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Project Appraisal Guidelines for National Roads Unit 2.1 – Strategic Assessment Report

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March 2021

PE Planning & Evaluation

Technical

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Update to bring into compliance with the Public Spending Code (December 2019).

Contents Table

1. Context

This Unit of the Project Appraisal Guidelines (PAG) provides guidance on the structure and content of a Strategic Assessment Report. This updated PAG Unit supersedes PAG Unit 2.1 – Project Appraisal Plan.

1.1 Strategic Assessment Report

The Strategic Assessment Report (SAR) was introduced by the Department of Public Expenditure and Reform (DPER) as part of the update of their Public Spending Code (PSC) document in December 2019 and is now the first deliverable in the PSC Project Lifecycle sitting under the 'Strategic Assessment' stage as illustrated in Figure 2.1.1.

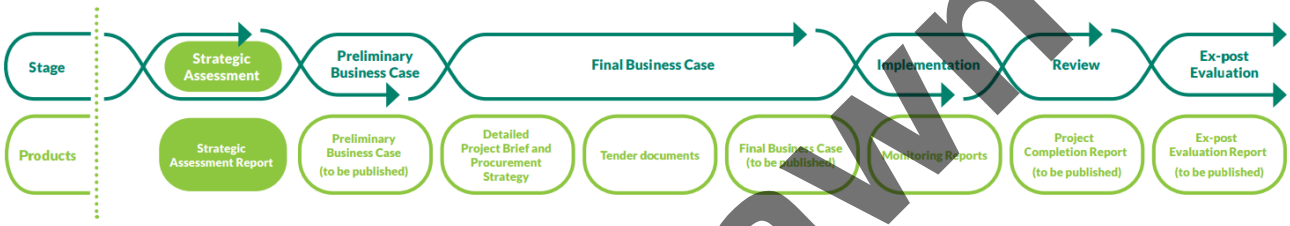


Figure 2.1.1 DPER PSC Project Lifecycle (Stages & Products)

The SAR is also an approval point in the decision making process with approval of the SAR required by the relevant Approving Authority and the Department of Transport (DoT) and in some instances DPER before the project can proceed to the next PSC Project Lifecycle stage (i.e. Preliminary Business Case).

A SAR is required on all projects/programmes in excess of €10m (total costs incl. VAT). For projects/programmes with an estimated cost between €10m and €100m, the SAR must be reviewed and approved by the relevant Approving Authority and the DoT before the project can proceed to the next project stage. TII are the Approving Authority for National Road projects/programmes under €100m. For projects/programmes with an estimated cost in excess of €100m, the SAR must be reviewed and approved by both the relevant Approving Authority, DoT and DPER.

The requirement to produce a SAR is applicable to all capital projects and programmes across the public sector. This PAG Unit therefore translates the generic requirements of the SAR as outlined in the PSC into requirements for National Roads projects and provides guidance on the type of information and level of detail required.

1.2 Strategic Assessment Report Structure

The PSC sets out the areas that must be covered in a SAR. The relevant areas for National Roads projects are:

- Investment Rationale
- Strategic Alignment with Government Policy
- Objectives
- Preliminary Demand Analysis
- Long-List of Potential Options

- Potential Range of Costs Involved (Financial and Economic)
- An Assessment of Affordability
- An Identification of Risks
- A Framework for Determining Key Performance Indicators
- An Appraisal Plan
- An Outline Governance Plan

Each one of these areas is separately addressed in this PAG unit in relation to the level of detail required.

Under the previous requirements of PAG, the Project Appraisal Plan (PAP) contained a large amount of the information now required in a SAR. More detailed information for a number of the remaining areas of the SAR, is currently provided in the Project Brief (PB) and Project Execution Plan (PEP). The PB and PEP are produced at Phase 1 (Concept & Feasibility) under the TII Project Management Guidelines (PMG) and Project Appraisal Guidelines (PAG).

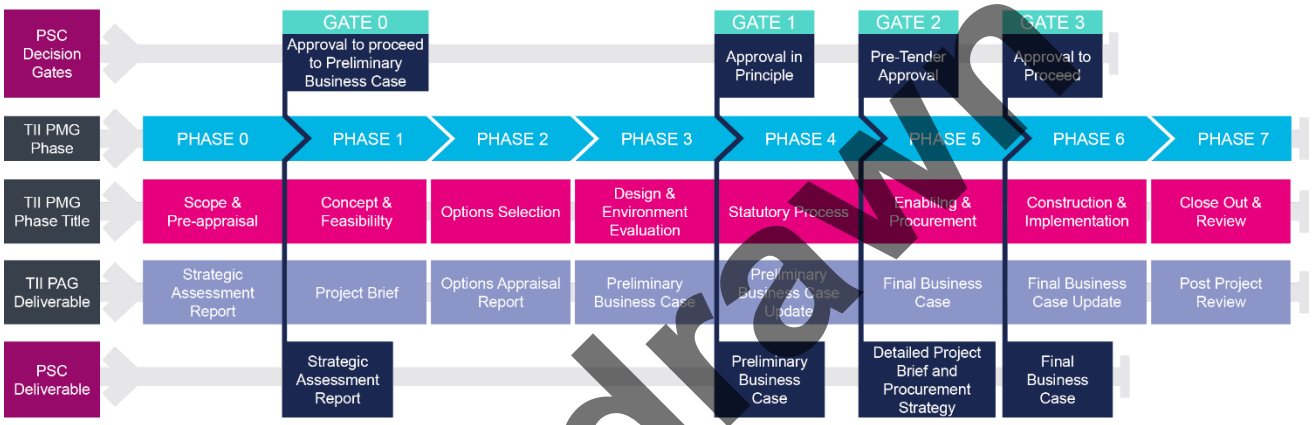
The PB and PEP produced at Phase 1 can therefore now build upon the basic information provided in the SAR and refine the details of the project/programme as further information becomes available.

2. TII Phase 0 (Scope & Pre-Appraisal)

The lifecycle of a TII National Road capital project is split into 8 defined project phases (Phases 0 – 7) as illustrated in Figure 2.1.2. Phase 0 (Scope & Pre-Appraisal) is the first phase of the project lifecycle as set out in the TII PMG and this Phase aligns with the 'Strategic Assessment' stage of the DPER PSC.

The SAR is now the key deliverable of Phase 0 (Scope and Pre-Appraisal), superseding the Project Appraisal Plan, and it must be approved at PSC Decision Gate 0 by the Approving Authority and DoT/DPER (where applicable) before the project can formally proceed to Phase 1 (Concept & Feasibility).

Figure 2.1.2 TII National Road PMG Project Phases



At Phase 0 (Scope & Pre-Appraisal), there will be limited information available to inform the SAR. The type of National Road projects which require a SAR will vary greatly and the level of detail provided in the SAR should be proportionate to the scale and complexity of the project.

At present, National Road Capital Expenditure Projects[1] are classified into three main categories under the TII PAG, with each requiring a different and proportionate level of appraisal. The three categories are as follows[2]:

- Major Projects - cost > €20m;
- Minor Projects - cost between €5m and €20m; and
- Minor Projects - cost between €0.5m and €5m.

Major Projects (cost > €20m) and Minor Projects with capital costs in excess of €10m will require a SAR to comply with the PSC. This PAG Unit is therefore structured to provide guidance on the level of detail to be included in the SAR for these project types.

[1] For the categorisation of projects capital expenditure costs are inclusive of VAT.
[2] These classifications may be updated later in 2021 to align with the Department of Transport requirements under the updated CAF.

3. Contents of the Strategic Assessment Report

The following sections provide details of the structure and content of the SAR for National Road projects.

3.1 Introduction

This section should provide a high level overview of the project and outline that the document is in compliance with the requirements of the PSC in relation to a SAR.

3.2 Investment Rationale

This section should outline the existing situation, supported by a high level analysis of available information, and outline the rationale underlying the proposed intervention. With evidence, this should demonstrate current and potential future problems and their underlying causes. This should include, but is not limited to, existing/potential future issues in relation to safety, journey time, journey time reliability, accessibility and social inclusion, severance, connectivity, employment, socio-economic factors, etc. It is important to note that not all of these headings will be relevant to every scheme, in addition other headings may be relevant.

3.3 Preliminary Demand Analysis

Where possible a high level estimate of current and future travel demand arising from a transport investment needs to be provided. The demand for travel forms part of the Investment Rationale of a project, as such any available information that can be used to provide context on the current and potential future demand and details of the source of this information should be provided under this section of the SAR.

Information on existing travel demand may be available from recent surveys (traffic, public transport, active modes etc.) or the latest base year TII National Transport Model or National Transport Authority (NTA) Regional Model. CSO census data[3] should be used in this section to enhance the description of the local area or transport corridor in relation to mode share for education and commuting trips. Information on public transport services in the area under consideration (rail, inter-urban bus, local bus services etc.) should also be provided. In addition to any information on greenways, blueways etc. of relevance should be included.

Where relevant any information on special zones (e.g. Airport or Ports) should be included if relevant to the area or transport corridor under consideration.

A high level estimate of future year travel demand for a specific transport investment may be available from a future year TII NTpM, NTA Regional Model or a strategic transport study/strategy.

3.4 Strategic Alignment & Policy Context

The alignment of the transport intervention with government policy should be clearly set out in this section of the SAR. This includes alignment in relation to the National Planning Framework (NPF) and its National Strategic Outcomes (NSO), the National Development Plan (NDP), the DoT Strategic Investment Framework for Land Transport, the relevant Regional Spatial and Economic Strategy (RSES) and National Policy on climate action.

[3] CSO (Census 2016) Small Area Population Statistics

In addition, any European, national, regional or local policy context that supports the investment rationale should be highlighted and discussed in this section of the SAR.

It is also important to identify objectives of other agencies, departments and government policies that interact with or are contained within the study area. From the outset of the project, it is important to consider the wider implications of the interventions being proposed and not only ensure they do not impede the objectives of other agencies or local government departments but seek to aid, where possible, their implementation.

3.5 Project Objectives

Based on the investment rationale and relevant policy context, the SAR must clearly set out project objectives. The project objectives should be structured in line with the six Common Appraisal Framework criteria, namely:

- Economy
- Safety
- Environment
- Accessibility and Social Inclusion
- Integration; and
- Physical Activity

Details of the setting of project objectives is provided in TII PAG Unit 3.0 – Project Brief. As per the requirements of the DoT CAF, these objectives should be Specific, Measurable, Accurate, Realistic and Timely (SMART). At this early Phase of the project, the preferred mode for the transport intervention may not yet have been confirmed so the project objectives must not be case making or solution orientated towards a specific mode.

Project objectives should be targeted at addressing the core problem identified and drawn from government policy. Project objectives can be assigned to control the potential of negative externalities that develop over the course of a project including severance, increased social exclusion etc.

3.6 Long-List of Potential Options

On the basis of the project objectives, a long list of all feasible transport interventions should be set out in the SAR. This should include a Do-Nothing/Do-Minimum option and should cover all the feasible modes of transport that may address the need for the scheme. An incremental approach should be adopted when considering options, whereby small scale or lower standard investment (e.g. management options - traffic management measures, road safety works, ITS etc.) are identified. The identification of the long-list of options may require interaction/workshops with other agencies such as the NTA, local authorities or transport providers as potential solutions should be multi-modal, unless if this is inappropriate for the scheme e.g. in the case of a bridge or tunnel.

There is no requirement to analyse or assess any of the feasible options identified as part of the SAR, however the steps involved and the appraisal tools/processes that will be used to move the project from a long-list of potential modes/options through to the selection of the preferred option should be set out in the SAR.

As part of the Phase 1 (Concept and Feasibility) appraisal process, an initial refinement of the feasible options through a structured process such as a Logic Path Model or high level Multi-Criteria Analysis assessment may be used to identify or refine the modes/options to bring forward for further consideration at Phase 2 Option Selection.

The impacts on all road users must be taken into consideration when assessing the alternative modes and sub-options provided in the long list, including the potential enhancement of connectivity and accessibility between modes of transport. Options should be developed to allow for an escalation in scale of intervention to address the specific problems as defined in Section 3.2.

Options should seek to align with the objectives of a range of National Strategic Outcomes and actively seek to ensure they complement, where possible, and do not undermine in any way objectives of other agencies or local government departments defined within National, Regional and/or County Development Plans.

Under the TII PMG, there is a three stage process at Phase 2 (Option Selection) to narrow the long-list of feasible options down to the preferred option:

- Stage 1 – Preliminary Options Assessment
- Stage 2 – Project Appraisal Matrix; and
- Stage 3 – Selection of a Preferred Option

The appraisal tools/processes used to inform the decision making process need to be set out in the SAR relative to each stage. This may include tools such as Multi-Criteria Analysis, Balanced Scorecard, Logic Path Model, Cost Benefit Analysis (CBA), Financial Appraisal (FA), Distributional Impact Appraisal, etc. using industry standard tools such as TUBA, COBALT, Geographic Information Systems (GIS) or bespoke appraisal tools specific to the scheme. Depending on the complexity of the National Road project, sub-stages may be required to help inform the decision making process. If this is likely to be the case these sub-stages should be included in the SAR.

Guidance on the identification of options and the structured approach to the Option Selection process is provided in TII PAG Unit 4.0 - Consideration of Options and Alternatives.

3.7 Forecast Cost Range

An indicative forecast cost range for the proposed project is required. This will inform the level of project appraisal required under CAF/PSC. It will also indicate to the relevant approving authority the potential scale of the project. Given cost uncertainty at the outset of a project, a broad estimate of potential forecast cost ranges should be provided. The following forecast costs ranges are to be used in the SAR for TII projects:

- €10m - €20m;
- €20m - €100m;
- €100m - €250m;
- €250m - €500m;
- €500m - €1000m; and
- €1000m+

In addition to the breadth of these cost ranges, the SAR should note that these ranges are subject to a high degree of uncertainty and should not be relied upon for any funding commitments.

Existing information/reference costs should be used where available to estimate which forecast cost range the project is likely to fall into. The SAR should make reference to this existing cost information as appropriate, in order to demonstrate lessons learned from previous similar projects. As the preferred transport mode (for major schemes in particular) has not yet been identified, costs ranges may also need to be provided for a range of alternative modes.

3.8 Assessment of Affordability

The PSC requests that an early assessment of affordability and intended sources of funding is provided in the SAR. Where a TII project has been identified as part of any national capital investment programme, such as the National Development Plan, this should be referenced in the SAR.

A number of National Road capital projects have been identified for delivery under the NDP; in addition to the appraisal and planning of several National Road capital projects. There are numerous types of National Roads projects and programmes of various scale and complexity not specifically included in the NDP (e.g. safety schemes, minor realignments, junction upgrades, maintenance, ITS etc.) but which are vital to the on-going upgrade of the National Road network and fall under a specific funding stream within TII.

Funding of TII roads projects/programmes, both capital and maintenance, are classified under the following four funding streams within TII:

- Capital Projects;
- Capital Public Private Partnership (PPP) Projects;
- Capital Programmes (Total Programme Value); and
- Maintenance

In turn, each of these four funding streams are sub-divided relevant to their projected cost. Table 2.1.1 provides a breakdown of each of the four funding streams and their sub-classification by cost. In the SAR, the relevant TII funding stream/sub-classification should be identified. This funding stream must be confirmed with TII Roads Capital Programme Division.

Table 2.1.1 TII Roads Capital/Maintenance Funding Streams

Funding Stream	Sub-Classification
Capital Projects	€0.5m - €5m
	€5m - €20m
	>€20m
Capital Public Private Partnership Projects	€5m - €20m
	>€20m
Capital Programmes (Total Programme Value)	<€5m
	€5m - €30m
	>€30m
Maintenance	€0.5m - €5m
	€5m - €20m

3.9 Identification of Risks

Where possible, specific risks related to the project which are currently known (demand, physical, environmental, planning etc.) at the outset of the project should be provided in the SAR. In addition, a list of generic risks which are common to the type of project being undertaken should be provided. At a minimum the following key strategic risks should be considered for each project:

- Demand Levels and Project Viability Risks;

- Planning Risks;
- Environmental Risks;
- Technical Risks; and
- Procurement Risks.

An example of the structure of a generic list is provided in Figure 2.1.3.

KEY STRATEGIC RISKS					
RISKS	DEMAND LEVELS AND PROJECT VIABILITY	PLANNING	ENVIRONMENTAL	TECHNICAL	PROCUREMENT
1					
2					
3					
4					
5					

Figure 2.1.3 Generic Project Risks Example

Finally, a high level summary of the risk management processes/tools that will be used throughout the project planning/design lifecycle to identify, assess, mitigate and communicate risk should be included in the SAR. Details of these processes are set out in the TII Cost Management Unit.

3.10 Framework for Determining Key Performance Indicators

A structured process is required at Phase 1 (Concept & Feasibility) and Phase 2 (Option Selection) in order to inform and guide the decision making process in relation to the assessment of the long-list of potential options (see Section 3.6) and also to inform the Key Performance Indicators (KPI) for the project.

Frameworks for guiding these processes include Logic Path Modelling and/or Multi-Criteria Analysis. The preferred framework that will be applied should be set out in the SAR. The SAR should include a brief list of potential KPI that may be relevant to the project and how the Logic Path Modelling and/or Multi-Criteria Analysis frameworks will ensure that the KPI can be used to appraise and evaluate the project with respect to the defined project objectives. It should be stated that a full refinement of the project KPI will be undertaken during Phase 1 and Phase 2 of the project lifecycle.

Guidance on Logic Path Modelling and Multi-Criteria Analysis is provided in TII PAG Unit 3.0: Project Brief and PAG Unit 7.0: Multi-Criteria Analysis respectively.

3.11 Appraisal Plan

The SAR must include a project appraisal plan which covers the following key areas:

- Identification of Transport Model Study Area
- Transport Modelling Methodology
- Data Requirements
- Travel Demand Projections
- Appraisal Methodology
- Sensitivity Analysis

- Appraisal Scenarios

Identification of the Transport Model Study Area

This section should clearly identify the transport model study boundary within which the scheme impacts will be assessed and any basis for this study area e.g. high-level modelling, previous studies and natural/artificial barriers such as rivers and roads.

Transport Modelling Methodology

This section should describe the type of model (simple, assignment or variable demand model), the software to be used, the time periods, base year and forecast years to be assessed and the complexity of the modelled network. See PAG Unit 5.1: Construction of Transport Models for further guidance.

Data Requirements

The Data Requirements section should review existing data that may be available (e.g. origin-destination surveys, mapping resources, and existing national, regional or local models), and set out proposed additional data to be collected. See PAG Unit 5.2: Data Collection for further guidance.

Travel Demand Projections

The Travel Demand Projections section will generally confirm that the approach set out in PAG Unit 5.3: Travel Demand Projections will be used for the appraisal. If necessary, any proposed deviations from the guidance in PAG Unit 5.3: Travel Demand Projections, such as the use of projections from other modelling systems, should be described and justified.

Appraisal Methodology

The Appraisal Methodology section should outline the approach to both the Economic and Financial Appraisal elements and provide details of the analysis tools and software that will be used (TUBA, COBALT, etc.) to inform the appraisal process. It should include confirmation that the appraisal parameters set out in PAG Unit 6.11: National Parameter Values Sheet will be used. If any other parameters are used, a detailed explanation of the parameters and the reason for their use should be provided.

Sensitivity Analysis

This section should clearly specify the sensitivity analyses that will be undertaken at the detailed appraisal stage including specific reference to demand sensitivities, cost sensitivities, complementary project sensitivities, and sensitivities on the shadow price of labour. See PAG Unit 6.1: Guidance on Conducting CBA for further guidance.

Appraisal Scenarios

This section should list all transport network and transport demand scenarios to be used in the project appraisal and provide an indication of the overall transport model and appraisal tool runs required.

3.12 Outline Governance Plan

As part of the SAR, an outline governance plan needs to be included. This outline governance plan will form the basis for the preparation of the project roles, responsibilities and authorities in the Project Execution Plan (PEP) which is a deliverable under the TII Project Management Guidelines for projects at Phase 1. The PEP will then be updated at each subsequent phase as required and will fulfil the PSC requirement for a Governance Plan throughout the project lifecycle.

The outline governance plan needs to identify the PSC roles of the Sponsoring Agency, Approving Authority and Parent Department and set out at a high-level key project roles and responsibilities which are known at this early stage.

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