战略项目UNFC分类评估指南

目录

一、引言

本指南文件由联合国欧洲经济委员会（UNECE）资源管理专家组（EGRM）秘书处编制，旨在支持专家评估人员在依据《联合国资源分类框架》（UNFC）对战略项目进行验证和分类时开展工作，并确保其符合《关键原材料法案》（CRMA）下欧盟战略项目申请表（Strategic Project Application Form, SPF）的相关要求和信息需求。本文件旨在确保评估过程的一致性、透明性和客观性，从而尽量减少主观判断，同时与欧盟更广泛的政策目标保持一致。

根据《关键原材料法案》公开征集的战略项目申请，将在战略项目评估流程的技术评估阶段由欧盟委员会（European Commission, EC）进行评审，具体由欧盟委员会内部市场、工业、创业与中小企业总司（DG GROW）牵头，并在高水平专家的支持下开展。专家由欧盟委员会遴选，依据其在原材料项目领域的专业知识，包括开采、加工、回收及替代等方向，重点覆盖以下四个方面：: 1) 项目技术可行性; 2) 财务成熟度; 3) 环境、社会与治理（ESG）因素; 4) UNFC 分类[1].

因此，本指南主要面向 UNFC 专家评估人员，其职责是对项目申请方提交的项目进行 UNFC 分类评估。为此，本文提出了一种定制化的方法，通过 SPF 所定义的一系列“控制因素（Controlling Factors）”及其关注的“关键术语（Key Terms）”，引导 UNFC 分类过程向一致化方向发展。该方法通过对项目信息的系统归类，使 UNFC 分类能够真实反映拟议战略项目的成熟度和发展状态。鉴于每个项目在 UNFC 分类中可分配的评估时间较短，需要特别指出的是，在本方法框架下，UNFC 专家应基于一个前提：即项目申请方所提供的信息被视为真实可信，专家无需再进行尽职调查。该方法通过一套专门设计的评估矩阵（evaluation grid）来实施，该矩阵用于将 SPF 的要求映射至 UNFC 分类体系。该评估矩阵旨在确保项目分类能够准确反映其在实现欧盟《关键原材料法案》所设定战略目标方面的潜力和成熟度。换言之，UNFC 的分类体系在此背景下进行了适度调整，以匹配 CRMA 中“战略项目”的定义——即从 UNFC 角度看，所谓“可行项目（Viable Project）”，是指符合 CRMA 对战略项目认定标准的项目。

二、根据《关键原材料法案》（CRMA）战略项目中 UNFC 的作用

UNFC 在 CRMA 框架下战略项目的评估与认可中具有核心作用。根据 CRMA 第 2 节“战略项目”（Strategic Projects）、第 7 条“申请与认可”（Application and Recognition）的规定，申请将原材料项目认定为战略项目的材料必须包括项目申请方基于 UNFC 所做的项目分类，并辅以适当的佐证材料。

CRMA 规定:

“关键原材料项目被认定为战略项目的申请，应由项目发起方向欧盟委员会提交。申请应包括：[…] （b）

[1] https://single-market-economy.ec.europa.eu/calls-expression-interest/sign-expert-strategic-projects-under-critical-raw-materials-act_en

根据《联合国资源框架分类》（UNFC）对项目的分类，并附有适当的佐证材料。”

UNFC 是一套全面的分类工具，适用于各类原材料项目，包括开采、加工、回收及替代。它用于对项目的环境-社会-经济可行性（E 轴）、技术成熟度（F 轴）以及产品估算置信度（G 轴）进行分类。这些要素直接体现在 CRMA 战略项目申请表（SPF）的要求中。

需要注意的是，虽然在 UNFC 中对战略项目的分类是战略项目认定申请的必备条件，但所给的分类并非认定的决定性因素。UNFC 的作用在于评估和监控项目的可行性、可实施性及发展进程。然而，最终的认定决定还需考虑 CRMA 中规定的其他标准。项目发起人有责任根据 UNFC 对其项目进行分类，并提供相关证据以支持该分类。

一旦提交，项目的分类及其支持证据将由欧盟委员会（EC）在技术专家，包括 UNFC 专家的协助下进行审查。审查过程旨在确认项目发起人所给出的 UNFC 分类是否准确且应用得当。

三、UNFC 评估技术方法

本文档提出的方法论用于评估流程，以确定项目在社会-环境、经济及技术层面是否符合 CRMA 下战略项目的资格。为了保持一致性，该方法与战略项目发起人针对 UNFC 分类的自上而下建议方法相一致，详见《根据联合国资源框架分类（UNFC）对战略项目分类的详细指南》（“Detailed Guidance on Classifying Strategic Projects according to the United Nations Framework Classification for Resources (UNFC)”）。 该方法旨在指导评估人员根据预定义的标准——“控制因素”（Controlling Factors）系统地评估每个项目，这些标准与 UNFC 各轴线以及 SPF 中规定的具体要求相对应。评估基于项目发起人在 SPF 中提供的信息和输入的质量与数量，以便理解项目的可行性、可实施性以及与 UNFC 轴对应的置信度水平。作为初步方法，通过在清单形式中标记某些“关键术语”（Key Terms）的存在，来指示项目的可行性、可实施性和置信度。基于控制因素的系统评估以及“关键术语”的识别都在评估网格（evaluation grid）内进行协调。

表 1 列出了项目发起人在 SPF 中可能提供的“关键术语”清单，以及它们与各 UNFC 轴类别的可能对应关系。

需要强调的是，“关键术语”表仅提供项目潜在 UNFC 分类的初步指示，不能被视为最终或完全可靠的依据。该表列出了项目申报方可能在申请中使用的某些“关键术语”，可对 E、F 或 G 轴类别提供一定的参考。然而，这些“关键术语”是以概括性方式呈现的，每个术语在具体上下文中的使用含义必须被仔细考虑。

当某一“关键术语”可能对应多个类别时，有必要评估项目的更广泛背景。多个类别的可能性取决于项目接近可行性或投产阶段的程度。例如，对于“可用基础设施”（Available Infrastructure）一词，F 类别可能会有所不同：若项目预计在 2030 年前开始生产，则为 F1；若在之后投产，则为 F2。

表 1: 战略项目申请表（SPF）中项目发起人可能使用的“关键术语”清单

Key Terms		Possible E axis Category/ies	Possible F axis Category/ies	Possible G axis Category/ies
Technical Study	Feasibility	1	1	1, 2
	Prefeasibility	2	2	1, 2
	Scoping Study	2	2	1, 2, 3
Reserve/Resource Assessment Results	Proved Reserve			1
	Probable Reserve			2
	Measured Resource			1
	Indicated Resource			2
	Inferred Resource			3
Confidence Level in Estimates	High			1
	Moderate			2
	Low			3
	Secured Supply			1
	Supply Continuity Agreements			1
Technical Study based on recognizable standards		1, 2	1, 2	1, 2
Reserve / Resource Estimates Compliant with National / International Standards				1, 2, 3
Permit Status*	Acquired	1		
	Pending	2		
	Not Permitted	3		
Technical Development	In Production	1	1	
	Construction Ongoing	1	1	
	Advanced Development Stage	1	1, 2	
	Planning Stage	2	2	
	Available Infrastructure		1, 2	
	Infrastructure Support Needed		2, 3	
	Confirmed Development		1	
	Detailed Engineering Phase	1	1, 2	
	Region with Significant Mining History	1, 2		
	TRL (UNFC Guidance Europe)		1, 2, 3	
	Intellectual Property Rights	1, 2	1	
	Commercially Available Technology		1, 2	
Environmental Impact	EIA available	1		
	SEIA available	1		
	Other environmental impact assessment reports available	1		
Social Impact	SLO available	1		
	Health and Safety Measures	1		
	Local Support	1		
	Compliance with Social Standards / Protocols	1		
	Social Adversary / Opposition	3		
Financially Viable		1, 2	1, 2	

* 这适用于项目投产所需的所有类型许可/执照。

该方法论的下一步涉及一个结构化评估框架，用于评估项目的以下关键方面:

- **战略关键原材料潜力：**评估项目原材料资源在满足战略关键原材料需求中的重要性。
- **技术可行性：**评估项目的技术能力，包括用于开采、加工、回收或替代的技术。
- **经济可行性：**审查项目的经济方面，如财务可持续性、市场潜力及成本效益。
- **环境与社会可持续性：**确保项目遵守环境法规并促进社会责任。
- **战略关键原材料信息：**评估对产品潜力的测算努力，以体现对估算结果的信心程度。

这直接与评估表格（下表）相关，评估表格用于支持对每个项目在“战略项目”标签下的资格和成熟度水平的评估。该表格旨在捕捉有关项目的详细信息，按照 UNFC 分类，并与 SPF 要求及所需信息保持一致:

- **评估标准：**表格列出每个项目方面的具体评估标准，每个选项与对应 UNFC 轴的类别相连。
- **回应分类：**项目发起方的回应根据其与战略项目认定标准的契合程度进行分类，使用表格内预定义选项。每个选项都与一个 UNFC 类别对应，以保证评估过程的一致性和连贯性。

评估过程遵循系统化的方法:

1. **初步审查：**评估人员首先审查 SPF 中提供的项目信息，即所有提交的数据和证据。这一步非常关键，有助于识别申请战略项目认定的动机，从而可能预先确定分类前提（如许可原因、财务简化等）。
2. **关键术语识别：**评估人员根据上表中识别的“关键术语”，获得项目 UNFC 分类的初步指示。例如，如果在相应背景下使用了“可行性”（Feasibility）一词，则该项目更可能被认定为可行项目。
3. **早期比较与验证：**通过初步审查和“关键术语”的识别，评估人员可以对项目在 UNFC 中的分类形成初步印象。评估人员可以核实这一初步分类是否与项目发起方在 SPF 中“项目基本信息”部分提供的 UNFC 分类一致。
4. **表格填写：**评估人员根据提供的信息填写网格表格，即选择反映项目 UNFC 分类的适当选项。
5. **分类与判断：**基于网格中填写的信息，评估人员分别按各轴将项目分类至相应的 UNFC 类别。该分类有助于确定项目状态。根据具体评估情境，可采用“平衡判断”或“短板否决”原则。
6. **基于子类的子类别验证：**在为项目选择 UNFC 类别（与最终类别直接关联）后，评估

人员采取自上而下的方法，根据项目适用的子类确定子类别（见表 2）。例如，若项目适用的子类为“待开发”，则 F 轴子类别为 F2.1。

7. **最终评估：**最终评估再次采用自上而下的方法，验证项目是否具备作为战略项目被认可的成熟度。这包括审核项目的 UNFC 分类、“关键术语”、网格填写的完整性，以及支持证据的质量和数量。
8. **最终比较与验证：**在完成自上而下的步骤后，评估人员确定项目的 UNFC 最终分类。最终分类会与项目发起方提供的分类进行比对，以验证分类的准确性。如分类不一致，评估人员需提供支持性证据以说明其分类判断。
9. **文档记录：**整个评估过程，包括所做决定及其依据，需要在相应的报告格式或模板中完整记录。

表 2: UNFC 类别按级别和子级进行定义。正如表中所示，了解各类别及项目最适用的子类，有助于进一步将项目分类细分为相应的子类别，从而完善 UNFC 中的分类。这一操作可为评估人员提供分类参考。然而，更详细的分类细化信息可参照 UNFC（2019）中对级别和子级的定义。

UNFC Classes Defined by Categories and Sub-categories						
Total Products	Produced	Sold or used production				
		Production which is unused or consumed in operations				
	Class		Sub-class	Categories		
				E	F	G
	Known Sources	Viable Projects	On Production	1	1.1	1, 2, 3
			Approved for Development	1	1.2	1, 2, 3
			Justified for Development	1	1.3	1, 2, 3
		Potentially Viable Projects	Development Pending	2	2.1	1, 2, 3
			Development On Hold	2	2.2	1, 2, 3
		Non-Viable Projects	Development Unclarified	3.2	2.2	1, 2, 3
			Development Not Viable	3.3	2.3	1, 2, 3

通过将自上而下的方法纳入评估流程，对所提供的 UNFC 分类进行验证，并对项目在 UNFC 中重新分类，网格表格提供了一种一致、透明且严格的方法来确定战略项目的状态。此方法确保所有项目的分类公平，并符合 UNFC 和 CRMA 的总体目标。

四、评估要素网格

评估网格是一个结构化工具，用于根据项目获得战略项目认定的可能性及成熟度水平，对项目在 UNFC 中进行分类。该网格与战略项目申请表（SPF）保持一致，遵循申请过程中要求填写的字段和提交的文件。网格按照 UNFC 的三条轴线组织:

- **E 轴（环境-社会-经济可行性）：**权衡项目对环境、社会及经济目标的影响和贡献。
- **F 轴（技术可行性）：**考虑项目的技术方面，包括其可行性及实施准备程度。
- **G 轴（置信度）：**评估用于支持项目产出估算的知识和数据水平。

每条轴线都与战略项目申请表（SPF）中的相应要求相对应。评估网格提供了用于评估项目发起人回复的选项，每个选项都对应相应的 UNFC 类别。这种结构确保了评估的全面性，并能够清晰界定项目的状态。

1. 评估流程网格结构

评估网格根据 SPF 所要求的信息分为三个主要部分，并分别对应到 UNFC 的各轴线:

- **直接输入：**本部分涵盖需要直接回答的封闭式问题。回答会被分类到预定义选项中，每个选项对应相关的 UNFC 类别，作为“控制因素”（Controlling Factors）。例如，当 SPF 要求提供项目许可状态时，评估网格提供评估员选择的选项，如“已批准并获取”（Approved and Acquired）、“审批中”（Approval Pending）、“未启动”（Not been Initiated）以及“未批准”（Not Approved），每个选项均对应特定的 UNFC E 轴类别。封闭式问题在评估网格中用浅蓝色标识。

  对于直接输入的问题，评估员从网格提供的选项中选择最合适的回答。每个选项都映射到特定的 UNFC 类别，确保项目分类反映所提供的信息。评估员必须确保所选选项准确代表项目当前状态，同时考虑项目发起人提供的详细信息和证据。

- **总结：**本部分涉及开放性问题，要求项目发起人对特定事项进行总结。评估员必须根据所提供信息的数量和质量对回答进行分类，即判断信息是否令人满意（satisfactory）、充分（adequate）或不充分（unsatisfactory），重点关注“关键术语”（Key Terms）。随后，该评估映射到相应的 UNFC 类别。例如，评估员可能会评估项目环境影响总结的细节水平并进行分类。开放性问题在评估网格中用浅灰色标识。

  在评估总结性问题时，评估员需要考量项目发起人提供的信息在社会环境、经济和技术方面的详细程度和完整性。回答随后被归类为令人满意、充分或不充分，每个类别都对应相关的 UNFC 分类。此过程需要平衡判断，以确保项目分类准确反映所提供信息的质量和全面性，从而反映项目状态。

- **支持性文件：**本部分评估项目发起人提供的文档和证据。评估员根据文档的完整性和相关性对其进行分类，即文档是完全提供、部分/薄弱或未提供。每个类别都对应相关

的 UNFC 分类，以确保评估反映项目的准备程度和可靠性。请求文档的字段在评估网格中保持白色。

对于需要提供支持性文件的字段，评估员应根据文档的完整性和相关性进行评估。文档被分类为完全提供、部分/薄弱或未提供，每个类别对应相关的 UNFC 分类。评估员必须仔细审查文档，确保其支持项目发起人的陈述，并满足 SPF 的要求.

2. 附加说明

对于网格中需要进一步说明的选项，附有额外解释以提供背景和澄清，可能包括必要的“关键术语”（Key Terms）。这些解释针对 SPF 的具体要求，帮助评估员理解每个选项所对应 UNFC 类别的依据。同时，解释还提供了如何解读项目发起人回答的指导。

五、“综合权衡”与“短板否决”对比分析

在分类过程中，评估员必须做出的关键决策之一是选择应用平衡判断（Balanced Judgment）还是遵循最低等级原则（Lowest Rank Prevails）。

1. 综合权衡

该方法要求评估员权衡所有因素，根据项目的整体优劣做出综合判断。当项目在多个方面表现出优势，而某一单项存在弱点时，采用平衡判断尤为适用。此外，对于以融资为目的申请战略项目认可的情况，这种方法可能更合适。例如，一个项目在 E 轴（环境-社会-经济可行性）上对国际标准的遵循程度较低，但在经济潜力上表现突出（尤其在获得融资支持时），此类情况下，平衡判断可能会导致项目获得更高的总体分类。

2.短板否决

“短板否决”原则涉及采用更为保守的方式，在任何类别中，项目的最低等级决定其整体分类。当风险控制和遵循最低标准至关重要时，建议采用这种方法。此外，这种方法可能更适用于申请许可认定的战略性项目。例如，如果一个项目在经济潜力和优势方面的分类较高，但在环境合规性方面的分类较低，那么“短板否决”原则会根据环境分类来确定该项目的整体分类。

3.申报建议

鼓励评估人员根据所评估项目的具体情况，采用最适合的评估方法。为指导决策过程，提出以下建议：

- 当项目在某些方面的优势显著，足以弥补其他方面的不足时，应采用平衡判断。
- 当确保项目各方面达到最低标准至关重要时，尤其是在高风险项目或某些弱点可能影响项目成功的情况下，应采用“短板否决”原则。

六、处理分歧

在对不同轴或类别进行评估时，特别是当项目在 UNFC 各轴上表现不一时，可能会出现分歧。分类分歧可能发生在以下情况:

项目发起人和 UNFC 专家之间：在评估期间，尤其是在最终评估结果公布之前，UNFC 专家与项目发起人之间禁止直接沟通。然而，在必要时，UNFC 专家应准备好以实质性证据支持其分类意见。

- **UNFC 专家与其他项目专家之间**：强烈建议 UNFC 专家与其他项目专家进行沟通与协调，以确保项目共识报告的一致性，通常通过共识会议实现。
- **UNFC 专家内部之间**：为了尽量减少 UNFC 专家社区内部的分歧，UNECE EGRM 秘书处将在必要时组织 UNFC 评估流程的协调会议。

在此类情况下，与更广泛的专家团队进行讨论至关重要，以解决分歧并达成共识或基于充分依据的决策。

1. 专家咨询

当出现重大分歧时，评估人员应咨询相关领域的专家，包括财务、ESG 标准、技术可行性及 UNFC 专家。通过这种协作方式，可确保评估考虑到所有相关因素，并使最终分类反映出平衡且有依据的判断。

2. 达成共识

专家咨询的目标是就项目分类达成共识。然而，如果无法达成共识，评估人员应记录各方不同意见及其理由。最终决策应反映多数意见，或者在适用情况下，采用“短板否决”原则，并清楚说明所选方法背后的理由。

七、文档记录与报告

分类过程必须进行严格的文档记录，以确保透明性和一致性。评估人员应遵循提供的特定报告格式和模板，确保所有发现、决策及其理由都得到清晰记录。需要注意的是，所要求的报告与文档应遵循信息请求方的指示，例如本案例中的 DG GROW。报告格式包括用于记录各 UNFC 轴的分类、项目整体分类，以及评估过程中发生的任何分歧或专家咨询的模板。评估人员必须确保这些模板被详尽填写，包含所有相关信息。

评估过程中作出的每项决策都应提供充分理由，并清楚解释所选择的分类方法。这包括说明采用平衡判断或“短板否决”原则的依据，以及记录与其他专家的任何咨询过程。

拟议的“单个 UNFC 评估表格”见附录 1。

八、保密与数据保护

在整个评估过程中，保密与数据保护至关重要，如与 DG GROW 签署的协议所示。评估人

员必须遵守严格的保密规范，保护项目发起人提供的敏感信息。

在参与评估过程之前，专家必须签署保密协议，明确其在保护敏感数据方面的责任。这些协议确保所有信息均按照相关数据保护法规进行处理，并维护评估过程的完整性。项目发起人提供的所有数据和文档必须安全存储，仅授权人员可访问。评估人员应遵循既定的数据处理规范，确保在整个评估过程中所有敏感信息均受到保护。

Evaluation Grid, Table for E axis

Sec.	Controlling Factor	Options	Additional Explanation	E axis Category	Result
5	Provide the project business plan as an additional document	Provided	A detailed business plan provided as appropriate evidence, including risk mitigation, commercialisation strategy, fiscal framework	1	
		Incomplete / weak	Inadequate evidence, some aspects of the business plan are not made available or preliminary	2	
		Not provided	No business plan submitted	3	
	Summarise the project value proposition, including company strategy, approach to commercialisation, market analysis including target markets, key customers, and main competitors	Satisfactory level of information	Comprehensive coverage of the requested information	1	
		Adequate level of information	Sufficient coverage	2	
		Unsatisfactory level of information	Minimum coverage	3	
	Summarise the key risks related (including market, credit, liquidity) to the business plan which could impact the financial viability of the project and describe mitigation measures	Satisfactory level of information	Well described mitigation measures and risk	1	
		Adequate level of information	Sufficient description	2	
		Unsatisfactory level of information	Not enough	3	
6	Permit Status	Approved & Acquired	The project is in possession of a permit to produce	1	
		Approval Pending	Application has been submitted or being initiated	2	
		Not been Initiated	No initiative has been taken to apply for permit	3	
		Not approved	Not been approved and the risk of appeals is too high	3	
7	For projects in the EU only, describe the project's cross-border benefits beyond the Member State involved	Benefits are clear		1	
		Benefits are not clear		2	
		Not applicable	Not relevant		
	For projects in third countries or Overseas Countries and Territories (OCTs) that are emerging markets or developing economies only, describe how the project is adding value to the EU and the third country concerned	Project adds value		1	
		Project does not add value		2	
		Not applicable	Not relevant		
	For projects in third countries or OCTs identify any potential bottlenecks you may encounter regarding trade and investment conditions	Low potential risk	Less than 10%	1	
		Moderate potential risk	Between 10 and 90%	2	
		High potential risk	More than 90%	3	
8	Do you adhere to any international certification schemes? Provide any relevant documentation as additional document	Yes		1	
		Under process		2	
		No		3	
Env	Summarise how the monitoring, prevention and minimisation of environmental impacts is carried out	Strong positive environmental practices	Clear and strict monitoring, prevention, and minimisation of negative environmental impacts efforts are followed	1	
		Moderate positive environmental practices	Monitoring, prevention, and minimisation of negative environmental impacts efforts are in place with considerable space for improvement	2	
		No positive environmental practices	No adherence to practices for monitoring, prevention, and minimisation of negative environmental impacts	3	

	If available, provide a summary document of EIA, SEIA or similar environmental impact assessment report as additional document	Approved assessment		1	
		Under assessment		2	
		Denied		3	
		Not initiated		3	
Soc	Summarise how socially adverse impacts are prevented and minimised using socially responsible practices as concerns respect	High socially responsible practices	Social responsibility is a clear priority of the project (practices in place to support). Adversity is unlikely	1	
		Intermediate	Social practices could be enhanced as opposition might emerge. Possible adversity	2	
		None taken	No social responsibility taken as part of the project. Social opposition exists or high possibilities of adversity	3	
	Describe how meaningful engagement with local/affected communities and relevant social partners is carried out. List all concrete measures and their status to facilitate public acceptance	Maximum and prioritised social measures listed	Measures adhere to acceptable standards, leading to formal support from local/neighboring communities (SLO in place for instance)	1	
		Intermediate measures	Some measures are listed but more can be done to enhance public acceptance (There is support from local/neighboring communities but not formally / or unknown)	2	
		No measures	Nothing is being done to facilitate public acceptance (Support is unknown / opposition is clear)	3	
	Provide a summary of potential jobs to be created by the project (directly and indirectly) and their areas. Describe how would you support the upskilling and/or reskilling	High local hiring, with upskilling and/or reskilling support		1	
		Intermediate local hiring, with upskilling and/or reskilling support		2	
		Low and minimal local hiring, with upskilling and/or reskilling support		3	
		Low and minimal local hiring, with no upskilling and/or reskilling support		3	
Gov	Summarise how transparent business practices with adequate compliance policies are used in the project to prevent and minimise adverse impacts on the functioning of public administration including anti-bribery and anti-corruption	Compliant with international standards		1	
		Adequate compliance		2	
		Not compliant		3	
Lowest Ranking Category / Balanced Judgement					

Evaluation Grid, Table for F axis

Sec.	Controlling Factor	Options	Additional Explanation	F axis Category	Result
1	Project Development Stage	Production / Construction		1	
		Feasibility Study		1	
		Pre-feasibility	Complete & Successful	2	
			Ongoing	2	
			Not Planned	2	
		Scoping Study	Complete & Successful	2	
			Ongoing	2	
			Not planned	3	
4	Summarise the project's technical feasibility	Satisfactory level of information	Comprehensive coverage of the requested information, well demonstrated technical feasibility	1	
		Adequate level of information	Sufficient coverage, justification of technical feasibility is ongoing	2	
			Sufficient coverage, justification of technical feasibility may be subject to significant delay	2	
			Sufficient coverage, justification of technical feasibility requires additional data at current time due to limited potential	2	
		Unsatisfactory level of information	Minimum coverage, site specific studies	3	
			Minimum coverage, local studies	3	
			Minimum coverage, early stages	3	
	Summarise risks related to access to necessary technology including the intellectual property rights related to the technology used	Low potential risk	Risk less than 10%	1	
		Moderate potential risk	Risk between 10 and 90%	2	
		High potential risk	Risk more than 90%	3	
	Summarise the status and potential needs of infrastructure support	No support needed	No infrastructure requirements needed (complete and ready)	1	
			Capital funds have been committed and implementation of the development is underway	1	
		Minor support needed	Final stages of developments before complete and ready infrastructure	1	
			Developments are ongoing to complete project infrastructure	2	
			Developments may be subject to significant delay to complete project infrastructure	2	
		Major support needed	Developments are pending, as support is needed for various infrastructure requirements (Electric/Power, Transport, Machinery, Security, Facility, etc.)	3	
			Major support needed, as project is still in early stages	3	
	Provide the level of confidence in delivering the expected project outputs within its operational environment	Proven system in operational environment	(TRL 9)	1	
		System complete and qualified	(TRL 8)	1	
		System prototype demonstrated in operational environment	(TRL 7)	1	

		Technology demonstrated in relevant environment	(TRL 6)	1	
		Technology validated in relevant environment	(TRL 5)	1	
		Project activities are ongoing to justify development in the foreseeable future	(TRL 3/4)	2	
		Project activities are on hold and/or where justification as a viable development may be subject to significant delay	(TRL 3/4)	2	
		Technology validated in laboratory	(TRL 4)	3	
		Experimental proof of concept	(TRL 3)	3	
	Provide available studies on project's technological maturity as an additional document	Provided	Project is likely to be successful (technological and environmental consideration)	1	
		Incomplete / weak	Potential technical issues identified	2	
		Not provided	Technology not demonstrated in the relevant environment	3	
5	Summarize the project's financing including foreseen capital expenditures (CAPEX) and operational expenditure (OPEX) at different project development stages	Satisfactory level of information	Comprehensive coverage of the requested information, well demonstrated at all stages of the project	1	
		Adequate level of information	Sufficient coverage	2	
		Unsatisfactory level of information	Minimum coverage, site specific	3	
			Minimum coverage, local studies	3	
			Minimum coverage, early stages	3	
6	Summarise the operational planning for the development of the project (timetable) and the key milestones including construction and roll out	Satisfactory level of information	Comprehensive coverage of the requested information, well demonstrated at all stages of the project (timetable for operation begins before 2030)	1	
			Comprehensive coverage of the requested information, well demonstrated at all stages of the project (timetable for operation begins in 2030)	1	
		Adequate level of information	Sufficient coverage	2	
		Unsatisfactory level of information	Minimum coverage	3	
	Identify the key operational risks affecting the project and describe risk mitigation measures. Include risks associated with project design, construction, operation, and decommissioning	Low operational risk	Risk less than 10%	1	
		Moderate operational risk	Risk between 10 and 90%	2	
		High operational risk	Risk more than 90%	3	
3	For Substitution Projects, describe the innovation potential of the project	Highly innovative		1	
		Intermediate innovation		2	
		Low to no innovation		3	
Lowest Ranking Category / Balanced Judgement					

Evaluation Grid, Table for G axis - Extraction

Sec.	Controlling Factor	Options	Additional Explanation	G axis Category	Result
3	Describe the relevance of the project for the EU including position of the project in the value chain	Significant contribution to CRMA benchmarks	The estimated quantities and quality of strategic raw materials to be produced from the project are relatively significant and well supported in terms of confidence in estimation	1	
		Contributing to CRMA benchmarks	The estimated quantities and quality of strategic raw materials to be produced from the project are notable and supported in terms of confidence in estimation	2	
		Minor contribution to CRMA benchmarks	The estimated quantities and quality of strategic raw materials to be produced from the project are minor with inadequate support in terms of confidence in estimation	3	
	Describe the assessment methods, used classification of resources and the level of confidence in the resource. Describe also other relevant co-products if relevant	High Confidence	Clear and Specific Assessment (The response details specific, standardized, and recognized assessment methods, with reference to industry standards, methodologies, or tools used).	1	
		Medium Confidence	Resource Assessment methods are mentioned but lack depth or specificity, only general approaches are discussed without detailed explanation.	2	
		Low Confidence	Resource Assessment is vague about the methods and/or doesn't mention any specific assessment techniques.	3	
	Provide any available third-party documentation about resource estimates as an additional document	High Confidence	Classification of Resource based on a recognized classification system, and signed off by a qualified person	1	
		Medium Confidence	Classification is provided but may not align perfectly with recognized standards (or signed off by a qualified person)	2	
		Low Confidence	The classifications used are unclear or non-standard.	3	
Lowest Ranking Category / Balanced Judgement					

Evaluation Grid, Table for G axis – Processing and Recycling

Sec.	Controlling Factor	Options	Additional Explanation	G axis Category	Result
3	Describe the relevance of the project for the EU including position of the project in the value chain	Significant contribution to CRMA benchmarks	The estimated quantities and quality of strategic raw materials to be produced from the project are relatively significant and well supported in terms of confidence in estimation	1	
		Contributing to CRMA benchmarks	The estimated quantities and quality of strategic raw materials to be produced from the project are notable and supported in terms of confidence in estimation	2	
		Minor contribution to CRMA benchmarks	The estimated quantities and quality of strategic raw materials to be produced from the project are minor with inadequate support in terms of confidence in estimation	3	
	Describe the material inputs, their origin and assessment methods	High Confidence	Description of material inputs includes comprehensive and well-documented information (covering the source, composition, and quantity of each input), origin of materials is verified through credible and consistent sources (certifications, traceability documentation, or direct supply chain audits), and assessment methods used are well-established, widely accepted in the industry, and validated by qualified person or standards	1	
		Medium Confidence	The material inputs are described adequately, though some details may be less comprehensive, origin of materials is known but some information may rely on secondary sources or less direct evidence, and assessment methods used are standard for the industry but might not be as thoroughly validated.	2	
		Low Confidence	Description of material inputs is vague or incomplete, lacking detailed information on source, composition, or quantity, origin of materials is uncertain, and assessment methods used are either not well-established, are outdated, or lack validation	3	

	If relevant provide further information as an additional document	Provided	Strong evidence to support product estimates	1	
		Incomplete / weak	Intermediate / weak evidence to support product estimates	2	
		Not provided	No evidence to support product estimates	3	
Lowest Ranking Category / Balanced Judgement					

Evaluation Grid, Table for G axis – Substitution

Sec.	Controlling Factor	Options	Additional Explanation	G axis Category	Result
3	Describe the relevance of the project for the EU including position of the project in the value chain	Significant contribution to CRMA benchmarks	The estimated quantities and quality of strategic raw materials to be produced from the project are relatively significant and well supported in terms of confidence in estimation	1	
		Contributing to CRMA benchmarks	The estimated quantities and quality of strategic raw materials to be produced from the project are notable and supported in terms of confidence in estimation	2	
		Minor contribution to CRMA benchmarks	The estimated quantities and quality of strategic raw materials to be produced from the project are minor with inadequate support in terms of confidence in estimation	3	
	If relevant provide further information as an additional document	Provided	Strong evidence to support product estimates	1	
		Incomplete / weak	Intermediate / weak evidence to support product estimates	2	
		Not provided	No evidence to support product estimates	3	
Lowest Ranking Category / Balanced Judgement					