

COSTING



Arke Ltd



Thank you
for your interest in
Arke – how can
we help **you**?

We simplify complexity to enable better strategic decisions.

Arke is a small independent SME consultancy based in Wiltshire. We provide our clients with independent and objective Research, Strategic Analysis & Decision Support services. Whether it's with strategic, complex, novel technology options or tough organisational challenges, we help you to make the right decisions.

Our mission is to make a difference – to our clients, our community and each other. We pride ourselves on delivering outstanding analysis expertise for our clients. We instil our values of being collaborative, innovative and agile in all our projects. This underpins our approach of working in partnership with our clients to fully understand all challenges and to determine how we can provide high quality, pragmatic, tailored, sustainable solutions.

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ABOUT US

We understand the benefit of experience, creativity and new ways of thinking.

Our highly professional team consists of people at all stages of careers from graduates through to recognised industry experts. This ensures we create teams that provide our clients with the right blend of knowledge and experience, innovation and challenging thinking.

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OUR TEAM



We made our reputation providing cost engineering and evidence-based decision support across Defence. As we have grown, we have expanded to support our clients across the public and private sectors with our **Cost, Decision Support, P3M, Business Analysis, Modelling and Simulation, Technology Design, Sustainability, Futures and Stakeholder Communications** services.

We work for UK and overseas public and private sector organisations. We have considerable experience of working with all tiers of Government departments and agencies, enabling our clients to get the best from novel and disruptive technology, maximising the value of research and better understanding barriers to change.

We have assessed options for satellite communications capability and technology. We have provided cost and benefits analysis delivering digital business and capability change in open systems architectures, communications systems and technologies. We have provided planning and analysis services for the development of novel technology concepts such as adoption of networked architectures, Edge processing and AI.

Our demonstrable track record of delivering responsive and innovative cloud and digital projects across our service catalogue has ensured we are a trusted supplier that offers high value for money for our clients.



If you need help to understand your challenges, assess your options and provide you with all the evidence you need to make the right decisions, please get in touch.

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AN OVERVIEW OF OUR SERVICE

With cost always being a constraint, you want to ensure you get value for money from your investments. Arke have an excellent reputation for helping our clients factor all aspects of cost are considered to enhance the ability to make informed, affordable and effective decisions.

We understand you want to receive the best possible outcome from the resources available and therefore need to understand the true cost of your available options. We have many years of experience providing pragmatic costing and investment appraisal services, ensuring clients have the understanding and evidence they need to make the best strategic choices.

Our team of experienced cost experts ensure your decisions are based on findings that are:

- Relevant – address the requirement at a holistic and suitable level of detail.
- Understandable – presented in a transparent manner.
- Validated – models that are rigorously tested for useability and accuracy.
- Verified – data used is defensible, traceable and documented.



Our service offerings include:

- **Balance of Investment Reports**
- **Affordability Appraisals**
- **Whole Life Cost Engineering and Estimating**
- **Economic Appraisal**
- **Concept Estimating**
- **Reference Class Forecasting**
- **Cost Benefit Analysis**
- **Validation and Verification**

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We work with you to understand your goals and design and deliver a uniquely tailored solution that provides you with the outputs and benefits you need to achieve them.

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Recent examples include:

Effectiveness, Assessment & Investment Appraisal:

Our client had been asked why a life-extension programme should be funded for an existing equipment. We produced an exploratory effectiveness assessment and investment appraisal to create the evidence required to answer that question. We developed an understanding of several possible alternatives whilst providing the client confidence that the Whole Life Costing analysis was sound and robust. A bespoke cost model was developed to work in conjunction with existing client-side tools. We also estimated various commercial implications, segregated fixed and variable costs and highlighted the training and infrastructure challenges brought by investing in new equipment. Our results were presented to our client's scrutiny organisation who were "really happy with what was provided", commending us on the "thorough process and evidence provided to support the decision-making process".

Whole Life Costing throughout the Life:

Our client needed to ensure that their project remained within budget and delivered value for money. Our cost estimating and analysis services were used to gauge the programme's 'should cost' budget, down-select options and identify the commercial strategy. Our work helped the project avoid overspends, deliver value for money and remain accountable. Our client found significant value in our costing process, bringing together siloed thinking and creating a unified vision of the programme. Our questions and scrutiny helped to mature ideas and encourage participants to think practically about the project, engendering more coherence and direction by providing greater structure, financial rigour and the ability to make decisions based on robust evidence.

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OUR SERVICE IN DETAIL

Whole Life Cost Estimating

We have provided Whole Life Cost Estimating services for over three decades, supporting decisions across the investment scale from multi-£Bn programmes to smaller investment projects. When firm prices aren't available, we help you estimate the cost of your investments from cradle to grave (Concept, Design, Manufacture, Operation & Support and Disposal). We cover all cost estimating techniques including bottom-up, analogous and parametric, ensuring that the best technique is chosen for your needs.

We not only help you forecast the cost of individual items, projects or programmes, but also identify any unforeseen costs you may incur and mitigate their probability of occurrence. We ensure that the decisions you make have a robust and holistic financial basis.

Cost Analysis

We help you understand cost data, to help you make the most informed decision possible. We have an extensive track record of developing cost effective financial model and tools that are bespoke to your requirements, but which are built or adapted from existing methods.

We will help you analyse complex pricing models during contract negotiations. We will identify and explain your programme's key cost drivers and help show you how different outputs such as Net Present Value, Outturn and Sensitivity can be used to inform your decisions.

We work with you to ensure complete transparency of all analysis techniques and supporting assumptions, enabling you to truly own your decision.

Cost Engineering

We help you manage your costs and adjust your programme to ensure it is deliverable. We bring our engineering and scientific backgrounds to cost engineering, enabling an understanding of the intricacies and interactions of physical and human systems, utilising tried and tested techniques to ensure all aspects of an investment are addressed.

We gain understanding of your project by using a system thinking approach, so we can fully represent the impact of change and the potential effect on timelines and available resources.

We identify key factors and areas of concern using a 'design-to-cost' philosophy, ensuring that the eventual outcome delivers the requirement but is not over engineered.

We provide insights and recommendations to aid your decision making.





Cost Benefit Analysis

We will help you deliver best value for money for your projects. Through our tried and tested, HM Treasury compliant, Cost Benefit Analysis (CBA) process, we will provide you with evidence for an optimised cost-effective investment decision. We are adept in many Operational Analysis and Benefits assessment techniques that complement our extensive Cost Engineering expertise.

Our service provides you with evidence and assurance that the cost vs benefit assessment has been conducted on a common and consistent basis, thus ensuring options are comparable and robust. We guide you through determining what value your options deliver, how they fulfil your objectives and help you understand their broader implications (e.g. achievability, deliverability). Our service enables you to make the right, evidence based investment decisions.

Economic/Investment Appraisal

With our support, committing to an investment decision is made easier. We take great care in defining your investment decision, understanding the technical, operational, programmatic, commercial and social value implications of the options under consideration at the outset of any project. This ensures a coherent, common and consistent approach across all potential investment options and breaks down complex problems to deliver a clear and concise options analysis.

Our client-led approach brings you on the journey as we generate a robust and defensible set of outcomes and recommendations for you to take forward into your decision making process.

Balance of Investment

We understand you need to balance a complex portfolio of new and existing capabilities.

We help you create an optimal strategy for where to invest or divest your assets to ensure you deliver within budget. We help appraise the fiscal implication of introducing new capabilities and cancelling old ones.

We provide evidence for the value these capabilities provide, help you assess what's crucial for your programme, where trade-offs are possible and identify potentially unforeseen knock-on effects of potential decisions.

We work with you to create a time-based roadmap of financially assessed actions that will deliver a cost-efficient, operationally effective and affordable future capability.

Affordability

We help you ensure your projects stay within budget. We test if a programme will fit your resource constraints and help you make the adjustments you need to be affordable whilst minimising reductions in capability. We analyse multiple options to show their inherent issues and risks and identify the key drivers that need to be addressed. We will guide you through the best ways to present results to deliver a cost effective outcome.



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OUR SERVICE



Reference Class Forecasting

Whether it's a project in its early stages, or an estimate that requires validation, we can use Reference Class Forecasting (RCF) to help improve your thinking.

For projects in their early stages, we can use RCF to help bound your project and give it a robust cost foundation. We use RCF and analysis of trends in other analogous projects to give you an insightful financial assessment that will allow you to set initial budget expectations.

For more mature programmes, we can use RCF as an additional form of validation to our bottom-up cost estimating approach. This can help provide an additional layer of evidence that ensures your decision making is based on the best possible information.

Concept Estimating

We can help you cost ideas from their earliest stages. Often cost and capability drivers and constraints are 'baked in' at the very earliest stages of product or programme development. Using a Systems Engineering approach, we can investigate novel, immature concepts and begin to ground them by providing a holistic assessment of the likely financial and non-financial benefits or disadvantages.

We help you find comparable examples and analyse them for Lessons Learned that benefit your programme. We work with Subject Matter Experts to solidify concepts to make them more explainable.

We provide you with an early understanding of potential drivers or areas for trade-off and help you develop your thinking.

Verification & Validation

We provide independent Verification & Validation (V&V) services, adhering to appropriate standards to give you peace of mind and assurance that your model meets the original requirement and specification and 'does what it says on the tin'. V&V activities are key to ensuring that mathematically based models and the data feeding them meet the required quality standard and are fit for purpose.

We will assess models for useability, repeatability and that the calculations are mathematically sound. We will evaluate underlying data and results for accuracy, sensitivity and that all data sources are documented and understood.

Our service ensures that you can make investment decisions knowing they have a sound basis.

To find out more about
how we can help you
please contact:

Jess Green, Director: jgreen@arkeltd.co.uk
And visit our website: www.arkeltd.co.uk

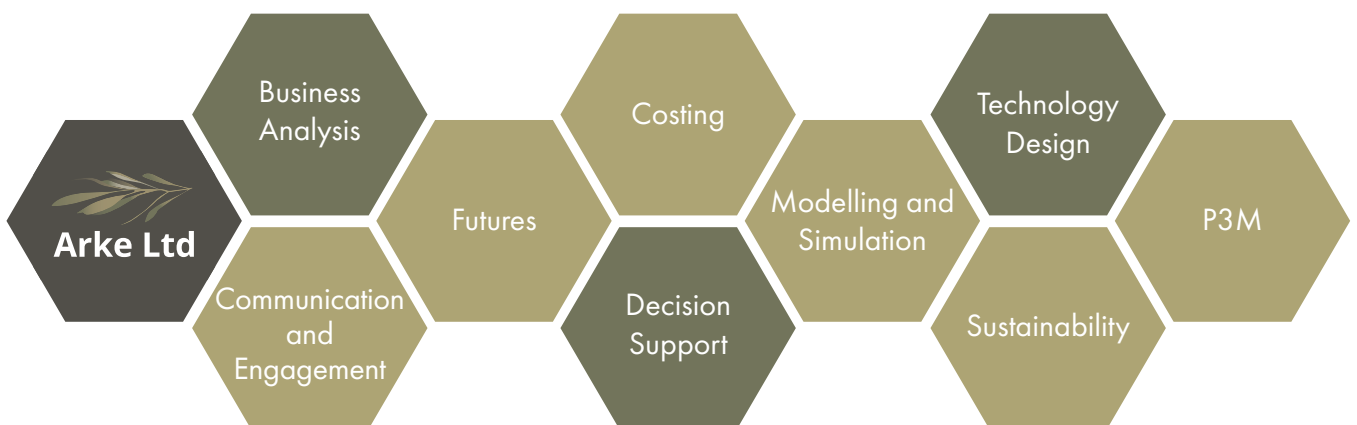
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Company Accreditations

We are ISO9001 and ISO14001 compliant. We hold Cyber Essentials + and hold a Silver Award in the Armed Forces Covenant Employer Recognition Scheme.

Social Value

We are committed to the creation of social value through all aspects of our operations. As members of the Arke family, all staff are invited to engage and be part in the creation of social value as an integral part of their working life. We aim to create positive value for our clients and our community in all we do.



Arke offers a range of services to help you make the right decisions
Details of all our services can be found by simply using the G-Cloud search facility.

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