

Opening doors, changing lives

Creating investible
business cases that
deliver the best outcomes
for your stakeholders



“A robust business case is central to achieving investible projects and goes a long way to securing the right outcomes.”

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Unlocking development, optimising outcomes

For many, the moment the ribbon is cut marks the key milestone in the timeline for an infrastructure project. It's when construction ends and the operational phase begins. But for those of us who take a longer perspective, there are other meaningful – if less glamorous – moments. Getting agreement on the issue to be addressed, securing investment, and delivering sustainable outcomes are equally significant.

A robust business case is central to achieving investible projects and goes a long way to securing the right outcomes. Essentially, it's about whether the figures stack up. Is the scheme good value when all the benefits are taken into account or would it be better to invest in something else?

Infrastructure can be laden with regrets. So how do you ensure you invest wisely? Read on to understand how we support our clients to consider their challenges and objectively appraise interventions.

Get it right and history – and your stakeholders – will more kindly remember your investment choices.

Paul Hammond

Global practice leader for infrastructure development and economics

Ask why before what

Taking a holistic view of your objectives and challenges ensures solutions are investible and fit-for-purpose.

All organisations and their stakeholders deal with complex, interdependent and interconnected factors. Social, economic, political, regulatory, environmental and technological uncertainties all pose risks and offer opportunities.

Improve project performance

The business case process can take an holistic view of your organisation's long-term objectives and any external pressures affecting it, ensuring the chosen solution achieves the desired outcomes.

But beyond this, there's the chance to bring wider benefits. A well-constructed business case contributes to a future society that is economically prosperous, socially equitable and environmentally sustainable – all contributing to greater return-on-investment and value added.

Unlock development by capturing the big picture

The economic case is at the heart of appraising a proposed solution against alternatives and the 'do nothing' scenario. To accurately assess the costs and benefits of a scheme, a broad, multi-criteria picture must be created of the economic, social and environmental impacts of each option.

Considering a broader set of measures in the cost-benefit analysis than just the immediate utility of new infrastructure tends to unearth some previously unlikely options. Distributional analysis can reveal an outsized positive or negative effect of an intervention on some sub-groups or regions, for example, while the social outcomes can be monetised using standard guidance to provide a transparent but exhaustive measure of true impact.

Appraisal or advocacy?

Scheme advocacy is a relatively simple research process, gathering evidence to generate support and secure funding for a specific proposal.

Scheme appraisal is a very different process. It begins with the issue facing the organisation and its stakeholders rather than a proposed scheme.

By beginning with a challenge or opportunity rather than a predetermined solution, our specialists in transport, buildings, energy, environment, water and technology can objectively generate and sift options, and identify an effective solution that presents great public value. It is this combination of business case and technical expertise that makes us different and ensures we help you add value.

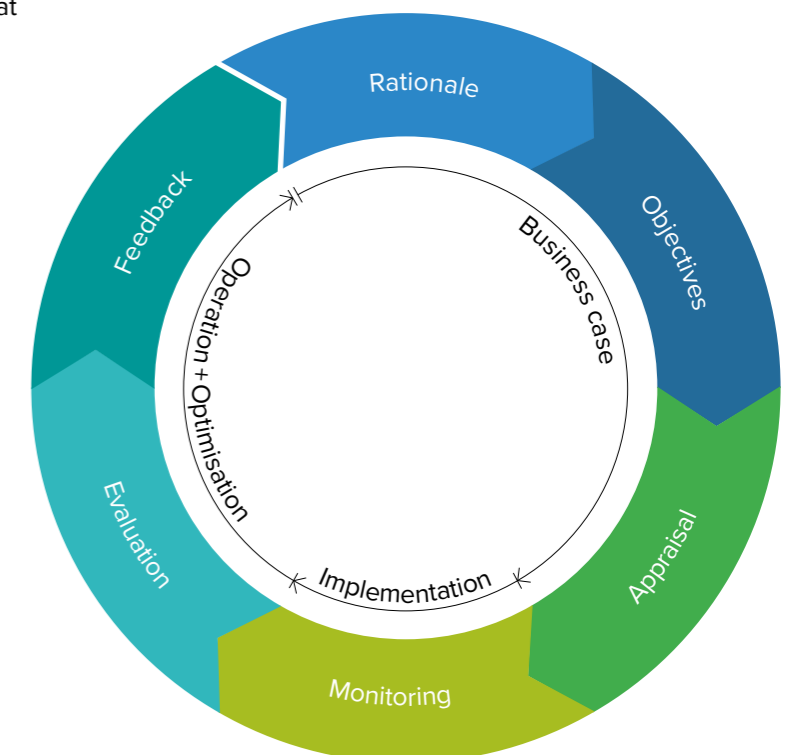
Value for public money

Combining expertise to deliver value.

By bringing together all the strategic information that is key to the success of a scheme, a well-grounded business case can have a transformative effect on securing investment and delivering successful outcomes.

Investors, planning applications and public inquiries demand objective, transparent evidence. A robust business case demonstrates that every realistic option has been considered and that risks associated with governance, decision-making and delivery have been addressed.

We work through the five-case model, placing appropriate emphasis on each element depending on the type and scale of the scheme, and bringing in the right technical expertise to support a definitive investment yes or no decision. It's an approach that ensures the social and environmental impacts get the same attention as economic ones.



The business case process focuses on the 'rationale, objectives, appraisal' elements in the ROAMEF project lifecycle

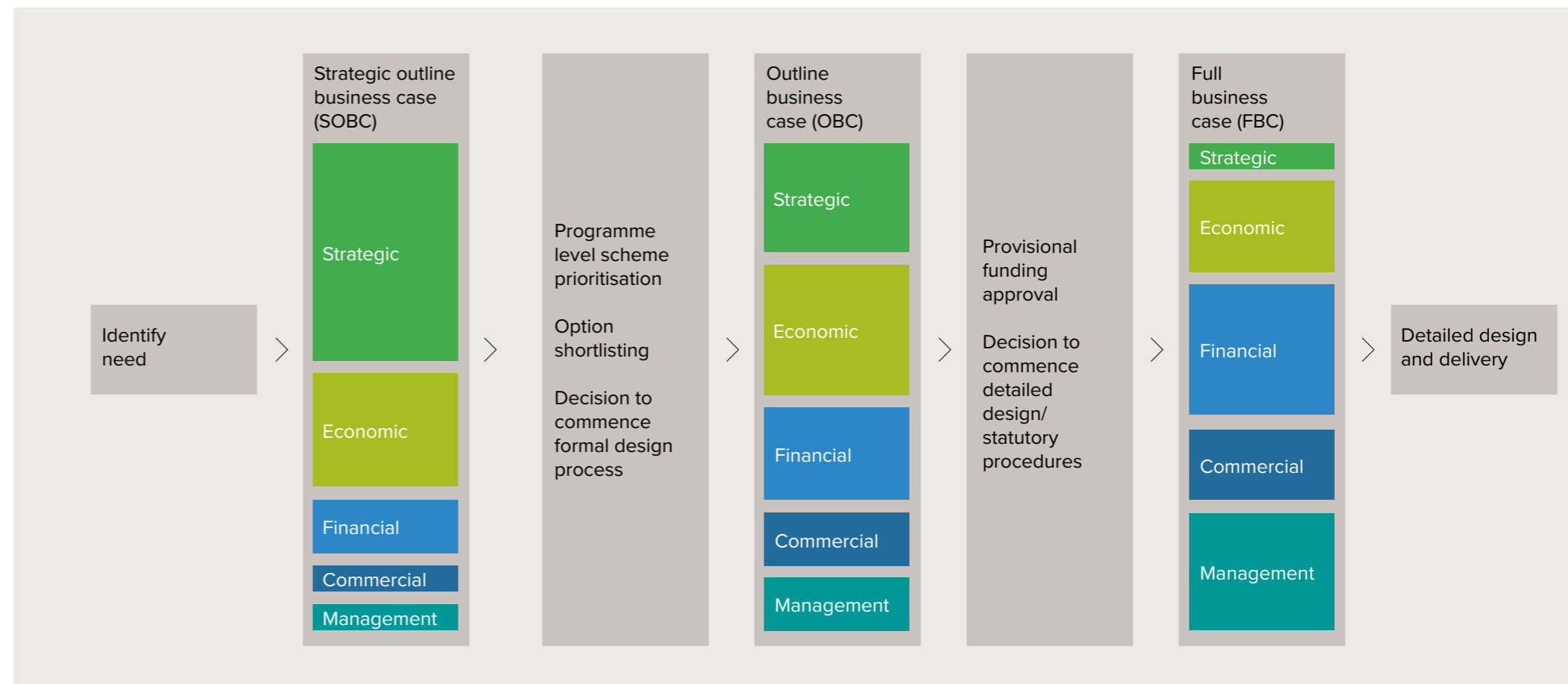
A model to get the green light for investment



We've examined different approaches to how best to appraise public infrastructure schemes, and have made the five-case model our standard for business case work. Its key tenets allow flexible application across sectors, forming the baseline from which we deliver business case work for clients across the world.

The five-case model

Case	Key consideration
Strategic case	What are the project objectives set by its sponsors and funders and the stakeholders they serve?
Economic case	Do the costs and benefits of a proposed solution provide good public value compared with other options, including 'do nothing'?
Financial case	Does projected lifetime expenditure on the preferred option and the revenue it will generate offer a fundable, affordable deal?
Commercial case	Will the procurement and charging mechanisms of the proposed solution result in a viable, well-structured deal?
Management case	Is the programme deliverable in a manner that will meet the objectives of all stakeholders?



Securing brighter prospects for students in Cardiff

Project

21st Century Schools and Education programme

Location

Cardiff, Wales

Client

Cardiff Council

Expertise

Business case advice, cost consultancy, environmental and technical advice, architecture



Opportunity

The Welsh government's 21st Century Schools and Education programme aims to create an education system that is a source of national pride. It is the largest infrastructure investment in Welsh schools and colleges since the 1960s. Some £1.4bn is being invested in rebuilding and refurbishing more than 160 educational facilities under phase one, which ends in March 2019. A further £2.3bn will be invested in phase two, from April 2019.

Student numbers in Cardiff are rising and many of its schools and colleges require modernising. Some have benefited from funding under phase one and Cardiff Council now wants to access the next wave of investment.

We have helped the council to develop a solid business case. Phase two has two funding streams: traditional capital funding and revenue funding via a new form of public-private partnership, called the Mutual Investment Model (MIM).

Solution

As its strategic partner, we are supporting the council on feasibility work (RIBA stage 0 and 1) by providing business case, project management, costing, environment, technical and architectural advice. Business cases to access funding under the programme must follow the five-case model.

The optioneering process we undertook for the council was complex because of the large network of schools and colleges in Cardiff. The 'do minimum' option is to raise standards to an acceptable level

in the most degraded schools. Options for increasing value were then considered to reduce running costs, clear maintenance backlogs and ensure there are sufficient student places in the right schools.

Our internal peer review network assisted the team working with the council by sharing experience from other capital-funded school projects.

Outcome

With our support, a business case to support the £284M preferred option was developed. It recommends investment into primary, secondary and special education facilities. Our team is now working with individual schools to ensure their plans are sustainable and make efficient use of this much needed investment.

Warrington awaits approval for new link road



Project
Warrington Western Link

Location
Warrington Borough Council

Client
Warrington, UK

Expertise
Outline business case

Accounting for the wider economic impact of a new highway makes a stronger business case.

£212M

scale of investment for preferred option

Opportunity

The River Mersey and the Manchester ship canal run south of Warrington town centre. Both waterways symbolise the Cheshire town's heritage, but with few crossing points they create chronic traffic congestion, causing costly delays and pollution. It is a situation that will only worsen as Warrington expands.

As part of its growth ambitions, Warrington Borough Council is also planning a high-quality, mixed used development south east of the town centre between the river and the canal. The

proposed development, Warrington Waterfront, will provide housing, office and recreational facilities. The key to its success is improved transport links.

Solution

Funding for an outline business case for a major road to link the A56 and the A57 was awarded by the Department for Transport (DfT). We assessed a longlist of 26 corridors, including non-highway alternatives, using a four stage appraisal process. The preferred option is a 3km highway costing £212M and called the Warrington Western Link. The initial benefit-

cost ratio, which focused on the core benefits to road users, was calculated at 1.9 – medium value, according to DfT guidance.

We investigated the wider economic impact of the scheme, including the value from unlocking employment and residential sites along the route, and their associated future tax revenue. We calculated a much higher benefit-cost ratio of 2.24, representing high value for money under the DfT rating.

Outcome

Our business case highlighted the council's good track-record in delivering large-scale schemes and outlined the governance and delivery structures required to ensure the project's success.

The Warrington Western Link is being considered by the DfT.

Project

Leeds Flood Alleviation Scheme (Phase 2)

Location

Leeds City Council

Client

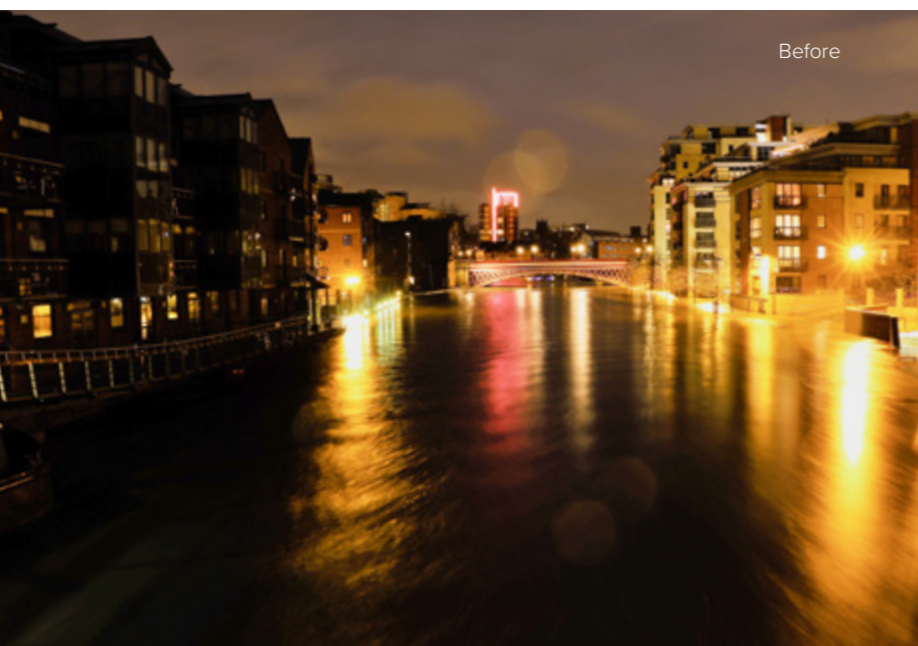
Leeds, UK

Expertise

Economic and social impact assessment

Counting the cost of future flood defences for Leeds

A study of the social and economic impact of flooding paves the way for phase two of city's defence scheme.

**Opportunity**

Boxing Day 2015 gave residents of Leeds a glimpse of the future – Storm Eva brought torrential rain resulting in the River Aire reaching its highest ever recorded level in the city centre. Homes and businesses were flooded. Climate change will increase the frequency of such events.

After the 2015 flood Leeds City Council pledged to prevent a recurrence. The Leeds Flood Alleviation Scheme is led by the council in partnership with the Environment Agency. Phase one opened in October 2017, protecting properties and businesses downstream of the rail station.

Phase two extends protection upstream to areas such as Kirkstall, which endured the worst of the 2015 flooding. This will consist of linear defences, an actively-controlled storage area, and a large-scale programme of natural flood management measures, designed to reduce runoff from the upstream catchment.

Solution

Our analysts provided input into the outline business case for phase two, calculating the wider economic and social benefits associated with three levels of future protection – 1:75-year flood risk, 1:100 and 1:200.

Each benefit associated with the scheme's critical success factors was assessed for its economic impact on businesses, jobs, housing, tourism, transport, and critical telecommunications and electricity infrastructure. The social impact of each of intervention was studied, and the benefits from reduced flood risk to community and social facilities, and households in the area were measured. In addition, perception of reduced vulnerability to flooding was considered from the views and opinions of those who would be affected by another major flood.

Outcome

We calculated the combined benefits of phase two would be up to £775M over 10 years, depending on the level of protection chosen.

Our assessment provided vital support for the optioneering and business case process, enabling a guidance-based consideration of the likely outcomes of different interventions, compared with the cost.

The council presented the outline business case to the Environment Agency in January 2018 and a planning application was submitted in December 2018.

A community for seniors

The case for change in care provision for elderly Canadians.

Opportunity

The Government of the Northwest Territories (NT), a large, sparsely populated territory bordering the Arctic Circle, has a growing population of seniors and is partnering with private providers to develop and fund new quality care facilities.

AVENS provides services for the elderly in NT and sought financial backing for expanding its existing facilities. Competitive finance for the project would only be available if AVENS put in place a well defined risk allocation and appropriate governance.

Solution

To meet the requirements of AVENS and the local Department of Health & Social Services, we amended the standard five case approach to developing a business case, using our knowledge and experience of the private finance market to raise the risk identification and mitigation scope. Our recommendations

focused on implementing the strategy, delivering the project and identifying next steps for AVENS. Our engineers completed a study of site risks, including geotechnical conditions, environmental and permitting issues as well as the utility services that could affect delivering the project, on time and on budget.

Outcome

We identified risks associated with integrating the new project with the existing facilities. We recommended an operational review and the implementation of an operational plan to improve performance of the existing facilities before proceeding with the new development. The AVENS board accepted our independent advice and has delayed expansion plans.



Project

AVENS Campus Expansion

Location

AVENS – A Community for Seniors

Client

Yellowknife, Northwest Territories, Canada

Expertise

Business case development, cost estimating, procurement and project strategy

Giving Cornwall a sporting chance

A new home for two sports clubs, a college and a local wellbeing campaign.



Project

Stadium for Cornwall

Location

Truro, Cornwall, UK

Client

Cornwall Council

Expertise

Business case

Opportunity

If Truro City Football Club and the Cornish Pirates rugby union team fulfil their aspirations and achieve promotion to higher leagues both need new homes. Moving to one stadium and sharing facilities is the most cost-effective solution. As well as securing the long-term future of the two sporting clubs, the planned new stadium would be home also to a Live Well campaign to help 50,000 people be more active, and provide business, sporting, hospitality, and catering education facilities for Truro and Penwith College.

However, plans for a new £14.3M multi-purpose, 10,000 seat stadium stalled because not enough private sector backers initially came forward to finance the project.

Solution

We constructed a business case for Cornwall Council in support of its own £3M investment in the stadium. It will also form part of a bid for matched funds from the UK government.

Our business case for the council focused mainly on aligning the project with its strategic ambitions for the region, and the potential economic benefits from Cornwall having its own major sports stadium. As well as short-term benefits from construction to the Truro and wider Cornish economy, the facility would generate new and safeguard existing jobs in the organisations planning to move into the stadium. We found that these long-term jobs, coupled with the boost to the economy from visitors to stadium from outside Cornwall, would yield a benefit-cost ratio of 7.1 – well-above thresholds.

Outcome

In April 2018, the council voted to back the £3M matched funding proposal, while private partners have committed additional capital. Groundworks for the new stadium began in August 2018, with construction expected to start in May 2019.

In defence of business cases

Regular scrutiny by stakeholders.

Procurement in the UK defence sector mostly follows the standard Treasury five-case model, with the goal of achieving better value for money for taxpayers. The main difference is around the development of business cases, with regular scrutiny provided by stakeholders, from initial to main gate business case.

The Defence Infrastructure Organisation (DIO) is responsible for planning, procuring and managing the contracts that maintain the UK's military estate – about 4000 sites worldwide. Cabinet Office controls are included in planning for business case development and approval for major infrastructure projects, with DIO's Central Approvals Programme Management Office (CAPMO) responsible for processing case approval and scrutiny.

Early stakeholder engagement is seen by DIO as critical to ensuring smooth progress through the business case development and approvals process. Procedure authorisation groups (PAGs), representing a broad community of stakeholders, meet regularly during the development of the business case and provide independent scrutiny, expert input and critical analysis of investment proposals. It's about ensuring that throughout the process the right people consider the validity of assertions made in a case

– including its coherence with the wider defence programme, value for money, affordability, the balance of risk and benefits, and commercial aspects.

PAGs will take a business case through to maturity, with the right evidence of project viability, achievability and desirability for each decision and approval point. The scrutiny helps to ensure there are few surprises when it comes to approval and maximises the chance of successful project delivery.

We are a partner and principal support provider to the DIO, delivering construction design, project management and specialist advisory services in support of capital projects across the organisation's infrastructure estate. Our role includes scrutinising business cases.

We are working on the £1.3bn Clyde infrastructure programme, a 10-year scheme to update facilities for personnel delivering the UK's continuous at sea nuclear deterrent or submarine fleet. Our role includes commercial, procurement, risk, scheduling, project management and project controls services across some 19 projects, including new and refurbished operational, training and accommodation facilities.



The case for sustainability and wellbeing

Delivering social, cultural and environmental improvements, and economic benefit now and in the future.

Storm Callum delivered flooding and some of the highest river levels in parts of Wales for 30 years. The October 2018 storm provided a stark glimpse of the future as the global climate changes, bringing increased precipitation and more frequent severe weather events.

Wales has about 1400km of coast and some of the UK's longest rivers, including the Dee, Severn and Wye. There are about 200,000 properties in Wales at risk of flooding from rivers and the sea, and thousands more are at risk of surface

floods, while coastal erosion is threatening more than 340km of the Welsh coastline.

Flood and coastal erosion risk management (FCERM) is a priority for the Welsh Government. It is investing more than £256M between 2016 and 2021 in FCERM schemes.

We have been working with the Welsh Government to update guidance on good practice for flood and coastal erosion risk management appraisals and producing business cases for investment decisions.

It supplements the preparation of business cases using the five-case model. The guidance promotes proportionate application of appraisal methods, so much more of the appraisal work can be undertaken directly by flood risk management authorities.

More than flood defence

Our approach ensures bidders for funds, such as local authorities, consider wellbeing and sustainable development in their proposals in line with two important recent pieces of legislation – Wellbeing and Future

Generations (Wales) Act 2015 and the Environment (Wales) Act 2016. It means schemes not only protect communities, they must also deliver improvements to social and cultural, environmental, and economic wellbeing now and in the future.

The new guidance also gives advice on using natural flood management (NFM) to solve FCERM problems, steering appraisers to identify NFM measures first. The guidance cross references the five-case model and contains four parts:

- preparing the strategic outline case (SOC), outline business case (OBC), and the final business case (FBC)
- templates for the whole process, from SOC to FBC, and a business justification route for smaller, less expensive schemes
- technical notes, including making allowances for optimism bias – the tendency for project appraisers to be overly optimistic
- checklist for reviewer to ensure compliance

The new guidance was published in June 2018 and is being used by several councils, and the Welsh environment regulator, Natural Resources Wales, to develop business cases for FCERM schemes. We have also delivered training on the five-case model for FCERM business cases for staff in flood risk management authorities.



£256M

Welsh government investment
between 2016 and 2021

Opening opportunities with connected thinking.

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