-experiences and services, designed for everyone
- Using GDS/CDDO, NHS service standards and government design principles
- Seamless services delivered by aligning back-end, online/offline processes
- Reducing risk and cost through evidence-led decisions and prioritisation
- Service improvements and success metrics linked to business outcomes
- Digital transformation support to guide successful digital service implementation
- Tailored user-centred-design training building client's knowledge, skills and capabilities

Service design

We work with you to deliver user-centred services which are aligned with government standards and help achieve business outcomes. Working holistically, we blend systems thinking and user-centred design to understand and solve the most complex challenges. Using Agile, evidence-based, iterative and collaborative methods, we deliver value quickly, whilst reducing risk.

Features

- UCD professionals experienced in delivering complex government projects
- Multidisciplinary teams comprising user-research, design, business analysis and delivery
- Collaboration across teams, disciplines, users and stakeholders using co-design
- Creating E2E, multichannel experiences through touchpoints, systems & technology
- Creating as-is and to-be user-journey map and service blueprints
- User research (qualitative/quantitative) informing data-driven design and technical decisions
- Utilising Agile, iterative processes; prototyping, and testing for efficient delivery
- Build client service design knowledge, skills and capabilities
- Deliver to GDS/CDDO and NHS standards using government design principles
- Utilise systems thinking to understand and solve complex challenges

Benefits

- Effective services that meet user needs and deliver business outcomes
- Understand issues with services and how services can be improved
- Accessible and inclusive services designed for everyone
- Seamless services delivered by aligning back-end, online, and offline processes
- Reducing risk and cost through evidence-led decisions and prioritisation
- Building client service design capability for ongoing quality and improvement
- Measurable service improvements and outcomes linked to clear success metrics
- Reducing burden on client by working with integrated teams
- Digital transformation support to guide successful digital service implementation
- Collaborative approaches enabling stakeholder buy-in and adoption

Interaction design

We use interaction design to create simple, intuitive and accessible services that meet user needs and are aligned with Government Digital Standards. Our expert interaction designers enhance your user's experience (UX) through a research-led, evidence-based approach to iterative UI design, which uses wireframing, prototyping, usability testing and journey mapping.

Features

- Interaction design embedded within Agile development methodologies and teams
- Coaching of your staff to increase internal user-centred design capability
- Collaboration and management of stakeholders
- Designs adherent to the GDS service standard
- Accessible designs compliant with Web Content Accessibility Guidelines (WCAG)
- Expert knowledge of the GOV.UK and NHS.UK design systems
- A responsive design approach improves service accessibility across devices
- Interaction design for products outside of the GOV.UK domain
- User research to validate designs, driving evidence-based decision making
- End-to-end interaction design of services including offline and online touchpoints

Benefits

- Ensure your service is accessible, adhere to WCAG guidelines
- Quickly solve problems for your users and organisation
- Reduce your training and support needs, reducing costs
- Build simple services that meet user needs and business requirements
- Delivery at pace of validated design solutions for development
- Derisk development and live phases through early testing
- Lower the cost of design iteration through prototyping
- Measurable service improvements and outcomes linked to clear success metrics

Content design

Our expert content designers help users quickly find what they are looking for. They design and test content using data and research-backed evidence, to focus content on what people need. They write UX copy that aligns with government standards and principles. This improves user satisfaction, saves time and increases value.

Features

- Discover user needs and pain points using rigorous research techniques
- Consider the end-to-end user journey with experienced consultants
- Structure content logically with established tools and techniques
- Write in plain English, saving users' time and increasing usability
- Our service includes UX writing for labels, buttons and forms
- Accessibility and inclusion integral and embedded throughout process
- Prototyping, testing and workshops, collaborating with stakeholders to ensure accuracy
- Experience working to GDS standards and on NHS content
- A tailored strategy to aid decision-making and maintain content
- Content design training, upskilling your team and facilitating co-design

Benefits

- Less clutter allows simple, quick navigation for everyone, including experts
- Inclusive and accessible content that meets web content accessibility guidelines
- Content that low-literacy or non-fluent readers find easier to digest
- Adaptable content, effective in digital and real-world scenarios
- Meet user requirements, quickly resolving pain points through co-design
- Content sensitive to stressed or traumatised users in challenging situations
- Rapid prototyping and UCD methods de-risk evaluation and outcomes
- Content that fits a desired organisational strategy, tone and style
- Easier, cheaper updating and maintenance of your product or service
- Upskill your team in content design providing long-term value

User research

Our researchers help you understand service users, customers, and staff through a range of qualitative and quantitative methods. We develop a deep understanding and deliver actionable insights and recommendations based on evidence. This removes guesswork, helps understand how the current solution is performing, enabling cost-effective products and services.

Features

- Quantitative/qualitative research methodologies which understand user needs
- Remote or in-person research, supporting end-to-end product or service development
- Contextual research through physical or digital observations and ethnography
- Empathy and stakeholder mapping to give a clear insight
- Remote or in-person usability testing, ensuring accessible, inclusive service
- In-depth interviews, workshops, focus groups and small group discussions
- Developing user needs and personas to support design and development
- Alignment with GDS and GOV.UK's design patterns and principles
- Repeatable and evidence-based research techniques, upskilling whilst we deliver

Benefits

- Products and services are optimal for users, with greater reach
- Reducing time and cost impacts, precisely targeting products and services
- Increased uptake of new digital products and services
- Reducing business risk related to non-accessibility or ill-informed development
- Increased user satisfaction and repeat visits due to user-centric approach
- Reducing redesign/redevelopment costs by identifying key user needs
- Understanding contextual factors that shape service development and deployment
- Comprehensive understanding of pain- points required for accelerated legacy modernisation
- Tangible value of new user insight, more impactful public services
- Flexible and scalable upskilling, increased staff skills and understanding

Discovery service

Our discovery service identifies your users and their needs, their current challenges and frustrations, and what users need from your service to achieve their goals. We leverage an array of design methods to grow confidence and ensure you are solving the right problems before you commit your resources.

Features

- Discovery research expertise developed from over fifteen years of experience
- User-centred design approach ensures discovery phase highlights user needs
- Multidisciplinary team skilled in multiple quantitative and qualitative methods
- Accessibility as a centrepiece of our practice ensures maximum reach
- Collaboration across teams, disciplines, users and stakeholders using co-design
- Strategic/systems thinking to understand & communicate complex challenges
- Technical and business process investigation
- Deliver to GDS/CDDO and NHS standards using government design principles
- Outputs including personas, user journey maps and service blueprints
- Reports including actionable recommendations and hypotheses for alpha

Benefits

- Streamlining development via identification of key user needs and challenges
- Providing competitive advantage by mapping market environments and user populations
- Increasing efficiency by identifying most effective allocation of development resources
- Reduction of business risk related to limited understanding of users
- Reduction of business risk related to limited competitive landscape visibility
- Align with Government Digital Service Standard/CDDO and NHS standards
- Potential user base growth via research-based feature refinement
- Upskill and build client knowledge, skills and capabilities
- Integrated teams working as one with staff and other suppliers
- Reduce risk and increase efficiency through Agile, iterative processes

Alpha service

NEC offers expert delivery of GDS-compliant alpha phases. This involves refining ideas from discovery and rapidly prototyping different methods to de-risk projects and find what works best for users. Our user-centric and inclusive approach ensures confidence and viability early on, paving the way for successful beta phases.

Features

- Builds on all results and knowledge from the discovery phase
- Delivered by an experienced, high-performing, multidisciplinary digital delivery team
- Quantitative and qualitative user research to validate solutions
- Recruitment of users for further research and testing
- Agile, iterative prototyping with user feedback driving continuous improvement
- Service design ensures fit with organisational contexts and wider journeys
- Co-design with users and stakeholders
- Design solutions with WCAG accessibility principles in mind
- Adherence to GDS best practice guidelines and service assessment support
- Alpha report, including prioritised backlog and roadmap for beta

Benefits

- De-risk delivery through rapid prototyping and assumption testing
- Seamless transition from discovery, accelerating delivery with rapid onboarding
- Access to multi-disciplinary DDaT roles on demand for support
- Development of deeper understanding of user needs, including accessibility requirements
- Comprehensive understanding of underlying legislation and constraints
- Aligned with wider and non-digital journeys, and organisational processes
- Evidence-supported recommendations for beta
- Collaborative approach with stakeholders for transparency and quick decisions
- Cost-effective and efficient alpha phase delivery
- Experts in ensuring success with GDS service assessments

Beta service

Our private and public beta service employs user-centred design to build on existing alpha learnings and start building a real solution. Following government design principles and standards we ensure products and services work well for users, testing and iterating them, and preparing organisations for the transition to live.

Features

- Scoping and road mapping, prioritise outcomes within timeframes and budgets
- Service design informed approach ensures fit with organisational contexts
- Blueprinting and iteration of a secure architecture
- Design for wider journeys across channels, including assisted digital
- Multidisciplinary, Agile process of design, prototyping and development
- Delivered to GDS and NHS standards using government design principles
- Rapid, iterative design refinement informed by usability testing
- Open, collaborative approach with stakeholders for alignment and decision making
- Evaluation of performance through private and public beta
- Preparation for service assessments and transition to live service

Benefits

- Effective services that meet user needs and deliver business outcomes
- Accessible and inclusive products and services designed for everyone
- Aligned with wider and non-digital journeys, and organisational processes
- Reducing risk and cost through evidence-led decisions and prioritisation
- Building client capability for working with UCD and Agile
- Integrated teams working as one with staff and suppliers
- Access to multi-disciplinary professional experts in government capability frameworks
- User-generated evidence for live, ensuring informed outputs
- Product or service is ready to scale up to live
- Validate technical assumptions, integration robustness & scalability of architecture

Legacy transformation

Our legacy transformation services enhance software through fully assessing technical architecture, data-flows, user-needs, processes and risks. Includes assessing technical architecture for cloud readiness. We refine UI/UX, develop CI/CD pipelines, refactor, and containerise applications, managing data migration. We ensure reliable, secure, scalable software, efficiently deployed with competitive hosting and 24/7 support.

Features

- Review existing application architecture, design, roadmapping and cloud readiness
- UCD s intuitive interfaces, workflows, high-adoption, low training burden.
- CI/CD pipeline review, re-development and enhancements
- Application development and optimisation for deployment in public cloud
- Performance and load testing review and optimisation
- Application options analysis (rehost, replatform, refactor, replace, retire).
- Application and data migration services to public cloud
- ISO 27001 processes and SC cleared personnel
- Backup and BCDR preparation and review
- Monitoring and alerting services

Benefits

- Increase the scalability, reliability and security of your software
- Improved user-centred UI/UX, better workflows, tooling, application adoption
- Agile development allowing you to iterate on changes
- Lower ownership, reduced technical debt, standardised tooling, improved engineering.
- Predictable, optimised public cloud hosting costs
- Reduced tech-debt, risk to availability, integrity, and security data
- Repeatable, efficient deployment of changes via IaC and CI/CD
- Increased delivery cadence of required features and functionality
- Sustained organisational growth, empowered teams, improved capability& systems
- Integrated services, real-time data, cloud-native, supporting innovation & scalability.

Accessibility services

NEC's Accessibility Specialist and the team of Accessibility Champions follow best practices in line with the Web Content Accessibility Guidelines (WCAG) 2.2 AA, Public Sector Bodies Accessibility Regulations (PSBAR) 2018 and Government Design Principles for all projects. This ensures the needs of all users are met and that the most recent legislation is followed.

Features

- Live audits that ensure stakeholders are aware of accessibility issues
- High-level audit covering key accessibility concerns based on impact
- Detailed audit report offering actions and recommendations involving assistive technologies
- Accessibility Statement outlining where users with disabilities may face obstacles
- Accessibility champions team, making accessibility integral to products/services
- Ongoing support and advice provided on an 'as required' basis
- Consultancy for service design, providing actionable solutions for projects
- Accessibility training offering a roadmap for the implementation of accessibility
- Accessibility workshops covering any accessibility issues, best practice/solutions
- Evaluation of planned Cloud services, ensuring accessibility and inclusion

Benefits

- Increase in inclusive products and services for your audience
- Reduction in risk related to non-compliance with accessibility legislation
- Improved and positive reputation for your business
- Following success criteria in WCAG 2.2 AA and PSBAR 2018
- Objective and tailored accessibility audits of your business
- Potential for growth of client base through improving accessibility
- Potential increase in adoption of business services through accessibility improvements
- Positive raised awareness of the business's products and services
- Advantage over competitors who don't have accessible products and services
- Future-proofing business offerings giving your business that cutting edge

Product management

NEC work with you to create a product-centric approach to transformation. We employ user-centred methods and manage end-to-end lifecycle. Our process frames vision and obstacles, sets priorities, creates strategic roadmaps, and defines ideal future state at pace. This helps organisations deliver outstanding solutions in an efficient and cost-effective way.

Features

- A clear vision and strategy from the project outset
- An Agile and adaptable development process aligned with business outcomes
- A user-centred design approach, truly tailored to your client-base
- Continuous feedback loops
- Transparent stakeholder communication and co-design
- Roadmap planning and prioritisation, streamlining the process
- Technical and market feasibility analysis, ensuring you stay ahead
- Performance tracking and analytics, monitoring progress
- Risk management protocols
- Effective team leadership and collaboration

Benefits

- Ensures alignment with long-term goals and business objectives
- Promotes responsiveness to change, streamlining and reducing cost
- Increases product desirability and user satisfaction
- Enhances product quality and relevance
- Building trust and ensuring everyone is on the same page
- Guarantees focus on high-impact features, maximising benefits
- Optimises for product success
- Provides insights for improvements and growth
- Reduces the likelihood of project failures, minimising risk
- Fosters a productive and innovative team environment

Data engineering

Our data engineering service provides scalable, secure cloud-based solutions tailored for robust data integration, migration, processing, and analytics. It facilitates seamless data flow and real-time insights, ensuring cost-efficiency and enhanced decision-making. Our security-cleared staff uphold the highest standards of data compliance and protection, boosting organisational agility while safeguarding sensitive information.

Features

- Integrating data from diverse sources/formats, ensuring seamless flow/accessibility
- Scalable, flexible data architectures to grow with your requirements
- Robust data pipelines ensuring efficient, error-free data processing
- Real-time data processing, supporting business requirements and decision-making
- Focus on data quality, ensuring accuracy, completeness, and reliability
- Proficiency in cloud platforms for data storage, processing, analytics
- Integrating/migrating advanced analytics, machine learning, and AI capabilities
- Robust security measures protecting data against threats
- Automation tools, enhance efficiency, reduce human error, accelerate processes
- Continuous monitoring/optimisation of data systems/processes to ensure peak performance

Benefits

- Enhanced data usability and accessibility
- Ensures integrations between systems are optimal
- Smooth and efficient flow of data through automated processes
- Enables timely analysis and decision-making
- Ensures high-quality data to use in decision-making
- Scalable, flexible, cost-effective data storage, migration and integration
- Transforms raw data into actionable insights
- Protects sensitive data against breaches and cyber threats
- Increases operational integration, reduces the likelihood of human error
- Ensures data pipelines and systems operate at peak efficiency

Digital delivery

Our service excels in Agile methodologies, aligning with Government Digital Standards for efficient, transparent, and user-focused projects. We deliver across all phases from discovery, through alpha, beta to live. Specialising in seamless integration and delivery across major cloud platforms guaranteeing secure, robust solutions, adhering to the highest cyber security standards.

Features

- Agile methodologies ensure flexibility, responsiveness, and rapid iteration
- UCD prioritises accessibility, usability, and engagement in solutions
- Experienced DevOps practice streamlines deployment, enhances delivery efficiency, reduces risks
- Technical and solution architects deliver scalable, robust, and innovative designs
- Multi-skilled development team proficient in delivering high-standard applications
- Expertise in Azure, AWS, and Google Cloud for versatile delivery
- Adherence to UK government digital standards for quality and compliance
- Follow National Cyber Security Centre recommendations, safeguarding against cyber threats
- Assurance practice oversees all delivery for quality, reliability, and performance
- Comprehensive delivery service through discovery, alpha, beta and live

Benefits

- Increased project flexibility and responsiveness, adapting quickly to change
- Enhanced user satisfaction through accessible and engaging digital products
- Improved efficiency, faster time-to-user for applications and enhancements
- Future-proof solutions, scalable and adaptable to emerging technologies
- Versatile development capabilities to meet diverse project requirements
- Optimised cloud solutions ensuring reliability, scalability and cost-efficiency
- Assured compliance with legal standards, reducing regulatory concerns
- Strengthened cyber security posture protecting against evolving digital threats
- Guaranteed quality and reliability of digital services enhancing trust
- Single provider convenience streamlines delivery management and coordination

Digital teams

NEC offers comprehensive digital teams. Agile delivery experts, pre-eminent user-centred and technical design teams, experienced DevOps team, and a development team skilled in all major programming languages. Oversight by our assurance team ensuring alignment with UK government digital standards and NCSC recommendations. Our teams deliver robust, secure digital solutions.

Features

- Agile team ensures fast, flexible, and effective project management
- User-centred design team crafts intuitive and accessible digital experiences
- Experienced DevOps streamlines deployment and operational efficiency, enhancing reliability
- Technical architects design robust, scalable systems tailored to specific needs
- Solution architects integrate innovative solutions that align with business objectives
- Multi-skilled developers deliver secure code in all major programming languages
- Assurance team guarantees quality, compliance, and alignment with best practices
- Operations team ensures services are supported to meet SLAs
- Monitoring team provides 24/7 supervision and action if required
- Management team supports all customer-facing teams as required

Benefits

- Accelerate project timelines through expert Agile delivery methodologies/practices
- Enhance user satisfaction with focus on intuitive, user-first design principles
- Ensure services are accessible and inclusive for the entire user community
- Improve reliability and performance with tried and tested DevOps strategies
- Build future-proof systems with innovative technical architecture planning and execution
- Ensure strategic alignment and innovation through solution architecture consulting
- Unparalleled development flexibility across diverse technology stacks/languages
- Provide rigorous quality assurance, reducing risk and ensuring project excellence
- Always available services, and support for them
- Robust NEC senior support for benefit delivery

End to end digital service

We design, build and manage end-to-end, digital-first public services that meet user needs and achieve business outcomes.

Using Agile, evidence-based, collaborative methods aligned to government standards we deliver value quickly whilst reducing risk. Our user-centred design, development and managed services teams deliver services from discovery, through MVP to live.

Features

- Working with users and stakeholders to discover high-level requirements
- Business and user analysis: mapping roles, data, journeys and relationships.
- Producing as-is/to-be user journey maps and blueprints
- Agile, iterative prototyping and testing for effective user-centred delivery
- Robust solutions for data integration, processing, analytics and insights
- Service development, deployment and testing with managed support services
- Solution and technical architecture ensuring seamless, secure integration between components and services
- Delivered to CDDO and NHS standards using government design principles
- Cloud-native architecture utilising IaC tooling across multi-cloud environments
- ISO 27001 assured processes with SC cleared staff

Benefits

- Effective services that meet user needs and deliver business outcomes
- Accessible and inclusive content and services designed for everyone
- UX and services designed with users to government standards
- Make use of data to support informed business decisions
- Reliable user and citizen facing services
- Reducing risk and cost through evidence-led decisions and prioritisation
- Seamless online, and viable offline, processes for citizen interaction.
- Measurable service outcomes linked to clear success metrics
- Improved customer UCD technical knowledge skills and capabilities
- Digital transformation enabled through technical and UCD support services provided.

Digital transformation

We help organisations to meet changing business and technology demands through digital transformation and change management. Using Agile, evidence-based, and collaborative methods aligned to government standards we deliver value quickly, reduce risk and ensure business continuity. Supporting you through your transformation from strategy and implementation to scaling and continuous improvement.

Features

- Setting strategic vision and direction, giving a clear focus
- Programme and project planning and overall management
- User research informing data-driven strategy, change and technology decisions
- Strategic design and systems thinking to solve complex challenges
- As-is blueprinting to identify barriers and opportunities for change
- Stakeholder engagement, management, and communication plans
- Target operating models and delivery roadmaps turning vision into reality
- Defining organisational structures and business processes to meet strategic goals
- Cloud first technology and data architecture expertise
- A partner from discovery to implementation supporting culture change

Benefits

- Maintaining business continuity through transformation
- Collaborative and codesign approaches enabling stakeholder buy-in supporting culture change
- Evidence based business case development
- User-centred approach ensuring strategy aligns with user needs
- Reducing risk and cost through iterative and evidence-led processes
- Assess organisational digital maturity and readiness for change
- Building digital skills capability for continuous improvement
- Improved processes to increase efficiency and reduce costs
- Access to NEC's global expertise in technology and AI
- Experience delivering complex, Agile, government projects to GDS/CDDO standards

NEC Digital Studio
is backed by NEC
Corporation



By working with NEC Digital Studio, you get the power of one of the world's largest technology providers

\Orchestrating a brighter world

NEC

**ESTABLISHED
1899**



**117,000+
TEAM MEMBERS
WORLDWIDE**



**7 GLOBAL
R&D LABS**



**700+ PUBLIC SAFETY
SYSTEMS IN 70+
COUNTRIES
DEPLOYMENTS**



**LEADER IN
BIOMETRICS**



**GLOBAL CENTRE
OF EXCELLENCE
(FACIAL RECOGNITION)
IN THE UK**



**TOP 50
INNOVATIVE
COMPANIES**



**45,000+
PATENTS**

NEC
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Made for Life.