# National Competitiveness and Productivity Council Bulletin 26-1 Public Investment in Transport Infrastructure: A Competitiveness and Productivity Perspective

- **Transport infrastructure plays a key role in promoting economic competitiveness, productivity, and sustainable development.**
- **The National Development Plan presents a valuable opportunity to address transport related infrastructural deficits, with an additional €24.3bn earmarked for transport investment between 2026 and 2030 (with the bulk of funding being allocated to Public Transport and Road Networks).**
- **Ireland ranks quite poorly on basic infrastructure and on international comparisons of transport investment.**

## OVERVIEW

Ireland's economic competitiveness and productivity is closely linked to the availability and effectiveness of its infrastructure. Indeed, the NCPC has identified our infrastructural endowment – including the importance of a well-functioning transport sector – as a key component of its broader framework for understanding competitiveness and productivity.

Infrastructural deficits and protracted delivery timelines across sectors such as housing, transport, water, and energy are widely acknowledged. Within a broader context of demographic pressures and the economy operating at near-full capacity and employment at record levels, infrastructure deficits can add to the cost of doing business and may reduce Ireland's attractiveness for inward investment.

**Figure 1: Competitiveness and Productivity Framework**

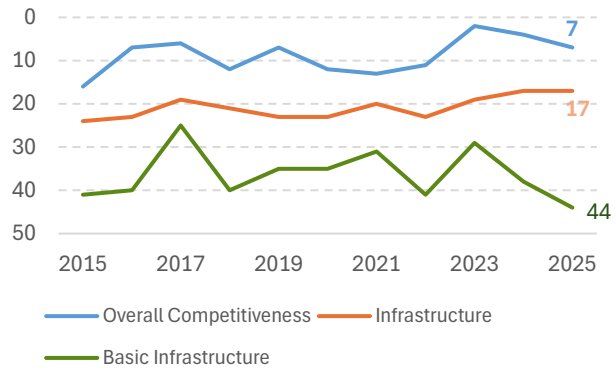

Transport infrastructure reduces the costs and time associated with moving people, goods and services across the domestic economy and internationally. A well-functioning transport network is essential for addressing challenges such as congestion, the costs of which are expected to rise across Ireland's major urban centres over the medium term.

Transport investment can generate a wide range of direct and indirect economic and social effects. Transport infrastructure can influence firm and labour productivity, market access, and land use patterns. The appraisal of transport projects involves identifying the direct effects of proposed schemes but also considering their broader implications. Wider economic impacts of transport investment can be challenging to measure but are essential for policy makers to consider.

## BACKGROUND

The extent of existing infrastructure deficits, as measured by Ireland's overall capital stock, have been well documented. According to the IMD's ranking for global competitiveness, Ireland had an overall ranking of 7$^{th}$ in 2025. Our performance with regard to infrastructure, however, continues to weigh on the overall ranking. Looking specifically at basic infrastructure (water, energy and the density of road and rail networks), Ireland ranks 44$^{th}$ – out of 69 economies – and our performance continued to disimprove over recent years.

**Figure 2: IMD Competitiveness Rankings for Ireland**




Source: Competitiveness Bulletin 25-4

A recent International Monetary Fund (IMF) report found that Ireland faces a physical infrastructure gap of 32% and a quality gap of 27%[1]. Transport-specific deficits have been shown to be more acute, with Ireland's net capital transport stock 41% below average levels of high-income European countries[2].

In July 2025, the National Development Plan (NDP) was updated, setting out Ireland's capital investment plan out to 2035. Under the plan, Departmental ceilings provide €102.4 billion in capital investment over the period 2026-2030. The Department of Transport also released an updated sectoral investment plan amounting to €22.3 billion and outlining a renewed commitment to address infrastructure deficits and deliver a five-year strategy for major investment in transport infrastructure and services.

**Table 1: NDP Funding Allocations 2026 – 2030**

| | |
|---|---|
| Active Travel | € 1.8bn |
| Public Transport | € 10.1bn |
| Road Networks and Road Safety | € 9.7bn |
| Aviation, Maritime, ITC etc | € 0.88bn |

Sources: National Development Plan Review 2025 Sectoral Investment Plan: Transport

## CONSEQUENCES OF TRANSPORT DEFICITS

Congestion occurs when the demand for transport exceeds the available road-space within a transport network. While some level of congestion is expected in urban areas, persistently high levels can negatively impact the economy, environment, and society. Ireland's growing population and strong economic performance are likely to increase transport demand, and without timely interventions and broader policy measures, the strain on existing transportation links will intensify. Recent analysis by the Department of Transport estimated the annual cost of congestion across major cities for 2022 and 2040 (Table 2).

**Table 2: Cost of Congestion Projections (2016 prices)**

| City | 2022 | 2040 |
|---|---|---|
| Greater Dublin Area | €336m | €1.5bn |
| Cork Metropolitan Area | €57.5m | €97.2m |
| Galway Metropolitan Area | €35.3m | €106.9m |
| Waterford Metropolitan Area | €5.8m | €22.4m |

Sources: The Economic Cost of Congestion in the Regional Cities 2022-2040[3]

This analysis indicates that congestion will rise significantly over the coming decades in the Greater Dublin Area, Cork, Galway, and Waterford. Investment in transport infrastructure, particularly large-scale public transport projects and improvements to rail networks, can help reduce the rate at which congestion costs increase. Although congestion is an unavoidable consequence of economic and population growth, it can be mitigated through infrastructure provision, a shift to more sustainable transport modes, and behavioural change as outlined in the Government's recently published strategy for addressing congestion across the transport system[4].

## COMPETITIVENESS AND PRODUCTIVITY IN TRANSPORT APPRAISAL

Investment in individual transport projects, including roads, rail, and public transport, can generate a wide range of economic and social impacts. Often, appraisal is grounded in the direct effects of transport infrastructure, such as travel time savings, safety improvements, or reliability benefits.

The direct benefits of transport projects tend to be relatively straightforward to measure and monetise. Project appraisal in the transport sector is supported by a long-standing body of international best practice which incorporates these effects within tools such as cost-benefit analysis. Consequently, direct benefits tend to occupy a central place in decision-making and resource allocation.

[1] Yen Mooi: *Benchmarking Public Spending Efficiency in Education, Health, and Infrastructure in Ireland* (IMF, May 2025)

[2] Niall Conroy and Kevin Timoney: *Ireland's infrastructure demands* (Irish Fiscal Advisory Council, October 2024).

[3] The Economic Cost of Congestion in the Regional Cities 2022-2040

[4] Moving Together – A Collaborative Approach to Systems Change in Transport 2026–2030

Transport projects can also deliver a wide range of additional benefits which are more challenging to both measure and monetise. They are nonetheless significant and often require qualitative assessment within cost-benefit analysis[5]. A substantial academic and international evidence base suggests that transport investment can play a role in influencing competitiveness and productivity through a variety of channels. These include improving the matching between vacancies and workers in labour markets, enhanced market access, and induced land-use change such as housing development. However, these wider impacts of transport investment are inherently more difficult to measure and monetise.

Due consideration for both monetiseable and non-monetiseable impacts is reflected in existing Irish appraisal methodology. However, benefits that can be measured and monetised tend to play a prominent role in appraisal, since they can be easily summarised into single metrics and compared to project costs. Impacts that are harder to monetise, even when they may be significant from a policy perspective, are often treated more qualitatively and may carry less weight in formal decision making. This illustrates a broader challenge within transport appraisal: the importance of an effect or outcome is not matched by the ease with which it can be robustly measured and valued.

## WIDER ECONOMIC IMPACTS OF TRANSPORT INVESTMENT

The Infrastructure Guidelines (IG)[6], which are applied to all bodies in receipt of exchequer capital funding, provides an overarching framework for managing capital investment projects. With respect to wider economic impacts of infrastructure provision such as the effects of investment on economic growth or competitiveness, the IG generally endorse these concepts through reference to project impacts from a "societal perspective" within an economic appraisal. Ireland's Transport Appraisal Framework (TAF)[7] makes more explicit reference to broader economic benefits arising from transport projects (Box A).

Economic benefits of transport infrastructure, which are not captured in traditional CBA, often emerge from improvements in connectivity or accessibility. Where transport infrastructure can successfully lower travel costs, the associated improvements in accessibility can also influence productivity, employment, investment, land use patterns and overall economic performance[8]. Improved accessibility can also alter the attractiveness of locations for both households and firms. This can lead to changes in the level and type of economic activity, as well as shifts in land use, either through repurposing or intensifying existing land use.

**Box A: Wider Impacts of Transport Investment**

- **Agglomeration effects:** a positive externality arising from firms operating in proximity which results in greater levels of productivity.
- **Imperfect competition:** investments in transport can increase the intensity of competition in markets.
- **Labour market:** market inefficiencies arising from frictions such as search costs or limited labour mobility, can be reduced by transport infrastructure.

These wider economic impacts are closely linked to agglomeration economies. The latter refers to those productivity benefits which arise when firms and workers are located in close proximity. Agglomeration can enhance labour market interactions, facilitate knowledge spillovers, and strengthen supply chain linkages. Transport investments support agglomeration through two mechanisms. Firstly, static clustering occurs when productivity increases due to reduced travel costs, even if the physical location of firms and workers remains unchanged. In this case, the productivity benefits are purely the result of improved connectivity, and displacement of economic activity is not a concern.

Dynamic clustering, on the other hand, involves actual changes in the location or density of employment. When employment increases in a given area without corresponding losses elsewhere, the resulting rise in physical density can lead to further productivity gains.

Overall, transport plays a crucial role in fostering the concentration of economic activity, which is strongly linked to higher productivity, though its impact varies

[5] The Transport Appraisal Framework (TAF), the Irish transport sector specific set of appraisal guidance, distinguishes between monetiseable and non-monetiseable benefits. Monetiseable benefits can typically be included in cost benefit analysis and include travel time and cost, safety impacts (e.g. collision costs) and climate and environmental impacts (i.e. air quality).

[6] Infrastructure Guidelines

[7] Transport Appraisal Framework

[8] *Wider Economic Impacts Appraisal* (UK Department for Transport, May 2025)

depending on the type of project and the sectors involved.[9]

### Labour Market Impacts

Transport investment and commuting time can have significant effects on employment by altering both the level and geographic distribution of employment.[10] These effects are primarily driven by improvements in accessibility. When transport costs fall, the effective return to both labour and capital increases, which can induce behavioural changes among firms and households. Conversely, commuting costs can act as a deterrent to enter the labour market, and congestion can reduce productivity and increases business costs. The decisions that businesses and workers make about where to locate is influenced by the accessibility offered through transport infrastructure[11].

From the perspective of labour supply, improved accessibility can lead to several positive outcomes. Workers may find better job matches as travel-to-work areas expand, potentially increasing productivity through more efficient labour allocation. Additionally, individuals may choose to work more hours or enter the labour market altogether, reducing economic inactivity. These supply-side responses reflect the increased attractiveness of employment when commuting becomes easier and less costly.

### Land Use Change and Housing

Transport infrastructure also plays an important role in facilitating the expansion of housing supply and it can do so by unlocking and improving access to usable land. Large-scale residential development can often be contingent on the availability and timely delivery of adequate public transport, road, or active travel infrastructure. There has been an increase in the number of cases where planning permission is being refused for new housing developments on the basis of insufficient transport infrastructure in the local area.

Transport Orientated Development (TOD) is defined as a form of urban development that seeks to maximise the provision of housing, employment, public services, and leisure space near frequent, high-quality transport services. A Dublin TOD Study from 2023 reviewed lands located close to existing or proposed high-capacity public transport nodes. Medium to long-term opportunities in five locations were identified, with an estimated capacity of up to 70,000 residential units. These are locations that are at an early stage in the planning process or where future development will be dependent on the delivery of a major public transport project.[12]

Clear and sequenced commitments to provide transport infrastructure can make investment more attractive for developers. Uncertainty and risk associated with enabling infrastructure can deter investment and create delays which have associated costs. Unlocking more developable land has the potential to moderate prices by reducing competition for suitable sites at the land bidding stage.

Transport improvements can also enable land value uplift[13], increasing the value of both existing properties, and by inducing the development of new properties.[14] Transport investment can lead to land-use changes that generate social benefits or losses depending on how private and social values align. When transport reduces access costs and unlocks previously inaccessible sites, it can catalyse development that enhances urban vitality and delivers benefits beyond conventional user-based measures.

## CONCLUSION

Transport infrastructure is a cornerstone of Ireland's economic competitiveness, productivity, and sustainable development. Addressing transport infrastructural deficits through targeted investment under the National Development Plan is essential to facilitating economic growth, reducing travel costs, and enhancing connectivity. Beyond direct user benefits, transport delivers wider economic gains including improved labour mobility, trade performance, regional balance, and housing supply.

Its influence on employment, investment, and land use underscores the need for a holistic appraisal and evaluation approach that captures both monetised and non-monetised impacts throughout the policy lifecycle. As part of a broader policy mix, transport infrastructure is critical to enabling inclusive growth and long-term national competitiveness.

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[9] Anthony J. Venables, James Laird and Henry Overman: *Transport investment and economic performance: Implications for project appraisal (UK Dept for Transport, 2014)*

[10] Alain Bertaud: Cities as Labour Markets, 2015 (International Transport Forum)

[11] Transport Infrastructure Ireland, Evidence on the link between Productivity and Agglomeration, 2020

[12] Opportunities for Transport Orientated Development (TOD) in Major Urban Centres - Dublin Study

[13] Land Value Uplift and Enabling Land Use Change: Considerations for Transport Appraisal

[14] Thomas, D. (2018). Land Value Capture and Urban Public Transport. National Economic & Sial Council.

**Further Reading:**

The NCPC reports to An Taoiseach and the Government, through the Minister for Enterprise, Tourism and Employment, on the key competitiveness and productivity issues facing the Irish economy and makes recommendations to Government on how best to address these issues. The latest NCPC publications can be found at: www.competitiveness.ie.

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