ICE Green Paper: Defining the outcomes from levelling up

March 2022

Executive summary

The UK Government's recent Levelling Up White Paper provides details of 12 'missions' across four broad areas:

- boosting productivity and living standards
- spreading opportunities and improving public services
- restoring a sense of community, local pride and belonging
- empowering local leaders and communities

Based on this, levelling up is essentially focused on ensuring more equitable investment in services across the UK in order to deliver better economic and social opportunities for all parts of the population.

The role of economic infrastructure in enabling these opportunities is huge, be it through connectivity, job creation, access to services, and ensuring the systems underlying day-to-day life are resilient.

On top of this, the UK already has long-term social, economic and environmental goals, notably the 2030 UN Sustainable Development Goals (SDGs). The SDGs all link to tackling recognised long-term challenges in the UK, including climate change, regional inequalities, poor productivity and a workforce lacking the right skills.

As a concept, levelling up is not new. Actions have long been aimed at the broad ambition of addressing regional inequalities, but have been inhibited by the lack of joined-up approach from central and local government in relation to timescales, funding and approval mechanisms.

Strategic decision-making on planned investment into levelling up, such as the use of local needs assessments, is vital. This ensures investment can be designed to allow the most in-need communities access to services and economic opportunities. Without this strategic approach or knowing how levelling up can be effectively measured and its outcomes addressed through infrastructure interventions, the investment directed towards it could be wasted, as could the opportunity to support delivery of other, complementary objectives such as net-zero greenhouse gas emissions.

This ICE Green Paper consultation seeks to gather evidence and views from infrastructure professionals, civil engineers, civil society groups and other interested stakeholders across a short number of key questions on the priorities outlined in the Levelling Up White Paper:

1. Are the missions identified in the Levelling Up White Paper the right ones in order to address regional socio-economic inequalities? If not, what should they be?

2. Which of the missions should be prioritised to deliver the greatest impact on addressing regional socio-economic inequalities?

3. What role is there for infrastructure in achieving the missions?

4. How can the existing infrastructure system be retooled to support achieving the missions?

5. How can the missions in the White Paper best be delivered? Is the proposed governance structure the right one?

6. What are the infrastructure policy changes needed from central government to deliver levelling up?

7. What are the infrastructure policy changes that need to be delivered locally?

8. What are the metrics and outcomes needed to know whether the Government has achieved its missions? How will we know that we are levelling up?

The consultation will close on **Friday 8th April 2022**.

The findings from responses to this paper alongside further evidence gathering will be formed into a policy paper with recommendations ahead of the Government's plans to enact legislation in order to achieve its levelling up ambitions.

The Levelling Up White Paper

On 2nd February 2022, the UK Government published its 330-page Levelling Up White Paper, expanding on the Conservative Party's election promise to "level up" the country.[1]

The White Paper is clear about the scale of regional inequality in the UK and the impact it has on individual opportunity and collective economic performance. Alongside 12 medium-term levelling up missions up to 2030, the government announced a new independent levelling up advisory council, established a statutory duty to publish an annual progress report, and confirmed it would simplify funding for sub-national authorities.

There is a clear role for infrastructure carried over from the abandoned industrial strategy, as well as the promise of transforming the levelling up missions into legislation.

The overall focus of the White Paper is on the sizeable challenge of bringing 'left-behind' places closer to the performance levels in more prosperous parts of the UK, and on ensuring these ambitions succeed where previous attempts to narrow geographic disparities have failed.

However, the White Paper ignores future risks, such as climate resilience and the need for adaptation, that could see areas slip even further behind. In fact, the White Paper goes as far as to exclude natural capital from its framework.

The paper offers 12 missions across four areas:

Boosting productivity and living standards by growing the private sector, especially in those places where they are lagging
Living Standards: By 2030, pay, employment and productivity will have risen in every area of the UK, with each area containing a globally competitive city, and the gap between the top performing and other areas closing.
Research & Development (R&D): By 2030, domestic public investment in R&D outside the Greater South East will increase by at least 40%, and over the Spending Review period by at least one third. This additional government funding will seek to leverage at least twice as much private sector investment over the long term to stimulate innovation and productivity growth.

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[1] Department for Levelling Up, Housing and Communities (2022) Levelling Up the United Kingdom

Transport Infrastructure: By 2030, local public transport connectivity across the country will be significantly closer to the standards of London, with improved services, simpler fares and integrated ticketing.
Digital Connectivity: By 2030, the UK will have nationwide gigabit-capable broadband and 4G coverage, with 5G coverage for the majority of the population.

Spreading opportunities and improving public services, especially in those areas where they are weakest

Education: By 2030, the number of primary school children achieving the expected standard in reading, writing and maths will have significantly increased. In England, this will mean 90% of children will achieve the expected standard, and the percentage of children meeting the expected standard in the worst performing areas will have increased by over a third.
Skills: By 2030, the number of people successfully completing high-quality skills training will have significantly increased in every area of the UK. In England, this will lead to 200,000 more people successfully completing high quality-skills training annually, driven by 80,000 more people completing courses in the lowest skilled areas.
Health: By 2030, the gap in Healthy Life Expectancy (HLE) between local areas where it is highest and lowest will have narrowed, and by 2035 HLE will rise by five years.
Well-being: By 2030, well-being will have improved in every area of the UK, with the gap between top performing and other areas closing.

Restoring a sense of community, local pride and belonging, especially in those places where they have been lost

Pride in Place: By 2030, pride in place, such as people's satisfaction with their town centre and engagement in local culture and community, will have risen in every area of the UK, with the gap between top performing and other areas closing.
Housing: By 2030, renters will have a secure path to ownership with the number of first-time buyers increasing in all areas; and the government's ambition is for the number of non-decent rented homes to have fallen by 50%, with the biggest improvements in the lowest performing areas.
Crime: By 2030, homicide, serious violence and neighbourhood crime will have fallen, focused on the worst affected areas.

Empowering local leaders and communities, especially in those places lacking local agency

Local Leadership: By 2030, every part of England that wants one will have a devolution deal with powers at or approaching the highest level of devolution and a simplified, long-term funding settlement.

While these missions lay out a clear trajectory and next steps, the test will be in ensuring these are prioritised and presented in the right way. Indeed, there is a risk that the missions will become another set of centrally identified targets that government departments insert into their existing policy programmes, rather than as something that fundamentally changes how decisions and policies are made.

Question 1: Are the missions identified in the Levelling Up White Paper the right ones in order to address regional socio-economic inequalities? If not, what should they be?

Question 2: Which of the missions should be prioritised to deliver the greatest impact on addressing regional socio-economic inequalities?

How is levelling up defined outside of the White Paper?

Beyond the White Paper and the 12 missions, it is important to understand other existing definitions of levelling up.

A literature review conducted on behalf of ICE in 2021 found that there was no universal definition of levelling up, and no defined metrics on how to measure its progress. However, most definitions of levelling up essentially boiled down to addressing regional imbalances or inequalities.[2][3] Reports from the UK Government in particular focused on economic outputs, mainly productivity, employment and earnings.[4]

Measures and indicators

Many sources identified the need to consider multiple measures and take a rounded view of levelling up, as relying on a single measure can present a skewed understanding of a region's performance.

Some sources discussed the need to carefully consider links between measures. For example, some parts of the UK are very productive but have high levels of unemployment, and that productivity and skills are not necessarily synonymous with well-being.[5]

There was little to no focus on environmental impacts in defining levelling up.

Granularity and scale of comparison

Numerous papers highlighted the need for appropriate granularity when considering inequalities between areas. Focusing on larger areas can conceal significant inequalities at very local levels, which become more acute in large urban areas such as London or Manchester.[6] Some papers also identified that the public tend to identify with smaller scales of region as opposed to cities as a whole, though focusing on inequality at smaller scales may require different metrics and result in different outcomes compared to focusing on inequality at a regional level.[7]

Granularity also has an impact on the suitability and accuracy of certain metrics: some metrics were described as being more suited to smaller-scale analysis and more tightly linked to policy.[8]

Regional strengths

Multiple sources addressed that levelling up should not look the same in all locations as different regions play different roles in the economy.[9] For example, the outcomes and measures of levelling up in urban areas could be very different to those in rural ones, primarily due to differences in productivity potential.

The UK Government has said that levelling up should not mean areas are "brought down", but some sources believe there are likely to be trade-offs as levelling up improvements may need to be paid for by more high-performing areas.[10]

Timescales

Some sources identified frequent discussion of capital investment in infrastructure, research and development in order to effectively address regional inequalities, but that the economic impact of these investments would not be considerable.[11]

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[2] ICE (2020) ‘Levelling Up’ and the Role of Infrastructure: ICE Discussion Paper
[3] Centre for Cities (2021) So You Want to Level Up?
[4] Institute for Government (16 July 2021) Inside Briefing Podcast: Levelling Up or Spreading the Jam?
[5] Ibid
[6] Bennett Institute for Public Policy (2021) Levelling Up: An Anthology
[7] Onward (2020) Measuring Up for Levelling Up
[8] Institute for Government (16 July 2021) Inside Briefing Podcast: Levelling Up or Spreading the Jam?
[9] Centre for Cities (2021) So You Want to Level Up?
[10] Institute for Government (16 July 2021) Inside Briefing Podcast: Levelling Up or Spreading the Jam?
[11] Bennett Institute for Public Policy (2021) Levelling Up: An Anthology

Instead, it was emphasised that long-term investment in these areas and skills was key to making significant improvements to productivity and quality of life.

To that end, timescale of impact was seen as an important factor in deciding on appropriate metrics. [12]

The role of infrastructure in enabling economic, social and environmental outcomes

At the heart of levelling up is the ambition to remove inter-regional disparities in productivity. There is a need to drill down the 12 missions and identify the main parts of the puzzle that will help to achieve a truly levelled up UK. Unlocking infrastructure is one of the key components to accelerate the pace of change and help bridge the regional divide.

The various components of the infrastructure sector are significant contributors to economic growth. [13] [14]

Infrastructure networks are also vital for connecting people, businesses and for society more widely to function on a daily basis. Before the Covid-19 pandemic, 1.7 billion passenger journeys were made by rail in the UK,[15] whilst figures for road traffic highlight that 328.3 billion vehicle miles were covered on Great Britain's motorways for the year ending June 2019. [16]

Like other sectors, infrastructure faces huge challenges in order to continue to deliver for society and the economy. The population of the UK is forecast to reach 75 million by 2050[17], raising questions around the capacity of our infrastructure to meet demand. Greater urbanisation is likely to exacerbate this. Climate change that will bring with it more extreme weather events will also significantly test the resilience of key networks.

The most significant investments in future infrastructure spending are planned in transport and energy.[18] There is a strong argument for these sectors to be the focus for considering the role that infrastructure can play in levelling up, incorporating the need to also consider the significantly greater investment in existing infrastructure compared to new infrastructure.

Question 3: What role is there for infrastructure in achieving the missions?

Question 4: How can the existing infrastructure system be retooled to support achieving the missions?

Where have infrastructure projects previously impacted levelling up?

Manchester Metrolink

Since opening in 1992, the Manchester Metrolink has been continuously extended. Between 2010 and 2015, a number of new lines were added through dozens of new communities, including Oldham and East Didsbury, as part of its £1.5 billion Phase 3 expansion project. [19] [20]

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[12] Onward (2020) Measuring Up for Levelling Up
[13] Energy UK (2020) Energy in the UK
[14] ICE (2020) Infrastructure as a Stimulus – Laying the Foundations for the New Normal
[15] Office of Rail and Road (2022) Passenger Journeys
[16] DfT (2019) Provisional Road Traffic Estimates Great Britain: July 2018 – June 2019
[17] ICE (2016) National Needs Assessment
[18] Infrastructure and Projects Authority & HMT (2021) National Infrastructure and Construction Pipeline 2021
[19] Martyn L. Senior (2009) Impacts on Travel Behaviour of Greater Manchester's Light Rail Investment (Metrolink Phase 1): Evidence from Household Surveys and Census Data
[20] Transport for Greater Manchester (2021) Metrolink Brings Major Benefits to Communities, Clean Air and Congestion

Impacts:

- The new lines have removed 38.8 million car kilometres per year from roads – contributing towards Greater Manchester's goal of 50% of all journeys being made by public transport and active travel by 2040.
- The trams have been developed to run on renewables: 70% of the power to each tram comes from wind or solar sources, helping to reduce air pollution.
- Based on modelling, there has been a significant improvement in public transport access to employment, further education and healthcare, an improvement that is particularly noticeable for the more deprived communities of Greater Manchester. The analysis shows that public transport door-to-door access has improved for the following proportions of the Greater Manchester population:
  - 18.2% for employment (30.5% of the 10% most deprived communities)
  - 18.8% for further education (27.7%)
  - 19.8% for healthcare (29.5%)
- Houses closer to a Metrolink stop command a premium of 7.8% compared to 1.5% when houses are over 1.25km from a stop.
- Its implementation has reduced carbon emissions, saving 6,700 tonnes of CO_2 in 2019/20

Aberdeen Heat & Power Network

Aberdeen Heat & Power Network is an independent not-for-profit company established by Aberdeen City Council in 2002 to help address fuel poverty in its housing stock. Their goal is to eventually supply all properties in the Tillydrone energy centre catchment area, as well as connecting to other energy centres to create an even more robust network.[21][22]

Impacts:

- The technology saves between 3 and 6 tonnes of CO_2 per property per annum.
- Residents typically see a 40% reduction in their heating bills as well as maximum reliability and minimal maintenance.
- 3,000 homes and public building have been supplied with affordable and controllable heat, for example:
  - Hazlehead Academy combined heat and power plant delivers heat and electricity to the school, as well as four multi-storey buildings including a sheltered housing scheme. The scheme balanced and generated an income stream which allowed the scheme to minimise the cost of heating hard-to-heat homes.
  - One of Aberdeen's largest secondary schools has started reducing its carbon footprint by more than 70% after connecting to a district heat network.
  - Aberdeen science centre is now connected, delivering a near 80% saving in carbon emissions.

Delivering levelling up – devolution and governance

Infrastructure planning and delivery is a complex process, which is impacted by a range of factors. Funding, skills, governance, technology and regulatory considerations, amongst a range of others, each provide challenges and opportunities within this context.

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[21] Aberdeen Heat & Power
[22] Scottish Environment Business Awards (2015) Aberdeen Heat & Power

Devolving powers over infrastructure policy can be effective for three specific reasons. Firstly, local stakeholders can often have a superior understanding of the networks and assets that are physically closer to them. This can be useful in helping to shape local infrastructure priorities to ensure that services actually meet local needs.

Secondly, local and regional service providers are better positioned to ensure effective integration, which in turn enables networks to be managed so that the very best outcomes for service users are achieved.

Finally, the devolution of decision-making can empower local people and bring them close to public discourse on the infrastructure issues that impact their daily lives. As it is the public that ultimately pays for the infrastructure that it uses, this is an important component of devolution.

To maximise policies aimed at levelling up, regional inequality of infrastructure services in England will require that the planning and delivery of networks is done at the most appropriate level of government. Research demonstrates that in countries including Germany, Austria and Switzerland, integrated regional transport delivery through the *Verkehrsverbund* model leads to increased quality and quantity of service, greater use of public transport and greener forms of transport.[23]

The White Paper proposes nine new devolution deals and the option of a devolution deal to any part of the country that wants one. On top of this, devolution will be simplified through a new devolution framework, and the Government will seek to legislate to establish a new form of combined authority to be made up of upper-tier local authorities.

As the White Paper acknowledges, the UK is one of the most centralised countries in the industrialised world and local leaders have comparatively limited powers relative to their international counterparts. At present, most of the tools for implementing levelling up policies therefore lie in the hands of national government – at least until some of the devolution measures it proposes are put in place.

ICE has long advocated for the creation of regional infrastructure forums to bring together key infrastructure stakeholders from across a given region to work collaboratively to identify long-term infrastructure requirements.[24] This would include, but not be limited to, local government and regional delivery bodies, community and business groups through to central government and regulatory organisations.

The overriding ambition would be for the creation of regional infrastructure strategies that plug into the Government's overarching National Infrastructure Strategy to ensure the strategic co-ordination of infrastructure prioritisation at multiple geographic levels. In this respect it is important that the Government's levelling up ambitions is well aligned to its National Infrastructure Strategy.

Question 5: How can the missions in the White Paper best be delivered? Is the proposed governance structure the right one?

Question 6: What are the infrastructure policy changes needed from central government to deliver levelling up?

Question 7: What are the infrastructure policy changes that need to be delivered locally?

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[23] Bueher, R et al (2018) Verkehrsverbund: The Evolution and Spread of Fully Integrated Regional Public Transport in Germany, Austria, and Switzerland – International Journal of Sustainable Transportation
[24] ICE (2019) State of the Nation 2019: Connecting Housing with Infrastructure

Measuring levelling up

An initial set of topline and supporting metrics for measuring and tracking progress against levelling up outcomes was published alongside the White Paper.[25] The Government has confirmed that a longer suite of supporting metrics will be developed for each mission.

As there is limited detail on how most of the missions will be met, and less detail on available funding, there is little sense of prioritisation which in turn risks ambition and resource being spread thin. Prioritisation can be facilitated through strategic decision-making frameworks, such as local needs assessments that highlight how investment can be designed and directed to communities most in need.

Without this prioritisation and more detailed metrics, the investment directed towards addressing regional inequalities could be misallocated, as could the opportunity to support delivery of other, complementary national objectives such as net-zero greenhouse gas emissions.

Responses to a 2020 ICE discussion paper on infrastructure and levelling up identified the need for the development of a set of metrics to help determine how the levelling up agenda should be positioned, and its impact measured.[26] These could include, for example, indicators related to transport access and connectivity, the provision of digital infrastructure, levels of fuel poverty and the condition of assets and networks.

Others have identified that Government should track a wide number of indicators to measure levelling up and the success of investment, compared with an agreed baseline. Different metrics can show completely different trends; excessive focus on just one indicator could skew policy.[27]

UN Sustainable Development Goals

The UK has long-term social, economic and environmental goals, notably the 2030 UN Sustainable Development Goals (SDGs).[28] The SDGs all link to tackling recognised long-term challenges in the UK, including climate change, regional economic inequalities, poor productivity and a workforce lacking the right skills.[29]

Every country has one or more regions that have been 'left behind' socio-economically. This inequality has come about through unsustainable development where social, economic and environmental factors were not aligned over the long term. Therefore, it is right to look to sustainable development to fix the problem. Here, the SDGs offer a helpful blueprint on the way forward, while their 2030 timeframe aligns with that in the White Paper.

Infrastructure has a crucial role to play in achieving the SDGs: not only is there an infrastructure-specific SDG, but research has shown that 72% of the SDG indicators are linked to networked infrastructure investment and 92% when all forms of infrastructure are considered.[30] This includes job creation, the ability for infrastructure to generate economic activity, protecting the environment, and the manifold benefits to society that infrastructure can bring through safe, reliable, affordable and accessible systems. The White Paper recognises the role of long-term missions and references the SDGs but goes no further in linking them to the 12 levelling up missions.

ICE has commissioned work into understanding and mapping the SDGs against levelling up, and found that SDG indicators linked to productivity, earnings, well-being and environmental health were relevant to levelling up or the

[25] Department for Levelling Up, Housing and Communities (2022) Levelling Up the United Kingdom: Missions and Metrics
[26] ICE (2020) Influencing the Government's 'Levelling Up' Agenda
[27] Onward (2020) Measuring Up for Levelling Up
[28] United Nations (2022) The Sustainable Development Goals
[29] ICE (2020) Covid-19 and the UK's Sustainability Challenges – Lessons for the New Normal
[30] ICE (2020) ICE Strategy Sessions: How Can Infrastructure Help Achieve the UN Sustainable Development Goals?

infrastructure-related impacts on levelling up. These could be used to compare regions and provide baselines or targets for regions to level up against each other.

Investment in transport, for example, facilitates access to public transport (SDG indicator 11.2.1, *Public transport access*), which reduces pollution from road traffic (SDG indicators 11.6.1 *Urban air pollution* and 3.9.1 *Mortality rate from air pollution*) and leads to improved health outcomes (SDG indicator 3.4.1 *Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease*). Investment in transport infrastructure also increases access to opportunities, widening the area in which individuals can access employment, training and new business markets (SDG indicators 8.5.2 *Unemployment rate*, 8.6.1 *Youth unemployment, education and training*, and 9.3.1 *Value of small-scale industry*). SDG indicators on health also link through as individuals have improved access to healthcare and leisure opportunities.

However, using the SDGs alone to understand impact could prove difficult; the 17 SDGs are very broad and how people understand them could vary significantly.

While all the SDGs and their indicators may not all be able to be transferred directly as a way to measure levelling up, there is clear alignment between the 12 missions and a number of the SDGs. The UK government has fully embedded the SDGs in the activities of each department. Formalising any alignment between the levelling up missions and the SDGs could ensure that levelling up outcomes are embedded in a similar way.

Question 8: What are the metrics and outcomes needed to know whether the Government has achieved its missions? How will we know that we are levelling up?

About ICE

Established in 1818 and with over 96,000 members worldwide, the Institution of Civil Engineers exists to deliver insights on infrastructure for societal benefit, using the professional engineering knowledge of our global membership.

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