Lowering Infrastructure Costs

By Ben Hopkinson

Centre for Policy Studies

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Contents

Executive Summary 4

1) Britain's Cost Challenges 9

2) Planning 18

3) Environmental and Habitats Regulations 22

4) Judicial Review 28

5) Funding 32

6) Procurement 35

7) Regulation 39

8) Civil Service Effectiveness 42

9) Devolution 46

Conclusion 48

Executive Summary

Britain has an infrastructure cost problem. For any level of investment, we get fewer miles of road or rail than other Western European countries. HS2 is the clearest case of this. At up to £102.7bn for just 140 miles of track, it is by far the most expensive high speed railway built in the world. At average French costs, the same money would have delivered 2,635 miles of railway, enough to run between London and Edinburgh eight times. HS2 is expected to cost more than the entire Spanish high-speed rail network, which is the second-longest in the world.

However, the cost challenge goes beyond just one single project. The same pattern of higher costs and fewer miles delivered runs through every mode. The Jubilee and Northern line extensions cost twice the per-mile average of France or Italy and six times that of Spain. The Bakerloo line extension would be the most expensive underground line built per mile outside of New York.

‘At up to £102.7bn for just 140 miles of track, HS2 is by far the most expensive high speed railway built in the world. At average French costs, the same money would have delivered 2,635 miles of railway’

British tram projects cost more than double the European average, which is why so many British cities, like Leeds, go without trams. Heathrow’s third runway, at £21bn for just the runway, will be 10 to 70 times more expensive than runway additions elsewhere. Its planning application alone, at £800m, costs more than several of those runways cost to build.

Britain’s rail electrification projects cost three times more than similar projects in Germany and Denmark. As a result of high costs, Britain’s rail network is less electrified than similar European countries and is forced to run less reliable diesel trains.

Britain fares slightly better on roads, with costs that are simply poor, compared to catastrophic in other areas. Yet construction of new or widened motorways is still very expensive compared to other countries. The main difference between Britain and other countries is the whittling away of new road construction. France has built more miles of motorway since 2000 than the entirety of the UK motorway network, which has only grown by 33 miles this century.

There is not one cause of Britain’s cost challenges, but eight, which combine to raise costs to a multiple of the level in other European countries.

Planning: Nationally Significant Infrastructure Projects (NSIPs) face a planning process that has grown longer and more expensive, with average decision timings rising from 2.6 years in 2012 to 4.2 years in 2021. Document counts have also risen on average from 381 to 1,143. A 3.3-mile reopening of a railway to Portishead required a 79,187 page application and eight years from survey to approval. It took 14 years for the Lower Thames Crossing to go from being designated a national priority to receiving planning permission, having spent £300m on a 359,866 page application. The Planning and Infrastructure Act 2025 made some improvements, but the Development Consent Order (DCO) process, which grants planning permission to large infrastructure projects, is still not the quick one-stop shop it should be. To solve this:

- Amend Section 150 of the Planning Act 2008 so the Secretary of State can grant secondary consents alongside the DCO.

- Keep National Policy Statements, which DCO decisions must follow, current and actively streamline at each five-year review.

- Exempt National Policy Statements from judicial review when they have received a confirmatory Commons vote.

- Amend Section 139 of the Planning Act 2008 to allow temporary use of common land during construction.

Environmental and Habitats Regulations: Environmental Impact Assessments (EIAs) have grown from under 400 pages for the Jubilee line extension in the 1990s to nearly 18,000 pages for Portishead. Successive EU directives, which were directly implemented into UK law, combined with court rulings have added to the depth and breadth of statements. This combines with the fear of legal challenge to drive a risk-averse approach to impact assessments. Alongside EIAs sit the Habitats Regulations, which impose near-absolute protection regardless of strategic or economic concerns. This has led to the HS2 bat tunnel and Hinkley Point C's fish disco. The regulations are biased towards on-site mitigations even where off-site compensation would do more for nature. Meanwhile the UK remains one of the most nature-depleted countries on earth, so the current settlement is failing on its own terms. To solve this:

- Amend the Levelling-up and Regeneration Act 2023 to remove the non-regression commitment.

- Re-weight the balance of the Habitats Regulations from builders proving negatives to Natural England proving positives, with a Minister deciding if the developer has completed enough mitigation or compensation.

- Remove biodiversity net gain requirements for NSIPs, or at the minimum loosen the spatial risk multiplier.

- Legislate to specify exactly what is needed within Environmental Impact Assessments with a fast-track for environmentally beneficial projects like public transport.

- Restructure the mitigation hierarchy to make compensation a viable alternative to mitigation.

- Introduce a de minimis exception to avoid drawn-out debates over negligible harms.

- Allow for local variation in the level of detail of Environmental Impact Assessments.

Judicial Review: Legal challenges to NSIPs have risen from around one a year between 2008 and 2018 to four a year between 2019 and 2024. They almost never succeed; of 36 challenges to the granting of a DCO, only four forced a re-determination, and all four projects were consented again. The damage is done through delay and uncertainty rather than defeat, with National Highways estimating a legal challenge can add more than £120m to road projects. The UK's implementation of the Aarhus Convention, which is an international environmental agreement, caps an unsuccessful litigant's liability at £5,000 for individuals and £10,000 for groups. This makes crowdfunded, low-prospect litigation easier for activists. To solve this:

- There are three escalating options addressing the cost caps. The minimum is to raise them by statutory instrument, perhaps to £100,000 for unsuccessful claimants, with the reciprocal cap on what successful claimants recover raised from £35,000 to £350,000, so meritorious challenges gain while frivolous ones bear more of the costs they impose. Alternatively, the government could adopt the Norwegian settlement, where Norway is an Aarhus signatory that retains loser-pays. The cleanest option is to leave the Convention altogether.

- Indemnify NSIP developers against abortive costs if they proceed while a challenge is live.

- Legislate confirmatory Acts of Parliament if a scheme requests one, which exempt the project from legal challenge.

- Implement a draft-decision challenge window, which allows the Secretary of State to modify a decision before issuing the final DCO.

Funding: Most UK transit projects are funded primarily by the Treasury, and the structure of that relationship works against cost control. Once money is committed, the Treasury has little control over how it is spent short of cancelling the project, so it is inclined towards proceduralism with repeated business cases. Promoters face the opposite incentives, to understate costs to secure approval, then add scope afterwards because they bear the political cost of a less impressive scheme but not the political cost of raising money. Nobody in the system is making trade-offs between cost and features. Successful projects in other countries, like Spain and France, are primarily funded at the local level, which better aligns incentives. To solve this:

- Devolve funding powers to metro mayors.

- Allow the retention of 100% of additional business rates around a new transit line.

- Introduce the infrastructure levy and shift contributions from social housing towards funding infrastructure.

- Remove the cap of 500 homes on NSIPs to open up a new revenue stream.

Procurement: British procurement repeatedly produces worse outcomes than it should. HS2 kept contracting with the construction firm Carillion after a profit warning and Edinburgh's trams rushed their procurement process without legal advice, which ended in a work stoppage and a higher fixed price for three miles less of track. A well-designed procurement process will leverage competition and the private sector to deliver projects cheaply and efficiently. This will require a competent procurement function to know what it wants, design appropriate contracting structures and then actively manage contracts for their duration. To improve procurement:

- Create a competent Civil Service client to oversee procurement and manage contracts.
- Scrap social value procurement to only focus on value for money.
- Scrap cost-plus contracting and balance contracts towards government bearing the risk when there are still outstanding government decisions.
- Allow civil servants to analyse past performance as part of procurement.
- Break contracts into more manageable sections to promote competition.
- Avoid a narrow focus on lowest cost as the primary determinant of procurement.
- Update the National Procurement Policy Statement to solely focus on value for money.

Regulation: Standards in Britain are largely set by quangos and arms-length bodies that bear none of the costs of their decisions, which can make it hard for the promoters and companies impacted to push back. In the case of utilities, promoters pay 92.5% of the cost while utility companies pay 7.5%, which means utility companies have no reason to limit the scope or control prices of moving utilities. Utility diversion can reach a third of the installation costs for a tram scheme. Every tram in the UK has its own standards and requirements, further raising costs. To solve this:

- Expand the Network Rail Standards Challenge to National Highways, other areas of Department for Transport (DfT) policy, and include incentives for successfully challenging standards.
- Create a national tram standard.
- Limit moving utilities and shift the cost of moving onto utility companies to incentivise fewer changes.
- Allow for shallower tram trackbeds seen in European cities.
- Launch a study on Norwegian tunnelling regulations and methods to determine applicability to the UK.

Civil Service Effectiveness: The Transit Costs Project's study of over 900 projects found state capacity to be among the strongest determinants of cost, with Britain ranking near the bottom. Outsourcing everything to consultants will lead to longer and costlier projects as no one will have a commercial reason to cut scope and the client is incapable of making the necessary decisions. Madrid trebled its metro at a tenth of London's cost led by nine in-house engineers and Milan builds at roughly 20% of London's cost through its municipal engineering company. Britain once had this, both with the private delivery of initial railways and Tube lines and the in-house oversight of the Victoria line. But today, the Department for Transport has the second highest staff turnover in Whitehall and ministerial churn has compounded a lack of focus. To solve this:

- Create a standing, public-sector engineering unit that accumulates expertise across a continuous programme.

- Change promotion and pay criteria to encourage specialisation within delivery teams rather than moving around in jobs.

- Encourage the hiring of contractors to work within the engineering unit.

- Permanent Secretaries should be line managed by the Secretary of State.

- Create a handover period for new Secretaries of State.

- Encourage the use of AI within the engineering unit to compare standards and technology with other countries.

Devolution: Tram, light rail and metro schemes in England are normally authorised by a Transport and Works Act Order (TWAO), which only the Transport Secretary can grant. The process routinely takes years, with Birmingham's one-mile Eastside Extension taking three and a quarter years, and its paperwork stretching longer than the extension itself. Countries that build faster and cheaper give regions the power to fund, approve, and build. Madrid's regional government holds all three and builds new metro extensions at a tenth of London's per-mile cost; in France, 21 towns and cities have built tram networks since 2000, with mayors campaigning on the pledge, funding it locally and consenting it between the city council and a regional prefect. English mayors can do none of this, leaving them able only to lobby Whitehall and complain publicly when refused. The Government should:

- Devolve Transport and Works Act Order approvals to metro mayors to give promoters the choice of applying to their mayor or the Secretary of State.

- This combines with the funding powers set out in Section 5 and environmental powers in Section 3, to allow mayors to credibly promise to build and then be able to deliver.

1) Britain's Cost Challenges

Britain has an infrastructure cost problem. We spend large sums of money trying to build new infrastructure and in return, we receive comparatively little. This is less a question of how much public money we invest in infrastructure, but rather one of how much infrastructure we get for the money that we invest. Britain was the second highest spender on rail infrastructure as a percentage of GDP in the most recent OECD database, after only China.[1] Yet the bulk of that spending was on HS2: a line that has been cut back as costs have skyrocketed.

Britain Remade and the Centre for British Progress estimate that the UK pays 65% more per unit of infrastructure than comparable countries.[2] HS2 is the most extreme example of this. The most recent estimate is that HS2 will cost up to £102.7 billion for only 140 miles of track. This makes it by far the most expensive high speed railway in the world. In fact, the entire Spanish high speed rail network, some 2,500 miles, was built for around £75bn (both in 2025 GBP).[3] Spanish per mile costs are roughly £28m per mile. HS2, per mile, is over 25 times more expensive.

'Britain Remade and the Centre for British Progress estimate that the UK pays 65% more per unit of infrastructure than comparable countries'

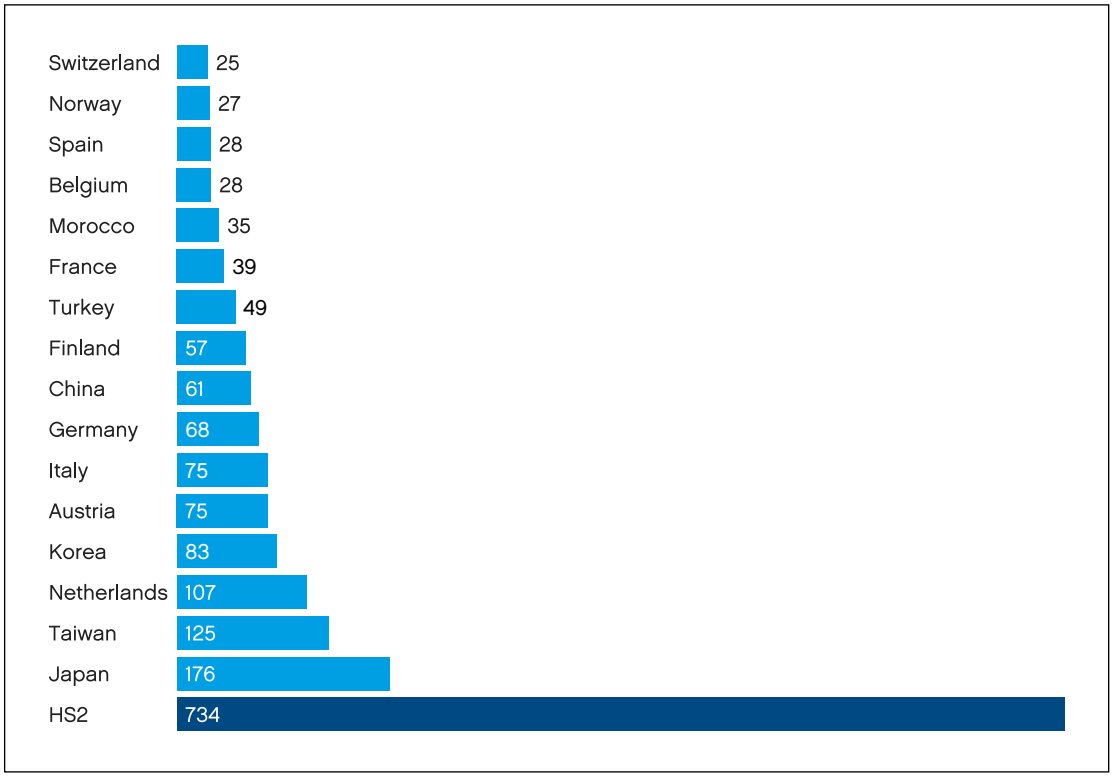
If Britain could lower the construction cost of new infrastructure, we could boost our economy through a building boom with a dizzying array of new road and rail connections. If HS2 was built at French average costs, the same level of investment would build 2,635 miles of railway, instead of the measly 140 miles that Britain will get. That's enough to run between London and Edinburgh eight times. Alternatively, lowering the cost of infrastructure could be used to lower taxes. If HS2 was built at French average costs, the typical British household would save nearly £3,400 in tax over the life of the project.

1 International Transport Forum, 'Infrastructure Investment Data Reveal Contrasts Between Countries', OECD, June 2022. Link

2 Britain Remade and Centre for British Progress, 'Building More for Less', June 2026. Link

3 CPS analysis of Highways Today, 'Spain's High-Speed Rail Expansion and the Real Cost of Ambition', March 2026. Link

HS2 is significantly more expensive than high speed rail in other countries
£m per mile of high speed rail route in 2025 GBP

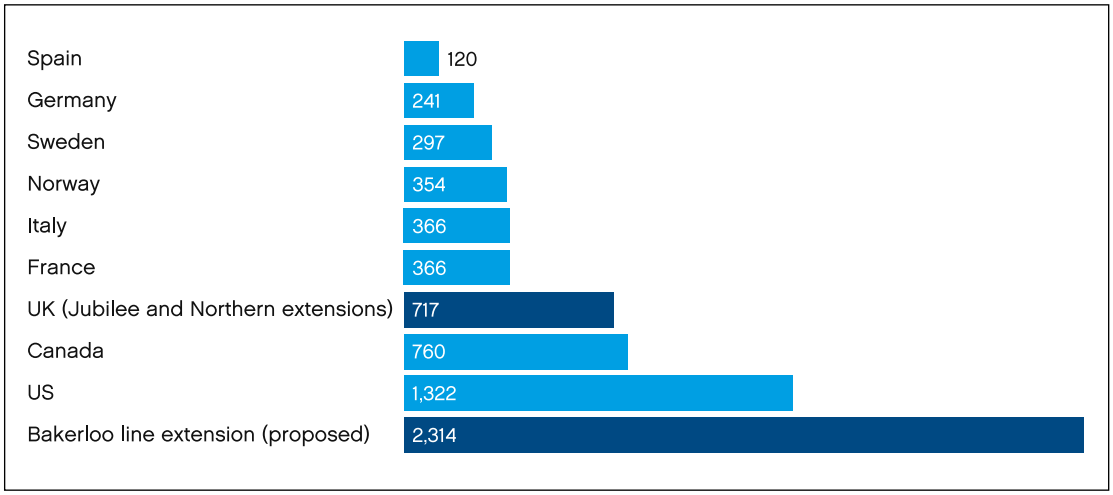


Source: CPS analysis of Transit Costs Project

HS2 is one of the most extreme cases of our cost disease. But it can be seen throughout different types of infrastructure.

Metros/Underground
The UK also has significantly higher metro construction costs than similar Western European countries. The Jubilee and Northern line extensions were built at two times the average per mile cost of Italy or France, three times the average of Germany, and six times more than Spain.

Underground and metro construction costs
£m per mile for underground metro construction in 2025 GBP



Source: Britain Remade

Yet this poor performance against Western European comparators will be blown out of the water by the Bakerloo line extension. Currently the upper end of the budget is £10.9bn for 4.7 miles of track in 2025 prices. This is an exceptionally high figure, which would make it the most expensive subway line ever built per mile outside of New York City. This is especially jarring because the line itself does not go through the centre of London, and the stations are mostly planned to be built on existing car parks where construction should be relatively straightforward. However, given such an exorbitant price, it is unlikely that the extension goes ahead unless we solve our infrastructure cost problems. High costs will have prevented the closure of the largest public transport desert near Central London, which would have unlocked tens of thousands of homes on brownfield land.

One of the other benefits of lowering infrastructure costs is that it opens up alternative funding models. Raising £11bn is a challenge for all but the most nationally important infrastructure projects. If costs were lowered even back to previous UK levels, the extension would cost only £3.4bn. That amount could be fully funded solely from levies on new development along the line, assuming a reduction in subsidised housing and other Section 106 funding and a pro-development local plan.

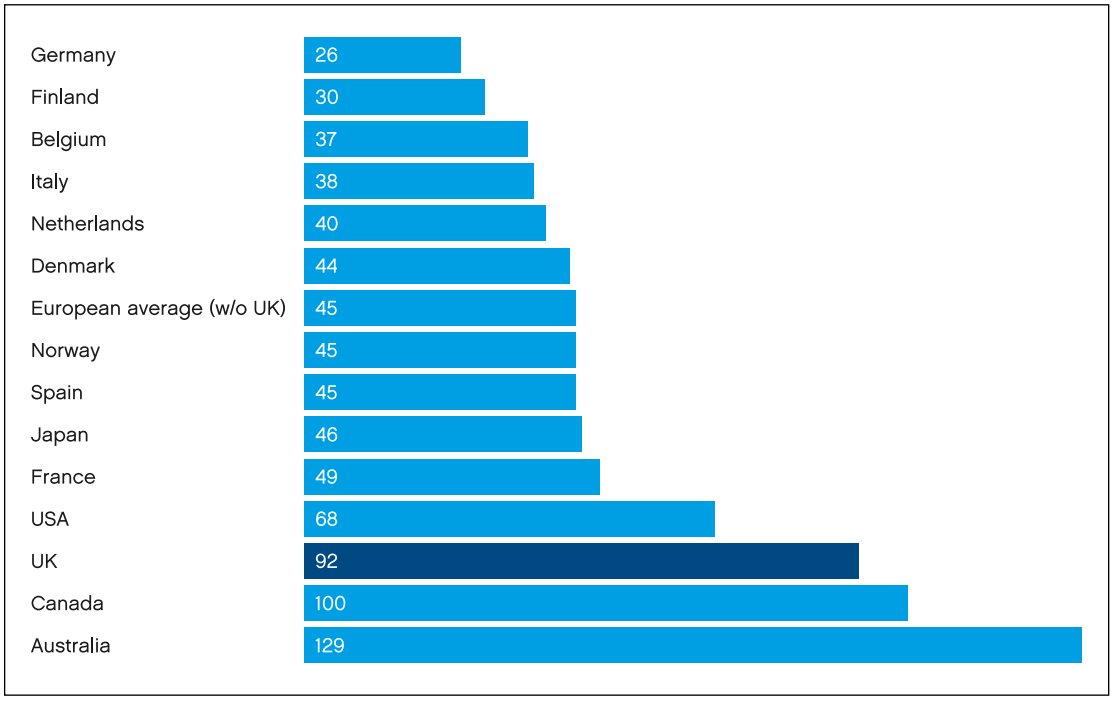
Lowering costs down to French levels would mean the 4.7 mile extension would only cost £1.7bn. At that price point, self-funded metro construction could become a possibility across the UK's largest cities.

Trams

There's a similar case of elevated costs when it comes to trams and light rail. The average British tram project costs more than double the average European tram project per mile built. Of the ten most expensive per mile tram projects in the Britain Remade tram costs database, five of them were British projects.

Tram construction costs

£m per mile of tramline in 2025 GBP



Source: Britain Remade

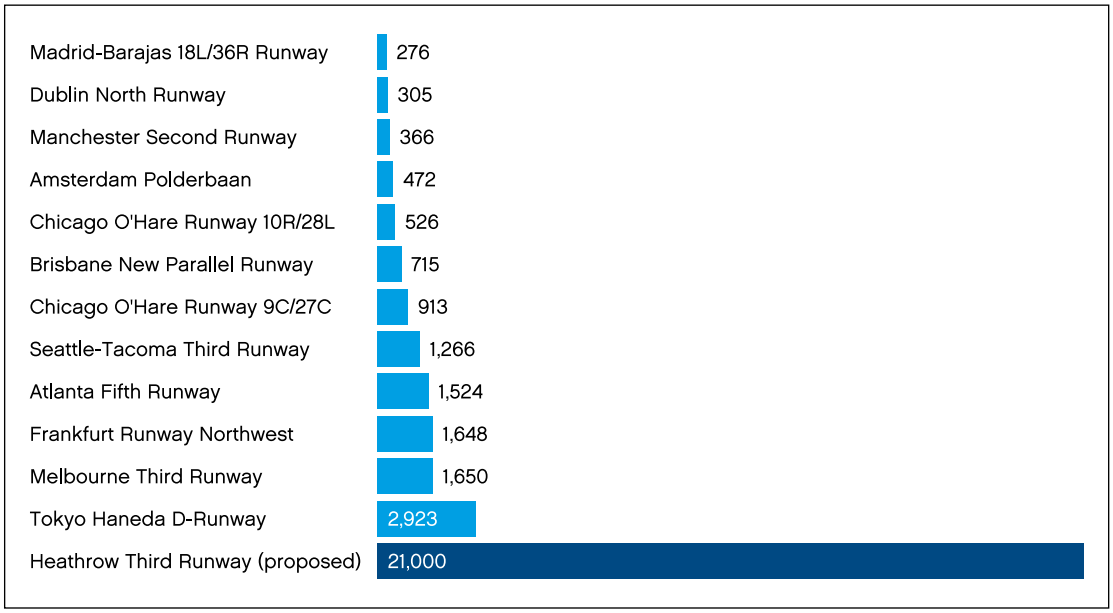
Birmingham's Eastside Extension is a 1.05 mile addition due to open to the future HS2 station at Curzon Street, which is expected to cost £245m in total, just slightly less than the £260m Besançon spent on its entire nine-mile network.

The higher cost of British tram projects means that cities like Leeds, Bristol, and Belfast are priced out of trams, while cities on the continent that are smaller are able to build significant networks. France has seen a tram construction boom, in part because it can build tramways for half the price that Britain can. As a result, all but one French city with more than 150,000 people has a tram, and many smaller towns like Avignon, Besançon, and Caen have trams too. Yet in Britain, there are 30 towns and cities larger than 150,000 people that lack any form of mass transit. If Dundee, Newport, or Peterborough were French, they would have a tram. Leeds likely wouldn't just have a tram, but plausibly a light metro. Britain's high construction costs are one of the main reasons they go without.

Runways

Heathrow's third runway will be by far the most expensive runway constructed in the world. At a price of £21bn for the runway alone, the third runway is 10 times to upwards of 70 times more expensive than other major single-runway additions built this century. While the third runway will be a complex project including re-locating part of the M25, other runway projects faced similar hurdles and delivered for an order of magnitude less. Atlanta bridged a 10-lane interstate highway, Frankfurt's Runway Northwest required relocating a chemical plant and bridging an autobahn and high-speed rail line, and Tokyo Haneda's fourth runway was built on a combination of reclaimed land and piles driven into a river bed. Building in a global city like London will be more expensive than building on empty land near Madrid, but the multiples of cost go way beyond that as the only explanation.

Heathrow's third runway could be an order of magnitude more expensive than similar projects



Source: CPS analysis. All figures are millions of 2025 GBP. Costs are only for runways and supporting taxiways, not including work conducted on terminals or other airport construction

Heathrow's planning application alone is expected to cost £800m. That's more than many of the runways, including Manchester's Runway 2, actually cost to build.

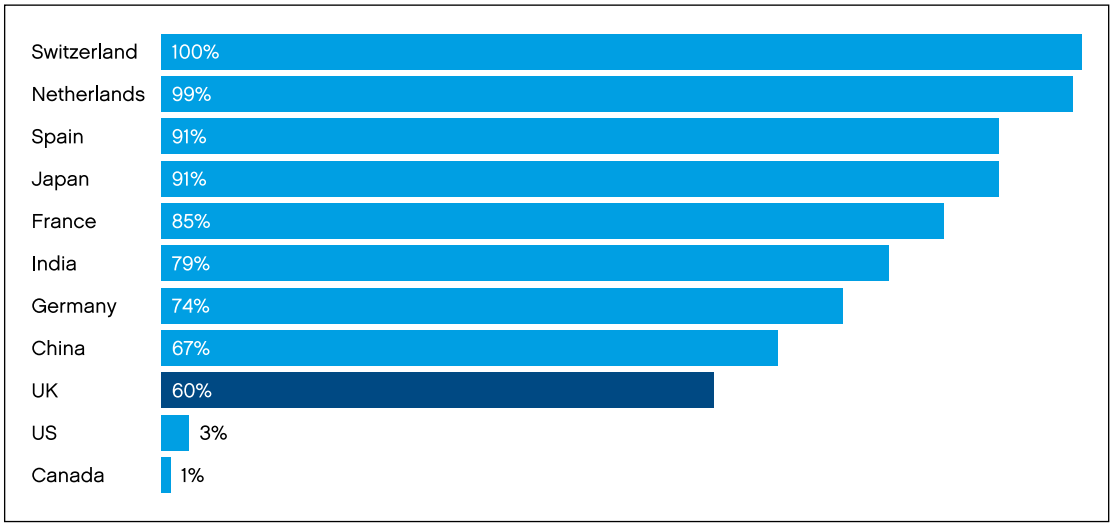
A saving grace of Heathrow's plan is that it is at least funded privately, not from the taxpayer. Given that Heathrow is at capacity and global air connectivity is vital for Britain's economy, the runway should absolutely still go ahead even given the high cost. But the high cost will be passed on to airlines and in turn passengers, resulting in higher airfares and a less competitive British aviation sector.

Rail electrification

One of the reasons that rail, especially in the North of England and in rural areas, is unreliable and delay-prone is the lack of electrification. The UK trails other western European countries in terms of how much of its network is electrified—albeit it is still far superior to North American railway networks.

Share of passenger rail services that are electrified

% of passenger train miles that are electrified



Source: Hannah Ritchie. Data is for the latest available year, generally 2022

Electric railways are, simply put, better. Trains can accelerate faster and reach higher speeds. Electric trains require 5 to 20 times less maintenance, cost less to operate, are quieter for nearby residents, pollute less resulting in better local air quality, and suffer fewer breakdowns compared to diesel trains, driving huge gains in reliability.[4]

> **'The cost of electrifying a mile of track is around three times higher in Britain than similar projects in Germany or Denmark'**

Yet attempts to electrify more of Britain's railways have run head first into Britain's cost disease. The programme to electrify the Great Western Mainline saw costs triple from £874m to £2.8bn. As a result of rising costs, the branches to Swansea, Bristol, Bath, and Oxford were cut from the programme. The cost of electrifying a mile of track is around three times higher in Britain than similar projects in Germany

4 Transit Matters, 'Regional Rail Electrification: Costs, Challenges, Benefits', Autumn 2021. Link

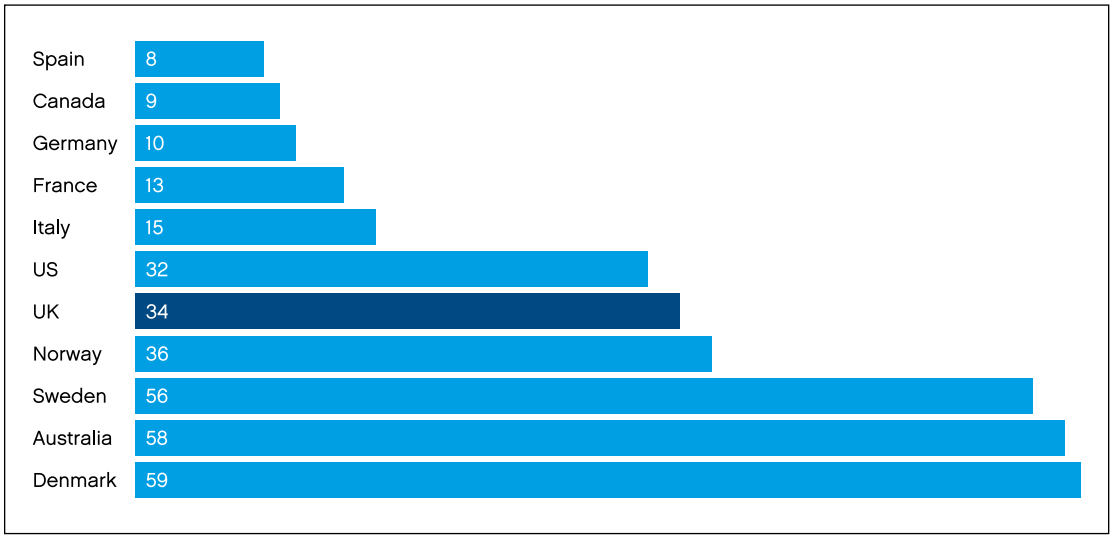
or Denmark.[5] Both of these countries have rolling electrification programmes, which means expertise is gained and retained, while Britain mostly has a 'feast and famine' approach, where most years see little activity until a major project, like the Great Western programme is committed to. When that happens, the private sector doesn't have the equipment and skills and the public sector does not have the knowledge on how to manage these projects, which both drive cost overruns and reductions in project scope.

Roads

Building new roads is less bad than the types of projects above, but Britain still has above average costs. Construction of new or widened motorways is still very expensive compared to other countries.

Road construction costs

£m per lane mile of road in 2025 GBP



Source: Britain Remade

Motorway construction costs

£m per mile of motorway lane in 2025 GBP

Source: Britain Remade

5 Railway Industry Association, 'RIA Electrification Cost Challenge', March 2019. Link

The UK is towards the rear of the pack, especially given that Norway, Sweden and Denmark's roads are more likely to be tunnelled, which costs more. Part of these costs are explained by the UK being a more densely populated country, but there are still examples of projects that cost more than continental equivalents. For example, the A30 Temple to Higher Carblake dualling in the South West cost £25m per lane mile, compared to a similar project in Germany, the Adelsried bypass in Bavaria, which cost just £5m per lane mile.

What really separates Britain from other countries is the whittling away of new road construction. France has built more miles of motorway since 2000 than the entirety of the UK motorway network. The UK has only built 33 miles of genuinely new motorway since 2000, with the M6 Toll, M74 in Glasgow, and Queensferry Crossing being the only new stretches.

And Britain's road-building pipeline is also running dry, with many projects either cancelled by the Labour government like the A1 dualling between Morpeth and Ellingham, or slowed down, like the A66 improvement project.

Britain spends a lot on roads that are not even built. National Highways spent £500m on major road projects that were cancelled in the past couple of years.[6] A whopping £179m of that was spent just on the Stonehenge tunnel before it was scrapped by the Labour Government. This high level of spending to get projects through the planning process before they end up being cancelled burns through taxpayer's money without providing any benefit. It also casts a chilling effect on any other potential project that will be brought forward.

'National Highways spent £500m on major road projects that were cancelled in the past couple of years'

Causes

One factor alone cannot explain why Britain's costs are so much higher than other European countries. Rather there are eight different areas, with a complex interplay between them that have led to the high cost environment.

The planning system tacks on needless paperwork and delay from the very beginning, with page counts reaching tens or even hundreds of thousands of pages. Decision timelines are lengthening too, going from 2.6 years in 2012 to 4.2 years in 2021. Yet even when a project receives a DCO, it still faces dozens of secondary consents, including construction, operation, and environmental licences, which add to the total planning time and risk throwing off project construction timelines.

As part of planning for a project, lengthy environmental impact and habitats regulations assessments are required. These both require large upfront investments into surveys and paperwork and also lead to absurd and costly mitigations like the HS2 bat tunnel and Hinkley Point C fish disco. These assessments have grown

6 Thomas Johnson, '£500m spent on cancelled National Highways schemes brought no benefit, MPs told', New Civil Engineer, April 2026. Link

inexorably over time, from 400 pages for the Jubilee line extension in the 1990s to 18,000 pages for a 3.3 mile railway to Portishead, near Bristol, that is being built on an existing alignment.

The planning and environmental burdens are compounded by judicial review. There have been at least 36 legal challenges to the granting of a DCO. Of these, only four have led to a re-determination, and all four of those projects eventually re-received their DCO. Despite legal challenges never ultimately leading to a DCO being rejected, even the mere possibility of a judicial review drives defensive paperwork and additional assessments and studies. Construction costs also increase given difficulties sequencing works and arranging project financing while a legal challenge makes its way through the courts. National Highways estimates that a legal challenge can add £121m to the cost of delivering a road project.[7] The challenge of judicial review is worsened by the way that Britain has implemented the Aarhus Convention, by capping an unsuccessful litigant's liability for legal costs at only £5,000 for individuals and £10,000 for groups. This removes the deterrent provided by the principle that the loser pays the winner's costs, a feature of English law for nearly eight centuries, and instead leads to repeated no-hope litigation.

'One factor alone cannot explain why Britain's costs are so much higher than other European countries'

The way that projects are funded does not incentivise lower cost construction. The Treasury does not have the power to control costs once a project is underway, short of cancelling the project, which means that it is hesitant to agree to projects and demands long business cases to confirm before any commitment is made. Meanwhile the incentives for promoters are to suppress the cost of their bid to gain Treasury approval before adding in extra features once a project is agreed. The party that bears the political cost of raising the money, the Treasury, is different from the party that makes the trade-offs and actually delivers the project. Other countries that fund projects predominantly at a local or regional level, like France and Spain, have seen better outcomes because this creates a core of voters who both want to see a project go ahead while also seeing it be delivered affordably.

British procurement practices are another issue. An overfixation on lowest-cost contracts and social value procurement, combined with poorly staffed and underqualified procurement teams and an overreliance on large contracts drive negative outcomes. Lowest-cost bidding disregards differences in technical experience that contractors have and encourages selecting either an inexperienced bidder who does not know how much a job costs or a bidder who will attempt to extract more once selected. Social value procurement distracts from hiring the contractor with the best value for money and risks shutting out smaller enterprises who do not have dedicated social value teams. The Civil Service teams handling procurement are often inexperienced, constantly changing and reliant on consultants, which limits their ability to adequately specify and run a process and then manage the resultant contract. Finally, transport projects are linear by nature, and can and should be broken into smaller and more manageable contracts, to allow for greater competition and lower overall risk.

7 Lord Banner, 'Independent review into legal challenges against Nationally Significant Infrastructure Projects', Ministry of Housing, Communities and Local Government, October 2024. Link

Britain is also both an over-regulated and poorly-regulated country. Various quangos, arms-length bodies, and government departments have introduced regulations that have increased the cost of building, without bearing any of the cost of their decisions. For example, when moving utilities, a project must bear 92.5% of the cost, which means there are strong incentives for the utility companies to request a complete replacement of their pipes and wires, almost entirely at the expense of the project. Britain needs a way for harmful and disproportionate regulations to be challenged and corrected, which should involve an expansion of the existing Network Rail Standards Challenge to across Department for Transport regulation and policy.

Finally there are two areas related to who is actually delivering the project. The first is an ineffective Civil Service, staffed by generalists who move between roles and departments regularly. Britain lacks public-sector bodies with sufficient in-house technical and legal expertise to know what they want, specify that, direct consultants and contractors rather than defer to them, and judge whether their advice, changes, and prices are justified. The delivery body needs the experience to be able to control the project. This area also links to poor procurement, funding and regulatory practices mentioned above.

The second is at what level of government are decisions being made. England is too centralised, with the Transport Secretary having the final say on projects going ahead. This process can take several years, with limited reason for the SoS to speed up the process. When a regional leader has the ability to fund, approve, and build transport projects they are encouraged to move quickly and keep control of project costs. Likewise, the construction of new transport infrastructure can become regional election defining issues, encouraging potential mayors to pledge to build and then actually have the power to deliver, knowing that the public expects them to meet their promises by the next election. This cannot happen in England because any pledges to build quickly run up against a slow and bureaucratic process within the DfT.

Conclusion

Infrastructure costs matter because they determine what improvements we get for the money that we invest. Given how high British costs are right now, we still spend a lot on infrastructure but we build less infrastructure and are less productive as a result. Without the vital transport infrastructure between and within our towns and cities, it is harder to access jobs, meet friends and family, and connect the British people.

British infrastructure costs have not become so bad for just one reason. Costs being many multiples of other countries suggests that many things have gone wrong with the way that we build. The good news is that it means that there are many things we can do to make it easier and cheaper to build. The rest of the report will cover what needs to be done in a variety of different policy areas to make it cheaper and easier to build.

The ultimate goal is a Britain that builds again.

2) Planning

Nationally Significant Infrastructure Projects (NSIPs) have to go through a long and expensive planning process before construction can begin. The Lower Thames Crossing was designated a national priority in 2011, yet did not receive its Development Consent Order (DCO) until 2025. In between the project spent £300m drafting a 359,866 page long planning application. Over the course of its lengthy planning process, the cost of the project rose from £4 billion to £10 billion as extra scope was added and rampant construction cost inflation occurred post-pandemic.

> **'The Lower Thames Crossing was designated a national priority in 2011, yet did not receive its Development Consent Order (DCO) until 2025'**

Likewise the planning application to build 3.3 miles of railway on an existing alignment to Portishead stretched to 79,187 pages. If printed out, that's 4 ½ times the length of the line itself. It took five years from the initial surveys in 2014 to the submission of the DCO application, plus another three years to actually approve the application. This glacial pace grows the opportunity cost of delay, with Portishead residents waiting more than a decade before the line reopens in 2027. The delays in planning also meant that the line went through a period where it was threatened with cancellation due to Rachel Reeves scrapping the Restoring Your Railway Fund.

Heathrow's planning application alone for the third runway is expected to cost £800m. It cost less than half that, £366m inflation adjusted, to actually build Manchester's Runway 2, which is the most recent runway built in the UK.

The planning system for large projects needs to be simplified and sped up. The Planning Act 2008 was meant to do this by creating the DCO approval process and replacing increasingly years-long public inquiries. But in the years since, the average time for a decision to be made rose from 2.6 years in 2012 to 4.2 years in 2021.[8] Likewise, the amount of paperwork needed has grown from 381 documents per application in 2012 to 1,143 in 2020.

Some improvements to the process have been made within the Planning and Infrastructure Act 2025. For example, pre-application consultation requirements have been removed and national policy statements are required to be updated every five years. However, more needs to be done to fully make the DCO route a quick one-stop shop that will allow projects to gain all the permissions that they need quickly without suffering from gold-plated additional requirements.

8 Felicia Rankl, 'Planning for nationally significant infrastructure projects', House of Commons Library, July 2024. Link

Solutions

Amend Section 150 of the Planning Act 2008 to make a DCO a one-stop shop
The Planning Act 2008 was meant to create a one-stop shop for approving large projects. Section 150 is meant to allow a DCO to also include other consents or authorisations but only if the relevant body that would normally grant the consent agrees. Yet these bodies are unlikely to agree to this unless they've already done an internal approval process of the project, thus negating any speed and paperwork benefits.

For example, Sizewell C required 33 additional consents just for the main site, plus 84 additional consents for development that was associated with the project, such as rail improvements and link roads.[9] Each of these permits can take years to apply for and receive and if any permit is delayed, construction timelines can be thrown off. The permits also mean that activists who lost the main debate over whether to build the project can still add delay and cost by campaigning against and challenging each consent.

> **'Activists who lost the main debate over whether to build the project can still add delay and cost by campaigning against and challenging each consent'**

To get three permits from the Environment Agency, Sizewell C had to wait nearly three years, while the EA ran its own public consultation and compliance review.[10] Environmental campaigners who had already lost the fight over whether Sizewell C should be built when the DCO was granted, then objected to one of these permits to try to get an acoustic fish deterrent added, which would potentially add hundreds of millions to the cost of the project.[11] Even once this water discharge permit was granted, there are still 19 further pre-operational conditions that require EA approval before the plant can even be commissioned, so even granting the secondary permit does not mean the task is finished.

Amending Section 150 is the way to make the DCO the true be-all and end-all. The Secretary of State should still have due regard to comments from relevant bodies but ultimately will have the final say regarding both the DCO application and secondary consents that are required. This would allow the SoS to issue a DCO, which then resolves the secondary consent requirements.

Secondary legislation (The Infrastructure Planning (Interested Parties and Miscellaneous Prescribed Provisions) Regulations 2015) can then be updated to increase the number of consents that can be dealt with through the DCO process. This could include European Protected Species licences, land drainage consents, and street works licences for example.

9 EDF, '5.11 Schedule of Other Consents, Licences and Agreements', June 2021. Link

10 Environment Agency, 'Environmental permitting of Sizewell C: summary of decision', March 2023. Link

11 Environment Agency, 'Environmental permitting of NNB Generation Company (Sizewell C) Limited: Decision document: water discharge activities', March 2023. Link

Keep National Policy Statements up to date and streamlined

National Policy Statements (NPS) are the government guidelines that NSIPs are judged against. A failure to regularly update NPSs has historically caused delays in the examination process of an NSIP because outdated and ambiguously worded NPSs open the possibility of judicial review. The 2015 National Networks NPS, which applies to road and rail projects, was in place for nine years. The outdated NPS gave scope for an ultimately unsuccessful legal challenge to the A428 Black Cat to Caxton Gibbet scheme, which still delayed the start of construction by a year. This problem has mostly been resolved by the requirement to update NPSs every five years. However just the requirement to update does not mean that the updates will bring positive changes. The SoS should regularly update NPSs to both keep them in date and to streamline them to be solely focused on creating good value for money projects.

For example the current National Networks NPS requires a large number of bespoke plans and statements, which each become their own document or series of documents. Among 30 different major criteria, there are requirements for multiple Whole Life Carbon Assessments, a transport assessment plus a separate travel plan, flood risk assessments for any project no matter how risky the site is, and socio-economic impact assessments. Individually each of these may seem suitable, but together they have driven up the page count of applications into the tens or hundreds of thousands of pages.

The Government should review all existing NPSs to bring them up to date while also removing the significant number of additional impact assessments that NPSs require and limiting the length of the remaining assessments to only strictly necessary tasks. Any topic that is covered under the Environmental Impact Assessments should not require its own report. Each review should also justify why every information requirement is retained, which helps to avoid an upwards-only ratchet. Reviews should also enable written submissions from developers about both NPSs and the practice documents that structure how the DCO process occurs such as Planning Inspectorate advice notes.

> **‘Individually each of these policies may seem suitable, but together they have driven up the page count of applications into the tens or hundreds of thousands of pages’**

National Policy Statements should be exempt from judicial review if they receive a confirmatory vote in Parliament

There’s a strong chance that Heathrow Airport would have a third runway today if NPSs were exempt from judicial review. The Airports NPS (ANPS) was designated in June 2018 and supported a Heathrow third runway. Climate activists launched a legal challenge, which the courts took two and a half years to determine that the ANPS was valid. In that timespan, Heathrow could not submit a DCO application for a third runway, and by the time the legal challenges were done, travel had ground to a halt because of the pandemic. This is the clearest example of how slow planning processes create risks that a project will be harmed by global shocks, such as pandemics, wars, or inflationary pressures. The faster projects can go through planning and construction, the less exposed they are to these existential threats.

There is a way to solve the problem of judicial review of NPSs. Given that the Airports NPS was approved by the House of Commons 415 votes to 119, there was a democratic mandate behind it. If an NPS is approved by a Parliamentary vote, it should be exempt from being legally challenged. This could be done through amending Section 13 of the Planning Act 2008 or passing individual Acts tailored to each NPS.

> **'The faster projects can go through planning and construction, the less exposed they are to these existential threats'**

Allow for temporary use of common land during construction

DCOs can grant the power to compulsory purchase land, but they cannot enable the temporary use of common land, for example for construction work, even though this is a less severe intervention than compulsory purchase. To enable this, a separate consenting process is required, adding expense and delay. Curiously, Transport and Works Act Orders do not suffer from this problem as they allow both compulsory purchase and temporary use. Modifying section 139 of the Planning Act 2008 would solve this issue and make the staging of construction simpler.

3) Environmental and Habitats Regulations

Large infrastructure projects will inevitably impact the environment and it is only right that decision-makers seek to analyse these impacts before committing to construction. There are three main ways that these impacts are determined: Environmental Impact Assessments (EIAs), Habitats Regulations Assessments (HRAs), and Strategic Environmental Assessments (SEAs). This section will deal with the first two.

Environmental Impact Assessments (EIAs) were introduced in the UK in 1988. Initially these were relatively brief; 80% of EIAs were fewer than 100 pages. The Jubilee line extension's Environmental Statement (ES) in the early 1990s was less than 400 pages long.[12] However over the following four decades, EIAs have grown in scope, page count, and cost.

> **'The reopening of a 3.3 mile railway link to Portishead on a shuttered railway alignment required a 17,912 page Environmental Statement'**

The reopening of a 3.3 mile railway link to Portishead on a shuttered railway alignment required a 17,912 page Environmental Statement.[13] Laid end to end that's the same length as the railway itself. Within the statement there were 1,174 pages on bat technical appendices, 215 on newts, and 1,810 on vegetation management. Other large projects like Sizewell C and the Lower Thames Crossing have seen ES reach 40,000+ pages.

There are a couple of reasons why the EIA process has ballooned since its introduction. The first is that the requirements for EIAs have progressively expanded. Successive EU directives and court rulings have added to the depth and breadth of statements. They now must include analysis on climate change, alternatives, biodiversity, noise, and more. Most recently, the Supreme Court's ruling in the Finch decision expanded EIAs beyond simply the carbon emissions that their construction and operation will produce, but also carbon emissions that are downstream of their existence.[14]

At the core of this is poor and unclear legislative drafting that effectively copy-and-pasted EU directives into domestic law, which were not precisely worded. This has allowed for the accumulation of multiple legal challenges to expand what is needed

12 Mustafa Latif-Aramesh and Angus Walker, 'Fix planning and set Britain free to build again', The Telegraph, June 2023. Link

13 Ben Hopkinson, 'A train to nowhere?', Yes and Grow, August 2024. Link

14 Finch (Weald Action Group), R. (on the application of) v Surrey County Council & Ors [2024] UKSC 20 (20 June 2024)

within an EIA. The state of affairs has then been frozen in place by the withdrawal agreement with the EU, which requires that neither the UK nor the EU reduce their overall level of environmental protection in a manner that affects trade with the other party. Effectively, if the UK were to reduce its environmental regulation, it would become a more attractive place for investment, which may rob the EU of some investment. The non-regression clause is meant to avoid that, and through the addition into primary legislation, risks locking the UK into long and expensive EIAs.

The second cause of the expansion of EIAs is defensive drafting. MHCLG has previously stated that the fear of legal challenge is driving a risk-averse approach to EIAs, as producing large volumes of work mitigates the potential risk of a judicial review.[15]

> **‘The infamous £216m bat tunnel on HS2 and the £700m Hinkley Point C expects to spend on fish mitigations, including the fish disco auditory deterrent, were both caused by the Habitats Regulations’**

EIAs sit alongside the Habitats Regulations, which are originally from an EU directive. While EIA acts as an information gathering exercise, Habitats Regulations Assessments involve the deciding authority confirming that the project will not adversely affect the integrity of a protected site. The infamous £216m bat tunnel on HS2 and the £700m Hinkley Point C expects to spend on fish mitigations, including the fish disco auditory deterrent, were both caused by the Habitats Regulations. While EIAs have the potential to weigh tradeoffs, the Habitats Regulations mean that the possibility of harm to protected species or areas can block a project, even if that harm is outweighed by the economic interest of the country.

The Habitats Regulations also suffer from the difficulty of making alternative off-site compensation for impacts. They are heavily biased towards on-site mitigation, even if off-site compensation could strategically provide better protection for species.

It is important to remember that the UK is one of the most nature depleted countries on the planet. Key biodiversity indicators, like farmland birds and insect life, are in decline.[16] Clearly the current set-up is not working at protecting nature, and by placing the weight on discouraging development instead of targeting the biggest existing polluters, it risks slowing down Britain’s growth without actually helping nature significantly.

15 Ministry of Housing, Communities and Local Government, ‘Environmental outcomes Report: a new approach to environmental assessment’, March 2026. Link

16 Britain Remade, ‘How to get Habitats Regulations right’, September 2024. Link

Solutions

Amend the Levelling-up and Regeneration Act 2023 to remove the non-regression commitment

For the last Conservative Government, Environmental Outcomes Reports (EORs) were a key component of shifting the burden from tens of thousands of pages spent on studying environmental impacts to hundreds of pages specifying the positive outcomes to the environment that a project could have. The current government is still committed to introducing EORs within the next two years. However EORs will not reduce the burden on projects. In fact, under LURA 2023, they are legally not permitted to lead to a lowering of environmental standards.

Section 156 of LURA 2023 specifically prohibits EORs from causing environmental law to reduce the overall level of environmental protection in English law. This goes further than just the Trade and Cooperation Agreement with the EU as it does not include the caveat restricting it to trade and investment and is vaguely worded about 'the overall level of environmental protection.'

Fundamentally any reform that lowers the large burden the Environmental Impact Assessments bring will be legally contentious because of this vague and undefined non-regression principle. To open up a course of reform, this section will have to be removed by future legislation. This will be contentious with the European Union as the non-regression principle was an outcome of the exit deal. But freezing our environmental laws in the status quo is a large burden and prevents the potential win-win changes that environmental reform can open up with lowered burdens and targeted compensation.

> **'Any reform that lowers the large burden the Environmental Impact Assessments bring will be legally contentious because of this vague and undefined non-regression principle'**

Re-weight the balance of the Habitats Regulations from developers proving negatives to Natural England proving positives, with a minister deciding if the developer has completed enough mitigation or compensation

One of the big challenges with the current drafting of environmental legislation is that it requires developers to prove negatives. So for example, regulation 55 of The Conservation of Habitats and Species Regulations 2017 states that the relevant licensing body must not grant a licence unless it is satisfied that there is no satisfactory alternative and that the action authorised will not be detrimental to maintaining the conservation status of protected species.

Under this burden, developers have to prove that every single alternative is not satisfactory. If unchecked, proving that is an infinite burden as there will always be possible alternatives that can be investigated. Likewise, proving that something will not be detrimental is a much higher evidentiary bar than Natural England having to prove that something is detrimental.

This negative burden of proof on developers occurs throughout environmental law and is a core reason why page counts and costs are rising. This form of drafting also allows for courts to interpret the law in ways that expand the requirements on developers to prove something will not happen.

There is a solution. Primary legislation should be prepared before the next election to flip the burden of proof from a developer proving a negative to the relevant authority proving a positive. Early within the pre-application process, Natural England should provide a list of significant harms to nature from the project. If Natural England, or another relevant authority, cannot prove that a development causes significant harm, then the development should be allowed to go ahead. At the same time, Natural England should receive additional funding to carry out these duties, which could be raised through levies on all applications.

This would involve changing regulations 55(9) and 63(5) of the Habitats Regulations among others. There should also be a provision to the effect that should the relevant body not make a decision within a certain time period, then the provision will be automatically approved. This functions as a backstop to ensure that the process is continually moving forward.

Once Natural England identifies risks, the developer will then have to develop a suitable avoidance, mitigation and compensation plan. The next government should legislate to give the final say over whether such a plan is appropriate to the relevant minister, with advice from Natural England.

This solution would prevent Natural England from blocking new infrastructure on the basis of hypothetical and unquantified risks and give ministers the final say over whether a project harms the natural environment and if the proposed solutions are adequate.

> **‘Primary legislation should be prepared before the next election to flip the burden of proof from a developer proving a negative to the relevant authority proving a positive’**

Remove biodiversity net gain requirements for Nationally Significant Infrastructure Projects or, at a minimum, loosen the spatial risk multiplier

Biodiversity net gain will be introduced to Nationally Significant Infrastructure Projects (NSIPs) in November of this year. This will further add to the survey and paperwork burden ahead of an application, while also imposing reporting costs on NSIPs. This change should be reversed.

If this is too politically costly, the spatial risk multiplier should be loosened.[17] This would mean that developers would have the option to provide compensation measures where it made the most sense, not necessarily within the local authority that the project is in. For inner city projects, funding BNG commitments within the local authority can be expensive and is less flexible than funding projects within the countryside. Biodiversity is of a country-wide concern, so improvements across the country should count equally, instead of the current discount system where improvements outside of the local authority and its neighbours only count for half.

17 Department for Environment, Food, and Rural Affairs, ‘The Statutory Biodiversity Metric’, June 2026. Link

Legislate to specify exactly what is needed within an Environmental Impact Assessment with a fast-track for environmentally beneficial projects like public transport

The main issue with Environmental Impact Assessments is that the underlying legislation is vague about what needs to actually be included. This has allowed successive court rulings to expand what is required. It also means developers are uncertain about what is required of them, leading to extra defensive paperwork.

To solve this, EIA Regulations should be clearer about what specifically is required. This could include a principle of proportionality and specifically state what is not required, such as a focus on downstream emissions.

It is important that this primary legislation also include Henry VIII clauses to allow the relevant minister to quickly make secondary legislation to clarify any issues that the courts find with the drafting.

There should also be a fast-track for projects that clearly will have a positive impact on the overall environment, such as public transport and nuclear power. This could involve specifically exempting them from certain requirements or an acknowledgement that local, negative environmental impacts will be outweighed by significant environmental gains across the country.

> **'The main issue with Environmental Impact Assessments is that the underlying legislation is vague about what needs to actually be included'**

Restructure the mitigation hierarchy

Currently both the National Planning Policy Framework and Natural England's guidance introduce a mitigation hierarchy where environmental impacts must be avoided first, then mitigated, and only as a last resort can they be compensated for. As a result, for large infrastructure projects there is significant expense and delay associated with determining to what extent impacts can be avoided or mitigated, and at what cost. A more level approach that allows for larger compensation to be paid in the first instance, rather than having delaying debate, would drive better overall outcomes for nature, while also providing certainty and speed for the development of new infrastructure.

Introduce a de minimis exception

Across an array of areas in English law, the de minimis principle is used to prevent trivial adverse impacts causing delay and cost increases on infrastructure projects. This, however, is not the case for nature and habitat related issues. A recently planned wind farm had to be scaled back by 40% because of the risk that the turbines 'might' cause a single death of a particular bird species per year.[18]

The lack of a de minimis exception means that many projects have to satisfy the tests of no alternative, imperative reasons of over-riding public interest and the requirement to provide compensation. All of this is disproportionate and costly when the impacts are minor. The next government needs to introduce a de minimis

18 Catherine Howard, 'Project Nutcracker: the Secret Ecologists Speak', Herbert Smith Freehills Kramer, June 2025. Link

exception for nature and habitat related impacts to clarify that minor negative impacts below a certain threshold do not need to be analysed and mitigated through the current Habitats Regulation system.

> **'A recently planned wind farm had to be scaled back by 40% because of the risk that the turbines 'might' cause a single death of a particular bird species per year'**

Allow for local variation in the level of detail of Environmental Impact Assessments
One of the reasons that Madrid was able to go from design to completion of entire metro lines within four year timespans was that the regional government was able to pass a law that provided for expedited Environmental Impact Assessments for certain classes of projects. Given that mass transit within a built up area will be better for the environment than road based transport that it replaces, the Madrid regional legislature allowed for fast track processes. As a result, processes that take tens of thousands of pages in Britain, were completed in fewer than 100 pages and the projects were able to be built in less time.

Britain could adopt a similar flexibility by granting mayors the ability to fast track certain types of projects should they desire. Mayors then could set the framework for what level of assessment and protections they wanted to see in a project, knowing that their voters have a strong interest in protecting their local environment and also delivering the project. This would go alongside the devolution of approving Transport and Works Act Orders mentioned in Section 9.

4) Judicial Review

The decision to approve major infrastructure projects can be legally challenged by individuals or activist campaign groups. These challenges are growing in number. From 2008 to 2018 there were 11 legal reviews of Nationally Significant Infrastructure Projects (NSIPs), or about one per year. Between 2019 and 2024 there were 24 legal challenges, or four per year.

Of at least 36 legal challenges to the granting of a DCO, only four have led to the re-determination of the DCO. Of these four cases (Norfolk Vanguard, A303 Stonehenge, Manston Airport, and A38 Derby Junctions), all four re-received a DCO after their re-determination. Despite their low rate of even forcing a re-determination and complete failure to ever permanently block a project, legal challenges can still significantly harm new infrastructure development by causing delays, uncertainty and increased construction costs.

‘Of at least 36 legal challenges to the granting of a Development Consent Order, only four have led to the re-determination of the DCO’

National Highways estimates that a judicial review can raise the cost of a highway project by more than £120m. The cost impacts come not just from the legal fees involved in fighting a legal challenge, but also from the difficulty in actually scheduling construction work. A project runs the risk of either having to demobilise their construction crew or hold off starting to actually plan construction timelines until all legal challenges have been defeated.

Then there is the chilling effect that legal challenges have on future projects. A potential investor seeing Manston Airport face a four year delay over legal wrangling is deterred from future involvement in UK infrastructure. Finally, there is the opportunity cost of waiting for beneficial infrastructure to actually open. A year spent fighting a legal challenge means an additional year that Britain must have to wait before it can benefit from new infrastructure.

One of the major drivers of legal challenges is the Aarhus Convention. This is an international convention to encourage access to environmental justice. One component of the convention is that pursuing legal challenges must not be prohibitively expensive for individuals or environmental campaigns. The way that the UK has implemented this means that the costs that losing sides pay is capped.

The principle that the losing party pays the legal costs of the winner in English law dates back to 1278, yet the UK’s implementation of the Aarhus Convention caps the liability of individuals at £5,000 and groups at £10,000 for cases including legal challenges to large infrastructure projects on environmental grounds. In an age of online

crowdfunding, these low limits are easily met, which makes legal challenges easier to launch, which will cost the taxpayer or developer potentially hundreds of millions. That means that activists, who have failed to block a project through its rigorous and democratic DCO process can still add vast sums on to the project cost fighting low-hope legal challenges with minimal personal downside. Even if they fail to win a legal challenge, the ability to launch one has a chilling effect on future projects. The mere possibility of a legal challenge can lead to mountains of expensive, defensive paperwork, additional environmental surveys, and extra consultations beyond what is proportionate.

There have been reforms to judicial review, which originated when the Conservative Government launched the Banner review. The main impacts of this, legislated for in the Planning and Infrastructure Act 2025, were to reduce the three stages at which a judicial review could be successful to two in most cases and one if the claim is deemed hopeless.

The Government is also looking at implementing a parliamentary authorisation mechanism for critical energy projects where an act of Parliament would exempt a project from judicial review. There is also a potential challenge window, where any legal challenges against a draft decision could be addressed before a final DCO is granted. Both of these are worthwhile reforms and should be supported and taken forward.

‘National Highways estimates that a judicial review can raise the cost of a highway project by more than £120m’

Solutions

While recent reform has been focused on lowering the time it takes to handle frivolous legal challenges, the reforms have failed to correctly handle the incentives at play for the different individuals and groups involved. Activist campaigners can still bring legal challenges and be almost entirely insulated from the significant costs of doing so. To further reduce the likelihood of legal challenges that can cost hundreds of millions, the Government has several options.

The first three options deal with the Aarhus cost caps, escalating from minor reform to leaving the treaty outright. While the final three options are not related to Aarhus.

Raise cost caps

The simplest reform would be to raise the cost caps applied to Aarhus cases. Currently these sit at just £5,000 for individuals and £10,000 for groups. Given that a legal challenge can raise total project costs by hundreds of millions, one unsuccessful litigant can cause 20,000 times more cost to the project than the project can recoup from the individual. The cost caps could be raised through statutory instruments to perhaps £100,000. At the same time, cost caps that limit how much successful environmental activists get if they win their legal challenge could be raised from £35,000 to over £350,000 too. That would mean environmental activists with a high probability of success would gain from such a change while activists pursuing frivolous legal challenges would bear a fuller weight of the costs that they impose on projects. This also would better help compensate projects who have to fight these low-hope legal challenges.

Move to Norwegian settlement on the loser pays principle
Norway is also a signatory to the Aarhus Convention, but it has maintained the loser pays principle, which the UK has dropped. Norway can do this because, like the UK, it is not subject to the Court of Justice of the European Union (CJEU). The CJEU is the teeth behind the Aarhus Convention because of its incorporation into EU law. Non-EU parties are only enforced by the non-binding Aarhus Convention Compliance Committee (ACCC). Norway demonstrates that a developed democracy can maintain loser-pays while still being a member of the Aarhus Convention without being forced to change. As mentioned above, the loser pays principle is vitally important to ensuring that activist campaigners cannot wage expensive legal warfare while being insulated from the expensive implications it has for new infrastructure projects.

The UK could use the Norwegian approach, and similarly revert to standard loser pays principles without cost caps. The ACCC would likely rule against the UK, but this would solely be advisory rather than binding, and could be ignored given the stakes of building nationally important infrastructure.

Leave Aarhus
Perhaps the cleanest solution would be to simply leave the Aarhus Convention. Aarhus, as implemented, has sat awkwardly atop England's common-law costs regime. The cost caps have hollowed out the deterrent that loser-pays once provided against weak, tactical or vexatious challenges to vital infrastructure. The regime has encouraged serial litigation with campaigners mounting challenge after challenge with little chance of legal victory but with the possibility of damaging the financial viability of projects through the addition of extra paperwork and the pauses in construction while a legal challenge is resolved.

The Aarhus Convention can be seen as an aberration against the long history of English common law. The legal system had perfected access to justice while balancing competing claims. Aarhus has disrupted this balance, leading to activist capture of the legal system and increased construction costs. The purest answer to the challenge of Aarhus would be simply to leave the convention.

> **'The cost caps have hollowed out the deterrent that loser-pays once provided against weak, tactical or vexatious challenges to vital infrastructure'**

Additional policies

The following three policies can be done with or without touching Aarhus related cost caps. They should be taken forward.

Indemnify all NSIPs against any damages they incur as a result of proceeding with their project while a judicial review is being decided
Currently, an NSIP developer faces a dilemma when a legal challenge is lodged. They can either pause works until the challenge resolves or proceed 'at risk'. The former increases delays, financing costs, and supply chain disruption. The latter exposes the developer to abortive costs, reinstatement liabilities, and contractual breaches if the DCO is later quashed. As a result, most developers proceed cautiously or pause, because the downside of starting construction that gets unwound is severe.

The government should step in and indemnify NSIPs against damages they incur as a result of proceeding with their project should the DCO be overturned. This would allow construction to start as soon as a DCO is granted, as developers would be confident that they faced low risk from potential legal challenges. Given that no legal challenges have ever resulted in a project not going ahead, this is unlikely to be used often, but the indemnity protects developers from tail risk that they otherwise would not have been confident to take on. The indemnity could be partially funded through a fee on all successful NSIPs.

The proposal to indemnify nuclear plants against the costs of an overturned DCO was included within the landmark Fingleton Review into nuclear costs. This proposal expands the remit beyond nuclear plants to cover all NSIPs.

> **'This would allow construction to start as soon as a DCO is granted, as developers would be confident that they faced low risk from potential legal challenges'**

Pass quick Acts of Parliament for the most controversial infrastructure projects exempting them from judicial review

A major infrastructure project should be able to request a confirmatory Act of Parliament to confirm its Development Consent Order. Such a confirmatory Act should protect the project from legal challenges given the sovereignty of Parliament. This would likely be used for the most significant projects that are at risk of legal challenges, such as Heathrow's third runway and new gas-fired power stations.

The current government is taking this idea forward, but there is a risk that they add needless parliamentary process, which risks further slowing down decision making. There is also a risk that they add a carve-out for human rights legal challenges, an area in which Parliament is ordinarily exempt from because of Parliamentary sovereignty. The way this solution is implemented therefore risks slowing down approvals and still leaving a window open for expensive and delaying legal challenges.

Issue draft DCO decisions with the opportunity to amend

In the weeks before leaving the role of Chancellor, Rachel Reeves announced plans for a challenge window.[19] The relevant Secretary of State would publish a draft decision. This would open up a fixed, six week time period for any legal claims. The difference would be that after this period, the SoS would have an opportunity to consider and address the issues that were raised before issuing a final DCO. Any legal challenges on issues not raised during the challenge window would be thrown out. This helps to expose and address legitimate issues earlier, and then gives developers greater confidence that a DCO will hold.

Given the change in ministry, it is unclear whether this policy will be implemented. Given that this will help to lower the risk of judicial reviews while making sure that each DCO decision is rigorous, it should be implemented.

19 UK Government, 'Getting Britain Building: Reforming Judicial Review for Infrastructure', May 2026. Link

5) Funding

Most transit projects in the UK receive most of their funding from the Treasury. Naturally, the Treasury is incentivised to make sure that the money it devotes towards building infrastructure projects is well-spent. As a result, each project has to fill out several business cases and is liable to be cancelled should the Treasury conclude that cost overruns are likely.

The issue is that this set up does not incentivise cost control. The Treasury is aware that once it agrees to hand over the money to build, it has limited options to encourage sensible use of that money, short of pulling the plug on the whole project, which is reputationally costly to the Treasury itself. This encourages proceduralism and reticence to commit to fund projects. Meanwhile, it also encourages local promoters to be more optimistic in their bids to encourage better Benefit Cost Ratios. Once the promoter receives the commitment from the Treasury, there are limited incentives for them to spend it frugally because they do not bear the political cost of raising the money, but they do bear the political cost of choosing not to gold-plate the scheme with fancier stations, faster speeds, or higher capacity. Each of those clearly makes the scheme better, but it also makes the scheme more expensive. A local promoter receiving money from the Treasury does not have incentives to make trade-offs between cost and features.

‘A local promoter receiving money from the Treasury does not have incentives to make trade-offs between cost and features’

When the UK went through its rail, underground and tram building boom in the 19th and early 20th century, all of the projects were funded either by private companies or by local governments. Both private companies and local governments have stronger cost control incentives because either it is their profit margin, or their local voters will care about how their money is being spent on one particular project within their local area. A local transit project can be a defining issue in a local or mayoral election, while a single local transit project will never be the defining issue in a general election.

There have been some projects recently that have received significant local funding. The Elizabeth Line was partially funded through a Business Rates Supplement (BRS) and the Northern line extension was funded through a combination of direct developer contributions and incremental business rates from the regeneration of the Battersea Power Station and surrounding area. However the BRS powers have only been used once because other metro mayors have not been granted the ability and they require a referendum. The Leeds tram, for example, is being funded primarily by a £2.1bn grant from the Treasury.

Other countries that deliver infrastructure for cheaper have more localised systems of funding. Madrid funded its metro extensions at the regional level through taxes that they retained, such as part of income taxes and VAT. French mayors fund their tram projects with the Versement Mobilité, an employer's payroll tax that local governments can choose to impose. Both of these systems force the regional and local government to bear the political pain of raising taxes, which then incentivises more prudent handling of project scope and operations.

> **'Mayors should be the focal point for the delivery of local infrastructure. They have strong political incentives to deliver projects quickly and cheaply'**

Solutions

Devolve funding powers to metro mayors
Mayors should be the focal point for the delivery of local infrastructure. If empowered to fund, approve, and deliver infrastructure projects, they have strong political incentives to deliver projects quickly and cheaply. This is seen in both Madrid and in French cities. Politicians will run on pledges to build infrastructure and then have the power to build. The elected leaders know that voters will judge them at the next election if they fail to deliver or if the budget is blown, so they become champions both of building and building cheaply.

The exact mechanism of funding can vary, and it is in the interest of the country to have some level of experimentation by different mayors to determine which funding mechanism works best for different circumstances. The newly implemented tourism levy will help in this regard, while options for mayors to collect portions of the income tax or national insurance raised within their region would also help. For example, allowing the Mayor of London to choose to raise 1p of income tax to spend on infrastructure would raise about £2.5bn a year. That would be enough to capitalise £40-50bn worth of infrastructure funding over a 30 year time horizon, or enough to build two additional Crossrails based on the Elizabeth Line's cost.

The important mechanism here is that it must be solely the responsibility of mayors to choose to levy or not levy this portion of tax. If tax receipts that are raised by the Treasury are merely given to mayors to spend, the political incentives to make trade-offs and spend wisely are weakened.

Allow the retention of 100% of additional business rates around a new transit line
The retention of additional business rates raised around £740m for the Northern line extension, which equates to roughly 75% of the total funding.[20] This was enabled by the creation of an enterprise zone by the Treasury, which benefitted from the Battersea Power Station regeneration. However, repeating this process for other transport projects is completely dependent on the support of central government and is subject to its timelines and decisions.

The power to create an Enterprise zone alongside a new locally funded mass transit route should be devolved to mayors. This would allow mayors and local authorities the ability to capture 100% of additional business rates generated by new development around transit lines. This provides both a regular funding stream

20 Transport for London, 'Northern line extension FOI-1356-2122', October 2021. Link

for projects and also strong incentives for mayors and local authorities to approve new development around the transport line. These cases should be exempt from business rates resets, which alter business rates retention to redistribute revenue from wealthier councils to more deprived councils. These resets weaken the incentive to approve new development as a potentially large portion of the uplift is pooled to be sent to other councils.

Introduce the infrastructure levy and shift contributions from social housing towards funding infrastructure

When a new development goes ahead, it naturally brings more people into a local area, which puts more strain on the local infrastructure. It is fair that the new development contributes towards improving the infrastructure to mitigate against these negative impacts.

The infrastructure levy (IL) was designed to do that and was legislated for by the previous Conservative government, but has not been implemented by the current Labour government. It was going to replace the existing long and uncertain Section 106 negotiations and Community Infrastructure Levy. A future government should consider introducing the IL and encouraging the proceeds to be spent by mayors and local authorities on improving and building new infrastructure. This will necessitate a lower provision of subsidised housing, but that's a tradeoff that ought to be made given the growth-boosting impacts of new infrastructure.

> **'The infrastructure levy was legislated for by the previous Conservative government, but has not been implemented by the current Labour government'**

Remove the cap of 500 homes on infrastructure projects to open up a new revenue stream

When the Metropolitan Railway, now part of the Underground, was expanding it commercially acquired and developed land near its railway lines to form Metro-land. Instead of just relying on fares from existing towns to make a profit, the railway sold land and created new demand.

The Housing and Planning Act 2016 included measures to allow housing to be consented as part of a nationally significant infrastructure project (NSIP). However, ministerial guidance limited this power to just 500 homes.[21] This power has only been used once, by the Lower Thames Crossing to relocate a traveller's site in Thurrock. Yet, if the cap on homes was lifted, this legislation has the immense potential to fund infrastructure projects through the construction of homes and new towns.

The Housing Secretary could easily issue ministerial guidance to scrap the 500 home limit. This would allow homes to be delivered alongside infrastructure, and in turn help fund construction. This power would be especially useful for new transit lines like East West Rail, the planned line to connect Cambridge and Oxford. Homes could be built alongside the new tracks, helping fund the project and provide riders for the new rail line.

21 Department for Communities and Local Government, 'Planning Act 2008: Guidance on Nationally Significant Infrastructure Projects and Housing', March 2017. Link

6) Procurement

To build a major infrastructure project, many suppliers and contractors will need to be hired to deliver. To arrange these contractors, the government launches procurement processes where bids are ranked and winners are selected.

The best procurement process is one that happens seamlessly and is not reported on. Unfortunately for the UK there have been many incidents of procurement failure. The most notable of the past decade was the collapse of construction company Carillion, which left large infrastructure projects like HS2 out of pocket. The project continued to enter into new contracts with Carillion even after a profit warning was announced because the procuring function lacked visibility of the financial exposure of the group. When Carillion collapsed, HS2 had to renegotiate contracts and pause some ongoing work.

The Edinburgh Trams project rushed its procurement process and spent a large portion of the process either without legal advice or completely reliant on a junior lawyer. As a result, the team of generalists did not have a good grasp of the contracts that they were signing, which were then highly beneficial to the contractors. When disputes later surfaced around these contracts, work stopped on site, resulting in a settlement paid to the contractors, a higher fixed price, and reducing the length of the line by 3 miles.

A well-designed procurement process will leverage competition and the private sector to deliver projects cheaply and efficiently. The Transit Costs Project has highlighted successful procurement processes in Madrid, Istanbul, and Italy. In each of these cases, the government advanced the design far enough to de-risk the project from a contractor's perspective. When there are still large, unanswered political questions about a project, contractors will naturally include a large risk premium. Attempts to force the private sector to swallow this risk premium will fail as contractors will not want to be left out to dry should the government change its mind.

'The best procurement process is one that happens seamlessly and is not reported on'

Solutions

Create a competent client

This point relates to Section 8 on Civil Service effectiveness. Presently, procurement is often outsourced to consultants who likely are not strongly incentivised to deliver quickly or with the best value for money. For example, the Small Modular Reactor competition, which Rolls-Royce won, took over two years to decide on Rolls-Royce, which was an outcome that could have easily been predicted beforehand. In total, £22m was spent on this procurement, of which £19.78m went to Deloitte and Arup.

Alongside the proposed engineering unit, there should be in-house legal specialists who have procurement contract experience. They ought to work with the in-house engineers to draft contracts and also cultivate experience managing contracts over their lifespan to retain knowledge about contract specifics, similar to how private companies will have teams that manage specific contracts.

This team can then be placed on major projects in order to oversee the procurement and manage the contracts. Similar to the engineering unit proposal, there should be options for this unit to operate outside of existing Civil Service pay and promotion criteria in order to recruit the best talent and ensure that the talent stays within the client.

Scrap social value procurement

Social value procurement is a direct result of the Public Services (Social Value) Act 2012. This set a minimum 10% weighting for social value in central government tenders, with some local authorities choosing to implement up to 30% of the weighting towards social value.

In practice, social value procurement is a pernicious case of everythingism, where the procurement is not just about finding the best value supplier for a specific task, but instead is attempting to solve every national objective at the same time.[22] This has led to perverse outcomes. For example, to win the recent Small Modular Reactor procurement bid, companies such as Rolls-Royce had to demonstrate how they were going to have a 50-50 gender balance, not just within its company, but also within its entire supply chain. It also had to demonstrate how it was going to employ people seeking asylum.

Andy Burnham is planning on increasing the weight of social value to 20% within procurements, while at the same time reducing the scope to six criteria.[23] It is too early to see if this is an improvement over the current system, but increasing the weight is far easier to do than maintaining a streamlined scope of solely restricted to the provision of their six chosen criteria.

Social value criteria are often gamed by larger providers, who will have whole teams experienced with the intricacies of this procurement method. This comes at the cost of new or smaller firms who cannot afford to staff teams dedicated solely to demonstrating social value.

Anything that a contractor does to win on social value that they would not have done otherwise will result in a higher cost to the project, and a less competitive procurement environment.

The next Government should commit to scrapping social value procurement and move to a simple message of getting the best value for taxpayers. This should be combined with updating the National Procurement Policy Statement to only focus on value for money and not the variety of other policy goals that the Government hopes to achieve.

22 Joe Hill, 'Everythingism: an essay', Re:State, March 2025. Link

23 Cabinet Office, 'PPN 026: The Social Value Model', August 2026. Link

Scrap cost-plus contracting and balance contracts towards government bearing the risk when there are still decisions that government needs to make
Cost-plus contracting involves the government paying a firm's evidenced costs plus an agreed mark-up for allowed profit. There may also be add-ons such as a bonus/malus system with extra rewards for cheaper delivery and penalties for more expensive delivery. It is typically used when there is uncertainty about how long and costly it will be to deliver a project. The problem is that cost-plus contracting has very limited incentives for a contractor to control expenditure as their level of profit is based on the level of cost that they can pass to government.

There is also the challenge of government letting contracts out to tender when significant decisions have yet to be made. For example, the DfT entered into a contract to buy electric trains for the Great Western Mainline before they had actually planned out the electrification timeline. As a result, firms will naturally charge a higher price because of the risk involved and the government then struggles to arrange construction around the disjointed procurement timelines they have agreed.

> **'The problem is that cost-plus contracting has very limited incentives for a contractor to control expenditure as their level of profit is based on the level of cost that they can pass to government'**

Allow civil servants to analyse past performance as part of procurement
One of the issues with the pre-Procurement Act 2023 process was looking at past performance of contractors was discouraged within the procurement process. The Procurement Act 2023 introduced a centrally-managed debarment list maintained by the Cabinet Office and allowed for exclusion based on poor past performance which helped resolve the negative risk of poor past performance. But the other side of the coin, rewarding successful past performance in future procurements has not been resolved.

A future procurement act could introduce a framework to give suppliers a boost in future procurements if they overperformed KPIs and budgets in previous work, either with the UK government or on similar projects elsewhere. This would provide a positive incentive for contractors to deliver, and then be rewarded in future contracts. Contracting on the successful Madrid Metro expansions explicitly weighted past performance and the technical metrics of a bid as 50% of the overall criteria. We should be similarly rewarding past performance.

Contracts should be broken up into more manageable sections to promote competition
There will be calls to spend an explicit percentage of spend on small business. These calls must be resisted on pure value for money grounds. Instead there are opportunities to divide projects up into more manageable sections to promote competition and the possibility of success for smaller businesses.

As the chief engineer of the Madrid Metro expansion pointed out, transport projects are definitionally linear in nature. A line can easily be divided into smaller, more manageable sections, each of which can be contracted out. Madrid aimed for contracts of around 150-200 million euros. These were then also easier to oversee by civil servants and less contentious. Relying on one constructor or consortium for the entire line puts all of the project's eggs in one basket, risking shutting down the entire project should an issue arise.

This way of contracting also enables the ability to specify target prices for tunnels, and easily measure which teams are meeting that standard. Monitoring how many millions of pounds are spent per 100 metres of tunnelling then becomes easier. That allows project managers to see which teams are performing well and learn lessons from them. This target can also be worked into contracts and is useful for future projects as a benchmarking exercise.

It is better to diversify the risk between smaller contracts so that if one contract should fail, one of the more successful teams can be brought in to alleviate the problem, rather than have the entire project shut down as arbitration occurs, which happened with the first phase of Edinburgh's trams.

> **'Relying on one constructor or consortium for the entire line puts all of the project's eggs in one basket, risking shutting down the entire project should an issue arise'**

Avoid a narrow focus on lowest cost as the primary determinant of procurement
Focusing too much on procuring the lowest cost bid has an unintended consequence of raising construction costs overall. When the competition on price is front-loaded, there are strong incentives for contractors to artificially lower their prices in order to win the bid, with the hope of them raising prices once they've won the contract and no longer face price competition. This can be done through change orders, and notably happened during the first phase of the Edinburgh Trams project.[24] After a contractor was secured, they attempted to raise prices which was allowed by a lack of a competent Civil Service client. The project eventually ended up in a mediation with work ceased as arguments over increasing the contract price further ground on. This raised the eventual cost by far more than any of the initial savings would have been.

The Madrid Metro project offers a useful guide to successful procurement. Manuel Melis Maynar, the chief engineer, highlighted that the breakdown in evaluation between tenders was 30% on cost, 20% on time, and 50% on the technical merits of the proposals and past performance.[25]

This balance encourages cost and time to be main considerations, but also has balances for engineering capacity, which helps to ensure higher quality delivery that will stand the test of time. Future British projects should adopt a similar approach.

Update the National Procurement Policy Statement
The National Procurement Policy Statement (NPPS) lays out the Government's strategic approach to procurement. The current 2025 NPPS is focused around the delivery of the Labour Government's five missions and also has creating social value as one of its main priorities. Within that priority, there are 16 sub-priorities for procuring bodies. The NPPS should be simplified to solely focus on creating value for money for the taxpayer over the duration of any contracts that the government enters into and the lifespan of any asset that the government seeks to build or buy.

24 Ben Hopkinson, 'Hell on wheels: the Edinburgh Trams Story', Yes and Grow, October 2023. Link

25 Manuel Melis Maynar, 'Introduction: Madrid Metro and Railway Infrastructure 1995-2003', Tunnel Builder, March 2003. Link

7) Regulation

Regulations in the UK are often made by quangos and arms length bodies, which do not have strong incentives to consider the impacts of regulations beyond their specific area of expertise. As a result, regulations around construction can be overly burdensome and disproportionately raise costs.

Given that just the catalogue of Network Rail Standards, which lists all of the different policies and regulations, runs to 220 pages, the specific content of standards is outside the scope of this report.[26] Rather, this section will cover how to shape the incentives for reform and rationalisation around our approach to regulation.

At the forefront of this must be a desire to learn best practice from countries that deliver infrastructure for less than the UK. That will mean learning from Norwegian tunnelling, continental tram building, and Spanish metro construction. Then there will have to be incentives for individuals and businesses to challenge overly burdensome regulation and get rewarded for changes that arise. Network Rail already has the Standards Challenge, which has allowed 70% of challenges to regulation to lead to a modification of the standards. This should be expanded with new incentives and also apply to National Highways.

Finally, there are opportunities to change the incentives around dealing with utilities. Currently utility companies have strong incentives to push for every pipe and wire to be moved because the project pays the vast majority of the costs. Rebalancing the costs provides the opportunity to only move the utilities that actually prevent the construction and operation of new transport projects.

‘Network Rail already has the Standards Challenge, which has allowed 70% of challenges to regulation to lead to a modification of the standards’

Solutions

Expand the Network Rail Standards Challenge
Network Rail has operated its standards challenge for nearly a decade, which allows any supplier or internal employee to challenge a standard that they think drives increased cost without a comparable benefit. Around 70% of the challenges have resulted in an agreement being reached to modify the standard.[27]

There should be a reward for successfully challenging standards, set at 5% of the expected savings. This will incentivise employees and suppliers to challenge standards that have driven an increase in the cost of delivery.

26 Network Rail, ‘Catalogue of Network Rail Standards’, June 2022. Link

27 Network Rail, ‘We’re encouraging contractors, suppliers and stakeholders to propose changes to our standards’, August 2026. Link

These challenges should also explicitly allow for international comparisons to countries that have a track record of delivering infrastructure for less money, such as Spain, Italy, and France. If there exists a more permissive similar standard, that should be adopted.

Finally, the standard challenge should be expanded to National Highways too, which will allow for expensive and inefficient road standards to be challenged as well. The standards challenge could also apply to general DfT policy too if it appreciably adds to construction costs.

> **‘There should be a reward for successfully challenging standards that drive increased cost without a comparable benefit, set at 5% of the expected savings’**

Create a national tram standard

Due to Britain not building tram networks often enough and failing to capture lessons across different projects, each British tramway has its own standards. These dictate features like platform height, turning radius, and operational concerns. This limits knowledge sharing, and requires each tram project to start from scratch on engineering and design work.

Germany, which builds tramways for the lowest cost of any European country, has a better approach.[28] The Association of German Transport Companies (VDV) specifies standards within their VDV Blue Books. These complement the German Government’s Tram Construction and Operating Regulations (BOStrab). Taken together, these form common standards that are shared between different systems, which helps to drive economies of scale and knowledge sharing.

Britain should take a similar approach. Working within the Engineering Unit, proposed in section eight, there should be a national set of standards for new tram construction, modelled off the German approach. A common standard for new trams would lower design and engineering costs for future projects, while encouraging the sharing of knowledge between different projects and cities.

Changes to utilities

New infrastructure projects, like trams and light rail, have to move nearly all of the below street utilities, which can be up to a third of the installation costs. Britain moves more utilities than continental countries or America. One tram promoter that the author has spoken to suggested that they thought their city was building a new tramline, but actually it ended up building a new utility network.

There are two significant reasons for this. The first is the Highway Authorities and Utilities Committee (HAUC) has written guidance that establishes a default position that all utilities should be moved. The second is that promoters of schemes have to pay 92.5% of the cost of moving utilities, while the rest is covered by the utility companies. Given that utility companies only cover 7.5% of the cost, there is no incentive for them to keep the costs of the work down or to be selective about which pipes actually need to be moved or replaced.

28 Britain Remade and Create Streets, ‘Back on Track’, August 2024. Link

To solve these problems and only move the utilities that actually need to be moved, the Government should encourage the HAUC to update the Code of Practice to specify not moving telecoms and electrics by default, only move metallic gas and water pipes while leaving plastic pipes in by default, and do not move waste water pipes but align manhole covers between or next to tracks. The DfT should also adopt a nationwide waiver for utilities left in place on public transport routes under Section 82 of the New Roads and Street Works Act 1991 to avoid utility companies having to bear compensation should they need to do urgent maintenance to utilities underneath new tramways or light railways.

Finally, the Government should update the statutory instrument 'The Street Works (Sharing of Costs of Works) Regulations 2000' to rebalance the cost of diverting utilities from tram projects to utility companies.

'One tram promoter thought their city was building a new tramline, but actually it ended up building a new utility network'

Review tram trackbed depth

The trackbeds of British trams are often deeper than European or American counterparts. The West Midlands Metro uses 600mm of concrete beneath its tracks, which is similar to other British trams that use large concrete slabs of between 500 and 1000mm in depth. Many non-British projects use shallower trackbeds that are cheaper to install and create fewer conflicts with utilities, further reducing costs. Portland, Oregon's streetcar uses 12 inch (305mm) deep trackbeds, and Strasbourg, France, and Vienna, Austria both have trackbeds that are similarly shallow.

Coventry is experimenting with its Very Light Rail that uses 300mm trackbeds that can be laid in weeks, not years. Future British tram projects should study and implement the cheaper, shallower trackbeds that have been proven to sustain HGV lorries without damage or disruption to the track or utilities.

Learn from Norwegian tunnelling regulations

Norway has developed an extraordinary ability to tunnel cheaply. They built the longest road tunnel in the world, 15.2 miles, for just £150m (adjusted for inflation). Their success is partially down to the geology of Norway, with stable rock that can support itself. Similar geology exists in parts of the UK too, including underneath the Peak District, where a tunnel between Manchester and Sheffield would transform the regional economy, and parts of Scotland where connectivity could be improved cheaply. To confirm these opportunities, the DfT should launch a study on Norwegian tunnelling regulations and methods to determine how applicable they are to portions of the UK.

8) Civil Service Effectiveness

The Transit Costs Project studied over 900 transit projects around the world to determine why the US and UK are among the most expensive places to build new infrastructure. One of their most significant findings came down to state capacity and the effectiveness of the Civil Service.[29]

Countries that had lower costs tended to have a more effective Civil Service to manage the project. That means a strong in-house design team with the legal and technical capacity to oversee a project and handle change-orders. This does not mean the public sector doing every part of the delivery, but rather ensuring that the public sector has enough knowledge and experience to direct private sector contractors and builders. The Anglosphere model tends to be heavily reliant on consultants for all stages of a project. This does have some logic to it; the state can hire a team only when it needs it, while not being responsible for the cost the rest of the time. Yet the problem is that consultants and construction firms need a competent client to be effective.

> **‘Countries that had lower costs tended to have a more effective Civil Service to manage the project’**

Consultants act as a force multiplier. If consultant and construction teams do not have a client who knows what it wants and is technically competent to direct the consultants, they will engage in cost-additive behaviour. A consultant paid on fees, time, or a percentage cost has no commercial reason to truncate scope or kill an option.

Countries like France, Italy, and Spain have in-house engineering teams that make the Civil Service more effective at managing large infrastructure projects. Madrid trebled the size of its metro for 1/10th the cost of London projects led by a team of nine in-house engineers.[30] Milan has a municipally-owned engineering company called Metropolitana Milanese (MM).[31] MM is responsible for planning and designing the metro, tram, and suburban rail network. When a new extension is proposed, MM is in charge of early planning, feasibility studies, and preliminary project documents and manages and oversees the private companies that build the project to completion. As a result, Milan builds new metros at roughly 20% the cost that London builds at.

29 Transit Costs Project, ‘Transit Costs Project Final Report’, November 2023. Link

30 Ben Hopkinson, ‘How Madrid built its metro cheaply’, Works in Progress, December 2024. Link

31 Transit Costs Project, ‘Transit Costs Project Final Report’, November 2023. Link

Britain used to have this in-house capacity and it delivered major projects cheaply. The railways and initial underground lines were built by private companies that had in-house engineering teams. The Great Western Railway's chief engineer was Isambard Kingdom Brunel. Brunel personally oversaw the route and managed construction.

When the state took more of a role in building infrastructure, in-house teams remained key. The Victoria line was delivered by London Transport, which had its own deep engineering and design capability. In-house architects and engineers designed the line. The line was then constructed privately, while being overseen by technically competent London Transport staff. Adjusted for inflation, the Victoria line was delivered for only one-third the cost per mile of the Jubilee line extension and one-sixth the cost of the Northern line extension.[32]

Britain, currently, does not have a Civil Service that is designed to be effective clients for new infrastructure projects. The Department for Transport has the second highest staff turnover rate of any department. One in every six DfT staff members will leave the department each year.[33] There are strong incentives for civil servants to be generalists, which means to gain a promotion and a better salary, they ought to move teams and even departments every 18-24 months. For example, there is no civil servant in DfT who is responsible for trams.[34]

‘Adjusted for inflation, the Victoria line was delivered for only one third of the cost per mile of the Jubilee line extension and one sixth of the cost of the Northern line extension’

Becoming a competent client is irreducibly technical and experience compounds. A generalist will be unable to judge whether a consultant's tunnelling proposal is sound, whether a contractor's change order is justified, or where to draw the line between necessary features and gold-plating in design. If a generalist does gain this knowledge, they will still disperse to other teams or departments, meaning that institutional build-up of knowledge does not happen as there is no stable core of long-tenured specialists, standards, and continuity of practice.

Similar to the churn of civil servants, there has also been a significant ministerial churn. Since 2007 there have been 13 Transport Secretaries and 22 Transport Ministers with responsibility for rail. Without a reasonably consistent political steer, the Civil Service itself is directionless. A minister will gain experience while being in post, but being reshuffled every year means that there will be no compounding of experience to make the decisions related to infrastructure projects that are inherently political. These include coordination with other public bodies, acceptable disruption levels, compensation levels for environmental harm, and route choices.

Edinburgh's tram project is an example where a lack of experience among senior civil servants meant a project went off the rails.[35] None of the leaders employed by

32 Transit Costs Project, ‘Data’, February 2026. Link

33 Institute for Government, ‘Whitehall Monitor 2026: Part 2- The state of the Civil Service’, January 2026. Link

34 Britain Remade and Create Streets, ‘Back on Track’, August 2024. Link

35 Ben Hopkinson, ‘Hell on wheels: the Edinburgh Trams Story’, Yes and Grow, October 2023. Link

the publicly owned company had any experience with delivering a major project or tram construction. This meant they were heavily reliant on contractors, who in turn were not updated when there were changing political requirements. The design was poor, incomplete, and immature with key details like junction design and planning approvals missing. As a result, contractors refused to specify a fixed final price and instead included large risk premiums. The public company also lacked any legal advice for large periods of negotiations with potential contractors and was unable to challenge any requested changes or price increases.

The Transit Costs Project estimates that the Anglosphere's consultant and outsourcing heavy model leads to design and management overhead costs that are two to four times greater than countries with lower infrastructure costs. To close the gap and ensure that projects remain on track, Britain needs to build up in-house engineering expertise within the Civil Service.

> **'To close the gap and ensure that projects remain on track, Britain needs to build up in-house engineering expertise within the Civil Service'**

Solutions

There are already policy ideas out there relating to Civil Service reform. Many of these ideas such as making hiring and firing easier and raising Civil Service base pay at the expense of pension contributions are good ideas that will marginally make it easier to build up in-house Civil Service capacity. General Civil Service reform is outside the scope of this paper, but is valuable work.

Create a standing, public-sector engineering unit that accumulates expertise across a continuous programme

Britain used to have these public-sector engineering units that were competent clients like London Transport that had the in-house ability to oversee and manage projects effectively. Lower cost countries, like Italy, France, and Spain continue to have this capability. This engineering unit ought to sit within the DfT but be open with transfers to regional transport agencies like Transport for Greater Manchester and Transport for West Midlands when relevant. London is large enough to warrant its own specialists within TfL who could liaise with the DfT equivalent.

This engineering unit should maintain a standardised design library and bank lessons across a pipeline of projects. The standardised design library will save costs by avoiding bespoke elements like unique stations and instead encouraging economies of scale and faster design processes. The unit should be charged with coming up with initial designs, overseeing the procurement process, and managing the technical aspects of construction.

A pipeline of projects will maximise the effectiveness of the engineering unit. Expertise within the unit will compound as more projects are undertaken. Without a project to work on, the skills will atrophy and there's a risk that the team will be shut down entirely, dissolving all the built up knowledge.

Change promotion and pay criteria to encourage specialisation within delivery teams rather than moving around in jobs

A generalist Civil Service where promotion is achieved through moving between teams and departments works for many functions, but not managing complex and technical infrastructure projects. We should want engineers and infrastructure lawyers to be able to work within the engineering unit for a long duration of their career. To achieve this, the DfT will need to create a reward structure that encourages promotion and pay rises to happen as expertise is developed, rather than rewarding generalists.

Encourage the hiring of contractors to work within the engineering unit

One of the binding constraints of hiring genuine technical experts into the state is that Civil Service pay scales cannot match private-sector engineering salaries. Hiring individual contractors can be a useful way to embed expertise within the engineering unit while avoiding Civil Service pay limits. The contractors would become part of the engineering unit, not existing outside of it like consultancies. Contractors also have added flexibility around hiring and firing that does not exist in the Civil Service, which allows for quicker changes should a particular contractor not work out.

Permanent Secretaries should be line managed by the Secretary of State

Maintaining democratic oversight of the Civil Service is important to ensuring that teams are working effectively in the public interest. Right now, permanent secretaries are line managed by the Cabinet Secretary with only input from the relevant SoS. Moving management away from the Cabinet Secretary and towards the relevant SoS would allow ministers to have a greater ability to oversee and manage the Civil Service. Ultimately the responsibility for cost overruns on major projects should rest on the SoS. By allowing them greater ability to manage the relevant civil servants, this responsibility will help communicate the drive to lower costs throughout the Civil Service.

Create a handover period for new Secretaries of State

Since 2007, Britain has had 13 Transport Secretaries and 22 Transport Ministers. Each change brings extra churn that risks distracting from the management of the Civil Service who are executing a project. Ideally, fewer reshuffles would occur, which would allow ministers time to apply their knowledge that they have gained on how to effectively manage these complex projects. However this is likely not realistic given the political necessity of reshuffles, so at the minimum there should be a handover period where the outgoing ministers brief incoming ministers about how best to oversee the ongoing projects. There should also be special advisers that stay between ministerial terms to help manage the transition period and provide guidance as the new ministers get up to speed on their brief.

Encourage the use of AI within the engineering unit to compare standards and technology

There is a strong potential for AI to transform the delivery of major infrastructure projects. The engineering unit should be using AI to compare the methods of construction that are used in the UK with the methods of construction that are used in countries that build for less than the UK. Any changes to construction methods should be run through AI to confirm that they offer value for money and if they have been used effectively in other countries.

9) Devolution

Right now any tram, light rail, or metro project requires a Transport and Works Act Order (TWAO) to begin construction. These can only be signed off by the Transport Secretary. That means if a mayoral combined authority wishes to build a tram extension they have to go back and forth with the SoS. The whole TWAO process can take several years. The one mile Birmingham Eastside Extension took 3 ¼ years to gain its TWAO. The paperwork required stretched longer than the tram extension itself.

The issue with the current SoS sign off for local projects is that no one has a strong incentive to move quickly. Sign off is outside of the mayor's powers, while the SoS has limited political incentives to resolve a TWAO quickly.

'Countries that have built transit quicker and cheaper than Britain show the importance of having regional power to fund, approve and build transport projects'

Other countries that have built transit quicker and cheaper than Britain show the importance of having regional power to fund, approve, and build regional transport projects. Madrid has built metro lines for 1/10th the per-mile cost of similar projects in London. In Madrid, the regional government has the power to fund, approve, and build transport projects. As a result regional politicians would campaign on pledges to build, win elections off the back of the commitments and then have all the powers and incentive to deliver quickly and cheaply.

France is similar, where 21 towns and cities have built a tram network since 2000. Mayors will campaign on a pledge to build a tram network and then be able to fund it through local taxation. Approvals are handled between the local city council and a regional prefect.

England is at the start of moving in this devolved direction and further policy changes are needed to enable these regionally-led transport projects to flourish without the requirement to go cap-in-hand to Westminster and Whitehall. Mayors have the potential to be builders who oversee the construction of new transport projects, but right now are underpowered which means that they can only beg the central government for funding and approval and if this is not given, complain loudly and publicly.

Solutions

Devolve Transport and Works Act Orders and the deemed planning permission to Mayors. TWAOs provide valuable powers to promoters, yet the process is long and centralised. The DfT has little incentive to move quickly as the local promoters are the ones who bear the costs of delay.

The solution is to give projects the choice to either apply for their TWAO from their metro mayor or from the Secretary of State. Consenting would no longer be a drawn out process between the local promoter and central government, but instead it would be up to metro mayors to chart a vision for their region with the power to make it happen. They know their area the best and can draw on their local knowledge, which is lacking in central government.

Rachel Reeves, as Chancellor, announced the Government supporting this policy with plans for a consultation. However, given the change in Prime Minister and the reshuffle, there is a chance that this policy is not taken forward, especially given that it requires primary legislation. The current, or future, government should bring in this change.

Conclusion

Britain's high infrastructure costs are the cumulative result of policy choices made over decades: a planning process that produces applications running to hundreds of thousands of pages that take more than a decade from start to finish, environmental rules that lead to paperwork and absurd bat tunnels and fish discos, legal challenges that cost activists almost nothing while adding hundreds of millions to the cost of a project, lengthy funding arrangements where no one has an incentive to deliver a project quickly and cheaply, procurement focused on a myriad of goals instead of just value for money, standards set by bodies that never bear their cost, a Civil Service that lacks the expertise to oversee a project, and a centralised system that forces mayors to go cap-in-hand to Whitehall instead of actually building.

All of these contribute to Britain's cost challenge. The positive news is that they are all fixable. Each of these areas is a result of policy decisions that can be reversed. Some fixes just take a simple letter from a minister, others will require primary legislation or negotiations with international organisations. Importantly, none of them require significant new spending, which is key at a time when budgets are already so constrained.

Other countries have demonstrated repeatedly that building for less is possible. Madrid trebled its metro for a tenth of London's per mile costs. France has seen a tram renaissance with 21 towns and cities building a network just this century. French motorways have also been built rapidly and cheaply this century, with new additions stretching further than Britain's entire network. Germany and Denmark electrify railways for a third of what Britain pays. Historically, Britain could build too. We invented the tram, the railway and the underground. Even as recently as the Victoria line in the 1960s, Britain was building innovative new projects affordably.

Fixing our infrastructure cost challenges presents a large opportunity. The money committed to HS2 would have bought over 2,600 miles of high speed railway, if we built at French costs. Lower costs would put trams and light metros back within reach of cities across the UK. Electrifying railways would become affordable again. And projects like the Bakerloo line extension would largely pay for themselves through the development that they unlock.

Resolving these policy challenges will ultimately mean a Britain that can build again. One that can build more for less.

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