

Enabling Sustainable Infrastructure

ATKINS

Member of the SNC-Lavalin Group



Here's the problem...

Regulations in place to mitigate the impact of climate change and ensure a path to net zero are making development consent, compliance and collaboration harder. Yet the need for new buildings and infrastructure remains huge.

The pressure to reduce carbon emissions is great, and the stakes are high. Yet demand for new infrastructure is huge, with major projects involving many partners and stakeholders – complicating the process of evidencing and delivering across multiple Net Zero measures.

Without the expertise of a highly skilled team interpreting data to make informed decisions, builders and operators of infrastructure will struggle to win consent, get stakeholders on board, and deliver the sustainable outcomes the world needs.

Why is making infrastructure sustainable so challenging?

1. Revising a plan following environmental assessments is difficult, expensive and causes delay:

Typically, environmental consultants receive the design once it's already established, which makes their task slow, reactive, and iterative, forcing them to repeatedly go back and redo design work. These design cycles can go through many iterations, pitting designers against environmental experts. It's costly, and makes it harder to create sustainable outcomes.

2. Obtaining planning permission depends on assessments and good data:

No matter how promising your design, without planning permission you can't put a single spade in the ground. Planning permission demands passing environmental impact assessments, which depends on robust evidencing. Unless you have the right processes in place, it can be difficult to prove adherence - even when you are following the regulations. This can delay or even scupper your programme entirely.

3. Aligning stakeholders gets harder if not done at the start:

Major projects are complex, partly because they involve so many stakeholders. Aligning stakeholders and getting their input early is vital, yet many projects forgo early stakeholder engagement because of its complexity, missing out on its benefits and raising the risk of costly re-work. And unless you're able to easily locate and retrieve reliable environmental data, onboarding local stakeholders is challenging, which makes gaining consent and planning permission harder.

4. Providing the right information to the right stakeholders is more challenging later in the process:

Data and information processes, standards, and formats tend to be set early in the project - which makes redeploying it for different audiences and purposes later down the line harder.

5. Rectifying problems leads to overspend in design and potentially construction as well:

Construction often overspends on budget and programme, partly because problems aren't perceived early enough in the project. Without better data and foresight in these crucial initial stages, risks are often only located further down the line - when mitigating them is harder and more expensive.

How can we make infrastructure more sustainable

To deliver truly sustainable infrastructure, we deploy our unrivalled expertise and knowledge of the development process to guide clients, engage with stakeholders and build business cases that demonstrate value. Our multidisciplinary experience and integrated digital approach enables us to devise the best possible outcome for you.

Our multidisciplinary, integrated digital approach enables us to devise the best possible outcome for you. Here's how we do it:

1. Identify critical data sets, exploit them more effectively, and present environmental data in the optimal way to the right stakeholders.
2. Use the same data set to show the public what they will gain, regulators how you will comply, and investors how they stand to gain.
3. Improved line of sight leads to improved decision-making, enhancing the benefits of your project to both community and environment.

So that you can deliver better, more sustainable outcomes to people and planet, while proving that you're doing so along the way.



How early stage environmental data can transform your project



From struggling to evidence... ...to confident consents

Winning consent is vital. Yet understanding and delivering to ever-changing regulations is challenging. Air quality, water, natural capital: we can cover every aspect for a development consent order, helping you to gather, process, and deploy the right evidence to win the backing you need.

From doubt and uncertainty... ...to informed decision-making

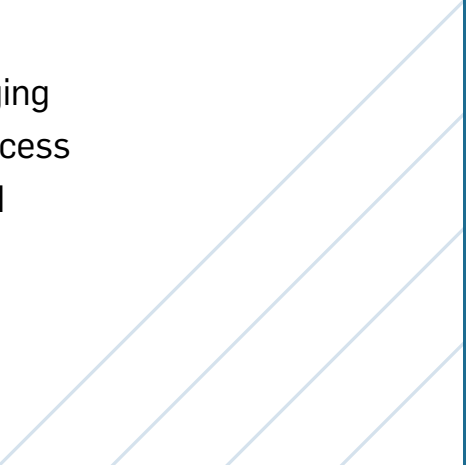
Our cross-sector infrastructure experience, combined with our detailed understanding of regulation and targets enables you to make informed decisions that deliver maximum return on investment, while strengthening your project's environmental, economic and community impact.


From wasteful designs... ...to right first time

For sustainability to be effective, it must be considered right at the very start. At Atkins, we use a range of digital tools to reveal the most cost-effective mitigation methods that reduce both carbon and cost while improving your project's adherence to environmental regulations.

From siloed... ...to coordinated and collaborative

Too often, infrastructure is designed without proper input from its stakeholders. Atkins are experts in bringing together stakeholders, significantly increasing the success rate of the consenting process by improving public and stakeholder engagement.



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- An aerial photograph of a modern building complex. The building features large glass windows and a prominent green roof. A courtyard with trees and a paved walkway is visible between the building sections. A person is walking on the courtyard path. The image is overlaid with a blue geometric pattern in the top left and bottom right corners.
- We proactively and rapidly identify the most promising areas for environmental gains...

...allowing you to pinpoint and avoid risks and their consequences - like programme constraints, costly compensation, and reputation.



Enabling Sustainable Infrastructure

What

Sustainable Infrastructure is an approach to construction that aligns stakeholders, mitigates environmental impact, and enables innovation.

How

By facilitating early-stage stakeholder engagement, best practice environmental impact assessment, and the latest digital tools.

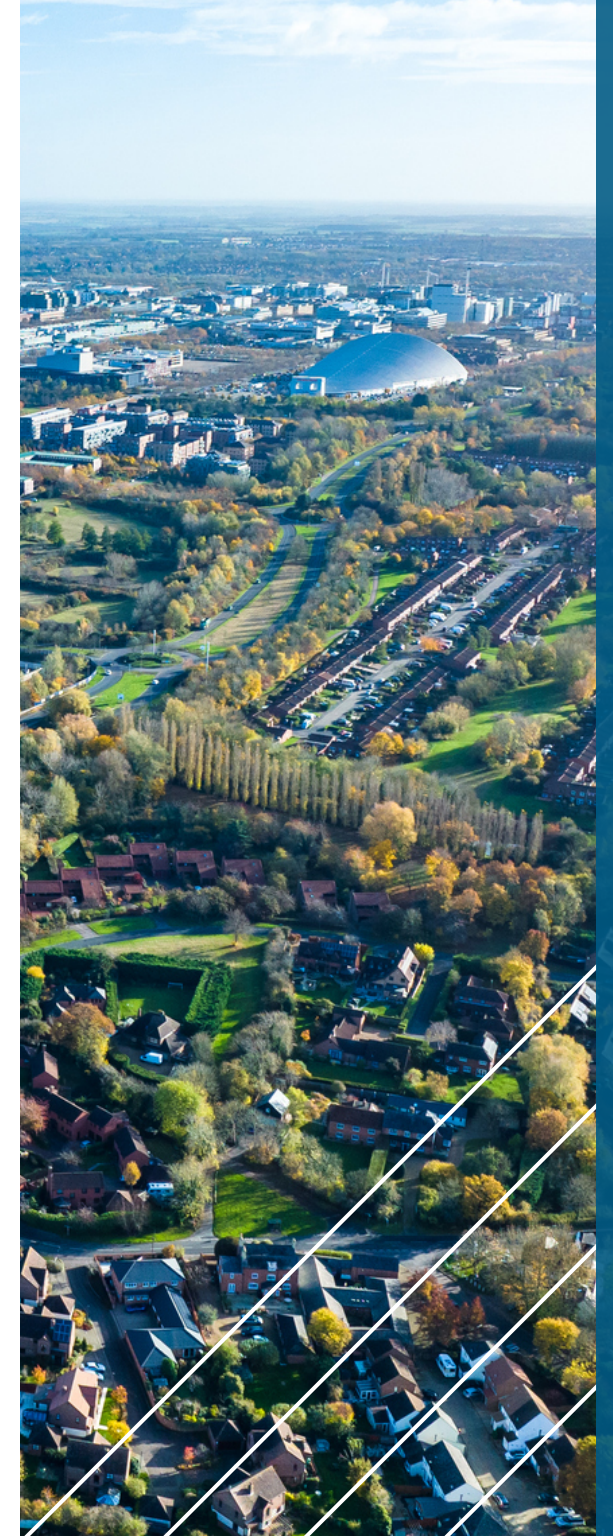
Why

So that you can deliver a more sustainable project, reduce risks, and save money.

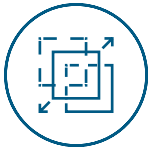
Drawing upon cross-sector expertise, Atkins' Sustainable Infrastructure service enables construction firms to deliver cost-effective solutions that meet environmental legislation, anticipate future user demands and standards, and gain the support of stakeholders.

Applying the methodology of 'build nothing, build less, build clever, build efficiently', we shape designs with environmental insights, maximising the value of environmental interventions while cutting costs. Then, we help with winning development consent, meeting exacting standards of legislation, regulation and funding requirements, and aligning a wide range of stakeholders behind a strong vision of environmental and financial sustainability.

Establishing a high-level environmental baseline as a minimum requirement from the outset raises standards, reducing the amount of costly rework in later phases of the project. From revitalising local habitats to offsetting emissions, the positive social and environmental impact is vast - saving money, improving outcomes, and enabling you to do more good in the world.



It delivers benefits across the project lifecycle...



Transform

embed sustainable thinking into the design process, and enhance your ability to deliver real socio-environmental benefit to stakeholders.



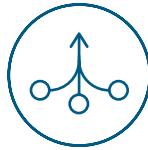
Collaborate

align stakeholders from the start, harness their insights, and report relevant data in formats that they understand, improving relationships and avoiding conflicts.



Automate

Quickly process complex data to demonstrate the impact of decisions at each stage of the project.



Integrate

inform your decision making with insights gained from disparate sources, and reveal opportunities for environmental gains.



Secure

reduce risk, anticipate challenges before they arise, and go through the planning and consent process with confidence



Comply

meet your environmental duties, demonstrate compliance through robust evidencing, and win consent more easily.



...tailored to your organisation



Infrastructure knowledge

We take complex issues and distil them into the critical set of options enabling you to make informed decisions that deliver maximum return on investment.



Sector-specific expertise

Through consultative workshops, our engineers, designers and digital experts bring their knowledge to your project, with sector-specific insights gained from projects around the world.



Collaboration

We design information management processes according to your specific organisational need, so that you receive a service genuinely tailored to your organisation.

Our approach

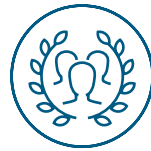
We believe that, together, innovation and collaboration have the power to create more effective and efficient ways of working. We work with clients to guide them through the complete process. We coordinate the different moving parts and draw on our breadth of expertise to make the right decisions, based on interpretation of the best available data.

We unlock hidden potential, so that our clients can enact programmes that are leaner, less environmentally disruptive, and more cost effective, giving their customers – the general public –



Sustainable by design

sustainability is embedded like a watermark in everything we do as part of achieving planning consent for development - from initial design consultancy to completion.



Asset management expertise

our team is led by world-leading specialists in asset, cost, and programme management, with support from our in-house partners Faithful+Gould.



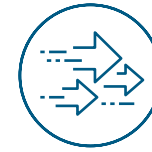
Collaborative

our consultative approach facilitates early stage stakeholder engagement to maximise value.



Digital innovators

turn complex information into easy-to-understand content that clearly demonstrates the project's value.



Diverse skills

from geospatial specialists to software development and product management, we bring a range of abilities to your project.




Environmental knowledge

with experience gained from projects around the world, over 1700 environmentalists on staff globally, and a track record of pioneering sustainable innovation, we deliver nature positive solutions and help our clients on their journey to net zero.



Technical expertise

drive innovation to release benefits such as increased productivity, cheaper solutions or faster implementation.

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- We're proud to have been recognised by the industry for our work...

...because behind every great innovation, every impeccable safety accolade, every award-winning design, are excellent people.



Our team

They're at the heart of everything we do, because we understand that every project is all about how the wider team works together. It's the relationships between individuals and teams, infrastructure and environment, stakeholders and society that enables a project to succeed.

From ecologists to architects, data scientists to geospatial engineers and creative strategists, we're uniquely able to connect people, data and technology, transforming the world's infrastructure and engineering a better future for our planet and its people.



Environmentally-led design at Havant Thicket reservoir



Problem

To meet the demands of the future, Portsmouth Water is creating a new reservoir in Havant Thicket. But the site has complex environmental issues. Significant conserved areas, Ancient Woodland, and the presence of protected species made development challenging.



Solution

A team of Atkins Planners was embedded into the design team, developing the Planning and Engagement Strategy for the scheme. We proactively worked with organisations including Natural England, Historic England and the local wildlife trust, to develop an ambitious mitigation and compensation strategy. They also influenced scheme design, advising on Planning risks, identifying Planning requirements and leading on stakeholder engagement.



Result

Permission was secured in October 2021, with:

- › **High engagement levels:** In total, 301 feedback forms were received, along with 277 responses from other channels. The microsite received over 4,000 visits.
- › **Strong support:** Feedback on the reservoir proposals demonstrated a high level of support, with 80% either strongly agreeing or agreeing with the proposals, and 90% support from young people.
- › **Improved design:** The feedback informed final design decisions as the planning application was prepared, including an access road route and design features to mitigate landscape impacts.

Winning consent for M25's Junction 10

Problem

M25 junction 10 is located at one of the busiest junctions on the Strategic Road Network (SRN), with one of the highest collision rates. The scheme aimed to increase road capacity, improve traffic flows and safety. But there were a number of constraints, incorporating Special Protection Area land, major utilities, and an SSSI. To gain consent, Atkins had to reduce the impact of the scheme on the sensitive land.

Solution

Atkins was National Highways key partner in developing the M25 J10 scheme, providing the full suite of DCO related services for the scheme since its inception. We designed the scheme, completed the EIA and HRA, delivered the DCO applications and managed the examination stages. We worked in tandem with the programme management team and project manager, delivering efficiently with an embedded stakeholder team. From public consultation to environmental assessment and stakeholder engagement, Atkins fostered collaboration to ensure all concerns were addressed and objections avoided.



Result

> **Confident consent:**

The DCO application was successful - and the team won a National Highways Collaboration award.

Helping East West Rail Phase 2's mitigations and consent

Problem

The East West Rail (EWR) scheme is a transport improvement project: it will develop a strategic rail transport link connecting East Anglia with central, southern, and western England. But its sheer size necessitates the development of mitigation designs and ecological surveys in order to secure planning permission. Phase 2 alone covers five local authority areas with varied environments - meaning that a wide range of planning permissions, environmental consents and licences are required.

Solution

We provided specialist town planning advice and prepared planning application materials in support of planning applications. We also facilitated development in accordance with deemed consent. We managed an extensive programme of applications, that often included ten or more concurrent live applications, necessitating a close working relationship with planning authorities and key consultees and stakeholders.



Result

➤ **Advanced ecological compensation:** To maximise the benefits of the environmental design, we adopted a consenting and planning strategy to establish ecological compensation sites prior to the main construction works.

➤ **A proportionate EIA:** Following the production of a draft environmental statement, the structure and way of presenting the EIA was changed to be proportionate. Assessing the Project by route section, rather than by local authority area, allowed for a more focused assessment and reduced repetition.

➤ **Robust and timely consents:** We secured planning permission for ecological compensation sites and temporary construction compounds. Early planning permission for establishing ecological those sites enabled a positive impact on nearby ecology and ensured that suitable receptor sites were available to receive translocated species.

Town planning for Hinkley Point C Nuclear Power Station

Problem

Winning consent, support, and planning permission for a power plant is challenging - even more so when it's Britain's biggest construction project. On behalf of EDF Energy, Atkins was commissioned in a variety of roles to support town planning consenting. This included development of the consenting strategy, the delivery of the Development Consent Order (DCO) for HPC Nuclear Power Station and then the discharge of DCO requirements to enable contractors to commence work on time.

Solution

To ensure works could commence on time, we had to establish DCO procedures as one of the first DCO's submitted under the new 2008 Planning Act. This meant managing the award-winning planning performance agreement on behalf of the applicant, leading the discharge of requirements and application for planning permission for all associated developments, and assisting and reporting to a regular public forum on the progress of the project. Atkins managed key local stakeholder negotiations before, during and after the DCO, guiding an amended accommodation strategy and revisions to onsite site nuclear sensitive buildings.



Result

› **Risks, managed:** By authoring the submission documents, we highlighted risks and issues with the DCO application, addressing them through the pre-examination and post examination phases of the DCO.

› **Complexity, overcome:** EDF Energy benefitted from a world-class professional team which enabled the delivery of a highly complex nuclear project.

Get in touch, and discover how **Atkins** could help you



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We're always keen to work with clients wanting to deliver greater social and environmental benefits.

If you want to explore how to enable more sustainable, cost-effective solutions, get in touch today.



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