

Quality Assurance Process 2019

Appendix D

In-Depth Check Reports

This appendix details the two in-depth check reports with respect to:

National Vehicle and Driver File - Master Licence Record

N22 Baile Bhúirne to Macroom

Quality Assurance Process 2020: In depth check

National Vehicle and Driver File

- Master Licence Record

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Document Purpose

This document sets out the template to be filled in by the evaluator, in conjunction with the division/unit/agency, while completing an in-depth check as part of the Quality Assurance Process. This document is drawn directly from the In-Depth Check Methodology document used by the Department of Transport's Strategic Research and Analysis Division (SRAD) to carry out the evaluation. It is split in to 5 sections in accordance with the 5 identified steps of the in-depth check process, as outlined in the Public Spending Code (PSC).

Document Format

Section A: Introduction

Section B: Evaluation

- 1. Logic Model Mapping
- 2. Summary Timeline of Life Cycle
- 3. Analysis of Key Documents
- 4. Data Audit
- 5. Key Evaluation Questions

Section C: Summary and Conclusions

Summary and Use

The templates, once completed, will be the in-depth check and will be attached as an appendix to the Department's annual Quality Assurance report. The Summary and Conclusions section, to be no longer than two paragraphs, will be copied in to the main report under the In-Depth Check section.

Section A: Introduction

This introductory section details the headline information on the National Vehicle and Driver File - Master Licence Record Project.

Project/Programme Summary		
Name	National Vehicle and Driver File – Master Licence Record	
Description	This is an IT project in which existing databases on vehicles and driving licences are linked, to ensure that all penalty points are endorsed on a driving licence. It also simplifies a range of other relevant functions, such as enabling businesses to tax their entire fleet of vehicles in a single online transaction.	
Responsible Body	Driver and Vehicle Computer Services Division	
Current Status	Expenditure Recently Ended	
Start Date	2017	
End Date	2019	
Projected Overall Cost	€4.1 million	

Project Description

The 'National Vehicle and Driver File (NVDF) – Master Licence Record' is an IT and data project in which existing databases on vehicles and driving licences are linked. The need for this project arises from the fact that in the absence of a system which links these databases, some penalty points cannot be endorsed on a licence. This typically occurs in scenarios in which drivers who contest the penalty points, do not engage with the system through either not showing up to court or through refusing to provide their Driver's Licence or Learner's Permit details.

This problem was addressed within the Garda Inspectorate report 'The Fixed Charge Processing System, A 21st Century Strategy', which included a recommendation that a system be introduced to ensure that all penalty points are endorsed on a driver's licence or learner's permit. The Master Licence Record (MLR) was the system proposed and progressed for the achievement of this goal.

The resulting MLR project includes several stages, outlined within various scoping and planning documents. These plans were developed with reference to legal guidance on the

implications of data and other legislation was sought, and the recommendations of Privacy Impact Assessments.

Following implementation, existing data from both databases was matched over two phases according to specified 'matching rules'. These links were recorded in the specifically designed MLR format within the NVDF and the Driver Vehicle Computer Services Division (DVCSD) predicted that they would be able to match 33% of records across these two phases, and this has been achieved. It is expected that, following the completion of an integration project between An Garda Síochána and the DVCSD, it should be possible to realise some of the project objectives through the utilisation of these records (the 33% currently in the MLR).

These objectives/benefits are:

- Increase the number of penalty point offences that are endorsed on driving licences by including Driver Number from MLR with offence information that is sent to An Garda Síochána and the Courts Service
- Increase the identification of Disqualified Drivers on the road by using ANPR lists generated via MLR
- Increase the identification of Unaccompanied Learner drivers on the road by using ANPR lists generated via MLR

In addition to matching historic data, the project includes plans to record new data in this matched format to ensure that the project objective of ensuring that all penalty points are endorsed, on either a driver's licence or learner's permit.

The MLR will also simplify a range of other relevant functions, such as enabling businesses to tax their entire fleet of vehicles in a single online transaction; and enabling private buyers and sellers to easily transfer ownership of vehicles online. These services will be delivered via an online vehicle and driver self-service portal. However, this component of the project is currently on hold due to the ongoing legal issues with the use of DEASP's Public Services Card (and its online equivalent MyGovID) by other public bodies.

To ensure legal clarity on the issue, the Driver Vehicle Computer Services Division are currently drafting legislation that explicitly gives the Department of Transport the power to collect identifying particulars from vehicle owners (i.e. users of the system). These provisions are in the Road Traffic (Miscellaneous Provisions) Bill 2020 which is due to be enacted early next year. Once this legal basis to verify user identity has been developed, the DVCSD expect to proceed with building the system in 2021.

Section B - Step 1: Logic Model Mapping

As part of this in-depth check, SRAD have completed a Programme Logic Model (PLM) for the National Vehicle and Driver File – Master Licence Record project. A PLM is a standard evaluation tool and further information on their nature is available in the <u>Public Spending Code</u>.

Description of Programme Logic Model

Objectives: All of the project objectives relate to the use of data and technology to improve the efficacy and efficiency of the NVDF systems. The matching of vehicle records and driver records within the MLR is driven by the objective of endorsing all penalty points on either a licence or a learner's permit. However, the other project objectives are concerned with using data and technology to enhance the online customer service offering for drivers and businesses with fleets of vehicles.

This improved customer service will be achieved through the realisation of objectives such as: the facilitation of the online transfer of vehicle ownership, and the systematic identification of vehicles contained in company fleets. Through identifying company fleets, the online system will allow businesses to tax all of their vehicles in a single transaction. The transfer of vehicle ownership via this online system will require the payment of any outstanding motor tax, ensuring that transfers of ownership are not used as a means of tax avoidance by vehicle owners.

Inputs: The inputs include the project budget of €4.1 million, the data within the National Vehicle and Driver File (NVDF), and the time and expertise of staffing from within both the Department of Transport and to a lesser extent with other organisations such as An Garda Síochána and the courts. The Business Case estimated that the project budget of €4 million would be spent over the course of 3 years accordingly (accuracy of these projections was estimated at plus or minus 30%): Year 1: €1.5m, Year 2: €1.25m, Year 3: €1.25m. The programme has cost €4.1 million so far (over a period of 3 years), and any future costs, such as those arising from the population of the MLR will likely be met within the DVCSD subhead.

Activities: As this is a data project, there was a need to conduct a Privacy Impact Assessment (PIA), in addition to the more universal appraisal and project planning activities that are associated with any public project or programme. Once the planning and preparatory activities had been completed, the first few operational phases commenced. On completion of the second phase 33% of the NVDF records had been matched. The outstanding phases will include the development of an online public platform within which drivers can register and tax their vehicles, in addition to other functions. The new MLR system once operational, will also ensure that driver and vehicle data is matched in all cases, ensuring the endorsement of all penalty points going forward.

Outputs: The outputs are the Master Licence Record (MLR), which is the result of linking the Driver and Vehicle databases; and the online vehicle and driver self-service portal with verified user identity. The first output — the MLR — is necessary for the development of the second output — the self-service portal.

Outcomes: The first order outcome will be the achievement of the primary project objective: all penalty points will be endorsed on a licence following full implementation of the MLR. It is expected that the achievement of this outcome will enable the further outcome of increasing road safety and therefore reducing injuries and road deaths as drivers will have an incentive to drive more carefully (to avoid penalty points) and consistently unsafe drivers will be taken off the road

due to their accrual of penalty points from unsafe driving. It is hoped that through the endorsement of all penalty points, public perception of the penalty points system will increase due to an improved perception of its fairness and consistency.

An additional outcome will be increased convenience for drivers and vehicle owners due to the online self service portal through which they will be able to tax their vehicles and perform other functions.

Section B - Step 2: Summary Timeline of Project/Programme

The following section tracks the National Vehicle and Driver File – Master Licence Record Project from inception to conclusion in terms of major project/programme milestones

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Start: Feb 2014	Garda Inspectorate Report on the Fixed Charge Processing System (FCPS) identifies an issue with the endorsement of penalty points onto a drivers licence in scenarios in which the driver number is unknown.
Feb 2014	A Criminal Justice Working Group (CJWG), was established to oversee the FCPS report's recommendations
Feb 2014	A data-processing sub-group of the CJWG undertook a detailed analysis of the information flows supporting the FCPS. It identified a number of issues related to the identity of vehicle owners and made a further set of recommendations.
Dec 2016	The Comptroller and Auditor General Special Report: Administration and Collection of Motor Tax, recommends the validation of NVDF data, to ensure that it is fit for purpose.
March/April 2017	White paper on Proposed Approach to MLR: produced and circulated to All Working Group stakeholders for comment.
May 2017	DTTAS consulted Data Protection Commissioner's office (DPC) regarding privacy implications of upcoming projects. The DPC recommended that DTTAS carry out a Privacy Impact Assessment for the MLR programme.
Oct 2017	DTTAS established the Master Licence Record (MLR) programme to create associations between vehicle and driver databases.
Oct 2017	In phase one of the programme 18% of the records were matched and duplications removed. This was done through identifying matching names and addresses within the registered vehicle and driver databases.
May 2018	DTTAS completes a Privacy Impact Assessment for the MLR programme.
July 2019	In phase two, vehicle and driver records were matched using email addresses, phone numbers and offence records; this was projected to increase the number of matches to 33% of taxed

	vehicles in the database.
Future Targets: 2020	Complete an integration project with An Garda Síochána (currently underway) which will allow the utilisation of the 33% of records currently in the MLR to generate benefits such as the endorsement of some currently unendorsed penalty points, and the identification of some disqualified drivers and unaccompanied learner drivers.
2021	D/Transport plans to develop an online vehicle and driver self- service portal with verified user identity. This will include a change of ownership service for private-to-private vehicle sales and a motor tax application/renewal functionality
End: 2022	Full population of the MLR can be expected once the online motor tax system with verified user identity has been in place for about 12 months. Assuming the timeline above, this could be achieved by the end of 2022.

Section B - Step 3: Analysis of Key Documents

The following section reviews the key documentation relating to appraisal, analysis and evaluation of the NVDF – Master Licence Record project.

	Project/Programme Key Documents		
No.	Title	Details	
1	NVDF – Master Licence Record Business Case Driver and Vehicle Computer Services Division, Department of Transport. Tourism and Sport (October 2015)	Document outlining the need for and objectives of the project	
2	Whitepaper: The Master Licence Record (MLR), A Proposed Approach Driver and Vehicle Computer Services Division, Department of Transport. Tourism and Sport (2017)	Document providing a comprehensive overview of the project as proposed	
3	File Transfer Specification: Master Licence Record: Registered Owner-Driver Database Match Department of Transport, Tourism and Sport (03/08/2017)	Document outlining the rules associated with matching vehicle to driver information during Phase 1 of the project.	
4	Privacy Impact Assessment: Master Licence Record Phase 1: Registered Owner-Driver Database Match Department of Transport. Tourism and Sport (06/10/17)	Report which evaluates the privacy implications of Phase 1 of the Master Licence Record (MLR)	
5	Privacy Impact Assessment Master Licence Record (MLR) Programme Department of Transport. Tourism and Sport (23/05/2018)	This Report evaluates the privacy implications of the full Master Licence Record (MLR)	
6	MLR Population Streams Business Requirements Document Department of Transport, Tourism and Sport (16/04/2019)	A technical document outlining the envisaged structure of the IT system and related work processes	
7	Master Licence Record (MLR) Overview and Specification Department of Transport, Tourism and Sport (10/07/2019)	Document outlining the rules associated with matching vehicle to driver information during Phase 2 of the project.	
8	Email: Re. QAP 2019 - In depth checks Strategic Research and Analysis Division and Driver and Vehicle Computer Services Division, Department of Transport. Tourism and Sport (21.09.2020)	Emails between the SRAD and DVSCSD clarifying various details of the MLR programme.	
9	Data Protection Impact Assessment Master Licence Record (MLR) Programme Department of Transport. Tourism and Sport (2020)	Document, required under GDPR assessing the potential impact of the programme on the privacy of individuals, with a focus on data.	

This is the Business case outlining the need for and objectives of the project. The need for this project arises from the fact that in the absence of a system which links the Driver and Vehicle databases, some penalty points cannot be endorsed on a licence. This problem arises in scenarios in which drivers who contest the penalty points, do not engage with the system through either not showing up to court or through refusing to provide their Driver's Licence or Learner's Permit details.

This problem was addressed within the Garda Inspectorate report 'The Fixed Charge Processing System, A 21st Century Strategy', which included a recommendation that a system be introduced to ensure that all penalty points are endorsed on a driver's licence or learner's permit. The Master Licence Record (MLR) was the system proposed and progressed for the achievement of this goal. The Business Case goes on to outline the relevant data on penalty points, and the costs and benefits of the proposed MLR project.

While the document clearly outlines the need and rationale for the project, it would benefit from a clear evaluation or monitoring plan. There is also no 'Do Something' alternatives identified or considered and ruled out within the document.

Key Document 2: Whitepaper: The Master Licence Record (MLR), A Proposed Approach (2017)

This document provides a comprehensive overview of the project as proposed, including: an Executive Summary, Problem Definition, Proposed Solution, Challenges faced etc. It also includes Appendices A-C which presents relevant data, pros and cons of the different methods for populating the MLR such as insurance or motor tax renewal. It's a very comprehensive document that builds upon the content of other Key Documents to provide a fuller appraisal of the project.

Key Document 3: File Transfer Specification: Master Licence Record: Registered Owner-Driver Database Match (03/08/2017)

Document outlining the rules associated with matching vehicle to driver information during Phase 1 of the project. Section 1 of the document stipulates the three rules and the matching criteria associated with each of them are very specifically outlined within the document. For example, Rule 1: 'Exact match of forename, surname, address line 1, town and county of registered owner against name and current address of driver'. The criteria for removing duplicate entries, is also outlined. Section 2 describes the structure of an MLR file and the details of secure file transfer; and finally Section 3 includes a Glossary of the various acronyms used.

Key Document 4: Privacy Impact Assessment: Master Licence Record Phase 1: Registered Owner-Driver Database Match (6/10/17)

Report dated a year earlier than the PIA which relates to the project as a whole, which evaluates the privacy implications of Phase 1 of the Master Licence Record (MLR) Programme. The document outlines the intended data processes, assessing the risks to privacy, and recommending solutions to mitigate these risks. This document appears to be complete and comprehensive.

Key Document 5: Privacy Impact Assessment Master Licence Record (MLR) Programme (23/05/2018)

This Report evaluates the privacy implications of the Master Licence Record (MLR) Programme; assessing the risks to privacy, and recommending solutions to mitigate these risks. The document outlines the legal basis for the gathering and use of various data; it asks and answers a series of questions to screen whether or not a PIA is required; it also asks and answers a series of questions about how data will be gathered, managed and used for the purposes of the project; and it outlines the privacy and compliance risks and remedies to those risks.

There are also a few uncompleted sections in this document, such as the Executive Summary, and Appendix A: Personal Data Inventory, and there are references made to plans for further updates being made following the development of a new template. Key Document 11 is the updated version of this document.

Key Document 6: MLR Population Streams Business Requirements Document 16/04/2019

This is a technical document outlining the envisaged structure of the IT system and related work processes. This document envisages the MLR as a mechanism to establish the identity of vehicle registered owners and link the vehicle and driver components of the NVDF database. The document outlines the methods through which data can be matched and validated, and describes the functions of the system including for example, allowing for changes in vehicle ownership to be processed online by private individuals.

The content of this document is of a high standard and seems reasonably comprehensive. However, the document looks unfinished due to being drafted within the structure of a template in which some sections- such as the introduction to the document, and the introduction to and the scope of the project itself, Organisation requirements, Functional Requirements and Regulatory Requirements- have been left uncompleted. The absence of an introduction makes it difficult to judge to what extent the missing sections of this document undermine it, in achieving its purpose.

The DVCSD have explained to SRAD that the reason the document is unfinished is due the decision that each individual measure of the programme (apart from database matching measures) would be pursued independently once the legislation was in place. This draft document was provided for this in depth check, as it provides a good summarised account of all the proposed measures.

Key Document 7: Master Licence Record (MLR) Overview and Specification (10/07/2019)

Document outlining the rules associated with matching vehicle to driver information during Phase 2 of the project. In phase two, the list of rules is much longer than for Phase 1- numbering 13. This is due to going beyond 'Exact matching' to other methods of matching including 'Soundex

matching' in which matches are made based on phonetic matches. A potential example of this would be the place name 'Phibsboro' being matched to 'Phibsborough'.

Phase Two appears to continue in the principle of ensuring that matches are not maximised at the expense of accuracy e.g. 'if a vehicle owner record is an exact match with more than one driver record, the MLR entry is not created.' The document is brief but clear and concise in achieving its purpose.

Key Document 8: Email: Re. QAP 2019 - In depth checks (21.09.2020)

This document is an email sent to the author of this review by an employee working in the Driver Vehicle Computer Services division. This email is in response to an earlier one by the review author, which consisted of a series of questions about the project. The email provides answers to these questions, which sought clarity and additional details on both the project timeline and evaluation plan. These questions were asked for the purpose of completing this In Depth Check.

Key Document 9: Data Protection Impact Assessment: Master Licence Record (MLR) Programme (2020)

This document is the result of a process mandated under the General Data Protection Regulation (GDPR) due to the high risk data processing activities, required by this programme. This process-Data Privacy Impact Assessment (DPIA)-is described as 'a process of systematically considering the potential impact a project or proposed change will have on the privacy of individuals, with a focus on data.'

The document: outlines the process of completing a DPIA generally and for this programme in particular, outlines the legal basis for each stream of the programme, includes data protection checklists for each phase of the programme, includes a risk analysis and mitigation plan, a plan for the integration of the principles of GDPR into the broader project plan, and appendices which provide links to other related documents.

This document represents a comprehensive account of data privacy risks and mitigation strategies, and appears to fully meet the requirements of GDPR.

Section B - Step 4: Data Audit

The following section details the data audit that was carried out for the National Vehicle and Driver File – Master Licence Record Project. It evaluates whether appropriate data is available for the future evaluation of the project/programme.

Data Required	Use	Availability
Data on penalty points endorsed on driver licences and learner permits, and if applicable unendorsed penalty points	To evaluate whether or not all penalty points are endorsed on a licence following full implementation of the MLR	It seems likely that this data would be available based on the current existence of data on endorsed and unendorsed penalty points
Data on driver behaviour and on the frequency and severity of road traffic accidents	To evaluate whether or not the endorsement of all penalty points has been followed by a reduction in dangerous driving	The availability of this data is dependent on monitoring and enforcement by An Garda Síochána. It is assumed that this data will continue to be available to the extent that it currently is. However, it will be difficult to say for sure whether or not changes can be attributed to the MLR programme or to other causes
Data on public perception of the penalty points system	To evaluate whether or not it has improved	There is no baseline data on this that I am aware of, and there are not currently any plans to gather this data ex post. It is assumed that this data is unavailable
Data on the number of unendorsed penalty points and on the cost of administering these points (e.g. court costs and other staff costs)	To evaluate whether or not this has been reduced or eliminated following programme implementation	It is presumed that this information would be available, but this may be time consuming and difficult to collate
Data on the convenience experienced by users of the new online self service system	To evaluate whether or not the new system increases convenience for drivers and vehicle owners who need to perform tasks such as taxing their vehicle(s)	This data could be made available through surveying service users, or through attempting to estimate the average time taken to perform certain tasks, such as taxing a vehicle or vehicles online v. offline via desk research

Data Availability and Proposed Next Steps

There are currently no specific plans to evaluate this programme; however the data required to evaluate the key objectives will be available through the normal course of work and record keeping of organisations such as An Garda Síochána.

However, for an evaluation to address all of the proposed outcomes of the project- not just the objectives specified- additional data gathering would be required. To evaluate whether or not public perception of the penalty points had improved, some method of evaluating that perception both prior to and following the implementation of the MLR programme would be required. This could be done through pre and post programme implementation surveys. These surveys could also be used to estimate the convenience gains for drivers and vehicle owners as a result of the self service online portal.

SRAD recommend the drafting of an evaluation plan which includes plans to survey drivers and vehicle owners both prior to and following full implementation of the NVDF-MLR programme or some other method(s) to evaluate both the public perception of the penalty points system, and the convenience experienced by service users.

Section B - Step 5: Key Evaluation Questions

The following section looks at the key evaluation questions for the National Vehicle and Driver File – Master Licence Record Project based on the findings from the previous sections of this report.

Does the delivery of the project/programme comply with the standards set out in the PSC?

This programme is largely compliant with the Public Spending Code; however there are a number of issues to be addressed before this programme could be signed off as fully PSC compliant.

These include:

- An Evaluation plan: Although it is likely that the data would be available to evaluate this programme following implementation, a monitoring and evaluation plan should be included within the business case.
- Options: Although the Business Case identifies the need for this programme, it does not consider any alternative options for the achievement of the specified objectives.

Is the necessary data and information available such that the project/programme can be subjected to a full evaluation at a later date?

The data exists to evaluate whether or not this programme has achieved all stated objectives. However there are a number of outcomes which are referenced within the programme documentation (e.g. public perception of the penalty points system) for which the data is unlikely to be available and this should be addressed within the evaluation plan.

What improvements are recommended such that future processes and management are enhanced?

The budget of this programme is below the threshold at which Business Cases and appraisals are reviewed by SRAD for PSC compliance, however it is advisable that these documents are reviewed within the responsible division or organisation to ensure PSC compliance across all projects and programmes. In the case of this project a process such as this should have identified the lack of provision of an options analysis and evaluation plan, within the project Business Case.

Section: In-Depth Check Summary

The following section presents a summary of the findings of this In-Depth Check on the National Vehicle and Driver File – Master Licence Record Project.

Summary of In-Depth Check

The 'National Vehicle and Driver File – Master Licence Record' is an IT and data project in which existing databases on vehicles and driving licences are linked. The need for this project arises from the fact that in the absence of a system which links these databases, some penalty points cannot be endorsed on a licence. This typically occurs in scenarios in which drivers who contest the penalty points, do not engage with the system through either not showing up to court or through refusing to provide their Driver's Licence or Learner's Permit details.

The MLR will also simplify a range of other relevant functions, such as enabling businesses to tax their entire fleet of vehicles in a single online transaction; and enabling private buyers and sellers to easily transfer ownership of vehicles online. These services will be delivered via an online vehicle and driver self-service portal. However, this component of the project is currently on hold due to ongoing legal issues.

This programme is largely compliant with the Public Spending Code, and the data necessary to evaluate it is largely available. However, PSC compliance could be improved in a number of areas. These include the lack of provision of an Evaluation plan and the fact that no alternative options are considered within the Business Case.

The in depth check recommendations are: that an evaluation plan is drafted which includes plans to evaluate the perception of the penalty points system, and of the user experience of the online self service portaland that the process of options development and consideration is outlined within the Business Case.

Quality Assurance Process 2020: In depth check

N22 Baile Bhuirne to Macroom



Document Purpose

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Section A: Introduction

This introductory section details the headline information on the N22 Baile Bhuirne to Macroom Road Development.

Project/Programme Summary		
Name	N22 Baile Bhuirne to Macroom Road Development	
Description	Proposed route to bypass Ballyvourney and Macroom	
Responsible Body	Cork County Council	
Current Status	Expenditure Being Incurred	
Start Date	Project start: 2020 Planned Completion Date: 2023	
End Date	Project end: 2053 (30 years after projected opening year)	
Projected Overall Cost	€279.8m (Total Scheme Budget) €271.24m (Target Cost)	

Project Description

The Phase 5 Business Case for the N22 Baile Bhuirne to Macroom Road Development, proposed an upgrade of the N22 by constructing approximately 22km of a new, off-line, section of Type 2 dual carriageway which will begin to the west of Ballyvourney and tie in with the existing N22 in the townland of Coolcour, south-east of Macroom. The N22 is the primary route connecting the major urban centres of Killarney and Tralee in Kerry with Cork city. The new route will bypass both Ballyvourney and Macroom.

The Business Case justifies this intervention by referencing current traffic levels, journey times, congestion and issues of safety along the existing N22 between Ballyvourney and Macroom. It also notes the strategic alignment of the planned route with a series of local, regional and national planning documents including the Project Ireland 2040 documents; the National Planning Framework (NPF) and National Development Plan (NDP).

The project was initially proposed in the early 2000's at the behest of Cork County Council and the then National Roads Authority (now Transport Infrastructure Ireland). The project was first identified as a need in the National Roads Needs Study in 1998 and has subsequently featured in each National Development Plan published to date. The current version of TII's Phase 2 stage began in 2001, by assessing route options for a new scheme between Ballyvourney and Ballincollig. A route selection report on this full length scheme was ready by March 2002. In the following years the decision was made to prioritise the western portion of this original proposal. In 2009, the Phase 3 equivalent process was completed and permission was obtained from TII to proceed to the Phase 4 stage. An Bord Pleanála granted permission for the scheme in April 2011 however this decision was challenged leading to a Judicial Review of the project. A High Court ruling in July 2013 ended the Judicial Review process allowing the CPO Notice to be issued. Preparations for the Phase 5 process began in October 2011 and continued while the Judicial Review process was on-going. As a result a Phase 5 report was available by 2013 but the project

did not advance beyond this due to funding constraints. In 2018, Cork County Council commissioned an update to the Phase 5 analysis and documents resulting in the most recent Business Case. A full project timeline is provided in Section B below.

Due to the advanced stage of appraisal and planning for this scheme, it was agreed by DTTAS and Transport Infrastructure Ireland (TII) that it was appropriate to consider the current submission as an update of an existing Business Case. This meant that a full reappraisal of the scheme, that would include the consideration and reassessment of alternative route options, was <u>not</u> required.

TII submitted the initial Phase 5 Business Case to SRAD on 08 July 2019. SRAD engaged with Cork County Council to ensure that the Business Case was brought in line with the requirements of the Public Spending Code (PSC) and the Common Appraisal Framework for Transport Projects and Programmes (CAF), including revisions to the Cost Benefit Analysis (CBA) and sensitivity testing to take account of the updated appraisal parameters in the PSC. As a result of this process an updated Business Case was submitted to SRAD on 27 August 2019 with a Total Scheme Budget of €271.24m.

Expenditure is currently being incurred for the project. Government approval was issued for the project on 15 October 2019 and contracts were formally signed on 29 November 2019, with construction commencing on the 06 December 2019. The planned completion/opening year for the project is 2023.

Section B - Step 1: Logic Model Mapping

As part of this in-depth check, SRAD have completed a Programme Logic Model (PLM) for the N22 Baile Bhuirne to Macroom Road Development Project. A PLM is a standard evaluation tool and further information on their nature is available in the Public Spending Code.

Objectives The project has the following

The project has a Target cost of €271.24m (including VAT) CAPEX. This is made up of the following:

Inputs

Economy

objectives:

- To reduce journey times by approx. 10 minutes on the N22 between Baile Bhuirne and Macroom.
- Increase journey time reliability for traffic travelling between Cork and Killarney / Tralee.

Safety

 To reduce the frequency and severity of collisions and casualties on the N22 from Coolcour to Baile Bhuirne.

Environment

 To avoid significant negative impacts on the existing environment, in particular designated conservation sites by incorporating Best-Practice Environmental

- Main Construction
 Contract Cost
- Main Contractor
 Supervision Costs
- Archaeological Investigation Costs
- Advance Works and Other Contracts
- Costs Associated with Works to the Residual Network
- Land and Property Costs
- Planning and Design Costs

Activities Completion of Phases 5-7 of

the TII Project Management Guidelines namely:

Phase 5 – Enabling and Procurement

Completion of the procurement process in line with TII Guidelines.

Phase 6 - Construction and Implementation

Providing the following key deliverables:

- Road Safety Audit Phase
- Final Account Report
- As Built Documentation
- H&S File Handover

Phase 7 - Close and Review Providing the following key deliverables:

- Project Close out Report
- Post Project Review
- Project Lessons Learned Register
- Phase 7 Gate Review

Outputs Approximately 22km of Type-2 Dual carriageway.

- Three compact grade separated junctions at the following locations:
- The tie in with the existing N22 at the western end of the scheme west of Baile Bhuirne,
- The location where the proposed route links into the existing N22 in the townland of Toonlane,
- The location where the proposed route crosses the R582 in the townland of Gurteenroe,
- Six Roundabouts (Five off line) at the following locations:
- Two incorporated as part of tie in treatment with the existing N22 at the western end of the scheme west of Baile

Outcomes Reduction in road traffic

- collisions.
 Reduction in journey times and improvement in journey time certainty.
- Encourage local, regional and national development.
- Improve connectivity between the Gateway City of Cork and the Linked Hub towns of Killarney and Tralee.
- Improved accessibility to rural areas resulting in greater social inclusion.
- Removal of traffic from urban centres in the area.
- Provide an improved public transport corridor on the N22 route.

Mitigation Procedures	Statement	Bhuirne
To improve air quality in		 The location where the
Macroom town and the		proposed route links into
villages of Baile Bhuirne		the existing N22 (off line)
and Baile Mhic Íre		in the townland of
		Toonlane
Accessibility and Social		 One incorporated as part
Inclusion		of the existing N22
Improve accessibility		realignment North of the
between Cork and		mainline at
Killarney/Tralee and		Carrigaphooca
surrounding areas		 Incorporated as part of
Support social inclusion		the local road tie-in
objectives of Cork		treatment at Gurteenroe
County Development		junction where the
Board by facilitating		proposed route crosses
improved access to/from		the R582,
the rural areas		 The tie in with the
Implement sustainable		existing N22 at the
transport policies for		eastern end of the
shorter commutes		scheme in the townland
Improve urban		of Coolcour.
environment of		
Macroom, Baile Bhuirne		
and Baile Mhic Íre		
Improve the public		
transport hub linking		
Tralee to Cork		
Integration		
Develop critical-mass of		
regional population		
centres		
Integrate with national,		
regional and local		
development plans and		
policies		
Policios		I I

Description of Programme Logic Model

Objectives:

The objectives of the project are framed in relation to TII's Project Appraisal Guidelines and are aligned with the key appraisal criteria outlined in the CAF, namely; Economy, Safety, Environment, Accessibility and Social Inclusion, and Integration. The objectives are (SMART) Specific, Measureable, Accurate, Realistic and Timely. The key objectives related to a reduction in journey times and collisions are framed also in relation to existing service levels and those targeted following the implementation of the project.

Inputs:

The total scheme cost (inclusive of VAT) is set out in the revised project Business Case, which was submitted to SRAD on 27 August 2019.

Description	Cost
Main Contract Construction (13.5% VAT)	€216,000,000
Main Contract Supervision (23% VAT)	€11,000,000
Archaeology (18.3% VAT)	€3,650,000
Advance Works & Other Contracts (13.5% VAT)	€12,000,000
Residual Network (13.5% VAT)	€2,500,000
Land & Property (0% VAT)	€19,500,000
Planning & Design (23% VAT)	€6,590,000
Scheme Total Cost	€271,240,000

Note that the Scheme Total Cost figure presented above does not include risk contingencies, when these are added to the project the projected cost increases to €275.4m. While this is a relatively small level of contingency, it should be noted that In line with the TII Cost Management Manual, many of the risks have been transferred to the Main Construction Contract.

Activities:

The project has been completed in line with TII's Project Management Guidelines (PMG's) and as such will be delivered over 8 main phases, these are:

- Phase 0 Scope and Pre-Appraisal
- Phase 1 Concept and Feasibility
- Phase 2 Options Selection
- Phase 3 Design and Environmental Evaluation
- Phase 4 Statutory Processes
- Phase 5 Enabling and Procurement
- Phase 6 Construction and Implementation
- Phase 7 Close out and Review

Because this project had started in 2001, the project was already at Phase 5 when the Business Case was submitted to SRAD. The table below sets out in detail the process involved in project Phases 5-7.

Project Phase	Processes to be Completed	
	Review of Planning Authority decision and incorporation	
	of conditions, if any, into preliminary design	
	 Road Safety Audit Stage 2 or Stage 1-2 	
	 Confirmation of Lands Made Available for contract 	
Phase 5 – Enabling and	 Land Agreements and Arbitration if required 	
Procurement	Advance Works Contracts	
	 Identification of residual areas to be archaeologically 	
	monitored by main contractor (if required)	
	Due Diligence Check on Draft Tender Documents	
	TII Approval to advertise for Tender	
	 Prescribed Notices (Letters of Intent, Acceptance etc.) 	
	Contract Administration/Management	
	Appointment of Project Supervisor Construction Stage	
	and Project Supervisor Design Process, if required	
	Environmental Operating Plan	
	Structures Technical Acceptance	
	Cost Management	
	Risk Management	
	Value Management	
	 Monthly Reports/Financial Reports/Payments 	
Phase 6 – Construction and	 Change Order Register/Claims Register 	
Implementation	 Land Agreements/Accommodation Works including 	
Implementation	Dispute Resolution	
	 Prepare as-built documentation 	
	 Health and Safety requirements including Handover of 	
	Safety File	
	 Implementation of schedule of Environmental 	
	Commitments including confirmation thereof	
	 Archaeological Monitoring 	
	 Road Safety Audit Stage 3 	
	 Certificate of Completion 	
	 Final Account Report (including Final Outturn Cost 	
	TII Project Appraisal Guidelines (PAG) Requirements	
	 Contract Administration/Management 	
Phase 7 – Close out and Review	 Handover of as-built documentation 	
i ilase / - Close out allu Review	 Road Safety Audit Stage 4 	
	 Landscaping contracts, if necessary 	
	 Defects Period/Defects Certificate/Retention Monies 	

- Land and property requirements including outstanding payments, Land Acquisition Summary Sheet and disposal of land (in accordance with strategy and refunds to TII)
- Any and All Residual Network that the LA identifies (In accordance with chargeability for National Roads grants strategy)
- Cost Management
- Risk Management
- Value Management
- Final Account Report (including Final Outturn Cost), if outstanding
- Deposition of archaeological objects and archives with statutory authorities
- PAG Requirements

Outputs:

The primary output of the project will be the construction of 22km of Type 2 Dual Carriageway. The project also includes the construction of three compact grade separated junctions and six roundabouts.

Outcomes:

The main outcomes arising from the construction of the Dual Carriageway and related junctions and roundabouts, will be a reduction in road traffic collision and an improvement in journey times and reliability. The project will also provide improved connectivity between Cork and the towns of Killarney and Tralee while reducing traffic levels in urban centres and supporting the provision of public transport services on the N22. This will in turn enable greater social inclusion through making rural areas more accessible.

Section B - Step 2: Summary Timeline of Project/Programme

The following section tracks the N22 Baile Bhuirne to Macroom Road Development from inception to conclusion in terms of major project/programme milestones.

2001	Phase 2 initiation
March 2002	Route Selection Report published
July 2009	Phase 3 completed and Phase 4 process begun
April 2011	Approval of route selection arising from Phase 4 process
October 2011	Arup were commissioned to prepare Phase 5 Specimen Design and Contract Documents
August 2013	Following end of Judicial Review in July 2013, CPO Notice to Treat was issued thereby bringing Phase 4 of the project to a close, original Phase 5 report is published
2018	Cork County Council commission an update to Phase 5 project documentation
July 2019	Updated Phase 5 documents submitted to SRAD for assessment
August 2019	Tendering process completed with revised Business Case and supporting document submitted to SRAD. SRAD submit revised Business case to IPPO for technical review.
October 2019	IPPO return their technical assessment which identifies a number of issues to be resolved. Another revised version of the business was submitted. Project signed off as Public Spending Code compliant.
November 2019	Contracts Signed
December 2019	Construction Begins
<u>Future Targets</u>	
2023	Construction Complete (Opening Year)
ТВС	Project Closure Report to be completed

Section B - Step 3: Analysis of Key Documents

The following section reviews the key documentation relating to appraisal, analysis and evaluation of the N22 Baile Bhuirne to Macroom Road Development.

	Project/Programme Key Documents		
No.	Title	Details	
1	N22 Route Selection Report	Report on public consultation process and decision making process to select candidate routes for the N22	
2	Business Case 2009	Phase 4 Business Case	
3	Business Case 2012	Initial Phase 5 Business Case	
4	Business Case July 2019	Revised Phase 5 Business Case	
5	Cork County Council response to SRAD	Cork County Council response to SRAD comments on the Business Case	
6	Business Case August 2019	Updated Business Case to reflect SRAD comments	
7	SRAD review to DPER	Review from SRAD to IPPO on the project	
8	DTTAS letter to TII	Confirming projects sign-off as PSC compliant	

Key Document 1: N22 Route Selection Report

The report, which is dated 16 December 2002, provides details on the selection process for the preferred route for the N22 Baile Bhuirne to Macroom Road Development. The report notes that a Route Selection Workshop was also held on 4 April 2001. The workshop included members of Cork County Council and McCarthy Hyder Consultants. Following the workshop four corridors were identified. The report also includes a Decision Matrix which assessed each potential route across a range of criteria including Traffic and Economics, Hydrology, Ecology and Land Use and provides justification for the scores each route was assigned. Out of this process a preferred route was proposed. The report also notes that three public consultations were held over the period January 2001 to April 2002. Following the periods of public consultation, various alterations were examined and compared to the preferred route. Recommendations were then made on which of these alterations should be given further consideration at the preliminary design stage.

Key Document 2: Business Case 2009

The Phase 4 Business Case was prepared by McCarthy and Hyder Consultants in February 2009, at the request of the then National Roads Authority (now TII). The Business Case set out the need for the scheme with reference to current traffic conditions and safety benefits which would accrue as a result of the project. The Total Scheme Budget was estimated at €213.5m (including VAT), while the Benefit Cost Ratio (BCR) for the project was estimated at between 2.9 and 3.2. The Business Case also outlined how alternative route alignment proposals form the third public consultation process were considered against the proposed route design, and that those that were considered preferred to the proposed route were incorporated into the design.

Key Document 3: Business Case 2012

The initial Phase 5 Business Case was prepared by Arup on 27 November 2012. Building on the previous Phase 4 Business Case, the 2012 Business Case set out the projects objectives and provided evidence of the need for the project based on traffic levels, journey times and collision statistics. The Business Case also referenced local and national planning documents which the project was aligned with. The Total Scheme Budget was estimated at €155.85m, €148.3m of this was related to construction costs and the remainder arising from the inclusion of project risk allowance. Under a medium traffic growth scenario the BCR for the scheme budget and project target cost were 2.87 and 3.0 respectively.

Key Document 4: Business Case July 2019

A revised Phase 5 Business Case was prepared by Mott McDonald on 4 July 2019. This Business Case featured updated traffic and safety information and included references to the Project Ireland 2040 documents the National Planning Framework (NPF) and National Development Plan (NDP) when justifying the need for the project. The project cost estimate was revised to €252.25m rising to €269.44m when inflation and risk allowances are included. The large increase in cost from the 2009 Business Case is due to the significant increase in construction and land costs. The project costs also increased due to the need for additional works following the Environmental Impact Assessment (EIA). A higher risk allowance is also included in the Total Scheme Budget. An updated CBA was also carried out in line with the requirements of the PSC and CAF. The results of the CBA showed that under a central traffic growth scenario the project's BCR ranged from 2.31 to 2.9, depending on the sensitivity tests applied.

Key Document 5: Cork County Council response to SRAD

In response to queries raised by the Strategic Research and Analysis Division (SRAD) Cork County Council prepared the note, dated August 2019, outlining how they intended to address each of SRAD's comments in the updated Business Case. One of SRAD'S concerns was that Section A of the proposed route did not have enough Annual Average Daily Traffic (AADT) levels to justify a Type 2 Dual Carriageway as proposed. Cork County Council responded by referencing a An Board Pleána decision that the Type 2 design was justified, as a single carriageway would not provide users or society with the same level of benefits. SRAD also noted that the parameters used in the CBA should be updated to align them with those of the new PSC, that project objectives should be SMART and that a detailed project timeline should be added to the Business Case demonstrating clearly when the project was approved at Phase 2 and 3. Cork County Council agreed to update the Business Case accordingly to reflect these changes.

Key Document 6: Business Case August 2019

An updated Business Case, dated 26 August, was submitted to SRAD. This Business Case was updated to take on board SRAD's comments. Some of the key changes included the addition of more detailed collision analysis and the updating of the CBA and sensitivity testing to take account of the appraisal parameters in the 2019 update of the PSC. The application of the higher shadow cost of labour in the updated CBA resulted in the projects Total Scheme Budget BCR being adjusted to 2.27, under a central growth scenario. The application of the other parameters including a revision of the discount rate to 4% from 5% was tested through sensitivity testing.

Key Document 7: SRAD review to DPER

A review of the Phase 5 Business Case was prepared by SRAD and sent to the Investment Projects and Programmes Office (IPPO) within DPER for review. The review noted the main details of the project and noted that it was a project dating back to 2001. It also provided a summary of the Business Case providing information on; traffic conditions, journey times and safety concerns. The review also provided an overview of the economic analysis conducted as part of the Business Case, noting that four alternative routes were assessed and that a Do-Minimum option was also consider as part of the initial route selection report. SRAD also confirmed that the analysis had been updated and sensitivity tests added to incorporate the appraisal parameters in the new PSC. Overall SRAD concluded that the project was compliant with the requirements of the CAF and PSC.

Key Document 8: DTTAS letter to TII

A letter dated 17 October 2019, from the Roads Division in DTTAS to TII confirming that the project has been signed-off as compliant with the requirements of the CAF and PSC. The letter also notes that the project was issued with Government Approval on 15 October 2019. As such the letter confirms that it is in order for TII to allow Cork County Council to award the main contract for construction of the N22 Baile Bhuirne to Macroom Road Development from 17 October 2019.

Section B - Step 4: Data Audit

The following section details the data audit that was carried out for the N22 Baile Bhuirne to Macroom Road Development. It evaluates whether appropriate data is available for the future evaluation of the project.

Data Required	Use	Availability
Traffic Data	To evaluate post opening traffic volumes, journey times and journey reliability.	Data from TII traffic counter supplemented by local traffic surveys as required.
Collison Data	To assess if the project has achieved its Safety objective by comparing the number of collisions occurring on the existing N22 and newly constructed road.	Collision data is collected by the RSA.
Environmental Data	To assess if the project has achieved its environmental objectives.	The EPA operates a number of air quality monitoring stations across the country, but does not operate any on the N22. It is unclear from the project Business Case if local air quality monitoring is planned. The CO2 impact of the scheme was accessed using the TUBA programme.
Final Project Costs	To evaluate if project costs were in line with the estimates contained in the Business Case and that state monies were used as agreed during the construction and development of the project.	Information on final project costs should be held by Cork County Council.

Data Availability and Proposed Next Steps

Under the Project Business Case it was agreed that a Project Closure Report be prepared in line with TII Programme Management Guidelines. The purpose of this report is to verify that aspects of the project have been completed, confirm the project budget information and discuss the issues that arose in project development, particularly those that have implications for future road planning and implementation.

In addition the Business Case also commits to carrying out a Post Project Review in line with the guidelines in the CAF and PSC. This will include a review of the CBA undertaken as part of the project. The Business Case also identifies the data that will be required in order to carry out the Project Closure Report and Post Project review; these are outlined in the table above.

Section B - Step 5: Key Evaluation Questions

The following section looks at the key evaluation questions for the N22 Baile Bhuirne to Macroom Road Development based on the findings from the previous sections of this report.

Does the delivery of the project/programme comply with the standards set out in the PSC?

When the updated Phase 5 Business Case for the N22 Baile Bhuirne to Macroom Road Development was submitted to SRAD, it was agreed with TII that the extensive work which had been carried out in selecting the preferred route over the period 2001-2012 did not have to be repeated.

In line with the requirements of the CAF and PSC four alternative routes were examined in the Business Case, and a Do-Minimum was also examined in the original Route Selection Report, which was submitted to SRAD as part of the review.

SRAD worked with Cork County Council to update the Business Case to bring it in line with the requirements of the CAF and PSC, in particular updating the projects CBA, and related sensitivity tests, to take account of the appraisal parameters in the 2019 update of the PSC.

Following reviews from both SRAD and IPPO it was determined that the project was in compliance with the requirements of the CAF and PSC.

Is the necessary data and information available such that the project/programme can be subjected to a full evaluation at a later date?

Yes, there are a number of previous iterations of the projects Business Cases and supporting documents including: CBA's, traffic modelling reports and the original Route Selection Report.

The Business Case also commits Cork County Council to carrying out a Project Closure Report and Post Project Review in line with the guidelines in the CAF and PSC. The former will verify that aspects of the project have been completed, assess project budget information and discuss the issues that arose in project development, while the latter will include a review of the CBA undertaken as part of the project.

What improvements are recommended such that future processes and management are enhanced?

It would have been helpful if the updated Phase 5 Business Case was submitted to SRAD, with relevant accompanying documents including previous CBA's, Businesses Cases and Route Selection reports, as well as a brief note summarising the reasons for the change in the Total Project Budget and BCR values throughout these documents. This would help SRAD in determining the extent to which economic analysis underpinning the projects requires updating.

Section C: In-Depth Check Summary

The following section presents a summary of the findings of this in-depth check on the N22 Baile Bhuirne to Macroom Road Development.

Summary of In-Depth Check

Planning for the project began in the early 2000's and a series of Business Cases, and accompanying CBA's, as well as a Route Selection Report were prepared over the period 2001-2012. However, the project did not advance to Phase 5 in 2013 due to funding constraints. The updated Phase 5 Business Case was submitted to SRAD for review in July 2019.

It was agreed between DTTAS and TII that the significant amount of work which had gone into selecting the preferred route did not have to be repeated. SRAD engaged with Cork County Council to ensure the project was aligned with the requirements of the CAF and PSC, including updating the CBA to include the parameters in the updated 2019 PSC.

The project was signed-off as PSC compliant and was granted Government Approval to proceed on 15 October 2019. Expenditure for the N22 Baile Bhuirne to Macroom Road Development is currently being incurred. Contracts for the project were signed on 29 November 2019 with construction commencing on 06 December 2019. The project is scheduled to be completed in 2023 and is estimated to cost €271.24m.