



User Experience (UX)

Gcloud 14



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About this service

BMT offers a wide range of User Experience (UX) services. We have a strong pedigree of understanding user needs and deriving actionable user requirements as well as developing prototype (Alpha) systems and services. We have proven experience in user testing to ensure that digital services meet the user needs.

What we deliver

- User Research – we focus on understanding user behaviours, needs, and motivations through observation techniques, task analysis, and other feedback methodologies.
- User Personas - fictional characters created to represent a user type that might use a site, brand, or product in a similar way.
- Storyboarding – we visually predict and explore a user's experience with a product.
- User Experience Mapping - visualising the entire end-to-end user experience that an average user will go through in order to accomplish a goal.
- Scenario Development - describing the stories and context behind why a specific user or user group comes to your system or site. We derive the goals and questions to be achieved and define the possibilities of how the user(s) can achieve them, using the service.
- Paper Prototype Development - a widely used method in the usercentred design process, that helps developers to create software that meets the user's expectations and needs.
- Wireframing/Digital Prototype Development - a simulation or sample version of a final product, which is used for testing prior to launch.
- Producing Style Guides - a growing and ever-evolving set of design guidelines that arise from the design process
- Usability Testing - a technique used to evaluate a product by testing it on users. This is an irreplaceable usability practice, since it gives direct input on how real users use the system.
- Usage Metrics Reviews - vitally important for ensuring UX design decisions are made using quantitative data points measuring, comparing, and tracking the user experience and evaluating rather than making design decisions based on opinions.

What benefits we provide

- Identifying user needs, pain points, behaviours and goals
- Reliable and realistic representations of key audience segments
- Visualisation of how a user will use a product or service
- Better understanding and emotional connection of users
- Realising product benefits and product design to meet user needs
- Early stage conceptualising
- Quick refinement process
- Ensuring products reflect corporate style and brand consistency
- Insight into how satisfied users are with a product
- Resolution of user pain points

How we deliver this service

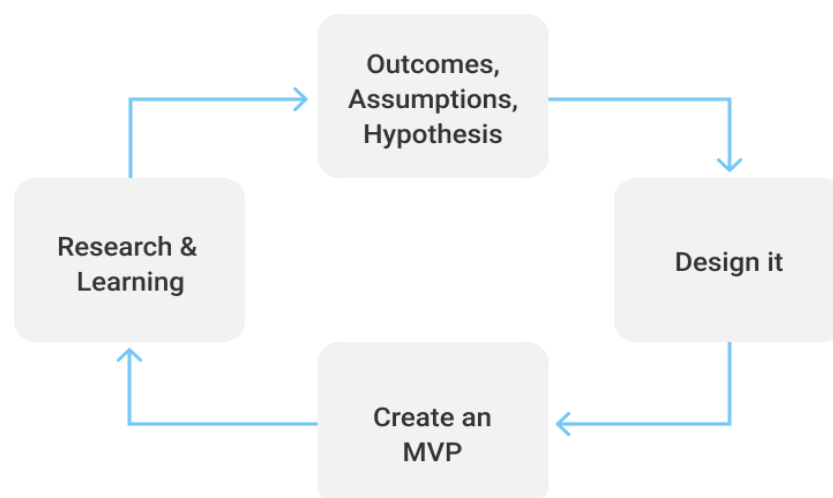
BMT provide a UX service, ensuring that the methodology suits the customer needs and is applicable to the size and scale of the project. We deliver two core service methods: **Design Thinking** and **Lean UX**.

Design Thinking focuses on, bringing together best practice UX approaches into an adaptable series of steps which are not constrained to sequence. This can be used at a whole project level, or on a more granular epic/story/task level. It ensures that needs are met, whilst testing that solutions are technically viable. It is a flexible approach that can allow elements to be run in parallel or skipped based on the scope of the work. The method is highly collaborative, iterative, scales well and fulfils the Government Digital Service (GDS) criteria for approach.

Lean UX begins by defining the desired business outcomes, establishing the metrics for success and creating a shared vision and problem statement which all stakeholders can work towards. We then proactively engage with user groups to establish their needs in the context of the problem, throughout the design process we answer questions such as:

- “Is it useful?” - does it move us closer towards our desired outcome, are we truly meeting user need?
- “Is it usable?” - are usability heuristics being considered enabling users to perform tasks efficiently and effectively and reduce cognitive burden.
- “Is it desirable” - does the design aesthetic make the design pleasant to use, does the user perceive it as high value and high quality?

By understanding the metrics which denote success, we rapidly prototype, experiment and test with users. If a prototype improves a metric, it can be kept and refined further, if it does not it can be discarded. By quickly producing low-cost prototypes we are not wedded to a given solution, making it far easier and cheaper to pivot an approach. By testing and proving many divergent approaches we better understand the problem and converge on the most effective solution.



Experience

Our experience includes the full end-to-end delivery of the following projects, including applying our UX/design approach to ensure the service met the user needs:

- **Access Pass Holder Information Distribution System (APHIDS)** - BMT have developed a system on behalf of the Home Office and Department for Transport where we have applied design thinking at epic, story and task level. We produced both lo-fi and hi-fi prototypes, developed and led user workshops as well as user testing sessions to ensure that the solution is viable, making iterations to the designs where necessary. BMT worked closely with

the Home Office Design team to ensure that all designs met the service design standards as well as taking through solution service standard assessments.

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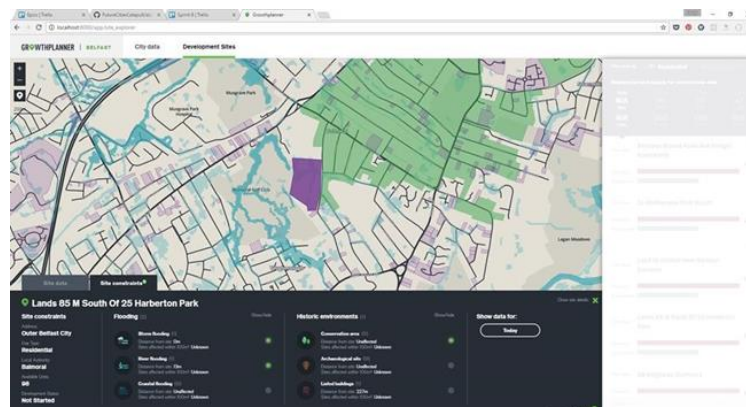
- **Joint User Mission Planning (JUMP)** - BMT have developed a system on behalf of the UK MOD where we used UX approaches around ideation (6-3-5), brainwriting, mini design sprints and lo-fi and hi-fi prototyping. We produced a simple style guide to help achieve better consistency across fonts, colours and sizing, enabling third-party contributors to also adopt this style guide. We also performed usability testing, helping to shape the design of JUMP. <https://www.youtube.com/watch?v=AcjucKPe7TA&feature=youtu.be>;



- **ASEMS** – BMT won a competition to migrate the MOD's Acquisition Safety & Environmental Management System (ASEMS) from a set of documentation into an attractive and intuitive web system. In addition to revising the content, BMT designed and implemented a Content Management and hosting solution (using Drupal) to greatly increase ASEMS accessibility. We provided the full migration, development, cloud hosting and support for ASEMS to a high level of response from the end customer and user community.



- **GrowthPlanner** – A City Planning tool: An example of a novel solution produced by BMT, which incorporated interface design and advanced visualisations for energy-related information, was the GrowthPlanner system that we developed for the Connect Places Catapult. GrowthPlanner presents city planning information through a simple, intuitive mapping interface.



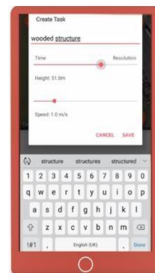
- **ASSERT** - BMT designed, developed and currently host and support a safety and environmental performance reporting tool used and mandated by all UK MOD Defence Equipment & Support (DE&S) and Information Systems & Services (ISS) Operating Centres and Teams. In addition, we provide a number of bespoke application modules for the Defence Safety Authority (DSA).



- **Red Alert** - BMT collaborated with multiple partners to design and develop a system which combines autonomous UAVs with modern web technologies to produce a real-time and portable solution that delivers information to emergency responders. UAVs collect aerial imagery (including high fidelity point clouds) to build a detailed 2D and 3D view of a scene and responders can use our system to bound and annotate areas within the aerial imagery using Civil Protection Common Map Symbolology. The toolset is highly flexible and can be used for disaster response, incident investigation and counter.
- **Poseidon** – BMT delivered the UX/design for a secure online service terrorism. Our team were responsible for the UX design of the solution which consolidates data on registered ships and capabilities for the including a web portal and mobile app (below). Defence Maritime Regulator. A core element of this service is an auditing workflow system, enabling inspectors to plan and carry out audits, whilst recording findings and intelligence. An Action Plan system is implemented to enable the DMR to assign and manage organisational Corrective Actions, whilst supporting the DMR's objectives for a common risk-based approach to regulation.



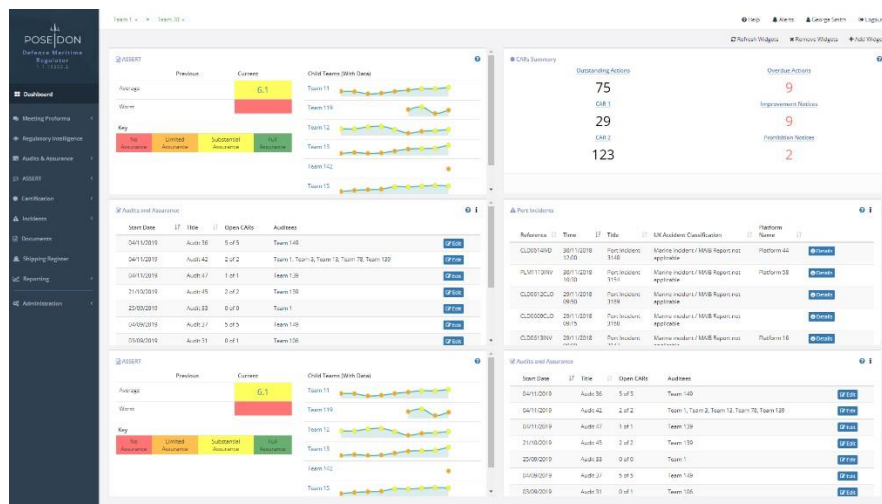
Define Area of Interest



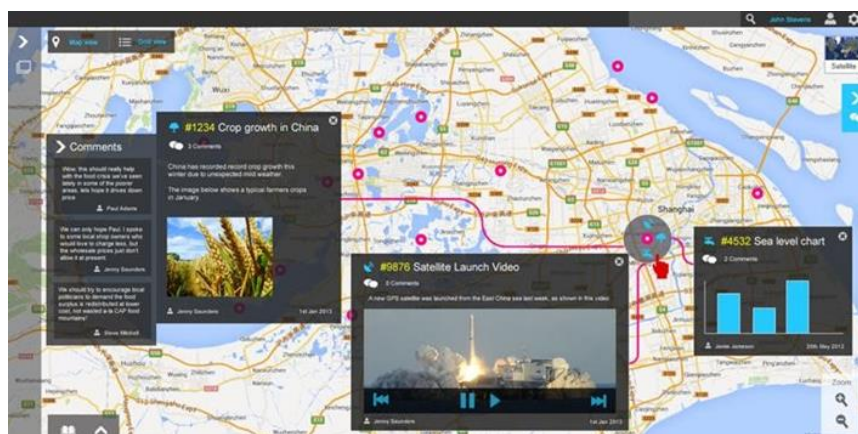
Select Task e.g.
Chemical Sensing



Autonomous Flight
Pattern



- **Dstl - GeoDash** - BMT designed and developed a web-based central database and dashboard portal (which incorporates a Google Maps interface) to enable effective aggregation, communication and sharing of information that is captured by Military Stabilisation Support Group (MSSG) staff in the field - in addition to a mobile, tablet-based application for MSSG staff out in the field to capture and retrieve information regarding local projects and organisations.



Overview of BMT's digital offering

BMT's primary business is to provide design and support services to government departments and commercial organisations. BMT has over 20 years' experience in providing technical consultancy and support services to major programmes and projects. Key to these services is BMT's software capability including design, development, hosting, support, testing and development of bespoke and Commercial-Off-The-Shelf (COTS) software applications. BMT's digital offerings cover four core areas of expertise to our customers: Code, Visualisation, Data and Cyber:

- **Code** - we provide bespoke powerful web-based and mobile software solutions for our customers;
- **Visualisation** - we deliver immersive and engaging training applications utilising our own ENGAGE® platform that is built from Unity to provide incredible 3D content and training scenarios that can be used in Virtual Reality (VR) or Augmented Reality (AR);
- **Data** - we provide expert advice and architectures for big data systems, including cyber data management. We invest in Research and Development to understand how technologies and advancements, such as machine learning, artificial intelligence and natural interactions can support our customer requirements now and in the future;
- **Cyber** – we support organisations to understand the cyber landscape, providing insight into digital risks and integration across lines of development and enterprise systems. We combine skills from threat intelligence, security architecture, data science and missing planning to deliver enterprise resilience for high performance and critical information systems ;

BMT has a proven track record in designing, developing and delivering web applications that provide on-line access to information in a secure environment. This information includes maintainable data stored in databases, technical documents of various formats, graphics, dynamic reports, etc. The majority of these applications use the latest web technologies including open source, Java, ASP.NET, C#, Node.js, various JavaScript libraries (e.g. React, Angular, Vue), Apache NiFi, Apache Spark, Elasticsearch, SQL Server, MongoDB and PostGRES.

The company has recognised professional development schemes with a number of professional institutes and is recognised by the UK Department of Trade and Industry as an "Investor in People".

All BMT software developers, testers and analysts are professional members of the British Computer Society (BCS), including staff members with Chartered status. In addition, the software

team includes PRINCE2 Practitioners and we seek to utilise PRINCE2 project management where applicable.

BMT is certified to ISO 9001/27001 and TickITplus.

Security Clearance: UK Security-cleared staff; Facility Security Clearance (FSC).



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