



**TEMPO PROGRAMME
EURO-REGIONAL PROJECT
EVALUATION**

EURO-REGIONAL PROJECT EVALUATION - SUMMARY

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1. INTRODUCTION

This note summarises a generic approach for the evaluation of Euro-regional projects.

Evaluation is required in Euro-regional projects, in order to:

- Justify EU and National Government expenditure on the projects;
- Demonstrate the benefits (financial and socio-economic) of individual applications;
- Demonstrate the benefits of the Euro-regional projects as a whole; and
- Increase understanding of the impacts of ITS services.

More detailed guidance on the evaluation of project outputs, which can be tailored to meet the requirements of individual projects and member states and on the reporting of results in a common format across all projects, are referenced at the end of this note. Results should be easily understandable and comparable in order to allow best practice to be widely disseminated and to ensure that those reading the results of others' work can interpret it correctly.

The remainder of the note is structured as follows:

Section 2 presents some general principles for the evaluation of projects;

Section 3 considers the 'level' of evaluation required for differing types of project;

Section 4 focuses on the recommended approach for 'pilot studies';

Section 5 focuses on the recommended approach for 'implementation projects'; and

Section 6 summarises the recommended approach for the reporting of results.

2. GENERAL PRINCIPLES FOR EVALUATION

This section includes some general principles, which should be considered when developing evaluation plans. These rules should ensure that evaluation is undertaken cost-effectively, focusing on what is important at each stage of system development/deployment.

1. **Be clear about the reasons for undertaking evaluation** – they might be to fine-tune the performance of ITS applications, to demonstrate project benefits (both to national administrations and to the EU), to assess the merits of integrated applications and justify expenditure;
2. **Use and build on national approaches to ex ante appraisal and ex post evaluation** - this will help ensure that results are comparable with the expected results determined prior to the implementation of the scheme, as well as consistent with results from the evaluation of other transport projects, and that cost and duplicated efforts are minimised;
3. **Ensure national objectives are adopted within the evaluation framework** – this will ensure that the evaluation is focussed on demonstrating that the appropriate objectives have been met at a national level;
4. **Clearly state the objectives of the application** – this will enable the evaluation to be tightly focused on demonstrating that objectives have been met at an application level;
5. **Clearly describe the environment in which the ITS application resides** – this will ensure that all parties reading the evaluation report can appreciate the environment in which the application resides and understand the situation before the application was installed or service commenced. This will assist in judging the applicability of the results to other deployments of the ITS application;
6. **Clearly describe the measurement approach taken – including survey techniques** – this will ensure that all parties reading the evaluation results can understand the measurement approach and any bias there might be in the results;
7. **Use well-established indicators in measuring the impacts** – this will improve the comparability of the results and the success of related cross-fertilisation activities (a list of recommended indicators is presented in the Streetwise Guidelines – see references);
8. **Express the results in real and not just relative numbers** – this helps readers to verify the results in terms of their own experiences and to use the results in their own assessment of the impacts of ITS applications;
9. **Clearly indicate the level of statistical significance of the result, if appropriate** – this enables readers to attribute a level of confidence in the results;
10. **Provide supporting information** - especially if country-specific coefficients, other parameters (e.g. the 'value of time') or estimation procedures have been used. The supporting information enables readers to 'convert' the results according to the parameters and practices of their own countries.

3. APPROPRIATE 'LEVEL' OF EVALUATION

The effort expended on evaluation should be commensurate with the anticipated benefits of the scheme, the scale of the scheme or expected deployments of the application, and with the degree of work already undertaken and the certainty of outcomes.

Figure 1 summarises the nature of evaluation approaches appropriate at different stages of development of an ITS application/service. Further details are given in the STREETWISE guidelines – see references. When undertaking conceptual development of an ITS application evaluation may involve little more than a checklist, to ensure that the application aims to meet user and stakeholder needs. As ideas are refined so more complex methods are required. At a pilot test stage, modelling, simulation, laboratory testing and field trials may be required. At full implementation stage, impact monitoring may be required.

It should be noted that once an application's benefits are known and quantified in a number of different situations it is often possible to use generic benefits to fulfil ex-ante appraisal requirements. However, ex-post evaluation should still be undertaken to an appropriate extent to verify that the anticipated benefits are delivered.

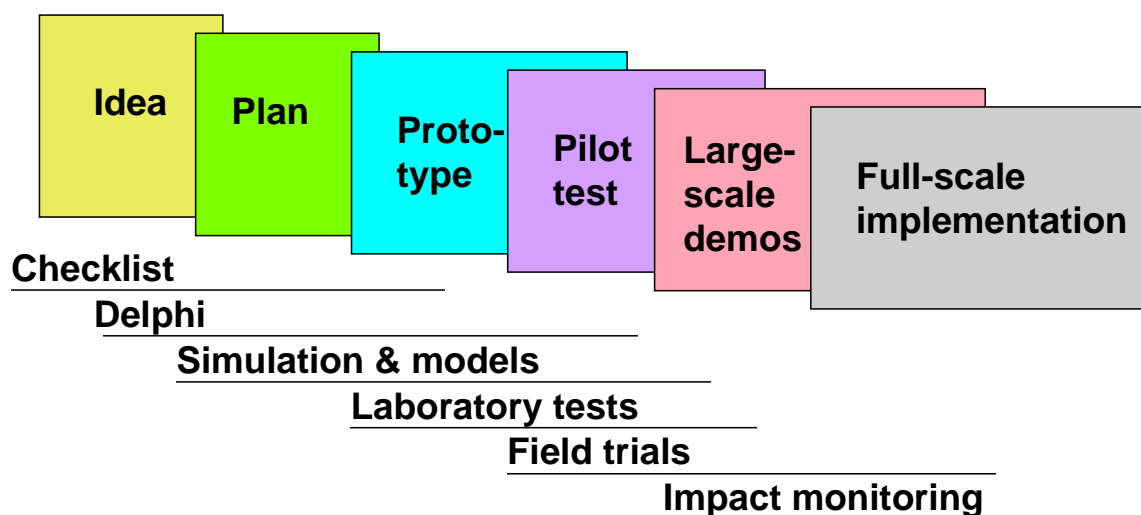


Figure 1 – Assessment Approaches For Various Phases of ITS Development

4. GENERIC APPROACH FOR PILOT STUDIES

The current programme of Euro-Regional projects involves both pilot studies and mainstream deployment projects. This section presents a generic approach to evaluation for pilot studies. Section 5 presents a generic approach for evaluating mainstream implementation projects.

The following stages should be considered, when planning to undertake the evaluation of a pilot study:

- Produce an initial specification for the pilot including description of the problem;
- Identify the objectives and anticipated impacts of the pilot;
- Refine the specification;
- Specify the evaluation data collection requirements;
- Consider how the evaluation data collection specification might be met;
- Confirm the overall pilot and evaluation data collection specification; and
- Implement the evaluation data collection programme.

While the nature and objectives of the research will rightly drive the evaluation and related data collection requirements, the following topics should be considered and the results categorised accordingly:

- Technical performance;
- Impact assessment including socio-economic assessment;
- Financial performance; and
- User acceptance.

It is not imperative to investigate all aspects of an application, this should be driven by the aims of the pilot study.

A standard format has been developed for the reporting of results, as described in Section 6. This is also referenced at the end of this note. The reporting framework should be created at an early stage in the evaluation process and populated with information as it becomes available.

5. GENERIC APPROACH FOR IMPLEMENTATION PROJECTS

The following stages should be considered, when planning to undertake the evaluation of an implementation project:

1. Document the problem;
2. Define the aims and objectives of the project;
3. Identify the expected impacts of the project, both positive and negative (technical, socio-economic, environmental, user acceptance, financial);
4. Identify appropriate performance indicators to assess these impacts;
5. Determine data collection requirements and approaches;
6. Collect before data;
7. Implement the application;
8. Collect after data.

As noted in Section 4, a framework for the reporting of results should be created at an early stage in the evaluation process and populated with information as it becomes available.

6. PRESENTING THE RESULTS

It is important to remember that those likely to benefit most from the results of the evaluation, those who may be considering implementing a similar application to address their own, specific local problems may well be unfamiliar with the ITS application implemented and the area in which it has been deployed. Similarly, the reader may well be unfamiliar with the general principles of evaluation and the parameters which impact on system performance. It is imperative, therefore, that results are clearly presented with the necessary supporting information to enable the 'transferability' of results to be assessed.

A standardised framework for the reporting of results has been developed by TEMPO for use in all Euro-regional projects. It focuses on the following aspects:

KEY EVALUATION RESULTS

DESCRIPTION OF THE PROBLEM

- Site
- Issues Addressed

DESCRIPTION OF THE ITS PROJECT

- Objectives
- Systems and Technologies Applied
- Status of Project

EVALUATION

- Timing and Type of Evaluation
- Objectives for the Evaluation
- Impacts to be Measured
- Methods to be Employed

THE IMPACT OF THE PROJECT

- Technical Performance
- Results
- Statistical Analysis
- Overall Assessment

EUROPEAN DIMENSION: TRANSFERABILITY OF THE RESULTS

It is envisaged that the complete report will contain somewhere in the region of 20 pages, plus the supporting annexes. Further details are given in the TEMPO guidelines referenced below.

REFERENCES

STREETWISE – Review of Processes and Guide to the Evaluation of Projects – STREETWISE Project

TEMPO Guidelines for Reporting Evaluation Results Issue 2 - TEMPO Secretariat

VIKING – Guidelines for the Evaluation of ITS Projects - FITS Publications