Comisiwn Seilwaith Cenedlaethol Cymru
National Infrastructure Commission Wales

ARUP

The National Infrastructure Commission for Wales
Welsh Infrastructure Delivery
Findings Presentation

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A465 Heads of the Valleys Road © Arup

Contents

"Wales faces persistent challenges in delivering major infrastructure despite strong national policy ambition and progressive legislation. Through extensive study and cross-sector stakeholder engagement, this research identifies the systemic barriers that inhibit progress, alongside clear examples of good practice that point the way toward greener, faster, cheaper Welsh infrastructure delivery."

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Executive Summary

Infrastructure delivery in Wales presents a distinct set of challenges and opportunities shaped by devolved governance, strong sustainability ambitions, a rich cultural and linguistic identity, and a unique natural environment

Current State

While Wales has well-developed policy and consenting frameworks, many projects continue to face delays or fail to progress. Our research, drawing on a stakeholder survey, literature review and focus group, examined six themes to understand their impact on delivery: planning and permitting; political environment; stakeholder engagement; funding & economics; skills and capacity; and interdependencies with wider infrastructure.

Key barriers include: slow, inconsistent and under-resourced consenting processes that create uncertainty for project teams; frequent political personnel change and short-term cycles disrupt continuity and weaken confidence; skills shortages reduce capability and capacity across all stages of delivery; short-term funding arrangements limit long-term planning; unpredictable or insufficient engagement affects trust and project outcomes; poor integration between transport, energy and digital systems leads to disconnected decisions and inefficiencies.

Key enablers include: close working relationships between officers and political leaders that help build support and alignment; early and meaningful engagement that builds trust with communities and stakeholders; strong leadership in procurement and delivery, with committed contractors investing in long-term benefits.

Context and Influences

- **Legislative and policy frameworks** such as the Well-being of Future Generations Act, Net Zero Wales and the Infrastructure (Wales) Act 2024 are designed to strengthen sustainable decision-making and improve consenting processes.
- **Governance complexity** remains a challenge, particularly where devolved powers intersect with UK-reserved responsibilities such as rail and energy.
- **International examples** (for instance, from France and Norway) illustrate how stable funding, integrated governance and committed long-term planning can improve delivery.
- **Political change**, including the upcoming 2026 Senedd election, may bring shifts in priorities that organisations will need to navigate.
- **Wales' distinctive planning context** shaped by strong environmental protection, a commitment to the Welsh language, regional inequalities, and multi-layered governance requires tailored approaches to infrastructure planning and delivery.

Progressive legislation and policies set a strong framework for delivery, but political and economic uncertainty creates unique challenges for projects

Executive Summary

Priority Actions

1. **Improve Long-Term Political & Financial Stability**
   - Refresh long-term policy direction
   - Develop Infrastructure Policy Statements (IPSs)
2. **Utilise the Reform of Planning & Consenting**
   - Proactively resource and equip the ICO regime
   - Build flexibility into consenting processes to allow project promoters to be more agile
3. **Invest in skills, capacity, and institutional capability**
   - Develop a National Infrastructure Delivery Workforce Strategy
   - Increase Investment in specialist skills and digital capacity
4. **Improve Data Sharing & Integration**
   - Engage with and update the Infrastructure Pipeline
   - Make collaboration easier for stakeholders
5. **Enable Early and Meaningful Engagement**
   - Monitor and evaluate stakeholder engagement practices
   - Appoint dedicated liaison roles within agencies and regulatory bodies
6. **Improve data sharing and coordination**
   - Invest in and implement digital platforms across the public sector
   - Provide a shared data platform
7. **Facilitate longer-term funding and financial confidence**
   - Move to multi-year funding for major projects to avoid annual budget constraints
   - Establish cross-party sponsorship boards for major infrastructure
8. **Support sustainable procurement and delivery models**
   - Promote early contractor involvement and sustainable procurement
   - Explore pilot land-value capture mechanisms

8 priority actions have been identified that seek to improve infrastructure planning and delivery in Wales. The Welsh Government should establish an action plan and corresponding monitoring and evaluation oversight to help ensure timely delivery of the priorities for action set out in this report.

Introduction

This research investigated the systemic barriers and enabling factors that shape infrastructure outcomes in Wales

Project Scope and Research Methods

Arup is pleased to provide this Findings Presentation for The National Infrastructure Commission for Wales (NICW) to support the Welsh Infrastructure Delivery Final Report.

This research project has investigated the systemic barriers and enabling factors that shape infrastructure outcomes in Wales.

To build a comprehensive understanding of the current state of infrastructure delivery in Wales the following methods of research have been conducted:

- Stakeholder survey and interviews
- Literature review
- NICW Commissioners' focus group
- Focus groups on five Welsh case studies

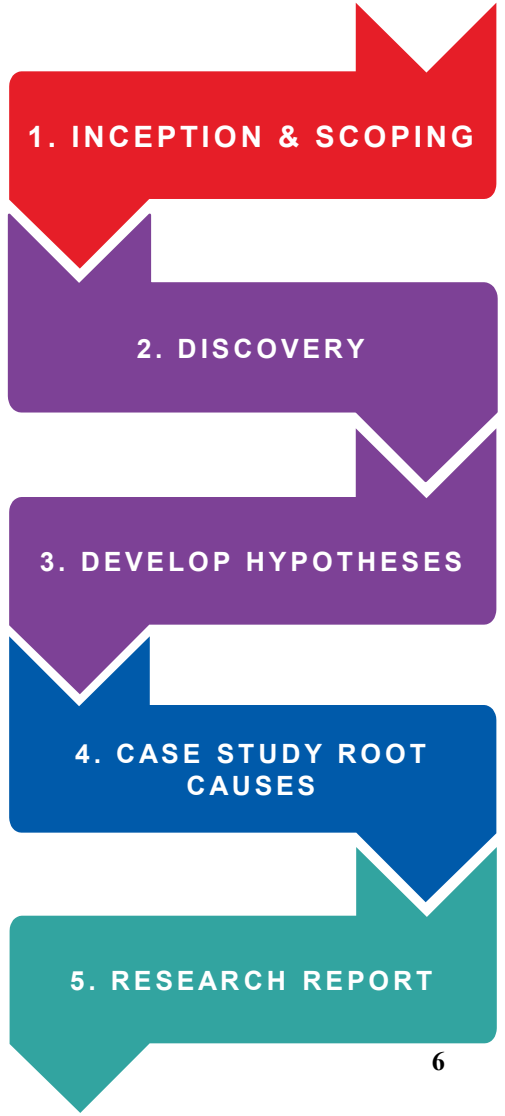
This Findings Presentation provides the results of the study with key considerations and recommendations

Project Objectives

The objectives for this research were to:

- Gather and synthesise both qualitative and quantitative data, including insights from key stakeholders.
- Identify patterns, systemic barriers, and enabling factors, particularly in relation to the five key themes identified by NICW
- Conduct comparative case studies of both successful and unsuccessful infrastructure projects in Wales
- Analyse each project across its full lifecycle, including conception, planning, funding, delivery, and post-completion.
- Produce a final report presenting findings, analysis, and evidence-based recommendations to support more effective infrastructure delivery in Wales.

Triangulating primary and secondary research informed development of hypotheses for root cause analysis



Analysis from Discovery Stage

An overview of insights captured through engagement activities in the Discovery Phase

Stakeholder Engagement

- **Diverse, High-Quality Feedback:** Surveyed nearly 100 organisations and held 3 interviews across different sectors, with responses highlighting both positive influences (funding, business cases, engagement) and persistent barriers (planning, permitting, interdependencies).
- **Business Cases and Funding Certainty:** Stakeholders emphasised the need for robust, outcome-focused business cases and long-term funding certainty, noting that short-term cycles and inconsistent planning undermine project viability and workforce development
- **Operational and Skills Challenges:** Respondents cited skills shortages, inadequate training, exclusion of SMEs from support, and the negative impact of fragmented governance and bureaucracy on efficient delivery.

The survey reflects the lived experiences and operational challenges faced by respondents

Literature Review

- **Comprehensive coverage:** Over 120 pieces of literature were reviewed, covering UK-wide, Wales-specific, and targeted international sources, to identify systemic enablers and barriers in infrastructure delivery.
- **Identifying best practice:** The literature consistently points to the importance of multi-annual funding certainty, devolved decision-making, and integrated governance to strengthen long-term infrastructure delivery. Short-term political cycles and fragmented funding frameworks undermine continuity and effectiveness. Stable, predictable pipelines help reduce risk and improve coordination across sectors, while digital planning tools support more efficient, transparent decision-making. A national cross-sector skills strategy is emphasised as essential to address capacity gaps in planning and project delivery.

The literature provides best practice and insights from local, national and international reviews

Commissioner Focus Group

- **Thematic Deep Dives:** Commissioners discussed six core themes skills, planning and capacity; statutory planning and permitting; interdependencies; political environment; funding and economics; and engagement, highlighting the need for strategic alignment, skills mobility, and integrated systems thinking.
- **Barriers and Opportunities:** Key challenges identified include fragmented governance, adversarial planning processes, skills shortages, unrealistic cost estimates, and the need for proportionate environmental mitigation; opportunities lie in early, high-quality engagement, better benchmarking, and learning from international models.

The focus group offered insights from experts in infrastructure delivery, indicating industry perceptions of barriers, enablers and ways to improve delivery of infrastructure

Hypotheses

The following hypotheses were developed by triangulating evidence from the stakeholder survey, interviews, literature review, and the Commissioners' workshop. They are intentionally framed in positive terms.

Theme	Hypotheses
Planning & Permitting	• Planning and consenting processes were clear, easy to follow, and aligned with major project timelines. • Guidance for planning and permitting was streamlined, enabling timely approvals and reduced uncertainty.
Political Environment	• The political environment was stable, with a long-term government vision that supported project continuity from inception to delivery. • Political decision-making was timely, enabling infrastructure projects to progress and be approved without delays.
Stakeholder Engagement	• Stakeholder engagement was prioritised early, conducted in a timely manner, and delivered with sufficient quality to help shape project outcomes. • Engagement processes were inclusive and meaningful, fostering trust and resilience with stakeholders and communities throughout the project lifecycle.
Funding & Economics	• Funding models and sources were appropriate for the scale and nature of the scheme, ensuring value for money and effective delivery. • Cost certainty and procurement practices supported long-term planning and investment, enabling informed decision-making.
Skills & Capacity	• The project drew upon a wide pool of specialists, ensuring adequate resourcing and capacity for delivery. • Digital skills and data-sharing practices were embraced, improving collaboration and enabling efficient infrastructure delivery.
Interdependencies with Wider Infrastructure	• Infrastructure and services were sufficiently integrated to support joined-up planning and delivery. • Cross-sector collaboration and systems thinking were applied, reducing inefficiencies and supporting holistic infrastructure planning, decision making and outcomes.

Case Study Selection

Case studies were considered and selected to help test the hypotheses

The Commissioner's Focus Group considered different case studies and explored which might offer helpful lessons and insights as part of a root cause analysis. It was important to NICW that case studies offered a range of infrastructure project sectors, types and statuses.

After discussion, the case studies we included were:

- Pen-y-Cymoedd Wind Farm
- Great Western Rail Electrification Programme
- A465 Heads of the Valleys road upgrade
- Swansea Bay Tidal Lagoon
- M4 Relief Road (M4 Corridor around Newport)
- Stephenson Street Flood Scheme

After further analysis of the case studies, it was agreed that a review of the South Wales Rail Electrification Programme (including the Core Valley Lines) should be considered as an amendment to the proposed rail based case study, and that there was limited merit in considering the Swansea Bay Tidal Lagoon in light of it being a withdrawn project that appears to have very low likelihood of being supported by any political party at the 2026 Senedd election, whilst the M4 Relief Road as another withdrawn project could make an interesting case study given its often divisive nature across public and political opinion.

Five case studies were agreed upon to offer a strong basis for their own root cause analysis roundtables to be held to help test the hypotheses. A summary of the selected case studies is provided overleaf.

Selected Case Studies

Overview

Pen-y-Cymoedd Wind Farm (completed in 2017)

- Wales's largest onshore wind farm and among the most logistically challenging onshore renewables projects, also involving a complex peatland restoration programme.
- Recognised large community benefit model, with an independent Community Interest Company (CIC), shaped by extensive consultation.

South East Wales Rail Electrification (99% electrified as of December 2025)

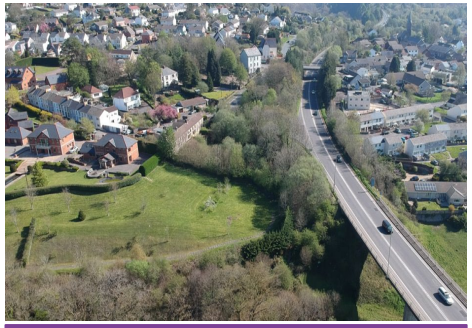
- Represents a £1bn+ modernisation of Wales's ageing rail infrastructure with complex engineering and design solutions.
- Reported misalignment between rolling stock procurement and infrastructure readiness.
- Recognised for strong project management.

M4 Relief Road (cancelled in 2019)

- A long-term problem of congestion, with options considered since the 1980s onward.
- Cancelled due to escalating costs and environmental concerns.
- Subject to ongoing political division, the project the project symbolises a debate around road-based solutions and climate-aligned policies.

Stephenson Street Flood Scheme (completed in spring 2025)

- One of Natural Resources Wales's largest and most complex flood schemes to date, designed to protect over 2,000 homes and businesses.
- Delivered in a constrained urban environment with complex stakeholder interfaces.
- Involved major interaction with planning of the M4 Relief Road proposals.



A465 Heads of the Valleys Road Upgrade (completed in May 2025)

- Different sections were delivered using either the Mutual Investment Model (MIM), a PPP approach, or Early Contractor Involvement (ECI)
- Extensive consultation and sustainable procurement shaped scheme design and benefits including local supply chain and skills development.

Case Study Roundtables

The hypotheses were tested through selected case studies as part of a root cause analysis

Purpose

Five roundtables were arranged and facilitated to explore the hypotheses and root causes into the identified barriers and enablers of infrastructure delivery in Wales. Case studies were selected to provide real-world project contexts and lived experiences across different infrastructure projects in Wales. The case studies included:

1. Pen-y-Cymoedd Wind Farm
2. South Wales Rail Electrification Programme
3. A465 Heads of the Valleys Road Upgrades
4. M4 Relief Road (M4 Corridor around Newport)
5. Stephenson Street Flood Scheme

Discussion focused around the six core thematic areas of inquiry: planning and permitting; political environment; stakeholder engagement; funding & economics; skills and capacity; and interdependencies with wider infrastructure. In addition, stakeholders raised other cross-cutting matters, such as governance, which has helped complete the root cause analysis.

The following slides summarise the key insights from each of the five roundtables.

Approach and Overview

Each roundtable session was of a duration of around two hours and individuals were invited to participate based on their deep involvement in the project, and to help ensure the root cause analysis benefited from the direct experiences of actors involved in infrastructure planning and delivery in Wales, representing diverse organisations, sectors and professional perspectives.

This multi-perspective approach enabled rich, constructive discussion and supported a deeper, more nuanced understanding of the systemic issues influencing infrastructure delivery. It ensured that conversations were both well-informed and genuinely reflective of the diverse challenges and opportunities across the Welsh infrastructure landscape.

Each workshop followed the below consistent structure, designed to foster a collaborative and psychologically safe engagement to encourage feedback:

- A tailored agenda and briefing note were issued in advance.
- Sessions began with a presentation of relevant data, project context and emerging findings and themes from the discovery phase of the study.
- A facilitated group discussion around the hypotheses followed, exploring root causes and different stakeholder perspectives of the projects.
- All discussions were held under Chatham House Rules.
- A record of discussion was issued to participants for validation and checking the accuracy of notes.

Pen Y Cymoedd Wind Farm Roundtable

Key Insights

Statutory Planning and Permitting

- Conflicting positions within the same regulatory organisation(s) caused frustration and delays.
- Public bodies introduced ideological objections that consumed large resources.
- Procedural inefficiencies and internal inconsistencies made the process highly unpredictable.

Skills, Planning and Capacity

- Lack of organisational capacity limited early engagement.
- Large variation across local authorities in capability and experience.
- Local contractors benefited but the lack of a consistent project pipeline limited longer-term legacy benefits.
- The loss of dedicated liaison roles within regulatory bodies allowed for multiple, different voices and conflicting advice.

The Role of Engagement

- Personal agendas drove inefficiencies and senior-level agreements were disconnected at operational levels.
- Early engagement by regulators often declined until submission / statutory stage, missing opportunities for better collaboration and co-design when it was best to do so.
- A shared vision improved collaboration and direction.
- Strong leadership within authorities made a positive impact.
- Contractors provided exemplary engagement and training.

Interdependencies with Wider Infrastructure

- Grid connection was a big risk: new substation, sensitive planning approvals, seasonal outage windows.
- Transport logistics required complex coordination (escorts, school hours, valleys geography).
- Any delay in grid/transport dependencies would have created severe financial consequences.

Governance

- Internal opposition from individuals acting outside their roles or remits slowed progress.
- Cultural factors and personal agendas considered to be more pronounced in Wales than England or Scotland.
- Leadership gaps allowed obstructive behaviour to persist.
- Developer maintained strong commitment to Welsh supply chain.

Political Environment

- Decision made at UK level (s36 application), reducing Welsh Government accountability.
- Welsh Government remained neutral due to political sensitivity, often referred to as ‘sitting on the fence’.
- UK-level policy shifts undermined financing and confidence.

Funding and Economics

- Contractual clauses requiring local supply chain involvement were highly effective.
- Large positive economic benefits: extensive local sourcing, business diversification and local spending.

South East Wales Electrification Roundtable

Key Insights

Procurement processes

- Lack of integration between rolling stock procurement and infrastructure delivery.
- Rolling stock train orders were placed with fixed deadlines before all elements of the project had reached design maturity, resulting in significant commercial and reputational risk which drove a reactive effort rather than stable planning.

Skills, Planning and Capacity

- The industry had skills gaps and lacked the capacity to deliver the scale of work at the required pace. However, experience gained from recent programmes has equipped teams to deliver more efficiently, supporting better delivery of future programmes
- Local authorities frequently lacked resources and experience for processing complex applications, necessitating the project to fund staff to accelerate decisions.
- New overhead line equipment (OLE) was designed and manufactured in parallel to project delivery leading to an incomplete design catalogue.

The Role of Engagement

- Siloed working between the core delivery team, train operators and rolling stock providers, made collaboration difficult.
- Multidisciplinary teams such as civil engineering, signalling and electrification also operated in silos causing misalignment and delays.
- Visible senior level commitment via joint agreements between organisations demonstrated unity and purpose and fostered collaboration.

Interdependencies with Wider Infrastructure

- Digital systems were identified as critical for efficient delivery.
- Lack of integrated digital infrastructure was seen as a barrier to productivity.

Governance

- Lack of dedicated asset manager for OLE meant operational considerations were not fully integrated into design and delivery decisions.
- Early decisions about access for works such as accepting planned disruption was a critical enabler of programme success.
- Strong procurement practices allowed cost control in volatile markets by securing materials early.

Political Environment

- Premature announcements created artificial deadlines, inflated expectations, and contributed directly to inefficiency.
- Productivity assumptions were politically driven and unrealistic, embedding structural risk into design and delivery.
- Managing relationships between politically neutral and politically aligned organisations was seen as challenging.

Funding and Economics

- Separate funding schemes for trains and infrastructure led to missed opportunities for joint planning.
- Funding allocations forced accelerated delivery without sufficient development work, which undermines efficiency.
- National electrification tender process caused frustration by including schemes that faced major deliverability challenges.

M4 Relief Road Roundtable

Key Insights

Statutory Planning and Permitting

- Highways Act processes were relatively efficient but prescriptive, limiting deign flexibility or change in approach.
- Consenting process was lengthened by risk-averse legal advice, extensive surveys, and late external changes (e.g., updated DfT modelling values), prompting significant rework and associated delays.
- Environmental and decarbonisation concerns became decisive as national policy shifted.

Political Environment

- Political personnel and priority changes reduced support.
- Ideological divide between economic growth and environmental sustainability amplified scrutiny.
- Lack of broader political consensus left the scheme vulnerable to increasing costs.

Skills, Planning and Capacity

- Strong internal capability, co-location and early contractor involvement supported technical delivery.
- Resourcing was challenging due to competition from major UK projects and remote working locations.
- Recurring resource constraints in local authorities and regulators meant they often had limited capacity to support the scheme.

Funding and Economics

- Early political commitments and announcements set unrealistic budget expectations which later damaged political confidence.
- Delays and rising construction costs weakened the Benefit–Cost Ratio, reducing political appetite.
- Limitations in appraisal methods, which underrepresented wider regional benefits hindered the case for transformative investment.

The Role of Engagement

- Lack of a compelling or shared narrative made it harder to secure and sustain stakeholder backing.
- Welsh Government's promoter role avoided proactive advocacy (it took a more neutral position to advice).
- Messaging arguably focused on congestion relief rather than broader economic and resilience benefits, which came up against pro-sustainability and anti-road building narratives from objectors.

A465 Heads of the Valleys Road Roundtable

Key Insights

Statutory Planning and Permitting

- Early route certainty (from 1999 Line Order) drove certainty, but each section required its own Public Local Inquiry, adding time and cost.
- Progress was slowed by statutory requirements, extensive surveys, and political caution
- Planning and licensing processes were seen as rigid and poorly integrated, where environmental bodies were siloed internally and decision making inconsistent.

Skills, Planning and Capacity

- Strong skills development especially for early-career engineers across the pipeline of schemes brought forward.
- Resourcing was challenging, particularly in less attractive locations compared to major projects such as HS2/Hinkley.
- Social value commitments strengthened over time, mandating training and local employment which were driven by strong leadership within Welsh Government.
- Capacity gaps in statutory bodies caused delays.

The Role of Engagement

- Strong engagement with Welsh Government, local authorities, businesses and communities.
- Good quality communication led by contractors shaped public sentiment, proactive updates improved goodwill.
- There were persistent challenges engaging utilities (slow processes, unclear accountability, opaque pricing).
- Environmental bodies struggled with fragmented structures and competing priorities.

Interdependencies & Data Management

- Limited application of modern common data environments restricted cross-section learning and information sharing.
- Missed opportunities for shared data and aligned decision-making with linked schemes (e.g., Cynon Gateway North).
- Fragmented funding and licensing structures often blocked integration, e.g. Cynon Gateway North was designed to use fill material from the A465, but separate funding streams and individual licensing made it difficult to integrate schemes

Political Environment

- Project benefited from strong political support due to regeneration and safety benefits.
- Cost overruns on Section 2 damaged broader confidence in Welsh road schemes.
- Timely delivery of Sections 5 & 6 helped rebuild credibility in Welsh Government's delivery capability.

Funding and Economics

- Programme operated under multiple funding regimes and procurement models, disrupting continuity.
- Provided one of Wales's most stable pipelines for contractor learning and workforce development.
- Section 3 highlighted as a model of success (good budgets, early contractor involvement, strong collaboration).
- Section 2 illustrated risks of underestimated bids and weak challenge processes.
- Sections 5 & 6 under MIM/PPP eased capital pressure but added heavy risk transfer and complexity.

Stephenson Street Flood Scheme Roundtable

Key Insights

Statutory Planning and Permitting

- Masterplanning expanded the scheme's scope to include landscape, recreational and community benefits, strengthening alignment and support.
- Early environmental surveys and screening reduced permitting risk and enabled innovative construction approaches. Began under outdated TAN15 guidance, requiring close regulator engagement and contributing to updated 2025 guidance.
- Permitting benefited from early groundwork but was still affected by evolving guidance and policy uncertainty.

Skills, Planning and Capacity

- Continuity of key personnel (client-side and contractor) was crucial to maintaining delivery momentum
- Capacity pressures existed on both client and contractor sides, affecting agility
- Absence of a mandated BIM strategy led to inconsistent data and less efficient handover
- Stronger digital capability and information management would have supported smoother delivery.

The Role of Engagement

- Engagement improved once communication shifted from senior leadership to operational service-level teams, clear and consistent messaging strengthened support.
- Community co-benefits (landscaping, paths, public spaces) increased acceptance and trust.
- Utility engagement remained slow and inconsistent, creating uncertainty.
- Land negotiations were complex, partly due to overlap with wider M4 Relief Road project interface discussions.

Interdependencies with Wider Infrastructure

- Scheme overlapped with major regional projects (e.g. M4), creating logistical and consenting complexities.
- New road-building policy restrictions posed risks due to the need for an access road as part of the scheme.
- Risks were mitigated through close consultation and strong justification.
- Team showed adaptability by reusing existing assets and securing alternative access solutions to manage interdependencies effectively.

Funding and Economics

- A clear problem definition strengthened the business case at every stage.
- Annual Welsh Government funding cycles created compressed timelines and delivery bottlenecks, leading to fragmented phased delivery.
- End-of-year spending pressures generated inefficiencies and impacted programme.

Root Cause Analysis

Root cause analysis applied the Ishikawa Framework to understand the causes of barriers and enablers

Purpose

This section brings together the insights drawn directly from the five case study roundtables.

As the round tables focused on participants lived experience of projects, discussions naturally explored different enablers and barriers across the six thematic areas and other identified cross-cutting themes.

Participants tended to focus on the practical challenges that impacted delivery, meaning that the key insights predominantly highlight systemic barriers. However, discussion also explored clear examples of good practice, and reflections on what went well helped identify where positive outcomes are achievable within the current system, as well as where improvements could be made to benefit all.

Overall, the analysis in this section considers where each hypothesis is supported or not, drawing out the key issues across the case study projects.

Taken together, the findings provide a holistic view of the systemic barriers and enablers influencing infrastructure delivery in Wales.

Approach and Overview

To conduct the Root Cause Analysis, this study has applied the Ishikawa (Fishbone) Framework as a recognised method for breaking down the underlying causes of a problem or issue. The fishbone method has been used to visually organise identified barriers and enablers to help group them into themes and detail points of analysis.

To align with the project's discovery-stage hypotheses, in this section, root cause analysis and hypothesis testing are presented thematically across the six key cross-cutting themes: planning and permitting; political environment; stakeholder engagement; funding & economics; skills and capacity; and interdependencies with wider infrastructure.

This approach:

- Identifies recurring root causes across different projects.
- Highlights system-level constraints that consistently shape outcomes.
- Confirms where good practice acts as a clear enabler.

The Ishikawa Framework: Kaoru Ishikawa's Guide to Quality Control (1976) is a foundational text in quality management that introduced practical, easy-to-use tools for improving processes. It is best known for popularising the Ishikawa (fishbone) diagram, along with seven basic quality tools that help organisations identify root causes, analyse variation, and support continuous improvement. The fishbone diagram, also called the Ishikawa diagram or cause-and-effect diagram, is a simple visual tool used to identify, organise, and analyse the root causes of a problem. It helps teams move beyond symptoms to understand why an issue is happening.

Planning and Permitting

Barrier
People & Culture

Causes

Internal behaviours and leadership quality inside consenting bodies strongly influence clarity and pace. Personal agendas, risk aversion, and inconsistent advice or application undermines process and intent. Siloed working among statutory consultees and unclear accountability exacerbate inefficiencies.

Barrier
Process

Causes

Processes are often rigid, sequential, and prescriptive, with statutory bodies coming to the table too late (e.g. Environmental Statement stage), pushing meaningful collaboration into adversarial stages and locking in solutions too early. This process design is lengthy, rigid, and fragmented, creating delays and cost escalation. Furthermore, environmental assessments often exceed mitigation costs and lack proportionality.

Barrier
Policy & Guidance

Causes

Lack of infrastructure policy statements and variable interpretation across agencies contributes to policy inconsistency and uncertainty. While flooding policies such as TAN15 (2025) have improved clarity, there are ongoing concerns that delays often arise not from technical policy requirements but from the [mis] interpretation and application of policy and guidance.

Enabler
Masterplanning or place-based approaches

Causes

A masterplanning (e.g. clear special policies and development plans such as Future Wales) or place-based approach can act as an enabler to integrate wider community, landscape and infrastructure considerations into a single, coherent framework. This can build support and bring together stakeholders with a more coherent and shared vision for development.

Participants consistently described planning and consenting processes as unclear, inconsistent, and poorly aligned with project timelines. Delays are driven by rigid, sequential procedures and conflicting positions within consenting bodies. Processes are often lengthy, fragmented, and costly, with environmental assessments frequently exceeding mitigation costs and lacking proportionality. Siloed working among statutory consultees and unclear accountability exacerbate inefficiencies, creating uncertainty and cost escalation. Guidance for planning and permitting is not streamlined, with fragmented environmental and licensing requirements, variable interpretation of policy, and shifting national priorities adding further complexity. However, a masterplanning or place-based approach can help achieve multiple policy priorities, build support, and bring stakeholders together under a more coherent and shared vision for development.

Hypothesis Outcome

Hypotheses Tested:

- Planning and consenting processes were clear, easy to follow, and aligned with major project timelines.
- Guidance for planning and permitting was streamlined, enabling timely approvals and reduced uncertainty.

Political Environment

Barrier

Cross-party Alignment & Political Consensus

Causes

Despite Welsh Labour having long-term control in the Senedd, frequent leadership changes within government has often created political and project instability. The absence of political alignment also results in the fragility of political sponsorship. Without sustained cross-party backing, major infrastructure projects remain vulnerable to short-term political agendas and lack the continuity needed for long-term stability and developer / investor confidence.

Barrier

Stability of Political Vision

Causes

Political vision is vulnerable to policy shifts, and Welsh Government in adopting a neutral stance to development or project sponsorship for public sector schemes can undermine stakeholder support and investor confidence. As such, the shifting political priorities and short-term cycles undermine project continuity.

Barrier

Politically Driven Deadlines

Causes

Politicisation of infrastructure decisions amplifies uncertainty and delivery risk. For example, projects can suffer from politically driven deadlines that are set prematurely, creating unrealistic expectations and forcing inefficient reactive delivery, rather than enabling timely, well-sequenced design, approvals and delivery.

Enabler

Strength of Active Sponsorship

Causes

Strong political leadership is key enabler, helping projects progress smoothly when benefiting from clear, senior-level political support that unlocks flexible problem-solving and helps schemes hold their nerve to cost increases or delays.

Across the case studies, participants depicted the political environment as a blend of enabling factors and destabilising pressures, with mixed experiences around stability and timely decision-making. Political vision has often been uncertain, reactive, or prone to shifts or changes in policy and ministerial priorities, undermining continuity. While examples of strong leadership demonstrated how active sponsorship can unlock progress, these instances were often tied to individual champions rather than a dependable system. Timeliness was similarly inconsistent, with delays driven by risk aversion, electoral-cycle timing, and premature political commitments that forced reactive delivery. Overall, the evidence shows that political decision-making in Wales has been variable, sensitive to changing agendas, and a source of delay or concern – but when political support is consistent it helps a project hold its nerve through key milestones and is an enabler.

Hypothesis Outcome

Hypotheses Tested:

- The political environment was stable, with a long-term government vision that supported project continuity from inception to delivery.
- Political decision-making was timely, enabling infrastructure projects to progress and be approved without delays.

Funding and Economics

Barrier	Barrier
Cost Certainty & Budget Transparency	Misaligned Funding Models & ECI
Causes	**Causes**
Overly optimistic or suppressed early cost estimates damages credibility when costs are perceived to (and often) increase. Projects often suffer from budgets being set before design maturity, driving uncertainty and later scope changes or pressures on affordability. External dependencies such as grid and licensing delays further destabilise cost planning. Projects face inefficiencies from annual funding cycles, restricting their ability to be delivered effectively.	Funding models are often poorly aligned to project needs, either transferring too much risk to the private sector which drives up prices and creates unrealistic expectations, or being structured around annual funding cycles that often force rushed delivery and fragmented planning. Early Contractor Involvement or models that benefit from quality buildability advice rely on certainty over ongoing involvement – when this isn't the case, the quality and benefits are often eroded.

Barrier and Enabler	Enabler
Procurement Practices	Local Economic Benefits & People and Culture
Causes	**Causes**
Procurement practices are inconsistent but can have a large impact on a project's success. Early Contractor Involvement often enables more accurate budgeting and collaborative ways of working. In contrast, the Mutual Investment Model has been perceived as less attractive to contractors due to the significant transfer of risk, including fixed-price obligations and stringent delay damages, which can create commercial challenges.	Well-designed procurement and funding mechanisms can deliver strong local value by embedding requirements that keep spending within Wales and boost regional businesses. Local-supply-chain obligations, combined with clear leadership, can drive contractors to create lasting legacy benefits, such as skills development, training opportunities and community investment. However, inconsistent project pipelines discourages supply chain investment and skills retention

Overall, the evidence provides limited support for the idea that funding and procurement models consistently enabled accurate budgeting and delivered value to the public purse, because projects often encountered cost uncertainty, or experienced increases that threatened their affordability and ongoing support. Strong business-case discipline, effective early engagement of contractors, and targeted contractual levers did deliver clear benefits. This was often attributed to strong leadership more than the selected delivery model or funding arrangements. Generally funding and procurement arrangements are often misaligned with project needs, affected by unrealistic early cost expectations, inappropriate risk allocation, and short-term funding cycles that hamper delivery. These factors weaken market confidence and make long-term decision-making difficult.

Hypothesis Outcome

Hypotheses Tested:

- Funding models and sources were appropriate for the scale and nature of the scheme, ensuring value for money and effective delivery.
- Cost certainty and procurement practices supported long-term planning and investment, enabling informed decision-making.

Stakeholder Engagement

Barrier

Timings of Engagement & Leadership Gaps

Causes

The absence of clear leadership within statutory bodies and utilities fragments decision-making, creating uncertainty and inefficiencies. Communities and supply chains are not consistently integrated into early planning stages, leading to missed opportunities for local benefits and resilience. Where engagement was effective, it was typically because stakeholders were involved early, had clarity on expected outcomes and were supported to contribute meaningfully to shaping project visions and objectives as well as outputs.

Barrier / Enabler

Quality & Practicality of Engagement

Causes

The quality of engagement is highly variable and often hinged on leadership and capacity rather than process alone. Personal agendas undermine progress and process, and there can be disconnects between senior-level agreements and operational level actors. When a shared vision is achieved, delivery is accelerated by more joined up support.

Barrier

Public Sector Capacity

Causes

Local authority and regulator capacity constraints delay early and meaningful dialogue, and this is often deferred until late statutory stages, missing windows for co-design and design influence opportunities. Engagement with statutory undertakers and environmental bodies are highlighted as fragmented and slow, with siloed inputs. The loss of dedicated liaison roles within regulatory bodies hinders inclusive, joined-up engagement.

Enabler

Community Trust & Early Contractor Involvement

Causes

There are strong instances of inclusive, meaningful engagement that foster trust. This is often led by a private sector developer, who shows commitment to social value and legacy supply-chain and training opportunities, offering visible pathways for local employment. Early contractor involvement and co-located teams often foster trust and joined-up decision-making.

Stakeholder engagement in Wales is highly dependent on leadership and capacity, producing mixed results. Engagement is often late, inconsistent, and siloed, limiting collaboration and causing disputes. Statutory triggers incentivise engagement with regulators and other consultees too far downstream to positively influence projects. Community stakeholders (local residents, landowners and local interest groups) and supply-chain stakeholders (contractors, technical specialist and delivery partners) were not consistently integrated into early planning stages. Successful projects showed that front-loaded coordination and collaboration can secure alignment in vision and build trust. Inclusivity and buy-in were achievable where local benefits and sustained relationship-building were prioritised.

Hypothesis Outcome

Hypotheses Tested:

- Stakeholder engagement was prioritised early, conducted in a timely manner, and delivered with sufficient quality to help shape project outcomes.
- Engagement processes were inclusive and meaningful, fostering trust and resilience with stakeholders and communities throughout the project lifecycle.

Skills and Capacity

Barrier	Barrier
Specialist Availability	Public Body Capacity
Causes	**Causes**
The public sector's reliance on generalists can limit the capacity of in-house specialist expertise and creates dependency on external consultants. In many cases, ambition outpaces capacity: national programmes seek rapid scale-up without a corresponding skills base, leading to reactive decision-making and increased dependence on international outsourcing or acceptance / compromise on reduced quality.	Capacity constraints within public bodies limits early engagement and pushes decisions downstream, while statutory agencies and central teams face chronic resourcing gaps that slow approvals even when projects offer additional financial support. Additionally, severe skills gaps and lack of continuity in project teams undermines delivery.

Barrier / Enabler	Barrier / Enabler
Pipeline Continuity	Digital
Causes	**Causes**
Skills cannot be retained or strengthened without predictable, ongoing work, making it difficult for firms to justify long-term training or apprenticeships. Local firms in Wales have benefited from recent infrastructure investment, supporting jobs, training and capability building. However, the absence of predictable future work limits longer-term skills development and reduces the wider supply-chain benefits that a rolling, regionally coordinated programme could unlock.	Digital capability is inconsistent and while projects benefit from integrated data platforms, most schemes lack a mandated BIM strategy or common data environment. When in place there is increased collaboration and quality decision making. When its not, this results in fragmented information flows, siloed disciplines, and missed opportunities for lifecycle asset management. Digital skills are present in pockets but are not embedded in the public sector.

Public-sector and regulator capacity constraints and an over-reliance on generalists can limit innovation, efficiency and the ability to deliver complex programmes effectively. Digital adoption was similarly uneven, with missing strategies, fragmented data governance, and late uptake, though strong client leadership, co-location, and targeted tools showed how capability can enable progress at project level. Across all cases, pipeline continuity emerged as the decisive factor: where work was steady, capability and confidence grew; where pipelines were stop–start, skills eroded, were redistributed outside Wales, and digital practice failed to embed. Overall, system capacity in Wales remains dependent on strong leadership, intelligent clients, and a longer term pipeline of infrastructure investment.

Hypothesis Outcome

Hypotheses Tested:

- The project drew upon a wide pool of specialists, ensuring adequate resourcing and capacity for delivery.
- Digital skills and data-sharing practices were embraced, improving collaboration and enabling efficient infrastructure delivery.

Interdependencies with Wider Infrastructure

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Barrier

Grid & Energy Interdependencies

Causes

Grid connections are a major systemic bottleneck. Key approvals that sit outside project control introduce constraints and delay risks, while narrow outage periods compress schedules and tie programmes to external stakeholders and deadlines. Overall, these issues highlight weak integration between grid services and project planning, making grid readiness a critical dependency rather than a reliably coordinated component of delivery.

Barrier

Policy, Licensing & Institutional Alignment

Causes

Policy frameworks, licensing regimes, and institutional roles often pull in different directions, limiting integrated decision-making. Environmental licensing and utilities engagement is frequently described as rigid, siloed, and lacking clear accountability, leading to delays and uncertainty. Even when collaboration improved with financial / resource allocations to unlock capacity issues, fragmentation across utilities, regulators, and funders remains a structural barrier to joined-up delivery.

Barrier

Transport Logistics & Physical Interfaces

Causes

Collaboration is critical for managing transport interdependencies, such as coordinating police escorts and scheduling turbine deliveries to avoid disruption. While these efforts show what's possible, they rely on exceptional coordination and are not yet embedded as standard practice. Future programmes should make this level of integration routine through joint planning and governance.

Barrier / Enabler

Cross-Sector Collaboration and Integration

Causes

Cross-sector collaboration and systems thinking does occur, but inconsistently and often too late to shape outcomes. Where it is used through masterplanning, early environmental work, or shared data tools, it helps reduce friction. Delivery models that align accountability across interfaces often benefit projects, supporting joined-up planning, governance and decision making.

Infrastructure and services were not consistently integrated and joined-up planning across interdependent projects was often late or uneven, causing inefficiencies. Critical dependencies such as grid connections, outage windows, and misaligned rolling stock-infrastructure timelines required extraordinary coordination rather than being supported by embedded integration of stakeholders and processes. Physical interfaces, including transport logistics, showed potential for synergy but were frequently hindered by lack of joined-up coordination. Limited adoption of digital tools and inadequate forecasting meant data-driven decision-making was weak, leading to unrealistic planning assumptions. Positive examples, such as masterplanning and early environmental collaboration, demonstrated the benefits of embedding cross-functional working from the outset

Hypothesis Outcome

Hypotheses Tested:

- Infrastructure and services were sufficiently integrated to support joined-up planning and delivery.
- Cross-sector collaboration and systems thinking were applied, reducing inefficiencies and supporting holistic infrastructure planning, decision making and outcomes.

Priorities for Action

Our analysis identifies key opportunities to overcome barriers and strengthen infrastructure delivery in Wales. These are summarised as eight priorities for the Commission's strategic advice to Welsh Government.

1 Improve Long-Term Political & Financial Stability

- Refresh long-term policy direction
- Develop Infrastructure Policy Statements (IPSs)

2 Utilise the Reform of Planning & Consenting

- Proactively resource and equip the ICO regime
- Build flexibility into consenting processes to allow project promoters to be more agile

3 Invest in Skills, Capacity & Institutional Capability

- Develop a National Infrastructure Delivery Workforce Strategy
- Increase Investment in specialist skills and digital capacity

4 Improve Data Sharing & Integration

- Engage with and update the Infrastructure Pipeline
- Make collaboration easier for stakeholders

5 Enable Early and Meaningful Engagement

- Monitor and evaluate stakeholder engagement practices
- Appoint dedicated liaison roles within agencies and regulatory bodies

6 Improve Data Sharing and Coordination

- Invest in and implement digital platforms across the public sector
- Provide a shared data platform

7 Facilitate Longer-term Funding and Financial Confidence

- Move to multi-year funding for major projects to avoid annual budget constraints
- Establish cross-party sponsorship boards for major infrastructure

8 Support Sustainable Procurement and Delivery Models

- Promote early contractor involvement and sustainable procurement
- Explore pilot land-value capture mechanisms

Action, monitoring and evaluation

- The Welsh Government should establish an action plan and corresponding monitoring and evaluation oversight to help ensure timely delivery of the priorities for action set out in this report.

1

Facilitate longer-term policy certainty

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Refresh Welsh Government commitments to its long-term infrastructure policy direction: The Welsh Government published its WIIS in 2021 as a framework for infrastructure investment decisions up to 2031. It commits an annual pipeline being published over rolling three-year periods. The Wales Audit Office review of the WIIS in May 2025 concluded the WIIS is a step forwards in trying to ensure infrastructure investment delivers a broad range of strategic outcomes but it doesn't establish a clear 'golden thread' between the WIIS outcomes and the Welsh Government's wider framework for programme and project management. Furthermore, the Welsh Government underpins the WIIS with a finance plan, but it doesn't give longer-term certainty. Future Wales 2040 has also been scrutinised with some calling for a strengthened national framework, supported by early and sustained dialogue with regional partners and industry to help ensure that the regional tier can deliver the growth agenda Future Wales envisages. Looking ahead, the future approach will need to consider the outcomes of the Senedd elections in 2026, which may change policy direction(s). With a clear link between national and regional plans and priorities, a refreshed WIIS, Future Wales and longer-term rolling finance plan would help build certainty and support a new, shared Senedd vision across key infrastructure sectors. To some extent this could also help to reduce or avoid boom–bust cycles within sectors owing to longer-term visibility. In a more progressive move, the next Senedd could achieve similar outcomes through introducing Infrastructure Policy Statements. There has been a recent indication of a willingness to do so by the Welsh Government, on 22 January 2026, the Welsh Government designated Future Wales: The National Plan 2040 as an Infrastructure Policy Statement under Section 127 of the Infrastructure (Wales) Act 2024, to help ensure that existing national policy guides decisions for significant infrastructure projects.

Develop Infrastructure Policy Statements: Wales already has the Wales Infrastructure Investment Strategy (WIIS), which sets out the Welsh Government's overarching approach to infrastructure spending and has likely reduced the immediate urgency to introduce Infrastructure Policy Statements (IPSs), particularly during the transition to the new Infrastructure Consent Order (ICO) regime established under the Infrastructure (Wales) Act 2024. However, while WIIS provides a broad strategic direction, it is not a formal policy statement in the same sense as England's National Policy Statements, meaning it arguably does not provide the detailed, sector-specific policy framework that will ultimately be needed to support consistent and transparent decision-making under the new regime. The Act itself modernises and simplifies the consenting process, creating a single framework for major projects, but does not articulate national priorities or offer guidance on how proposals should be shaped. Developing IPSs would fill this gap by clearly setting out Wales's medium- and long-term infrastructure goals, offering clarity to project promoters, communities, statutory consultees, and Welsh Ministers. This would strengthen the quality and efficiency of pre-application work, support faster and more predictable determinations, and align with ongoing efforts to produce detailed guidance on engagement and requirements. By providing a coherent policy basis for decision-making, IPSs would also boost investor confidence and promote more coordinated planning across sectors, reinforcing the Act's ambition to deliver a modern, consistent, and investment-ready infrastructure system for Wales.

Maximise the opportunities presented by the reform of planning

Proactively resource and equip the ICO regime: The introduction of the Infrastructure Consent Order (ICO) process under the Infrastructure (Wales) Act 2024 represents a major opportunity for Wales to modernise, streamline, and accelerate the delivery of significant infrastructure projects. The new regime came into force in December 2025 and replaces multiple existing consenting frameworks with a simplified, flexible, and more adaptive process intended to reduce delays, enhance consistency, and improve decision-making for large-scale Welsh infrastructure developments. To ensure this new framework delivers on its intent, the Welsh Government should fully embrace and robustly resource the ICO process. Industry commentary suggests the ICO process will only function effectively if planning authorities and statutory consultees are adequately supported. The Welsh Government should prioritise early investment in capacity, guidance, and capability-building across Planning and Environment Decisions Wales (PEDW), local planning authorities, and statutory consultees. This should include ensuring that its guidance is published promptly and is practically focused, enabling project promoters and communities to engage confidently with the new system. Allocating sufficient staffing and expertise is also essential to support pre-application engagement, manage examination stages efficiently, and maintain the high-quality digital infrastructure required under the ICO regulations, including mandatory project websites. By proactively resourcing the ICO regime, embedding consistent interpretations of the new procedures, and monitoring performance during its early years, the Welsh Government will help ensure that the ICO process achieves its core purpose in accelerating delivery, enhancing transparency, and enabling timely decisions that unlock the infrastructure needed to support Wales's long-term ambitions.

Build flexibility into consenting processes to allow project promoters to be more agile: The pre-application stage under the new ICO regime is front-loaded, consultative, and equipped with mechanisms (timely consultee responses, notification windows, iterative consultation) that can support a more flexible and adaptive project development process. When used strategically, it provides a space for promoters to test alternative approaches, refine options, and respond to evolving policy or investment priorities without the constraints that come once a formal application is submitted. The Welsh Government should consider guidance and/or encourage PEDW to facilitate flexibility in applying its regulations so that promoters who need to change direction are not constrained by a system that rigidly bounds it to a single project pathway. Promoters should be able to present alternatives, seek early direction on feasibility, and submit supplementary or revised materials more ably and confidently.

3 Invest in skills, capacity, and institutional capability

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Create a National Infrastructure Delivery Workforce Strategy: The Welsh Government could bring together professional institutions, universities and employers to help co-design a cross-sector strategy that seeks to address skills shortages, capacity gaps and better prepare and align the Welsh supply chain to the infrastructure programme and project pipeline. This should be infrastructure planning and delivery focused but build on an existing body of study and actions, such as the RTPI Cymru's Building Capacity through Collaboration and Change, the regional Skills and Employment Plans, the Net Zero Skills Action Plan and subsequent work supporting Skills for a Just Transition. Regional Skills Partnerships should be involved to help share their understanding of the challenges and opportunities across Wales and utilise their work across Welsh Government and Corporate Joint Committees in developing net zero career pathways.

Increase investment in specialist skills and digital capacity: This is required to strengthen in-house technical, digital and project management capacity and capability within Welsh Government departments and statutory bodies. This will help create intelligent clients and facilitate more technically robust advice, consistent and quality leadership, and skills aligned to future requirements and demand.

Create a Wales Infrastructure Project Leadership Programme: Linked to the need to help establish longer term pipelines of projects, the Welsh Government should work with delivery partners and regulatory bodies to create a world leading leadership programme around planning and delivering major infrastructure schemes, which could help attract, retain and ensure continuity of key personnel across project lifecycles and maintain institutional knowledge.

4 Encourage collaboration around future demand

Engaging with and updating the Infrastructure Pipeline: Launched in July 2025 and hosted by the National Infrastructure & Service Transformation Authority (NISTA) is the ten year forward look of investment into major UK capital infrastructure. The first iteration reflects the data available now, and data gaps in the Pipeline are expected to be filled via regular updates. As advocated by NISTA, the Pipeline will evolve into a comprehensive and continually updated source of information for construction firms and investors seeking to understand future demand. By providing greater visibility, it will support supply chain investment in both capacity and capability, while also fostering increased private sector investment. The Welsh Government should consider how it could engage developers, including its own departments and child organisations, to maximise the potential value of the Pipeline and promote it across Welsh stakeholders.

Make it easier for stakeholders to collaborate: Whilst planning and environmental assessment processes require consideration of cumulative effects, data sharing and collaborative working is essential to help join up planning for interfacing or interdependent schemes, as well as helping maximise opportunities for shared benefits. Whilst planning application details including applicant and agent contacts are available on Local Planning Authority websites, publishing similar details for nationally significant infrastructure projects (NSIPs) via PINS, PEDW and/or NISTA could help facilitate engagement and collaboration. Welsh Developments of National Significance (DNS) and Strategic Infrastructure Project (SIP) applications are currently hosted on the PEDW Planning Casework portal, and a dedicated category for SIPs is still being built. To further support collaboration, it should be noted that Arup supported the Hunt/Medi Place-Based Development Advisory Group, whose final report highlights that CJCs, with their statutory regional duties for strategic planning, transport and economic well-being, are well-placed to act as regional convenors for cross-boundary schemes. Given this role, CJCs (building on the collaborative structures established through regional growth deals) should be more explicitly involved in facilitating data sharing, aligning with interdependent projects, and providing a regional interface for scheme promoters. Embedding CJCs within engagement and information-sharing processes for infrastructure projects would help streamline communication between stakeholders and strengthen cumulative assessment and joint planning at a regional scale.

5 Enable early and meaningful engagement

Monitor and evaluate stakeholder engagement practices: For nationally significant projects in Wales being consented through the Infrastructure Wales Act, statutory bodies should be better resourced, incentivised and encouraged to engage in pre-application opportunities to better influence projects before they are submitted for examination. The Welsh Government planning division could monitor and evaluate trends and proactively intervene on nationally significant projects working with PEDW and applicants to ensure key stakeholders engage early, meaningfully and more consistently. To enhance support for both developers and communities, the Welsh Government has commissioned Grasshopper Communications to prepare best-practice guidance. It has also allocated additional funding to Planning Aid Wales to deliver online guidance and host community events. Such tools and examples of best practice should be shared with delivery partners and relevant professional institutions to maximise opportunities for learning. The Design Commission for Wales, as the national advisory body for design excellence across the built environment, should be utilised to promote and disseminate this best-practice guidance across Welsh stakeholders. Major projects could be required through procurement to prepare and publish a Stakeholder Engagement Plan including a RACI matrix (Responsible, Accountable, Consulted, Informed) as a project management tool used to define and document roles and responsibilities for tasks or deliverables, ensuring clarity and avoiding confusion. It would help ensure projects map out who leads engagement (R), who approves it (A), who is consulted (C), and who is updated (I). This would also help provide a mechanism or vehicle for clients, project teams and/or regulators to evaluate engagement quality against best practice (such as the work the Welsh Government has commissioned Grasshopper Communications to prepare).

Appoint dedicated liaison roles within agencies and regulatory bodies: Regulatory bodies such as Natural Resources Wales should appoint dedicated liaison roles to improve coordination and improve the quality of engagement and advice. These roles should feed up into leadership and operational forums, to enable better informed leadership and delivery, and support more informed decision making. This should help create more unified and balanced voices from consultees and reduce the risk of disjoined and inconsistent advice from within and between agencies. Liaison roles should be appropriately resourced and skilled to help mediate and disseminate information. This could also help to reduce the risk of individuals with personal agendas from unnecessarily obstructing progress and support more organisational accountability. In doing so, the Welsh Government may wish to consider the relevant (Fingleton) Nuclear Regulatory Review 2025 recommendation around enhancing the terms and conditions for regulatory roles that require strong technical judgment so that skilled professionals are attracted and retained.

6 Improve data sharing and coordination

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Invest in and implement digital platforms across the public sector: For many major public projects, particularly infrastructure procured through national frameworks, the Welsh Government requires or supports BIM and modern data-sharing protocols often follow the UK BIM Framework as the UK-wide approach for implementing Building Information Modelling (BIM) using the ISO 19650 series, along with supporting guidance, templates and resources. However, there is no Wales-wide BIM mandate equivalent to the UK central government's requirement for centrally-funded projects. Adoption is instead driven by frameworks, sector programmes, and procurement routes. The Welsh Government should mandate BIM across all major infrastructure projects. There may be lessons from Transport for Wales which now has Employer's Information Requirements (EIR) and Common Data Environment for projects. This will likely require capital investment in software as well as investment in digital skills. The results should help ensure all involved in infrastructure planning and delivery have access to shared data and information that will help drive higher quality and evidence-based assessments and decision-making. This should build on the Digital Action Plan for Construction, developed in partnership with Constructing Excellence in Wales and the sector. That plan outlines key priorities to help drive productivity, improve project delivery, and support the development of future-ready skills, including by integrating technologies like BIM.

Provide a shared data platform: DataMapWales serves as a source for public sector data in Wales, providing a shared data platform to members of the public and public authorities. It focuses on spatial data, ready-made maps and downloadable data for analysis. Not all data is publicly available and some functions may be restricted. Expanding DataMapWales to allows regulators and private as well as public sector developers to provide and access continuously updated data and information would help avoid duplication of effort and facilitate a consistent evidence base to inform environmental assessments joined up decision making. This could for example be used to submit, store and update project data across Wales, beyond DataMapWales' current focus to present geographic information and associated services. This would help to reduce the need for additional or duplicated surveys for each and every project, as well as give regulators confidence that quality data has been used and applied to develop and assess schemes in a consistent way. A common data environment, cross-sector, should facilitate better coordination between transport, energy, environment, and planning bodies. This should help plan and deliver services as well as projects. A centralised approach to hosting with open access, will avoid duplicated costs across other authorities and create a consistent approach to digitalisation and management of data and information across Wales. The Welsh Government may wish to consider the relevant (Fingleton) Nuclear Regulatory Review 2025 recommendation seeking to increase data-sharing, and transparency, on environmental data (focused on DEFRA using its Data Services Platform as a single home for Environmental Impact Assessment (EIA) related data, and making available any environmental survey and data assessment to potential developers).

7 Facilitate longer-term funding and financial confidence

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Move to multi-year rolling funding for major projects to avoid annual budget constraints: The Welsh Government and delivery partners should move to longer term funding models. Wales should adopt multi-year capital spending frameworks to provide greater certainty than annual budgets, enabling departments and delivery partners to plan strategically for long-term needs and to develop a robust pipeline of future projects. The Welsh Government should consider the Wales Audit Office WIIS recommendations made in May 2025 around longer-term financial planning within programmes, drawing on learning from the rolling nine-year approach used in the programme for school and college buildings. It is recognised that the Welsh Government's ability to develop longer-term financial plans is limited by the fact that its funding is dependent on UK Government spending reviews, and planning is influenced by Senedd election cycles. This will be particularly the case in May 2026 when the incoming administration is expected to bring its own and different policy priorities.

Establish cross-party sponsorship boards for major infrastructure: Politically driven budgets and programmes and associated downstream issues could be reduced or avoided by the Welsh Government requiring an arrangement for cross-party project sponsorship boards to be established to scrutinise policy alignment, affordability, interdependencies and programme forecasts at key stages for major infrastructure projects. This could learn lessons from The National Library of Wales who undertake Gateway Review Interviews with project teams including external consultants and contractors to independently assess whether the project's plans, resources and delivery approach are robust enough to move on to the next stage. In addition, the Welsh transport appraisal guidance (WelTAG) requires a project review group to be established to provide feedback and constructive challenge to the project manager and programme team. This approach should promote greater transparency and accountability in relationships with politicians, officers, consultants and contractors. It should help improve the quality of advice and better inform realistic and updated cost estimates and programmes for planning and delivery, in turn supporting better project, risk and change management. This would operate at a project level, whereas the Wales Audit Office in its WIIS (May 2025) recommendations to the Welsh Government on urgent improvements to programme and project management suggests it should strengthen the role of its Infrastructure Strategy Group to provide robust strategic oversight of infrastructure plans and investments across departments to ensure alignment with the WIIS. This should include ensuring it gets better information at a programme level on delivery, spend, and benefits.

8 Support sustainable procurement and delivery models

Promote early contractor involvement and sustainable procurement: Parts of the Welsh Government have a good understanding of sustainable procurement and delivery models, but training and strong leadership is needed to learn lessons from past mistakes and maximise the benefits of quality early contractor involvement, and the value of public and private sector investment. The Welsh Government should consider options for better balancing risk allocation to help encourage supply chain participation and sustainable ways of working. To maximise the value of early contractor involvement and strengthen trust across major projects, the Welsh Government could take a proactive role in promoting greater transparency and collaboration from the outset. Clearer expectations around target costings, incentive mechanisms and supply-chain certainty would help all parties enter projects with more confidence and better aligned social value or sustainability objectives. Creating long-term relationships, whether through frameworks or portfolios of work, will encourage contractors and their supply chains to invest in collaborative behaviours as well as communities, knowing that strong performance may lead to future opportunities. This, in turn, will help reduce opportunistic tendencies and instead build shared ownership of project outcomes. Prioritising co-located or at least digitally integrated teams throughout project stages would help embed trust, facilitate joint problem-solving, and sustain collaborative working for the full project lifecycle.

Explore pilot land-value capture mechanisms: Major investment in infrastructure such as transport reliably increases land values, and land value capture has emerged as a way to help the public sector fund infrastructure. The Welsh Government should work with partners such as Corporate Joint Committees and Transport for Wales to identify opportunities for land value capture pilot projects, which might utilise ongoing investments in Enterprise Zones, Investment Zones, Freeports, and Metro Programmes / significant public investment in rail and bus rapid transit. A January 2026 report by Cardiff University (Land Value Capture and Viability in Wales) provides an analysis of land value capture tools already in use (Section 106, CIL, public-land acquisition), and offers policy and practice recommendations, including clearer guidance on benchmark land value, improved transparency, national viability guidance, and creation of a central land-market/viability database. While the report does not announce a pilot, it recommends reforms that could underpin future pilots or system changes.

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