

The Most Common Mistakes in IGs Deliverables

Capital Programme Office
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This note, provided by the NTA Capital Programme Office (CPO), outlines the most common mistakes identified during Infrastructure Guidelines (IGs) reviews supporting the NTA's role as approving authority. These mistakes, while eventually rectified, emphasize the importance of thorough preparation of IGs deliverables by Sponsoring Agencies and project teams before submission for NTA approval. This note is intended to support Sponsoring Agencies and project teams in the preparation of their IGs deliverables prior to submission to the NTA for approvals. This guide serves as a proactive measure to anticipate and address potential pitfalls arising from new IGs requirements. While standardised templates offer a structured framework, vigilance is key to avoiding oversights. It is worth noting that this list is subject to change, reflecting ongoing observations from CPO's IGs reviews.

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1. Not including Value Added Tax (VAT) in the discounted cash flow analysis within the financial appraisal.

Because VAT is excluded from the economic appraisal, it is sometimes excluded from the discounted cash flow analysis in error. Given that it is important to assess affordability from the point of view of the Sponsoring Agency and VAT is usually paid by the Sponsoring Agency, **VAT should always be included in the discounted cash flow analysis**. Exclusion leads to an incorrect Net Present Value (NPV) of the project and an underestimation of the total project cost. Thus, it is recommended that the project team should be familiar with detailed guidance for financial analysis of the IGs and TAF (in particular Module 7, Box 7.7) and use an appropriate template such as financial analysis templates for proposals which can be found on the IGs webpage..

2. Not including VAT, contingency, risk and inflation in total project costs.

At the submission stage, the project team is likely to report capital cost only rather than total costs including all cost elements such as VAT, contingency, risk and inflation. This can cause misunderstanding about the total costs of the project to the review team and confusion about the review and approval process. Thus, the project team should **ensure that all cost elements are included** in a table

in the final version of the business case. It is also recommended to use templates provided as part of the [Guidelines](#) to avoid mistakes.

3. Fail to provide reasonable explanations of why rates of inflation and contingency are applied.

The NTA provide a contingency calculator and inflation bulletin for deriving contingency and inflation rates applied to the business case and the sponsoring agencies are advised to use these guidelines. In particular, when the sponsoring agencies do not adopt the inflation rate from the inflation bulletin, the NTA advise them to provide a reasonable explanation of why the sponsoring agencies apply the other values. However, in some business cases, how the contingency rate is calculated or why the specific inflation value other than the inflation bulletin was not clearly suggested. Thus, the project team should ensure to **include the source of inflation and contingency rates applied** (e.g., [NTA Inflation Bulletin](#), [NTA Contingency Calculator](#)).

4. Not using demand forecast at the opening year to calculate Benefit-Cost Ratio (BCR).

For active travel schemes where the Transport Infrastructure Ireland's (TII) TEAM active travel appraisal tool is used, demand from the scheme's opening year should be used to evaluate the scheme's impact and calculate the BCR. However, some projects included demand from the end of the appraisal period. This can cause overestimation of BCR of the scheme. Therefore, the project team should ensure that the **demand at the scheme's opening year is applied** to calculate BCR.

5. Using complex methodologies for demand forecast of active travel schemes.

Similarly, some active travel schemes often used overly complex methodologies to forecast demand that do not represent a coherent analysis of the uplift over and above the base case. This adds only complexity to the demand forecast rather than contributes to improving the demand forecast process. Relatively **simple coherent approaches** (e.g., Royal Canal Greenway Phase 4) **can be used to forecast base case demand and the uplift** due to the project using case study evidence.

6. Objectives are not SMART (Specific, Measurable, Attributable, Realistic and Timely).

The IGs and TAF advise that objectives should be structured in a manner that reflects SMART attributes. The TAF also describes that it is vital that objectives are framed in a SMART manner as this informs other key aspects of the appraisal process including option development. However, in some business cases, objectives are high-level and lack of specification. High-level and less specified objectives can be a reason for insufficiently quantified and specified key performance indicators. TAF Module 4 provides detailed guidance and useful tools with examples to **develop SMART objectives** (please refer to 4.4 Objective Setting of TAF Module 4). For most projects it should be possible to set fully SMART objectives by the end of the preliminary business case (PBC) stage. If is not possible it should be explained and a plan to make them fully SMART should be in place. In all cases objectives must be fully SMART at final business case (FBC).

7. Not attaching the executive summary / submitting the document with a draft watermark.

The CPO ask that in addition to the main deliverable a separate Executive Summary document should be provided and the relevant submission checklist, signed by the most senior official on the project, should be completed. Also, the CPO asks to submit the final version of the documents without a draft watermark after the quality assurance process by the Sponsoring Agency project team and preparers. Not submitting the executive summary with the business case and removal of the draft watermark from the document for submission results in a delay in the review process and reporting preparation to the Capital Programme Committee and the NTA Board. The project team should ensure that a **draft watermark is removed** from the final IGs deliverable to be submitted **and the executive summary is included** in submission email to the CPO.

8. Not considering the impact of operating cost.

Schemes often focus on the capital cost of the project and do not consider the operating cost implications over and above the base case. This can understate the overall cost implications of the project in both the economic and financial cases. The TAF clearly mentions that operating costs is one of typical costs which might occur in a transport investment (please refer to 7.1 General Principles of the Appraisal Process of TAF Module 7). Thus, the project team should **check all requirements about costs in the TAF**. The IGs

also provides a template for financial analysis which includes operating expenses and maintenance costs. To consider their impacts, it is recommended to use the templates.

9. Incorrect treatment of the shadow price of public funds

Schemes sometimes do not accurately apply the shadow price of public funds in the economic appraisal. The shadow price of public funds should be applied to the net public financial cost of a project. However, some schemes have applied the shadow price of public funds to the non-labour costs and applied the shadow price of labour to labour costs separately. This is incorrect, both the shadow price of public funds and the shadow price of labour should be applied to publicly funded labour costs. **Module 8 of the TAF provides clear guidance** and cost multiplier on the shadow price of public funds (please refer to 8.3 Shadow Price of Public Funds of TAF Module 8). The project team should **ensure that the use of the shadow price of public funds corresponds to this guidance**.

10. Not reporting cost ranges particularly at early project stages

The NTA Project Approval Guidelines (PAGs) recommend the **use of cost ranges**, rather than single point estimates, particularly at early project stages, when the level of unknowns about the project/programme are at their maximum. This provides an inappropriate point of reference for subsequent cost comparisons on the project as it matures, and its full implications are better understood. The use of a cost range instead of a single point estimate should provide a higher certainty of later costs aligning with earlier estimates. A cost range can helpfully be used throughout the project life cycle, with the extent of the **range narrowing as the project develops** and the number of uncertainties and risks decrease.

11. Not undertaking Cost Benefit Analysis (CBA) for projects with an estimated cost greater than €30 million / Over reliance on Multi-Criteria Analysis (MCA) and Cost Effectiveness Analysis (CEA)

The TAF advises that **where possible CBA should be undertaken** for the economic appraisal of projects/programmes with an estimated cost greater than €30 million. However high value schemes do not always take this approach instead relying on MCA and CEA for the economic appraisal. The MCA/CEA approach is highly subjective and results in an absence of any meaningful quantified assessment of benefits. This undermines the credibility of the scheme, particularly where the MCA appears to have been poorly specified (for example by including highly correlated variables) or where the specification of the MCA is changed giving the impression that it has been adjusted to achieve a specific outcome. **TAF Module 7 provides detailed guidance on appraisal techniques**.

12. Overspecification of the solution in early project phases

Project development at project outline document (POD) or PBC stage should begin with a clear investment rationale explaining why public intervention is required. Objectives should then be defined to address the identified problem or opportunity and should be explicitly linked to the rationale, without presupposing a particular solution. An options longlist should follow, considering a wide range of potential solutions consistent with the National Investment Framework for Transport in Ireland (NIFTI) **modal and intervention hierarchies**. This should include a **range of modal and service delivery options**, as well as non-infrastructure measures. In practice, projects often proceed with a preferred solution already in mind, sometimes evidenced by the project title, a weakly articulated rationale, or objectives framed in ways that preclude alternative approaches. As a result, the options longlist may be confined to a single mode or type of intervention rather than exploring a comprehensive range of feasible options. While it may be appropriate in some cases to exclude certain modes or service delivery options, any such exclusions must be clearly justified.

13. Lack of detail in ex-post evaluation plans

Schemes are often submitted which lack **detail in the planning for the ex-Post evaluation** phase of the project. Key performance indicators (KPIs) are usually provided however they do not always relate back to the project/programme objectives. Both the IGs and TAF recommend the development of a **logic path model to set out how the objectives are intended to materialise**. Additionally, **data sources** for measuring progress against the KPIs are not always identified. The ex-post evaluation plan should set out a **schedule for the evaluation exercise** including specifying the timing of the baseline data collection. TAF Module 9 and the NTA's own **guidance** provides advice on ex-post evaluations.

14. Failure to validate approval gate 1 assumptions at Detailed Business Case (DBC) stage (approval gate 2)

The IGs highlight the role of the DBC in **confirming the assumptions** upon which the approval gate 1 approval in principle was based. This is a requirement for approval gate 2 which is often missed. The DBC should revisit the rationale for intervention, the alignment with policy objectives, and the assessment of options, including the **choice of preferred option**, to confirm that these remain valid. A summary of the detailed economic and financial appraisal should be included and the **assumptions underpinning the appraisal** should also be reviewed and confirmed. Assumptions include, but are not limited to, budgetary estimates (including inflation forecasts), the specification of the do minimum, the choice of scenario and changes to parameters in updated guidance.

15. Not including a “climate and environmental performance” section in the PBC

A new requirement of the IGs is that a **“climate and environmental performance” section is included in the PBC**. This new requirement is often missed. The section should assess the project/programme from a climate perspective and include an assessment of its impact on greenhouse gas emissions and the resilience of the project/programme to impacts of climate change. Climate related risks should also be discussed.

16. Not considering at least one do nothing/do minimum option and three do something options in the detailed appraisal

TAF states that the shortlist process should result in **at least one do-nothing/do-minimum and three do-something options** being taken forward for **detailed appraisal**. However, it is sometimes the case that detailed financial and economic appraisal is undertaken on fewer options. In the event that the minimum number of options is not brought forward for detailed appraisal, the sponsoring agency must clearly outline in the longlist appraisal why this is the case.

17. Failure to apply the “comply or explain” principle

IGs deliverables are expected, as standard, to comply with the requirements of the IGs, the TAF, and the NTA PAGs. In some cases, the nature of the project imply that its business case do not need to fully meet all these requirements. Where this occurs, sponsoring agencies must apply the **“comply or explain” principle** by clearly documenting and **justifying any departure from the guidance**.

18. Lack of explanation for cost escalation

At approval gate 2 and 3 the sponsoring agency should clearly break down and **explain the magnitudes of changes in estimated cost** since previous approval gates. The level of detail in such explanations is often weak and lacks discussion of the value for money achieved from the procurement strategy proposed or implemented.