DELIVERABLE D.T2.3.1

COMMON CRITERIA

Common criteria for organising feasibilty study

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1. Introduction

The purpose of this document is to help you to organise and elaborate feasibility studies for reinvention of unused railway infrastructure, and set up common criteria how to do that. This introduction give you an overview how is a typical feasibility study usually organised. Other parts of this document explain the specifics of YOUMOBIL feasibility study and how you can proceed.

Feasibility analysis (study) will help you to determine the viability of an idea how to reinvent unused railway infrastructure, such as ensuring your project is legally and technically feasible as well as economically justifiable. Generally, such studies precede technical development and project implementation.

A feasibility analysis evaluates the project's potential for success; therefore, perceived objectivity is an essential factor in the credibility of the study for potential investors. Therefore study should be elaborated by professionals.

In business, most managers make use of a particular feasibility tool called **TELOS**, an acronym for the five key areas that you need to consider in your study: Technological (or Technical), Economic, Legal, Organizational (or Operational), Scheduling, described below. The TELOS model was first presented in 2007 by James A. Hall in his book, "Accounting Information Systems." It has been adopted across a huge range of settings since then, because it offers a simple way to consider the most important issues related to feasibility, whether you're considering a big infrastructure project or a small business project. [1]

Technical Feasibility

This assessment focuses on the technical resources available to the organization. It helps organizations determine whether the technical resources meet capacity and whether the technical team is capable of converting the ideas into working systems. This part of the analysis is not so important in the context of YOUMOBIL project, since real project will be implemented by organisation outside consortium. A technical feasibility part of the study will assess only the basic details of how organisation responsible for project implementation should intend to bring project idea into reality. It should validate an idea, strategy and approach. The analyst must find out whether it is possible to develop the project given the current technical resources.

[1] https://www.simplilearn.com/feasibility-study-article

Economic Feasibility

Once the technical feasibility is established, it is important to consider the monetary factors also. Since it might happen that developing a particular project may be technically possible but it may require huge investments and benefits may be less. For evaluating this, economic feasibility of the proposed system is carried out. This assessment typically involves a cost/benefits analysis of the project, helping organizations determine the viability, cost, and benefits associated with a project before financial resources are allocated. It also serves as an independent project assessment and enhances project credibility—helping decision-makers determine the positive economic (or other) benefits to the organization (perhaps also community) that the proposed project will provide.

Legal Feasibility

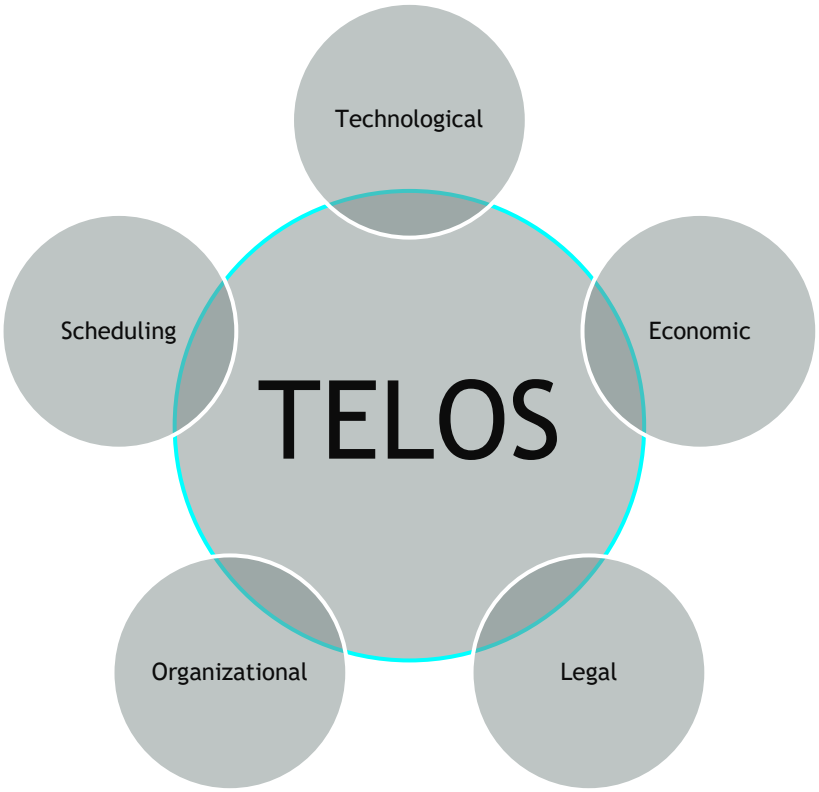
This assessment investigates whether any aspect of the proposed project conflicts with legal requirements like e.g. zoning laws. Let's say an organization wants to reconstruct an old railway building in a specific location. A feasibility study might reveal the reinvention project location isn't zoned for that type of business.

Operational Feasibility

Operational feasibility is mainly concerned with issues like whether the project will be used and how will be operated if it is developed and implemented. The essential questions that help in testing the operational feasibility of a project could be following. Are the users not happy with current state? Will then they welcome the change and the new project? Have the users been involved in the planning and development of the project? Will the system effect the users in considerable way? Operational feasibility studies also examine how a project plan satisfies the requirements identified in the requirements analysis phase of project development.

Scheduling Feasibility

This assessment is very important for project success; after all, a project will fail if not completed on time. In scheduling feasibility, an organization estimates how much time the project will take to complete.



When these areas have all been examined, the feasibility analysis helps identify any constraints the proposed project may face, including internal and external project constrains.

Data for the feasibility study can be gathered through different channels and by different methods of data collection, e.g. personal interviews, surveys, discussions, etc. The kind of interview required is directly related to the problem or opportunity being suggested. The author of feasibility study typically interviews those requesting project results and those directly concerned with the decision-making process, typically management.

2. How to prepare feasibility study?

Activities prior to the study and concept

Pilot sites were selected in collaboration with local decision-makers (mostly infrastructure owners or local administration). Activities continued in the form of three local workshops with youth where visions were elaborated and selected. Any proposal that appeared to be worth accepting was taken into consideration. The feasibility study should attempt to generate scenarios which are potentially acceptable solutions for selected vision. The resulting scenarios – different versions of what might be done – and all objectives that are to be addressed by the study should be later used to prepare a functional specification (investment plan) that identifies what has to be done. Feasibility study ensures that there is at least one satisfactory way of doing reinvention of railway infrastructure, but it does not specify in details how the objective is to be achieved. That step will occur as part of the future project planning, if the proposal is accepted and authorised by management.

Who can develop feasibility study?

A person or a team should be designated to undertake a feasibility study for YOUMOBIL project for revitalisation of unused railway infrastructure. Ideally there should be some external expert or intended owner of building or services in the team who may lead it. But that will depend on his/her skills in this area, or other conditions. It can happen that the owner or future potential service provider may lack the necessary expertise for completing the study or may be completely ignorant about it. In this case some qualified consultant can be subcontracted to conduct the feasibility study. When planning feasibility study please consider your budget to prepare feasibility study and also investment plan.

Partner	Budget
MLV	5.000,00 EUR – feasibility study 5.000,00 EUR – investment plan
HZPP	15.000,00 EUR - feasibility study (architecture and design) 5.000,00 - Costs to procure an investment plan
Mazowia	2.500,00 - Costs to procure a feasibility study 2.500,00 - Costs to procure an investment plan
Kordis	5.000,00 EUR - Costs to procure a feasibility study (architecture/design studies and financial investigations)

	3.000,00 - Costs to procure an investment plan
aMo	3.000,00 - Costs to procure a feasibility study (technical and legal feasibility) 4.000,00 - Costs to procure an investment plan
Brezno	15.000,00 EUR - Costs to procure a feasibility study 10.000,00 - Costs to procure an investment plan

When develop feasibility study?

Final feasibility studies should be prepared in December 2020. Draft version in October 2020.

WPT2 - TIMELINE	2020											
	1	2	3	4	5	6	7	8	9	10	11	12
Activities												
A.T2.2 - Workshop series			Workshop 3									
A.T2.3 - Feasibility studies				Common criteria for Feasibility Studies						Draft Feasibility Studies		Final Feasibility Studies

3. A template describing the key sections of a feasibility study

This template aims to help develop a standard feasibility study document for a YOUMOBIL reinvention projects.

Background or Introduction

The Introduction section of the feasibility study provides a general statement about the overall objectives and content of the document and information sources. Objective of the study should describe the intent and who commissioned the study and for what purpose. You should write small introduction describing the project of reinvention. What purpose does the project have and whom will it benefit? Include details including stakeholders, and results expected. This section also introduces the project vision and its origins (workshops with local youth). What were the driving factors behind the instigation of the project? Who initiated the project? Was it your organization or a local youth community group? You should also write about the information source – the information which owner of the building or other responsible organisation provided and the information you collected.

Site and Location Analysis

This section should provide brief analysis of the project location. The information can be organized under the following heads:

- Site (building), history and current site conditions
- Location Overview
- Location Assessment and Accessibility in local or broader context

You should visit the site, check the accessibility and presence and availability of various services related to the project. At this level, the concern is also whether the proposal is legally feasible. It determines whether there are any conflicts with legal requirements.

Approach, alternatives and solution

This section of the feasibility study describes the alternative solutions that have been considered during workshops and compares them to the proposed solution. List the alternatives to the proposed solution, analyse and describe the alternatives, highlight the key differences between each solution. Why the preferred solution was selected. Does the recommended approach satisfy the requirements of youth community, stakeholders and building owner? Is it a practical and viable solution? Provide an overview of the proposed solution's functionality and features. Outline the solution's impact on the organization and community. Here you can include also SWOT analysis.

A SWOT analysis likely involves many of the same elements as a feasibility study itself. The goal is the same — to determine the viability of your reinvention project. When looking at project **Strengths**, you should primarily consider what makes your project special and strong. This could include any unique characteristics of the project. **Weaknesses** — what aspects of your project could potentially hold you back? A lack of financing, experienced staff, or other attributes that could stop achievement of the project objectives? **Opportunities** — factors outside your project which could put you in a better position to succeed. **Threats** are the inverse of opportunities.

Example of SWOT analysis

Strenghts	Weaknesses
Resources availability	Loss of resources for development
Skill level	Gaps in knowledge and expertise
Creativity	Timescale and deadlines
Well defined and realistic goals	Remoteness of the site
Collaboration with stakeholders	Bad accessibility

Opportunities	Threats
Infrastructure development	Political influences
Community engagement	Differences in priorities and concerns related to development of selected area
Community events	Long decision making processes
User demand	Loss of confidence from residents

Resources and Cost-benefit analysis (CBA)

Identify all the resources, technical, inventory, financial and human that will be needed to complete the project. E.g. determination of project's requirements of construction such as reconstruction of building, internal design, etc. Determination of project's requirements of skilled labour or managerial and financial labour. This section of the feasibility study also provides a comparison between the value of the proposed solution and its costs. This begins with an analysis of the estimated total cost of the project. How much money will it take to get the project started, and then to keep it going? Estimate required investment, operational and maintenance costs. CBA is mostly used to decide whether or not project should go ahead, or to decide between different solutions. It involves working out the total potential costs and benefits of a project, and then translating these into monetary terms (EUR). However many benefits/impacts are non-monetary. In other words, they cannot be numerically measured, or they may be too complex to measure, for example social or environmental benefits.

The costs and benefits can then be compared to check if the benefits outweigh the costs. CBA can sometimes be a simple exercise. But at other times it can be very complex, involving complicated calculations to assess costs and benefits over time. Consequently, CBA often requires the services of an economist or expert in CBA techniques. CBA can be done also in a participatory way with communities, because communities are well able to identify and assess potential benefits within their own situations. Carrying out CBA in a participatory way can offset the tendency of CBA to be carried out as an expert led, technical, top-down approach. [2]

Timeline and project process

What will be the estimated time until project completion? This section is intended to provide a high level framework for implementation of the project. It is not intended to include a detailed schedule as this would be developed during project planning when this initiative is approved. This section may include some targeted milestones and timeframes for completion as a guideline only. How will the project flow? You can include some flow charts showing project stages.

Operation

After analysing the project in above mentioned aspects, next would come the operational analysis. Information of this section should be organized under following heads: operator decision, staffing issues, various operating models, maintenance issues, other operational issues. This part is required if the project development will be a part of portfolio of the developer – facility owner (other developer?). If the process is to reinvent unused railway infrastructure for community (perhaps also by community, or other entity), then a study determining how the new facility will operate in a way that is useful to its users. How well a proposed project solves the problems, and takes advantage of the opportunities identified during scope definition and SWOT analysis?

Common criteria for feasibility studies

A project feasibility study is usually a comprehensive document that examines in detail a given project. Taking into consideration partners' budget we can prepare some "simplified" version. Anyhow a YOUMOBIL feasibility study should aim to objectively uncover the strengths and weaknesses of a proposed reinvention project, opportunities and threats present in the actual environment, the resources required to carry through, and the prospects for success. In its simplest terms, the two criteria to judge feasibility are resources required and value to be attained. Some of you have already determined during project application phase, what should be the main objective of your feasibility study, e.g. HZPP (architecture and design) or aMo (technical and legal feasibility). The template as follows states minimum common criteria for development of feasibility study (*required data). The criteria presented will be discussed during partner meeting in Zagreb.

[2] https://www.intrac.org/wpcms/wp-content/uploads/2017/01/Cost-benefit-analysis.pdf

Template for standard feasibility study * Mandatory data	
Name of reinvention project*	
Order party*	
Author/s of the study*	
Date and place*	
Introduction*	Overall objectives and purpose of the feasibility study Content of the study Project vision Information sources
Site and Location* Analysis	General site overview and conditions Building conditions Legal constraints (legal feasibility)
Alternative solutions	List of the alternatives to the proposed solution with their short description.
Proposed solution*	An overview of the proposed solution's functionality and features
Impact*	Solution's impact on the organization and community including different benefits (with emphasis on non-monetary ones) Definition of values justifying the proposed solution
SWOT analysis*	Viability of the reinvention project through SWOT analysis
Resources*	People – potential people (positions) to become part of the project team (to start, implement, operate, maintain the project) Cost Resources – total estimated costs to start, implement, operate, maintain project Material resources – different materials, supplies and/or items that are part of the project

Cost-benefit analysis	Analysis of total potential costs and benefits of a project in monetary terms If necessary detailed calculation of the cost-benefit ratio
Timeline and project process*	Framework for implementation of the project including milestones (Gantt chart recommended for visualization)
Operational analysis	Project future reliability, maintainability, usability, sustainability, affordability, etc.
Conclusions and reflections*	The findings of the feasibility study, a brief description of pros and cons for the reinvention project.