UKRAINE

PUBLIC-PRIVATE PARTNERSHIP MANUAL

PHASE 1

Concept Note Development and Evaluation

WORLD BANK GROUP

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Abbreviations

CEA	cost-effectiveness analysis
CMU	Cabinet of Ministers of Ukraine
DCFA	discounted cash flow analysis
DFIs	Development Financial Institutions
EIRR	Economic Internal Rate of Return
EPEC	The European PPP Expertise Centre, an initiative involving the European Investment Bank, the European Commission, Member States of the European Union, Candidate States, and certain other States
GDP	gross domestic product
IFC	International Financial Corporation
IRR	internal rate of return
MCA	multicriteria analysis
MDB	multilateral development bank
SOE	state-owned enterprise
ToR	Terms of Reference
VfM	value for money

Scope of the PPP Manual: Phase 1

This is the first of four manuals on identifying, preparing, procuring, and implementing public-private partnership (PPP) projects. Phase 1 of the PPP Manual provides guidance on completing the first phase of the PPP preparation cycle: concept note development and evaluation. It covers the tasks of PPP project identification, selection, and prioritization. The PPP Manual: Phase 1 is based on the legal context provided in the PPP Law and on the information requirements set forth in the Efficiency Analysis methodology.[1]

The identification, selection, and prioritization of PPP project aims to ensure the following:

I. The best solution for the specific need is selected from multiple alternatives and an initial definition of "the project" is established.
II. The project is adequately defined in terms of its scope, the preliminary assessment of risks and uncertainties, its cost-benefit or economic prefeasibility indications, its PPP suitability and affordability, and the potential PPP conditions (i.e., study design) that will lead to a positive assessment by the reviewing body.
III. The main issues meriting further research to be developed in the Phase 2 Feasibility/Efficiency analysis are clearly defined.

A comprehensive assessment conducted during Phase 1 helps minimize the risk of investing resources in developing detailed feasibility studies of projects without reasonable assurance that they are worth the investment and prioritization.

The methodology on the efficiency analysis requires that the concept note, at minimum, include the following content set out in Table 1. To comply with this information requirement, project proposals benefit from undergoing initial project assessment, the importance of which should not be underestimated.

Table 1. Alignment of the concept note content with the PPP Manual: Phase 1

Content of the concept note	Corresponding analysis proposed in this Manual to comply with the content requirement
1) The purpose of the project and its justification: a. Needs the project is expected to address b. Analysis of demand for goods (works and services) and manufacturing (execution and delivery the project provides	Needs assessment and identification of the most suitable option

1. The procedure for conducting an analysis of the effectiveness of public-private partnerships was adopted on April 11, 2011, by the Cabinet of Ministries of Ukraine in Decree No. 384, “Some Issues of Organization of Public-Private Partnership.”

Content of the concept note	Corresponding analysis proposed in this Manual to comply with the content requirement
c. The results of the preliminary analysis of possible alternative solutions to meet these needs d. Compliance with project objectives of public policy priorities and objectives for Ukraine's sustainable development goals through 2030, defined by Presidential Decree No. 722/2019, on September 30, 2019	
2) Projected spending amounts, namely: a. The estimated project cost, including the cost of its development and implementation, justifying the choice of possible sources of funding b. Information on the availability of land rights associated with the project and an action plan for registering rights to such land (if necessary) c. Information on estimated operating cost (maintenance) for state or municipal property and sources for financing the operation (maintenance)	• Project technical outline and scope • Preliminary financial analysis • Preliminary site assessment
3) The results of the preliminary analysis of the effectiveness of the project: a. Expected consequences (environmental and socioeconomic consequences of implementation) b. Stakeholder analysis c. Preliminary risk assessment for the project	• Economic justification • Environmental and social preliminary assessment • Stakeholder mapping • Preliminary risk analysis
4) Date and time of the project; results of the preliminary assessment capabilities of its implementation; organization and management of construction works	• Project description (part of project identification) • Preliminary financial analysis
5) Measures to study the development of the project carried out under conditions of public-private partnership (study design)	• PPP review • PPP scope preliminary definition • Qualitative value for money assessment • Procuring authority capacity assessment

Phase 1 consists of 15 main tasks.[2] The Initiator of the PPP proposal (except unsolicited proposals) selects the most appropriate technical solution for the project based on a comparative analysis. It

2. While this Manual presents and discusses the tasks as a list of activities, the tasks are not meant to be a performed in sequentially. Due to the complexities of infrastructure projects involving a variety of stakeholders, risks, and challenges, it is impossible and impractical to provide a single, rigid sequence of steps that meet the needs of every PPP project. Some tasks may be relatively independent in terms of sequence, developing in parallel or overlapping form, while other tasks are dependent on completion of a prior step.

then conducts a preliminary assessment of the selected option aimed at reinforcing the appropriateness of the project as a solution as well as screening the project as a potential PPP contract. The Initiator of the PPP proposal records the results of this assessment as a proposal concept in the form of a concept note.[3] The concept note then undergoes analysis[4] by relevant authorities, and based on the results of that analysis, a decision is made on the expediency or inexpediency of preparation of the feasibility study.

The outcome of the Phase 1 is a preliminary conclusion on whether a project is financially and economically feasible, affordable, and suitable for PPP implementation and thus considered worth moving into Phase 2. The conclusion also includes confirmation by the reviewing body that the proposed PPP is a priority project.

The ensuing sections of this manual discuss each of the tasks and processes in detail.

1 Identifying the need and options to address it

The Initiator of concept note preparation should have a clear understanding of the need/problem that the project aims to address, including any underlying causes and their relations. The description should include discussion of the strategic importance of that need and how it fits with government strategic objectives or plans (indicating any relevant specific plan or plans).

The Initiator should then identify different options for responding to the need, including any policy measures (not involving capital expenditure). Each option should be described, including how it address the need, and its alignment with the government's strategic objectives should be documented. The options should represent different ways of increasing the supply of infrastructure or services, reducing demand for infrastructure or services, or improving the productivity of existing

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These particularities create circularities (or interdependencies) in which the results of one assessment will affect the analysis/inputs of another.

3. When a project is already identified as a priority and there has already been a proper technical and economic assessment, Task 1, Options Analysis, and Task 2, Preliminary Assessment, related to the technical project as a public investment, may not be necessary. The reports developed in the previous selection process should be included in the final concept note.

4. In accordance with the CMU Decree No. 384, analysis of the concept note is carried out concerning the following: (a) objects of state property, by the Initiator of concept note preparation taking into account positions of the Ministry of Economy, the Ministry of Finance, and the central executive body that according to the law carries out functions to manage the corresponding objects of state property (in case such body is not the Initiator of concept note preparation), provided within 30 calendar days after receipt of the concept note; (b) objects of communal property, by the Initiator of the concept note preparation and the executive committee of the village, settlement, city council, or the executive staff of the district or regional council (if such body is not the Initiator of the concept note preparation); (c) facilities belonging to the Autonomous Republic of Crimea, by the Initiator of the concept note preparation and the executive body of the Autonomous Republic of Crimea, which performs in accordance with the law functions to manage relevant facilities (if such body is not the Initiator of the concept note preparation). Representatives of the balance holder (if available) may be involved in the analysis of the concept note to express their position on the project.

infrastructure or services. See the Box 1 for examples of needs and possible options for addressing them.

Box 1. Examples of different options based on needs

***Problem statement*:** The main road in the city center experiences substantive traffic congestion. On a daily basis some 12,000 road users experience an average delay of 40 minutes.

Need/Reason for the problem: The inadequate capacity of the road.

Potential options for meeting a need to reduce traffic congestion in a city center:

- Improving access roads and city center bypasses (increasing the supply of roads)
- Developing a rail-based mass transit system (increasing the supply of alternative forms of transport)
- Developing a dedicated bus solution (increasing the productivity of the road network)
- Implementing a cordon charge payable by vehicles entering the city center (reducing the demand for roads)

Potential options for meeting a need to provide greater access to healthcare services:

- Building new health clinics in areas of need (increasing the supply of health infrastructure)
- Modernizing existing hospitals to enable more efficient delivery of health services using up-to-date models of care (increasing productivity of existing health infrastructure).

1.1 Define the criteria for option evaluation

Strengths, weaknesses, benefits, and risks of each identified option will then need to be assessed and compared using a set of criteria. These criteria should be defined by the Initiator of PPP proposal preparation, potentially with assistance from external experts.[5]

Potential minimum criteria to comparatively evaluate each option could be as follows:

a) *Capital and operating costs.* The Initiator of concept note preparation should estimate the likely range of capital and operating costs of each option, including maintenance and renewal costs.

b) *Affordability.* If the costs of one or more options are significant, the Initiator of concept note preparation should rate the relative affordability of each option, taking into account any potential source of funding available for each option that may differ or be nonexistent in other options. Note that the correlation between costs and affordability is not perfect, as some options could be costly but may also generate their own funding (e.g., land value capture, user charges, etc.). In rating the relative affordability of the options, the Initiator of concept note preparation should consider any cost savings associated with each option (for example, a new building for accommodation may result in rent savings).

5. Please see Decree No. 950 of the Cabinet of Ministers of Ukraine, October 9, 2020, on procuring advisors for PPP projects.

c) *Benefits.* The Initiator of concept note preparation should rate the relative level of benefits expected to be generated by each option. For example, if a project will improve mobility, describe the potential range of capacity of each option; if the project will enable increased delivery of health services or education, describe the number of beds or size and age of population served. If there are multiple benefits, each benefit should be considered and the extent to which each option will deliver each benefit should be assessed.

d) *Significant risks and uncertainties.* Describe specific and significant risks and uncertainty or threats in terms of cost and time overruns and/or time realization of benefits for each option. For example:

   - If there is a significant likelihood that, regardless of how the project will be procured, a particular capability required to deliver an option (for example, expertise in a particular form of construction) will not be available from either the public or the private sector, that should be identified as a significant risk for that option.
   - When an option involves new, untested technology or potential for shift in technology this should be identified as a risk.
   - In a transport project with one option involving a major bridge and another option involving a tunnel, technical challenges in terms of construction or geotechnical conditions may be relevant to the choice of options.
   - If for a particular option the site is not yet known or planning approvals are not yet in place, and there is a significant risk of being unable to acquire a suitable site or obtain the necessary planning approvals in a timely manner, this may be sufficiently material to influence the choice between options and should be taken into consideration.

When all options are affected by the same type of uncertainty, potential differences in the impact of that uncertainty on the specific options should be considered.

e) *Time for project completion.* The Initiator of concept note preparation should estimate the date (or dates) on which the project will be completed and delivery of benefits will commence.

Additional criteria may be added on a case-by-case basis, as projects will differ in their challenges or benefits. Therefore, the list of potential evaluation criteria presented above may be expanded or amended to fit the specific nature and features of a given project.

Once the Initiator of concept note preparation defines the criteria and any of them are deemed irrelevant for a specific project, the reasons why they are irrelevant should be documented. Although some criteria will naturally show some level of redundancy, appraisers should try, if possible, to avoid or minimize double counting strengths or weaknesses of each option evaluated, providing cross references between the affected criteria where appropriate.

It is important to note that the PPP suitability should not be included in the criteria at this stage.

1.2 Evaluate the options

Depending on the available information, the comparative assessment based on the defined evaluation criteria of the various options for an identified need can be completed using a cost-effectiveness analysis (CEA) or multicriteria analysis (MCA).

The CEA is appropriate if the likely costs are well understood, the benefits can be quantified in non-monetary terms, and there are no significant risks, uncertainties, or impacts that cannot be factored into the costs of the quantification of benefits.

However, if CEA is not possible, MCA can be used (either quantitative or a qualitative). In a quantitative multicriteria analysis, the criteria are weighted, and each option is given a score against each of the criteria. In a qualitative multicriteria analysis, each option is assessed based on strengths and weaknesses.

Appendix 1 provides examples of each of these approaches.

As a result of the option evaluation, the initiator of concept note preparation will identify and select a sensible, appropriate, and feasible preferred project option.[6] The concept note should incorporate the rationale behind selecting a particular option, the assessment conducted to reach the conclusion, and how the preferred option is coherent with the strategic objectives. At a minimum, the following should be documented:

- A description of the need and the strategic objectives
- A descriptive list of the options considered
- The evaluation criteria and a justification for any additions or changes to the standard criteria
- A summary of evaluation of each option against evaluation criteria
- Comparative analysis and justification of the selection
- Indication of how the selected option will contribute to achieving the government's strategic agenda and the goals and objectives of the Initiator of concept note preparation.

2 Prescreening

The PPP review is a two-stage exercise. The first set of questions listed below (prescreening) is applied after the Initiator of concept note preparation selects the most suitable option to address the need (i.e., defines the project) *at the beginning of Phase 1,* filtering out a long list of PPP-eligible projects. The second set of questions (See Task 12 PPP Review) is applied at *the end of the Phase 1,*

6. It is possible that more than one option will be identified as a result of the options analysis. In this case, it is recommended to proceed with the next tasks, such as defining project scope and economic justification, etc.; the results of these analyses will aide an Initiator of PPP proposal preparation in identifying the only possible solution.

after the underlying prefeasibility analysis is completed to create a short list of projects for which the reviewing body will review project concept notes. The second stage ensures that only projects with clear PPP-eligible characteristics enter the PPP development process and are subsequently nominated for the Phase 2.

It is useful for Initiators of concept note preparation to grasp the entire underlying logical framework of the essential features a project should have to be a successful PPP.

The prescreening is intended as an internal filtering tool to sift through the numerous initiatives and ideas with the overarching objective of identifying the projects that are ready to be developed into a concept note and approved by the reviewing body. Such filtration will also enable the public authority to optimize the limited financial and human resources and allocate them to the promising opportunities. The significant upfront project preparation cost and complexity of structuring and implementing PPP projects reinforce the importance of carrying out a proper project selection. Public authorities usually have many investment projects they want to implement, but only a limited number of the projects are likely to satisfy the criteria for selection as PPPs with the potential to prove financially viable and bankable. Early screening supports the Initiator of concept note preparation in efficiently allocating budget resources for proposal development to projects that indicate preliminary characteristics of PPPs.

On the basis of the results of the previous task, and prior to embarking on the preparation of the full-fledged concept note, the Initiator of concept note preparation should apply a set of qualitative Yes/No questions to prescreen the identified project option. Responses to all the prescreening questions need to be affirmative for the project to pass this initial selection. If this information is not available or receives a “maybe” response, it can be provisionally included in the long list to carry out high-level initial analysis. In responding to the questions, the Initiators of concept note preparation should apply information from any previous experience of similar projects or industry standards/benchmarks. If additional studies have already been completed (technical, economic, environmental, etc.), Initiators should document the source of information for reference.

The following questions can be used to prescreen project options:

1. *Is there sufficient information available on the project to develop a concept note?*
2. *Are their funds available in the budget to develop the concept note and hire external advisors/consultants to support the preparation of the entire concept note or a part of the preliminary analysis?*
3. *Are the project objectives compliant with the public policy priorities and objectives of sustainable development goals of Ukraine till 2030, defined by Presidential Decree Ukraine No. 722/2019, on September 30, 2019?* A clear indicator of whether a project is strategically important is if it is included in any current sector strategic plans. If it is not, a clear justification of its level of priority should be given.

4. *Does the project address a long-term, predictable, and stable public service need that is not expected to change significantly over the duration of the PPP contract?* PPP fixes the service requirements of the public authority in contractual terms for a long time. The extent to which these requirements can be changed during the contract are usually limited if additional costs are to be avoided. The risk of change and therefore of additional costs is higher the longer and/or more complex the PPP contract is. If the service is no longer required, the cost of contract termination can be very considerable. While standard contract clauses are available to manage some limited changes, these are not suitable for dealing with major change. Clearly, even if an infrastructure asset is procured traditionally, changes cannot be made without cost. However, these costs may be less for the public authority than in a long-term PPP contract.
5. *Does the motivation to use PPP as the procurement method for this project match at least two of the reasons listed below?* While a project may be suitable as a PPP, it still may not succeed as such without proper motivation to use the approach despite its costs and complexity (to address real issues plaguing the infrastructure or public service, for example, cost and time overrun or public assets are not properly maintained). The project should provide:
    a. Better long-term maintenance of assets
    b. Efficiency
    c. Opportunity for innovation and technical advanced knowledge
    d. Better quality and consistency of service delivery
    e. Better long-term management of risks
    f. Mobilization of private sector capital to enable additional and /or earlier delivery of public services

6. *Is the project clear of any obvious legal impediments to using PPP as a procurement method and to having the private sector participate in this project/sector?*
7. *Is it clear that there are no obvious benefits or synergies to be gained from extending the public authority's existing management of operations?* There may be existing activities carried out by the public authority that may be more cost effective to extend rather than having services provided separately by the private sector under a new PPP arrangement. For example, the public authority may already have in place national service contracts to provide maintenance, security, or cleaning services for schools that would be more cost-effective than the services being delivered under an individual PPP contract.
8. *Is there stakeholder support for using PPP as a procurement method for this project (or at least an absence of strong opposition)?* PPPs are meant to provide value to the public. Delivery of the project as PPP may be a cause of considerable concern for some external stakeholders. Gaining stakeholder support for the project as well as for the decision to procure it using the PPP method is vital to the project's success and attracting potential investors, and it will help reduce project risks.

9. *Does the public authority have access to appropriate skills, experience, and knowledge to prepare, procure, and manage the PPP?* Appropriate administrative capacity includes technical, financial, and legal skills and experience, as well as skills and experience in project tendering and implementation. The level of capacity depends on the complexity and size of the project. The public authority may not have all the necessary capacity in-house, in which case the public authority should arrange for sufficient access to external sources of consultancy support and/or central technical support within the MDETA. This requires the initiator of concept note preparation to have the following:

    a. An understanding and awareness of the level and nature of the external consultancy support required to supplement the capacity of the initiator of concept note preparation

    b. Sufficient budgetary resources to engage such support

    c. The ability to procure and manage any externally procured consultancy support, with a focus on the quality (not just the price) of such support

    d. Understanding of whether the appropriate public authority has, or is able to put in place, the necessary skills and resources to manage the PPP contract once it is signed

The prescreening exercise could result in three outcomes:

1. If the project option receives all "Yes" answers, it should proceed to the next step in the concept note development process. Just because a project option has been preselected for the concept note development, however, it does not mean that it is guaranteed to proceed to the Phase 2 Feasibility Study, i.e., that it will pass the concept note analysis. Other challenges pertaining to the other aspects of the project may surface that, unless addressed, can prevent it from getting the final approval to the Phase 2.
2. If the project receives mostly "Yes" but some "No" responses, it is recommended to address the areas that received a negative feedback before proceeding further to avoid later difficulties in the course of concept note development.
3. If the project receives mostly "No" responses, it is not ready to be conceptualized for implementation and other forms of procurement should be considered. Any "No" response indicates something fundamentally important is missing from the project option and its overall framework. Significant changes will be required before retesting the project option again in the future.

3 Technical outline and scope of the project

For project options that pass the prescreening task, the Initiator of concept note preparation develops a description of the service to be rendered and the outline of the project, including whether it should be procured as a number of separate packages.[7]

The description should include the sector, technical outline, and physical conditions (i.e., length of the track for rail transport, floor area for buildings, etc.), the expected results and key outputs, site, geographical area, affected/benefited population, any existing interfaces with/dependencies/risk on other infrastructure/services not within the project scope, etc. The scope of the project should be described from the perspective of the project, without any consideration of the preferred procurement method as yet. The description should not as yet specify the technologies, inputs, and processes to be used. Those determinations would be the responsibility of the private partner, should the project be procured as PPP. However, some technological definition is still needed to develop an initial picture of the expected costs and risks of the project.

In Phase 1, this analysis is primarily high-level and mainly based on previous experience, industry standards/benchmarks, and good international practice.

While formal initial technical analysis is not required during Phase 1, it is nevertheless recommended in order to develop a comprehensive concept note. The technical assessment informs subsequent due diligence and analysis, such as estimating project costs, the payment mechanism, and contract duration and enabling the reviewing body to confirm the PPP suitability of the project when applying PPP review analysis. Therefore, each project alternative (unless one option has already been selected as a result of the previous task) should be described with sufficient detail to enable the body reviewing the concept note to answer the questions set out in the subtask concerning the PPP review analysis.

4 Economic justification

The Initiator of concept note preparation should analyze the project solution(s) using qualitative or quantitative methods to test whether it or they can be expected to have a sustainable positive net socioeconomic impact on the economy, thus giving clear indications of a good use of public money.

It is unlikely that the Initiator of concept note preparation will be able to come to a definitive conclusion concerning economic viability in Phase 1; however, this task will give the Initiator an opportunity to eliminate options that will be too costly or for which demand is insufficient, and instead focus on the alternatives more worthy of further consideration. In cases where a project is

7. Often this decision is guided by the project financial analysis and is not necessarily a technical decision. This task may need to be revised/revisited when the preliminary financial analysis is completed.

revealed during internal scrutiny to be a poor use of public funds, it is not recommended to proceed with the concept note development. It is important to ensure that all public investment projects are economically justifiable.[8] If economically unjustified projects proceed as PPP or traditional procurement, they may soon fail when third-party scrutiny comes into play (by multilateral development banks (MDBs), development financial institutions (DFIs), or other lenders when they do their own project assessment). If the project fails, it can impact the reputation of PPPs generally (even if the PPP element is not to blame).

Depending on the availability of the data, CBA can be developed at this stage, although it is not mandatory, and costs and benefits may be assessed only qualitatively (see Appendix 2 for basic guidelines to conduct a CBA). If CBA is conducted during this phase, it should be revised and updated in the Phase 2 Feasibility/Efficiency analysis based on new, more reliable and detailed information on the project.

In Phase 1, the economic analysis should include a description of each of the identified costs and benefits. See Box 2 for a list of possible costs and benefits to be described and assessed.

8. This is a significant concern for planning any public investment project (or in preparing any strategic and programmatic documents) and does not depend on the procurement method the project will use (traditional public procurement or PPP, for example).

Box 2. A sample list of economic costs and benefits of a metro project

In a metro rail project, the costs and benefits to be considered may include the following:

Costs* (indicative estimates based on unit rates for equivalent physical output):**
- Capital costs:
  - Planning costs
  - Design costs
  - Construction costs for the track and stations
  - Construction costs for the rolling stock
  - Land acquisition costs
  - Cost of potential environmental mitigation measures (or at least noted, if not accounted for)
- Operation and maintenance costs:
  - Costs of operating the system
  - Maintenance and lifecycle costs

Benefits and qualitative (if not quantitative) assessment of their significance:
- Direct: Benefits to transport system users:
  - Travel time savings for users of the rail system
  - Travel time savings for road users due to less road congestion
  - Vehicle operating cost savings due to less use of road transport
- Indirect: Non-user benefits (externalities):
  - Reduced road crashes due to less road usage
  - Reduced greenhouse gas emissions due to use of cleaner and more efficient transport
- Residual value of the infrastructure: If the infrastructure will have an economic life beyond the end of the economic evaluation period, a residual value is used to estimate the economic benefit of the infrastructure from the end of the evaluation period to the end of the economic life of the asset.

**Where possible, a comparison of the cost per user or per unit of demand should be undertaken with other similar and recently completed projects. This comparison may be used to guide the decision on whether costs lie within an acceptable range.*
*** Economic cost is the cost of the project at the societal level including nonfinancial costs, such as externalities, used to make the cost-benefit assessment.*

Sometimes a project may have significant economic benefits but may not be financially viable (insufficient ability to generate fees to cover the costs and not attractive to private sector). Under such circumstances, it may be necessary for the public partner to provide some form of support to the project or additional incentives to the private partner to ensure that the project is financially viable from the private sector's perspective while at the same time still generating VfM for the public authority (for example, provide exclusivity rights, tax exemption, etc.). The preliminary financial analysis is discussed in task 8.

5 Project site assessment

If a physical site is required, the initiator of concept note preparation should indicate whether there is a preferred site, a number of different site options, or a need to identify a suitable site. This assessment may also be applicable to the infrastructure object of a PPP project when it is an existing construction site.

When different site options are available and there is no clear preference, the Initiator of concept note preparation should identify the possible selections, describe their availability and respective advantages and disadvantages and set out the process to finalize the choice of site. Basic parameters to select the preferred site should be described to enable the Initiator of concept note preparation to carry out further investigations and option analysis in the next phase if it is not possible to do so now.

The Initiator of concept note preparation should identify how it will gain access to the site for any site investigations required as part of the feasibility assessment and how it will secure the right to use the site before tendering the PPP project. This analysis should include information regarding ownership status, existing titles or potential claims on the site, and specific actions proposed to make the site available, such as expropriations, changes of legal status, or negotiations with a city council.

Where there is potential for site conditions to affect the delivery of the project (for example, geotechnical conditions affecting excavation or tunneling or site contamination that must be cleaned up before construction), these matters should be investigated or methods for their investigation (and, if appropriate, their resolution) should be documented in the site assessment. If the plan is to leave it up to the bidders to propose the site or choose the site, explain and justify the benefit of this approach. The site assessment should include details of any other work to be done as part of the more detailed due diligence during the Phase 2 Feasibility/Efficiency Analysis when it is not practical to do it in this phase.

The long-term contractual nature of PPPs may mean much greater costs and risk for the public partner if the contract must be terminated because project site issues were not clear from the start.

6 Initial legal analysis

The Initiator of concept note preparation should conduct a preliminary legal due diligence to identify any significant obstacle to developing the project as a PPP and to minimize the risk of delays in the preparation process. This preliminary due diligence will serve to program and organize the legal due diligence work to be developed in detail during the next phase.

The Initiator of concept note preparation should assess the following areas in the legal due diligence analysis:

- The extent to which a future private party will legally be able to use the site, develop the infrastructure, and deliver the services
- The sectoral regulatory framework and any constraints it places on an appropriate PPP structure
- Relevant sectoral regulations that will influence the future development of the contract and business model (such as building regulations/standards, safety standards in transportation, specific sectoral labor regulations, specific tax codes or tax issues)

Specific issues surrounding legal use of the site or environmental regulations may be developed here or under the specific tasks described below. Additionally, the results of the legal analysis performed at this stage should be revisited later in Phase 1 as more information becomes available, such as clarity on risk distribution, provisional definition of the type of payment mechanism, the scope of PPP works that the private partner will undertake, and rationale of the PPP pre-structure and contract type, including relevant regulations that may or will be applicable.

7 Environmental and social preliminary assessment

The Initiator of concept note preparation should conduct a preliminary assessment of the environmental impact and social well-being of the population that the project may create. This is a required part of the assessment when preparing the concept note. This analysis aims to confirm if the project is compliant with national environmental and planning standards.

Undertaking an environmental and social impact assessment early on, even at a high-level, based on a good judgement, bears significant benefits for the overall project assessment and prepares the ground for implementing Phase 2, which requires more detailed environmental and social assessments. The results of this analysis will support carrying out other tasks related to risk identification, flag potential hurdles involving unnecessary delay in the project schedule due to environmental approvals, and help the Initiator of concept note preparation finalize the project scope during Phase 2. Multilateral/bilateral donors or financiers involved in providing financial support to the project may have their own environmental and social standards or requirements that will need to be met.

This preliminary assessment can evaluate how the project may impact air, water, land quality, etc. It also considers the use of hazardous materials, the impact of the project on natural biodiversity, etc. The environmental issues and their impact may also include follow-on effects beyond the immediate project area and the people directly associated with the project.

The social impact analysis can address a broad set of issues relating to changes in social (gender, minority groups, safety and security), economic (regional development and poverty impact), labor and working conditions, health, and cultural conditions in which the surrounding community live and work.

Specific types of social and environmental issues and possible impacts associated with a project can vary considerably depending on the nature, size, and location of the project.

The mitigation strategies for environmental and social risks imposed by approving agencies are a significant component of project costs and can reduce the expected return on investment or directly impact the government's liabilities, depending on the risk allocation regime.

8 Preliminary risk analysis

A preliminary risk analysis is required as part of the concept note.[9] The preliminary project risk assessment aims to determine the likelihood negative events will occur and the scale of the created impact if they do. In practice, at this phase the analysis will be primarily qualitative, although some risks can also be quantified based on previous experience with similar projects in Ukraine or abroad and the expertise of consultants/advisors.

The Initiator of concept note preparation will develop an initial risk register[10] listing all risks that may significantly affect project costs and benefits. In addition, the Initiator should conduct an early qualitative assessment of the likelihood and impact of each risk to prioritize them according to their significance, preferably using a matrix of "tolerability," as described in the box below. This will be the basis of the risk assessment to be conducted in next phase.

Table 2. Sample risk register

A	B	C	D	E	F	G	H
Risk identification number and name	Description	Description of how it affects the project	Assessment of the likelihood of	Assessment of the impact of the risk occurrence	Party responsible for managing the risk	Proposed mitigation measures	Cost impact and responsibility

9. The Efficiency Analysis Decree, paragraph 6 of the Procedure for Conducting an Analysis of the Effectiveness of Public-Private Partnerships, adopted by Decree No. 384 of the Cabinet of Ministries of Ukraine, April 11, 2011, "Some Issues of Organization of Public-Private Partnership."
10. A risk register is a catalog of every potential risk to a project, a description of that risk, qualitative and quantitative scoring, allocation suggestion, mitigation strategies, etc. The risk register is a master document that must be continually maintained and adjusted throughout the life of the project. As a result, the register will expand not only in length, but also in depth as new details become relevant in each phase of the project cycle. In Phase 1, the procuring authority should enter the name of the risk and its description and qualitative assessment.

			the risk occurrence				for each measure

Next, the Initiator of concept note preparation should assess qualitatively the likelihood and impact of the risk occurring, place the risks in the risk matrix as described in the box below, and calculate the total risk score (score of the impact multiplied by the score of its likelihood). Based on the results, the risks should be prioritized according to their significance. Risks rated as high and significant (scored between 5 and 15) should be closely monitored throughout project preparation and implementation. A strategy on their mitigation and treatment should be prepared.

- *Likelihood:* On a scale of 1 to 3 (where 1 is the risk is very unlikely to occur and 3 is the risk will almost certainly occur), rate the likelihood of the risk occurring. Update the risk register column D.
- *Impact:* On a scale of 1 to 5 (where 1 is insignificant impact and 5 is catastrophic impact), rate the size of the financial relevance of the impact the risk will create if it occurs. Update the risk register in the column E.

Table 3 presents an example of a risk matrix. The risk matrix is used to screen risks to filter the minor risks with low impacts and low likelihood of occurrence. However, minor risks can aggregate to higher level risks and thus may still need monitoring. The risks rated "medium to high" will require attention, as they are very likely to impact the attainment of project objectives and outcomes. A good preliminary tool is to assess the materiality of risks and determine the risk ratings. Where the project risk fits in this matrix in terms of impact and likelihood is a subjective assessment and will only be as good as the skill and expertise of the decision maker in this context. While delays or impact on schedules can be captured as a cost impact in most cases, it helps to see the impact of each risk on project schedules at this stage to give the procuring authority an idea of how important or unimportant the risk might prove.

Table 3. Risk matrix

Impact ▶ ▼ Likelihood		**Overall rating**				
		Insignificant	Minor	Moderate	Major	Catastrophic
		1	2	3	4	5
Almost certain	3	Medium (3)	Significant (6)	Significant (9)	High (12)	High (15)
Neutral	2	Low (2)	Medium (4)	Significant (6)	Significant (8)	High (10)
Rare	1	Low (1)	Low (2)	Medium (3)	Medium (4)	Significant (5)

Risk scores may be Low (1 and 2); Medium (3 and 4); Significant (5, 6, 8 and 9); or High (10, 12, 15).

Finally, the Initiator of the PPP proposal preparation should provisionally assign the risks between the parties. A basic reason for entering into a PPP arrangement is the possibility of allocating risks between the public and private parties. It is important to understand when to transfer, retain, or share risks to better manage risks through the life of the project and make a PPP project bankable (i.e., financeable). While the type and consequence of the risks arising from a project will vary, how the risks are allocated among the parties has significant implications for the success of a PPP, VfM, and fiscal responsibility. Missed risks or risks that have been misallocated may undermine the financial and economic viability of the project. Transferring risk inadequately would reduce VfM by skewing incentives and exposing the public partner to fiscal risks. Transferring risk excessively to the private party irrespective of the private party's ability to manage the risks would also reduce VfM, as a high-risk premium will be added to the project, and in addition, the actual realized costs of mismanaged risk could eventually prove to be too high. Retaining too many risks may also lead to higher fiscal costs and reduction of the value of the project. Box 3 includes an example of a risk allocation matrix. It is important to note that each project going forward will require its own individual analysis of appropriate risk and risk allocation.

Box 2. Risk allocation principles

A central principle of risk allocation is that each risk should be allocated to whoever can manage it best. Some of the principles of risk allocation are as follows:[11]

- Best able to control the likelihood of the risk occurring; for example, the private party is usually in charge of project construction because it has the most expertise in that area. This also means it should bear the cost of construction cost over-runs or delays.
- Best able to control the impact of the risk on project outcomes, by assessing and anticipating a risk well and responding to it. For example, while no party can control the risk of an earthquake, if the private firm is responsible for project design, it could use techniques to reduce the damage should an earthquake occur.
- Able to absorb the risk at lowest cost if the likelihood and impact of risks cannot be controlled. A party's cost of absorbing a risk depends on several factors, including the extent to which the risk is correlated with its other assets and liabilities; its ability to pass the risk on (for example, to users of the service through price changes or to third parties by insuring); and the nature of its ultimate risk bearers. For example, the ability of governments to spread risk among taxpayers means they may have lower risk-bearing cost than private firms, whose ultimate risk-bearers are their shareholders.

The following is a general illustration of how common risks in PPP projects are allocated. Please note that the risks in a particular project may be allocated differently based on its particular circumstances.

11. Based on T. Irwin (2007), *Government Guarantees: Allocating and Valuing Risk in Privately Financed Infrastructure Projects* (Washington, DC: World Bank), https://openknowledge.worldbank.org/bitstream/handle/10986/6638/394970Gov0guar101OFFICIAL0USE0ONLY1.pdf?sequence=1&isAllowed=y.

Risk/Party	Public partner	Private partner	Shared
Design		✓	
Construction		✓	
Operation		✓	
Demand		✓	
Environmental and social		✓	
Maintenance			✓
Force Majeure			✓
Exchange			✓
Political	✓		

Based on the risk analysis, the Initiator of concept note preparation should develop, through consultation or specific research and investigation, an exhaustive list of areas and issues for which additional information must be gathered before or during the Phase 2 Feasibility Analysis.

9 Preliminary financial analysis

The objective of the financial analysis in Phase 1 is to determine if the project is financially viable and affordable. This is done through five main subtasks described below:

I. Initial estimate of the project's financial costs, based on available data on both CAPEX and OPEX (if it has not yet been done as part of the operational program preparation) to scale funding and financing required.
II. Initial decision on the project affordability, based on available data (assuming a conventional public procurement).
III. Determination of who will pay for the services/works.
IV. Identification of potential revenue sources.
V. Indication of whether a financial viability gap is likely.

Such analysis enables the Initiator of PPP proposal preparation to build a picture of the financial resources required and the long-term payment commitments it will incur under the PPP contract.

It is important to note the difference between a project's financial and economic costs. Economic cost of the project lies at the societal level and includes nonfinancial costs, such as externalities, used to make the cost-benefit assessment. Economic costs are not related to the project's procurement method (PPP or traditional) and are calculated at the public infrastructure investment planning level. Financial costs are the cashflows of the project. Therefore, from the financial perspective, a project is considered viable when the expected revenues (inflows) under a reasonable scenario are considered sufficient to cover all expected costs (outflows), such as CAPEX and OPEX.

Bankability is another important aspect of the financial analysis. It demonstrates the project's ability to raise private, commercial financing[12] (not only equity but also the required amount of debt). For a project to be bankable, lenders must be confident that the project company can service the debt. From the public authority's perspective, the key considerations for ensuring bankability are therefore the technical and financial viability of the project and appropriate risk allocation.[13]

I. **Estimate the financial cost of the project** (capital and operational costs). Estimated costs will provide more clarity on the financial resources required over time. At minimum, the estimate should be based on the key technical parameters (i.e., floor area and number of beds of hospital; length and number of carriageways of a road) and any estimates for long-term operation and maintenance. The estimates should be based on industry benchmarks of similar infrastructure and services, if data is available, and cost recovery assumptions.[14] Costs can be viewed from the perspective of three stages: preconstruction, construction, and post-construction:
    a. Preconstruction costs mainly relate to the cost of preparing the project, including design costs, cost of preparing for procurement (Phase 3), and cost of site preparation prior to construction. Some costs could be passed on to the private sector.[15]
    b. Capital costs include planning costs, design costs, land acquisition costs (unless land is already acquired and no additional acquisition is necessary), and construction costs, mainly consisting of costs for building materials, labor, equipment used for the construction, installation, and refurbishment of existing buildings. For example, in a metro rail project construction costs will include the cost of the track and stations and of the rolling stock.
    c. Post-construction costs include the costs of operating and maintaining the PPP object and any other lifecycle costs. These costs depend partly on the efficiency of the operation, usage levels, and design and construction of the project. Post-construction costs also include long-term concession (PPP) contract management by the public partner (grantor).
    d. Conduct initial sensitivity analysis to get some understanding about which costs categories have the most impact on overall project costs and therefore on affordability. For the initial

12. The availability of private funds to invest in PPP projects should not be a reason for implementing a PPP—the decision should involve a cost-benefit, VfM assessment of the PPP
13. WB (2016), PPP Reference Guide, version 3.0.
14. Cost recovery assumption is the rate at which all costs of any project expenses will be recovered.
15. The preconstruction cost is relatively a small part of the overall project cost. All bidders will bear this cost pricing in their financial models.

analysis it may be reasonable to use less reliable, but more readily available, indicators and estimates. As the project progresses, the estimates will need to be updated and adjusted for risks.

II. **Develop a judgement of project affordability** (assuming traditional procurement). It enables affordability to be assessed in relation to projections of expenditure ceilings and available fiscal space during budget preparation. Take into account:
   a. The relative size of project compared with other initiatives;
   b. The proportion of its budget the investment would represent.

III. **Identify and analyze the appropriateness and feasibility of the funding sources available to the project.** In other words, describe who will pay for this project (users[16] or the public side or both).[17] To determine this, consider the following:
   a. *Nature of the project.* social or economic sector. Generally, for social sectors, the main funding source is payments by public partner (from the public side). In economic sectors, funding may come from customers using the infrastructure or service and/or payments by the public partner (from the public side).
   b. *Affordability of the payments (for the users and the procuring authorities).* If it looks like a project is needed but cannot be afforded, no project proposal should be developed. In the case of user payments, it is also important to consider whether the customers will be willing to pay[18] the charges for using the infrastructure and obtaining a service. Benchmark the fees against the revenues generated by similar infrastructure and services, if data is available.
   c. Note that the revenue mechanism is independent from the implementation design (PPP or traditional procurement) as the user charges can also be imposed in traditionally procured infrastructure projects as well.

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16. The possibility of collecting user fees should not be, by itself, the reason for establishing a PPP—fees may also by collected in publicly financed projects, as happens for many toll roads around the world.

17. The payment structures used in PPP contracts can be complex, depending on the scale of the project, the nature of services to be provided by the private partner, and the project's risks. They commonly fall into four broad categories: (a) demand based (i.e., payments made by the public authority or direct users to the private partner are linked to the level of usage of the infrastructure); (b) availability based (i.e., payments made by the public authority to the private partner are linked to the infrastructure being available for use and services being performed as defined by the PPP contract); (c) a combination of demand based and availability based; or (d) any of the above, with the addition of lump-sum payments being made by the procuring authority during the construction or operational phases of the project (West Balkan Guidebook, Main Provisions of the PPP Contract, https://www.wbif.eu/news-and-events/outputs-of-the-wbif-supported-epec-project-strengthening-the-capacity-of-the-public-sector-to-undertake-ppps-in-the-western-balkans.)

18. The maximum amount an individual is willing to sacrifice to have a good or to avoid something undesirable. The value of a benefit may be estimated by analyzing the consumer's behavior ("revealed preference"). A common example of this could be the level of tolls a user is willing to pay for different time savings to estimate the value of time. It is not the same as the willingness to accept, which is the amount of compensation consumers would demand or ask for to accept a cost. Such willingness to accept may be defined as the minimum monetary amount required for selling a good or for an individual to accept something undesirable.

Box 3. Funding vs. Financing

It is important to distinguish between the terms *funding* and *financing.* This is especially important in the case of projects that blend funding and financing resources. The EPEC (2016) Guidance Note on ESIF and PPPs defines *funding* as a non-recoverable financial resource (for example, a grant or availability payments) which generally does not need to be paid back to the provider if it is used in accordance with its terms. On the other hand, *financing* refers to a potentially recoverable financial resource, i.e., one that must be paid back to the provider (e.g., loans or equity from the public or private sector). The WB Reference Guide 3.0 defines financing as money required at project outset to begin implementation, primarily for asset construction, whereas funding is defined as money required to meet repayment obligations and remunerate the project financiers, namely debt and equity holders. Failure to do this leads to the "affordability illusion," in other words, the illusion that while *financing* may be available to pay for the project upfront, it does not mean *funding* to repay the obligations may be readily available. Unless the projects have secured funding sources, they are unlikely to be financeable.

IV. Identify whether the project has any revenue generation potential.

- **a.** Estimate the potential revenue that can be generated using industry benchmarks, previous experience with similar projects in Ukraine or abroad, and market prices on similar services and works.
- **b.** Given the estimated revenues, determine how realistic it is that the revenue from these sources will cover the costs and allow the private partner to recover its investment.
- **c.** Explore the possibility of revenue streams from greater asset utilization, for example, by raising revenues from alternative uses of infrastructure assets, developing a commercial area, or customizing the project design to maximize user utility and increase cost recovery.

Box 4. Asset utilization

Commercializing underutilized state and/or municipal assets (asset monetization or recycling) is one of the methods used to generate cost savings for the state and municipal budget and create profitable revenue streams that can be diverted into infrastructure investments to deliver services in more efficiently and with greater fiscal effectiveness. Better leveraging of Ukraine's underutilized state, municipal, and city assets can help create better opportunities for public investments and use these publicly owned assets more efficiently to advance infrastructure development at relatively low cost.

In a concession/PPP project, a project may be able to generate commercial revenues as part of, or in some way related to, the public infrastructure or service it delivers. The state or municipality can use the public assets or rights that it provides to the private service provider as part of the project—for example, concession, land, or access rights—to specifically enable private sector participation to leverage more additional commercial revenues from activities such as advertising and renting parking, office, residential, and retail space. For example, a municipal bus terminal concession could allow the private service provider to build and rent out shops as part of the project, charge for advertising and parking, and so on, in addition to providing a well-organized bus terminal for the municipality.

V. Determine if the revenue is sufficient to cover the costs.

a. If a project is conceived as user-pay PPP (concession) and the Initiator of concept note preparation expects that the project could be self-financeable purely on user payments, provide evidence to support this possibility (such as preliminary assessment of the expected demand for the services rendered by the infrastructure asset during the envisaged period of operations). Where revenue from user charges exceeds costs and yields sufficient returns to remunerate capital, the project will generally be commercially attractive, provided risks are reasonable. If the estimated revenues from the users are less than the cost of the project, indicate the amount of the funds needed to cover project costs (i.e., the viability gap). The initiator of PPP proposal preparation can use the financial model to assess what its additional upfront financial support or contributions should be, subject to the possible limitation set forth by the legislation as well as the fiscal rules.[19] These determinations must be integrated in financial analysis.

b. If a project is a non-concession PPP (government-pays), the Initiator of concept note preparation should provide an estimate of the worst case/pessimistic scenario and the potential size of the viability gap; this analysis will focus on calculating the required periodic contributions to recover the costs and how much the periodic payments should be.

c. Determine how any needed viability gap support can be provided by the public partner.

Although it is not expected upon initiation that the concept note will provide a detailed assessment of the project's financial viability and bankability, at least a tentative financial analysis is to be included, indicating the net present value (NPV) or the internal rate of return (IRR) of the incoming and outgoing cash flows. For this purpose, the estimated costs and the revenues must be

19. The public debt and state-guaranteed debt at the end of the budget period may not exceed 60 percent of the annual nominal volume of GDP (Article 18 of the Budget Code of Ukraine). The maximum amount of state guarantees may not exceed 3 percent of the planned revenues of the general fund of the state budget (Article 18 of the Budget Code of Ukraine). The state budget deficit indicator determined by the Budget Declaration for each year of the medium-term period may not exceed 3 percent of the projected nominal volume of gross domestic product of Ukraine for the respective year (Article 14 of the Budget Code of Ukraine).

consolidated in a discounted cash flow analysis (DCFA). The DCFA is illustrated in Table 4 and will be revisited in Phase 2.

Table 4. Discounted cashflow analysis

Year	*0*	*1*	*2*	*3*	*4*	*…*	*25*
Revenues (million hryvnias per year)		*2.4*	*2.6*	*2.8*	*3.0*		*6.0*
Capital expenditures	*40.0*						
Operating expenditures		*1.0*	*1.0*	*1.0*	*1.0*		*1.0*
Free cash flow	*(40.0)*	*1.4*	*1.6*	*1.8*	*2.0*		*5.0*
NPV @ [10%]	*6.2*						
IRR	*11%*						

Determining the amount of government support[20]

The government support for a PPP project can be provided through:

(i) Any direct and contingent liabilities (availability payments, government (sovereign) guarantees, minimum revenue guarantees, and the like).
(ii) Any government support required, i.e., to connect infrastructure like grid connections or access roads.
(iii) Any direct budgetary support, like viability gap funding if the project is expected to be a concession.

Direct liabilities take the form of a defined and quantified undertaking to pay or carry a funding obligation for a feature, phase. or item in a PPP project essential to its development, operation. or completion. A direct liability's salient characteristic is that the occurrence of the payment obligation is known, although uncertainty may remain as to the size. Examples of direct liabilities include:

(i) supplying the land needed for the project
(ii) upfront "viability gap" payments, in which the Government makes a capital contribution to ensure a project that is economically desirable but commercially unattractive can proceed

20. In accordance with the PPP Law, "Government support for PPP can be provided: a) by providing state guarantees and local guarantees; b) by financing from the state or local budgets and other sources in accordance with national and local programs; c) by paying to a private partner the payments provided for in PPP agreement, in particular the fee for operational readiness; d) by the acquisition by the state partner of a certain amount of goods (works, services) produced (performed, provided) by the private partner under PPP; e) by supplying a private partner with goods (works, services) necessary for the implementation of PPP; f) by construction (new construction, reconstruction, restoration, overhaul, technical re-equipment) by state, communal enterprises, institutions, organizations and/or business associations, 100 percent of shares (shares) of which belong to the state, the Autonomous Republic of Crimea or territorial community, facilities related infrastructure (railways, highways, communication lines, means of heat, gas, water and electricity supply, utilities, etc.), which are not objects of PPP, but are necessary for the implementation of PPP contract; g) in other forms provided by law." Most of these forms of government supports are also applied for concessions.

(iii) annuity or availability payments in which a regular unitary payment over the life of a project is conditional on the availability of the service or asset
(iv) output-based payments or payments made per unit or user of a service.

A **contingent liability** is an obligation that arises from a particular discrete but uncertain future event (i.e., one that may or may not occur) that is outside the control of the government. For contingent liabilities, the occurrence (trigger event), value, and timing of a payment may all be unknown or cannot be definitively determined. Such liabilities include, among others:

(i) guarantees on specific risk variables, e.g., exchange rate, inflation, prices and traffic
(ii) force majeure
(iii) termination payments
(iv) credit guarantees

While these types of commitments should be explicitly stated in the PPP project contract (that is why these types of contingent liabilities are called explicit), fiscal commitments can come from implicit sources. For example, political or social sensitive projects may be expected to be rescued by government if financial distress occur (that is why they are called implicit contingent liabilities).

In Phase 2, the extent of government support will be revisited, taking into account further refinements of the financial viability analysis and project structuring.

10 Stakeholder identification and planning for consultation

In this task the Initiator of concept note preparation identifies the provisional list of users or stakeholders[21] of the infrastructure or service and stakeholders other than users who will be involved or affected by the project implementation. User identification serves many purposes and is critical in project planning. Knowing who will be the ultimate users and recipients of the infrastructure/service helps the Initiator of concept note preparation to better design the project to ensure that the objectives and benefits align. Most large infrastructure projects will have a wide range of stakeholders, including both supporters and opponents. Wider stakeholder identification and mapping facilitates a more efficient environment for project implementation and serves as a platform for communication and engagement. During Phase 2, a full stakeholder management plan

21. Persons or groups directly or indirectly affected by a project, as well as those who may have interests in a project and/or the ability to influence its outcome, either positively or negatively (IFC 2007, Stakeholder Engagement Handbook).

will need to be developed that captures different stakeholder activities, such as interaction and feedback from stakeholders, to better inform the project design.

A list of typical stakeholders in a potential PPP project is presented in Box 6 below.

Box 5. Typical stakeholders in a PPP project

Stakeholders are those involved or interested in a project beyond the core project team. The stakeholders in a typical PPP project might include:

- Ministers
- Central agencies
- Other government agencies involved in or capable of influencing the project (for example, the agency responsible for environmental approvals)
- The legislature
- Local governments
- Private sector contractors, service providers, and financiers
- Affected landholders
- Residents and businesses located in neighboring communities
- Potential users for the infrastructure or services
- Nongovernment organizations (NGOs)
- Academics
- The media

First, the Initiator of concept note preparation should identify any stakeholders likely to be impacted by the primary project facilities and the related facilities, such as transportation routes and areas. The analysis should focus on socioeconomic and environmental consequences for those directly affected by the project, such as end-users, homeowners, or specific professional categories, as well as groups that appear peripheral but perceive that they may be impacted by the project.

Next, the Initiator of concept note preparation should identify stakeholders with interests in the project but that are not affected by it geospatially. These include institutions such as political parties, trade unions, chambers of commerce, think tanks, community leaders, professional associations, or local and international civil society organizations.

Third, the Initiator of PPP proposal preparation should define the stakeholders from the executive branch (other public entities) that will need to be contacted during project planning or project preparation for approvals, consultations, or sign-off. Identify what actions must be taken in their regard and when.

Finally, the Initiator of PPP proposal preparation, upon completing the identification of stakeholders and the analysis of their interests, concerns, information needs, and communication channels and the likely impact of the project, should map key influencers to identify important entry points for stakeholder engagement and formulate context-specific strategies and communication plan.

Formulating a project engagement strategy requires establishing clear objectives, budget, and allocation of responsibilities. Finally, it is important to note that stakeholder identification and engagement is an ongoing process, and any plans/strategies must be kept updated and relevant. The communication plan should describe:

- The role and relevance of each stakeholder and its potential impact on the project (financing, process, etc.)
- How the views or opinions of stakeholders will be incorporated into the process
- How the project team will communicate with stakeholders, including key messages for specific audiences

11 PPP scope preliminary definition

The initiation phase is too early to make even a preliminary decision about the preferred procurement modality for the project, e.g., traditional infrastructure procurement versus public-private partnership (PPP). However, it will be important to highlight any characteristics that would suggest that the proposed project is suitable for delivery through PPP. For example, an access road to a hydropower plant could be implemented through traditional procurement, whereas the hydropower plant itself could be delivered through a concession PPP.

The PPP scope is the work that will be done by the future private partner to deliver the project objectives. The PPP project scope may differ from the project scope. It includes the definition of the scope of the services to be delivered by the private partner (for example, whether the services delivered by the private partner will include tariff collection).

The PPP scope definition should include, if possible, a basic definition of the proposed form of revenue to be received by the private party (for example, user charges versus service payments, and, for service payments, whether availability payments or volume-based payments appear to be more appropriate). See Box 7 for factors that may be relevant in identifying the appropriate form of revenue.

The Initiator of concept note preparation defines the preliminary scope of the PPP based on the Initiator's best judgment and the project information available. This PPP scope will be confirmed or refined in Phase 2.

Box 6. Relevant factors in identifying appropriate forms of revenue

The proposed form of revenue to be received by the private party in a PPP may be identified by considering such factors as:

- Past experience in other projects
- Precedents in other countries
- The extent to which a particular form of revenue will align the interests of the private party and those of government; for example:
    - In a hospital project that will be designed, built, financed, and maintained by the private party but operated by the public partner, availability payments may be appropriate because the public partner will want the hospital available regardless of the number of patients being treated.
    - In a project in which a dialysis clinic will designed, built, financed, operated, and maintained by the private party, volume payments may be appropriate because the public partner may want to maximize the number of patients being treated by the private party.

In defining the preliminary scope of the PPP, the Initiator of concept note preparation should consider whether discreet components of the project or the services should be delivered separately from the main works and services (hence outside the PPP but complementing the PPP contract itself) for any of the following reasons (see Box 8 for examples):

a. The discreet component of the project or the services requires different skills and capabilities to the main works or services.
b. The discreet component of the project or services has a significantly different risk profile than the main works or services, and this risk may be unacceptable to PPP bidders or they may not be able to efficiently manage the risk.
c. The discreet component of the project must be completed before other work can begin, so by separating it from the main works and completing it as "early works" while the PPP structuring and tender processes are being completed, the project timelines can be brought forward.

d. For policy reasons, the discreet component of the project or services should be separated out from the scope of the PPP.

Box 7. Examples of discrete works

> If a water treatment plant is proposed as a potential PPP on a site on which there are currently derelict buildings, it may be appropriate to separate the demolition of those buildings and site clean-up from the PPP. The demolition and site clean-up can then be completed as "early works" under a traditional contract by experts in demolition while the PPP tender process is being conducted, and the successful bidder for the PPP can promptly commence developing the water treatment plant once the PPP contract is awarded.
>
> If a new road is proposed as a potential PPP and will directly connect to an existing toll road operated by a state-owned enterprise (SOE), there is significant risk that the construction of the interchange between the new road and the existing toll road will affect traffic on the existing road and hence revenue for the SOE. If PPP bidders are asked to bear this risk (through an obligation to compensate the SOE for any reduction in traffic on the existing road during the construction of the interchange), some potential bidders may view this as an unacceptable risk and hence will not bid. If the construction of the interchange is separated out from the main works included in the PPP, and the interchange construction is directly managed by the SOE, the risk will be allocated to the party best able to manage it.
>
> In some countries, prison operation is considered a function that should only be carried out by the government, and therefore should never be contracted out to the private sector. In these countries, it may be possible to have the private sector design, build, finance, and maintain a prison as a PPP, while the operation of the prison is separated out from the scope of the PPP and performed by the government.

12 PPP review analysis

The Initiator of concept note preparation should apply the review questions after the prefeasibility analysis for the concept note is completed and more accurate and comprehensive project information becomes available to shortlist the project. The review process will also aid in reconfirming the initiator's intention to continue with the process and ensure that the PPP project has enough merit to be taken to the stage of PPP proposal preparation and resources allocated to the feasibility study. If a project cannot meet one of the PPP criteria, the full concept note should not be prepared and instead the project can be rerouted for traditional procurement. Projects with "maybe" responses should still be shortlisted for concept note submission, but the particular issue that receives that response should be further addressed in Phase 2.

Furthermore, it is important to note that the questionnaire is designed for suitability screening for PPPs, not as a project options prioritization process. Projects that are determined to be potentially suitable as PPPs are then prioritized for reasons of fiscal or management capacity, etc.[22] Finally, the qualitative value for money assessment is incorporated into the PPP review questions.

The Initiator of concept note preparation should review the project to determine if it is suitable to be implemented as a PPP. Review analysis could be qualitative, with pass/fail criteria. The following criteria should be considered.

- *Does it make sense to bundle construction and operations and maintenance in a single contract to achieve the whole-life approach?* Many large public sector projects represent a combination of different functions or services to provide a common project goal. PPPs provide an opportunity to achieve better overall results if these different services are bundled together and made the responsibility of a single private service provider. Additionally, bundling delivers improved efficiency through whole-of-life costing as design and construction become fully integrated up-front with operations and asset management; The integration of design, construction, financing, operation and maintenance activities in the PPP structure provides the opportunity to lower long-term maintenance and operating costs and therefore help deliver VfM. If there are obstacles to combining services like design, construction, equipment supply, operation, maintenance, etc., together into a single long-term contract, they should be described. If the different components cannot be feasibly bundled together under one PPP contract, then careful analysis should be done of how these required components will be provided on time.
- *Is it likely that the project could be fully described in terms of output-based key performance indicators?* In public procurements the public authority specifies inputs, while the actual output levels from projects tend to vary. In PPPs, however, the public authority must specify clear, measurable, and enforceable outputs that can be translated into performance indicators. Payment mechanisms are generally structured around these output specifications to provide incentives for achieving key performance indicators. The public sector should allow the private partner to decide what inputs to use. This is one of the most important parts of a project's suitability as PPP.
- *Is the project large enough to justify the implicit costs of the transaction preparation*? A sufficiently high level of investment in PPP is needed to ensure that the value of the expected benefits is greater than the extra transaction costs involved. These include the costs incurred by the public authority in preparing, developing, and managing the PPP contract and the economic operators' costs of participating in the PPP/concession procurement procedure. These costs vary, depending, for example, on the project's complexity and the maturity of the market. For smaller projects, in particular, these costs may be greater than the value of the efficiency gains of the PPP. The qualitative assessment

22. This is the case when there are multiple projects and resources to develop them and provide government support (in case of government-pay PPPs) are limited.

does not consider the expected costs and benefits but can indicate if there is likely to be a risk to VfM.

- *Is the project an adequate size for the market? (That is, is it large enough for local construction companies to take on, or so costly that it could not be successfully financed?)* If the project appears to be too large to be successfully financed, consider and explain options for support by the public partner to reduce the need for private sector finance and/or break it down into smaller phases or packages if it is too big for contractors. If the project appears to be too small, consider possibilities for bundling it into a single larger project with other similar smaller projects or as part of a highly standardized program of homogeneous projects.

- *Would there be investor market appetite? That is, is the project likely to be commercially viable? Is it well known that there will be competitors/bidders and commercial lenders interested in the procurement, or is market sounding required to test this? Were precedent transactions already developed as concessions for this type of project in the country/region or in similar countries?* Often these questions cannot be fully answered at this initial phase (to answer this question fully would require a formal survey of private contractors and investors). At this point, the response should be based on whether it appears that local or foreign economic operators in the sector would likely be interested in taking on the project risks of design, construction, operation, demand, etc. The Initiator of concept note preparation could consider what form of revenue the private operator would deem most appropriate to ensure the project will be commercially feasible. Market appetite should be confirmed through a market sounding during Phase 2. If there are doubts as to market appetite at this stage, the preliminary assessment should include evidence supporting the assessment of market appetite (for example, readily available examples of similar projects in the country or region).

- *Have similar PPP projects been successfully implemented in Ukraine or other economies with similar indicators in the last five years?* While there may be limited direct experience with PPPs in Ukraine so far, there are precedents of successful PPPs across a range of sectors in Central or Eastern Europe. These include many sectors such as roads, water and wastewater, public buildings, parking garages, public transit, and many other sectors. The private partners in Ukraine will likely look closely to see if PPPs in the same sector have succeeded elsewhere. A track record of successful PPP projects in the past is one of the strongest available indicators of VfM, depending on the comparability of the project's features with those of relevant earlier PPP projects. This also depends on having a meaningful assessment of VfM performance of these earlier projects (which may not be available in markets where PPPs are still relatively recent).

- *Can the risks first be easily identified and valued? If so, is there evidence that a meaningful proportion of them can be transferred to the public partner? (For example, has the private sector assumed these risks for other projects?)* The fundamental purpose of PPPs is to secure implementation of better projects that cost and perform exactly as planned. This can be provisionally achieved by identifying, qualitatively analyzing, and distributing key relevant risks in an optimal manner. VfM is a key driver of PPPs, and a scope is needed to allocate appropriate risk to the private sector. Key risks to consider include, among others:

  - Design and/or technology risk
  - Construction risk
  - Market/demand risk
  - Operational risk
  - Residual value risk

- *Are there any significant risks or uncertainties within the project that could not be efficiently managed by a private partner? If so, does the project still make sense as a concession if these risks or uncertainties are allocated to the public authority?* A PPP should allow the private partner to create value by managing risks. The risks transferred to the private partner should be manageable by it or assumable at a reasonable price. The level and nature of risks allocated to the private partner may impact balance sheet treatment. If significant risks and uncertainties must be retained by the public authority to preserve a minimum level of financial feasibility, the rationale of the project as PPP has to be challenged. If there is some uncertainty as to whether the private partner can accept the operating risk for the project and sufficient other risks to make sense to implement it as PPP, this uncertainty should be documented and evidence of the private partner's risk appetite should be sought through market sounding.
- *Is the technology required for the project widely available?* Projects relying on technologies that are limited in their availability are less likely to attract competing private bids.

The PPP review analysis can result in three potential outcomes:

1. **Project meets all the criteria.** The project possesses preliminary characteristics inherent for PPPs and is deemed suitable for PPP implementation. The next step for the reviewing body is to assemble the concept note package and evaluate for readiness to proceed to Phase 2 of feasibility study development (Tasks 13 and 14) taking into account the priority list of PPP (or infrastructure) projects preparation in the appropriate line ministry (if the such priority list exists) (see Task 15).

2. **Project meets some of the criteria.** The Initiator of concept note preparation should revisit the characteristics that the project did not meet and refine/change the scope of work. If after refinement a project still does not pass the review analysis, the Initiator of concept note preparation should revisit the option analysis and assess the second-best option to project implementation. The Initiator of concept note preparation should consider whether a different PPP project scope would be a better candidate and, if so, redefine the PPP project accordingly and revise each aspect of the assessment.

3. **Project does not meet any of the review criteria**. When the project does not meet any of these features, the project is regarded as unsuitable for PPP procurement and should not proceed in the PPP process. The Initiator of concept note preparation should return to the investment decision stage (meaning that it should revisit the decision to implement the project and consider alternative procurement options, such as traditional procurement).

13 Drafting a management plan and assembling the concept note

For the prioritized projects resulting from Task 12, the Initiator of concept note preparation should assemble the concept note and also draft a management plan of how the Initiator will develop the Feasibility Study and submit it to AoE body for the analysis of efficiency in Phase 2.

Management plans should include the following activities, which should be documented in the concept note:

- Identify the areas of expertise required for preparing and structuring the PPP project (see Box 9 for specific guidance)
- Assess and identify available internal resources and determine the need for external support in each of the relevant areas
- Appoint a project leader (or a short list of candidates from which it can select and appoint the project leader at the end of this phase once pre-approval is obtained)
- Estimate the project management budget required to complete preparation and structuring, including all internal costs and costs for all necessary research, investigations, and consultants
- Develop a plan for the preparation and structuring work, together with a set of key milestones
- Identify the source of funds for the project management budget, including the Initiator's own budget allocations and external sources like MDBs, through their Project Preparation Facilities or other international development funds.
- Plan the procurement of consultants, including:
    - whether consultants will be procured as a group under a single contract or whether each discipline (such as financial, legal, and technical) will be procured separately under an individual contract; and
    - whether consultants will be procured under a single contract to cover all processes up to contract execution or under staged contracts.
- Program the work to be done to fully appraise and structure the project and the timetable for the whole process
- Assess needs for resources (internal and external) and identify them
- Prepare the Initiator of PPP proposal preparation project management budget
- Prepare terms of reference to select advisors

- Be better prepared to undertake the feasibility work with a high likelihood of success (see the Box 10 for illustrative purposes)

Box 8. Capabilities and skills of a project leader[23]

The project leader must be capable of a high-level performance in the following roles:

- Ensuring all studies from the different fields of expertise are developed in a coordinated manner and meet government requirements
- Controlling and overseeing the results of the studies
- Ensuring coordination between the project's team of advisors (external) and the procuring authority
- Managing the decision-making process of the public sector with a view to obtaining decisions in a reasonable timeframe
- Leading communication with key stakeholders, including senior management of the procuring authority and the central agencies

The project leader should have the following skills:

- Solid interpersonal skills and ability to direct and coordinate people and communicate
- Ability to solve complex problems
- Administrative skills for planning, organizing, overseeing, and coordinating (a good team manager)
- Attention to detail
- Strong influencing, stakeholder management and decision-making skills
- Strategic thinking skills
- The ability to work to tight timeframes under pressure

Appendix 4 offers additional guidance to be considered when defining the advisory procurement plan and drafting the terms of reference and other procurement documentation for hiring advisors. The Phase 2 Manual will also cover this topic.

Box 9. Capabilities to conduct the feasibility study

The capabilities necessary for feasibility process can be divided into five main groups:

- *Technical*
  - o In charge of the project's design, with expertise in the type of infrastructure that is the subject of the contract
  - o Expertise in the technical aspects of the services involved
- *Environmental*
  - o In charge of environmental impacts; should provide relevant expertise/experience in environmental analysis
- *Economic*
  - o Expertise in economic feasibility, preferably in the same sector or service type
- *Financial*

23. The representative from the public institution who will be responsible for and in charge of the process of developing the feasibility study. This person will be supported by the team of advisors (if procured).

o Expertise in financial analysis in the field of user-paid or government-paid PPPs, preferably in the same sector or infrastructure or service type, and also knowledge of financing similar PPP projects (when government needs to develop a bankable structure)
o Expertise in contract risk structuring and payment mechanisms, preferably in the same sector or service type

• *Legal*
o Expertise in public law / administrative framework
o Experience in drafting PPP contracts. Although drafting the PPP contract will not take place until a later phase, knowledge of PPP contracts will be necessary to enable a proper assessment of the existing legal framework. For a PPP covering existing operations, the legal due diligence will need to look at existing contracts, legal actions, loan contracts, etc.

14 Evaluating the project concept note for readiness to proceed to Phase 2

The reviewing body evaluates the concept note to ensure that only viable, affordable, PPP-suitable projects with sufficient supporting evidence proceed to Phase 2.

To reinforce the selection process, the following sample criteria/conditions are recommended:

1. The concept note contains all the minimum information as listed in the efficiency analysis methodology, and the information provided is adequately substantiated with appropriate evidence.
2. The reviewing body assessment of project affordability is positive.
3. The project presents a strategic case; that is:
    a. The problem or need the project is trying to address is clearly presented and the rationale of selecting a particular option as a preferred alternative to address the need/problem is explained well.
    b. Project objectives align with government objectives and priorities.
4. The project presents an economic case:
    a. The technical solution and output are appropriate for the identified problem.
    b. Project benefits for society outweigh the project's economic costs.
    c. The assumed costs are reasonable in comparison to similar projects and or international experience.
    d. The demand for the goods and services is well established (provisionally).
    e. The concept note identifies critical issues and provides mitigation measures, including an indicative timeframe for any further studies.
5. The project presents a financial case (based on the financial analysis and preliminary risk assessment):

  a. Potential interest in the project from private partners and lenders is provisionally confirmed.
  b. The project demonstrates revenue generation opportunities.
6. The project presents a fiscal case:
  a. The project is affordable to the users (in concessions), and
  b. The project is affordable to the public partner (in case of PPPs), meaning that the medium- to long-term budgetary impact of the project, if any, is consistent with budgetary projections and trends, taking into account the existing commitments of the economic entity proposing the project.
7. The proposed implementing scheme is likely to lead to value for money (assessed qualitatively):
  a. The project size is appropriate for attracting sufficient competition.
  b. The project can be defined in terms of output specifications and required performance levels.
  c. There are no issues, including legal impediments, to the implementation of the project as a PPP.
  d. The proposed mode of PPP and implied risk allocation is appropriate and realistic.
  e. The revenues can be linked to demand and/or performance.
  f. The public partner is able to arrange the capacity to implement the project as a PPP.
8. The proposal presents sufficient evidence to support the preliminary view of potential PPP suitability (based on the results of qualitative VFM assessment).
9. The public partner has necessary institutional capacity and authority (power/control) to implement and manage the project as a PPP on time and on budget.

To obtain a positive opinion, a project should meet a majority of the criteria above. After the report has been approved and a green light to move forward to the Phase 2 feasibility study appraisal has been granted to the Initiator of concept note preparation, the tender for advisors should be launched.[24] If a PPP project registry is developed during Phase 1 of selected projects for Phase 2, the project should be incorporated provisionally or "preregistered."

15 Prioritizing shortlisted projects and performing an internal readiness check

If a number of projects are shortlisted as a result of the PPP review undertaken under Task 12, they should be prioritized before proceeding to Phase 2. Limited resources and institutional capacity and capability to prepare and implement PPP projects, coupled with an increased focus on prudent fiscal

24. Tendering for advisors, establishing the team, and refining the management plan are the initial steps in Phase 2 of the feasibility study appraisal.

management, requires the responsible public authority to carefully consider which projects should be prepared and implemented first. Prioritization helps determine the order/ranking of projects in which the Initiator of the PPP proposal commits the funds for developing and implementing the feasibility study.

It is important to draw a line between the need to differentiate between the prioritization to assess and the prioritization to invest. The former defines a priority list of PPP projects to be prioritized in terms of assessment and preparation during the next two to three years (i.e., a feasibility study prepared with subsequent efficiency analysis and conclusion of feasibility). Prioritization to invest is the "final" prioritization or prioritization to deliver (or deprioritization) and is an exercise that aims to decide whether a feasible project (as evidenced with a full feasibility appraisal and conclusion of the analysis of efficiency) deserves to move forward and be tendered or should be deprioritized and wait (or not proceed at all). In most circumstances, this could be unnecessary, and a simple satisfactory assessment would suffice to move forward. Prioritization to deliver will deserve a different set of criteria than prioritization to assess.

Prioritization to invest should consider approaches to dealing with the PPP fiscal space.

When aggregate exposure is applied to PPPs, and each entity receives a percentage of the fiscal space, PPP prioritization happens within each responsible body. Where aggregate exposure applies but specific fiscal space allocation for PPPs is absent, a conflict may emerge in terms of fiscal space. PPPs will compete with other projects, and there may be some cross-sector prioritization of selected projects for PPP priority pipeline (which may be resolved after full assessment). The body with access to all projects' lists should conduct the prioritization. (The Initiator is unlikely have access to project lists from other initiators.)

However, there is no need for cross-sectoral PPP project prioritization if an aggregated exposure threshold is not applied (that is, there is no restriction for PPP aggregate exposure, and each sector ministry or responsible body has a threshold for PPPs). In such situation, PPP prioritization happens inside each ministry or body responsible for issuing the decision to tender the project considering the existing pipeline of PPP projects of that body.

In a situation when all PPPs consume CAPEX in a similar way to traditionally procured projects (one budget for all projects), PPP prioritization is conducted by the responsible body and must occur in conjunction with prioritization of traditionally procured projects.

The project also competes for resources (including funding and government management capacity) with other projects and other potential public investments and initiatives. It is necessary that the reviewing body confirms that the project *deserves to be prioritized* in addition to confirming that the project appears to be the right solution as well as feasible and affordable as a PPP.

Prioritization focuses on ranking the projects based on a number of initial criteria, including management capacity of the potential public partner and availability of fiscal resources, which is influenced by using PPPs. One of the tools used to prioritize projects is MCA,[25] which provides a framework for comparing and ranking different projects based on a range of financial, economic, social, and environmental criteria. Please see Appendix 2 for examples of the criteria.

25. MCA can be used to prioritize projects by establishing preferences between them in reference to the explicitly set objectives and associated criteria for evaluating the extent to which the objectives have been achieved. It is particularly useful when evaluating various alternatives is not based on a single criterion, hence, its main characteristic is to simultaneously consider qualitative and quantitative set of criteria.

Appendix 1. Options comparison

Appendix 1 presents hypothetical examples of comparing various project solution options against evaluation criteria: cost-effectiveness analysis (CEA) and quantitative and qualitative multicriteria analysis (MCA).

Cost-effectiveness analysis

To meet an identified need to provide better dialysis services to patients with kidney disease, a government has identified two options:

1. Build a single new central dialysis center
2. Build 10 small dialysis clinics in different geographical areas

As indicated in the following table, it is expected to be costlier to build and operate 10 small dialysis clinics than to build a central dialysis center; however, having small clinics in different geographical areas will make services more accessible to patients and hence provide greater benefits. Both options are affordable, and there are no material risk, uncertainty, or impact differences between the options; in each case, construction is expected to take one year.

Table 5. Cost comparison for a dialysis center

	SINGLE NEW CENTRAL DIALYSIS CENTER	10 SMALL DIALYSIS CLINICS
CAPITAL COSTS (US$)	$10m	$12m
OPERATING COSTS (US$)	$2m per annum	$2.3m per annum
BENEFIT: NUMBER OF PATIENTS TREATED	5,000 per annum	6,250 per annum

Cost-effectiveness can be assessed by calculating the net present cost of each option over an appropriate time period (say 20 years of operation) and dividing that cost by the number of patient-years of treatment provided.

Table 6. Cost-effectiveness assessment of dialysis center

	SINGLE NEW CENTRAL DIALYSIS CENTRE	10 SMALL DIALYSIS CLINICS
NET PRESENT COST (USING A 10% DISCOUNT RATE; US$)	$24.57m	$28.71
BENEFIT: TOTAL YEARS OF PATIENT TREATMENT	100,000 years	125,000 years

COST PER YEAR OF PATIENT TREATMENT	$245.70	$229.68

On this basis, not only does building 10 small dialysis clinics in different geographical areas provide a higher level of benefits by treating more patients, it is also the more cost-effective option. On the basis of cost, it would be chosen as the preferred solution.

Quantitative multicriteria analysis

To meet an identified need of reducing traffic congestion in a city center, a government has identified three options:

1. Develop a rail-based mass transit system
2. Developing a dedicated bus solution
3. Implementing a cordon charge payable by vehicles entering the city center

The following table illustrates how these options could be assessed using quantitative multicriteria analysis. The procuring authority has decided to include "environmental impacts" as additional criteria and has given weightings to the criteria to reflect their relative importance.

Table 7. Quantitative multicriteria analysis for traffic congestion options

Criteria	**Weighting**	**Option 1: Rail-based Mass Transit**		**Option 2: Bus Solution**		**Option 3: Cordon Charge**	
		Value / Description	**Score**	**Value / Description**	**Score**	**Value / Description**	**Score**
Capital cost (US$)	High (20 points)	$900m	2	$300m	14	$100m	18
Operating costs (per annum)	Medium (10 points)	$90m	1	$80m	2	$30m	7
Revenue generated (US$)	Medium (10 points)	$90m	10	$80m	8	$90m	5
Affordability	High (20 points)	Rail fare will be affordable for almost all users	18	Bus fare will be affordable for almost all users	18	Cordon charge will be unaffordable for those on lower incomes	5
Benefits (congestion reduction)	High (20 points)	50% reduction	20	30% reduction	12	20% reduction	8

Risks and uncertainties	Low (5 points)	Patronage is highly uncertain; significant construction risks	1	Patronage is somewhat uncertain	4	Driver behavior in response to the cordon charge is uncertain	3
Environmental impacts	Low (5 points)	Minimal adverse impacts; significant reduction in car pollution	5	Some pollution from buses; reduction in car pollution	3	Reduction in car pollution	4
Total Score			**57**		**69**		**50**
Conclusion				**Preferred option**			

Qualitative multicriteria analysis

The following table illustrates how the same options for reducing traffic congestion in a city center could be assessed using qualitative multicriteria analysis.

Table 8. Qualitative multicriteria analysis for traffic congestion options

Criteria	Weighting	Option 1: Rail-based Mass Transit	Option 2: Bus Solution	Option 3: Cordon Charge
		Value / Description	**Value / Description**	**Value / Description**
Capital cost (US$)	High	$900m	$300m	$100m
Operating costs (US$; per annum)	Medium	$90m	$80m	$30m
Revenue generated (US$)	Medium	$90m	$80m	$90m
Affordability	High	Rail fare will be affordable for most users	Bus fare will be affordable for most users	Cordon charge will be unaffordable for those on lower incomes
Benefits (congestion reduction)	High	50% reduction	30% reduction	20% reduction
Risks and uncertainties	Low	Patronage is highly uncertain; significant construction risks	Patronage is somewhat uncertain	Driver behavior in response to the cordon charge is uncertain

Environmental impacts	Low	Minimal adverse impacts; significant reduction in car pollution	Some pollution from buses; reduction in car pollution	Reduction in car pollution
Conclusion		**Nonpreferred option:** Although this option generates a high level of benefits and is affordable to users, it requires a high subsidy from government to meet the high capital cost and has significant risks and uncertainties.	**Preferred option:** This option generates a moderate level of benefits at an acceptable cost and with relatively low risk compared to other solutions, despite its somewhat adverse environmental impacts compared to other options.	**Nonpreferred option:** This option has the lowest capital cost and will generate revenue in excess of its operating costs, but it also offers the lowest benefits and the likelihood of generating these benefits is uncertain, as driver behavior in response to the charge is difficult to predict.

Appendix 2. Prioritization of PPP projects with multicriteria analysis

Table 9. Multicriteria analysis

Criteria	High Score (10-8)	Medium Score (7-4)	Low Score (3=0)
1. Coherence with plans/strategy	Project aligns with the strategy/plan	Project aligns somewhat with the strategy/plan	Project is not aligned with the strategy/plan
2. Financial feasibility/fiscal support	Likely viable: >20% and No fiscal support	Likely viable: >20% and no fiscal support	Not viable: <14% and high fiscal support
3. Availability of fiscal resources	Resources are available to provide government support	Some resources are available to provide government support	No resources are available to provide government support
4. Readiness and risk[26]	Few major issues/risks and project ready	Identified risks can be largely mitigated; d the project can be made ready	Many risks and few can be mitigated sufficiently; project not ready
5. Economic feasibility and socioeconomic benefits	Economic IRR >15%; major macro impact	Economic IRR 12%-15%; moderate macro Impact	Economic IRR<12%; minor macro impact
6. Regional development/ integration/contribution to GDP	Impact on low GDP provinces and/or high poverty alleviation potential	Impact on low medium gross regional domestic product provinces and/or medium poverty alleviation potential	Impact on high gross regional domestic product provinces and/or low poverty alleviation potential
7. Land acquisition	All/most land acquired (e.g., over 80%)	Some land acquired (25%-80%)	None or little land acquired (<25%)
8. a) Likely environmental	Few issues: a. Low impact;	Some issues: a. Mid impact	Many issues: a. Severe impact

26. Readiness and risk refer to the existence of any risks of failure evidenced during the planning phase, and project readiness (in calendar terms) indicates when the procurement procedure can be launched.

Criteria	High Score (10-8)	Medium Score (7-4)	Low Score (3=0)
Impacts b) Involuntary resettlement	b. Few people affected	b. Mid level of people affected	b. Many people affected
9. Project cost	>US$100m	US$100m to US$50m	<US$50m
10. PPP suitability[27]	Over 80% of positive responses to PPP suitability questions	Between 70% and 40% of positive answers to PPP suitability questions	Equal to or lower than 30% of positive answers to the PPP suitability questions
11. Availability of funds to prepare the project (for how many?)	Funds are readily available	Some funds are available	No preparation funds are available
12. Management capacity of the procuring authority to undertake preparation and implementation of projects	Procuring authority has necessary capacity or it can be easily obtained	Procuring authority has some capacity	Procuring authority has no capacity

Source: Adapted from PPIAF (2014).

Projects under MCA can result in a single priority project, ranked priority projects, short-listed projects to be further appraised, and a list of acceptable and unacceptable projects.

27. The scale indicated for a high, medium, or low score is a suggestion under a presumption that all criteria are equally weighted.

Appendix 3. Procuring advisors

Procuring authorities require a wide range of skills and capabilities to develop and deliver PPP projects. It is usually the case that the procuring authority (the Initiator of concept note preparation, the initiator of the PPP proposal preparation, or the public partner) does not have the full range of necessary expertise in-house. To fill this capability gap, the procuring authority will generally hire a range of advisors.

It is unlikely that an authority not frequently exposed to PPP transactions will have available and maintain the required range of competencies in-house. In addition, the required skills must be regularly refreshed to capitalize on recent experience, developments in market standards, and innovation.

The entities providing PPP advisory services typically include:

1. *Legal advisors.* A procuring authority may have its own legal staff who are experts in areas such as public law, administrative law, and the current sector regulatory framework; however, these lawyers are often unfamiliar with the legal intricacies of PPPs and, even if they have some relevant knowledge, they often will not have time available to provide the extensive legal input required for a PPP project. Procuring authorities therefore engage external legal advisors with PPP expertise to provide the bulk of the legal advice required during the development and delivery of a PPP project.

2. *Financial advisors.* PPPs involve a range of commercial and financial issues and require related skills, many of which are unfamiliar to procuring authorities (the Initiator of concept note preparation, the Initiator of PPP proposal preparation, or the public partner). For example, PPPs require financial modelling skills, risk quantification skills, and an understanding of private sector financial markets. Procuring authorities engage financial advisors, typically large accounting firms, investment banks, or specialist PPP advisors, to provide these services.

3. *Technical advisors.* PPPs require many different kinds of technical expertise. Depending on the nature of the project, this might include engineering expertise relevant to the sector, architectural expertise (particularly for building projects such as hospitals), revenue forecasting expertise for projects that produce user revenues, cost estimation expertise, environmental assessment and management expertise, and other skills relevant to the project. Although the procuring authority (the Initiator of concept note preparation, the Initiator of PPP proposal preparation, or the public partner) may have some of this capability in-house, it often does not have the capacity to complete all work required for a PPP in a

timely manner and may be unfamiliar with the application of these skills in the PPP context. Therefore, the authority will engage a variety of technical advisors to perform these roles.

The appropriate authority (the Initiator of concept note preparation, the Initiator of PPP proposal preparation, or the public partner) may also appoint a project management advisor or transaction manager to assist in managing and coordinating the overall process of developing and delivering the PPP. In some case this role is performed by the technical or the financial advisors.

The procedure for engaging advisors for preparing the project, which is carried out on the terms of the concession, has been adopted by the CMU Decree No. 950, dated October 9, 2020. Engaging advisors to provide services for the preparation of projects carried out on the terms of public-private partnership in a form other than a concession also should be done in accordance with this procedure.

Planning advisor procurement

1) How should advisor procurement be funded?

The procuring authority (the Initiator of concept note preparation, the Initiator of PPP proposal preparation, or the public partner) should ensure sufficient funds are made available for the advisory services required for the project. Setting an unrealistically low budget for advisors can be a false economy in large and complex projects such as PPPs, given that advisory costs in a PPP are generally a small portion of the total project costs. A low budget may discourage the most capable advisors from bidding or result in them not being selected because they are unaffordable with the (inadequate) budget.

2) Should the procuring authority procure one integrated advisory team or separate advisors appointed under separate contracts?

Advisors may be procured and selected either:

- as a group, by selecting a consortium of firms under one advisory contract covering all the areas of work, or
- individually for each of the advisor roles, with a separate contract between the procuring authority (the Initiator of concept note preparation, the Initiator of PPP proposal preparation, or the public partner) and each advisor.

Both options have pros and cons. In deciding which option to adopt, the procuring authority (the Initiator of concept note preparation, the Initiator of PPP proposal preparation, or the public partner) should consider the following:

- A single integrated team will ensure the cohesion and coordination of all the tasks and work, while separating the procurement can enable the procuring authority to select the best advisor for each specific area of work.
- Separate procurements will require more work by the procuring authority, and it will usually take longer to complete a number of separate procurements as compared to a single procurement of an integrated team.
- A single team is likely to be better coordinated and could be more efficient (as much of the process management will be the responsibility of the lead advisor) and prepared to work together from the outset. If the advisors are procured separately, the procuring authority must play a greater role in coordinating and integrating the work of the various advisors.
- When a particular role is critical to the success of the project, it may be better to separately procure for that role to ensure that the best available advisors in that area of expertise can be chosen and the selection is not influenced by the procurement of the other advisors.
- When the advisors are procured as a single integrated team, it can be difficult for the procuring authority to take action if one advisor's performance is unsatisfactory. If the advisors are separately procured, it is easier to take remedial action in these circumstances.
- To avoid the risk of another advisor's non-performance, advisors often prefer to be procured separately rather than through an integrated contract.
- Some things will be beyond the ability of a third-party advisor, such as approving advisors' invoices on behalf of the procuring authority. The procuring authority must always have staff to perform these functions.

On balance, procuring authorities with limited PPP experience or limited internal resources to manage advisors often find it preferable to procure advisors as an integrated team, whereas procuring authorities with significant PPP experience and the internal resources to effectively manage separate advisor appointments often prefer the separate procurement approach.

3) Should the procuring authority procure advisors only for the next phase of the project or for the entire PPP process?

Advisors may be procured and selected for:

- a single phase of the project
- multiple phase up to a key decision point, or
- the entire process, from the feasibility through to completion of the tender process and signing of the PPP contract

It is often preferable to retain the same advisors for the entire process through to signing the PPP contract, as the PPP process is progressive, and knowledge of work done and decisions made in one phase is of significant value in working on the following phase.

However, if there are no relevant time constraints, and especially if it is not clear whether the project will be approved to proceed by government, or if there are doubts as whether a project is suitable to be a PPP, it may be sensible to limit the initial advisory contract or contracts to the feasibility phase. This has the added advantage of preventing potential conflicts of interest that might arise if advisors during the feasibility phase are also contracted for the later phases and hence recommend a tender process that offers the best outcome for them (for example, that provides them with the most profit). Another solution to deal with potential uncertainty regarding the result of the feasibility and the decision to procure is to provide an option for the procuring authority to retain the advisors for the next phase. In addition, some flexibility on the ability of the advisory firms to change team members should be included in the contract.

Managing advisor procurement

The procurement process for advisors should be conducted in accordance with the relevant procurement framework. In most cases, a competitive bidding process will be appropriate.

The key documents that must be prepared by the procuring authority in order to procure the advisors are:

1. The Terms of Reference (ToR)
2. The draft advisor contract

The ToR should include the following information:

1. **Background information** on the project, including:
    a. An outline of the proposed project option
    b. A summary of work to date
2. **An indicative work plan**, including:
    a. A description of the tasks to be undertaken
    b. The expected milestones related to the deliverables
    c. The timing and nature of government decisions
3. **The deliverables and outputs** required, which may take many forms including:
    a. reports
    b. presentations
    c. financial models
    d. training
4. **The level of effort required**, which, depending on the form of selection being used, may be expressed in terms of:
    a. Expected level of commitment of key personnel for each major task, or
    b. The maximum budget available

5. **The evaluation criteria**, including:
    a. Weights for technical and financial proposals
    b. The minimum technical score required, if relevant
    c. The subcriteria for technical evaluation
6. **Conditions for submission**, such as:
    a. The required format of submissions (electronic or in hard copy; if the latter, the number of copies)
    b. Requirements for separation of financial and technical proposals
    c. Time and day of delivery deadline

Scoping the advisors' roles: the work plan, deliverables and outputs, and level of effort

The scope of the advisors' roles, and hence the content of the work plan, deliverables and outputs, and level of effort in the ToR, will vary depending on the nature of the project. The following table sets out a list of possible tasks that should be considered during Phases 1, 2, and 3 in developing the scope of each key advisors' role.

Table 10. Scope of advisors' roles

Phase	*Legal Advisor*	*Financial Advisor*	*Technical Advisors*
Phase 1 and 2 or just Phase 2 depending on when the public authority decides to hire an advisor	• Assess the legal feasibility of the project and its delivery as a PPP • Identify legal, regulatory, and administrative risks such as expropriation procedures and costs, planning/construction permits, environmental licenses, authorization to commence operation, and possible changes in law • In conjunction with other advisors, draft a risk matrix and propose a risk allocation between parties • Contribute to identifying key differences between procurement options and procedures • Support the financial advisor on the legal aspects of the risk allocation and other features relevant to the accounting treatment analysis	• Carry out a preliminary market sounding analysis to identify the appetite of investors, lenders, contractors, and operators • Develop a preliminary financial model to assess the main financial features of the project, including costs, revenues, and risk quantification • Propose macroeconomic assumptions on indicators and financing structure • Assess affordability • Identify the macroeconomic and financing risks of the project and quantify their potential financial impact (e.g., interest rate movements, inflation, expected financial return, refinancing) • Propose an allocation of macroeconomic and financing risks based on the advisors' experience of similar projects • Support other advisors in evaluating the financial impact of risks • Gather data form other advisors and run the preliminary financial model to assess the overall financial impact of the risks identified • Perform a market analysis to make sure the project will meet requirements of financial	• May contribute to parts or all of the feasibility, depending on the features of the project and on the procuring authority's in-house capacity • Develop the service specifications for the future service and related assets • Prepare preliminary revenue forecasts in user-pays projects and potentially propose a tariff policy • Develop the technical description of the project • Assist the financial advisor in developing a preliminary financial model aimed at assessing the main financial features of the project • Propose cost and revenue assumptions • Identify the technical and demand / revenue-related risks of the project and quantify their potential financial impact (e.g., risks related to the project design, construction, tariffs including regulatory regime, operation, maintenance, life cycle, changes in technology) • Conduct studies where appropriate to assess technical and demand / revenue-related risks (for example, investigations of ground conditions)

Phase	Legal Advisor	Financial Advisor	Technical Advisors
		stakeholders such as equity investors, lenders, bond markets • Advise the procuring authority in designing an attractive project for financial stakeholders • Assess how the project will be recorded in the public accounts	• Propose an allocation of technical and demand / revenue-related risks based on the advisors' experience of similar projects • Compare the procurement options regarding construction, operation, and maintenance issues and output and outcomes (demand/revenue, service level, performance, etc.) • Provide a realistic timetable for the technical implementation of the project
Phase 2	• With the support of the other advisors, produce a detailed risk matrix • Based on the input of other advisors, design the risk allocation and mitigation provisions • Propose an outline/draft of the PPP contract to be proposed to the bidders • Propose an appropriate procurement procedure considering the applicable procurement rules and the project features • Propose evaluation criteria related to legal matters • Lead the drafting of parts of the tender documentation, finalize the drafting of the PPP contract to be proposed to bidders, finetune the evaluation criteria, set out instructions to bidders regarding the legal aspects of their bids (e.g., contract mark-up, legal setup of the private partner)	• Update previous studies • Contribute to the design of the risk allocation and mitigation strategy • Run the financial model to assess various risk allocation scenarios • Contribute to the design and testing of the payment mechanism • Propose contractual provisions regarding the payment mechanism, the funding/financing features, reporting of key financial and accounting information, the financial consequences of an early termination of the contract, accounting and tax obligations, insurance requirements • Confirm the market "appetite" for financing the project and simulate the most likely financing solutions • Assess the impact of tax provisions on the project	• Update previous studies • Perform additional studies (e.g., detailed traffic forecasts) • Contribute to the design of the risk allocation and mitigation strategy • May propose contractual provisions or/and advise on clauses dealing with the design and construction process, service specifications, information reporting, output requirements, and performance measurement • Provide inputs on sensitivity tests on technical parameters • Contribute to the drafting of parts of the tender documentation (e.g., information memorandum, instructions to bidders regarding the technical aspects, technical selection criteria including scoring) • Confirm readiness to launch tender

Phase	Legal Advisor	Financial Advisor	Technical Advisors
	• Verify the final version of the tender documentation before sending it to bidders • Confirm readiness to launch tender	• Lead the drafting of parts of the tender documentation (e.g., information memorandum, instructions to bidders regarding financial, tax and accounting aspects, financial model requirements, templates for letters of support from financiers) • Propose evaluation criteria related to financial aspects of the project (e.g., cost to the authority and/or the users, payments to the authority by the private partner, suitability and robustness of the financing structure) • Model the effects of the proposed evaluation criteria • Confirm readiness to launch tender	
Phase 3: Tender management and procurement[28]	• Draft the procurement notice and the prequalification questionnaire • Propose a list of appropriate publishing media for the procurement notice • Assess the formal admissibility of qualification submissions • Raise any clarification questions on the bids • Analyze the legal aspects of final bids, in particular, the proposed PPP contract amendments • Evaluate the legal aspects of the bids	• May contribute to the drafting of the procurement notice and the prequalification questionnaire • Assess the financial capabilities of bidders to implement the project (e.g., financial/credit analysis of key sponsors) • Raise any clarification questions on the bids • Analyze the financial aspects of the bids: overall cost to the authority, public guarantees sought, robustness, integrity and coherence of the financial model, acceptability of the main terms and conditions of the financing, etc.	• Assess the technical capabilities of the bidders to implement the project (e.g., technical solutions, track record of past projects) • Raise any clarification questions on the bids • Analyze the technical aspects of the bids • Evaluate and score the technical aspects of the bids • Contribute to identifying the preferred bidder • Contribute to discussions with the preferred bidder • Finalize the technical provisions and/or annexes to the PPP contract

[28] Advisors and independent experts may be involved by the public partner (the grantor) in the work of the tender commission on the basis of an agreement with the right of advisory vote. They can't be members of the tender commission and vote for its decisions.

Phase	*Legal Advisor*	*Financial Advisor*	*Technical Advisors*
	• Review the draft evaluation report • Prepare letters for both successful and unsuccessful bidders • Lead discussions with the preferred bidder (clarifications, confirmation of commitments, negotiations) • Finalize legal annexes to the PPP contract • Carry out a final review of the full PPP contract documentation • Draft the direct agreement between the procuring authority and the lenders (if any) • Review the financing agreements and ensure consistency with the PPP contract and the direct agreement • Assist the procuring authority in the negotiations with the lenders • Organize the financial close process • Review the conditions precedent to financial close • Prepare and review the execution of all project and financing agreements	• Evaluate and score the financial aspects of the bids • Contribute to negotiations with the preferred bidder • Contribute to finalizing the PPP contract provisions and annexes dealing with financial aspects (which can be establish before financial close) • Review the financing agreements • Review any proposed interest rate and currency hedging strategy • Supervise the financial close process on behalf of the authority • Run the financial model to reflect the final macroeconomic/financial parameters • Supervise the execution of any interest rate/currency hedging	

Selecting the advisors: Evaluation criteria

The evaluation criteria contained in the ToR must be consistent with the requirements of the applicable procurement framework. In setting the evaluation criteria, the procuring authority should, to the extent possible, take into consideration the following key issues:

1. Focus on the skills of individuals rather than on those of the company. To a large extent, the quality of the advisor's work depends on the quality of the people involved in delivering it. Regardless of the reputation and track record of the firm, the procuring authority should assess the credentials of the individuals proposed and ensure that key individuals are involved as scheduled.
2. Consider carefully how each advisor proposes to structure its team to guarantee high-quality deliverables and meet deadlines. When appointing a multidisciplinary team under an integrated contract, consider the extent to which the team members have previously worked together.
3. Assess the advisors' exposure to conflicts of interest. For example, an advisor to government on one project may, at the same time, be advising a private sector party in relation to another project. This creates a risk that the advisor will temper its advice to government on one project to avoid an unfavorable outcome for its client on the other project if the same issue arises. There is also a risk of information leakage to the private sector client. The procuring authority should ensure that this situation does not arise or that the advisor puts in place robust measures to mitigate any risk for the procuring authority.
4. Make sure the advisors have the relevant set of skills required for the specific role rather than just a general understanding of PPPs.
5. Make sure the advisor's team is large enough to absorb the heavy and changing workload that can occur during the development and delivery of a PPP.
6. Understand the bidders' pricing strategy and make sure it is sustainable. If possible, exclude from consideration any advisor who submits an unrealistically low price for the work.

Box 10. Evaluation criteria for selecting advisors in accordance with the legislation of Ukraine[29]

The following are the evaluation criteria for producing advisors for PPP/concession projects.

1) The participant's experience in performing similar agreements on the subject, which may include:

a. Provision of project preparation services in Ukraine or in other countries of the world, which ensured the conclusion of PPP agreements, in particular concession agreements.

b. Development of a concept note and/or feasibility study for public-private partnership, in particular in the form of a concession, on the basis of which the decision on PPP implementation for communal property and property belonging to the Autonomous Republic of Crimea assets has been adopted, or for which the Ministry of Economy agreed on the conclusion resulting from

29. CMU Decree No. 950, October 9, 2020.

the analysis of efficiency of PPP project implementation, or for which the competent authority of a foreign state made a similar decision in accordance with the legislation of such a foreign state.

c. Development of tender documentation for the project (including the draft PPP (concession) contract), on the basis of which a decision was made to hold a tender to determine a private partner or concession tender in Ukraine, or other similar decision of the competent authority of a foreign state under the legislation of such foreign state.

d. Cooperation (consulting, legal support, audit) of the participant, its employees or subcontractors / co-contractors with companies / international financial organizations engaged in the provision of project preparation services in Ukraine or other countries, which provided successful conclusion of agreements

e. Providing advisory services on privatization of state-owned objects in Ukraine, which ensured the privatization of such objects.

2) Availability and appropriate level of professional and technical qualifications of the participant's employees, which may include:

a. Experience in providing project preparation services in Ukraine or other countries of the world (including preparation of a concept note and feasibility study for a public-private partnership, in particular in the form of a concession).

b. Providing consulting services for the preparation and/or support of projects (including the preparation of tender documents and draft contracts) in Ukraine or other countries.

c. Providing financial modeling services for projects in Ukraine or other countries.

3) The approaches proposed by the participant to the project preparation and strategy of work with potential investors, which may include:

a. Availability of own methods of project preparation.

b. Availability of own strategy of work with potential investors.

c. Availability of own plan of organization of work on project preparation.

4) The terms of project preparation proposed by the participant.

5) The presence of a representative office in Ukraine or the involvement of other resident advisers (for non-residents).